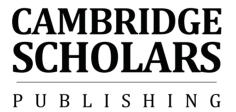
# Middle Eastern Societies in the 20<sup>th</sup> Century

## Middle Eastern Societies in the 20<sup>th</sup> Century

Ву

Jerzy Zdanowski



#### Middle Eastern Societies in the 20th Century, by Jerzy Zdanowski

This book first published 2014

Cambridge Scholars Publishing

12 Back Chapman Street, Newcastle upon Tyne, NE6 2XX, UK

British Library Cataloguing in Publication Data A catalogue record for this book is available from the British Library

Copyright © 2014 by Jerzy Zdanowski

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-4438-6606-7, ISBN (13): 978-1-4438-6606-4

## TABLE OF CONTENTS

Introduction	ix
Chapter One	1
The Geographical Environment, Demography and Human Capital	
1.1. Where is the Middle East?	1
1.2. Geography	
1.3. Resources	11
1.4. Natural resources and democracy	18
1.5. Global warming	
1.6. The dynamics of the population growth	22
1.7. Fertility	
1.8. The age structure	30
1.9. Education	33
Chapter Two	37
Family, Women and the Young Generation	5 7
2.1. Family relationships	37
2.2. Patriarchy	
2.3. Islamic law and the emancipation of women	
2.4. Woman in a public space	
2.5. Generation of the young	
2.6. Is this the cultural code change?	
Chapter Three	69
Classes, Elites, and Social Mobility	
3.1. Societies of the Middle East – structural features	69
3.2. The social classes of the Middle East	
3.3. The class structure and clientelism	
3.4. Tribes and tribalism	
3.5. The deficit of arable land	
3.6. The fall of the large landowners	
3.7. The authoritarianism	
3.8. The new middle class	114
3.9. Social mobility and politics	
· 1	

Chapter Four	125
Religious and Ethnic Minorities	
4.1. <i>Millets</i>	125
4.2. Towards a national community	130
4.3. New survival strategies	134
4.3.1. Political quietism	
4.3.2. The chameleon strategy	137
4.3.3. The strategy of building of a nation state	144
4.4. The victory of the Zionists and the exodus of the Jews	149
Chapter Five	157
The Economic Migrations	
5.1. Social security and unemployment	157
5.2. Unemployment in the Middle East	
5.3. Travelling for work throughout the world	163
5.3.1. Internal migration	
5.3.2. Migration from and to the Arab world	167
5.3.3. Emigration from Turkey and Iran	174
5.4. The cultural consequences of migration	177
Chapter Six	181
Refugees	
6.1. Resettlement in the Ottoman Empire	181
6.2. The extermination of the Armenians	
6.3. The tragedy of Smyrna	
6.4. Refugees after World War II	
6.5. The Arab Spring and new refugees	
Chapter Seven	
Cities	207
Cities	200
7.1. The pace of urbanization	208
7.2. Types of Wilddle Eastern Cities	209
7.3. Caro	
7.4. Telifali	
Chapter Eight	245
Developmental Challenges	
8.1. Capitalism model – which one?	
8.2. Central planning	
8.3. The Arab world – towards a market economy	
8.4. Turkey: between statism and liberalism	
8.5. Integrating with the world	263

8.6. The effects of the global crisis of 2008	269
8.7. Islamism and development	
8.8. The experiments in Iran	
Chapter Nine	285
The Arab Spring 2011	
9.1. The determinants	285
9.2. Macroeconomic indicators and social expectations	288
9.3. Public sector – a new proletariat	
9.4. Is this the twilight of liberalism in the Middle East?	
9.5. The need for efficient management and problems	
with privatization	303
9.6. Islamists in power	
9.7. The significance of the Arab Spring	
Bibliography	321
Index	361

### INTRODUCTION

The Middle East (the Arab world, Turkey and Iran) is often perceived as static and tradition-bound, but the region has changed tremendously since the end of World War I. Modernization, understood as state formation, urbanization, industrialization, migration and the formation of new global ties, has shaped the countries of MENA (the Middle East and North Africa) to the same extent as it has the other regions of the world. The building-up of nation states was combined with the implementation of various concepts of socio-economic development, including a centralized economy and neoliberalism, aimed at solving the problems of a flourishing population, unemployment, housing deficits, shortages of water and land for cultivation and the lack of educational facilities. Tensions provoked by developmental problems were accompanied by ethnic, religious and political conflicts, in addition to competition between various social movements, with Islamists and women's rights exponents at the helm. Modernizing transformations occurred in a particular cultural context which, when exposed to change, resulted in new forms of religiosity and artistic expression and the expansion of patterns of consumption. These transformations initiated mass political protests in the region, beginning with Iran in 2009, and then Jordan, Algeria, Tunisia, Morocco, Egypt and other countries.

This book provides a comprehensive view of the last 100 years in the Middle East from the perspective of social history. It is apt to date the beginning of the modern Middle East to the industrialization era, while it extends its reach into the present. Taking its lead from the modernization theory, this book illustrates past expectations of the present and helps to understand everyday occurrences rather than sensational events. It adopts a multi-disciplinary perspective and concentrates on the relationship between history and social theory. From a historical perspective, the categories of social anthropology and social theory are referred to as social mobility, urbanization, migration, cultural change, gender identities and the young generation.

Important books have been written on the social history of the Middle East, and *The Urban Social History of the Middle East*, 1750-1950, edited by Peter Sluglett, should be mentioned as the most ambitious. It brought

x Introduction

together prominent historians of the Middle East, resulting in the main issues of its urban social history being addressed. Other social history issues have been discussed in chapters in various books, for instance Politics and Society in the Contemporary Middle East (ed. by M.P. Angrist), Contemporary Politics in the Middle East (by B. Milton-Edwards), Interpreting the Middle East. Essential Themes (ed. by D. S. Sorensen), An Economic and Social History of the Ottoman Empire (ed. by, H. Inalcik and D. Quataert), Towards a Social History of Modern Turkey: Essays in Theory and Practice (ed. by G.D. Brockett), and The Modern Middle East (by I. Pappé), to mention just a few of them.<sup>1</sup>

This book addresses the primary issues of importance for the region, in particular: natural and human resources; demography and its dynamics; family life; patriarchy and the emancipation of women; class structure and social mobility; ethnic and religious minorities; migration and its impact on culture and politics; refugees' problems in historical and contemporary contexts; urbanization in the Middle Eastern context; the challenges of development and finally, the social and political consequences of the Arab Spring. Thus the book exposes, in a comprehensive way, various aspects of the everyday lives of the region's inhabitants, and refers to the latest developments.

Chapter I begins with the ecological framework of the region and its sub-regions. It provides basic information about the geography and population of the Arab world, Turkey and Iran. The topography, climate, soil and water resources of the MENA region are presented. The question of a relationship between the political systems of the Middle Eastern countries and their abundance of mineral resources is discussed, as well as the effects of global warming on Middle Eastern countries. The second part of this chapter pertains to demographic development. The issues discussed correspond to the dynamics of population growth and age structure, fertility and mortality. Finally, the question of human capital is stressed, and special emphasis is put upon education levels.

Chapter II addresses gender, family and young generation issues. Emphasis is put upon the communal nature of life and identity in the Middle East. This refers to an individual seeing himself or herself as a part of his or her family or group, as opposed to as an individual. Gender is presented as part of past and current discourse on modernization, and the concept of 'modernity' is addressed. It is stressed that gender in the

<sup>&</sup>lt;sup>1</sup> See more in G.D. Brockett, "Middle East History Is Social History", *International Journal of Middle East Studies*, Vol. 46, No. 2, May 2014, 382–384.

Middle East has been exposed to political manipulations, and that it should be discussed in the context of colonial and postcolonial nation-building, competing ideologies, development strategies and generational conflicts. Islamic law is discussed as the framework for women's activity in public spaces.

Chapter III is concerned with social classes, elitism, clientelism and social mobility. It refers to the development of capitalism in the Middle East and the formation of social classes in recent times. Some peculiarities in this process are highlighted, with special emphasis upon the problem of clientelism. The fall of the large landowner is depicted, and the social root causes of the wave of military interventions in the 1950s-1960s are exposed. These events were determined by the social mobility of new segments of the middle class, and at the same time the events themselves provoked fundamental changes in culture and politics.

Chapter IV is devoted to a look at the experiences of ethnic and religious minorities. Middle Eastern societies are synthesized by various religious, ethnic or linguistic groups, such as the Coptic Christians in Egypt, Jews in Morocco, Tunisia, Egypt and the Yemen, Armenians, the Kurds and others. The starting point of this chapter is an analysis of the *millet* system, or minority status, in the Ottoman Empire. Much controversy arose regarding whether this system properly protected the right of minorities or not. However, there is no doubt that the status of minorities has worsened with the breakdown of the Empire and the rise of nationalism in Turkey, Iran and the Arab countries. The experiences of Copts, Jews, Assyrians, Kurds, Berbers and Baha'is are discussed in this chapter.

Chapter V addresses the phenomenon of economic migration. Two types of migration are analyzed: internal and international. Both have been very common in the Middle East throughout the last four decades and can be explained through push and pull factors. The former drive people away due to low income and the lack of economic opportunities; the latter attract people with positive prospects such as access to jobs, land and high income. In the case of the Middle East, the main factor that pushes people away from their homes is unemployment. The situation in the job market in Arab countries and Iran has been critical for several decades, and this provokes young people especially to migrate. The political, cultural and economic consequences of voluntary migration are also discussed in this chapter.

Chapter VI depicts the issues of forced migration and the problems of refugees. In the Middle East, the twentieth century has been called "an age of displacement and dispossession". Forced migration started prior to

xii Introduction

the commencement of the twentieth century but exploded after the fall of the Ottoman Empire. With the creation of new borders, some minorities were expelled from their homelands and are still without homelands, even today. However, others succeeded in creating new identities and states; nevertheless, dispossession remains a significant component of contemporary life in the Middle East.

Chapter VII is about urbanization and cities. Urban social history is one of the most frequently discussed topics of the contemporary Middle East. This chapter reviews the state of research on this topic and refers to the phenomenon of urbanization in the Arab world, Turkey and Iran. Many cities of the region are of great antiquity, and their history dates back to the Neolithic Age. Prosperity levels frequently changed due to a combination of factors such as geographical location, changes in communication and migration routes, wars, rebellions, and the emergence of new industries. The history of three cities within the region – Cairo, Istanbul and Tehran – has been described in a narrative representative of the main tendencies of urbanization in the region.

Chapter VIII is entitled "Developmental Challenges". This chapter discusses the economic organization of societies and models of economic development. Developmental problems are universal in practice, but the problem boils down to choosing an appropriate developmental strategy and economic policy for the situation. On the other hand, choosing the model depends on the political system, which evolved in the particular society. From this point of view, the Middle East underwent an evolution in the twentieth century, beginning with a capitalist free-market economy in the first part of the twentieth century, going through the stage of a socialist, centrally governed economy in the 1950s and 1960s and eventually reaching its current state; a capitalist economy with the state in a strong position, serving as an economic process regulator. The results of implementing these models are also discussed.

Chapter IX chronicles the so-called Arab Spring. Several hypotheses have been formulated to explain and understand the events of 2011 in Tunisia, Egypt, Algeria, Libya, Yemen, Bahrain and Syria. One of these hypotheses asserts that state institutions had failed to fulfill their functions and people entered the streets of Arab cities demanding justice, freedom and democracy. The opinion that most of the poverty in the Middle East is related to the bad management of the country is often formulated in scientific literature, especially that concerning economics, but it is mostly ignored. Beside the reasons for the Arab Spring, its consequences are also discussed. This thesis suggests that the importance of the Arab Spring goes beyond the unresolved problems of material goods and living

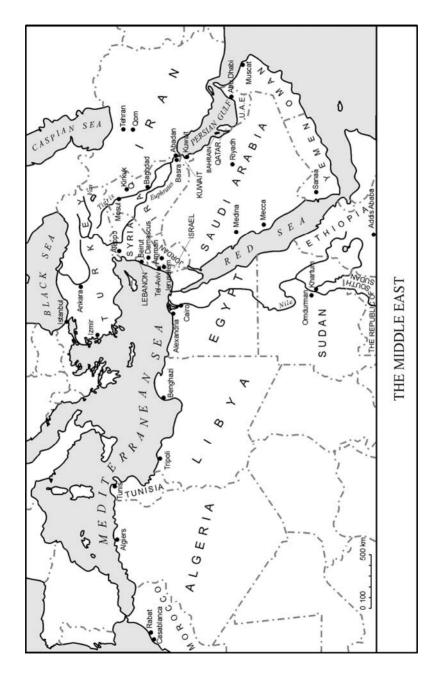
conditions. A new approach to politics and the individual's place in society, a new relationship to power and religion and a change in the relationship between the generations was gradually being adopted. These changes contributed to the awareness of what has been referred to in literature as the new political subjectivity.

I have been broadly working on the subject of this book for the last 10 years or so. Some of the issues discussed took shape as part of a graduate seminar on contemporary Middle Eastern history that I taught at Jagiellonian University, Cracow, and I would like to thank my students on this course for their questions.

Research for the book has been conducted over the last few years through the usual academic methods combined with frequent visits to the Arab World, Turkey and Iran. Certain materials in the book have previously appeared in the form of articles or chapters in other books.

As is to be expected, many people helped me in different ways while I was collecting materials and formulating my hypotheses. I would like to offer my thanks to all of them.

xiv Introduction



### CHAPTER ONE

## THE GEOGRAPHICAL ENVIRONMENT, DEMOGRAPHY AND HUMAN CAPITAL

#### 1.1. Where is the Middle East?

The term "Middle East" has provoked controversy in historical and political science literature for a number of years. There is still not one universally accepted definition. The term "Middle East" was coined in the nineteenth century as a useful term to describe those territories that were 'not the Far East', which have also been called the Near East. At the time, the term Near East (fr. Proche-Orient), which originally referred to the territories belonging to the Ottoman Empire, was more popular. "Middle East" began to supplant "Near East" in the early twentieth century, while the two terms were synonymous. The "Middle East" was never a precise term, referring to different areas depending on needs and circumstances.

More often, this description referred to the countries of the so-called Levant, meaning the states that were located in the Eastern Mediterranean between Anatolia and Egypt and in Mesopotamia – together forming the so-called 'Fertile Crescent'. Modern day countries like Syria, Jordan, Lebanon, Israel, Palestine and Iraq were all located in this region. The "Middle East" has also often been used to refer to the countries of the Arabian Peninsula. What is more, political literature has helped to create the term "Eastern Mediterranean" to describe areas including Egypt, Israel, Palestine, Jordan, Lebanon, Syria and Turkey. In time, the term "Greater Middle East" was adopted, which encompassed the countries of the Fertile Crescent, the Arabian Peninsula, North Africa, Central Asia, the Caucasus and Iran. The final state in this list also fits in with the concept of the "Near East", which traditionally referred to the areas of ancient civilizations.

In literature devoted to issues of development and the publications of international organizations such as the World Bank and the United Nations Development Programme, the term MENA is used, which is an acronym for the Middle East and North Africa. It encompasses the area from

Morocco in the West to Iran in the East, and is synonymous with the term "Greater Middle East." MENA also includes Afghanistan and Turkey, and in some studies also Somalia. Diibouti and the Caucasus countries. Arab countries themselves are sometimes divided for statistical purposes into several smaller entities. Egypt and the Yemen are recognized as a separate units – Egypt due to its extraordinary position (population potential, history) in the Arab world, and the Yemen due to its lack of oil resources and lower living standards in comparison with neighboring countries. In addition to these countries, there is a region known as the Maghreb, which includes Mauritania, Algeria, Libva, Morocco and Tunisia; then there is the Mashreq region, which is composed of Syria, Jordan, Lebanon and Palestine, and finally the so-called "Gulf," which refers to the Arab countries located on the Arabian Peninsula in the Persian Gulf (also called the Arab Gulf). In this book, the concept of the "Middle East" refers to areas including Arab countries, Israel, Turkey and Iran. From a geographical point of view the Middle East, when considered from this perspective, encompasses the areas of North Africa, the Eastern Mediterranean, the Arabian Peninsula, Asia Minor and the Iranian Plateau.

### 1.2. Geography

In terms of topography, climate, water and natural resources, the Middle East is clearly diverse.

The northwestern part of North Africa is formed by the Atlas Mountains, an area of about 750,000 km². The Atlas range is a young mountain chain which extends parallel to the coast for about 2,000 km, with a width of around 350 km. In the Atlas area, one can find Morocco, Algeria and Tunisia. The Rif Mountain chain, which is split and thus difficult to reach, stretches east by the Mediterranean Sea from the Strait of Gibraltar. The Moroccan Plain stretches southwards along the Atlantic Ocean. This region has fertile soil and plenty of rain. It is an agricultural land, where mainly wheat is grown. <sup>1</sup>

The inner part of the Sahara is occupied by vast highlands, some of the most typical being the Hoggar Plateau and the Ahaggar massif (of which the highest peak, Mount Tahal, reaches 2,908 m above sea level), both of volcanic origin. Of the same type are the Tibesti Mountains (the highest

<sup>&</sup>lt;sup>1</sup> See E. Anderson, *The Middle East: Geography and Geopolitics*, (London: Routledge, 2000); D. J. Stewart, *The Middle East Today. Political, geographical and cultural perspectives*, (London: Routledge, 2009), Chapter "The Geography of the Middle East and North Africa", 16–40.

being Emi Kussi -3,445 m above sea level) and the Ennedi Plateau uplands (1,450 m above sea level). Another characteristic of the Sahara, in addition to its highlands, are the so-called 'plate' lands, inselbergs and basins, which include the Libyan Desert. In the East, a basin extends to the massifs of the Arab and Nubian Desert and the uplands of Kordofan and Darfur. The interiors of these great basins are occupied by two types of deserts: gravel serirs and dune ergs.<sup>2</sup>

The main occupation of the majority of the Maghreb population is agriculture and farming. Agricultural production and the rhythm of agricultural work depend mainly on the amount of rainfall and territorial water relations. In the Maghreb, there are two seasons – a dry, hot summer and a cold, damp winter. In summer, masses of hot air flow from the Sahara, and in winter, air flows in from the Atlantic Ocean and the Mediterranean Sea. Generally speaking, temperatures increase from north to south, but irregularities associated with varying elevations above sea level are characteristic. The dry season in the Maghreb lasts from June to September. The elevation of the mountain ranges and their exposure are the reasons why the majority of the rainfall is received by the northern slopes of the Rif and Tell Atlas, as well as the western slopes of the High Atlas. Much less rainfall is received by the slopes of the Sahara Atlas and the Anti-Atlas, which are separated from the sea by the massifs. Almost half of the territory of Algeria, Tunisia and Morocco receives less than 300 mm of rainfall per year, which makes it practically impossible to conduct diversified farming without irrigation. In other areas, wheat, barley, olive trees, citrus and fig trees are cultivated.<sup>3</sup>

Because of a poorly developed river network and the dry climate in the Maghreb, large river dams and water reservoirs have not been built. In Algeria, the only 'permanent' river is the Chelif, and in Tunisia, it is the Medjerda. Morocco is in a better situation, with several major permanent rivers including the Moulouya and the Sebu. Wherever possible, local irrigation is being conducted and slopes are being strengthened through afforestation in order to prevent erosion. As a result, in some areas, especially in Morocco, traditional ground-based (*segi* or *segu*) and underground (*foggara* in Algeria; *khettara* in Morocco) systems have been widely developed and successfully bring water to the fields.<sup>4</sup>

<sup>&</sup>lt;sup>2</sup> J.A. Gritzner, Ch.F. Gritzner, *North Africa and the Middle East*, (New York: Chelsea House Publishers, 2006), Chapter "Natural Landscape", 8–25.

<sup>&</sup>lt;sup>3</sup> Ibid., Chapter "Climate and Ecosystems", 26–38.

<sup>&</sup>lt;sup>4</sup> Stewart, 20, 25.

Under the Sahara, there are vast resources of fresh groundwater that was trapped several thousand years ago in the course of climate change and the formation of the desert. Currently, the water is streaming down from the Atlas Mountains to underground storage tanks. Under the surface, there is a huge subterranean freshwater sea. According to estimates from 2012, the volume of groundwater in North Africa amounted to about 660,000 km<sup>3</sup>, which is 100 times more than the total annual precipitation in the region. Water resources are used in Libva and Algeria. In 1953, huge amounts of deep water were discovered in Libva during explorations for oil. Water is found in the south of the country, in areas virtually uninhabited by humans. At the end of the 1960s, Libya developed a plan to deliver water from the groundwater resources of the Sahara to the cities on the coast of the country. In the time before 1996, as part of this project, 1,300 wells, each 500 m deep, were dug. Pipelines made it possible to deliver around three million meters cubed of drinking water daily to Tripoli, Benghazi, Sirte and other cities in the country. A full implementation of the plan was expected to be completed during the next quarter of a century. However, that implementation has been seriously threatened by the collapsing or drying of already hollow wells. After the fall of Mu'ammar al-Qaddafi in 2011, work on the project of the Great Man-Made River has been suspended. In Algeria in 2009, 1,500 water projects, worth over 2.3 billion USD, were planned.<sup>5</sup>

In North Africa, five countries constitute the region known as the Maghreb. These are: Mauritania, Morocco, Algeria, Tunisia and Libya. The Maghreb countries were under the influence of France, Spain and Italy during the colonial period, and gained independence in the years 1951–1962. The first, Libya, had been an Italian colony since 1912, and before that had been a part of the Ottoman Empire for four centuries, gained independence in 1951. During September 1969, there was a coup, and the military, led by Colonel Mu'ammar al-Qaddafi, took power. The then ruler King Idris was ousted from power, and the political system was changed from a kingdom to a republic.

In 1956 the system by which Morocco and Tunisia were French protectorates was abolished, which meant that the two countries became independent states. In Morocco, the power elite which was formed by the royal family of the Alawite clan, derived from the Prophet Muhammad, remained. King Muhammad V became the head of state, and after his

<sup>&</sup>lt;sup>5</sup> Gritzner, Gritzner, 32–4.

<sup>&</sup>lt;sup>6</sup> D. Vandewalle, *A History of Modern Libya*, (Cambridge: Cambridge University Press, 2006), 46–50.

reign, power was taken by his son Hassan II and then his grandson Muhammad VI. There was a change in Tunisia, where in the days of the French protectorate a formal ruler was the Bey. The country became a republic and power was taken by the New Destour Party, which played a major role in the struggle for independence. It was led by Habib Bourguiba who became the first president of independent Tunisia. During November 1987, there was a palace coup and Bourguiba's place was taken by Zine al-Abidin Ben Ali. The events of January 2011, known as the Arab Spring, put an end to his rule.

The fate of the Spanish colony south of Morocco, known as the Western Sahara, was a stormy one. Spain withdrew from the territory and it was annexed by Morocco in 1957. However, not all residents of the Western Sahara came to terms with this fact, and soon a Saharan independence movement, known as the Polisario Front, was born. This movement objected to colonization by the Spanish, then continued an armed struggle against Morocco and Mauritania, and since 1979 has fought against Moroccan control of Western Sahara and received support for their struggle from Algeria.

Three other North African countries – the South Sudan, the Sudan and Egypt – form the regions of the Upper and Lower Nile. The region is unique because of the great river flowing through it. The Nile flows into South Sudan from Uganda, and below the city of Juba it flows as the Bahr al-Jabal (the Mountain Nile) to the Great Upper Nile region. In the South Sudan, the Nile merges with a large tributary of the Bahr al-Ghazal, thanks to which it becomes a larger river called the White Nile (al-Bahr al-Abyad). In Khartoum, it connects with its largest tributary, the Blue Nile (al-Bahr al-Azraq), which flows from the Abyssinian Plateau. The two combined rivers then flow through the desert terrain in a deep valley with six granite sills called cataracts. Below the last of them, called Cataract I, the Nile flows through a broader bed known as the oasis of the Nile. On reaching Cairo, the river splits into many arms and then flows into the Mediterranean Sea 9

\_

<sup>&</sup>lt;sup>7</sup> See R.C. Pennell, *Morocco since 1830. A History*, (New York: New York University Press, 2000), 292–4; J.-F. Martin, *La Tunesie de Ferry à Bourguiba*, (Paris: Éditions l'Harmattan, 1993), 162–164; K.J. Perkins, *A History of Modern Tunisia*, (Cambridge: Cambridge University Press, 2004), 111–2.

<sup>&</sup>lt;sup>8</sup> See M. Ould-Mey, *Between Hammer of Economic Globalization and the Anvil of Multiparty Factionalism*, in Yahia H. Zoubir and Haizam Amirah-Fernández (eds), *North Africa. Politics, Region, and the Limits of Transformation*, (Abingdon and New York: Routledge, 2008), 84–5.

<sup>&</sup>lt;sup>9</sup> Gritzner, Gritzner, 19–20.

From ancient times, the Nile determined the economy of the region through which it flowed. At the same time, the economic activity of men affected the territorial water relations in the river valley. Under natural conditions, the Nile level was elevated and then fell by nearly eight meters, flooding the valley floor and the delta plain. As a result, the silts deposited at the bottom were left on the land, giving the soil high fertility levels. Over the millennia, river valley canals have been built in order to bring water to the higher levels of the valley, and for the last century the flood water has been collecting in large reservoirs, the largest of which is Lake Nasser in Aswan. The Nile oasis area is occupied by arable fields where cotton, sugar cane, wheat, rice, clover and date palms are grown. After the construction of dams on the White Nile and the Blue Nile, a large part of the land of Gezira in the Upper Nile region has become an artificial oasis and been developed mainly for the cultivation of cotton.

The countries of Egypt and the Sudan, located in the lands of the Upper and Lower Nile, came under the influence of the British in the early twentieth century. Egypt became formally independent in 1922, but the British continued to control it, and especially the area of the Suez Canal, on the basis of an alliance treaty imposed upon the country. British troops were stationed in the Suez Canal zone, and this fact was a major source of social discontent, which erupted in July 1952 in the form of a military coup, and heralded the beginning of deep political, social and economic transformations in the most populous country of the Middle East. King Farouk was ousted from the throne, the kingdom was soon overthrown, and a republican system of government was introduced. Gamal Abdel Nasser stood at the head of this new government.

The Sudan freed itself from the colonial rule of Great Britain in 1956, proclaiming its independence on the first of January. The country's level of development at the time was very low, and control over water resources was fundamental to the future of its inhabitants. In 1959, the Sudan and Egypt signed an agreement on the use of Nile waters. In the absence of an extensive irrigation system, Sudan used only 30% of the water, as stipulated in light of the agreement.<sup>11</sup>

<sup>&</sup>lt;sup>10</sup> See P.J. Vatikiotis, *The Modern History of Egypt*, (London: Weidenfeld and Nicolson, 1969), 259; J. Marlowe, *A History of Modern Egypt and Anglo-Egyptian Relations 1800–1956*, (Hamden, CT: Archon Books, 1965), 233–5; P. Mansfield, *The British in Egypt*, (New York, Chicago, San Francisco: Hold, Rinehart and Winston), 1971, 297–300.

<sup>&</sup>lt;sup>11</sup> G. Joffé, "The Changing Geography of North Africa. Development, migration and the demographic bomb," in G.P. Chapman and K.M. Baker (eds), *The* 

The second part of the Middle East is located in Western Asia. There are five major geo-physical regions: the Iranian Plateau, Mesopotamian Plain, Asia Minor, Syrian-Palestinian Upland and the Arabian Peninsula.

The Mesopotamian Plain is a large depression with a length of 1,200 km and a width of 300 km. It is a basin with two great rivers, the Euphrates and the Tigris, flowing through it. It is divided into a northwestern part called Upper Mesopotamia (al-Jazeera) which includes the foothills of the Kurdish Mountains, a plain diversified with low hills, and a southeastern part, Lower Mesopotamia (Babylonian Plain), which is a flat lowland at 100 m above sea level.

The Eastern Mediterranean is a strip of land located along the shores of the Mediterranean Sea from the Taurus Mountains in the North to the Arabian Peninsula in the East and the Sinai Peninsula in the South. Vertical tectonic movements led to the formation of sinkholes and grabens that run both parallel and perpendicular to the shores of the Mediterranean Sea. The Eastern Mediterranean is split into small pools with no outflows, and only a few rivers flow into the Mediterranean Sea from the western slopes of the mountains and the areas to the North. One of them, al-Asi (Orontes), flows towards the North, and the second, the Litani (Leontes), to the South. The river Jordan springs from the Anti-Lebanon Mountains. It flows through the Lake of Gennesaret and Lake Hula, and flows into the Dead Sea, which lies in a depression at a depth of 392 m. The Jordan River, the Lake of Gennesaret, Lake Hula and the Dead Sea lie in the great rift valley known as al-Ghur. Together with the surrounding fault blocks, this constitutes the historic land of Palestine. <sup>12</sup>

In the north of Palestine, the Lebanon Mountains are separated from the Anti-Lebanon Mountains by the al-Bika (Beqaa) valley. The valley, with a width of about 14 km, is occupied by the lower course of the river Litani. The difference in height between the bottom of the valley and the peaks of Lebanon is about 2,200 m above sea level. The highest summit in the range, Qurnat al-Sawda, reaches 3,083 m above sea level. The northern part of the plateau meets the Taurus Mountains. Each of these areas represents a different type of geological structure. The forms of the Taurus Mountains are less massive and more even than the Lebanon Mountains, and the valleys lying between the two can be characterized as dales.

The Eastern Mediterranean has a subtropical climate. Winters are short and rainy, and summers are long, hot and dry. The eastern part of the

Changing Geography of Africa and the Middle East, (London-New York: I.B. Tauris, 1992), 144.

<sup>&</sup>lt;sup>12</sup> Gritzner, Gritzner, 12.

plateau is exposed to the influence of the Asian mainland, more specifically a continental climate, expressed in large daily temperature fluctuations and reduced rainfall. The red or brown soil which is conducive to growing plants is only present on some parts of the coastal and western slopes of the mountains. Significant areas of the mountains are devoid of any kind of soil cover. The Lebanon Mountains are covered by cypress, maple and cedar forests, and above 2,000 m above sea level, alpine vegetation grows. Palestine has the driest climate. The rivers here are small and mostly run dry in summer. In the southern part, various forms of desert vegetation are common.

The largest Asian peninsula, the Arabian Peninsula, lies in Southwest Asia. It occupies about 2.6 million square kilometers and is located in a zone of huge deserts. As a result of geological processes, the Arabian Peninsula is a plate, elevated in the south-west and gradually lowering towards the north-east. In the East, the plate breaks off and forms the edge of the Mesopotamian depression and the Persian Gulf. The southeastern end of the peninsula is formed by the al-Jabal al-Akhdar Mountains, rising to a height of 3,009 m above sea level. The desert of the Rub al-Khali ('the empty quarter'), which is a much lower area at 500 m above sea level, stretches to the West. The northern, interior part is occupied by a rather uniform landscape at an altitude of 1,500 m above sea level. The Arabian Peninsula is characterized by a dry, hot climate, vast rocky and sandy deserts and a lack of permanent rivers. <sup>13</sup>

In the southwestern part of the peninsula lie the Jabal al-Hejaz Mountains, which rise to a height of 3,133 m above sea level (Jabal Sawda). The mountains of the Yemen extend to the South. Because they receive relatively high rainfall, the river network there is relatively dense, and some of the upper currents of the rivers are permanent. The highest peak of the Peninsula, Jabal an-Nabi Shu'ayb (3,666 m above sea level), is in the mountains of the Yemen. To the East, the mountains continue through the lowland areas of Oman.

To the East of Jabal al-Hejaz, a plateau stretches, rising to a height of 2,000 m above sea level. It is covered by a large area of basalt lava fields and cuestas, with ridges facing to the East, separated by sandy deserts. The plateau continues to the East towards the Plain of al-Hasa, decreasing in height above sea level as it reaches towards the Persian Gulf. This part of the peninsula is sandy and partly rocky, with numerous water sources and

<sup>&</sup>lt;sup>13</sup> Ibid., 10.

wetlands created by groundwater flowing to the surface. Off the coast are the islands of Bahrain, with rich groundwater resources near the surface. <sup>14</sup>

The climate of the Arabian Peninsula is desert, and the maximum and minimum temperatures are 55°C and -10°C respectively. Precipitation is low (with the exception of the al-Jabal al-Akhdar Mountains and the mountains of the Yemen, which get up to 1,000 mm). Along the coasts of the Arabian Sea and the Red Sea, the air is hot and humid. There are no permanent rivers on the peninsula, and only periodically, after the winter rains, are the valleys filled with water. Therefore the groundwater plays an important role, giving rise to wells and oases. Approximately 95% of the surface of the peninsula is dominated by desert and semi-arid vegetation. The rest consists of forests and farmlands used for date palm cultivation; this plant is extremely useful to residents and is of particular importance to the area <sup>15</sup>

The southern part of Western Asia comprises of 13 countries, in both the Arabian Peninsula (Saudi Arabia, the Yemen, Oman, the United Arab Emirates, Oatar, Bahrain and Kuwait) and areas of the Fertile Crescent (Iraq, Syria, Lebanon, Israel, Palestine and Jordan). All the countries of this region, with the exception of Israel, are dominated by Islam, the Arabian people and the Arabic language. From an economic point of view, this is a resource-rich area, with huge amounts of both oil and natural gas. The production, export and processing of these raw materials dominate the economy of the region. In some countries, another important branch of the economy is agriculture, although from the point of view of land usage, the major part of the landscape is barren, made up of deserts and semi-deserts. During the colonial period, the region's countries were formally part of the Ottoman Empire, but in reality they were in a zone of British and French influence. Lebanon and Syria were handed down to France by the League of Nations as mandated territories and finally gained independence in 1943-1946. The area known today as Israel and Palestine, together with Jordan, formed a unit known as Palestine, which was given to the United Kingdom as mandated territory. The same was true of Iraq. The British authorities in Iraq established the kingdom of the same name, and those in Palestine, the kingdom of Transjordan (later Jordan). After World War I, there were major changes in the population of Palestine due to the influx of Jewish immigrants. The conflict, which arose as a result of this background, led to the division of the country into two parts – specifically, Jewish and Arab. Both were to be separate states, but the war, which broke

<sup>&</sup>lt;sup>14</sup> Ibid., 11.

<sup>&</sup>lt;sup>15</sup> Ibid., 32–4.

out in 1948, led to the creation of only one, that being a Jewish state under the name of Israel. The second state, Palestine, was not created, and only in the 1990s was the Palestinian National Authority formed as the nucleus of a future Palestinian state. <sup>16</sup>

The current states of the Arabian Peninsula were the last in the entire Middle East to gain independence. That was the case with six emirates in the Persian Gulf which were protectorates of Great Britain, and merged in 1971 into the state called the United Arab Emirates (Ras al-Khaimah joined the federation in 1972). The other three British protectorates, Bahrain, Qatar and Kuwait, declared independence in the years 1960–1970. Oman was not formally a British protectorate, but its rulers concluded treaties with Britain, agreeing on alliances regarding defense issues, and forged agreements with other countries. Great Britain controlled the Yemen. Aden, the major port of the country, together with the adjacent areas, was part of the British protectorate from which it gained independence in 1967.<sup>17</sup>

In the north of the region, there are two non-Arab countries: the Republic of Turkey and the Islamic Republic of Iran. The two countries differ in many respects from the Arab countries, as well as from each other. The Republic of Turkey has existed within its current boundaries since 1923, and as a state it has inherited the traditions of the Ottoman Empire, although after World War I, a serious transformation of the society and economy of the country was introduced. These changes are associated with Mustafa Kemal (Atatürk).

Iranian statehood dates back several thousand years, and Iran has never lost it. In 1925 there was a change of dynasty in the country: the Qajars were removed from power, and their place was taken by the Pahlavis. In 1935, the new rulers changed the name of the country from Persia to Iran. Another change, even more profound, occurred in 1979, when the Pahlavis had to hand over power to new political forces under the leadership of Ayatollah Ruhollah Khomeini.

<sup>&</sup>lt;sup>16</sup> See E. Rogan, *The Arabs. A History*, (London: Allen Lane, 2009); D.K. Fieldhouse, *Western Imperialism in the Middle East 1914–1958*, (Oxford: Oxford University Press, 2006); M. Tessler, *A History of the Israeli-Palestine Conflict*, (Bloomington: University of Indiana Press, 1994); I. Pappé, *A History of Modern Palestine*, (Cambridge: Cambridge University Press, 2006); J.L. Gelvin, *The Israel-Palestine Conflict. One Hundred Years of War*, (Cambridge: Cambridge University Press, 2005).

<sup>&</sup>lt;sup>17</sup> See J.C. Hurewitz, *Middle East Politics: The Military Dimension*, (New York: Praeger, 1969); Sh. Chubin, *Security in the Persian Gulf: The Role of the Outside Powers*, (Aldershot: Gower, 1981).

The Republic of Turkey lies on two continents. Approximately 97% of it is in Asia, in the geographical regions known as Asia Minor and the Armenian Upland. The remaining 3% of Turkey is in Europe, on the Balkan Peninsula. Asia Minor is the westernmost peninsula of Asia, forming a bridge between Asia and Europe, a region devoid of forests and mesas which lies at an altitude of 800 m above sea level in the West and rises to 1,500 m above sea level in the East. In the center of the peninsula is the Anatolian Plateau, with volcanic cones reaching heights of almost 4,000 m (Erciyas – 3,916 m). To the West, agricultural areas are located in many mountain dells. The Black Sea coastal strip also has favorable conditions for vegetation, and there are numerous fruit orchards and areas of farmland there. <sup>18</sup>

In contrast, Iran lies in a vast land called the Iranian Plateau which occupies approximately 2.7 million kilometers squared, and extends from the Caspian Sea and the Turan Lowland in the North to the Persian Gulf and the Arabian Sea in the South. In the West, the region borders on the Armenian Upland, and in the north-east, on the Pamir. The geological structure of Iran is very complicated. The Iranian Plateau is an area with almost no outflows and little in the way of water resources. The Iranian Plateau's climate is hot and dry during summer, and in winter, is characterized by temperatures as low as -20°C in Tehran. Vegetation is scarce there, the land itself comprising mostly desert and steppe terrain. In the Zagros Mountains, Miocene layers are rich in oil deposits, which are also present in the northern areas of the Caucasus Mountains.

#### 1.3. Resources

The greatest natural wealth of the Middle East is oil and gas. Oil was discovered in 1859 in the US, and in the early twentieth century its supply satisfied 4% of the global energy demand. At the end of the first decade of the twenty first century, oil has already satisfied 40% of the global demand for energy. The continued increase in demand for this raw material and the related rapid development of the oil sector was expected. According to data from 2011, the proven oil reserves in the world at that time amounted to 1.38 trillion barrels. The resources of the Arab countries were estimated at 681 billion barrels, which accounted for approximately 58% of the world's reserves and deposits of this material, with 20% belonging to Saudi Arabia alone. At the same time, natural gas found in the Middle East

<sup>&</sup>lt;sup>18</sup> Gritzner, Gritzner, 12.

<sup>19</sup> Ibid.

accounted for 29% of world reserves. According to other sources of data, the Middle East contains up to 66% of global oil reserves. It is estimated that probable reserves of this raw material in Arab countries could amount to around 300 billion barrels.<sup>20</sup>

Other documented resource estimates are more moderate, but confirm that the largest oil reserves in the world are in the possession of Saudi Arabia. In 2010, they were estimated to have 11.6% of global resources. In second place was Iran with 4.9%, with other countries in rank order as follows: UAE - 3.3%; Kuwait - 3.0%; Iraq - 2.9%; Algeria - 2.5%; Libya -2.1%; Oatar -1.4%; Oman -1%; Egypt -0.8%; Syria -0.5% and the Yemen – 0.3%. The Middle East is therefore supposedly the owner of about 35% of all documented oil resources. The countries of the MENA region were also the largest oil producers. In 2009. Arab countries extracted 21.5 million barrels per day, one third of this production taking place in Saudi Arabia. The extraction of oil in Saudi Arabia in 2010 accounted for 19.4% of world production, and from Iran, 10.2%. Other countries extracted the following percentages: Iraq - 8.5%; Kuwait -7.7%; UAE – 7.2%; Libya – 3.3%; Qatar – 1.9%; Algeria – 0.9%; Oman – 0.4%; Egypt – 0.4% and the Yemen and Syria – 2% of the world's production. Therefore, oil extraction in MENA countries constituted 62% of worldwide production in 2010. At the yield level of December 2010. Saudi Arabian resources would allow them to extract oil for over 70 years. For Iran, the extraction could continue for almost 90 years; for Iraq, 128 years; for Kuwait, 110 years; for the UAE, 94 years; for Libya, 76 years and for Oatar, 45 years.<sup>21</sup>

However, not all of the countries in the region have oil deposits. Those that do not are: Bahrain, Israel, Jordan, Lebanon, Mauritania, Morocco and Somalia. Other countries – Egypt, the Sudan, the South Sudan, the Yemen, Syria and Tunisia – have oil, but in terms of amounts cannot match up to Saudi Arabia or Algeria. Just to compare: if the proven reserves of Saudi Arabia in 2007 amounted to 262 billion barrels, the figure for Tunisia was just 0.4 billion barrels. Similarly, if the resources of Iran were estimated at

<sup>&</sup>lt;sup>20</sup> See "Oil reserves," *The Economist*, 9.06.2011, http://www.economist.com/node/18805887 (accessed 10.10.2012); R. Arezeki, M.K. Nabli, *Natural Resources, Volatility, and Inclusive Growth: Perspectives from the Middle East and North Africa*, (Washington, D.C.: International Monetary Fund Working Paper, April 2012), 3.

<sup>&</sup>lt;sup>21</sup> Ibid.; see N. Diop, D. Marotta, and J. de Melos (eds), *Natural Resource Abundance, Growth, and Diversification in the Middle East and North Africa. The Effects of Natural Resources and the Role of Policies*, (Washington, D.C.: The World Bank, 2012), 6–11.

136 billion, and those of Iraq at 115 billion barrels, in contrast those of Egypt numbered 3.7 billion, and those of Syria just 2.5 billion barrels.<sup>22</sup>

The main natural wealth of the Atlas region in North Africa is found in the form of phosphates. Furthermore, iron ore can also be found in the Atlas Mountains, with deposits located in Algeria and Morocco. In smaller amounts, mercury, manganese, cobalt, nickel, zinc and lead are also present in the Atlas. On the Syrian-Palestinian Upland one can find salt, phosphates and asphalt, as well as small deposits of iron ore and copper.

From the point of view of natural and human resources, MENA countries are divided into three groups: (1) resource-poor countries with abundant labor resources; (2) countries rich in raw materials and labor and (3) countries rich in raw materials but without sufficient workforce resources. The first group comprises Egypt, Jordan, Lebanon, Morocco, Tunisia, Israel and Turkey; the second, Algeria, Iraq, Iran, Libya, Syria and the Yemen, and the third, Bahrain, Kuwait, Qatar, Oman, UAE and Saudi Arabia. Countries in the third group have formed an association called the Gulf Cooperation Council. This organization is in possession of around 40% of global oil reserves. Revenue from oil extraction amounts to almost half of the GDP of this group and contributes nearly 80% of revenue to the budget.<sup>23</sup>

The Middle East is traditionally an agricultural region. People in the Middle East have been engaged in the cultivation of the soil for millennia, regardless of unfavorable natural conditions in the most of the area. First and foremost, MENA countries suffer from a lack of water, which results from the fact that almost half of the region is covered by deserts, and approximately 75% of surface water loss due to evaporation is not compensated for by the rate of precipitation. Coastal areas have better conditions, primarily in terms of the magnitude of precipitation. Abundant rains occur in winter in the mountainous regions of Asia Minor, Zagros and the Alborz Mountains in Iran, the mountains of Lebanon, Israel and the West Bank. Heavy snowfall occurs in Amman and Jerusalem, as well as in the mountains where the Tigris and the Euphrates have their sources. In Izmir and Istanbul, precipitation amounts to about 600 mm per year, and in Beirut and Jerusalem, to about 500 mm, but in Ankara to only 400 mm. In Aleppo, Amman and Tabriz, annual precipitation is about 300 mm,

\_

<sup>&</sup>lt;sup>22</sup> P. Tristam, "Middle East Oil Reserves by Country and Rank," *Middle East Issues*, 2012, http://middleeast.about.com/od/oilenergy/a/me080207d.htm (accessed 12.01.2013).

<sup>&</sup>lt;sup>23</sup> Diop, Marotta, and de Melos, 5.

and in Tehran, Damascus and Sana'a it is about 200 mm. The further south, the less abundant the rainfall. Alexandria receives about 200 mm of rainfall per year, which is five times less than Antalya, which is located about 320 km to the North. However, Cairo, located in south of Alexandria, receives only 20 mm of precipitation per year.<sup>24</sup>

For centuries, water was acquired from rivers, streams and natural pools of rain or melting snow. A system of canals distributing water and water wheels which transferred water from lower to higher levels was built. (In Iran, this is known as *qanat*, while in Egypt it is called *shadufs*, and in the basin of the al-Asi river, *norias*.) Moreover, 'recycling' has long been known, and in recent decades a major water source has arisen from the desalination of sea water.<sup>25</sup>

Water deficiency is a growing challenge due to population growth and a relatively low growth of GDP. This last factor significantly reduces the possibility of investing in the rational uses of water resources. The primary source of water resources in the Arab world is its river networks, while a secondary source is wells and periodical rivers. In 2008, the available water resources in the Arab countries were estimated at 300 million cubic meters. These were mainly surface water resources. However, of 277 million cubic meters of these water sources, only 43% had their origins in the Arab world, the rest coming from sources in neighboring countries. This meant that water from the region's main rivers was shared by neighbors. In the case of the Tigris and the Euphrates these neighbors were Iraq, Syria and Turkey; for the Orontes, they were Lebanon, Syria, Turkey and Jordan: for the Yarmouk, Jordan, Palestine, Syria and Turkey; and for the Nile, nine countries, of which only Egypt and the Sudan were Arab countries. This situation requires cooperation in the form of shared usage of these much needed resources, but international agreements in this sphere are usually temporary and do not solve the tensions and conflicts that have arisen.26

<sup>&</sup>lt;sup>24</sup> See I.R. Manners and B. McKean Parmenter, "The Middle East: A Geographic Preface," in J. Schwedler and D.J. Gerner (eds), *Understanding the Contemporary Middle East*, (London, Boulder: Lynne Rienner, 2008), 18–23.

<sup>&</sup>lt;sup>25</sup> See J. Nasr, P. Kaldijan, "Agriculture in the Middle Eastern cities: Commonalities and contrasts," *Aridlands Newsletter*, Fall/Winter 1997, No. 42, http://ag.arizona.edu/oals/ALN/aln42/nasr.html (accessed 11.11.2012).

<sup>&</sup>lt;sup>26</sup> See *Arab Human Development Report 2009. Challenges to Human Security in the Arab Countries*, (New York: UNDP, 2009), 55; S.B. Awulachew, V. Smahktin, D. Molden, D. Peden, *The Nile River Basin. Water, Agriculture, Governance and Livelihood*, (London: Routledge, 2013).

According to many studies, during the early part of the twenty first century, the Middle East was in the early stages of a crisis with regards to its shrinking water resources. The Joint Arab Economic Report of 2001 estimated water resources to be in the region of 265 billion cubic meters. which accounted for 1,000 cubic meters per single inhabitant. This represents a sevenfold deficit in relation to the world average. The most vulnerable nations were Kuwait and the United Arab Emirates, with Bahrain, Iraq, Palestine, Oatar and the Yemen not faring much better. The report underlined the much anticipated fact that with the expected increase in population, these resources would be reduced to 460 cubic meters per capita, which is below the minimum international standards. Moreover, most of the identified resources are located large distances from population centers, forcing the creation of a water transport system and therefore additional investment. The possibility of territorial water disputes breaking out between neighbors in the future cannot be excluded. However, it may also be assumed that the need to secure access to water will encourage neighbors to work together.<sup>27</sup>

MENA countries, which in 2012 were inhabited by approximately 6.3% of the world's population, had access to only 1.4% of global freshwater resources. While in other regions of the world, 7,000 cubic meters of water per year fell per one inhabitant, then the resident of MENA had at his disposal only 1,200 cubic meters per year. The region used more than 75% of its drinking water resources, and the situation of its residents was about to worsen dramatically due to growth in both population and the industrial and service sectors. It is estimated that in the year 2050, each inhabitant of the MENA region will receive about 200 cubic meters per head of potable water per year. Moreover, as a result of global warming, precipitation is predicted to decrease by around 20%. <sup>29</sup>

In the Middle East, about 85% of water is used for irrigation. In 2012, the efficiency of water used for irrigation was at the level of 50–60%, while in the southwest USA and Australia, which have similar climatic conditions, it was around 80%. Heavy use of water is also generally made by municipal authorities, accompanied by high power consumption. Some

<sup>28</sup> S. Zafar, "Water Scarcity in MENA," *EcoMENA. Powering Sustainable Development in MENA*, December 31, 2012, http://www.ecomena.org/water-scarcity-in-mena/ (accessed 13.01.2013).

<sup>&</sup>lt;sup>27</sup> Arab Human Development Report 2009, 56.

<sup>&</sup>lt;sup>29</sup> See *Agriculture and Rural Development*, The World Bank, January 2013, http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/0,,contentMDK:20528258~pagePK:146736~piPK:226340~theSitePK:256299,00.html (accessed 13.01.2013).

of the consumed water could be recycled, but the suitable equipment is lacking.<sup>30</sup>

Another major problem is limited amounts of suitable arable land. In the Arab world in 2009, almost 55% of the region was taken up by wasteland. Pastures occupied 26.8% of the region, and arable land only 4.2%. Forests took up about 4% of the region and were mainly in the Sudan, Algeria and Morocco. In 2005, resources of arable land were estimated at 53 million hectares, which equates to 0.17 ha per inhabitant. At this time the world average was 0.22 ha per capita.<sup>31</sup>

Despite the unfavorable conditions, agriculture plays an important role in the economies of most countries in the Middle East. The contribution of agriculture to the creation of Gross Domestic Product ranged in 2012 from 3.2% in Saudi Arabia to 13.4% in Egypt, and although agriculture was not ranked in first place among sectors of the economy, the fact that farmers represented around 40% of the total number of the employed means that agriculture must be treated as an important branch of the economy. This is especially true for those countries in the region that do not have oil and gas. For the entire MENA region, at the end of the first decade of the twenty first century, agricultural exports accounted for about 20% of exports. In 2006, the gross domestic product derived from agricultural activities amounted to 88 billion USD, which accounted for 12% of the entire GDP of MENA countries.<sup>32</sup>

Villages were inhabited by about 132 million people, representing 42.5% of the whole population. Agriculture was the source of livelihood for approximately 70% of rural residents. The dominant form of agricultural activity in the Middle East is small farms, run by farmers who lease land from large landowners. These tenants and smallholders constitute approximately 80% of the rural population. The second component of rural communities is landless peasants, who depend on seasonal work on farms owned by landowners or tenants.<sup>33</sup>

Generally, the agricultural sector in the Middle East is facing serious problems. Between 1950 and 1980 there was a significant outflow of population from agricultural regions, and this trend continued until the end of the first decade of the twenty first century. MENA countries suffered

<sup>&</sup>lt;sup>30</sup> S. Hasan, "Managing Water-Energy Nexus for Better Tomorrow," *EcoMENA*. *Powering Sustainable Development in MENA*, January 11, 2013, http://www.ecomena.org/water-energy/ (accessed 14.01.2013).

<sup>&</sup>lt;sup>31</sup> See G. Siam, "Food Supply Crisis and the Role of Agriculture in the Middle East and North Africa (MENA) Region," *Panorama*, Med. 2009, 235.
<sup>32</sup> Ibid

<sup>33</sup> Ibid.