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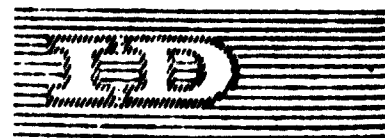
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05009



Distr.  
LIMITED

ID/WG.15.1/10  
11 May 1973

ORIGINAL: ENGLISH

United Nations Industrial Development Organization

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Workshop on Pesticides

Vienna, Austria, 28 May - 1 June 1973

THE PRESENT AND FUTURE STATUS OF  
THE PESTICIDES INDUSTRY IN THE ARAB STATES 1/

by

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id.73-3758

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## I - INTRODUCTION

The Arab countries as far as Pesticides are concerned can be divided into two main groups. The first group is the agriculture producing countries (where the agricultural sector is of importance) and the second group is the non agriculture producing countries.

The countries in the first group are:

Egypt, Algeria, Sudan, Iraq, Morocco, Syria, Tunisia, Lebanon and Libya -- Jordan, Arabic Yemen and Saudi Arabia to a lesser extent.

The other group includes: Kuwait, Qatar, Oman, Democratic Yemen, the Emirates and Bahrain.

Some of the second group can potentially become producers of Pesticides as they are right now producers of Fertilizers.

We must keep in mind that the Pesticides industry at the present is absent in the Arab countries and what is in existence can be considered as a mixing and packaging industry for these products imported in bulk as concentrates. No future plans are definite about the establishment of this industry in the Arab countries, even though several Arab countries have been studying individually for several years the possibility of establishing this industry. The insufficient local market to absorb large economic capacities and the uncertainty of export to foreign markets have hindered the efforts to carry out the execution of any major project in these countries.

Also we believe that the technological and marketing know-how in this field were almost absent in most Arab countries, and unavailability of research in this field has also added hindrance to the development of this industry.

Now let us make clear from the beginning that I am convinced that the Arab countries should concentrate in their industrial development in the chemical industry (especially petroleum by-products) on trying to establish industries for the production of primary and intermediate products, and not to venture into finished products and consumer goods; this is because of the complexity of the technology and the constant changes required in addition to the competition from the more advanced countries in their well-established foreign markets.

## II - PRELIMINARY SECTION

We already said that in the full meaning of the word the Pesticide industry is non-existent at the moment in the Arab world. The economic establishment of this industry (here I would like to point out that I believe that any large project should be an Inter-Arab joint project, in which contributions in foreign investments and technology would be welcome) demands certain conditions in common with any big industry, as well as special requirements.

These requirements are:

1. Availability of raw materials.
2. The presence of low cost sources of power and fuel.
3. Availability of water.
4. Highly qualified manpower.
5. Availability of local and foreign capital.
6. The existence of the consuming market (local and export).

TABLE I

The Size of the Present and Expected Pesticides Market in the Arab Countries

Pesticides *	1970		1980	
	Metric tons	1000 US\$	Metric tons	1000 US\$
	56,000	26,000	88,000	44,000

A rate of growth of about 5% per annum has been taken for the ten years period between 1970 and 1980, the same rate the market grew between 1966 and 1970. Figures in the above table represent the total Arab countries' consumption and the value is CIF in US dollars.

Now, considering the varieties and the different climates, crops, pest control requirements, these figures could be divided between about ten different compounds. We believe that for the economical production of primary and intermediate products the market requirements for any country alone are small for a profitable industrial plant. This will be shown as we look into each Arab country separately. The possibility (and in the following order - Egypt, Sudan, Algeria, Iraq, Syria and Morocco) in the far future might look good for this industry, and this is due to the size of the agricultural sector and the potentials for growth in these countries.

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\* Including herbicides, insecticides and fungicides.



III - PESTICIDES IN THE ARAB COUNTRIES

JORDAN

This industry is non-existent in Jordan.

Pesticides (all types)	Consumption MT/year (1969†)	Price per MT CIF US dollars
	537	900

There is no plan for this industry in Jordan even in the far future. Consumption will probably never be high enough to make this industry feasible.

IRAQ

In 1970, some 63 tons of insecticides were produced, under the name of MUBBED, having the following analysis.

Pybuthrin ----- 1 part  
Perfume ----- 0-1 part  
Kerosene ----- 160 parts

This was sold at 194 I.D. per ton (I.D. = US\$ 3.00).

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\* MT = metric ton

Pesticides (all types)	Consumption (1970) MT/year	Price per MT US dollars
	8,486	600

The balance between production and consumption was all imported. The rate of increase in Iraq for pesticides is high and could be even higher, e.g.:

Pesticides (all types)	Imports in 1000 US dollars	
	1969	1970
	1,240	1,810

**KUWAIT**

The pesticides industry is nonexistent, and consumption is low due to the absence of agriculture.

Pesticides (all types)	Consumption (1970) MT/year	Price per MT US dollars
	442	600

Market increase in Kuwait is very limited.

SYRIA

There is no pesticides industry.

Pesticides (mainly insecticides)	Consumption (1970)	Price per MT
	MT/year	US dollars
	1,100	600

Market increase in Syria is very possible considering the size and potential of the agricultural sector. Modernization of agriculture will also require an increase in fertilizers and pesticides. No doubt the consumption figures given above are much below what they should be, even for developing countries.

LIBYA

Small mixing and packaging pesticides industry exists, using imported bulk, concentrated products.

Pesticides	Production (1970)	
	Types and Analysis	Quantity produced
	Aerosol	12,500 litres
DDT	2,300 gallons	

Pesticides (all types)	Consumption (1970)	Price per MT
	MT/year	US dollars
	3,061	750

An average growth of the Libyan market is expected.

TUNISIA

Mixing and packaging of imported bulk pesticides is also available in Tunisia.

Pesticides (all types)	Production (1970) MT/year	Price per MT US dollars
	24	?

Pesticides (Insecticides and herbicides)	Consumption (1970) MT/year	Price per MT US dollars
"Idon"	37	1,600
DDT	1,487	450
	47	950

Also here an average market growth is expected.

ALGERIA

Algeria has a small packaging factory for insecticides from imported bulk materials.

<u>Pesticides</u>	<u>Production (1970)</u>	<u>Quantity</u>
Insecticides		12,272 doz.
Disinfectant		1,536 MT
Fly-Tox		500 litres.

Pesticides	Consumption (1970) MT/year	Price per MT US dollars
Insecticides and Fungicides	10,200	--
Herbicides	177	--
Others	2,000	--

Algeria should expect a very high average increase in the market for pesticides. This is due to the following:

- the size of the agricultural sector.
- modernization of the sector
- increase in per capita income.

#### MOROCCO

Morocco has a small pesticides industry serving the local market.

Pesticides (all types)	Production (1970) MT/year	Price per MT US dollars
	5,609	?
Pesticides (all types)	Consumption (1970) MT/year	Price per MT US dollars
	5,573	400

Morocco will have an average increase in market demands for pesticides.

SUDAN

No pesticides industry exists in Sudan.

Pesticides (all types)	Consumption (1970) MT/year °	Price per MT US dollars
	5,000	1,000

The agricultural sector could be much bigger than the existing one. Sudan has the largest agricultural area available amongst the Arab countries. Its growing season is also all year round. The market potential for pesticides is tremendous, if agricultural developments are executed. The agriculture being very primitive, modern technology is rarely applied. This makes consumption compared to the potential very low.

LEBANON

Mixing and packaging of imported bulk products exists in Lebanon.

Pesticides (all types)	Consumption (1970) MT/year	Price per MT US dollars
	2,300	400

Advanced agricultural sector but limited land makes the market growth about average. Lebanon is, however, a centre for re-export to neighbouring countries.

EGYPT

Egypt has a far advanced agricultural sector, but new land reclamation is limited. Egypt packages all the imported bulk pesticides.

Pesticides (imported bulk)	Production (1970) MT/year	Price per MT US dollars
	11,000	?

Pesticides (all types)	Consumption (1970) MT/year	Price per MT US dollars
	11,000	?

Egypt's market growth will be average.

Other Arab countries consumed about 3,000 MT/ year of pesticides in 1970.

TABLE II

Pesticides Imports and Consumption

Country	Imports		Consumption MT/year	
	1000 US dollars		1970	1980
	1969	1970		
Algeria	307	-	12400	18400
Egypt	1530	1467	11000	15000
Iraq	124	181	8500	15000
Jordan	45	-	537	600
Kuwait	73	-	442	00
Lebanon	168	-	2300	000
Libya	192	-	3061	3500
Morocco	319	-	5573	10000
Sudan	646	736	6000	10000
Syria	79	69	1100	5000
Tunisia	65	74	1950	3000
Others	-	-	3000	4000
TOTAL			55863	88000



**TABLE III**

**COMPOSITION OF SOME INSECTICIDES, FUNGICIDES & HERBICIDES**

1962

In Metric Quintals

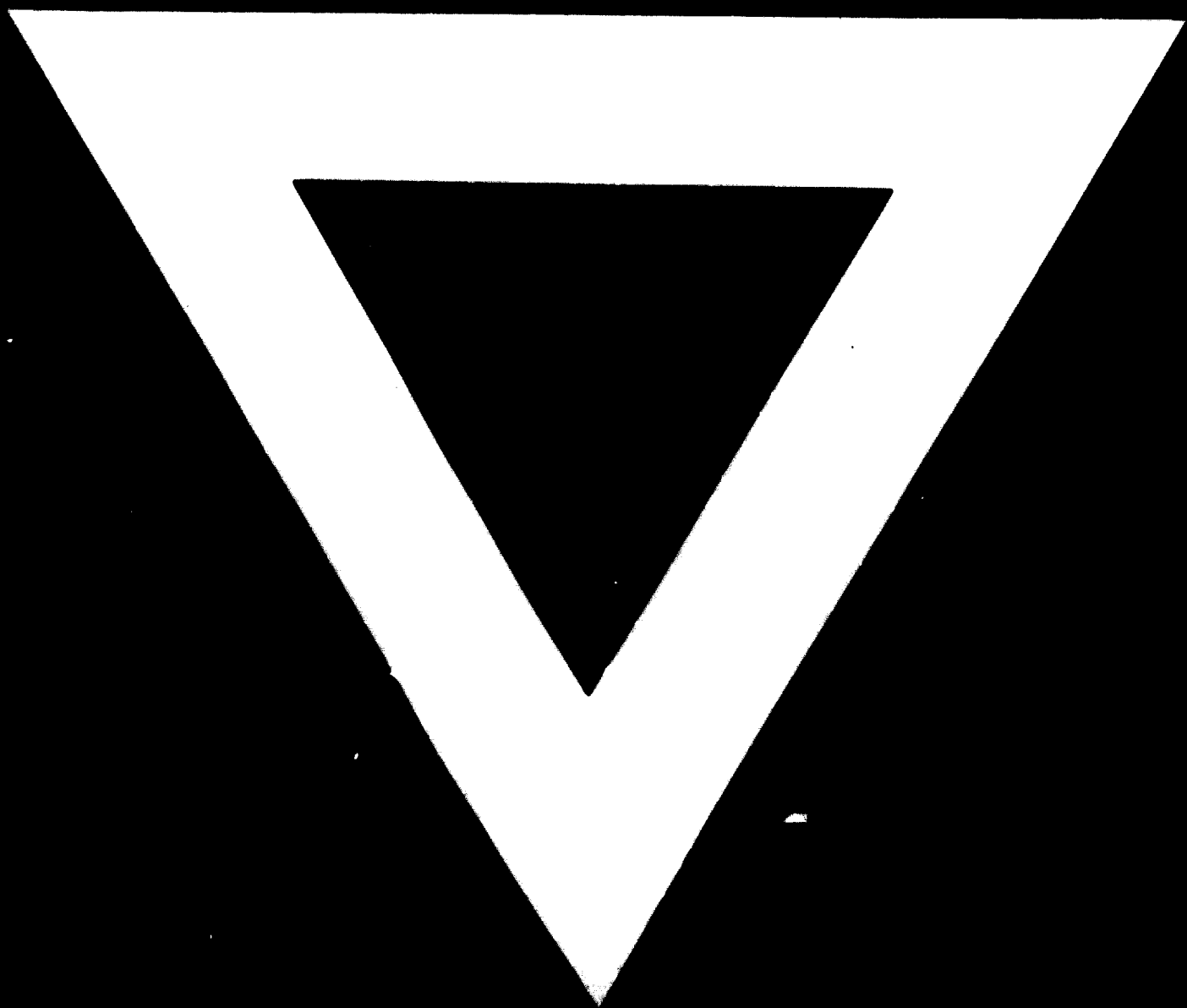
Country	AGE	Hexachloro Cyclo- hexane	Aldrin	Dieldrin	DDT	Organic Phospho- rous	Saltpetre and Compounds	Mineral Oil and Distillate	Fungicides Fungicides and Herbicides
Algeria	5757(67)	2200 (66)	2000(67)	14754(67)	-	3150(68)	776245(67)	-	7645(67)
Egypt	33040	-	-	70000(70)	370(70)	21000(70)	66530(70)	Oil 36040(70)	7900(70)
Jordan	30	470	-	5	20(68)	260(70)	520(70)	Oil 60 IMC 80	2475(70)
Kuwait	2	250	-	-	-	30(70)	-	Oil 4	-
Lebanon	302	-	-	121(68)	-	4137(70)	30006(68)	-	17801(68)
Morocco	255(66)	85 (66)	-	1200(70)	-	-	21096(66)	-	4215(70)
Sudan	4411	208	-	3037(30)	-	205963(70)	-	-	7000(70)
Somalia	-	-	-	-	-	-	39330(67)	-	-

Data from FAO

IV - CONCLUSION

It seems that the Pesticides industry will remain for a long time a mixing and packaging of imported bulk and concentrated products. I personally believe that the Arab countries should not on individual basis venture in this industry, especially in the production of basic pesticides. A joint effort as an inter-arab multinational project and in partnership with internationally known firms (this is where technology is found) in this field, might be the most suitable thing for the development of this industry, but this is unlikely to happen in the near future. So the Arab market for Pesticides will remain for a while as it is now relying on imports.





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