



# PREAMBLE

## Introduction

*The Arab Knowledge Report 2009 examines the current state of Arab knowledge. It derives its legitimacy from the pressing need for information about knowledge performance in the region at a time when the importance of knowledge for the realisation of the many new prospects it has opened up for all areas of society is increasing.*

*An analytical approach to the evolution of knowledge and the knowledge revolution witnessed by the world at the end of the last and the beginning of this century is new to the agendas of the relevant national and international research institutions. Chief among the numerous reasons for the current Arab interest in the subject is the desire not to miss out on the anticipated effects of the knowledge revolution and to be alert to the roles it plays in generating progress, whether on the political, economic, or social level.*

Today's knowledge revolution and the different material and symbolic effects it has generated have opened up new possibilities to develop human livelihoods and strengthen the efforts to increase forms of knowledge that contribute towards the achievement of human welfare.

This report on knowledge in the Arab region is one of a series whose object is to open up a diversity of avenues by which to approach the status of knowledge and speculate on the means and requirements for a renaissance in the Arab nation. Because the project is a large one, this first report offers a general introduction to the state of the Arab knowledge society and its components. It also attempts to sketch the major features of a vision of how some aspects of the knowledge gap in the

Arab world may be overcome. Subsequent reports will cast further light, from other perspectives and analytical approaches, on the state of Arab knowledge with the aim of developing knowledge performance and so bringing about the realisation of the knowledge society in the Arab region.

The Report starts with the view that the literature of research into knowledge and its various trajectories is in its infancy. The approach thus targets two poles. The first is theoretical and provides the conceptual and philosophical foundations upon which the Report depends. The second concerns itself with some of the formative components of the different domains of knowledge in the Arab reality, thus permitting diagnosis and measurement of the size of the existing knowledge gaps. This preamble will summarise the major sections of the Report, namely, the preliminaries to the Report, the dialectical issues, and the topics of the Report.

Before considering the arrangement of the Report's content, we should point out that the task alternates between considering innovations associated with the knowledge society in countries that have already entered the latter's portals, and the state of knowledge in the Arab countries, with all its gaps and deficits. In all its chapters, the aim of the Report is to produce a diagnosis that reveals the status of Arab knowledge. At the same time, it attempts to sketch in general terms aspects of the triumphs and gains of knowledge and the horizons it has opened up for human societies. Given the dearth of data and absence of regional and national monitoring bodies issuing reliable information and statistics, the Report has scrutinised the data from international organisations and in so doing has generated

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an internal debate that aspires to build and develop Arab knowledge performance.

The Report has been careful to make use of available data and to evaluate the growth of the nuclei of an Arab knowledge society. It has also been keen to come to grips with the major problems that afflict knowledge in our societies, whether in research, education, or the use of the new technological mediums that underlie today's knowledge networks.

Crucial to the Report is the idea that the local and particular should be taken as the starting point for speculation about the universal and worldwide generalisation of gains in knowledge. This concern is not the result of any desire to deny the universal gains in knowledge but has been adopted because it supports the indigenisation and reproduction of these gains. The goal is to achieve creative participation in them and transcending the various aspects of knowledge commoditisation and consumption.

Another dominating idea forms part of this Report: that the knowledge field and revolution today form an avenue for reform in the Arab world. Hence, the Report's conception of knowledge has been broadened to include the spirit of knowledge, and thus its enlightenment and development dimensions. In doing so, it seeks to transcend those views of knowledge that emphasise technological and quantitative indicators, overlooking the fact that knowledge is freedom, and as such a path that requires further honing of the creative mechanisms of human intelligence.

## PRELIMINARIES TO THE REPORT

The Report's chapters are open-ended in structure and attempt to take stock of existing conditions. This supposes that subsequent reports will contemplate defined questions, a specific knowledge index, or one of the issues of the knowledge performance improvement in the Arab region.

In the Name of God, the Merciful, the Compassionate

Recite: In the name of thy Lord who created, created man of a blood-clot. Recite: And thy Lord is Most Generous, who taught by the pen, taught Man that which he knew not.

The Holy Qur'an, Surat al-'Alaq (The Blood-clot)\*

Given the novelty of the subject and of the horizons it is unceasingly opening up in the various fields of knowledge, the Report seeks to work on two fronts: a description of the state of knowledge in the Arab world and a sketch of some aspirations to overcome the flaws observed. The Report thus combines the identification of the faults in knowledge performance with the formulation of defined proposals, which, when implemented, will help to fill some of those gaps.

The Report starts with the principle of the right to knowledge, which it considers non-negotiable, especially in an Arab world most of which still suffers from knowledge and digital illiteracy. Knowledge is also perceived of as a tool and an outcome of development. The Report links the right to knowledge and development to hopes for renaissance and enlightenment. It takes innovation to be the means to reinforce all that may aid humanity to overcome the obstacles and constraints it faces. The linking of these principles allows some of the Report's chapters to take on a composite character. Taken together, the Report's chapters assume that the Arab historical regression in the domain of knowledge can be overcome, when the ambition to do so is present, and when there is the political will to provide the resources needed to build enabling environments and institutions capable of guiding knowledge evolution and transforming its gains into comprehensive human development.

## THE DIALECTICS OF THE REPORT

The Report discusses a number of arguments, combining description and observation, and highlighting contradictions and paradoxes. At the same time, it exercises care in making judgements and adopting positions. The Report attempts to free itself from the purely economic perspective on

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knowledge and from the consequences of a technologically determinist viewpoint. Equally, it tries to highlight the breadth of the concepts of both the knowledge society and innovation. In these choices, the Report is always conscious of the need—at times openly, at others implicitly, expressed—to seek a knowledge society that is in harmonious interaction with the Arab social environment, for the fundamental goal of knowledge is the service of humanity, its revitalisation, and the transcendence of the problems that limit its potential for self-liberation.

Knowledge and the pen are far stronger than any other force.

Sheikh Mohammed bin Rashid Al Maktoum

One of the chief points of contention that the Report strives to make apparent is that of knowledge's relationship to freedom, modernisation and the fostering of human dignity. When some of the Report's chapters defend the importance of freedom, institutions, and legislation, they have the aforesaid principles in mind as keys to the creation of a climate of rationality and proportionality. Such a climate should open the door to accountability, oversight, auditing, transparency, and all the other values needed to lay the foundations for a modern knowledge society.

The Report also reviews contentious issues linked to identity, such as language reform. In so doing, it seeks to highlight the pressing nature of this issue in the hope that the Arabic language will survive to provide an effective and responsive vehicle for the gains made by the new knowledge technologies. The Report also defends the principle of intercommunication with the world while not neglecting its original starting point of intercommunication with the self. This can only be achieved through the correction of the shortcomings of the self in such a way as to provide it with the capability for productive and effective intercommunication with the world. This argument falls under the heading of

opening up to the gains accrued by the contemporary revolutions in knowledge.

## THE TOPICS OF THE REPORT

The Report comprises a preamble and six chapters. The preamble examines the contextualisation of the Report, placing it among developments lately witnessed in the state of human development in the Arab region. It reviews the main challenges that have succeeded one another on the regional political and economic scene and highlights their pressures and impacts on Arab knowledge performance. It also deals with the global financial crisis that intensified at the end of 2008 and beginning of 2009 and its effects on the knowledge society and repercussions for the Arab situation. The preamble also offers a perspective on the outcome of reform in the region following the inception in Arab thinking, at the onset of the third millennium, of third-generation<sup>1</sup> concepts of reform.

Because the task of the preamble goes no further than an indication of the most significant challenges in the Arab reality and their link to fields of knowledge, attention is given to the continuing US intervention in Iraq and the resulting situation within Iraqi society. The Report also examines the continuing Israeli occupation of the Palestinian Territories, shedding light on its negative implications for the establishment of the knowledge society.

Nor does the Report neglect to deal with the problems raised by extremist trends within Arab society and their relationship to knowledge, trends that are inclined not to recognise the Other and that give their stamp of approval to a one-dimensional and closed logic. These trends of thought have considerable impact on the climate of freedom, which is considered a reinforcing element necessary for the construction of the knowledge society.

The preamble also devotes a summary section to a rapid overview of the state of knowledge over recent years and presents

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some of the knowledge indicators to be treated in detail in the following chapters. The Report's analyses and conclusions are based on events and available data and information up to the end of the first quarter of 2009.

The six topics of the Report are arranged as follows:

### **THE THEORETICAL FRAMEWORK: CONCEPTS AND PROBLEMATICS OF THE KNOWLEDGE SOCIETY (CHAPTER 1)**

This chapter contains four main axes. The first treats the foundations and origins directing the mechanisms of understanding and imagination. The second axis treats the formulation of the concepts, scrutinising the concept of the knowledge society and attempting to delineate the boundaries that have been drawn up to delimit its various significations. This section also attempts to construct an operational definition based on the results of the various chapters of the Report. This should be seen as a first attempt to view the foundations of the concept from the perspective of the actual needs and ambitions of Arab society in the field of knowledge. The chapter examines the different significations of the concept in contemporary knowledge discourse, with special attention paid to those current in international reports. This process of constructing a specific definition aims to avoid a complacent acceptance of current wisdom. This is particularly necessary given the complex nature and the depth of the Arab knowledge gap, which requires us to draw upon the state of knowledge in the world and in the Arab region to formulate a definition that corresponds to, and harmonises with, Arab specificities and ambitions.

The third axis of the chapter examines the theoretical norms and frames of reference which form the starting point for the construction of concepts synonymous with the knowledge society, such as information and communications

technology (ICT), the knowledge economy, and the networked society, with the object of highlighting the philosophical perspectives that stand behind these designations. Two primary frames of reference emerge as a result of these processes of investigation and construction. The first takes aspects of positivism, particularly in its most strident manifestation of technological determinism, as its reference. The second frame of reference is laid bare by the rights concepts that find their backing in the diverse literature on human rights, which places the discourse of the knowledge society at the heart of the calls for political modernisation.

The chapter concludes with a fourth axis which treats the chief problematics of the knowledge society, whether in its universal dimensions or in aspects specifically linked to the knowledge transformations underway in Arab society. This section develops a dialectic that alludes both to aspects of these problematics and at the same time to their potential horizons, in the context of the developments taking place in the knowledge society.

### **ARAB KNOWLEDGE PERFORMANCE ENVIRONMENTS: EXPANDING FREEDOMS AND BUILDING INSTITUTIONS (CHAPTER 2)**

While Chapter 1 is concerned with the general theoretical framework of the knowledge society, this chapter deals with the conditions needed to enable the development of knowledge in the Arab world. Thus the two chapters are complementary in more ways than one. Chapter 2, using a set of lines of inquiry or axes, and using examples from the political and economic, as well as the social, cultural, and media environments, highlights the pressures and restrictions that prevent the formation of a nurturing and holistic environment for the requirements of the knowledge society.

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*The oil boom has not boosted economic freedoms in the Arab region*

In the course of its speculation about the political environment framing knowledge, the chapter displays concern over the reversal of freedoms in the Arab region. Likewise, in its analysis of the economic environment, it touches upon the continuing absence of freedoms in the economic sphere, making clear that the oil boom has not boosted economic freedoms. The chapter also alludes to the situation regarding intellectual property rights, clarifying Arab progress and weakness in this field. In the area of culture, Chapter 2 deals with restrictions on knowledge and the rise of extremist religious tendencies. On the social level, it points out that continued poverty and social marginalisation exacerbate the shortcomings in the enabling environment, the supposed catalyst for knowledge. Using all these elements, the chapter works to shed light on many of the restraints and restrictions that lay siege to the hope for a renaissance in the Arab knowledge situation. In doing so, the chapter views freedom as an engine of knowledge whose absence leads to a deepening of the knowledge gaps.

On another axis, the chapter discusses the institutions, legislations, and various mechanisms for review, oversight, and accountability that ensure the guidance and support required to establish the knowledge society. On a final axis, the chapter then deals with the different trajectories of Arab enabling environments and makes it clear that the only way to enter the knowledge society and qualify Arab society to produce and create knowledge is by laying the foundations for these environments.

### **EDUCATION AND THE FORMATION OF KNOWLEDGE CAPITAL (CHAPTER 3)**

Consideration of the relationship of education to the knowledge society raises many issues, given the link between education and upbringing on the one side and knowledge acquisition (followed by knowledge production and knowledge

creation) on the other. The topic allows us to speculate about the role of education in the generalisation of knowledge. It also provides an opportunity to deal with educational tools and the function of education with regard to cognitive and social development and allows us to deal with broader relationship between education and knowledge capital and among that capital, the market, and the deployment of education in the service of liberation and development. Additionally, education occupies a special position in the lives of individuals and communities due to the length of time those individuals spend in educational institutions, to the ongoing regeneration and accumulation occurring in the various fields of knowledge and to the role played by education in preparing individuals to join the labor market equipped with productive and innovative skills.

In the knowledge society, the importance of education has grown thanks to the amazing technologies that have come to be deployed in that field. We have come to talk about distance learning, collective laboratories, educational technologies that create virtual spaces, and technologies that give lessons, examinations, and qualifications online. These may not, however, reflect very closely the reality of education in the Arab region, where, in many of these countries, universal education is yet to be achieved and where illiteracy rates for adults, children, and young people remain a challenge. The requirements of the knowledge society in terms of quality of education, the use of up-to-date technology in teaching, and the creation of networks for the new education are part of Arab reality in only some countries, where they exist in the shape of pioneering experiments that are difficult to generalise, at least for the moment. When we add to all the preceding the content of education, the training of manpower, the reality of the universities and their graduates, and the state of scientific research, we find ourselves faced with a range of complex topics that cannot easily be confronted all together.

*Continued poverty and social marginalisation exacerbate the shortcomings in the enabling environment of the desired knowledge society*

*In several Arab countries illiteracy rates for adults, children, and young people remain a challenge*

*Arabic is technologically poor in comparison with the languages dominating the ICT field*

Aware of the thorniness of the subject, the chapter pays attention to the pivotal issue of Arab knowledge capital as it is built up in and by schools and universities. In order to define the nature of this capital, the first part of the chapter reviews the general landscape of knowledge acquired through education in the Arab region. In its second part, which forms the main body of the chapter, it turns, through the study of a set of quantitative and qualitative indicators, to how knowledge capital is developed. These indicators are based on a three-part division into children, young people, and adults. Starting with the available data, the chapter presents a map which elucidates the nature, deficits, and paradoxes of knowledge capital and clarifies the areas of distinction, difference, and similarity between the Arab countries at the different stages of education. The third part of the chapter, while revealing the limitations of this capital and highlighting some gaps and barriers that still prevent it from attaining the knowledge society, deals with the kind of knowledge capital appropriate for entry into the knowledge society.

#### **INFORMATION AND COMMUNICATIONS TECHNOLOGIES IN THE ARAB COUNTRIES: THE PILLARS AND TOOLS OF KNOWLEDGE (CHAPTER 4)**

While Chapters 1 and 2 direct attention to the theoretical frameworks and preparatory and supportive environments for the knowledge society and Chapter 3 examines the subject of education (one of the most important of the latter's pillars), Chapter 4 is concerned with the technology pillar, which today occupies such a significant position in terms of knowledge development and information acquisition. The chapter intends to measure the degree to which the Arabs have entered the knowledge society, taking as a starting point their levels of ICT access and acquisition.

The chapter highlights the triumphs of ICT in assembling knowledge networks

that have eliminated obstacles of time and place (for example, through internet services) and have become essential tools for the increased use and expansion of the various spheres of knowledge and their deployment. These technologies have become the convenient and easy way to obtain knowledge and have been widely applied in life's various realms, including the economy, management and education, thus demonstrating how far they have penetrated society.

The chapter thus deals with the presence of ICT in the Arab countries, by attempting to showcase current applications and their limits. It reviews examples from the fields of education, business, healthcare, and social development, clarifying the existing gaps in these applications, and highlighting gains achieved.

On another axis, the chapter devotes attention to the challenges confronting Arabic digital content by contemplating its comparative weakness in the global context. The chapter concerns itself with how the Arabic language can be developed in order to make it capable of acting as a vehicle and medium to produce knowledge that conforms to the requirements of Arab reality. On this point in particular, mention is made of the technological poverty of Arabic in comparison with the languages dominating the ICT field. Attention is also drawn to the importance of developing the tools of the language to render it capable of constructing digital content, which will expand Arab gains in this field. In conclusion, the chapter formulates initiatives to overcome some of the obstacles which, in the Arab environment, prevent widespread access to, and use and development of, ICT.

#### **ARAB RESEARCH AND INNOVATION PERFORMANCE (CHAPTER 5)**

In Chapter 5, the Report investigates the topic of innovation in Arab knowledge, starting with an attempt to broaden the indicators used in some international

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reports, which equate this concept in general with technical scientific innovation. In these reports, levels of innovation are measured in terms of numbers of discoveries in the applied sciences and technology and quantity of patents applied for. Other areas of knowledge such as the humanities, the social sciences, and artistic creativity, are overlooked, despite their important role as a space for innovation and creative synthesis.

On its first axis, this chapter highlights science and technology policies in the Arab world through observations on the diffusion and production of scientific knowledge and consideration of the data on Arab research centres. The issue of scientific research funding in the Arab region is also addressed. The second axis of the chapter moves on to Arab policies towards the humanities, the social sciences, and artistic creativity, going here beyond current indicators to include research discoveries in the humanities and social sciences, as well as the role of the arts in synthesising innovations linked to imagination and affect. The plastic arts, and creative works in literature, the theatre, and cinema have in turn the capacity to produce creativity which enriches the emotions and fecundates the memory. This shifts the concept of innovation and scientific research from a quantitative and mathematical mindset to one characterised by imagination, affect, and values, which, while difficult to quantify are, equally and undeniably, loci of innovation.

The third axis of this chapter observes the manifestations of the creativity gap within the present Arab knowledge situation. It approaches this gap by examining the social and economic returns of innovation and the Arab brain drain, while also dealing forthrightly with the importance of intermediate migration within the Arab countries, which expands and contracts in the absence of any clear policy aimed at integration. The chapter demonstrates how the importance of Arab cooperation increases when

acknowledgment is made of the differing levels of knowledge performance in the Arab countries. Any cooperative policy would have the power to deploy resources in diverse and complementary fashion among the Arab countries and thus strengthen the possibility of creating a common Arab enabling environment. However difficult this may look today in view of the absence of coordination and cooperation, the existence of a political will capable of developing an Arabic perspective on knowledge and creativity, once in place, will make it possible.

## **BUILDING THE KNOWLEDGE SOCIETY IN THE ARAB NATION: A VISION AND A PLAN (CHAPTER 6)**

The previous chapters of the Report have aimed to describe, observe, and investigate the state of Arab knowledge and the nature of Arab knowledge performance. They have carried out this task using a two-pronged approach. The first prong outlines the current features of Arab knowledge based on available data and records major critical remarks related to the absence of an Arab monitoring body to monitor evolution in the state of Arab knowledge. The second prong introduces speculation on how to develop Arab knowledge performance with regard to the topics of the different chapters.

In its conclusion, the Report formulates a vision and action plan to respond to the knowledge gaps that have been identified. This plan creates a form of proposal that, if adopted, at least in spirit, will lead to the closing of some aspects of the knowledge gap and to the exploitation by Arab society of the knowledge gains needed to support its efforts for renaissance and development.

This chapter does not fall into the trap of sketching ‘what must be done’ and of resorting to fanciful exhortations that underplay the distance between the knowledge society in the advanced nations and the realities of knowledge

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marginalisation in the Arab region. It prefers to sketch the major landmarks that must be passed and difficulties that must be transcended if obscurantism and knowledge poverty are to be overcome. This sketch takes the form of a specific proposal that clearly acknowledges the differences existing between the Arab countries in the field of knowledge and is conscious, at the same time, of the enormous gaps that exist and the difficulty of confronting them. Hence the plan promotes a step by step approach to the closure of knowledge gaps and works to prioritise short, medium, and long-term plans for action to enable the Arabs to communicate with the self and with the world on the basis of the gains that modern knowledge provides.

Intercommunication with the self means accurate diagnosis of its shortcomings with regard to knowledge and of its flaws with regard to knowledge environments, followed by courageous, ambitious intercommunication with the world, undertaken in the faith that partnership in knowledge production requires dialogue. Equally, the building of alliances requires the building of rational relationships that do not view the self from a fixed angle, but see it as the product of complex historical processes. This will give the Arabs the possibility of realising their plans to expand the spheres of knowledge and achieve the hoped-for Arab renaissance.

The concluding chapter takes the position that the proposed vision must conform to Arab ambitions and desires to overcome the gaps in knowledge from which they suffer. In this context, the chapter is concerned with articulating a plan, which rests on three foundations. The first is related to the necessary bases for the knowledge society, these bases are defined in terms of three principles: expansion of the scope of freedoms; harmonisation and correspondence with the needs of human development; and openness and intercommunication. The second foundation puts forward the axes of the vision, which are defined

as the establishment of the enabling environment, the indigenisation of knowledge, and its deployment in the service of development and renaissance in the Arab nation. The third pillar of the plan sketches priorities for action. Here tasks are prioritised in terms of urgency according to the data on knowledge gaps in the Arab countries.

The chapter explains that momentum towards entry into the knowledge society must begin with action in the area of the enabling environment as a preliminary step towards transfer and indigenisation. Thereafter the chapter turns towards momentum in the deployment of knowledge in such a way as to ensure its engagement with knowledge creation and production. The chapter does not neglect to mention that this plan leaves the field open to any combinations of interaction, interconnection, and gradualism that may be required, bearing in mind that momentum, confrontation, and multiplicity of points of entry will always encourage entry into membership of the knowledge society.

This chapter also includes suggestions related to the pressing need for an Arab knowledge observatory. The latter could be included as a component on more than one of the axes of this proposed plan, to strengthen and provide launching power for it.

The Arab Knowledge Report 2009 initiates a series of reports that are to follow in the years to come with the aim of building a data base of information on and prescriptions and proposals for the improvement of Arab knowledge performance. It is assumed that the data and results included in this Report will support the possibility of approaches from other angles to the subjects of knowledge, freedom, and development. These are the axes linked to the epistemological change needed in society in order to open and broaden the road to the anticipated Arab renaissance.

*Momentum towards entry into the knowledge society must begin with action in the area of the enabling environment*

## THE ARAB NATION AND THE WORLD IN 2009

The second section of this preamble provides a set of data to place the Arab Knowledge Report 2009 in context. The state of knowledge and the developments within it cannot be approached without a general contextualisation that explains the evolution of the existing knowledge deficits and without careful observation of their interwoven relationships, whether these be with the changes underway in the world, with internal conflicts, or with the transformations occurring in the area of human development in the Arab region at the beginning of the twenty-first century. In this brief preamble, we shall follow the following axes of inquiry: the state of human development in the Arab region in 2009; the changes and pressures on the Arab knowledge scene; and the most important developments in the state of knowledge over the past decade. The data used and the events referred to extend to the end of March 2009.

### THE STATE OF HUMAN DEVELOPMENT IN THE ARAB REGION

Knowledge is considered a central axis of human development, and its importance has multiplied thanks to the many transformations in its numerous forms. The same is true of the technology revolutions of recent decades. Knowledge today, by virtue of its role in the development process, constitutes an instrument of empowerment. Consideration of human development in the Arab region and its relationship to knowledge thus sheds light on some of the most important developmental issues and indicators linked to the establishment of the knowledge society.

#### CONCEPTS AND INDICATORS OF ARAB HUMAN DEVELOPMENT<sup>2</sup>

The Report views development as the means by which an individual expands his or her

choices with regard to the life of dignity he or she wants (Sen, 1999). Development is equivalent to the expansion of choices, freedoms, and individual possibilities in various aspects of life. This vision starts from the view that the prosperity of an individual is not to be measured only by the goods and services he or she acquires, but depends in the first degree on the individual's capacity to choose the life he wants and can be proud of. Thus capacity is the freedom that enables the individual to transcend and overcome obstacles and attain various degrees of human welfare.

In this brief contextualisation we rely on the global measures that are best known and most pertinent to knowledge, as represented by the UNDP's Human Development Index and the Human Poverty Index. These two indexes consist of indicators such as the capacity to enjoy a long and healthy life and live at a reasonable economic level, as well as the capacity to acquire knowledge and to read and write, a capacity that forms one of the most important pillars of the knowledge society.

#### THE MOST IMPORTANT EVOLUTIONS IN ARAB HUMAN DEVELOPMENT

The latest data and indicators on human development in the Arab world show that the Arab states have made some slight progress in human development since

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Table 1

#### Human development indicators for the Arab countries (2001 versus 2006)

Year	Life expectancy at birth (years)	GDP Per capita (PPP US \$)	Life Expectancy index	Education index	GDP index	Human Development index
2001	66.0	5038	0.70	0.63	0.65	0.662
2006	67.8	7760	0.71	0.70	0.73	0.713

Source: UNDP website, [www.hdr.undp.org](http://www.hdr.undp.org) on 13 April 2009

Table 2

**Population and GDP per capita in Arab countries  
(2008, projections)**

Country Group	Total Population (million)	Population Share (%)	GDP (PPP US\$ billion)	GDP Share (%)	Per capita GDP (PPP US\$)
Group 1: Oil economies	40.2	13.2	1117	45.9	27786
Group 2: Mixed oil economies	39.9	13.1	332	13.6	8313
Group 3: Diversified economies	156.4	51.5	833	34.2	5328
Group 4: Primary export economies	67.1	22.1	153	6.3	2277
Total	303.6	100	2435	100	8020

Group 1: Oil economies: the Gulf Cooperation Council states (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE).  
 Group 2: Mixed oil economies: Algeria and Libya.  
 Group 3: Diversified economies: Egypt, Jordan, Lebanon, Morocco, Syria, and Tunisia.  
 Group 4: Primary export economies: Comoros, Djibouti, Mauritania, Sudan, and Yemen.

Source: League of Arab States and UNDP, 2008, from the IMF and the CIA World Factbook

*Poverty in the Arab region is increasing despite all the efforts aimed at reducing it*

the beginning of the current decade, and that at the beginning of 2006 not a single Arab state fell into the category of low human development (see Table 1). For the most part, progress was basic, with, perhaps, the exception of advance in per capita GDP, which has risen from \$5,038 in 2001 to \$7,760 in 2006, and to more than \$8,000 in 2008. However on the level of the Arab region, the significance of this improvement is reduced because of the great variation between the Arab states and the clear concentration of the increases in per capita GDP in the oil-exporting countries as opposed to others of the region (see Table 2). This variation also holds true for the overall Human Development Index, which shows that only seven Arab states (the Gulf Cooperation Council member states and Libya), making up 15 per cent of the population of the Arab region, fall within the high human development band (HDI of 0.8 or above).

While the Arab Gulf states have achieved the highest rates in terms of achievement of the Millennium Development Goals, particularly in the fields of health and universal education, some other Arab states are expected to fail to reach these goals by 2015, the year set by the Millennium Declaration. The list of Arab states unlikely to reach the Millennium Development Goals covers those that still fall within the category of least developed states (Comoros, Djibouti, Mauritania, Sudan, and Yemen), as well as states suffering from conflict, internal disputes, and occupation, such as Iraq, Palestine, and Somalia.

One of the most important negative phenomena to characterise development performance in many countries of the region is the dutiful compliance with the so-called economic and social reform programmes, which for the most part originate abroad. It is clear to an observer that most Arab societies, in the structure of authority and the state, depend on a paternalist social contract which holds the state responsible for the welfare of society and the provision of services in exchange for the political allegiance that imparts legitimacy to the state.

Economic and social, as well as demographic, changes on the Arab scene have, however, placed such systems and social contracts under intense pressures that may threaten their survival. Population growth, changes in ways of life within society, weak and falling incomes, and growing awareness among citizens are perhaps among the most significant of these changes. To deal with these pressures, at least on the economic level, many Arab states have engaged in economic and social structural reform programmes with clear encouragement from international institutions and the Western world. There is near consensus, however, that most of these corrective programmes, largely launched in the 1980s, have not produced the desired results and have exacerbated economic and social problems. Poverty in the Arab region is increasing despite all the efforts aimed at reducing it. In 2005,

Table 3

### Incidence of extreme poverty in a sample of Arab countries<sup>3</sup>

Country Group	Survey Year	Poverty Incidence (%)	Number of Poor (million)	Survey Year	Poverty Incidence (%)	Number of Poor (million)
Diversified economy (six states)	1991-1999	14.7	18.4	2000-2005	16.8	22.8
Mixed oil economy (one state)	1995	14.1	4.1	2000	12.1	3.8
Primary export economy (two states)	1996-1998	41.3	8.0	2000-2006	36.2	8.1
<b>Overall Average</b>		<b>17.9</b>	<b>30.5</b>		<b>18.4</b>	<b>34.7</b>

Source: League of Arab States and UNDP, 2008

*In rural Egypt and Morocco, one in four people is poor, compared with one in ten in urban areas, and families supported by women are much more affected by poverty than those supported by men*

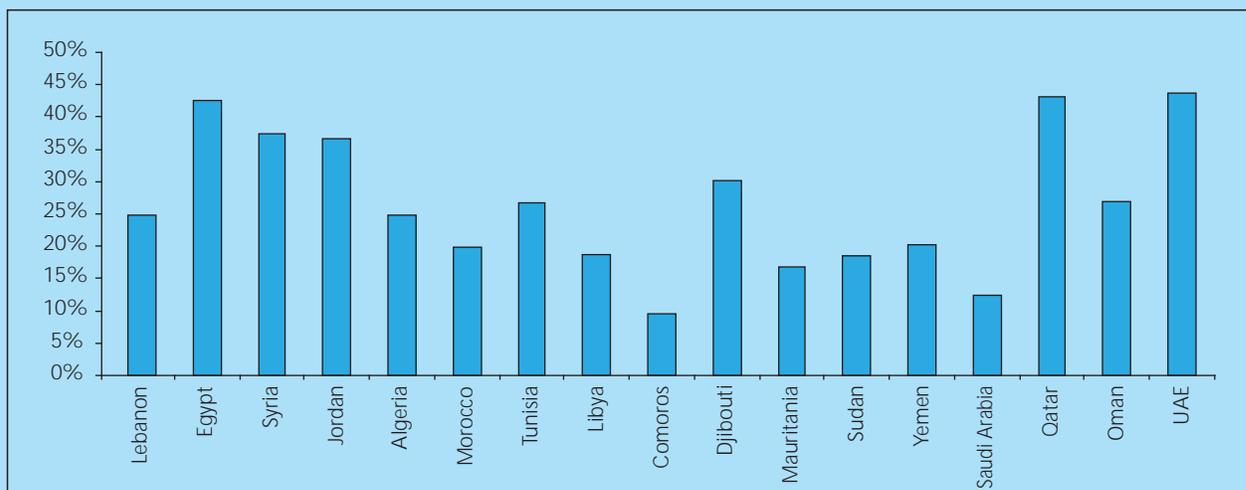
the proportion of people living below the lowest national income poverty line in the Arab region reached approximately 18.4 per cent. Wealth is also badly distributed, for rural areas suffer much more poverty than urban ones. In rural Egypt and Morocco, one in four people is poor, compared with one in ten in urban areas. Similarly, families supported by women are much more affected by poverty than those supported by men. Table 3, which is based on the results of field research in

nine Arab countries, shows that there was a slight increase in the poor as a proportion of the population in the first decade of the millennium in comparison with the 1990s (18.4 and 17.9 per cent respectively).

Regarding the Human Poverty Index, we find an improvement in the Arab states from the end of the 1990s until 2007. Egypt, Syria, Tunisia, Jordan, Oman, Djibouti, Qatar, and the UAE have reduced their scores on the Human Poverty Index by at least 25 per cent over the first decade of

Figure 1

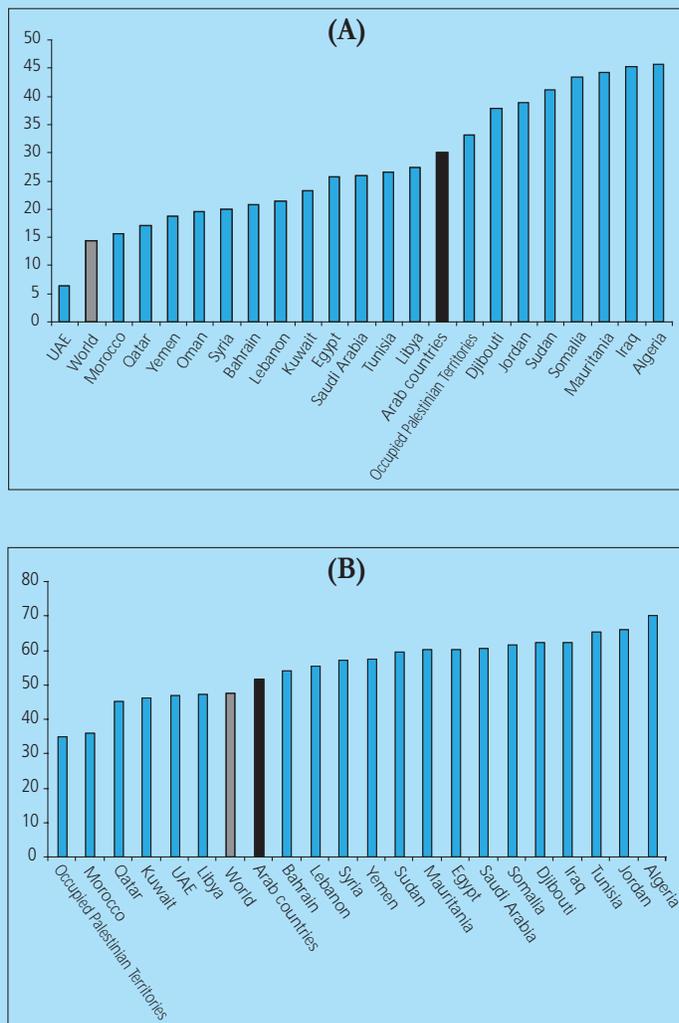
### Decline in human poverty rates by country (per cent): 1996-2007



Source: League of Arab States and UNDP, 2008

Figure 2

**Unemployment rate among Arab youth (A) and their share in total unemployment (B) (per cent) in 2005/2006**



Source: League of Arab States and UNDP, 2008

*The Arab poor are more affected than others by changes in world food prices*

the millennium (Figure 1). However, when we compare the performance of these countries with that of other countries of the world with similar rankings on the Human Development Index, we find that it could have been better.

The Arab countries also constitute one of the regions of the world most dependent on imports for the food security of their inhabitants. International reports show that most Arab states fall in the band of states with very low sovereignty in terms of food supply, with an Arab

Food Sovereignty index of 1.6.<sup>4</sup> Some see the aridity of large swathes of Arab territory as the determining factor in this area. However, much evidence points to poor management of available resources, including environmental resources. The data point to significant facts, perhaps the most important of which is that food imports formed 15 per cent of total imports to the region in 2006. Worse, while Arab countries are mostly self-sufficient in terms of producing foodstuffs for the wealthy, such as meat, fish, and vegetables, foodstuffs for the poor classes, such as grains, oils, and sugar, are largely imported. Thus, the Arab poor are more affected than others by changes in world food prices.

From the 1980s until now, unemployment rates have remained at high levels, or even increased in many Arab states. In the 1980s, for countries like Algeria, Egypt, Jordan, Morocco, Tunisia, and Syria (which comprise about 57 per cent of the Arab labor force), the weighted average unemployment rate was 10.6 per cent. The highest rate at that time was in Algeria (16.5 per cent), and the lowest in Syria (4.8 per cent). In the 1990s, however, the weighted average unemployment rate was 14.5 per cent, with the highest level in Algeria (25.3 per cent) and the lowest in Syria (8.1 per cent). Preliminary evidence for the 2000 decade indicates that the weighted average unemployment rate in these states has risen to 15.5 per cent (League of Arab States and UNDP, 2008).

Studies indicate that Arab women suffer more than men in relation to unemployment (International Labor Organisation, 2009).

The youth unemployment rate remains very high: in 2005 it varied from 46 per cent in Algeria to 6.3 per cent in the United Arab Emirates (see Figure 2). The Arab states still face a major challenge in the creation of job opportunities for youth. Table 4 refers to forecasts made in a recent 2008 study carried out by the UNDP in cooperation with the League of Arab States which clearly show the tangible need to find work opportunities for the ever growing

Table 4

### The employment challenge: projected numbers of new jobs required.

Country group	Labor force in 2005 (millions)	Unemployment rate 2005 (%)	Number of jobs 2005 (millions)	Number of new jobs by 2010 (millions)	Number of new jobs by 2015 (millions)	Number of new jobs by 2020 (millions)
Mixed economy (six states)	48.3	11.82	42.59	6.55	14.16	21.78
Mixed oil economy (two states)	15.5	15.61	13.08	2.26	4.92	7.56
Oil economy (six states)	13.7	4.53	13.08	3.37	7.73	12.08
Primary export economy (four states)	22.8	18.68	18.54	2.85	6.17	9.49
Total (eighteen Arab states)	100.3	12.97	87.29	15.03	32.98	50.91

Source: League of Arab States and UNDP, 2008

numbers of Arab youth who each day join the ranks of the unemployed. It is obvious that the picture has become gloomier in view of the current world financial crisis and its repercussions for the region.

#### GOVERNANCE AND THE WEAKNESS OF INSTITUTIONAL PERFORMANCE<sup>5</sup>

The Arab states have remained weak and hidebound over the last two decades, without any notable change in terms of institutional performance. Available indicators make clear that the Arab states' weak performance in 1996 in terms of governance<sup>6</sup> indicators did not change greatly in the ten years to 2006 (League of Arab States and UNDP, 2008). The effect of this weak performance on many aspects of development and the components of the knowledge society, in particular freedoms, is no secret.

One of the most recent reports has concluded that the major challenges facing the region can be summarised as institutional reform, good governance, the provision of job opportunities—particularly for youth—, the ring-fencing of funds for development that serves the

poor, reform of the education system, and diversification of the economic systems so as not to be dependent on one commodity (in particular oil based economies), in addition to the provision of food security (League of Arab States and UNDP, 2008).

#### VARIABLES EXERTING PRESSURE ON THE ARAB KNOWLEDGE SCENE

##### WAR, OCCUPATION, INTERNAL CONFLICT, AND THE DISRUPTION OF KNOWLEDGE

Occupation, wars, and internal conflicts have an overwhelmingly disruptive influence on the knowledge society. Not only do they affect its mainstays, in the form of education, technology, and innovation, they also, through the economic destruction, disruption to development, suppression of freedoms, and restrictions on movement, strike at the heart of the enabling environments needed for the establishment of the knowledge society. Furthermore, the lack of security means that people are unable to obtain their basic needs, to say nothing of realising their hopes of setting in place

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*Occupation, wars, and internal conflicts have an overwhelmingly disruptive influence on the knowledge society*

the pillars of the society to which they aspire.

With regard to Iraq, it cannot be claimed that education prior to the US intervention in 2003 was devoid of the problems known to other Arab countries. However, many studies and indicators confirm that the standard of education has declined after 2003, and that educational problems have been exacerbated and have accumulated as a result of the conflicts that broke out.

For example, a report of the UN Office for the Coordination of Humanitarian Affairs (OCHA) stated that net enrolment rates in basic education had reached 46 per cent in the 2006-7 school year compared to 86 per cent in the previous year, and that only 28 per cent of graduation-age students had been able to attend their end of year final exams, which only 40 per cent of them passed (UN OCHA, 2008).

A UNESCO report published in April 2007 and entitled Education under Attack, disclosed that political and military violence that targets educational systems is causing growing numbers of children to be deprived of the right to education. The report depicted Iraq's educational system as "the education system most impacted by the severity of attacks, whose scope and numbers of casualties have reached a level so extreme as to threaten the collapse of the school and university systems" (UNESCO, 2007b, in Arabic). The report made clear that over a period of not more than ten months between February and November 2006, 280 Iraqi teachers were killed, and that only 30 per cent of Iraq's 3.5 million pupils attended classes in 2007, compared to 75 per cent in the previous school year. The UNESCO report mentioned that enrolment at Baghdad universities declined by 40 per cent while more than 3,000 academics fled the country. A report presented in June 2007 to the British Cross-party Commission on Iraq<sup>7</sup> stated that in the period 2003-2007, more than 830 Iraqi academics were killed, most of them doctors, engineers, and physicists; more than 70 per cent of the victims were university professors, PhD holders, or the

equivalent.

Some sources point to a recent improvement in the state of education and knowledge on the heels of a relative improvement in the political and security situation. This gives hope for better opportunities to deal in the most effective way with the existing and cumulative knowledge challenges if the building of knowledge society is to be renewed in Iraq and if Iraqi energies are to be released anew in support of development and a better future.

Palestinians continue to suffer the negative effects of the occupation on all the operative axes of the knowledge society. The Israeli occupation and repeated incursions into the Palestinian territories have had enormous effects on the educational process, considered the corner stone of any knowledge society. Many pupils, teachers, and support staff have been killed, over and above the continual danger of detention and abuse at the occupation's barriers and checkpoints. During 2008, and without taking account of the losses suffered during the attack on Gaza that began at the end of the year, statistics from the Palestinian Ministry of Education show that forty Palestinian students were killed and eighty others received a range of wounds. Also, 260 students, teachers, and support staff were detained. To this should be added the Israeli incursions that led to the ongoing closure of 100 schools and the loss of 150 school days (Palestinian Ministry of Education and Higher Education, 2009a, in Arabic). UNICEF reported that "nearly half of all students have seen their school besieged by troops, and more than 10 per cent have witnessed the killing of a teacher in school" (UNICEF, 2009).

Nor have the universities been spared attack and the infliction of varied damage. Israeli forces raided the University of Bethlehem and Al-Najah University in Nablus in 2002, and Hebron University in 2003, besieging them and causing lessons to be suspended. The Al-Quds Open University in Ramallah, the Palestine

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Technical College in Tulkarem, and Birzeit University have also been raided. Attacks on universities culminated in the destruction of the College of Education of Al-Aqsa University in 2004 and of the buildings of the Islamic University in Gaza in January 2009, during the most recent invasion of the Gaza Strip (Palestinian Ministry of Education and Higher Education, 2009b, in Arabic).

All these practices, as well as further constraints such as the Separation Wall, have been detrimental to the Palestinians with regard to all the mainstays of knowledge—education, importation of technology, and internal and external communication—not to mention that they have been deprived of the freedom of movement and security that constitute the enabling environments needed for the establishment of the knowledge society.

Towards the end of the writing of this report (at the end of 2008 and the beginning of 2009), Israel launched a major assault on Gaza during which populated areas, schools, and UN buildings were shelled. Israeli military operations destroyed Gaza's infrastructure, both educational and that related to the other pillars of knowledge, and left behind them what Amnesty International called a "humanitarian catastrophe" (Amnesty International, 2009, in Arabic). In addition, the human population suffered appalling losses, with 1,326 Palestinians, most of them civilians and 41 per cent of them children and women (430 children and 110 women), killed. A further 5,450 Palestinians were injured. During the same period and as a result of military operations, fourteen Israelis were killed and a further 182 were wounded. Among them, civilians accounted for three deaths and eighteen wounded (UN OCHA, 2009a and 2009b).

Despite this, the Occupied Palestinian Territories hold an advanced position among the Arab countries with regard to a number of indicators related to knowledge in general and education in particular. At the start of 2006, the adult literacy rate indicator reached 92.4 per cent

while total primary, secondary, and tertiary education enrolment reached 82.4 per cent (UNDP, 2007c, in Arabic). Palestinian professionals of recognised competence, such as teachers, engineers, and artists are to be found in many Arab and non-Arab countries.

The effects of war are not restricted only to Iraq and the Occupied Palestinian Territories; Sudan too is suffering the woes of civil war in Darfur. With the end of 2006, the number of those adversely affected by the conflict had reached 4 million, including 2 million internally displaced. This has shaken the stability of Sudan and caused a humanitarian crisis to erupt whose repercussions continue to be felt until now (UN OCHA, 2006). One million, eight hundred thousand children under eighteen years of age are among those adversely affected. Education in the schools has obviously suffered extremely. Many schools have been set on fire and razed to the ground (Amnesty International Morocco, 2006, in Arabic). The war has brought ruin to all aspects of life in Darfur, and as a result has generated a society of refugees and migrants. The people have moved to distant locations as a result of the sharp escalation in fighting in many parts of Darfur, and the number of refugees has reached 120,000<sup>8</sup>.

Despite the dearth of data, testimonies confirm that Sudan's plunge into internal conflicts will inevitably lead to the complete breakdown in the already faltering establishment of the knowledge society. (In terms of knowledge status, the World Bank puts Sudan in a low category, with a score of 1.68 on the knowledge index in 2005, compared with a world average of 6.79 and an African average of 3.3.)<sup>9</sup>

In Somalia, which has long been plagued by internal conflicts and wars, all the indicators make it clear that a great deal of effort needs to be exerted in order for the country to reach a point at which it will be possible to initiate discussion on setting up the knowledge society. At the beginning of this millennium, Somalia's illiteracy rate stood at 62.2 per cent (2001), with a

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*In Somalia, a great deal of effort needs to be exerted to set up the knowledge society*

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*Knowledge can only flourish in an atmosphere of freedom, and the knowledge society can have no foundation as long as extremism remains in play*

higher rate for women (74.2 per cent).<sup>10</sup> According to 2007 statistics, the number of internet users has topped 98,000 out of a total population of 9 million, putting Somalia in 127<sup>th</sup> place out of 155 states.<sup>11</sup>

Given that Somalia has long suffered from the absence of government or a single administrative body, and given its particular makeup and continuous conflicts, the roles of other non-governmental civil society parties have grown, in an attempt to create the mainstays on which the knowledge society depends. For example, education networks, such as the Formal Private Education Network (FPENS), which is one of the largest active education networks with a number of primary and secondary schools in more than half the regions of Somalia, exist (Abdulle, 2008). However, large sections of poor and marginalised groups cannot take advantage of the health and education services provided by these NGOs because these services are generally provided on a cash basis. In one form or another, all these efforts contribute to development. But are they enough to establish a knowledge society, especially in view of the absence of the state for around two decades?

#### *EXTREMISM AND ITS EFFECT ON THE KNOWLEDGE SOCIETY<sup>12</sup>*

“Extremism” has become one of the major terms associated with current Arab reality and is in wide circulation, despite the lack of agreement over its meaning.

If there is extremism in religion then, logically, it applies to all religions, and this is what we find in our contemporary world, where the literature teems with reports detailing extremism among Muslims, Christians, and Jews. There are even reports of extremism among Sikhs in India and Buddhists in Myanmar. Besides religious extremism, there is also political extremism, as represented by the extremist wings of the political tendencies.

A distinction should be made between extreme loyalty (Ta'asub) and extremism (Tataruf). Extreme loyalty may remain

merely excessive zeal for a particular idea or affiliation. When this goes too far, it falls into the snare of extremism, which in turn leads to obscurantist, inward-looking positions incapable of discrimination. This brings us up against extremism in forms that generate its counterpart of counter-extremism, thus preventing the dialogue and outreach that are the foundations for recognition, mutual understanding, and eventual cooperation and partnership.

What interests us in this context is the extremism that negates the Other, halts the process of dialogue, and prevents mutual understanding. If we are to become familiar with the effects of extremism on knowledge in the Arab countries, we must also become familiar with some of its characteristics and manifestations.

Knowledge can only flourish in an atmosphere of freedom, and the knowledge society can have no foundation as long as extremism remains in play. Extremism which threatens freedom or bans it—whether through the behaviour of certain groups or the tyranny of regimes that practise extremism through the suppression of freedoms—has a negative effect on the enabling environments of the knowledge society. This is dealt with in detail in Chapter 2 of the Report.

Extremist trends oppose both the acknowledgment of the Other, and dialogue and outreach. For the most part they rely on calls and conceptions which they formulate with a private logic that tolerates no dissent. Some extremist movements have reverted to tradition as a weapon in current political and epistemological battles, indicating that we have not yet rid ourselves of the frozen view of past tradition nor come to a positive reconciliation with our past in all its components. Reference to the relationship in modern Arab thought between the cultural heritage and knowledge impels us to refer to the wide public that has brought certain traditional discourses and symbols back into Arab knowledge and society. While the invocation of some traditional symbols may be positive in encouraging contact with reality and progress, this

reversion, in many cases, is not associated with readings that set tradition in a historical context. The symbolic traditional archive has come to be widely deployed in the battles over our present within and outside our societies and during their confrontations with others, and attempts to employ it in political battles have revived in recent years. On this front in particular, political action requires a new contemporary reading of our historical tradition and ourselves that is responsive to the passage of time.

The cultural heritage, as one component of knowledge, should not be abandoned to become the undisputed arena of unexamined readings. Rather, research projects should be launched in this area that can arrive at an understanding that responds to the questions of our age and our need to respond positively to what is happening in the world. The Islamic tradition, like any other product of humanity in history, has innumerable faces. It is a repository capable of more than one form of creative and innovative use. The continuing presence and domination of a closed literalist understanding of tradition over minds and consciences in our society casts into relief aspects of the images that we create for ourselves and that others, relying on the evidence of the nature of knowledge prevailing among us, will thereafter apply to us.

It can be said that our momentum should start with ourselves—that is, with reform of our historical self-characterisations and correction of our self-perception through action aimed at fuller reconciliation with the values of the world we belong to. This will enable us to join together with all those involved in the making of contemporary history. This does not mean that the others are without responsibility for the situation we find ourselves in and the problems we face; it is well known that our recent past, and our present and future, cannot be understood without taking external factors into consideration. However, we do believe that now, after the battles for independence

from those who colonised us, our battles for renaissance and a completion of our liberation depends above all on us. This requires that we work on solutions to the many problematic issues that have their roots in our historical environment: the problematics of innovation and renewal in Islamic jurisprudence, of creativity, and of the establishment of a voluntary political harmony that will, in our hypothesis, facilitate the reform process and the movement of our societies towards the building of the hoped-for Arab future.

#### *THE STAGNATION OF POLITICAL REFORM AND ITS EFFECT ON THE ENABLING ENVIRONMENT FOR KNOWLEDGE*

At the beginning of the third millennium, the language of political reform was once again revived in modern Arab political culture, and a consensus was reached over its necessity. The failure of the majority of the Arab states to find suitable avenues to overcome underdevelopment has contributed to this revival. Similarly, numerous external factors have reinforced the calls for reform that seeks to develop Arab societies and leave their deepening crises stage.

Talk of reform is certainly not new. What distinguishes the new calls for reform is the wholesale nature of their adoption in the majority of Arab states, whether by existing regimes or such organisations of civil society as political parties and civic institutions active on the political and social scene.

This reformist trend is subsumed within a historical context that transcends current Arab circumstances and the accompanying interactions and events on the international level. Here we refer particularly to the events of 11 September 2001, which revealed the presence, especially in areas suffering from occupation, extremism, and marginalisation, of forces using new methods of political action with the aim of inflaming conflict, whether within the

*The cultural heritage should not be abandoned to become the undisputed arena of unexamined readings*

*Our momentum should start with a correction of our self-perception with fuller reconciliation with the values of the world we belong to*

*The reformist tendency calls for gradual and peaceful transition and accepts democracy as the best option*

*The stagnation of reform in various Arab countries constitutes a kind of regression that impoverishes political life and reduces the options for comprehensive development*

*The financial crisis that escalated in 2008 will further slow the process of knowledge indigenisation in the Arab milieu*

Arab countries or on the global level.

The reformist tendency in its new form is marked by its reliance on a discourse that calls for gradual and peaceful transition and accepts democracy as the best option for building a new consensus aimed at the generalisation of the language and logic of peaceful reform. However this call, which has crystallised third-generation concepts of political reform, has not been able to maintain its ardour, despite the positive effects it has produced in such Arab states as Morocco, Lebanon, Syria, Jordan, and some Gulf countries.

We spoke above of “third-generation reform concepts,” a term that affirms the deep roots and continuity of hopes for reform on the Arab political scene. The history of reform in the Arab region has marched in step with the thought of the Arab renaissance, during which the first generation of concepts of reform were formulated. The conceptual fabric of the second generation of reform is linked with the movements for liberation from colonialism. Thus reform has a long history in the Arab world, and the concepts that have crystallised at the beginning of this century complete and fulfil previous steps in the evolution of the reformist orientation in Arab thought. However, we note a halt in the recent revival now that we find ourselves face to face with a stagnation that promises a reversion to old patterns of rule regarding the way in which phenomena within Arab society are dealt with. This stagnation that has affected the waves of reform in various Arab countries in recent years constitutes a kind of regression that impoverishes political life and reduces the options intended to respond to the demand for comprehensive human development.

Without going into the details of past and current reform programmes, we would point to the absence of one fundamental element, that represented by the declaration of freedoms, even though the discourse of reform has raised such slogans. We also note the absence of systematic and productive monitoring of

the Arab knowledge situation. The data on education and the reform of knowledge environments continue to be expressed in abbreviated form, in the shape of slogans and general demands. If we cast a quick glance at the reform programmes of most states or organisations, we will notice the absence of knowledge in its various manifestations and dimensions as an area of particular interest. This may be explained by the fact that the tyranny of the general political orientation both overwhelms knowledge and dominates society’s thinking. However, the failure to specify the contours and horizons of knowledge reform should be considered a failure to recognise the significant pivotal role that knowledge has come to play in human societies.

#### *THE WORLD FINANCIAL CRISIS: OPPORTUNITIES AND CHALLENGES FOR THE ESTABLISHMENT OF THE KNOWLEDGE SOCIETY.<sup>13</sup>*

The increasing disassociation of capital flows and financial transactions from the workings of the real economy (real, that is, in terms of production, consumption, commodity export, and true investment) has led to greater “fragility” in the world financial system, a rise in the level of risk on the world’s money markets, and growing failure to achieve monetary and financial stability on the global level. This has led to the major financial crisis that escalated at the end of 2008 in Wall Street and has since caused the bankruptcy and collapse of major financial institutions. We believe that this crisis will have repercussions for production and the different knowledge programmes as it has on economic and social development. We also assume there will be ramifications that further slow the process of knowledge indigenisation in the Arab milieu.

The countries of the Arab region have been affected by the global economic crisis according to their degree of engagement with the currents of financial globalisation.

Thus the Arab region in general, and the oil-producing countries of the Gulf in particular, have been affected by the fall in the price of crude oil.

The most significant negative effects of the global financial crisis on the economies and societies of the Arab region can be summed up as follows:

- A sharp fall in the Arab region's stock exchanges and money markets, which, by the estimate of the international investment house, Global, have suffered losses of around 47 per cent to the end of November 2008.
- A dramatic fallback in crude oil prices, which have tumbled from a record high of \$147 per barrel as a result of a fall in demand—mostly from the US—of around 3 million barrels per day.
- Ahmed Goweli, the secretary of the Arab Economic Unity Council, estimates total losses for individuals, organisations, and governments, including sovereign wealth funds, in the Arab region as a result of the global economic crisis to be in the region of \$2.5 trillion. The negative effect of these losses will in turn affect the budgets for personal consumption and private and public business sector investment programmes. This will lead to a vicious circle of further economic contraction and stagnation due to feedback loops.
- A fallback in foreign direct investment to the Arab region, and in particular that originating from the US and the Euro zone.

It is expected that the crisis will have its most violent effects on those Arab states that are highly dependent on foreign aid. There are fears that shrinkage of this aid, given the current crisis, will have a negative impact on development programmes and, in consequence, on the building of the knowledge society. It may also take some time for the ramifications of the negative impact of the current financial crisis on the state of knowledge to become apparent. Such crises normally break out first in the financial sector, spreading only after an interval to the real (as defined

#### BOX 1

### The Effect of the Financial Crisis on Development Funding

The Doha Declaration for Financing of Development issued in December 2008 stated, "We are deeply concerned by the impact of the current financial crisis and global economic slowdown on the ability of developing countries to access the necessary financing for their development objectives. Developing countries and countries with economies in transition risk suffering very serious setbacks to their development objectives, in particular the achievement of the internationally agreed development goals, including the Millennium Development Goals. It

is critical to adopt further decisive and prompt actions to contain the current crisis and restore sustained economic growth. Given this global context, we call the attention of all donors to the situation and needs of the poorest and most vulnerable. We also urge all donors to maintain and deliver on their overseas development aid commitments... In this context, it is also important for developing countries to maintain sound macroeconomic policies that support sustained economic growth and poverty eradication."

Source: Doha Declaration on Financing for Development: outcome document of the Follow-up International Conference on Financing for Development to Review the Implementation of the Monterrey Consensus, Doha, Qatar, 29 November – 2 December 2008.

above) economy, leading in turn to further contraction in the economic variables. This subsequent contraction in the real economy then impacts on the social sectors, resulting in a rise in unemployment levels, a fall in salaries, erosion of savings, and from there, cultural and knowledge impoverishment. These interactions in the social sectors lead to the impoverishment of the middle and lower classes. It is likely that the three sectors will suffer great economic and social hardships during 2009, and that these may extend till the first half of 2010 and perhaps further. This interval provides a good opportunity for those concerned with the conditions of knowledge in the Arab world to make effective plans to manage the crisis and contain its negative repercussions.

Like all crises, just as the current one has negative results and ramifications on the Arab region, so it may also open up new opportunities that can give forward momentum to the course of development, innovation, and the knowledge society. In what follows we will attempt to indicate the most important new prospects open to the Arab economies and societies, so long as good assessment and good planning are maintained over the coming months and years.

*There are fears that shrinkage of aid, will have a negative impact on development programmes and knowledge society*

*The financial crisis may open up new opportunities that can give forward momentum to the course of development, innovation, and the knowledge society*

*The current crisis may help to restore the status of honest work and sincere effort, and build a new system of incentives to encourage creativity and development*

- Curtailment of the “culture of speculation” and of speculative behaviour in general, especially with regard to stock markets and property.
- The redirection of savings into productive investment channels that have large development and knowledge returns. This should be followed by transition in the Arab economy to a mode of production that encourages creativity and innovation.
- Direction of intra-Arab investments to areas with high development returns rather than those with rapid and purely financial returns such as were characteristic of the 1990s and the beginnings of the twenty-first century, when excessive investment in the financial and property sectors came at the expense of productive and knowledge-based activities with long-term development effects.
- Import substitution as a result of the decline in foreign currency reserves. This will provide impetus to further efforts to improve quality, spread a culture of “excellence” and raise the level of competitiveness of products and services in the Arab market. This again will lead to the concentration of efforts on the local manufacture of knowledge tools, upon whose import from abroad we are presently largely dependent. This will help to solve the special problems of the state of knowledge in the Arab states by developing output to serve our needs and priorities.
- Increased technological and knowledge self-reliance through a gradual move away from very high cost “turn-key” technology contracts and packages. This would include the acquisition of technology and knowledge by processes of creative practice, or what is known in the economic literature as technological and knowledge progress via on-the-job learning.
- Expansion in the development of intra-Arab commerce to compensate for the foreign export markets in Europe and the US to which most Arab exports are

*Many key problems still form a major obstacle to the establishment of the knowledge society, the most prominent among them being continuing illiteracy*

directed. This will lead to the opening of other doors for partnership in the future and encourage the transfer of knowledge.

The current crisis may also open up new prospects for a creative adaptation to globalisation through knowledge and technological cooperation with the advanced nations of the South such as India, Brazil, China, South Korea, and Malaysia and by means of other South-South arrangements and partnerships more closely tailored to the levels of economic, social, and knowledge progress in the Arab region. This should give us the opportunity to share in the potential benefits of globalisation through merit, rather than suffering merely the downsides, as has often been the case.

While over the last ten years property and stock market speculation has led to an unprecedented centralisation of income and wealth in the Arab region, it has also led to the “divorce of effort from return,” and thus dealt a severe blow to the values of hard work, innovation, and creativity innate in our culture and society. The current crisis may help to restore the status of honest work and sincere effort, and this will help to build a new system of incentives to encourage creativity and development.

Given the current crisis and the pressures on public and private budgets, there must be caution with regard to dipping into allocations for research and development activities and cultural, creative, and artistic projects. The welfare of coming generations is at stake.

## **OVERVIEW OF THE CURRENT KNOWLEDGE SITUATION IN THE ARAB REGION**

The Report will treat of the condition of knowledge and sustain an analysis aimed at revealing its most significant deficits and formulating suggestions to help its revival. Here we present a brief preliminary review of some of the major developments that have occurred in Arab

knowledge over recent years. This will permit us to detail, and closely scrutinise, the various manifestations and foundations of knowledge in the Arab region.

Arab states have, over the last quarter century, witnessed marked progress on the indicator set relating to the proliferation of knowledge among their citizens, starting with the drop in illiteracy rates and ending with the numbers of people holding higher university degrees. When we consider the three key indicators for education used by the World Bank to measure a state's readiness for involvement in the knowledge society—that is, adult<sup>14</sup> literacy rates, enrolment in secondary education, and enrolment in higher education—the progress is demonstrable. In 1980, the average adult literacy rate in the Arab countries had reached approximately 55 per cent for males and 25 per cent for females. In 2005, this average had reached 82 per cent for males and 62 per cent for females.<sup>15</sup> The median of gross enrolment ratio in all programmes of secondary education had reached, in 1980, 57 per cent for males and 38 per cent for females, whereas in 2006 it reached 70 per cent for males and 65 per cent for females.<sup>16</sup> In 1980, gross enrolment in tertiary education exceeded 25 per cent for males and 20 per cent for females in Lebanon only (41 and 21 per cent respectively), while the median reached 8 per cent for males and 4.6 per cent for females. Tertiary education was absent or virtually absent in one-third of Arab countries (with gross enrolment ratio of less than 5 per cent). However by 2005, only three Arab states were left with enrolment rates of less than 5 per cent, while the median had reached 18 per cent for men and 29 per cent for women.<sup>17</sup>

These achievements should not deflect our gaze from the failures that are causing many Arab states to fail to bridge the knowledge gaps. Despite the Arab region having spent 5 per cent of GDP and 20 per cent of government budgets on education over the past forty years (League of Arab States and UNDP, 2008), many of the structural aspects of weakness remain

in place. Many key problems still form a major obstacle to the establishment of the knowledge society, perhaps the most prominent among them being continuing illiteracy. Around one third of the adult population is unable to read and write, meaning that there are still some 60 million illiterate people in the Arab countries, two-thirds of them women, and almost 9 million children of elementary-school age outside school, most of them in the countries that have not solved the illiteracy problem.<sup>18</sup> It is impossible to realise the ambition of setting up the knowledge economy and society as long as the regional gross enrolment ratio in upper secondary education remains below 55 per cent for males and females alike, when the industrially advanced states and those of Central Asia have achieved enrolment rates around 84 per cent.<sup>19</sup>

In addition to this quantitative shortfall in the dissemination of education, the region suffers from numerous qualitative problems. In terms of qualitative performance, studies from 2003 make clear that students from Arab countries score much lower than world averages in grade-8 international tests in the sciences and mathematics. The average scores in mathematics and science in the Arab region were 393 and 419, while the world averages were 467 and 474 respectively (UNDP, 2007a, in Arabic). Similar international studies undertaken in 2007 show that the low performance of pupils from Arab countries in mathematics and the sciences continues; in 2007, the performance of Arab pupils did not exceed 388 in mathematics and 424 in the sciences, while world averages were 445 and 466 (UNDP, 2007d, in Arabic).

Over and above this, it seems that the correlation between education and economic growth in the Arab world is weak. This may be due to a number of reasons, such as lack of conformity of education and training programmes in terms of quality or quantity to pressing developmental needs. The human assets formed by education also have not been

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utilised as required to serve society.

On the ICT axis, it is evident that the Arab states have made reasonable progress, in that the region has continued to invest in infrastructure, recording, in 2008, progress in technological performance that exceeded that in all other regions of the world.<sup>20</sup> Four Arab countries came within the top fifty states most ready to utilise ICT and eleven Arab countries witnessed a rise in the value of the ICT index in comparison with 1995. Yet, despite these achievements, the gap between the Arab countries and the rest of the world remains substantial. The performance of the Arab countries also varies from state to state. Such variation between the Arab countries in their utilisation of new technologies and in the use and production of Arabic digital content holds true also for the different social categories within each country, and warns of more fragmentation and extremism should these countries not institute equal access to technology.

It is to be noted that improvement in Arab country performance according to the ICT index does not correlate with national revenue. Even though some Arab countries that enjoy high revenues occupy advanced positions on the ICT index, these positions remain lower than those occupied by other countries of the world that enjoy comparable national revenues.

Interest in investment in the field of research and innovation as one of the pillars of knowledge has grown in the Arab states since the beginning of the 1980s. Arab academic research centres have steadily and noticeably developed in all specialisations, so that most Arab countries now have research centres and institutions, whereas in the middle of the last century such institutions were limited to Egypt, Iraq, Morocco, and Lebanon. After having been virtually absent from the field of international scientific publication, the Arabs now contribute 1.1 per cent of output in that field (TWAS, 2005). In spite of progress on the research and innovation index, particularly from a quantitative angle, in recent years, Arab innovation

performance remains the major weak spot on the current Arab knowledge scene, and the scientific innovation and research gap between the Arab countries and the rest of the advanced regions of the world remains clear, deep, and serious. The Arab region's expenditure on scientific research is one of the world's lowest in terms of Arab GNP. Research and development institutions are weakly integrated with the cycle of production. The development returns of Arab scientific research are very weak and do not correspond to the magnitude of annual Arab expenditure on them, which tops \$2 billion and which, in the period 2002-2006, resulted in no more than approximately 38.2 patents per year and 5,000 published scientific papers.<sup>21</sup>

The weakest point in Arab knowledge performance may be the lack of enabling environments appropriate to the establishment of a knowledge society, particularly in relation to the key index of freedom; as a whole, the Arab states have made no tangible progress with respect to freedom of thought and of expression. Apart from the proliferation of Arab satellite channels and internet blogs, which have provided a safety valve for a noticeable upsurge in activity by the region's youth, the outlook for freedom of thought and of expression remains gloomy. Some Arab governments have imposed restrictions on Arab satellite broadcasting. Additional broadcasting and media legislation and laws have been enacted which have strengthened governments' grip on the media, press, journalists, internet blogs and bloggers, as well as intellectuals. Most media and knowledge-diffusion mechanisms remain state-owned and operate alongside a limited number of large media and entertainment companies transmitting to the Arab countries from the countries of the Gulf or from outside the region.

In contrast, a slight improvement in the development of economic freedoms can be observed in states such as Egypt, Tunisia, and those of the Gulf, where this has led to increased rates of growth.

*On the ICT axis, the Arab states have made reasonable progress*

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However, this progress remains limited and does not necessarily reflect a vision focused on establishment of the knowledge society or improvement of knowledge performance. Arab countries are still exporters of primary resources and importers of high value-added products with high knowledge content. There must be a focus on the impossibility of achieving an Arab knowledge and development renaissance through reliance solely on improvement in economic freedom—even if the latter is supported by intellectual property rights— given the continuation of the restrictions imposed on other freedoms, particularly those of thought and of expression. It is not possible to create Arab environments that stimulate knowledge without the existence of an integrated package of freedoms. Similarly, any hope of the equitable social distribution of the results of development will disappear in the absence of a democratic climate that provides popular oversight and fights corruption.

The Report will deal in detail with these issues in order, seeking to draw a clearer picture of many aspects of knowledge in the Arab region and bring together data that will prepare the way, in the widest possible form, for Arab societies to deal realistically with their challenges and deficits. Once they have done so, these societies will be capable of investing their available capacities in achieving a breakthrough to the world of knowledge and the establishment of the knowledge society to which they aspire.

*It is not possible to create Arab environments that stimulate knowledge without the existence of an integrated package of freedoms*

## End Notes

- \* Arberry, Arthur J. *The Koran Interpreted*. Oxford World's Classics. Oxford, Oxford University Press, 1998. p.651.
- <sup>1</sup> See the section devoted to stagnation in political reform and its effects on enabling environments for knowledge.
- <sup>2</sup> This paragraph depends on the statistical update of the Human Development Report 2007-2008, which gives the latest data available about the Arab region until 2006. It also depends on the data from the Human Development Report 2003 for comparative purposes ([www.hdr.undp.org](http://www.hdr.undp.org)).
- <sup>3</sup> Based on the proportion of the population under the lower national poverty line.
- <sup>4</sup> The Arab Food Sovereignty Index has been calculated for fifteen Arab countries. It is divided into the following bands:  
4.5>6.0: High food sovereignty;  
2.5>5: Food sovereignty;  
1.0>2.5: Low food sovereignty.  
0>1.0: Extremely low food sovereignty.
- <sup>5</sup> Chapter 2 discusses this matter in more detail in terms of its impact on the knowledge society.
- <sup>6</sup> The governance indicators are based upon six dimensions: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control over Corruption.
- <sup>7</sup> An independent multi-party commission formed to issue recommendations around the future of British forces in Iraq.  
Source: Jalili, Ismail. "Iraq's Lost Generation" from the website <http://www.brusseltribunal.org/pdf/aJalili170607.pdf>
- <sup>8</sup> From a speech by the president of the International Committee of the Red Cross upon his return from Darfur in February 2007 (<http://www.icrc.org/web/ara/siteara0.nsf/htmlall/sudan-news-210207?opendocument>).
- <sup>9</sup> The Knowledge Index measures the capacity of a country to produce, indigenise, and diffuse knowledge. It is the average of a country's score on the indicators of the three key pillars of knowledge economy (education, innovation, and ICT). See the World Bank website (KAM), [http://info.worldbank.org/etools/kam2/KAM\\_page5.asp](http://info.worldbank.org/etools/kam2/KAM_page5.asp).
- <sup>10</sup> CIA website, <https://www.cia.gov/library/publications/the-world-factbook/geos/so.html>, on 13 March 2009.
- <sup>11</sup> [http://www.nationmaster.com/time.php?stat=int\\_use-internet-users&country=so-](http://www.nationmaster.com/time.php?stat=int_use-internet-users&country=so-) and <http://www.worldpress.org/profiles2/Somalia.cfm> on 13 March 2009
- <sup>12</sup> This paragraph relies on the background papers prepared by Fahmi Huwaydi ("Extremism and its Effect on the Knowledge Society") and Hani Fahs ("Fanaticism as an Obstacle to Knowledge" and "The Arab Knowledge Renaissance between the Need for Agreement and a Landscape of Division").
- <sup>13</sup> This section is based on a background paper to this report prepared during the first quarter of 2009 by Mahmud 'Abd al-Fadil, "The Ramifications of the World Financial Crisis for Arab Economies and Societies: Losses and Opportunities."
- <sup>14</sup> Adult, here, means a person over fifteen years old.
- <sup>15</sup> See Statistical Annex, Table 9.
- <sup>16</sup> See Statistical Annex, Table 10.
- <sup>17</sup> See Statistical Annex, Table 11.
- <sup>18</sup> See Statistical Annex, Table 13.
- <sup>19</sup> See Statistical Annex, Table 15.
- <sup>20</sup> This is according to the majority of available indicators, including the report of the World Bank on the Knowledge Assessment Methodology published in 2008. See Chapter 4.
- <sup>21</sup> World Bank website, Knowledge Assessment Methodology (KAM) 2008, <http://www.worldbank.org/wbi/kam> on 25 December 2008.