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مستقبل التنمية الزراعية في الوطن العربي حتى عام 2000

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Translation of chapters One & Two of the Book

“The Future of Agricultural Development in the Arab World until 2000” by:

Mohammed Saied Ahmad Hanafi

**Complementary Research for the Fulfillment of a Master Degree in
Translation**

بحث تكميلي مقدم لنيل درجة ماجستير الاداب في الترجمة

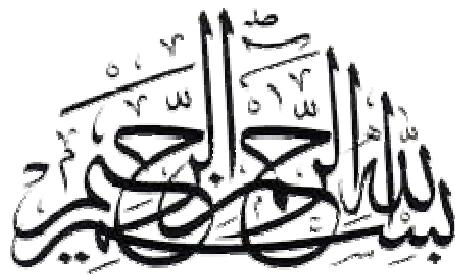
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



وَقُلْ أَعْمَلُوا فَسَيَرَى اللَّهُ عَمَلَكُمْ وَرَسُولُهُ وَ
وَالْمُؤْمِنُونَ سَرُّهُمْ إِلَى عَلِيمٍ الْغَيْبِ وَالشَّهَدَةِ
فَيُنَبَّئُكُمْ بِمَا كُنْتُمْ تَعْمَلُونَ ١٠٥



سورة التوبة

الآية (105)

الإهداء

إلى أمي وأبي ...

إلى أهلي وعشيرتي ...

أهدي هذا البحث المتواضع راجياً من المولى

عز وجل أن يجد القبول والنجاح ...

الشكر والعرفان

حينما نعبر شط العمل الدؤوب .. لا يوجد في دواخلنا سوى أولئك الذين غرسوا زهرًا جميلاً في طريقنا.. أولئك الذين منحونا العزم تلو العزم .. لنتخطى الصعاب ..
ونقف واثقي الخطى .. نشاطرهم الإبداع حرفاً ولغة ..
وربما تتداول الحروف والكلمات .. وربما يعجز اللسان عن التعبير ..
ولكن القلب دائماً يكون الصدق .. فلكم مني كلمات نسجها القلب لكم ..
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كما أخص بالشكر الجزييل والعرفان كل من أنار لنا شمعة في دروب علمنا واعطى حصيلة فكرة
لينير درينا من الأساتذة الكرام في كلية اللغات ، كما أتقدم بوافر شكري وتقديري وامتناني
واخص به من لم يسام في صقل ومتابعة هذا البحث ولم يدخل علي بوقته ولا بنصائحه ولا
بتوجيهاته حتى خرج هذا البحث بهذه الصورة التي بين يديكم ،

الأستاذ: زاكر أحمد علي

الذي تكرم مشكوراً بالاشراف علي هذا البحث، جزاً الله عنا كل خير واحسان

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Abstract

The study consists of an introduction, a preface and two chapters. The introduction outlines the possibility of achieving food security in the Arab world. The preface depicts the reality of the Arab food situation and its relationship with development, initiation of the Arab Organization for Investment and Agricultural Development (AOIAD) and its main objectives and programs, projects that have been completed, lagging projects and reasons behind shortage and lagging of projects of Arab agricultural integration. The first chapter tackles the issue of development in the Arab world, increasing its rates and facing economic domination elements. It also explains the key problems and how to solve them and the shortage of trade balance to provide requisites of development in many countries. The second chapter discusses food problems in the Arab countries, shortage of food productivity capacities and expansion of food gap. It also outlines the problem of food consumption needs of population, the most important economic characteristics of Arab agricultural production and to what extent they affect its capacity, development and products. It also explains characteristics of the Arab crop composition, dimensions of food gap, its development in future, its main goods shortages, its correlation with the Arab food security problem and economic development as well as financing difficulties that correlate with urban growth based on food import. The research clearly highlights food security problem and to what extent the Arab countries need to import main food goods. It also puts forward solutions for economic growth and financing difficulties that are associated with urban growth.

An introduction of the translator

The agricultural development constitutes one of the most important bases of economic development for many countries; particularly in the Arab world. The Arab countries have been looking for a permanent solution for the agricultural development which makes them to face a challenge. The reason behind choosing this book is that it contains many useful information related to the agricultural development in the Arab world, then to translate them to the other countries to make the best use of experience of the Arab countries in this field. The first chapter tackles the issue of development in the Arab world, key problems and how to face them. The second chapter tackles the issue of food problem in the Arab world. The translator was faced by a number of problems; the most important of them are that the author's use of classic Arabic language; the book contains specialized agricultural and economic terminologies and complex Arabic structures. In his translation, the translator tried to translate the intended meaning as possible as it could, and took account of accuracy of agricultural and economic terminologies. The translator used a number of specialized agricultural and economic dictionaries and some electronic dictionaries besides the counsel of the supervisor in translating specialized agricultural and economic terminologies and finding equivalents for them as well as economic and commercial department teaching staff were counseled too.

Introduction

“Except for a little knowledge you have been given nothing”

God Almighty has spoken the truth

If I have to share with my opinion, it will be my long experience, insight practice, closed relationship of mine with land and what it brings forth. All of that is supported by true desire to serve our Arab nation in particular and humanity in general. It is our duty to say a word about agricultural development and food security, which is still and will continue for long period as a base of development in most of the Arab nations. In these few lines, work motives move forward affordable food, abundant prosperity and hope in the future to be achieved otherwise the alternative triggers great fear.

We hope that the reader will not get bored about terminologies, many statistics and various figures that will be mentioned throughout the pages of this book because that is unavoidable, but we can present a subjective fact to pave the way for progress, development and food security.

I call upon the Arab leaders to secure the future requirements for our Arab region and to solve its problems through honesty, wisdom and determination to attain this goal.

No doubt, development in all of this represents regular movement that is affected by conditions of environment, and it also affects them, interacts with them as well as it is governed by political systems, social situations and human values. Development in this way should have its right; otherwise we will lose social peace willingly or not. So what is left for us?

This is our Arab region where the best nation ever to be brought forth for people lives in. It is proud of its past, prides its present and builds its future for the good of its people in a perpetual motion and continued vitality which suits that region located between a furious gulf and a boisterous ocean.

God Almighty has spoken the truth when He says (Say: 'Allah will see your works and so will His Messenger and the believers).

The author

Facts

Do we have the potentials to achieve food security?

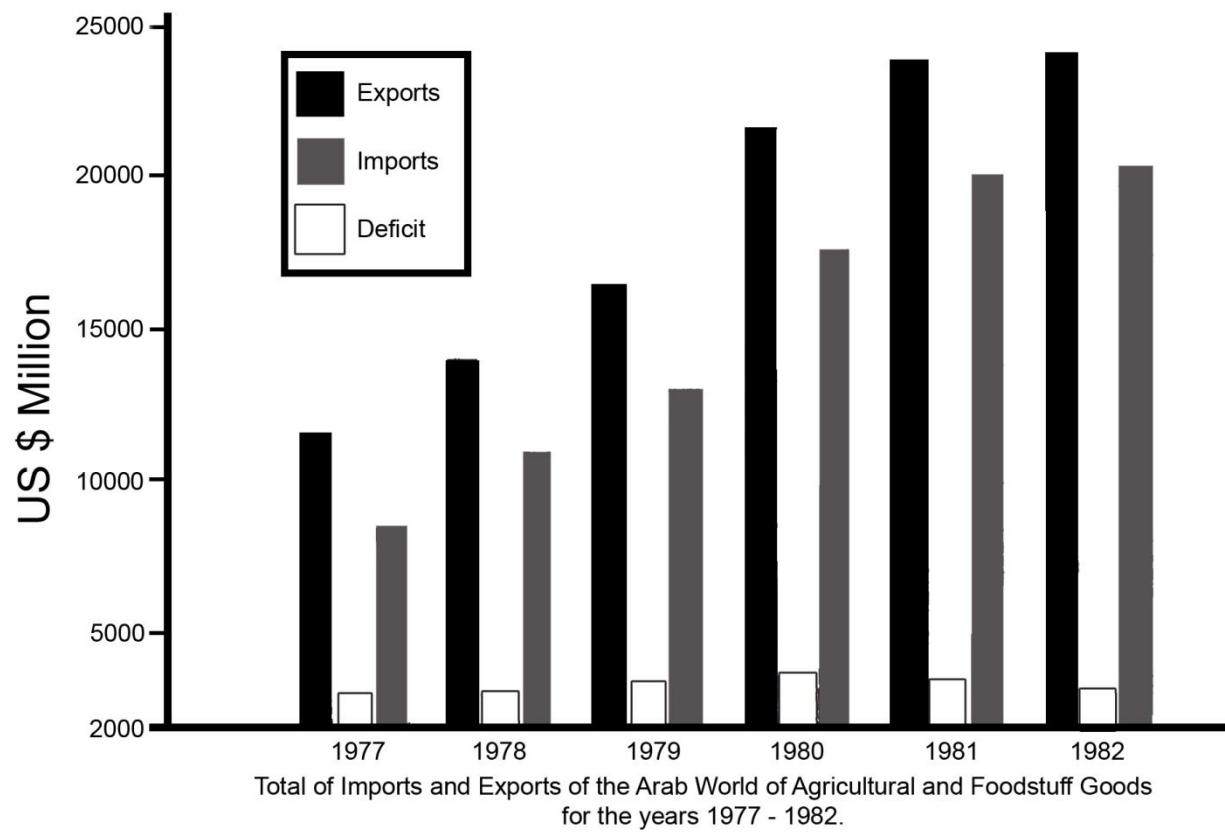
The Arab world suffers from schizophrenia in the distribution of the resources of agricultural development among the Arab countries and here are the facts:

- 75% of agricultural resources are concentrated in poor Arab countries whereas 6% out of that is in rich countries.
- Natural resources are available and agricultural growth potentials are faster, for instance, river water is used in irrigation is 125 billion cubic meters in 1975 and 90% out of that is centered in Sudan, Egypt, Iraq, Syria and Morocco.
- Current irrigated area is 9.3 million hectares while 26.7 million hectares can be irrigated by an increase of 155% (additional 16 million hectares).
- Used underground water is sufficient for 725,000 hectares while we can make the best use of 2 million hectares.
- Current rain-fed agricultural area is 38 million hectares and 85% out of that are found in seven countries (Morocco, Algeria, Tunisia, Sudan, Libya, Syria and Iraq) while potential rain-fed area reaches 80 million hectares.

Dear reader,

I am very optimistic that modern science has overcome all the problems that impede the agricultural development field in the region. Resources are available and need capitals to be invested. But we should be aware of the truth that the Gulf can't make sufficiency of everything unless it makes combination between agricultural techniques particularly from countries such as Sudan and Iraq on one hand and Gulf money on the other hand.

The author



Preface

Reality of the Arab Food situation

No doubt that the food situations in the Arab World are not satisfactory. During the last twelve years, the Arab World experienced serious and fast developments which changed the image that had been existed in the previous decades where exports and imports were in balance. If we view the digital image, we will find that the agricultural production growth in 1970 was 1.9 % of the aggregate production. The agricultural production growth reached (2.5%) in 1982. The demand growth increased from (4.6%) to (6 %) during the period of 1970 to 1982. When imports and exports values development were observed, we found that the imports value increased to 27% between 1975 and 1982 in seven oil countries while in seven agricultural countries it increased to 14%. On the other hand, we observed that the exports volumes declined during the same period. The cotton exports had fallen to 28 %, fruits 13% and oil crops to 22 %.

To clarify food security situation, we should review the degree of self-sufficiency in some main crops in the Arab World as follows:

	In 1974	In 1982
Wheat	51%	35%
Cereals	70%	50%
Fruits	108%	101%
Sugar	33%	26%
Oils	60%	38%
Meat	93%	67%
Milk	71%	53%
Eggs	91%	76%

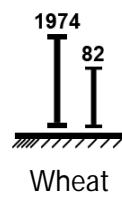


Table (1): A chart of (self-sufficiency of some main crops) for the years 1974 & 1982

It is clear that we are in a decline in regard to self-sufficiency and there is no trace of hope. The Arab World is the most dependent part of the World on foreign food sources. If we look at the value of agricultural imports for a single individual in 1981, it was US\$ 550 in the Arabian Gulf, US\$101 in all Arab World, US\$ 10 in Africa, US\$ 16 in Asia, US\$ 68 in Europe and zero in the developing world. That means its imports are equivalent to its exports while in the developed world the exports cover the imports which means a positive figure. There is no doubt that the treatment requires diversity of national economy resources and enhancing structure of development so as to achieve maximum efficiency of investment of available resources or which might be available for that investment. It also requires diversity in import and export markets until the reliance on raw materials becomes less or depending on specific markets in foreign trade. Consequently, assembling and associating materials in a comprehensive and planned zone in the field of the Arab countries group will create a greater opportunity for diversity and development of economic structure, widening the markets opportunities in the exporting or importing for the vast Arab region which possesses different capabilities and resources. This will not be achieved unless the Arab countries establish and share unified orientation concerning all matters of production, manufacturing and marketing. The Arab countries could take joint procedures and establish integrated and associated organization which will create better opportunities and conditions in the field of foreign trade which will allow them to achieve their interests.

Food Problem and Its Association with Development:

- 1- There are large arable lands in many Arab countries which have not yet been invested though they face food shortage because of some reasons that either due to capital deficit, shortage in human resources and technical skills, inefficiency of organizational and administrative structures in the State, inadequacy of investment plans and its executive programs or other things that hinder its development as far as possible. These factors naturally have direct and indirect influence on production, productivity and utilization of available resources and energy. All of that is related to possibility of providing food and clothes to people because of their necessity for life. Republic of Egypt, for instance, is one of the countries that produces food stuff in large quantities and at the same imports it in large quantities too. Because of its small agricultural areas, Egypt is unable to produce its needs of these materials. It is known that production of these crops competes with the production of cash and manufacturing crops that means any expansion in production of any type will be at the expense of the other. This situation will continue for years.

What aggravates this phenomenon is that the cost of these imports remarkably increased as a result of fast increase in their quantities and prices and are only met by relatively slight increases in their export revenues of these products that led to trade imbalance of these goods particularly in the agricultural Arab countries which basically depend on their agricultural exports to obtain revenues and these countries are overburden as a result of this phenomenon.

- 2- Values of agricultural imports of twenty Arabian countries raised from 1.7 thousand million Dollars in 1971 to 7.0 thousand million dollars in 1975 at a rate of 300%. In return, values of exports of the same products for the same period raised from 1.7 to 2.5 thousand million dollars at a rate of 47% only. Subsequently, the semi-state balance in 1970 had turned into deficiency by amount of 4.5 billion dollars. This deficiency might increase for a round thousand million dollars approximately if costs of fish, forestry products and requisites of agricultural production such as machines, fertilizers and insecticides have been added. The research was published in "Oil and Arab Cooperation Magazine" volume four, first edition 1978. This research was developed and expanded; especially the part that was related to the proposed strategy for the Arab food security.
- 3- At the country level, the trade balance of agricultural goods demonstrated deficiency in eighteen countries excluding Sudan and Somalia. It is known that, this trade balance, in the beginning of this decade, was in favor of seven countries as follows: Algeria, Morocco, Syria, Egypt and Mauritania besides Sudan and Somalia. Algeria, Egypt and Iraq much suffered from imbalance in trade balance where values of their agricultural imports in 1975 amounted to more than two billion dollars that represented 45% of aggregate deficiency in the Arab world on the whole.
- 4- The situation improved to some extent in 1976 in view of successful agricultural season in the Arab region which was accompanied by remarkable decrease in prices of a number of imported agricultural goods such as wheat and sugar. But the production of cereals was decreased in 1977 at a rate of 25% out of production in 1976 especially wheat which decreased in production at a rate of 30% which might overburden importing of this good in world markets.
- 5- The Arab world's structure of imports of agricultural products largely differs from its structure of exports. The following five categories which are put in descending order show the Arab World imports according to the cost of majority of these imports. Therefore, they formed the most important deficiency food goods in the Arab world:

% of imports' values in 1976

• Cereals (especially wheat)	35
• Sugar	22
• Animal food products	17
• Tea, milk and tobacco	12
• Oil seeds and vegetable oils	<u>08</u>
	94%

The most important Arab agricultural exports are raw cotton materials, fruits and vegetables which represent more than 70% of the proceeds from these exports. The origin of the bulk of these exports is Egypt, Sudan, Morocco, Tunisia and Syria which represent 80% of the exports of the Arab world of agricultural commodities.

6- No doubt that the Arab World increasingly depends on imported wheat which represents the most serious element of food gap. From 1970 to 1976, amounts of imported wheat increased from 4.5 to 9.0 million tons. The Arab World consequently imports amounts of wheat that equalizes its average annual production of wheat. Due to an increase in world wheat prices by rate of 500%, importing cost of wheat raised during this period as a result of world prices increase by 500%.

The Arab world imports around 2.1 million tons of sugar, nearly double of its annual production which is 1.2 million tons. Although the quantity of imports this commodity increased by 40% between 1970-1976, the cost of production increased as a result of high price of sugar at the rate of double ten times at the same period (sugar prices severely decreased afterward).

7- Trade exchange volume of key agricultural goods in the Arab World for the year 1985 limited to an inevitable widening food gap at high degree for the majority of these agricultural products if rates of growth continue in production as they were in the previous decade. Analyses of agricultural sector in the Arab World generally outline that annual growth average has not exceeded 2-2.5% while demand growth average in the same period was nearly 5% annually due to population growth and increasing in individual demand.

8- Due to anticipated and fast increase on demand in the future for some agricultural products such as animal, fruit, vegetable and sugar products, It is likely that the annual growth will increase on demand for many agricultural products in the upcoming ten years over the increase recorded in the past years as a result of fast escalation of individuals incomes in rich States in the Arab World. Subsequently, these changes will overburden agricultural sector to face these fast developments in the form and volume of demand for a number of main food products.

The estimated demand size of main food goods in 1985 explained that the production of these goods required an increase by 125% for wheat, 175% for animal products and oil crops and 330% for sugar if Arab World desires to narrow the gap of food production at the same time. It is clear that such increases in most of these goods require high annual growth rates which exceed the scientific ability of these countries even in the absence of overall financial constraints.

9- It is clear that the Arab food sufficiency, or even achieve a reasonable degree of self-sufficiency, has significant and serious economic, financial, social and security dimensions which represent one of the most challenges that face the Arab world for the time being. The significance of this challenge occurs because the Arab world obtains all the required elements to achieve its food and security sufficiency for the time being. For agricultural resources, studies demonstrate that the annual crop area can be expanded for irrigated crops from its current level 10.5 million hectares to 26 million hectares by control and conservation of water of rivers. Rain-fed crops areas can be expanded from their current level of 20 million hectares to 80 million hectares. The vast majority of these capabilities exist particularly in Sudan and the requirements of modern agricultural technology indicate the possibility of doubling productivity of different crops (productivity of animal unit) once at average for the most of crops and animals at least through adaptation of modern technology and expansion in the use of agricultural requisites such as chemical fertilizers.

10- It is clear that the Arab world's concern to deal with this main problem gradually increases particularly after awareness of its social dimensions which represents in subsistence level of the great majority of the Arab citizens who practice farming or live in rural areas. This indicates that the agricultural sector comes on the top of economic and social plans of the most of the agricultural Arab countries. But the key problem that faces the Arab agricultural countries is that most of these countries don't have enough financial potential to encounter effectively the multi-aspects related to agricultural and rural development. Recognizing this reality, the Arab region

began to experience joint Arab activities during the last few years which aim at money flow from countries which have money surplus in the region to agricultural development activities in countries which possess natural resources. No doubt that one of the most important Arab joint activities is the establishment of the Arab Authority for Investment and Agricultural Development which was established by thirteen Arab countries to implement integrated agricultural development program in Sudan.

What is the Arab Investment and Agricultural Development Organization?

It is an important achievement of the Arab cooperation and integration. It was established in 1975 and it is based in Sudan with 150,000,000 Kuwaiti dinars, as a capital shared by thirteen Arab countries.

Although the objective of the Arab Investment and Agricultural Development Organization (AIADO) is the agricultural development in contributing countries for the purpose of providing a large amount of food stuff for these countries and exchange products and agricultural requirements, the supplement agreement of its incorporation stipulated that AIADO is to start its activities in Sudan within frame work of investment plan agreed upon with Sudanese government. The AIADO has prepared n investment program to extent of the year 2000. But the program specifically focused on detailed planning for the first ten years. The amount of required capital was estimated by US\$ 6 million; locating US\$ 3.9 million for productive projects (crops, animal resources, fish and agricultural industries) while US\$ 2.2 million for infrastructure projects such as irrigation, energy, transportation and technical and assistant services. The program was established according to the real estimates for production and agricultural productivity for the time being and in future, moderate rates of growth in productivity and the capacity energy for economy in general and for rural economy in particular. Most of the investments in the first five years have focused on structural projects to facilitate investment and improve capacity of economy during coming up years. The foreign currency needed by the program was estimated by (60%) of the financial requirements, (32% financed by commercial loans, for around (49%) financed by capital, (15%) soft loans and (4%) grants provided and Sudan should provide the financial requirements of local currency.

One of the most features of the program was that it took into consideration the requirements of balance whether they were regional balance, sector balance, or balance between production, projects, services and infrastructure as well as the balance between horizontal and vertical development.

The most important objectives of the program are:

- 1) To expand the total area of crops from 6 million hectares to 8.8 million hectares by 1985, including (600.000) hectares for irrigated agriculture and for around one million hectares for rain-fed agriculture. These objectives were achieved by the establishment of Kenana, EL-Rahaad and AL-Suki Projects.
- 2) To multiply cereals production in 1985, with exporting surplus which reaches (800.000) tons. These objectives have almost been achieved by now, before the deadline. But oil cereals are expected to increase their production to 3 million tons, with exporting surplus for around (900.000) tons.
- 3) To increase meat production from (350.000) tons to (850.000) tons, with a surplus for export which reaches (100.000) tons.

The main program of the organization includes 100 projects:

The main program of the organization includes 100 projects. The total investment to implement these projects is estimated by (2.3) billions Sudanese pounds .These projects are classified into three investment groups:

A/ The projects group suitable to co-finance with commercial yielding: include (31) projects in the sectors of vegetable crops and animal production, agricultural industries and complementary industries and services. This group accounts around 45% of the total investment.

B/ The Agricultural and Industrial Development Projects Group: they are of profitable economic returns, but they are only suitable for Sudanese investors and producers. They are mainly concerned with modernizing conventional agricultural production and develop 25 projects and it holds (25%) of the total investments

C/ The Main Infrastructure and Services Projects Group such as the projects of transportation, irrigation water control, distribution and generation of electricity energy, grains stores and development of manpower. It includes 44 projects and accounts for 29% of the investments. As a result of administrative and financial problems, the organization couldn't achieve the program and was forced to focus during the first five years on agricultural industries which were small projects so that they failed to achieve the required level of influence on the agricultural economy in Sudan.

Some models for these projects are mentioned as follows:

1- The Projects which have been achieved:

a) Kenana Sugar scheme:

The project is financed by joint Sudan, Kuwaiti, Saudi, Gulf, Japanese and European capital. The project apparently succeeded and proved high quality of Sudanese –Arabian management. The results which were achieved from the projects exceeded its accomplishments in the field of social and regional development as well as creating rural developmental center and enhancing related and supported industries and services.

b) Kuwaiti Poultry Project:

It was established by private Kuwaiti capital amount to (55) Sudanese million Pounds and aims to produce seven millions poultries and fifty millions eggs annually besides ten millions poultries. It succeeded to transfer modern technology to Sudan in this field and helped to attract many Sudanese and Arab investments and proved a high quality of Sudanese management.

c) The Arab Fodder Project:

It is financed by the Arab Organization for Animal Resources Development (AOAD) and it is based in Damascus. Its current productive capacity reaches (600.000) tons annually and the planning energy is around (150.000) tons. It uses raw agricultural materials by 99%. It offers its production in external and internal markets with competitive prices.



EL-Damazeen Project for Agricultural and Animal Production:

It is financed by a Sudanese-Saudi shared capital. It exploits (500.000) rain-fed fadans and it has succeeded in cultivating sesame, maize and cotton. The feasibility studies for animal production have completed.

d) Sudanese-Egyptian Integration Project in Blue Nile:

It reclaims and exploits (250.000) rain-fed fadans south-east of EL-Damazeen. It has succeeded in reclaiming and cultivating (55.000) fadans up to now. It has also succeeded in cultivating soybean for commercial purpose in Sudan for the first time.

Lagging Projects:

a) EL-Silait Animal Production Project:

It exploits 28.000 acres to produce fodder and vegetables. It is financed by a private Sudanese capital, with finance by international, Gulf and Saudi banks. Irrigation systems have been completed, and experimental production stage has begun, but the project suspended as a result of problems by foreign lack of ideal management, and financial problems.

b) EL-Waha Animal Production Project:

It exploits 48.000 irrigated acres while 8.000 acres out of that are allocated for the local inhabitants. After all irrigation systems had been completed, it failed to provide both necessary finance and administration for operation.

The project's objective is to export meat, vegetables, fruits and dairy production for around US\$ 4 million annually in its first stage. It was financed by a Kuwaiti and Sudanese private capital, with the government of Sudan.

c) Sudanese-Saudi Projects for Expatriates:

It targets to exploit 18.000 acres for agricultural, animal and dairy production. It has been suspended because of wrong feasibility study, ineffectiveness to provide finance, administration problems and conflicts with inhabitants.

Projects under Construction:

a) Projects of the Arab Authority for Investment and Agricultural Development in the fields of dairy, poultry, starch, glucose, vegetables and fruits for exportation, projects on mechanized- rain-fed farming in Blue Nile and Darfur and the project of wheat and legumes production in the Northern Province.

b) Cooperation Programs Projects between Sudan and U.A.E. in the field of poultries and fodders.

c) Sudanese-Egyptian Integration Projects in field of vegetables, fruits and fodders

The most important reasons of ineffectiveness and lagging of the Arab integrated agricultural projects are:

- a) Lack of choice of appropriate innovators and their high cost and unawareness of foreign expertise firms of local circumstances.
- b) Such investors focus on getting quick profits, without taking into account the anticipated profits in average and long term.
- c) Some investments are effected by political situations.
- d) Restrictive and routine governmental procedures despite the flexibility of investment act.
- e) Mediation and bias in selecting leading, and technical personnel.
- f) Energy shortage problems.
- g) Disrespecting of required rights of local inhabitants, who don't have access to development.
- h) Haste and lack of choice of suitable location and restricting expenditure to necessary initial studies.
- i) Some investors demand guarantees that are difficult to meet.

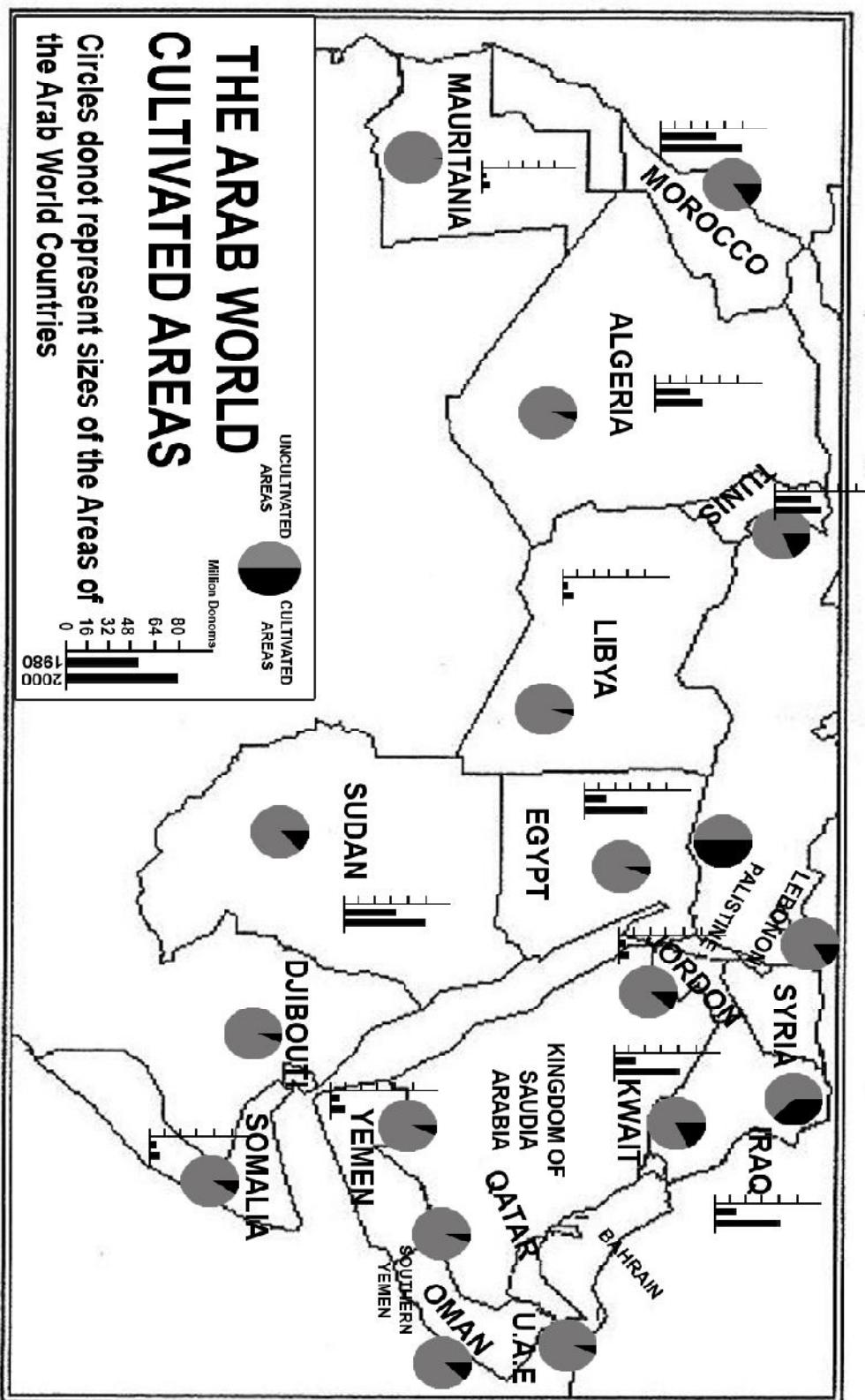
Summary

The world witnesses international circumstances which are characterized by big entities, besides what has been experienced by the world during the last ten years of economic pressure notably the ongoing conflict now between consumers and producers of oil in the world. These circumstances and implications force us to think seriously to produce our food for tomorrow immediately before tomorrow comes soon and springs surprises on us which are likely to happen to see that producers and exporters of food stuff prevent them from us or provide them under conditions and prices that difficult to meet. Time is available now, and the way is paved to go into battle to put an end to the food shortage which wraps our necks.

The responsibility today is not limited to governments only to achieve this task. Private capitals should be invested to follow the same way because investing in private capitals is profitable fields where their efficiency and competence are proved by experiments. It also makes us avoid depleting our money to pay continuous consumption bills for food producers in the world.

CHAPTER ONE

CULTIVATED AREAS IN THE ARAB WORLD



DEVELOPMENT IN THE ARAB WORLD

Development in the Arab countries and raising their rates are necessary for economic, social and population considerations. It requires planning of national economy to achieve planned objectives during a given term. It is not easy for any country to develop its resources at high productivity efficiency unless it practices its economic rights, liberates its national will from any foreign interference and holds sovereignty to invest its resources. Those resources should be invested for the benefit of its people according to the economic sovereignty of the State. No doubt that it is clear for regional countries after a long period of suffering during the long past eras in that they had been suffering from all kinds of economic and cultural injustice, with using up their resources.

Therefore, the Arab countries have to achieve without any hesitation the economic independency after they got rid of colonialism. To achieve this supreme and glorious goal for their people, they should unite and consolidate. It is inconceivable that one country out of these countries could stand by itself to confront the factors of economic domination that involve pressures and monopoly. No one of these countries is able to make progress in the field of development and achieve prosperity and economic power through a direct agreement with developed countries.

This reasonable and sound understanding for the nature of matters is strengthened and supported by political liberation which these countries have. In addition, the leaders and people of these countries should be aware of the necessity of economic liberation and attainment of development under all reasons for stability.

Main problems and how to solve them?

In their persistent efforts to push economic development ahead, the Arab countries face different economic problems which may constrain the achievement of desirable economic progress. One of the important problems is the shortage of trade balance to provide requisites for development in many countries; particularly those countries whose exports still depend on raw materials and import commodities or industrial raw materials and import goods or industrial raw materials whose prices have increased in recent years and still sharply increased which effect the trade balance of the state because of the decline of returns of its external trade and minimize its potentials to import while the necessity requires an expansion of importing of commodities that are essential for their economic recovery.

1/ If the land is the real source for good in all six continents of the world, why do some people of the world live in prosperity while the majority suffer from poverty, malnutrition and poverty?

2/ What is the secret behind that -for instance- the number of people who practice farming in U.S.A. and West Europe does not exceed 10% out of the total of population as the number of people who practice farming in the Arab world is 60% out of the total of population; however the agricultural production in U.S.A. and West Europe is in progress with stages than its similar in Arab world?

3/ Could Arab people- from Gulf to Ocean- reach the standards of living of Americans and West Europeans?

4/ It is possible, everywhere land is land and source for good, but smart investment is the main key to get the best use of land and learn the art of development?

Dear reader let your eyes wander through the pages of this book to see the road steps towards a better world for the Arab human being.

CHAPTER TWO

FIRST: FOOD PROBLEM IN THE ARAB WORLD

Shortage of food production capacities and expansion of food gap:

The food problem in the Arab World appears in the paradox between the national food production capacity and population food consumption needs. The problem aggravates according to the development of production growth rates and consumption growth rates along years. The current productivity energy doesn't cover the consumption needs; hence it requires depending on importing all basic food commodities in large quantities. As the average rate of consumption growth reached to more than double production rate, food production, the food imports increased to cover increasing food gap between food production and its consumption to compensate the continuous decrease rate of self-sufficiency in basic foodstuffs.

To highlight the Arab food problem before discussing its dimensions and results, we will review the most important economic features of the Arab agricultural production and their impact on its potentials, development and its structure of products as follows:

- 1- Narrowness of bio-agricultural field. While farmland's areas in the Arab countries reach 50 million hectares, the population reaches 150 million people. Improving land proportion of population requires an increase of cultivated areas besides intensification of production and increase of returns level.
- 2- The Arab agriculture depends mostly on rain; the rain-fed cultivated land reaches around 78% of total cultivated land. As it is well known that the agricultural production faces great fluctuations according to abundance of rain and to what extent rainfall is regular and sufficient for production rather than decline of rain-fed returns level in comparison with irrigated returns level. Due to the urgent need for food production, the cultivation of wheat and barley expand to areas where rain is insufficient while it was better to leave them as pastures; also their cultivation was enlarged in irrigated areas where the irrigating water was not sufficient which effected the returns level and soil fertility.

- 3- Despite the narrowness of agricultural area, only 32.5 million hectares, at rate of 66% out of the total agricultural area is annually cultivated. The rest of agricultural area is left as fallow land according to the shifting cultivation system that is practiced in the Arab countries in which the rain-fed or irrigated area stays for a year or more without being cultivated. The shifting cultivation system is a common tradition. Recommendations for rationalization of production emphasize that the shifting cultivation system should be reduced especially in lands where there is sufficient rain and in irrigated lands by providing large amount of irrigating water and expansion of irrigation canals to make the best use of the irrigated area continuously instead of leaving half of it as fallow land annually.
- 4- Living agriculture is practiced in most of the Arab cultivated areas in which the production depends mostly on available farm requisites rather than purchased requisites. Labor and animal forces are some of the most available farming resources in addition to the seeds taken from the current production and green fertilization.

The previous characteristics were correlated with serious results of which the most important are:

- 1- Decline of the Arab agricultural productivity is below the international level and even below its level in developing countries. As for cereal crops , for instance, which are the most important Arab crops, the world average production of hectare reaches 1.9 tons while the Arabian average production reaches 1.1 tons by a decrease of 42% from the world average. As for wheat which is the most important Arab crop; the average production by one hectare reaches one ton as the world average production reaches to 1.65 tons by an increase of 65% from Arab average. Hectare average production in developing countries is 1.2 tons by an increase of 20% from Arab average likewise sorghum and millet productivity decreased for around 25% for both crops in the world average as well as barley productivity decreased around 50% in the average.
- 2- Annual production rate of cereals suffers from severe decline due to productivity decline and inactivity of cultivated area. The average of annual Arab production growth reaches 1.8% of cereals, 1.5% of wheat, 1.9% of Indian corn, around 2% of sorghum and around 1.5% of barely. These rates are less than the world rates as well as common average rates in developing countries. Concerning cereals growth rates, it is noticed that they are less than the population growth rate and the wheat growth rate hardly reaches half the rate of population growth. As the area planted with cereals occupies about 70% of the cultivated land so the mere decline of its growth production leads to decline of the food production level in the whole. As a

matter of fact, the decline of cereals production growth rate affects the other crops growth rate as well.

- 3- The rate of meat production growth in the Arab countries decreases to reach about 2% in average annually as a result of concentrated fodders shortage, lack of pastures, spread out of diseases, weakness of genetic structures production, using animals in work and possessing them for tribal and social aims. As a result of these factors, the rate of cattle to be slaughtered decreased to reach 13.3% while internationally it reaches 18.3% in average. The Arab slaughtered cattle weight decreased to reach about 120-130kg whereas the world average slaughter cattle weight reaches about 179kg.
- 4- Dairy production suffers from a decline and growth immobility. Dairy production has reached (since early 1970s, in the Arab countries) 7.2 million tons. Production growth mostly immobilized throughout the subsequent years. The decline of production and growth immobility was due to a decrease in number of milk cows which reached 6.6 million heads, less growth of their number and decline in the annual production of one cow while the average production of it internationally (in a year) reaches 1910kg. The production in Egypt, Sudan and Mauritania reach half, third and sixth of the world production of a cow respectively.

To face food production growth at a low rate that ranges between 1.5% and 2% annually, food consumption increases by rate of 5% annually. The paradox of growth rate in which consumption increases by about double production rate creates the gap that is still ongoing to widen as well as decreases rates of self-sufficiency and raises dependency on foreign countries to cover food needs. It must be clear that consumption growth rate, even it is higher in relation to production growth rate, it is not excessively higher by itself since 3% of consumption growth rate does not result in any improvement in individual consumption levels because it is used up to cover increased consumption of population. Therefore, the effect of improvement is restricted on an increase that amount to 2% which allows no improvement in individual levels. In fact, the Arab food level decline, especially in animal proteins, leads to extreme consumption. Despite the need and desire for this increase, the real income levels, prices and economy capacity to import allowed consumers only to have prevailing consumption levels.

Arab's Crop Composition:

The composition of the Arab's crop is characterized by specific and distinguished features. Considering the composition of this crop and its characteristics under the relationship of food productivity capacity and consumption capacity in addition to shortage of consumption energy, the key objective of production is to get the maximum quantity of foodstuff from farm land. The agricultural areas in the light of this goal are distributed to produce different types of crops as follows:

- 1- The largest part of crop area which reaches around 68% of the whole area is allocated to produce cereal crops while the largest and much fertile part in regard to this percentage is allocated to produce wheat. As less important than wheat, small productive area is allocated to barely which is inappropriate to produce wheat. Because it needs great plenty of irrigation water, rice should be grown at low amount. A large part of agricultural productivity capacity should be directed to produce cereals as they are badly needed for foodstuff because of limitation of productivity capacity. Cereals cover both calorie and protein needs much more than any other crop by land unit production; in other words, agricultural production capacities in relation to food consumption necessitate directing two-thirds of the capacities to produce bread.
- 2- Despite the consumer's desire to have large quantity of vegetables, fruits and legumes, such desire cant not be satisfied due to limitation of productivity capacity and severe need of bread as important food; hence, the percentage of crop area that can be allocated is about 2.9% for vegetables, 4.4% for legumes and 9% for fruits.

It is to be noted that all crops production has not been used up for local consumption, where an important half of the production finds its way out for export.

- 3- Allocating areas to produce industrial and exporting crops is extremely limited. Crop area which is allocated for forage crops reaches about 4.3%, about 5.5% for oilseed crops, about 0.6% for sugar crops and about 0.2% for tobacco. Quantities of production made by these crops allowed no integration between agricultural and industrial sectors in addition to the industrial capacity which operates seasonally and breaks down for long period of time unless necessary materials being imported.

4- 4/ It is difficult to find a part of the Arab crop area to produce feed crops except in Egypt and South Yemen since the need is for cereal crops one hand and the use of shifting cultivation system on the other. Feed crops are not introduced in agricultural cycle which leads to disintegration in agricultural production in both vegetable and animal sectors, disintegration in production and deficiency in animal production.

Dimensions of Arab Food Gap:

Main food commodities shortage has remarkably begun to appear since early 1960s. Net wheat imports reached 2.4 million tons (average period 1960-1964), but the shortage rapid increased to reach 8.8 million tons in 1975 by annual growth rate of 10% while sugar imports raised during the same year from 1.3 million tons to 2.2 million tons by annual growth rate at a deficit which reached 4%. Regarding meat, the gap increased in the same period from 62.000 tons to 330.000 tons by annual growth in a gap that reached about 12.7 % while the gap size of white meat increased by rapid rate than red meat. Net white meat imports reached about 6.000 tons and 56.000 tons than red meat (the average period 1960-1964). In 1975, the imports raised to 86.000 tons and 244.000 respectively, by annual growth rate of 20.5% for white meat and 11.3 % for red meat. Concerning dairy and its products, the gap increased during the period 1974-1977 by annual rate that reached 13.7%.

The growth rate of the Arab food gap jumped to reach 13.7% for wheat, 15% for sugar, about 34.6% for both white and red meat and 35% for dairy during the period 1974-1977 in comparison with previous period. The growth rates of food gap in dairy and meat by the rising of food awareness and changing of consumption modes that have begun to increase since early 1970 at higher rates than wheat and sugar. The quantities of red and frozen meat which were imported by Arab countries in 1977 equaled four times of their imports in 1974; so the main total of growth in white meat was equaled to doubled seven times during that period despite the steady growth of the Arab poultry industry. Due to the fresh dairy shortage and rising cost, the demand on dried dairy imports increased as well. Dried dairy has become one of the main inputs in dairy industry in the Arab countries.

Regarding value, the total Arab food gap cost of food commodities groups raised from about US\$ 1.11 billion in the middle of 1971 – 1973 to around US\$ 4.7 billion in 1975 by annual growth rate of about 48%. The relative significance of wheat and sugar was about 48% and 27% respectively in the first period and decreased to about 29% and 18% respectively in the second period.

Regarding the development of the Arab food gap in the future, it is clear through the study of country's agricultural development plans and probabilities of production growth as well as through the study of population growth, incomes and mutual relationships in commodities groups that the severity of shortage in key food goods such as wheat, oil, meat, dairy and sugar will increase throughout the period of 1975-2000. It is estimated that the cereals deficiency will increase from 11.2 million tons in 1975 to 26 million tons in 2000. It is expected that the wheat gap will increase from 8.8 million tons in 1975 to around 19.2 million tons in 2000 and the Sugar gap may increase from 2.2 million tons in 1975 to 9.5 million tons in 2000. Red and white meat shortage is identically expected to increase to 1 million tons in 2000 while dairy shortage will increase from 1.600 million tons to 5.5 million tons in the above mentioned years respectively. Trade balance deficit for expensive foods such as animal products and oil is expected to increase due to shortage of production to meet increasing demand.

The shortage cost of food commodities, regarding value, is expected to reach US\$ 14.3 billion in 2000 on the basis of 1977 prices. Payments of the Arab countries to cover food gap value during the period up to the end of the current century are expected to reach US\$ 2000 billion on the basis of the 1975 prices.

Food Gap and Problem of Arab Food Security:

The development of the Arab food gap during the past twenty years made food security a problem by changing the gap from an economic and commercial problem in its early stage into a political problem in its current stage. Providing required quantities of imported foodstuffs for the time being may expose many political pressure probabilities; therefore, the food security which is one of the main Arab strategic security elements becomes a question being raised as long as foreign domination probabilities over food consumption continue in the Arab countries.

The food problems lie in the need of the Arab countries to import main foodstuffs according to market's nature from which foodstuffs are imported and in relationships of power between the parties to deal. The Arab countries in respect with current need import half of their consumption of wheat in addition to large quantities of other main foodstuffs such as sugar, edible oils, meat, and dairy products. These foodstuffs are not imported in large quantities to maintain high level of food, but to maintain the current level of food which is considered as one of the most modest levels of food, particularly in its components of animal proteins and other protective food.

In conditions of importing large food to maintain modest level of food, possibilities to reduce this import are eliminated. If it is conceivable to reduce slightly imports of the other goods rather than wheat in a remarkable hardness and deprivation that can be noticed by consumers, so it is unconceivable to part with any quantity of wheat. Wheat is remarkably a vital good and it should be imported whatever these terms are.

Wheat is imported from global market which may be monopolized by exporters. Wheat is basically imported from U.S.A. , Canada and Australia. These three countries dominate most of the wheat imports to different parts of the world and the countries which import it that enable them to monopolize wheat imports because of their advanced economic power. Balance in market power scale between developing countries which import wheat and the three wheat export countries does not exist. To face probabilities of monopoly powers, the Arab countries are economically weak and in badly need to import wheat to the extent that they can't part with any quantity of wheat imports. The incontrovertible truth is that the Arab food problem turns into food security problem, "political problem". The possibility of importing wheat with large quantity is subjected to the approval of export countries.

The Arab countries import wheat much more than any other global region which is similar in its population. Therefore, they are exposed to political pressure more than other regions in the world, but power's probabilities of this pressure have not reached their maximum yet. It is certainly that the wheat gap will expand as long as the prevailing production growth rates sustain which reach about 1.5% and 3% annually while the consumption rates increase around 5% or more annually. Unless the gap begins to minimize, deteriorating of food situation will expose the Arab countries to more economic and political pressures.

Assuming that wheat imports decline as a result of political and economic pressure so the effect of this decline will equally not affect economic sectors in order to ease the effect of this decline. Wheat is likely imported to cover consumption of towns that means they are almost exposed lonely to the effect of wheat decline. As towns are vital centers for community and represent the first civilization centers, they may be subjected to decay if they are exposed to vital food decline. The probability of foreign domination over Arab rural sector by food pressure is one of the facts of contemporary policy which challenges the Arab nation's will.

Food Gap and Problem of Economic Growth

Economic growth requires amendment of rural population structure so rural population rate gradually decreases and urban population rate increases. These economic-population relationships do not require any interpretation. Whenever rural population rate increases, that means high rates of human resources correlating with food production and low rate of these resources are available for industrial and service production. In the presence of this rate, agricultural rate plays great role in national production while industrial and service production is limited and it follows a decline in an individual income. On the contrary, whenever urban population rate increases, industrial and service production increases. This production as well as agricultural production will lead to an increase in the individual income and improvement in the living standards.

The rate of urban population in the Arab countries increased by 35% only out of the total population that means about $\frac{2}{3}$ of human resources correlate with production of necessary food; therefore, the individual income decreased in the Arab countries with the exception of the petroleum countries. Economic growth requires constant urban population growth rate and decrease in the rate of rural population which both correlate with food production. Population structure in comparison with economic growth requires providing increasing surplus of foodstuffs much more than rural consumption to cover consumer needs by urban population. This crucial role played by food in economic development means that urban growth and any industrial and service growth which accompanies it is subjected to provide food surplus to cover urban consumer needs. Without this surplus, urban industrial and service growth will entirely fall as well as economic growth entirely; here also exists the danger of the Arab food problem.

The Arab urban development is not accompanied by an increase in food surplus to meet the food needs of this development. Thus, dependence on increasing food import is necessary to meet the urban consumer needs. The Arab leaders should be aware of the fact that all the Arab towns depend partly or mainly in their consumption of main foodstuffs, particularly wheat on imports from external markets. The Arab urban growth which has separated from local food surplus that is necessary for it made the Arab urban growth and service and industrial as well as economic growth which accompany it to be restricted by foreign approval to export necessary food stuffs, particularly wheat, to the Arab countries to the extent that foreign domination controls these exports as well as service and industrial growth capacities in the Arab countries.

With auto-Arab force motivating urban growth such as industrialization and migration from rural areas, the economic growth should be established on the increase of food imports that follow by increase of opportunities of foreign domination over growth capacities as far as the Arab agricultural productivity stays at its current level.

The current ambition of economic and industrial development requires more food imports which lead to immobility of this development. These imports lay annual increasing burden on the balance of payments which results in aggravating foreign debt and difficulty in financing investment and intermediate imports as well as financing food imports leading to immobility of economic and industrial development. The seriousness of establishing industrial and economic development on imported food is not supported only by experience of non-petroleum Arab countries, but also the experience of the third world which faces a problem of importing wheat where the development shortly lagged in those countries due to difficulties in financing imports. If the Arab petroleum countries face no difficulties in importing foodstuffs at the present time, this occurs because of paying their imports price from non-renewable resources of petroleum which should be directed basically to establish productivity capacities that guarantee sufficient income after the drain of this resource.

Difficulties of financing correlating with urban-industrial growth that grounded on food import are caused by difficulties of exporting industrial products due to their high cost and lack of ability to face global competition. With export immobility, industrial products flow for domestic consumption while other sectors in economy bear the burdens of industrial and food imports. In petroleum and metal raw materials countries, the oil and mining sector bear these burdens while an agricultural export sector in agricultural countries bears these burdens. It is most unlikely that costs for industries will decline to a degree that enables them to compete internationally in the future as a result of their dependence on imported food which is of more price than its price in homes of exportation which are also the homes of major industries. The level of food costs which is a crucial element in industrial process turns industrial growth and development of towns in the Arab countries into a burden on the Arab economy instead of being a motive force for it. Maintenance of economic and political independence of the Arab countries and keeping urban and industrial development force them to produce all together greater quantity of their increasing food needs for their developing urban sectors.

قائمة بأهم مصطلحات البحث

No	Terminology	المعني المقابل باللغة العربية
1	Semi-State Balance	حالة شبه التوازن
2	Supplementary Agreement	ملحق اتفاقية
3	Trade Imbalance	اختلال الميزان التجاري
4	Lack of Ideal Administration	سوء الادارة
5	Trade Balance Deficit	عجز الميزان التجاري
6	Shifting Cultivation System	نظام التببير
7	Fodder Crops	محاصيل العلف
8	Double Production Rate	ضعف معدل الانتاج
9	Uncultivated Land	ارض بور
10	Appropriate Agricultural Techniques	التقنيات الزراعية الملائمة
11	Grains level	مستوى الغلات
12	Small scale agriculture	الزراعة الخفيفة
13	Auto-Arab force	القوة العربية الذاتية
14	An Individual Income	دخل الفرد

المسرد

م	English Term	مقابلة باللغة العربية	معنى المصطلح
1	Shortage of trade balance	قصور الميزان التجاري	يعبر الميزان التجاري عن حجم السلع الصادرة و حجم السلع الواردة، يعني قصور الميزان التجاري زيادة حجم الواردات عن الصادر مما ينتج عنه اثار سالبة عن طرح الصادر عن الوارد
2	Weakness of genetic structure production	ضعف انتاجية التراكيب الوراثية	ينتج ذلك عن وجود تربية داخلية في نظام بيئي او وراثي محدد و عدم التلاحم مع البنية الخارجية
3	Attainment of development	حتمية التنمية	هناك ظاهرة طبيعية سائدة وهي التوسع السكاني مما يزيد من ضرورة التوسيع في الانتاج الغذائي و الخدمي، بجانب ضرورة الاعتماد على الذات الوطني مما يزيد من ضرورة الاعتماد على الموارد الذاتية
4	Shifting cultivation system	نظام التبوير	هو وضع الاراضي في حالة الانتاج اي عدم زراعتها لاسباب المحافظة على خصوبتها او التحكم في عرض السلع المنتجة من السوق
5	Form and volume of demand	حجم و هيكل الطلب	الطلب هو حجم السلع و الخدمات في انتاج معين و يمثل حجم الطلب كمية السلع و الخدمات التي يبحث عنها المجتمع اما هيكل الطلب فهو تصنيف انواع السلع و الخدمات المطلوبة
6	Vertical expansion	التوسيع الرأسي	هو التوسيع في الانتاج على نفس الرقعة الزراعية المتوفرة
7	Horizontal expansion	التوسيع الافقى	هو زيادة حجم و مساحة الرقعة الزراعية المتوفرة في الانتاج
8	Capacity energy of economy	الطاقة الاستيعابية للاقتصاد	هي قدرة الاقتصاد على استيعاب رؤوس الاموال المتوفرة للاستثمار الاقتصادي و تحويلها الى سلع و خدمات عن طريق القطاعات الاقتصادية المجددة في بلد معين
9	Arab Investment & Agricultural Development Organization	الهيئة العربية للاستثمار و الانماء الزراعي	تأسست الهيئة العربية للاستثمار والانماء الزراعي عام 1975 كمؤسسة مالية استثمارية عربية ذات شخصية قانونية و اعتبارية

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