



Food Security

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Food security in the MENA Region:

The agricultural sector

I. Definition

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

1. Food Security has four components:

- Availability: Sufficient quantities with good quality.
- Accessibility: adequate resources to acquire appropriate foods.
- Stability: access to adequate food at all times, no risk.
- Uses: consumption of food through adequate diet, clean water, sanitation, and health care.

II. Contribution of Agriculture to GDP

Agriculture and Services are the two major economic factors that contribute to GDP in most MENA Countries.

Agriculture contributes as high as 30% of the GDP or more, like the case of the West Bank and Gaza.

Within the non-oil manufacturing sectors of MENA countries, textiles and garments are an important sectors.

III. Agriculture Productivity Growth in MENA Countries

Table Below; Some indicators of Agriculture for all MENA countries.

The region's share of agriculture in GDP is decreasing in the majority of MENA countries.

Agriculture Productivity Growth in MENA Countries

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Table: Some indicators of Agriculture for all MENA countries

<i>No.</i>	<i>Countries</i>	<i>1970</i>	<i>2000</i>
		<u><i>Share of agriculture in GDP (%)</i></u>	
1	Algeria	9.21	8.77
2	Egypt	29.42	16.70
3	Iran	11.9	15.11
4	Iraq	-	-
5	Israel	-	-
6	Jordan	11.64	2.26
7	Lebanon	9.01	11.94
8	Libya	2.39	5.04
9	Mauritania	29.27	21.94
10	Morocco	19.93	13.83
11	Saudi Arabia	4.54	4.94
12	Sudan	43.61	41.15
13	Syria	20.16	22.65
14	Tunisia	17.03	12.35

15	Turkey	39.54	15.36
16	Yemen	-	14.07
	Mean	12.61	11.12

^a The value corresponds to the year 1974; - = not available; ^b The value corresponds to the year 1987. Source: WDI (2004) database.

IV. Reason of Decreasing Agriculture Contribution in GDP within MENA

Being optimistic, one could say the other economic sectors has growth much more than agriculture.

Service sector, tourism has growth drastically like the case of Egypt, Morocco, and other.

Also, the increase of Oil prices has also made the oil-related industry to grow more in the oil producing countries.

But is this really what happened?

V. Reasons of Decreasing Agricultural Contribution in GDP within MENA

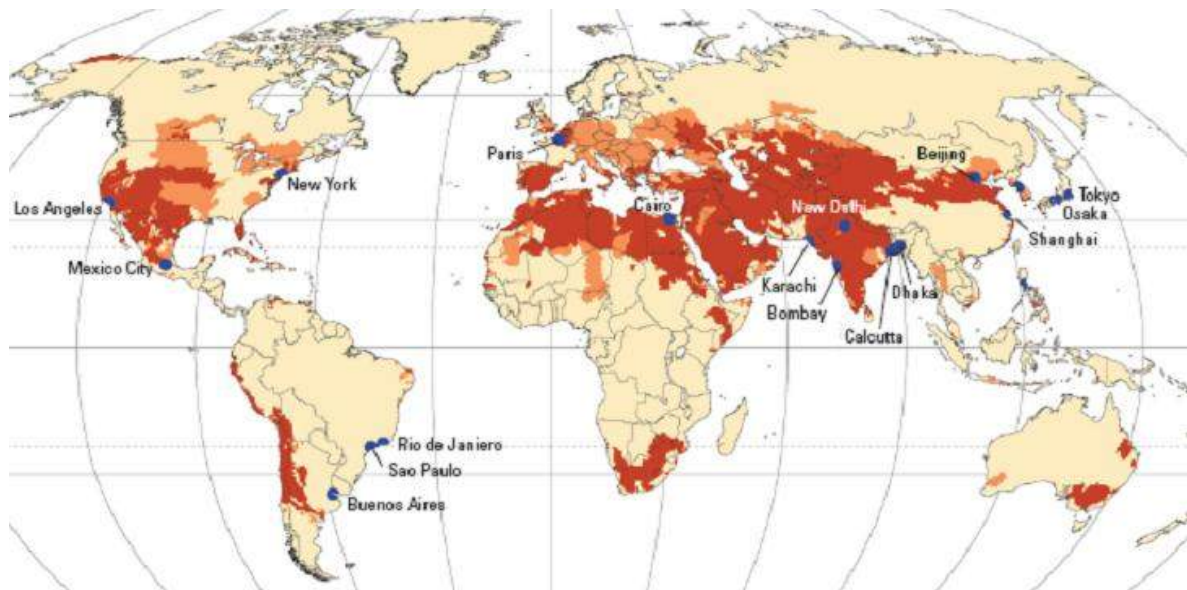
Reason for the drop in agriculture productivities are:

- 1.Scarcity of water.
- 2.Losing competition to bigger Economy at the Country level.
- 3.Landownership.
- 4.Accessibility to Agriculture Lands.
- 5.Modern Technology.
- 6.Agriculture Industries.

1. Scarcity of Water

MENA region is considered to be the most water scarce region in the world, with the highest levels of water deficit.

Projections indicate that per capita water availability will fall by half by 2050



Low water stress
 Medium water stress
 Severe water stress

The majority of the mega cities were found along the coasts. These regions are experiencing mild to severe water stress (particularly in North Africa, Middle East, Asia, Western United States).

1. 1. Water scarcity in MENA: Reasons

Excessive use from surface waters and from underground aquifers.

High variability and low rainfall over space and time.

Inefficient use of freshwater: Poor irrigation practices, leakage in water delivery systems, and excessive consumption.

Pollution of fresh water resources.

Some 60 percent of the region's water flows across international borders, further complicating the resource management challenge.

1. 2. Water scarcity in MENA: Solutions. Desalination of Sea Water

MENA region leads the world in desalination technology investments. With countries like Saudi Arabia is home to 30 percent of the world's desalination capacity, and is the largest producer of desalinated water.

MENA countries are increasingly producing water for municipal and industrial use by removing salt from sea or brackish water.

With an average cost of US\$0.50/m³, this is an expensive source of irrigation water, but can be cheaper than developing new supplies (World Bank 2000).

1. 3. Water scarcity in MENA: Solutions. Re-Use of treated wastewater

Egypt, Kuwait, Jordan, Saudi Arabia, Oman, Syria, Tunisia, and the United Arab Emirates reuse treated domestic wastewater to some extent.

The Gulf countries use about 40 percent of the wastewater that is treated to irrigate nonedible crops, for fodder, and for landscaping.

In Tunisia, around 30 percent of treated wastewater is reused in agriculture and other uses.

Public resistance to using treated wastewater is strong but diminishing

The public is beginning to accept the need for reuse because of the scarcity, especially when used for nonedible crops, gardens, and the like rather than food crops.

There is a need to increase the use of treated water in Agriculture.

2. Losing competition to bigger Economy at the Country level

Many Countries at MENA region is small in size with limited land available to agriculture, as the case of east of the Mediterranean Countries, like Jordan, Lebanon, Palestinian Authority, Syria, and many of the Gulf Countries other than Saudi Arabia.

Vulnerable for bigger competitors from the region and outside.

Cross countries program for integrated agriculture production.

Integrated policies at state level; free taxation of agriculture, integrated agriculture production policies.

3. Landownership

Landownership at small farmer level is getting smaller with every generation due to the inheriting law. The land inherited from the father will be divided by the number of kids he has.

The land of the small farmer is getting too small to farm.

In another MENA countries, the landownership issue is different in a sense that there are few people owning bigger lands and doesn't farm it properly.

There are an attempt by Jordan to have the landownership of Jordan Valley Lands big enough for farming through it Jordan Valley Project. This attempt was back in the 1990s, a case study is recommended to look into this experience to be copied as a solution for the fragmented agriculture lands elsewhere in the MENA region.

4. Accessibility to Agriculture Lands

The agriculture roads are not the best in the world within MENA countries. This limiting the use of the machines for agriculture production and also limit the agriculture land.

Agriculture roads will increase the cultivated land and increase the productivities.

The state has to allocate funds for agriculture road construction.

In another MENA country, the limitation to agriculture land due to political reasons, as the case of Palestine where Israel is limiting the farmers to enter into the Jordan Valley lands which limits moving the products to the markets, and obstruct farming.

Not to forget mentioning the separation wall, Israel is building in the West Bank land, which have block the access to more than 10% of the Palestinian Agriculture lands.

5. Modern Technology

The agriculture becomes an industry with the use of modern technologies, both at the plantation level and on the production level.

There is a variance of using modern technology among MENA countries. Some countries are using technology more than another. There is a need to use advance technology to increase productivities across MENA Countries.

6. Agriculture Industries

There is a variance of the existence of supporting industry to agriculture among MENA countries.

VI. Conclusions

For Food Security; agriculture plays an important role to most MENA countries.

There is a need for an integration agriculture policy between different states within MENA. And continuous update of national agriculture policy.

There is a growing need to find solutions to the problems of fresh water supply. The need to increase the desalination system and the re-use of treated water, as a solution to water scarcity.

The use of technology is inevitable to increase the agriculture productivities and to market the agriculture products.