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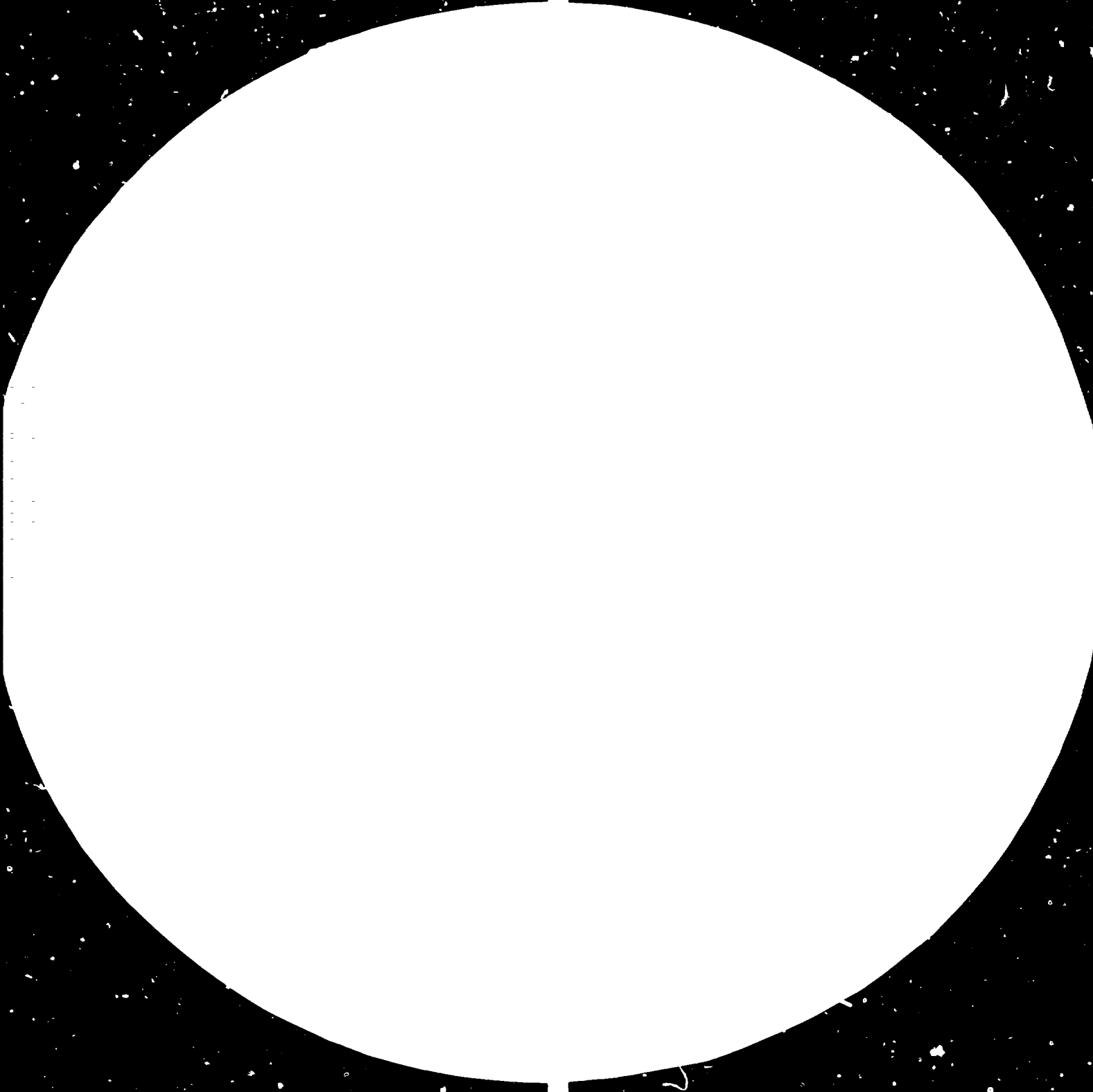
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Resolution Test Chart (ANSI/ISO #2) (100% Magnification)

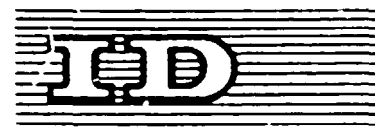
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Meeting on Exchange of Experiences and  
Co-operation among Developing Countries in the  
Development of Agricultural Machinery Industry

Beijing, China, 20 - 27 October 1980

COUNTRY SUMMARY

ARAB REPUBLIC OF EGYPT\*

by

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and

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I - Agricultural Machinery and implements needs and demand:-

Agriculture remains the largest single sector in the Egyptian economy as being the most stable. It absorbs about half the labour force and contributes about 30% of the G N P .

Relying upon the different surveys and technical reports which has been elaborated on the needs and demand for the agricultural machinery and implements in Egypt for the next five years, we can summarize the findings as follows :-

- Category I - Implements :-

It is difficult to obtain reliable statistical information about the needs in this category. Any how the total area of agricultural land is estimated to be 7.8 million feddans today, expanding to 8.5 million fedans by 1985. The total cropped area is estimated to be about 12 million feddans ( including double cropping ).

- Category II - Intermediate Machinery :-

It is part of government's agricultural policy to encourage the use of these intermediate machinery, The estimated annual demand by 1985 is as follows :-

Harrows	3000	units
Ploughs	5000	units
Sprayers	3000	units
Threshers	2500	units
Cultivators	500	units

- Category III - Powered Machinery :-

The estimated annual demand by 1985 is as follows :-

- Simple tractors	2000	units
- Pumps for irrigation purposes	6500	units
- Agriculture Trail rs	4000	units

- Category IV - Specialised Equipment :-

The estimated annual demand by 1985 is as follows :-

- Medium Tractors up to 70 H.P.	5000	units
- Large Tractors more than 70 H.P.	1000	units

2 - Estimated demand and present usage :-

- Many of the items which are mentioned under the above detailed four categories are currently used in Egypt. However the quantities are below the needs.
- Farm implements such as belt threshers, chisel ploughs, disc ploughs, sub soilers, ditchers, levellers and trailers are widely used.
- 70 % of tractor utilisation is for tillage, 30% for stationary belt work.
- Although reversible mould board ploughs would be preferable, practical considerations indicate that chisel ploughs will continue to be in demand for primary tillage, to suit the soil.
- The 60 - 65 horsepower tractor would be the most suitable size of tractor to be used in Egypt.
- Trailers are required in large numbers either on two wheel or four wheel trailers. Transport of agricultural crops is done by tractors and trailers.
- Primary tillage is carried out by using an ox drawn plough. This is a primitive type of chisel plough, the depth of work achieved by this tool rarely exceeds 10 Cm. In the old lands, it is estimated that 50% is nowadays mechanised by using chisel ploughs attached to tractor.
- Secondary tillage and levelling is normally carried out by oxen pulling a board or log on which the operator stands. A combined crushing and levelling is achieved.
- Harvesting is done mostly by hand, cotton is picked and collected and then taken to a central threshing point.
- All threshing is carried out by a belt powered threshers.

3 - Manufacture and imports

3.1 Category I - Simple tools & implements

For this field, there are no problems pertaining to shortages of the local production as the demand of this category is fully met by some vocational people who live in the rural areas, consequently there is no need for foreign licensing and investment promotion.

### 3.2 Category II - Intermediate machinery

Presently there are quite few companies in Egypt that produce some types of this intermediate machinery, these types are confined to : mounted and trailed cultivators, ridgers, ditchers, harrows, land levellers and trailers.

According to the plans of the country vis - a vis the green land revolution and food security, the gap is very wide between demand and production. The existing design and engineering capabilities are limited and need foreign technical assistance. Also the need does exist for foreign licence and investment promotion for manufacturing.

### 3.3 Category III & IV

#### Powered machinery & Specialised Equipment

Since 1961, Egypt has started the assembly operation for the agricultural tractors of 60 - 65 H.P. from S.K.D. imported sets. The present Masr Automotive Manufacturing Company has a capacity of about 22 tractors per daily shift. Its actual production is about 40% of capacity and about half of all new tractors imported as built up units.

The majority of these equipment are currently imported in a very modest quantities.

The country has decided to enhance the scope of the local industry of the agr. tractor by increasing the domestic content in the finished product. In this context the protection of the local industry is a must, through an adequate customs duty differential in favour of the local industry.

The studies for a local enterprise for manufacturing agr. tractors revealed the following results:-

- Product range	60-65 H.P.
- Annual production	5000 units
- Local content	65% (by value)
- Investment	25 million dollars
- Area of plant	20 000 mt <sup>2</sup>

To implement such a project, foreign expertise is required in a joint venture form.

### 3.4 Basic facilities and feeding industries

The basic facilities and feeding industries are existing in Egypt. A foundry, forging, heat treatment, gear shop, tyre production, battery production, sheet metal stampings are

examples of the said facilities that exist to serve the automotive industry in general. Our recommendation on strengthening these facilities is mainly the improving, modernising and deepening the technical knowledge, also encouragement of investors for establishing new plants for production of automotive components.

4 - Design and development, adaptation, testing and evaluation:-  
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There exists a centre for testing and experimenting of agricultural equipment near to Alexandria.

The faculties of agriculture help this centre in the testing of agr. tractors to suit the Egyptian land and for the modernisation of these equipment.

5 - Engineering and manufacturing technology  
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There exists a design and engineering consultation centre which belongs to the ministry of industry and is capable of providing adviser, assistance and service in the engineering and manufacturing technology for local development and production of agricultural machinery and implements. This centre is also capable of giving training courses in engineering and manufacturing technology.

6 - Repair, maintenance and spare parts supply  
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The main network for repair, maintenance and spare parts supply is represented by Wasr Automotive Company (NASCO) distributors and dealers of which there are about 100 in the country that extend the adequate aftersale service. Also there are cooperative service centres and government service centres but in fact, both of these centres are poor in terms of equipment availability and services rendered. Some private agencies are nowadays establishing service networks.

To strengthen the aforementioned services, it is essential that the importers should be responsible for spare parts and after sale service and the government



should encourage the establishment of a dealership network under the distributors which would provide after sale services for the goods having an exclusive franchise.

The government should encourage also the establishment by the distributor of training facilities for operators and mechanics and to provide technical advice to the farmers and practice of on - farm demonstrations.

7 - Policy, planning, strategy and coordination

The ministry of agriculture undertakes the policy and planning in the agricultural machinery field with the support and advice of the universities and the different educational institutes. A full department headed by " under secretary of state " is looking after the " agricultural mechanisation" problems.

The cabinet also formed a high level committee presided by a deputy prime minister for production in which both the minister of agriculture and minister of industry are represented. This committee deals amongst others with the high policy of agricultural machinery field.

8 - Interregional Co - operation

The most areas of assistance that Egypt can extend to other developing countries are :-

- Vocational training in Egypt for individuals of other developing countries
- Information on experience gained in industrial area in Egypt
- Exporting some of its products to the neighbouring and African countries.

In the meantime Egypt requests for the assistance which could be offered by the other developing countries

9 - Role of UNIDO

Unido can provide assistance to Egypt in numerous fields, among which we select the following to be given the precedence :-

- Submitting analysis of experiences of some developing countries in manufacturing agricultural machinery as well as developing a suitable manufacturing program to serve as a guide during the implementation period of a respective project.
- Assist Egypt in promoting the feeding industries by creating a relevant contacts with appropriate international institutions and enterprises.

This type of assistance has not been requested previously from UNIDO.



