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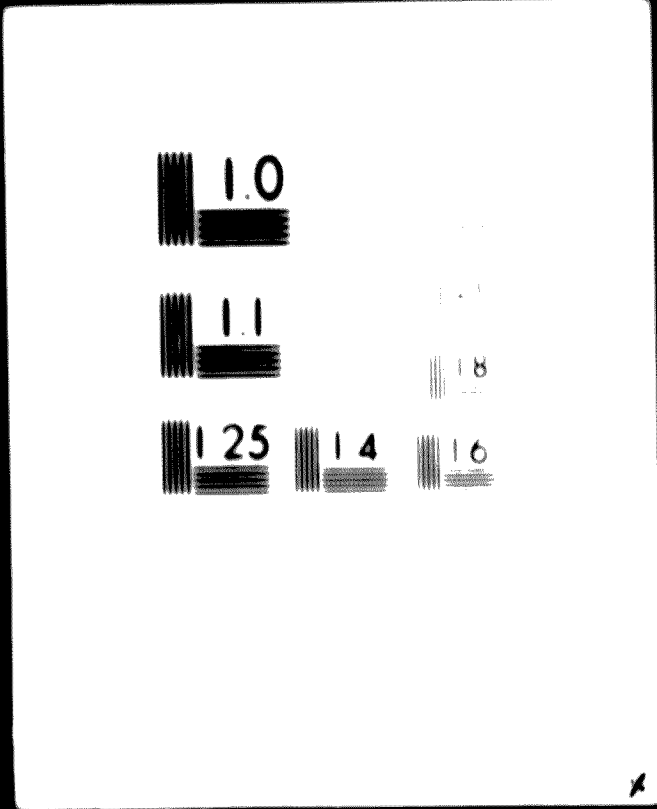
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Iraq. IMPROVEMENTS IN THE SALES AND SERVICES  
of  
ISKANDARIYA FACTORY MADE AGRICULTURAL MACHINES AND IMPLEMENTS  
for  
PROMOTING IRAQ'S FARM MECHANIZATION

by

**D. J. ZACHARIAN**  
(UNIDO Expert in Agricultural Machinery)

and

**Dr. A. H. AL-SHAFFAR**  
(Chief Engineer Testing - Development Division)  
SCM

Assisted by:

**E. Wilson Gull**  
(Ag. Eng. SCM)

**Agap Leon**  
(Ag. Eng. SCM)

**UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION**

State Company for Mechanical Industries in Iskandariya  
(State Organization for Engineering Industries)

002721

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**P. J. ZACHARIAN**

( UNIDO Expert in Agricultural Machinery )

and

**Dr. A. M. AL-KHAFFAF**

( Chief Engineer Testing - Development Division )  
SCMI

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**K. Wilson Gull**  
( Ag. Engr. SCMI )

**Agop Leon**  
( Ag. Engr. SCMI )

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( State Organization for Engineering Industries )

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## PREFACE

This report is one of the series of reports prepared during the course of UNDP/UNIDO Project IRQ - 72/015 on AGRICULTURAL MACHINERY

The steps taken by the management of Iskandariya Agricultural Implements Factory for the quick development of the manufacturing and marketing capabilities of the factory include establishment of a Testing-Development-Research Division. As a result of studies initiated and taken up by this division, it has become obvious that at present, there are very serious deficiencies in the sale, after sale servicing of Ag. equipment manufactured by the factory and complaints from the users are large. It has also become evident that for reasons of economy and to push forward the programmes of the factory to improve production and sales (Both of these are declining), the sales-service activity should be co-ordinated and integrated with programmes of product improvement, diversification of production, marketing research and other specific efforts of the company (if quick results are to be achieved). The need for the above has become all the more pronounced due to the accumulating stock of manufactured goods and the alarmingly low forecasts on sales turn over when the Govt. is engaged in a massive programme for Ag. development with considerable emphasis on Ag. mechanization.

Further, the study "INTRODUCTION OF NEW AGRICULTURAL EQUIPMENT IN IRAQ AND THE ROLE OF ISKANDARIYA FACTORY" shows that for diversifying production, the Iskandariya factory has to take up a programme for introduction and popularisation of new equipment needed by the Ag. sector and offering scope for production and export. For efficient handling such a programme, an efficient and aggressive sales-service policy is needed.

The study was taken up by the Testing-Development-Research Division under severe constraints of time, trained and experienced personnel for carrying out surveys. The study presents information on the existing situation and highlights major areas requiring immediate attention, and action oriented recommendations. Immediate action on the recommendations is necessary for preventing a bad situation from becoming worse.

The conclusions reached and the recommendations made are based on the information that has become available to the authors and based on <sup>studies</sup> further and experience gained, modifications may become necessary.

P.J.Zachariah

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Mr Basil Nadir, Agricultural Engineer, G.M.P.A, assisted in collecting data. Mr. Muntaz Nazar, Testing division SCMI offered general assistance. The authors are thankful to them, and also to the officers of S.M.I., dealers and users of SCMI products for co-operating in the study.

**SUMMARY AND RECOMMENDATIONS**

The present situation with respect to sales and servicing of tractors and implements made by the State Company for Mechanical Industries in Iskandariya (SCMI) is unsatisfactory. Consequently considerable difficulties are experienced by the users and the factory is facing problems in improving its production and total sales. Forecasts on sales for the year 74-75 is only 2,900 implements as against a target of 7,150 numbers fixed for 1973-74. Poorly organized and supervised sales-service activity is one of the reasons for the declining production and sales of factory's products, a situation which should receive very urgent attention for remedial action.

2. The above situation has to be viewed with concern, because Iraq's requirements of agricultural equipment is large, and the factory has a capacity to manufacture about 30,000 implements.
3. The State Machinery Import Company (SMIC) is the agent of Iskandariya Factory for sale and servicing of SCMI made tractors and implements. SMIC in turn has appointed a large number of dealers in different parts of the country. The SCMI has taken up programmes of development of new equipment, product adaptation research on production and marketing aspects, but there is a lack of feed back of information from the sales-service net work which is vital to the factory for improving its production.
4. For a detailed study on the existing sales-service situation, dealer facilities were inspected, farmers, dealers, and co-operatives were interviewed and surveys using specially designed questionnaires were carried out. (Section- II)
5. Information collected shows that:-
  - 5.1. SMIC maintains a workshop in Baghdad, but the facilities require considerable improvement (Paragraph 3.3)

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The numbers indicated in parenthesis refer to paragraphs in the main report.

- 5.2. Out of the dealers inspected 53% have no workshop, 66 % do not keep spare parts, 95 % do not keep implements for sale, and 33 % do not have even a show room.- A situation existing about 2 years after production and sale commenced.  
(Para - 3.4 to 3.5. )
- 5.3. Dealers are poorly selected, and there is <sup>lack of</sup> clarity in the dealership contract. ( 4.2 to 4.3 )
- 5.4. Insecurity, delayed and uncertain allocation of tractors, infringement of territorial rights, low rate of commission etc. make dealers dis-interested. (4.4 to 4.5 )
- 5.5. SPARE PARTS SITUATION IS DEPLORABLE and reports on tractors lying idle for more than 6 months are many.
- 5.6. The situation on the efficiency with which sales and servicing was handled may be judged from the fact that the local manufacturers, with virtually meagre resources and technical skill have been manufacturing and selling spare parts, and rightly or wrongly have been substituting radiator fans, components of electrical system without the knowledge and approval of the distributor (SMIC) or the manufacturer (SAMI) and these continue to happen. ( 4.6 )
- 5.7. The programme of production is not backed by a sales service activity of minimum standards and the dealers do not receive guidance or assistance in organizing the same. ( 4.7 )
6. RECOMMENDATIONS with respect to each of the observations made above are indicated in the relevant sections for attention and action.
7. The consequential effect of a poorly organized sales-service activity includes lack of feed back of information essential for product improvement, diversification of production and market expansion. Complaints on tractors and implements have been high. But information on the same, activities of the small scale manufacturers, factors restricting sale etc. are not reported for action.

Some of the complaints on poor performance are likely to be due to severe operating conditions, lack of training etc.. But these as well as technical defects should be investigated by a committee of engineers from SOMI, SMIC, the Zech manufacturer and two active dealers for applying remedial measures. Tractors, before they were taken up for progressive manufacture were not subject to the required technical tests. Since the tractors are already in use for long periods, a user evaluation on Antar - 70 and 80 tractors should be carried out, and special investigations on complaints on engine overheating, excessive wear of engine components etc. should be carried out by the testing division. (5.1 to 5.4 )

8. Sale of implement<sup>s</sup> is very poor. User survey on implements to identify factors restricting sales should be carried out. These surveys should invariably be carried out within 6 months of introduction of a new product and should be repeated at least once a year.
9. The effects of a poor sale-service activity include, losses to the factory due to accumulating stocks of unsold implements and delays in the introduction and production of new equipment.
10. The existing situation if allowed to continue would make it practically impossible for the factory to increase the sales turn over, and it would seriously affect its programmes for utilization of its surplus manufacturing capacity (5.8 )
11. Considering the existing situation, and factors indicated above, the SOMI may take the full responsibility for sales and servicing and coordinate this activity with testing, development, marketing research, programmes of introduction, popularization and manufacture of new equipment. For doing this, it may reorganize and revitalize the dealers appointed by SMIC, and utilize the workshop of SMIC in Bagdad . Considering that a ten fold increase in the production and sale of the factory has to be achieved for economic operation of the factory, it may also progressively develop its

own sales-service facilities and supporting programmes for meeting the long term needs. (section VI.)

12. The Iskandariya factory at present maintains a marketing department with about 30 persons, and not only this staff but also the facilities will be required to be maintained by them even if the sales-service continue to be handled by SMO, in addition it should maintain its own servicing engineers, demonstration team and regional office if some of the present defects are to be rectified.
13. An organizational set up with brief details of requirements of staff, functions to be performed is given in ANNEXURE D
14. In financial terms, if during '73-74 sales are continued through SMO, at the present rate of commission payable to SMO, with no changes in the staff and facilities to rectify the existing defects, and without a programme for introduction of new equipment etc. the SMI on an estimated sales turnover of I.D. 1.12 million will incur ID-296,154 as sales expenses. (7.6.)
15. Estimating that diverse action will be taken to rectify the defects, and by '75-76, as a result of intensive programmes of sales promotion, diversification of production to include in the production programme equipment imported and assembled as indicated, and that production will also be increased by sub-contracting, introduced in the report, "INTRODUCTION OF NEW AGRICULTURAL EQUIPMENT AND THE ROLE OF ISKANDARIYA FACTORY" a sales turn over of I.D. 1.37 million could be achieved. For this sales turn over sales-service <sup>to be handled by</sup> through SMO, SMI will have an expenditure of I.D. 772,300 as against only I.D- 367,000 if direct sale is made by the SMI. Thus, the direct sale will enable the SMI to have a saving of I.D- 357,200  
(7.7)
16. Iraq does not have national programmes of demonstration and popularization of new equipment, training in utilization on aspects etc.

These programmes to be organized by the Government is likely to take time. In the same time, to contribute effectively for the growth of agricultural mechanization, SMI may organise programmes of training to personnel of dealers, ~~Contractors~~ projects etc., establish model service centers, initiate special T.V programmes on mechanization aspects etc. Direct sale servicing by the SMI would provide savings to begin these and similar programmes on a modest scale. (6.1 to 6.4.2)

17. UNIDO is assisting member countries in the agricultural machinery field. In view of the importance of the factory for the development of both industry and agriculture, a programme of integrated assistance by UNIDO/UNEP could be of considerable value. Confined to the sales-service activity, immediate assistance through assignment of a specialist for about six months under UNIDO UNEP programme as per draft request in appendix -7 would meet a felt need. (6.5)

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**IMPROVEMENTS IN SALES AND SERVICES**  
**of**  
**ISKANDARIYA MADE AGRICULTURAL MACHINES AND IMPLEMENTS**  
**for**  
**PROMOTING IRAQ'S FARM MECHANIZATION**

**I. INTRODUCTION.**

**1.1. General background.**

The study reported herein was taken up to provide up-dated information on the continuing problems handicapping the State Company for Mechanical Industries in Iskandariya (SCMI) due to poor sale of agricultural implements and consequent difficulties faced by it in carrying through its planned programme for production and diversification of its manufacturing activities in agricultural equipment.

1.2. As a part of the study, 16 dealers appointed by the State Machinery Importing Company (SMIC) were visited, their facilities for sale and servicing inspected, and discussions were held with some of them. Users of SCMI made tractors and implements including a co-operative were also visited and interviewed. Further the workshop of SMIC in Baghdad was visited and discussions were held with officers responsible for sales and servicing. The study has enabled obtaining factual information on the present situation on sales and servicing and to identify problems requiring urgent attention.

1.3. There are numerous deficiencies in the organization and management of the sales and services of SCMI products. Briefly stated, these deficiencies include:

(a) **From the point of commercial viability of the factory**

i. There is inadequate correlation between demand assessments, actual production and marketability. Production is taken up without developing and considering the marketing capability. Even meagre quantities of useful and popular implements assembled and manufactured by the SCMI are remaining unsold while a large potential demand exists.

ii. A sales service net work, is expected to supplement and complement testing, development, research and other activities. There is virtually no



feed back of information on performance and durability of the products under different farming and usage conditions to improve and sustain production and marketing plans of the factory, and for taking timely remedial measures.

iii. The existing marketing network does not provide information on demand trend and factors restricting sales. Considerable sale of items such as ploughs, cultivators etc., in production in the SCMI is lost to local fabricators and demand for items such as levellers, seed drills etc remains unidentified.

iv. There is an inadequacy of demonstration and sales effort on the part of dealers and distributors. This is seriously affecting sales and demand build-up.

(b) From the users point of view.

The buyers are not receiving the essential minimum services and assistance that would enable them to efficiently utilize the equipment.

1.4 The cumulative effect of the above is that the Iskandariya Implement factory is unable to plan a realistic programme of production and marketing, and apart from the financial losses due to accumulation of unsold stocks, and poor utilization of manufacturing capacity, it is not able to effectively meet the agricultural equipment needs of Iraq, the main objective with which the Government had set up the factory.

1.5. It is significant that the present programme and plans for manufacture include different types of agricultural equipment ranging from simple tools to tractor operated implements, tractors and allied engineering products. The manufacturing capacity of the factory is large and its production besides meeting the requirements of Iraq can also meet most of the requirements of agricultural equipment in the neighbouring countries as well. Development of manpower and an efficient organizational system for sales and service tested and proven in the domestic market is necessary, and it would prove to be an asset in guiding and organising export sales.

1.6. Based on an analysis of the existing situation on sales and service,

appropriate recommendations have been made for consideration and implementation.

1.7. The conclusions reached and recommendations made are based on information that have become available to the authors, and may require modifications in the light of further experience that may be gained, and further studies that should be carried out.

## II. METHODOLOGY USED.

### 2.1. User reaction during demonstration held in November 1972.

In the month of November 1972, the Testing-Development-Division of the SCMI organised a national demonstration of all agricultural equipment in the manufacturing programme of the Iskandariya factory and were under tests and evaluation. The demonstration was followed by a meeting on agricultural mechanization. The demonstration and meeting were attended to by representatives of Agricultural and Agrarian Reform Ministries, the different agricultural projects, Universities, co-operative farms etc. A questionnaire for ascertaining reaction of users on performance and durability on SCMI products, immediate and future requirements of agricultural equipment was distributed. From the demonstration, questionnaire distributed and discussions that were held, it has become obvious that:-  
(Refer Appendix -1-B )

- a. The participants had inadequate information on SCMI products.
- b. Those who purchased tractors and implements had serious problems of meeting spare parts and servicing requirements.
- c. For agricultural conditions in Iraq, rugged and simple implements are to be preferred, and a wide range of new equipment are required.

### 2.2. Dealer survey in Central and Northern Iraq.

Based on the experience gained in organising the demonstration discussed above, a large scale demonstration was organised during 1972 Spring season in the different Governorates in the Central and Northern

Iraq. Officers of other division of SCMI and sales and service engineers of SMIC were also participated. Advantage of this programme was taken to assess user reaction. Representatives of a large number of organizations were interviewed, and facilities for sales and servicing of 16 dealers in the Governorates of Ninevah, Kirkuk and Babylon which have a relatively high tractor population were surveyed. The questionnaire used for the dealer survey is given in Appendix- 1.

#### Tractor and implement user survey.

For obtaining information on types of implements possessed, source of supply, free servicing received from dealer, availability of spare parts, performance<sup>and</sup> durability of agricultural equipment used, Tractor User Survey Form in Appendix- 4 was used.

For obtaining general information on agricultural equipment possessed, farming conditions, equipment performance, etc questionnaire in Appendix - 3 was used.

2.3. Besides using dealer, tractor and implement survey forms, 4 implement manufactures in Mosul, 2 manufacturers in Mahamadiah and one manufacturer each in Baghdad and Kirkuk were visited and discussions were held with them on the type of implements under production by them, sales turn over, and other aspects related to SCMI's production programme.

2.4. The information collected, thus provided the necessary base for a close analysis of the existing situation.

For the sake of brevity only some of the important observations, based on which remedial measures are required to be taken are indicated in this report.

### III. SALES SERVICE FUNCTIONS, PRESENT SET UP AND ACTIVITIES.

#### 3.1. Sale- Service functions.

A sales service activity should fully meet the needs of the I. kamdariya Factory for enabling it to plan a programme of production of equipment,

well accepted in the market with minimum risk of O.T. acquisition.

To the buyer it should enable him to carry out the correct and operations efficiently with minimum breakdowns. It should also provide the necessary guidance in the selection and efficient utilization of the equipment. The minimum functions and a-service activity should provide to the manufacturer factory and users consist of:-

A. For assisting the MANUFACTURING SECTOR:-

- i. Collect and make available functional performance and durability of equipment under different usage and working conditions. (For product improvement and for adapting the equipment for a wide range of working conditions and standards of operations and maintenance.)
- ii. Identify factors restricting a local popularization of farming equipment. (Price structure, operation, maintenance, training practices, requirements of special training and maintenance attention - Other difficulties of user in the efficient utilization of equipment etc.)
- iii. Collect information on demand trends and customer preferences.
- iv. Identification of new products in demand and sell return of field data on demand trends and size of demand. (To facilitate diversification of production for utilizing manufacturing capacity for selection of production field as a base of volume of demand)
- v. Introduction and popularization of new equipment, including a survey on customer reactions of new products.
- vi. Assist in production and marketing research. Product design, simplification, price forecasting, improvement of service methods and practices, need for special facilities etc.)

B. To the MESA

1. Provide information on correct selection and utilization in the selection of equipment
2. Assist the guide in the routine and periodical maintenance, efficient operation, and off season storage.

- 3. Assist in carrying out emergency and periodical repairs including supply of spare parts.
- 4. General guidance and assistance in the efficient utilisation of equipment to make investment on machines remunerative

1.2. GENERAL SALE AND SERVICE AGREEMENT

By a contract entered into by the Iskandariya factory with the State Machinery Import Company (SMIC) the latter is the authorised agent or distributor for tractors and agricultural implements produced by the Iskandariya factory for the whole of Iraq. The contract is for a period of two years but renewable for further periods. The summary of terms of contract which have relevance to the sale and servicing and production plans of the SOA include:-

- SMIC would make estimates on programmes for sale and Iskandariya factory would organise its production programmes accordingly.
- SMIC is restricted to sell tractors and implements in Iraq, but may export quantities manufactured in excess of sale requirements in Iraq. ( clause 1.1 and 1.3.)
- Delivery charges for tractors and implements sold outside the Iskandariya factory is chargeable to the customer. ( Clause 1.6.)
- Servicing and other related obligations will be discharged by SMIC. Servicing vans will be made available by SOA. (Clause 2.2 and 2.3.)
- SMIC will submit periodical reports on defects and make recommendations for improvements. (Clause 5.1)

1.2.2. SMIC in the capacity of sole agent or distributor for Iskandariya and tractors and implement for Iraq, besides operating a servicing workshop in Baghdad has appointed about 40 dealers for sale and servicing of tractors and implements in the different parts of the country. The list of dealers appointed by SMIC is given in Appendix-2. The contract SMIC entered into with the dealers and others, provided that:-

- The price to the dealer is a selling price to the user will be fixed by SMIC. (Clause 2 of contract)
- The dealer will, work in a workshop, and spare parts stock (Clause 3)

- SMIC has the right to periodically inspect the dealer facilities for repair and maintenance, and deficiencies notified will be rectified. (Clause 4)
- SMIC has the right to estimate the spare parts to be stocked by the dealer. (Clause 5)

### 3.3. Sales service facilities available.

#### At the Baghdad work shop.

SMIC maintains a workshop in Baghdad and maintenance jobs of Iskandariya factory made Antar tractors are handled in this factory. For the repairs and maintenance, the staff of SMIC is assisted by a specialist from the Zetor Factory in Czechoslovakia. The general assessment of repair facilities in the workshop of SMIC as it existed early in '73 is as under.

Buildings. - Parking areas for tractors inadequate. Special dust proof rooms are not available for engine overhaul.

- No room available for repair and servicing of hydraulics and fuel injection equipment.

Staff. - The engineers available are yet to receive specialised training in repair, maintenance and operation of tractors.

#### Facilities for repairs and overhaul.

- Specialised equipment for repair and adjustment of electricals, fuel injection systems, and for overhaul of engines and transmission are yet to be provided.
- Only limited special purpose tools and dismantling stands for engine and transmission are available

During inspection of the workshop on 26/2/73 there were 40 Antar tractors awaiting major and minor repairs some of which were parked for long periods for want of spare parts.

### 3.3.2. Facilities available with the dealer organizations.

An analysis of sale of implements and dealer facilities and performance show that most of the dealers are inactive. Neither the Iskandariya

management primarily to protect its own interests as a manufacturer nor SMIC as an authorised distributor has taken timely and effective steps to ensure that the dealers maintain the minimum standards of performance.

### 3.4. Dealer facilities as observed in 1972.

A survey of 17 dealers carried out in the month of May 1972 has shown that the dealer facilities available at that time were extremely poor. Summary of the findings of the survey is given in the following table.

Table - 1 Dealer facilities in the month of May 1972.

S.No.	Item	Percentage of Dealers
1.	Dealers without sales office	40
2.	Dealers without spare parts stores	40
3.	Dealers without repair workshop	70
4.	Dealers without sign boards on sale and servicing of SCMI products.	20
5.	Dealers without previous experience in Ag.implements and machines	100

With respect to each dealer the above survey is given in Appendix - 1.

### 3.5. Dealer performance and facilities as observed during March-April-73.

The summary of observations made as a result of detailed survey on sale service facilities and performance carried out during March-April-73 is given in Table - 2.

Some of the dealers at the time of visit of the investigator were not present, and thus all the details included in the questionnaire could not be collected. Some of the dealers were also apprehensive of motives of enquiry and the likely consequence of their observations on dealership contract with SMIC. Hence they were guarded and reserved in expressing opinions and in furnishing factual details.

The factors indicated in table -2 and those relevant to the subject of study are further elaborated in the appropriate sections.

Table -2. Dealer facilities in the month of March-April 1973.

S.No.	Item	Percentage of Dealers surveyed.
1.	Total dealers surveyed	16. In the Governorates of Baghdad, Babylon, Nineveh, Arbil, Kirkuk
2.	<u>Activities handled</u>	
	a. Previous experience related to sales and servicing of Ag.equipment	20
	b. Some what related	54
	c. Unrelated	20
3.	<u>Show room facilities.</u>	
	a. Not available	33
	b. Out of those with show rooms, those who exhibited tractors or implements	2 only
4.	Sign board on dealership not available	27
5.	Dealers without work shop for repair and maintenance	53
6.	Dealers not maintaining spare parts and other stores materials for Antar tractors and implements	66
7.	Dealers not stocking implements for sale	95
8.	Dealers who are inactive and have not sold tractors and implements	66
9.	Supervision, guidance and assistance to dealers in the organizational and management of sales-service (By SMIC or SCMI)	virtually Nil

#### IV. DEFECTS IN DEALER PERFORMANCE AND REMEDIES.

Poorly selected and disinterested dealers and a host of other factors have resulted in poor sale and services.

##### Poorly selected and inactive dealers.

For sales and servicing, SMIC had appointed 46 dealers in the different parts of Iraq. (Ref. dealer list and location at Appendix -2). Criteria that was applied for selection of dealers and the number of dealers in a particular town or area require modification. The survey has showed that only 44 percent of the dealers surveyed are actually engaged



in sales and 53 percent are without workshop for providing repair, maintenance and services.

4.2. The high concentration of dealers in one town

In the present set up, too many dealers are concentrated in one town. for example the number of dealers in the following towns are: (refer Fig.1)

Mosul	-----	6
Arbil	-----	4
Kirkuk	-----	5

This is organizationally defective. Too many dealers in the same town or area would divide the meagre volume of business between them and would make it uneconomical for them to maintain competent sales and servicing personnel, show rooms, spare parts stores, and workshops as is happening today. Further, the dealers to be effective in discharging their after sale service obligation, to the extent possible should be distributed in the rural townships to be easily reached by the farmers rather than in distant cities.

Recommendations.

- (a) The dealership contract with uninterested dealers should be terminated.
- (b) Major cities should not have more than two dealers and a second dealer should be appointed only if annual sales volume per dealer exceeds about 50 tractors and competition <sup>between</sup> dealer has to be created for improving sales and services.
- (c) Agr. areas which have an existing population of about 50 tractors or potential for sale of 25 or more tractors a year within a radius of 30 to 50 km, dealers or sub-dealers may be appointed.
- (d) The criteria for selection of dealers should include previous experience in the line or an existing activity related to supply or use of an engineering product used in agriculture and capability to organize or aggressive sales-service-demonstration programme.

4.3. Lack of clarity in dealership contract.

The dealership contract SMIC had entered into with the dealers



**مواقع وكلاء بيع ومعدات المزارع الزراعية المنتجة في مناطق  
الأماكن**

**FIG 1**

stipulates that the dealer should open a workshop for repairs and a shop for selling spare parts and should have the necessary staff. There are no stipulations or supplementary instructions to the dealers as to what are the minimum repair facilities to be maintained and spare parts to be stocked. A similar deficiency also exist with respect to the contract SCMI had entered into with SMIC.

Recommendation.

The minimum sale service facilities ( Show rooms, workshop, tools, and equipment, staff etc.) to be maintained and services to be provided to the buyer during and after warranty period by the dealer and the spare parts to be stocked should be stipulated. (As for spare parts also see recommendations 4.6.6 (i to iv ) Pages 19 to 21

4.4. Disinterested Dealers.

There is a general lack of interest on the part of dealers (exceptions are few) to take sale and servicing of implements as a business activity. The following are some of the reasons.

Insecurity.

The dealership contract of SMIC with the dealer is for a period of two years subject to renewal, or termination with a notice period of 3 months. Doubts in the minds of dealers (Whether justified or unjustified) On their continuing as dealers, makes them reluctant to invest on show rooms, servicing workshops etc.

Recommendation.

In view of the provision of notice period of 3 months in the contract, the dealership contract could be for a longer period (Say 5 years) To give incentive to the dealer in investing on spare parts, implements, etc. the contract may also provide clauses to the effect that if the dealership is terminated at the instance of the manufacturer or distributor, up to 75 percent of the unsold spare parts, tractors and implements maintained in good condition will be purchased back or re-allocated to other dealers.

#### 4.4.2. Delayed and uncertain allocation of tractors.

There is a general complaint that waiting period for receiving a tractor after depositing the cost is long and the allocations are uncertain. Often several visits to the office of IMIC are required for getting the allocation orders. Dealers were dissatisfied for the time they had to spend in getting release orders and in taking actual delivery of the tractors.

#### Recommendations:

Allocation to dealers may be based on post sales and orders farmers have registered with the dealers and programmes of Govt. for agricultural development in the dealership areas. Dealers should be encouraged to maintain a minimum of two tractors in stock in a ready to sell condition and may be required to make annual forecasts on requirements of tractors and complementary implements, samples of which should also be stocked by the dealer. Forecast on requirements is essential for planning, production and distribution.

#### 4.5. Direct sale of tractors and implements by IMIC.

4.5.1. The consequential effect of having several dealers in a town has been discussed in part 4.2. To add to this, even when the sale has been initiated by a dealer, sales are made directly by IMIC to the farmer and the dealer is not paid his commission. On such directly sold tractors and implements the dealers are unwilling to render the minimum after sales services, the user becoming the sufferer. A sale may be made by the direct effort of the dealer. Taking into account the present situation in Iraq a dynamic sales network is required to support the manufacturing programme.

#### Recommendation

On sale of tractors and implements to priv. to farmers and co-operatives who are not the owners of tractors, dealers may be made eligible for 10 percent of normal commission on tractors and 25 percent on implements which would enable them to fully meet the expenses on account of after sales service obligations.



of waiting at a slightly reduced price. Also, for providing an efficient sale and after sale service, experienced technicians and well equipped facilities are required to be maintained. Only commission on spare parts and new equipment will enable meeting the cost of prompt and timely services and supplies. Profits from the total business should give the dealer the incentive to invest and expand the business, and thus to serve as an effective link between the manufacturer and user.

4.5.3. The survey has shown that majority of the dealers have taken up sale of tractors and implements as a side business. Some of them are agents of "African Iraqi" handling sale of house hold equipment, tyres, batteries etc. on which they earn a commission of 10% even though sale of these products involve relatively much less effort and after sale service obligation.

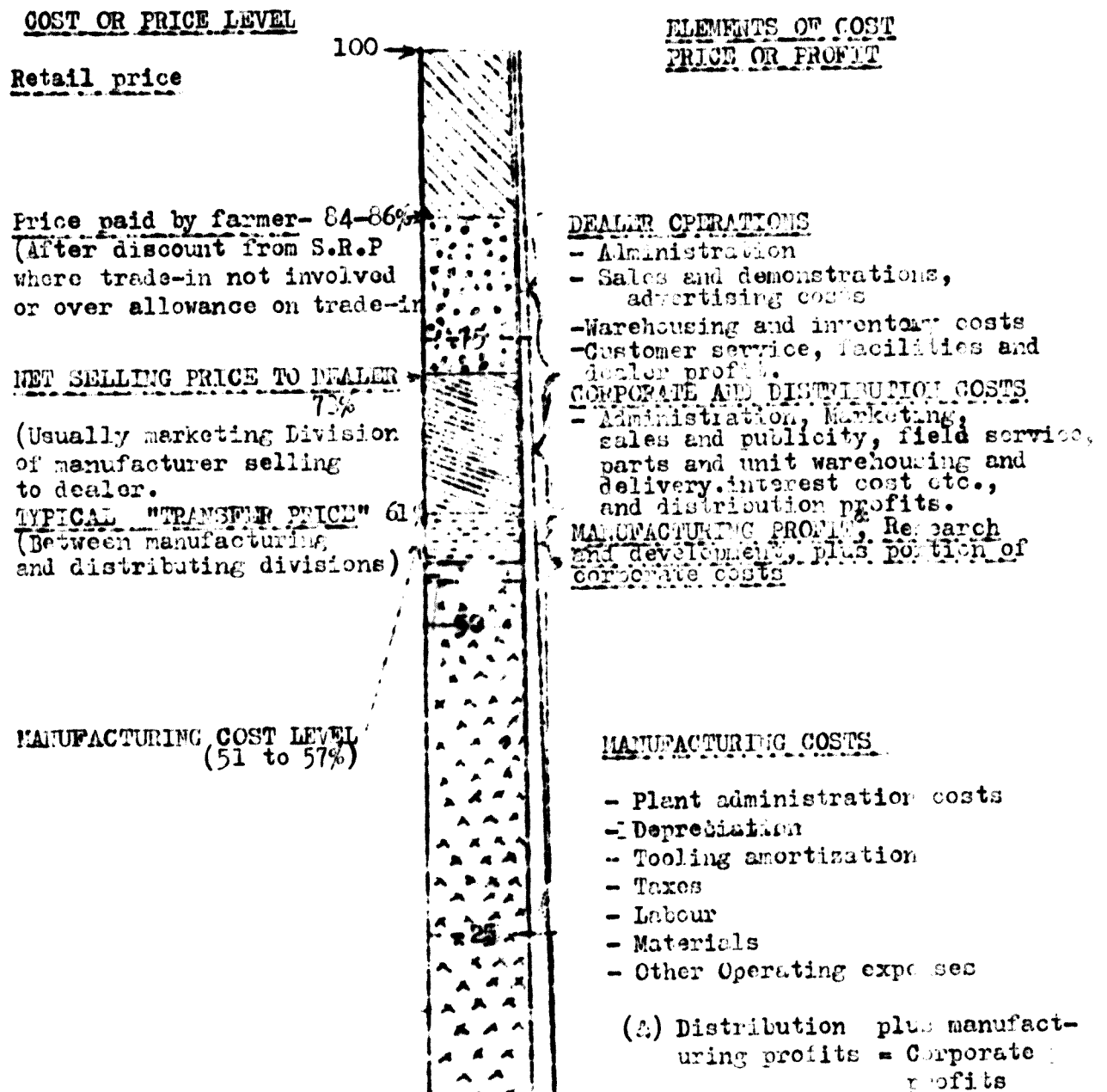
4.5.4 Commission generally allowed to dealers by leading farm equipment manufacturers ranges from 7% to 15% on tractors, 15% to 25% on implements, 15% to 50% on spare parts, depending on dealer obligations in promoting sales, investments to be made, after sale services to be rendered and the nature of the market. The more aggressive manufacturer offers liberal terms of commission, some of which in a competitive market, the dealer is obliged to pass on to the customer in the form of services, cash or high trade in value for the old equipment where the same is practised.

4.5.5 One of the recent studies on the cost levels of production and marketing of agricultural equipment, and is relevant to the discussions here is the Royal Commission's report "Farm Tractor Production Costs"<sup>(A)</sup>. The bar chart on the next page summarises the elements of cost of production, prices actually paid by the farmers and profit. The different elements of costs as in the chart may not be fully applicable to Iraq. It may be unreasonable to suggest a rate of commission to dealers much higher than the existing ones when the dealer can easily sell a tractor in a fully protected market and also one implement which the farmer must buy, if he has to get a tractor.

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(A) Detailed report published by Queens Printer, Ontario, Canada.

PRICE AND COST LEVELS FOR PRODUCTION AND MARKETING OF TRACTORS

SOURCE

Royal Commission on Farm  
Machinery "Farm Tractor  
Production Costs.  
(Implement & Tractor Jan 21 '70)

pjz/

Figure 1-B

4.5.6. Commission to dealer has to be determined based on sales and after sale obligation of the dealer to the manufacturer and the buyer. Recommendations on commission will be dealt with later in the report.

4.6. Deplorable Spare parts supply situation.

4.6.1. The situation with respect to spare parts supply and servicing facilities both with the manufacturer and its distributors may be assessed from the fact that Models of Antar 70 and 80 tractor in regular use for testing of implements etc. by the SCMI was out of commission for about 3 months in SMIC's garage.

4.6.2. Efficiency of a parts service has to be evaluated, not on the parts available with the manufacturers or distributors and can be imparted on a forward delivery basis, or the total value and number of parts stocked but on the ready availability of needed parts in adequate quantities at dealer points and the speed with which the parts can be made available and fitted to the machine to make them work without losing crop seasons.

4.6.3. Result of Survey.

The result of survey has been disappointing and a helpless situation is still existing (As on 30th July). All the dealers and users complained severely of spare parts shortage. The individual owners of tractors felt that their needs were ignored. For the sake of brevity only information obtained from some of the dealers and could be considered as an example of a general situation is reported.

a. Position obtaining with a fleet user (Joint Co-operative Society in the Greater Mussayib Area.)

i. General - 20 SCMI made Antar-60 tractors and ploughs purchased in April 71.

ii. Summary of spare parts situation.

i. 8 tractors out of 20 numbers or 40% of the tractors remained out of use for about 8 months for such parts as cylinder liners, pistons, clutch plates and bearings and several other items. (Tractors were in use for only about 1 1/2 years.)



2. Desperate situation has forced the co-operative to hunt for substitutes or equivalents but with poor results.
3. Against the requirement of 20 armatures, received only 2 numbers. Dynamo coils not available.
4. Dynamo pulleys wore out prematurely- Replacement not available.
5. Front wheel discs along the bolt holes on most of the tractors cracked and broken. Difficulty in obtaining replacement part overcome by welding another plate on the old one.

( The above situation on lack of critical spare parts is a position obtaining 1 1/2 to 2 years after sale of tractor which provided adequate time even to make a realistic assessment of trend in parts consumption.)

b. Position as indicated by dealers.

- All dealers engaged in sale of tractors were vehement on shortage of spare parts.

Typical example.

- A dealer in Mosul ordered spare parts of the value of I.D. 1500 and received I.D. 100 worth parts. Such minor items as gaskets required during periodical servicing were not available.

c. Position as indicated by individual tractor owners and co-operative lives.

- Feeling of helplessness and desperation.

4.6.4. Contribution of private manufacturers in overcoming spare parts shortage.

Agricultural implement manufacturers with small workshops are manufacturing spare parts for SCMI made tractors and implements. The items made by them include stabilising links of 3 point linkage, gaskets, pins of various sizes, 3 point linkage arms, and several other items which come under frequent and premature failure. The more resourceful small scale manufacturer offer fan blade assemblies, replacement generators adapted from those of other makes of tractors. Figures 2 and 3 show display of spare parts for tractors and implements and other agricultural equipment

by two implement manufacturers who own their type near the dealer of  
Antar tractor and implements. These agents have no technical knowledge of  
their respective technical support facilities and should have the  
insignity then the dealers with whom it was difficult to associate. They  
know of agents both kinds of technical services of them.

4.6.5. Existing procedures in procurement and distribution of spare parts.

Recommendations for spare parts for tractors are submitted to  
the Czechoslovakian manufacturers to SOEI who prepare the list with the re-  
commendations to SHIC who after scrutiny of the list refer them to the C-  
suppliers. The whole process often starts late, in some cases even after  
the tractors are assembled and sold, with the result there is a heavy  
mark-up.

4.6.6. The authors have not come into detail of procedure followed  
in acquiring supplies of spare parts and its distribution. However, from  
the fact that there is a constant and persistent shortage of first-class  
spare parts, (over 2 years) it is obvious that the general trend in demand and supply  
is yet to be developed, or importance of spare parts which has been  
under-rated.

Recommendations.

(1) Rate of imports.

Spare parts of the value not less than 10% of the tractor value  
be imported initially with the new tractors, in advance, or to be received with the tractors.

To reduce the present problems of scarcity of spare parts  
quantities to be stored, the Czech manufacturers, in view of their  
intimate knowledge of their products and its durability and  
usage conditions, recommended minimum and maximum limits of spare parts to be stocked  
for 50 t, 75, 500-750, and 1,500 t, 2, 000 t or so. (These  
figures representing spare parts to be maintained by



Fig. 2



Fig. 3

locally and square parts for structure and implants  
 as display by small implant magnification.

an average dealer, at regional level, and by manufacturer or distributor. The parts recommended should be classified into fast and slow moving for tractors in the age groups, upto 2 years and 3 to 5 years. The recommendations so received may be modified in the light of local experience.

ii. Incentive for stocking

a. Return of slow moving and unsold parts in exchange for fast moving ones.

To reduce the risk of stocking of slow moving parts, provision should exist for exchanging<sup>ng</sup> or substituting a portion of unsold stocks by the dealers with the distributors subject to a maximum of 10% of the value of parts received by them during the previous year. A similar provision should also exist in the contracts that will be entered into with foreign manufacturers when imports are involved. This system is followed by quite large number of manufacturers.

b. Commission.

10% commission presently allowed is considered inadequate. If the dealer is expected only to procure and stock what he can safely and conveniently sell, without additional service to the customer, 10% may perhaps would suffice. Commission should cover interest charges, calculated on an average stocking period of fast moving and slow moving parts (9 months and 2<sup>1</sup>/<sub>2</sub> years respectively) the ratio between the fast and slow moving parts, the minimum stocks he is expected to keep at all times, losses in handling, storage and due to obsolescence, expenses in managing a spare parts store etc.

- Since the basis of determination of 10% commission to dealers and stipulations on the minimum spare parts services to be rendered by the dealers and the distributors were not studied, it is recommended that these aspects may be studied to ensure a more efficient role of dealers in providing a spare parts service. (This study could be taken up by the Testing-Research Division, as a research activity.) (Provisionally 15% commission to dealers is recommended.)

iii. Stock control and replenishment.

An analysis of rate of consumption of spare parts and the type of parts consumed should meet the twin objectives of providing

information on durability, design improvements needed, special usage conditions and deficiencies in the standard of maintenance as well as stock control and replenishments. Dealers may be required to submit their indents on requirements once in three months or at least half yearly to include information on sale during the previous indenting period, quantity in stock, minimum and maximum stocks prescribed with respect to number of machines to be serviced, surplus stock and requirements. Surpluses reported by the dealers may be adjusted by internal transfers before reimbursement of cost or substitutes are claimed on foreign suppliers, as suggested in recommendation ii (a) above.

iv. Incentive to customers for keeping very essential spare parts.

Owners of tractors may be encouraged to buy at the time of purchase of new machine spare parts such as oil filters, gaskets, pins used on 3 point linkage, fan belt etc. which are essential for routine maintenance or emergency replacements, and items required for periodical replacement. As an incentive they may be allowed 50% of the commission allowed to dealers.

- Fleet owners including Govt. departments possessing repair and maintenance facilities may be assisted and guided in maintaining bare minimum of essential parts .
- Lists of parts that are recommended for purchase with the new machine and will be supplied at concessional price may be prepared and circulated.

4.7. SERVICING

4.7.1. During the period of survey, majority of the tractors were new. Most of them were used for about an year. Complaints on premature failures due to a combination of factors, were large. The survey highlight the fact that the dealer facilities are to be improved and that the programme of production and sales were not backed by a sales service activity which feeds information on performance and durability of the products, to take timely steps for product improvements and for identifying factors restricting market expansion.

#### 4.7.2. Servicing facilities.

Workshops. - Out of the dealers actually engaged in the sale of tractors (6 out of 16 ) 5 dealers have their own workshops. The general assessment of these workshops and observations made on their servicing activity are as under:

Open area and buildings	-----	2 nos - Good 1. Satisfactory 2. Poor
Repair facilities	-----	2 satisfactory 3 Poor.
Staff	-----	Only 2 dealers had staff trained on Antor tractors.
Special tools	-----	Not available.

- There has been little or no guidance or assistance to the dealer by SMC or SCMT in organizing and establishing a workshop of reasonable standard and consequently they have been slow in creating facilities that fully meet the requirements of a satisfactory sales service set-up.
- Now availability of special tools and general purpose workshop equipment and fixtures are a general deficiency. The dealers however showed their willingness and eagerness to invest on special purpose tools, if imports are arranged on their behalf.

#### 4.7.3. Training.

With the assistance of a specialist from Czechoslovakia SMC had been conducting attachment training of about 2 weeks duration on servicing aspects of tractors to the staff of dealers. But not enough for providing comprehensive training to personnel of dealers on aspects of dealership functions and management to include:

- (1) Dealer responsibilities to the manufacturer and the user.
- (2) Efficient use and upkeep of the equipment under different farming conditions.
- (3) Warranty obligations.
- (4) Techniques of demonstrations of new equipment, user survey and collection of information on demand trend.

- (5) Organisation and management of spare parts stores.
- (6) Organisation of servicing workshops and on the farm servicing etc.

Initial training should be followed by refresher training and periodic meetings, if the dealers are to be kept up-to-date on changes in the design of equipment, servicing and parts problems, familiarising dealers with new equipment included in the manufacturing programme, new techniques of construction and so on.

#### 4.7.4. Recommendations

##### i. EXISTING FACILITIES OF WORKSHOPS

The existing workshop facilities should be inspected and each dealer should be advised on the steps to be taken for improving the lay-out of workshops.

##### ii. MINIMUM EQUIPMENT AND SPECIAL TOOLS

- A list of minimum servicing equipment in tools that should be available may be compiled in consultation with the dealer for urgent requirements. If imports are involved, bulk imports may be made by IIC after ascertaining requirements.
- There are several special tools recommended for use by the Co-operative in small structure for servicing and overhaul of tractors. These may be imported or manufactured locally at the dealers.

##### iii. TRAINING STATIONS

As a immediate step, in view of the large number of servicing deficiencies in small structure and tractors, special training in maintenance, operation and servicing of tractors may be held.

- a. To initiate and conduct a series of seminars and for on-site visits in the period 1961-62. The seminars should be held in IIC and IIC - HONI.
- b. To initiate special training programmes for dealer personnel and technical personnel of co-operatives in agricultural projects.

e. Plan and establish a Training center (For meeting long term needs).

Since the SCMI's total annual production has to reach I.D 20 to 30 million and since export will also be developed, advance plans may be made for establishing a training school for users, dealers etc. The working and organization of Massey Ferguson's training school in U.K., Escorts Farm Mechanization Training School, Faridkot India, which also provide training in management aspects may be studied.- There are no training centers on selection, operation and utilization of agricultural machinery in Iraq. The Abu-Gharib training center is imparting training only in heavy equipment-

v. CONSEQUENTIAL EFFECTS OF POORLY ORGANISED  
SALES SERVICE ACTIVITY.

5.1. There is an absence of feed back of information that would help product improvement, diversification of production, and market expansion. Complaints on the durability and performance of tractors and implements are large, but there has been no system for reporting these to the factory. The information obtained during the survey is given below to highlight existing situation, and investigations that should receive priority attention in the work of Testing-Development-Division of SCMI. Inferences that may be drawn from the present situation would also highlight the organisational and technical preparation necessary to enter an export market where competition may exist or is difficult to be avoided.

5.2. As per orders of the Government, tractors in the same horse-power range as are assembled in the Iskanderiye factory are prohibited from imports. Thus, tractors enjoy a protected market. Due to this reason, sales were not seriously affected by complaints on durability.

5.3 The complaints on the tractors include:-

1. Excessive overheating. On Antax 70 tractors most of the farmers are fitting fan blade assemblies of Ferguson tractors or those locally



manufactured. Out of 70 tractors sold, one dealer had changed fans on 50 tractors. Similar is the case with other dealers also.

2. Excessive wear of pistons, cylinder liners and piston rings.

This has become a common complaint. One dealer reported that the pistons, rings etc. are required to be changed in about 500 hours of operation as against a average life of 2500 to 3000 hours on other makes of tractors in use in Iraq. On 25/7/73 out of 23 Antar tractors awaiting major repairs in the SMIC's garage, 14 numbers were for replacement of pistons, piston rings, sleeves etc. These tractors were used for less than about 500 hours.

3. Breakage of torsion bar-toplink. Failure of this part was

observed to be high. One dealer reported breakage of this part on almost every fourth tractor serviced by him.

4. Drive pulley on engine crankshaft works loose.

5. Differential crown wheel studs break prematurely.

One dealer reported damage to 3 crown wheel assemblies out of 35 tractors in use for 4 to 9 months.

6. Fan and water pump pulley wear out prematurely.

One dealer had to replace these on about 75% of the tractors in one years of time.

7. Dynamo and cut out fail prematurely.

This is a general complaint. One dealer reported that he had to change these twice on most of the tractors within a period of 6 months. Farmers were replacing dynamos from Ferguson tractors etc. available in the market.

8. Steering column top bearing fail prematurely.

Average life 6 to 9 months.

9. Gear box failures.

Out of the 35 tractors failure of 4th gear on 8 tractors was reported by one dealer.

10. Upper link bonds, and threads get easily damaged.

There were other complaints; premature breakage of shaft of crown pinion, accelerated wear of front axle bush, poor performance of hydraulics due to premature wear of "O" rings on the hydraulic pistons, leaky crankshaft oilseals etc.

5.3.2. Enquiries from the marketing division of SCMI show that there have been no defect reports on the tractors or implements from SMIC, even though clause 5.1 of the contract of SCMI with SMIC stipulates that these will be submitted periodically by SMIC to the SCMI. Copies of warranty claims giving details of parts replaced, or what have been replaced without former claims, or what may possibly have been disallowed and reasons there of, are not available in the SCMI. From the procedural point of view, defect reports and claims based on reports from SMIC is required to be submitted to the foreign suppliers by the SCMI who is the local manufacturer.

5.3.3. The SCMI with each tractor and implement, supplies to the customer a request in Arabic stating that complaints and suggestions on the equipment may be sent to the factory. Even though roughly 2500 tractors and an equal number of implements have been sold, up to 25/7/73

only one form has been received back. The inference that can be drawn is that the customers were not fully informed of the importance of the enquiry and how it would benefit them and the manufacturer, they have doubts on the prompt attention that will be given to the complaints.

5.3.4. When the complaints were left unnoticed and unattended to by SMIC and SCMI, the more alert way side implement manufacturers took up manufacture and sale of spare parts in short supply. The progressive type users, with the help of dealers had taken up modifications to electrical and cooling systems. Thus the sales service network was unable to provide timely information on a very unsatisfactory situation that existed for long and still exist.

5.3.5. Complaints on implements.

Premature failure of bolts, heavy construction, bending of beams etc. on plough, breakage of springs, shanks etc, on cultivators have come to light as a result of regular tests and user survey that was conducted. But these and similar complaints in spite of their large occurrence remained unnoticed and unreported by the sales service set up. There are several improvements on other products, which could have easily

been identified and reported for improving reliability but were left unattended to.

See Recommendations:

- (1) ~~Tests of Antares 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000~~

Antares 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, and 111 models of engines were taken up for assembly and sale without carrying out the essential technical tests for which necessary inspections were not available at that time. Since Antares 101 is now being sold, all serial complaints and customer reports, in so far as they concern unexplained failures, should be reported to the factory and action should be initiated immediately.
- (2) ~~Investigation of the causes of engine failures and their prevention.~~

Although the possibility of the recurrence of engine failures is not to be taken up immediately by a team of specialists drawn from the manufacturers, IC and ICI, the cause of the serial failure should be investigated and taken up for study by the testing division.
- (3) ~~Subject engine of investigation in SYDNEY A. 101.~~

The engine used in the manufacturer's report for engine failure during operation of the tractor is designed for operation at 1500 rev/min. It should be verified by operation at 1500 rev/min and at an ambient temperature of 40°C for a minimum of two hours.

If the engine is operated at 1500 rev/min at an ambient temperature of 40°C, the engine should be operated at 1500 rev/min for a minimum of two hours. The engine should be operated at 1500 rev/min for a minimum of two hours.

If the engine is operated at 1500 rev/min at an ambient temperature of 40°C, the engine should be operated at 1500 rev/min for a minimum of two hours. The engine should be operated at 1500 rev/min for a minimum of two hours.
- (4) ~~Investigation of the causes of engine failures and their prevention.~~

During the engine operation, the engine should be operated at 1500 rev/min for a minimum of two hours. The engine should be operated at 1500 rev/min for a minimum of two hours.

should be at a higher level. The daily maintenance of air cleaner is difficult. For changing of air cleaner oil, and for cleaning the assembly, 3 bolts have to be loosened and the whole assembly has to be lifted. This is cumbersome and takes 5 to 7 minutes. A clip method of fastening the oil pan to the air cleaner assembly and repositioning of the air cleaner are, must. Since the complaint on rapid wear of piston, rings etc. may have relationship to the efficiency of the air cleaner and its maintenance, it is desirable to carry out the modifications on the existing stock of tractors as well as those already sold. (Also see recommendation- 5.4.(5))

(5) Carry out tests on air cleaner efficiency.

During the survey few cases of air-cleaner oil pull over were reported. If it exists due to an under-designed air-cleaner, it would cause accelerated wear of engine components. The report should be verified by conducting tests (+) for air cleaner oil pullover.

5.5 Poor sale of implements

5.5.1. The sale figures of ploughs and cultivators, the two major items of agricultural equipment in production in the SCMI show that sale of these were poor. The sale figures of these since 1962 in relation to tractors sold during the same year, summarised from Appendix - 6 is given in Table - 3.

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(+) A simple form of conducting tests for air-cleaner oil pull over is given in Is- 5994-1970 "TEST CODE FOR AGRICULTURAL TRACTORS" by Indian Standards Institution

Table - 3

Tractors, ploughs and Cultivators sold in Iraq  
Since 1963.

Year	Tractors	Ploughs	Cultivators	Total	Ploughs cultivators sold in percent of tractors sold.
<u>Sold by private agents</u>					
1963	842	600	337	937	111.3
1964	869	637	287	924	106.3
1965	1093	697	308	1005	91.9
1966	1233	735	305	1040	84.3
1967	1188	766	215	982	82.6
1968	1084	539	243	782	72.1
1969	1056	540	295	835	79.1
1970	600	226	164	390	65
<u>Sold by SCMI</u>					
1971-72	560	119	131	250	44.6
1972-73	1346	639	133	772	57.4

From the above it will be seen that the sale of ploughs and cultivators by the SCMI in relation to tractors that were sold is almost half of the sales in previous years, whereas, actual sales should have been much higher for meeting replacement requirements as well. Factors such as designs not liked by the users, competition from local small scale fabricators were affecting sales. These factors in respect of cultivators are discussed in detail in report Nos 6-72 and 7-72 "Performance Evaluation of Spring tined Cultivators.

5.5.2. The SCMI had been losing sale of implements with tractors to private farmers.

Table 4 below gives summary of yearwise sale of agricultural equipment to Government projects, co-operatives and private farmers. Table 5 on page 32 gives details of agricultural equipment of all types sold to Government projects, co-operatives etc., from 1970-71 to June 1974.

Table 4.

Yearwise sale of Tractors and implements  
by the Iskandariya factory.

Year	Item	Govt.	Co-operative	Private.	Total.
1970-71	Tractors	7	42	1	50
	Implements	Nil	Nil	Nil	Nil
1971-72	Tractors	280	85	195	560
	Implements	675	62	26	763
1972-73	Tractors	146	109	1057	1342
	Implements	272	82	607	961
April '73	Tractors	53	19	180	257
to June '73	Implements	117	30	154	301
total sold for the period '71-'72 to 30th June 73					
	Tractors	491	255	1463	2209
	Implements	1064	174	787	2025
Sale of implements in percent of tractors sold.					
		216.7	68.2	53.8	91.6

TABLE OF INVESTMENT IN AGRICULTURAL EQUIPMENT IN IRAQ  
 DISTRIBUTION BETWEEN GOVERNMENT, CO-OPERATIVES AND PRIVATE FARMERS

Table 5

S. No.	Name of Equipment	1970-1971			1971-1972			1972-1973			1973 to June 1974			TOTAL					
		Govt	Co-Op	Private	Govt	Co-Op	Private	Govt	Co-Op	Private	Govt	Co-Op	Private		Total				
1	2	2	4	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<b>TRACTORS</b>																			
1	Antar - 60	7	42	1	50	280	85	195	560	85	69	575	738	-	-	-	1	1	1393
2	Antar - 70	-	-	-	-	-	61	41	512	634	61	512	634	56	37	174	247	861	861
3	Antar - 80	-	-	-	-	-	-	-	-	-	-	-	-	2	2	5	9	9	9
TOTAL:		7	42	3	50	280	146	195	560	146	139	1087	1372	58	39	189	247	2289	2289
4	3.F. Mould Bd. plough (Danish)	-	-	-	-	22	40	22	84	-	-	-	-	-	-	-	-	-	84
5	3.F. Mould Bd. plough (IRAC)	-	-	-	-	14	4	3	21	40	57	516	613	14	19	132	163	799	799
6	4 Ton trailer 2 axle	-	-	-	-	195	4	-	199	130	2	-	132	63	2	-	67	396	396
7	Ditcher	-	-	-	-	60	1	-	67	13	-	-	15	8	-	-	8	88	88
8	Seed drill	-	-	-	-	45	-	-	45	29	-	-	29	3	-	-	3	77	77
9	Disc harrow	-	-	-	-	90	1	-	100	-	-	-	-	-	-	-	-	100	100
10	Cultivator	-	-	-	-	121	11	1	133	20	29	91	134	2	4	21	27	294	294
11	4.F. Mould Bd. plough	-	-	-	-	100	1	-	101	12	-	-	12	13	-	-	13	126	126
12	Disc plough	-	-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	3	3
13	Cotton planter	-	-	-	-	13	-	-	13	5	-	-	5	6	1	-	7	25	25
14	Ridge	-	-	-	-	-	-	-	-	-	-	-	-	5	4	1	10	10	10
15	4.F. Disc plough	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	1
16	Cotton Cultivator	-	-	-	-	-	-	-	-	20	1	-	20	-	-	-	-	20	20
TOTAL:		-	-	-	-	675	62	26	763	272	82	607	961	117	30	154	301	2025	2025

Note: Source sales division, S.C.M.I.  
 Abbreviations used: Govt = Government, Co-Op = Co-operative farms, Private = private

The private manufacturers have been competing with the SCMI with low priced cultivators and implements of simple and rugged design on which little or no information has been collected before deciding the sales targets.

5.5.3. Sale of useful implements such as Cotton planters and seed drills is poor.

Out of 50 numbers of cotton planters and 150 numbers of seed drum fertilizer drills assembled during 71-72, even though two crop seasons have passed, sale up to the end of June 73 had only been 25 and 77 numbers respectively, due to lack of sales effort and identification of factors restricting sales.

5.6. Losses due to accumulation of poor sales.

Stocks of unsold implements have been accumulating resulting in expenses due to interest on working capital, storage and maintenance etc. As on 31st March '73, the number of implements in stock was 2,164 as against 1,954 numbers manufactured and assembled and 161 numbers sold during 1972-73.

5.7. Useful equipment developed remains unused due to long delay in organizing production.

Tractor 3-point hitch mounted transport box, jib crane, and seed boot planter designed and developed in the factory and of which pilot types have been manufactured over an year ago are yet to be taken up for demonstration, demand assessment and production.

5.8. The above situation if allowed to continue, would not only make it practically impossible for the Jekangiyu factory to increase the sales turn over, but also will seriously affect the programme of utilization of its surplus production capacity. It is in this context that reorganization of sales service net work has to be viewed.



VI. **UTILIZATION OF SALES & SERVICE NETWORK.**

6.1. The magnitude of problem of surplus manufacturing capacity, poor sale of manufactured goods to low high operating costs faced by the factory is large. Figures 4 and 5 extracted from the report " **INTRODUCTION OF NEW AGRICULTURAL EQUIPMENT IN KHASI AND JIRSA OF INDIA PARTIA IMPROVED FACTORY**" (1) show that the capacity of the factory is declining, and that the high operating costs of the factory are due to the following reasons:

6.2. In view of the above, an effective solution to the existing problem of surplus manufacturing capacity and high operating costs of the factory is to introduce new agricultural equipment in Khasi and Jirsa of India. The introduction of new agricultural equipment will help in increasing the production of agricultural products and thereby increasing the income of the farmers. The introduction of new agricultural equipment will also help in reducing the operating costs of the factory. The introduction of new agricultural equipment is essential, because in India there are many agricultural products which are not being produced in sufficient quantities. The introduction of new agricultural equipment will help in increasing the production of these products and thereby increasing the income of the farmers.

6.3. The steps to be taken to be implemented are as follows:

6.4. The present situation in Khasi and Jirsa of India is as follows:

(1) Report No. 1/1/1957 of P. J. Sankar and Dr. A. B. Chatterjee.

PRODUCTION IN '000 L DINAR

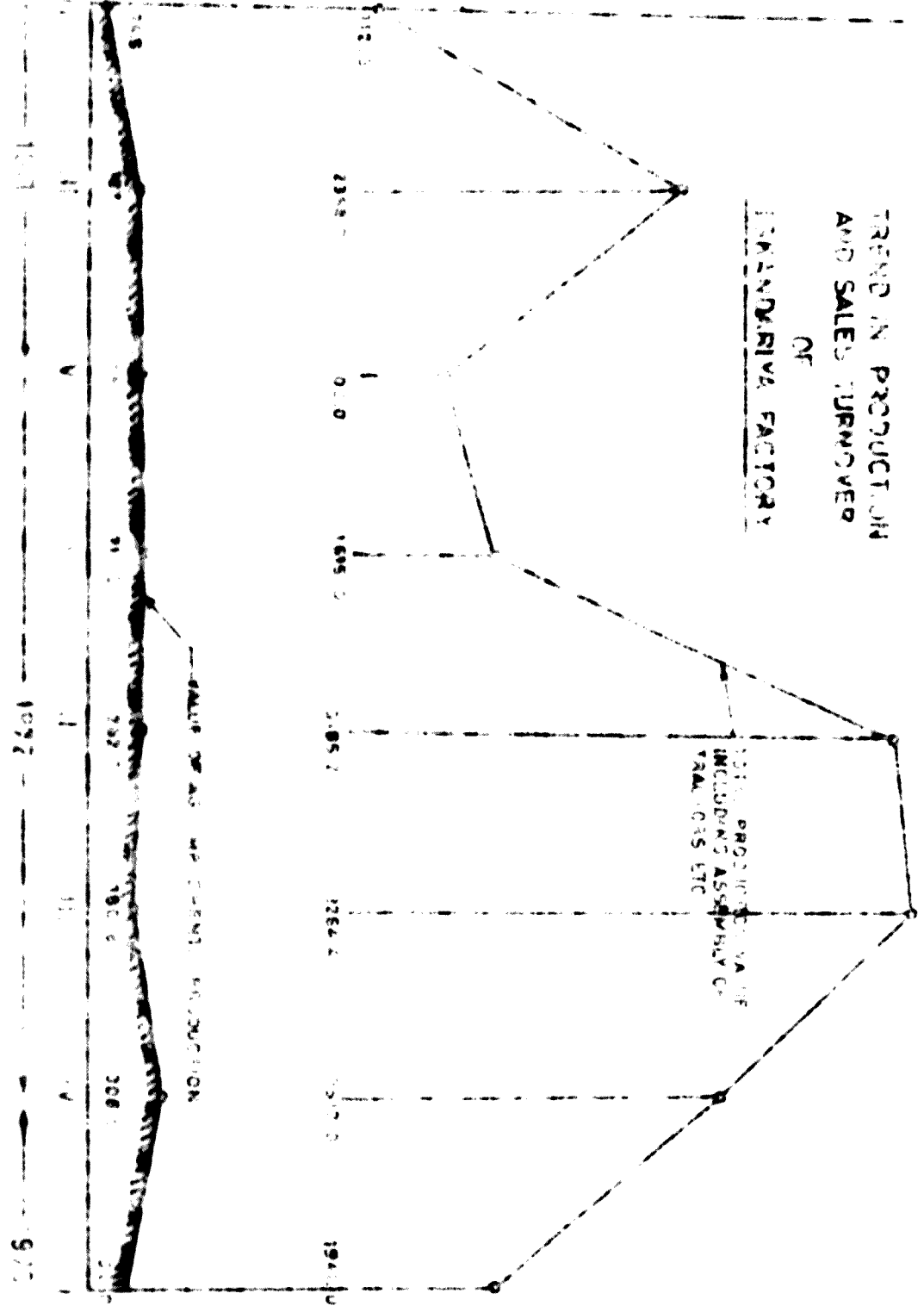


FIG 4

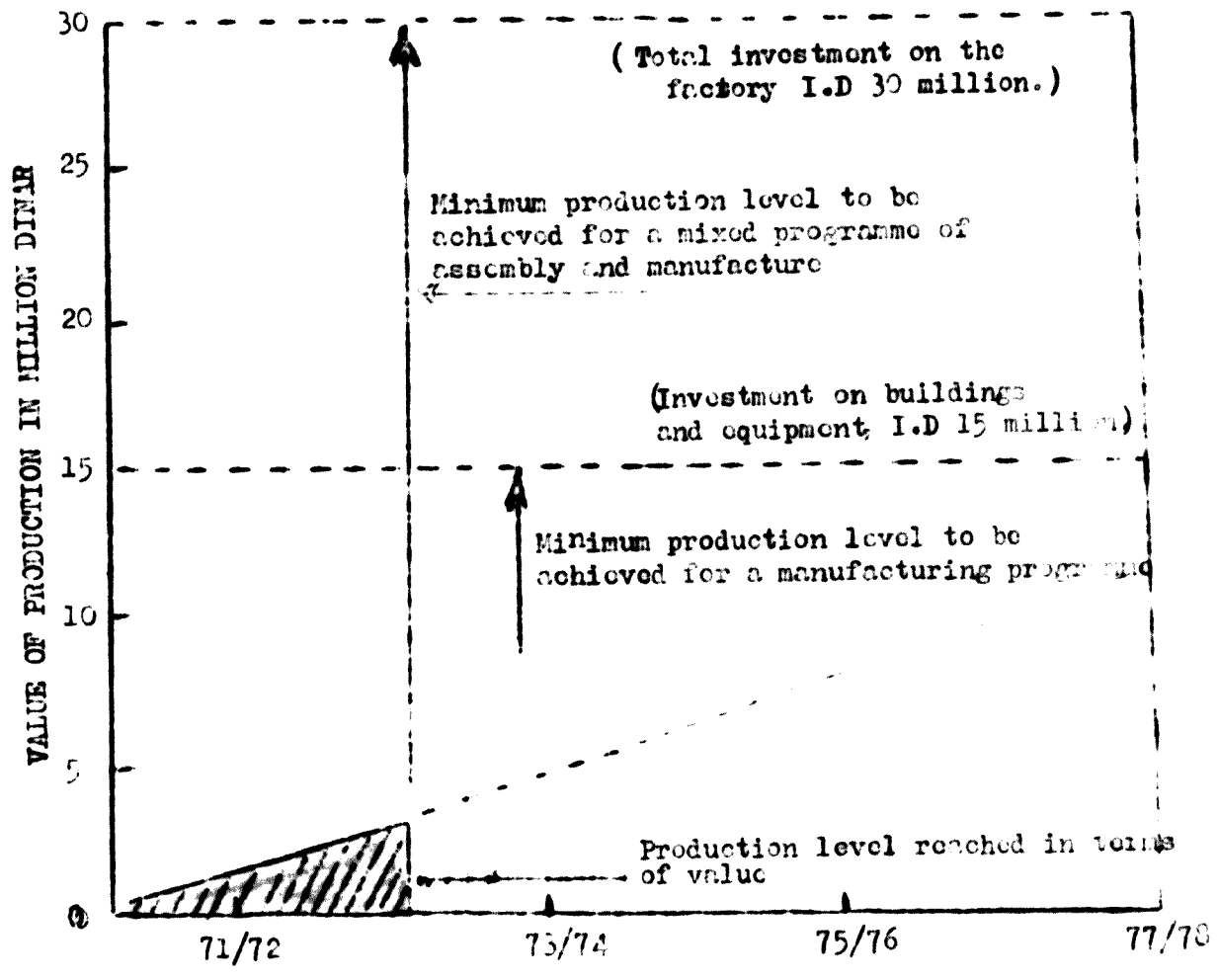
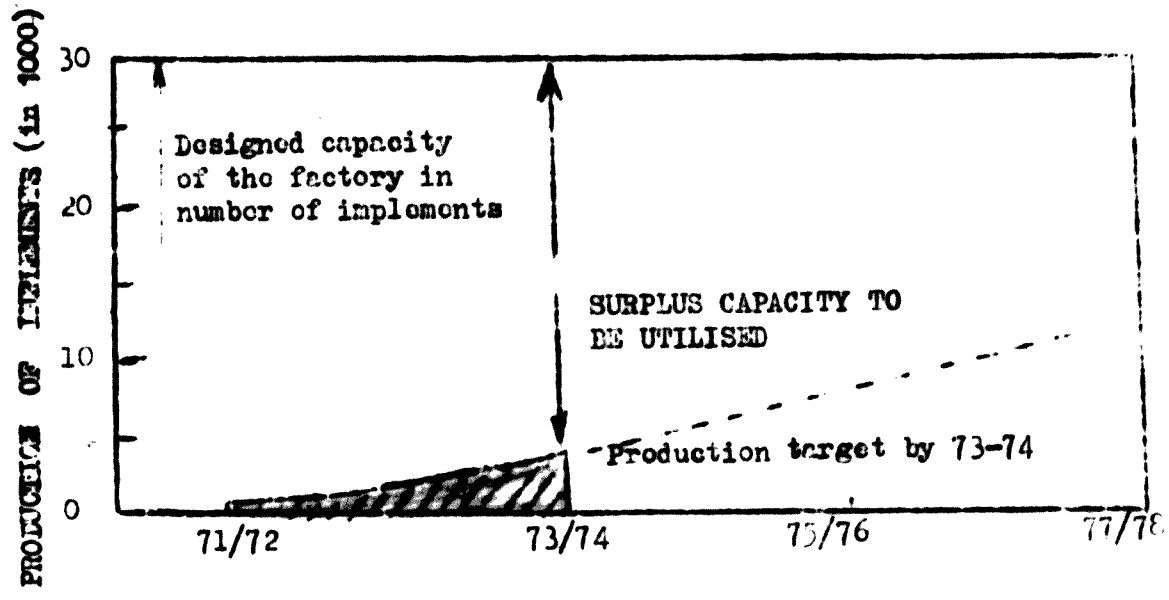


Fig. 5 TREND IN THE UTILIZATION OF MANUFACTURING CAPACITY OF ISKANDARIYA FACTORY

Table - 6.

Major activities, elements of work  
and facilities required for sales  
and servicing.

Major Activity	Elements of work	Facilities needed	Facilities available in Iskardariva	Remarks
I. Transfer of products. Manufacturing to marketing Division.	-Delivery from shops -Transport- Factory to storage yard. - Accounting - Inspection for condition and completeness.	- Drivers - Trucks and crane - Workers.	Staff and other facilities available in the SCMI	Low performance of the SCMI.
II. Temporary and seasonal storage.	- Watch and Ward - Periodical attention on condition and up-keep. - Accounting.	- Fenced yard, - Small covered room and I.C L.room. - Watch men and workers.	Available and now provided by the SCMI.	
III. Pre-sale inspection and pre-delivery check.	- Cleaning and lubrication - Preparation of equipment for use.	- Small shed as above. - Workers. - Technician-d.	Available with SCMI & now being done by SCMI.	
IV. Delivery (a) To dealers	a) Handing over b) Demonstration of performance c) Special instruction on operation, maintenance etc. d) Assistance in the selection of instruments & accessories.	-Junior Engt-1 -Technician -1 -worker-1 -Demonstration area.	Technicians & workers. - 200 donums of land available, out of which a special area for testing, trial & demonstration can be developed.	A special instruction on operation and maintenance to be organized.

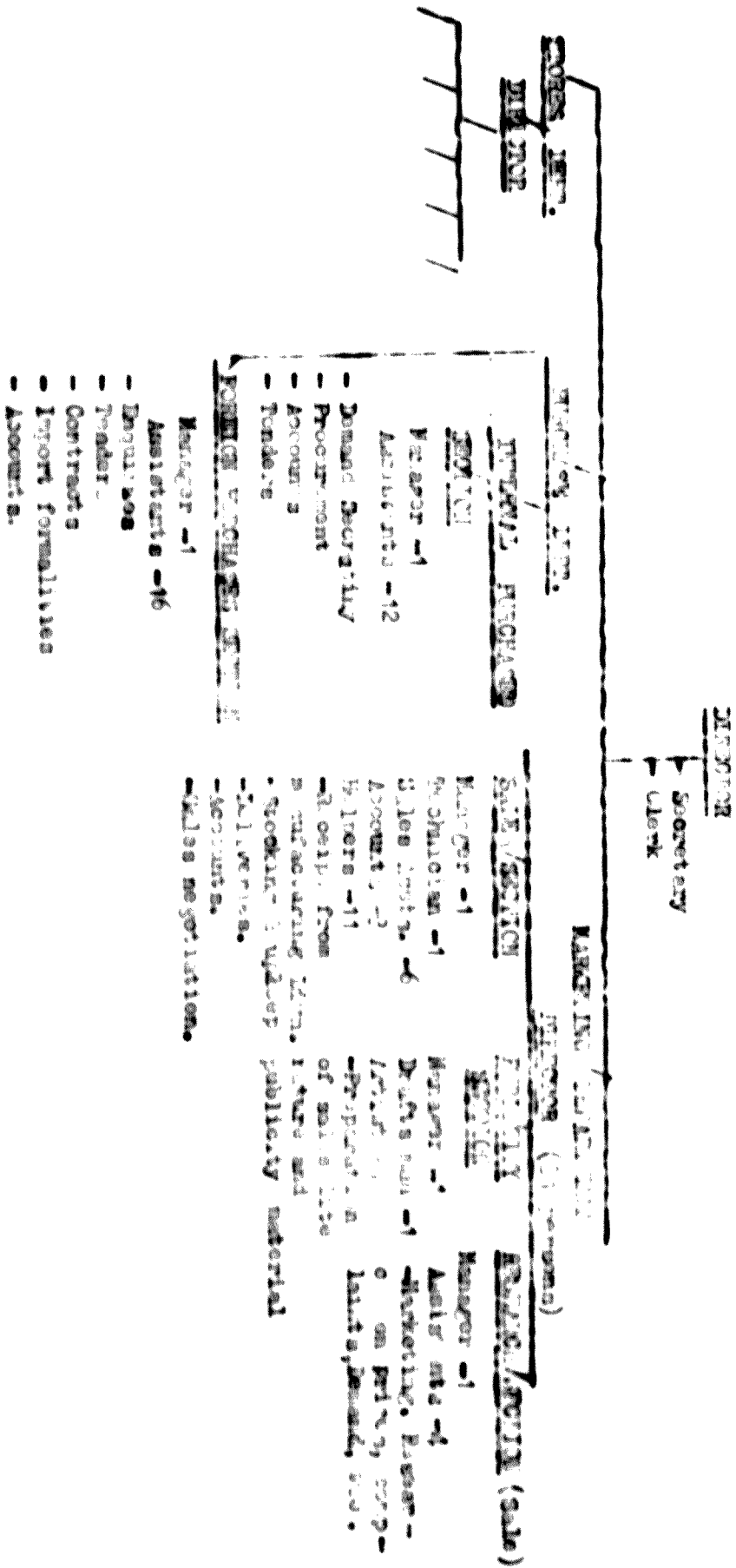
Major Activity	Elements of work	Facilities needed.	Facilities available in Iskandarjaya (ICNT)	Remarks
(b) To user from the factory.	(a) to (d) above plus instructions on warranty obligations and free servicing facilities, advice on efficient utilization - Training in operation & maintenance.			
(c) On the farm delivery to Govt. projects, private parties etc.	- Field training of operators, assistance in the selection of implements and advice on efficient utilization	- Agricultural Trainer information		- On the farm delivery not practiced, but essential for improvement.
V. Free servicing during warranty period and post warranty servicing. (by dealer)	- Farm visit by mobile servicing teams. - Training in the workshop.	- Mobile servicing team. - Training in workshop facilities. - Training school for personnel of districts & Govt. projects. - A central workshop with well equipped facilities	- ICNT has a workshop with well equipped facilities. - ICNT has a workshop with well equipped facilities.	- The mobile servicing team is established. - Training school for personnel of districts & Govt. projects. - The central workshop is established.
VI. General supervision and coordination with testing, development, production, quality control, and other divisions of the company	- Periodical reports. - Group meetings and discussions.	- National Engineers & supporting staff. - Regional service centers.	- Reports are available in the factory.	- There is a virtually complete technical support system established and serviced out regularly.

Table - 7.

OPERATIONAL CHART

COMMERCIAL DIVISION OF INDIAN RAILWAYS

( As it now exists )



6.6. For re-organizing the activities of the above division to include supervision of sales and service, spare parts management etc., along with marketing functions, presently handled by the company, and for removing the existing defects an organisational structure given in table 8A is considered necessary. Broad functions of the different departments and sections and the minimum requirement of staff is given in table 8B. Based on special studies to be organized on dealer performance, proficiency and experience of staff, utilization of facilities developed by SMC, etc. further expansion could be necessary.

6.7. Since SMC has set up a work shop in Bagdad, in the re-organized set up, there are two possibilities of utilising the same.

1. SMC's workshop and spare parts stores to be taken over by the SCMI along with the staff on a mutually agreed terms.
2. SMC to handle post warranty repairs and servicing of SCMI made tractors and implements on a purely commercial basis and to handle sale and servicing functions for a specified area that can be handled efficiently out of the facilities already developed by them.

6.8. In the latter case, the SCMI may organise, its own workshop in Iskandariya. The workshop so constructed may have attached to it/<sup>3</sup> demonstration area, class room facilities and hostel accomodation, for providing training to personnel of dealers and users and when export sales are organised for training of personnel from bulk buyers Government departments etc.

201-2-1-1

ORGANIZATIONAL CHART

( Proposed )

Supporting Division - (Administrative & Auxiliary)

PLANTS



(\*) Refer to Table CAP for staff details and functions.

(\*) Service Dept. to be organized after completion of re-organization of internal sales.



**Annex A-2**

**Listing of Different Departments and Sections  
of the Ministry of Health and Family Welfare (Principal)**

Department/Section/ Unit and Functions and Designation of posts.	No. of Posts	Remarks
<b>ADMINISTRATIVE DIVISION.</b>		
<ul style="list-style-type: none"> <li>Overall planning, co-ordination and supervision of the health services and the welfare activities of the State.</li> <li>Organization and promotion of health services.</li> </ul>		
<ul style="list-style-type: none"> <li>- Director (Health)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Director (Family Welfare)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Chief Clerk</li> </ul>	1	B11
<b>GENERAL SERVICES DIVISION.</b>		
<b>(a) Junior Staff.</b>		
<ul style="list-style-type: none"> <li>Recruitment from various sources, training, promotion, discipline, etc.</li> <li>Attendance and other matters.</li> <li>Leave development and control.</li> </ul>		
<ul style="list-style-type: none"> <li>- Senior Clerk (B11 and B12)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
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<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11
<ul style="list-style-type: none"> <li>- Junior Clerk (B11)</li> </ul>	1	B11

Table 6.B (Continued)

Department/Section/ Unit, Major functions and designation of posts.	Staff		
	Required	Available in SOMI	Additional needed
<p><u>(b) Demonstration and Sales Development Unit.</u></p> <ul style="list-style-type: none"> <li>- Demonstration of equipment, national and regional in co-operation with dealers.</li> <li>- Participation in exhibitions and agricultural fairs.</li> <li>- Sales development-distribution of literature, handling of enquiries on equipment selection and problems of equipment utilization.</li> <li>- Special demonstrations in foreign markets</li> <li>- Maintenance of implement museum</li> <li>- Assistance in user evaluation. <ul style="list-style-type: none"> <li>- Agricultural officer..... 1</li> <li>- Chief demonstrator ..... 1</li> <li>- Assistants (technical) ..... 2</li> <li>- Driver ..... 1</li> </ul> </li> </ul> <hr style="border-top: 1px dashed black;"/>	5		5
<p><u>SERVICING SECTION.</u></p> <ul style="list-style-type: none"> <li>- All matters pertaining to servicing (management of central workshop, mobile servicing units &amp; servicing activities handled by regional centers)</li> <li>- Issue of servicing and maintenance bulletins, supervisor and guidance of dealer performance</li> <li>- Processing of warranty claims.</li> <li>- Selection and forecast on spare parts requirements</li> <li>- Assistance to testing-development, and quality control departments on special investigations</li> </ul>			

Table 8.B (Continued)

Department/Section/ Units major functions and designation of posts.	Staff		
	Required	Available in SCMI	Additional needed
- Assistance in organising training in servicing and maintenance			
- Chief service Engineer.....	1	Nil	1
- Assistant service Engr.....	1	Nil	1
- Assts/Clerks .....	1	Nil	1
	3		3
<b>A. Central Workshop Unit.</b>			
- Current and post warranty servicing for central region-Major overhauls and reconditioning jobs			
- Service Engineer.....	1	Nil	1
- Jr. Engineers (30 working)....	2	Nil	2
- Mechanics & Technicians.....	2	Nil	8
- Skilled workers .....	2	Nil	4
- Helpers.....	2	Nil	4
	10		19
<b>B. Mobile Servicing Unit. (Central region)</b>			
- Free servicing during warranty period,			
- Post warranty servicing			
- On the farm emergency servicing			
- Jr. Engineer .....	1	Nil	1
- Mechanics .....	2	Nil	2
- Driver/helper .....	1	Nil	1
	4		4
<b>C. Regional Sales Service Centers Nasul</b>			
- Supervision of dealer performance, liaison with Govt. projects and co-operatives			
- Free and post warranty servicing of equipment supplied to Govt. projects and co-operatives			
- Maintaining of buffer stock of spare parts & implements for			

Table 8.B ( Continued)

Department/Sections/Units major performance and designation of posts	Staff			Remarks
	Required	Available in SCMI	Additional needed	
meeting seasonal peak demands. - Assistance in usersurvey, demonstrations, market research etc.				
- Regional Sales-Service Engineer.....	1	Nil	1	
- Jr. Service Engineer.....	1	Nil	1	
- Assistants/Store keepers...	3	Nil	3	
-Technicians/Mechanics.....	3	Nil	3	
- Driver.....	1	Nil	1	
- Skilled workers.....	3	Nil	3	
	12		12	
<b>D. Training Unit.</b> <b>D. Training Unit.</b>				
- Organization of special courses on operation, maintenance, servicing etc. to personnel of dealers, Govt. Projects and farmers. (for conducting the training, the training unit will utilize the specialists in the sales-service sections and other divisions of SCMI, Govt. organizations, Universities etc.)				
- Training officer.....	1	Nil	1	
- Assistant training Officer..	2	Nil	2	
- Driver .....	1	Nil	1	
- Helper.....	1	Nil	1	
	5		5	
<b>STORES AND ACCOUNTS DEPARTMENT</b>				
- Physical custody of tractors & all Ag. equipment and spare parts				
- Spare parts management( indenting, inventory control, sale transfers				
- Sales accounts management including financial returns in sales and servicing activities.				

Table 8.B (Continued)

Department/Section/Units major functions & Designation of posts	Staff Required	Staff Available in roaded SGM	Additional <sup>1</sup>	Remarks
- Accountant.....	1	Nil	1	
- Store keeper/Manager	1	Nil	1	
- Assistants- Accounts.....	3	3	Nil	
- Stores Assistants.....	3	3	Nil	
- Helpers .....	4	4	Nil	
	12	10	2	

III. MARKETING RESEARCH AND PUBLICITY DEPARTMENT.A. Marketing Research and User survey unit.

- Studies on prices, competition, demand trend etc.
- Statistical compilation
- User survey on manufactured products and new equipment
- Special studies on export possibilities.

- Senior Research officer....	1	1	Nil
- Jr. Research officer.....	1	1	Nil
- Assistant.....	1	1	Nil

3	3 <sup>(a)</sup>
---	------------------

(a) Do not include 2 staff members who are handling research on other products.

B. Publicity Unit.

- Preparation of sales literature and publicity material, in co-operation with sales and other divisions of the company.

- Manager.....	1	1	Nil
- Draftsman.....	1	1	Nil
- Artist .....	1	1	Nil

3	3
---	---

These staff are also meeting requirements of publicity material for other products.

6.9. The summary of staff available in the SOGI and those needed for re-organising the sales-service activities elaborated in Table 8.8 is summarised in Table 9.

Table 9

Staff requirement for re-organising sales-services activity.

Division/Department/ Section  (1)	Now available in SOGI  (2)	Minimum needed even if SOGI acts as distributor  (3)	Minimum required for direct sales by SOGI  (4)	Difference between (3) and (4)
- Marketing (Overall supervision) ...	3	3	3	Nil
- Sales section.....	10	6	16	+ 6
- Demonstration and sales development..	Nil	2	3	+ 3
- Servicing Section (General supervision)..	Nil		3	+ 3
- Central workshop Unit.....	Nil	1	19	+ 18
- Mobile Servicing unit.....	Nil	Nil	4	+ 4
- Regional sales service center (Mosul) .....	Nil	3	12	+ 9
- Training unit....	Nil	2	3	+ 3
- Stores and Accounts Department....	10	6	12	+ 6
- Marketing Research.	3	3	3	Nil
- Publicity Unit ....	3	3	6	Nil
	39	23	69	36

6.10. Out of the additional 8 staff members required, 12 staff are now required for the central workshop, mobile servicing unit, and for the regional center in Mosul. The servicing activity in itself should be handled as a supporting activity, to be financed out of the income from servicing.

## VII. FINANCIAL IMPLICATIONS OF REORGANIZATION.

7.1. From a purely financial point of view, the reorganized system had to be more economical so that the savings can be utilized for promotional activities on production, sales and utilization aspects of agricultural equipment.

7.2. For a comparative analysis of financial benefits in handling sales and service, through SIC and directly by SSI, the following three situations have been taken.

- Expenditure that will be incurred by the SSI during 73-74 for the sale of its produce through SIC assuming that no additional staff will be engaged or special measures will be taken by SIC to rectify the existing defects.
- For handling sales and servicing through SIC on projected sales volume during 75-76.
- For handling sales and servicing directly by the SSI during 75-76.

7.3. By 75-76, as a result of more intensive programmes of sales promotion, diversification of production, inclusion in the sales programme new items of equipment imported and assembled, and implements manufactured in India by sub-contracting basis (These aspects are discussed in the report P/2/13-IBQ-15), on a conservative basis, it is estimated that the sales turnover will be as under.

<u>Item</u>	<u>Value (Y. B.)</u>
a. Tractors ( 2,500 nos)	3.75 million
b. <u>Implements.</u>	
1. Own production.....	1.5    •
2. Imported and assembled & manufactured by sub-contracting...	0.8    •
c. Tractor spare parts at 10% of the value of estimated production of 4,500 Antor tractors.....	0.27   •
d. Implement spare parts.....	0.05   •
Total sales turnover	<u>Y.B. 6.37 million</u>

7.4. In estimating the expenditure on sales-service, through SMIC as per the existing arrangement and directly by SCMI, the following norms have been used.

Tractor sales.

- By 75-76, sales to Govt. departments and to the co-operatives estimated at 50% of total tractor sales, as against the present 33.77 %.
- Direct sale to be effected to Govt. departments and co-operatives, but dealers to be allowed commission of 2% to cover charges for after sale services and territory rights.

Implement sales.

- To off-set the present dis-interest in dealers in selling implements 10% commission to dealers proposed.
- On direct sale to Govt. departments and co-operatives (estimated at 50% of the total implement sales as against the present 61.2%) 2% commission to dealers to be allowed.

Spare parts.

- 15% commission to dealers on spare parts ordered on quarterly and half yearly indents.
- 10% commission ordered as emergency supplies.
- 7.5 % discount to all buyers when purchases are made with new equipment.
- 7.5 % discount to all Govt. departments and co-operatives. (15 % when periodical indents are placed).

7.5. Comparative cost estimates

Based on the targets set for sales for 73-74, expenditure that will be incurred by the SCMI for handling sales through SMIC, and directly by the SCMI during 75-76 are discussed below.



7.6 Expenditure that will be incurred by SCMI during 73-74 for handling sales and servicing through SMIG.

A. Targets set by the SCMI for sale through SMIG.

<u>Item</u>	<u>Sale value.( I.D.)</u>
(a) 1700 Antar 70 and 180 Antar 80 tractors .....	2.385 million
(b) 7,150 implements of different types.....	1.005 "
	<hr/> 3.39 million <hr/>

B. Expenditure.

1. Salary of existing staff in the marketing department only(ref. Table-7).....	I.D. 15,000
2. 10 % commission payable on the tractors.....	I.D. 238,500
3. 3 % commission payable on the implements.....	" 30,154
4. Publicity expenses to be paid to SMIG by SCMI	" 5,000
5. Publicity expenses to be incurred by SMIG.....	" 5,000
6. Travelling and other allowances and miscellaneous expenses in connection with sale.....	" 2,000
	<hr/> I.D. 296,154 <hr/>

continued on page-51.

7.7. Expenditure of SOMI for handling sales and services through SMIC and directly for estimated sales turn over indicated in para. 7.3 for the year 75-76

Item (1)	Sale through SMIC (2) In IRAQI DINAR	Direct sale by SOMI (3)
1. Salary of staff.	16,300 (a)	30,850 (b)
2. Commission on tractors.	375,000 (c)	168,750 (d)
3. Commission on implements	299,000 (e)	138,000 (f)
4. Commission on spare parts	64,000 (g)	31,500 (h)
5. Publicity charges including I.D. 5,000 payable to SMIC.	13,000	13,000
6. Travelling and other allowances and miscellaneous expenses.	5,000	15,000
Total	772,300	405,100

Savings in expenses by direct sale by SOMI = I.D. 367,200.

- (a) Minimum staff to be maintained as per column (3) Table-9 on page 47  
 (b) Staff to be maintained as per column (4) Table-9 on page 47.  
 (c) At 10% on a sales turn over of 3.75 million.  
 (d) At 7% on 50% of tractors sold by dealers and 2% on direct sales to Govt. projects and co-operatives (I.D. 131,250 + 37,500 = 168,750)  
 (e) At 13% on a sales turn over of implements I.D. 2.3 million  
 (f) At 10% on 50% implements costing ID 1.15 million and 2% on direct sales to Govt. projects etc (ID-115,000 + 23,000 = 138,000)  
 (g) Gross commission to SMIC at 20% turn, of which dealer will be allowed 15% (Total sale of spare parts 0.52m)  
 (h) At 15% commission to dealers on sale of parts worth ID 0.16, and at 7.5% on sale of new equipment and to Govt. projects and co-operatives.  
 ( ID 24,000 + 7,500 = 31,500)

Note. (1) Operating expenses of central workshop and mobile servicing units are not included in the calculations because this and related expenses are to be fully met from the income from the servicing. Expenditure on staff is included to offset expenses on free servicing.

- (2) Interest on working capital is not included because, suppliers credit is available to SOMI, and SMIC as per clause-4.1 of the agreement and to pay 75% of cost of tractors within 8 months of supply.

**VIII. INDUSTRIAL TRAINING PROGRAM FOR AGRICULTURAL EQUIPMENT**  
**AIR SALE.**

8.1. The absence of national programmes of testing, development, demonstration and popularisation of new agricultural equipment, training in the selection and utilisation aspects of agricultural machines have been briefly discussed in the previous sections and have been elaborated in detail in the report **"PROGRESS OF THE AGRICULTURAL EQUIPMENT IN INDIA AND THE NEED OF INDUSTRIAL TRAINING"**.

8.2. In view of the above, and the fact that the Inderprastha factory has been established by the Govt. to achieve self reliance in Ag. equipment and to contribute effectively for the growth of agricultural mechanisation, it should take urgent measures to organise the following activities. These activities are also important for rectifying the existing deficiencies and for improving the production and sale of Ag. equipment by the SMI.

8.3. It is strongly urged that at least 50 % of the savings <sup>made</sup> direct sale be earmarked for new activities to be organised, which though may be termed "promotional" also forms part of the responsibilities of the manufacturer. As to what extent the Inderprastha management based on the experience gained, should obtain special financial allocations from the Govt. to expand the activities, or the sale price of its products should be increased to cover the expenses on account of these essential services should be subject to a separate study at a later stage.

8.4. The broad outline of activities to be organised consists of:-

1. Training.

- A. 1 week training for Ag. extension workers  
 a system of 2 courses for about 30 persons per course (Ref. para 4.7.).....I.D. 1,000
- B. 2 weeks training on selection, operation and maintenance of Inter tractors

and SOFI made implements to supervisory staff of Govt. projects and co-operatives (2 courses, 20 persons per course) ..... I.D. 4,000

c. TRAINING SCHOOLS FOR OPERATORS AND MECHANICS through visiting training groups to be organized in 4 to 5 governorates having the maximum population of tractors to be organized with the participation of local dealers and Govt. projects in the ..... I.D. 8,000 area- ( to 8 training centers)

d. Establishment of a model sales service - demonstration center in Iskenderiya.

A model sales service center to be operated ~~in the~~ as a commercial enterprise, but attached to the proposed central workshop in Iskenderiya and will be held to:

1. Demonstrate (a) lay out, (b) servicing and maintenance tools to be purchased (c) organizational and management aspects of dealer operations etc.
2. Provide regular attachment training to 3 to 5 persons at a time on sales and servicing aspects.
3. To serve as a regional demonstration unit for new equipment
4. To serve as an information center

Location. - Near to road side in ~~Lower~~ town where roads to tourist centers Wihlan, Karbelia and Bahaf etc. ( 9,000 deems of land between the factory and the main road has already been required ... I.D. 10 00 by the Iskenderiya factory for developing a firm for testing, trial & demonstration of Ag. equipment.

Related activity

To serve as a publicity and information center to foreign tourists and local personnel, initiate establishment of a gas-filling station with modern amenities. Locate the exhibition room of the sales-service center in a suitable place in the premises of the filling station (with a SCMI appointed information assistant to be the overall in-charge)

8.4.2. Initiate Special T.V. Programmes.

Iraq has a large T.V. coverage. Special attention required on cooling system, precautions to be taken to avoid pre-mature failures, informations on new products being developed and introduced, can easily be covered by special T.V. programmes. At present there is a weekly programme on general A.C. subjects. A 15 minute programme once in a fortnight to cover the above may be initiated. (To be the responsibility of the training unit provided under the reorganised set up) .....

D. 2,000  
( for honorarium)

8.4.3. Production of movies, film strips and

Visual aids.

None of these on SCMI products are available.

Production of these in collaboration with the publicity divisions of Ministry of Information and of Ministry of Agriculture may be taken up for use in technical schools, for organising training programmes and for sales promotion in foreign countries etc. ....

D. 1,500  
(For acquiring Audio-visual equipment & materials & for buying visual aids, movies etc. from outside sources for instructional use.)

**8.4.4. Assistance in promoting Export Sales.**

Export sales are subsidized. So far exports are limited to few tractors and implements that have been gifted. An initial programme should include supply of samples for demonstration and assistance in testing and adaptation. .... I.D. 7,000

**8.4.5. Awards, prizes and recognition.**

To initiate national awards, to dealers with good performance, best operators, mechanics and supervisors contributing for improvement of sale and utilization of SOBU made equipment. .... I.D. 5,000

**8.4.6. Developmental expenses, testing trial, special demonstrations, investigations and studies on new products and sales-service problems** ..... I.D. 1,000

**8.4.7. National and regional conferences on promotion of Agricultural Extension.** ..... I.D. 1,000

Total I.D. 61,000

8.4.8. The total expenditure on the above projects amounts to I.D. 61,000 out of <sup>100%</sup>subsidized savings of I.D. 67,200, by direct sale which considering the overall benefit from the programme is considered reasonable.

**8.5. ~~Other assistance.~~**

UNIDO is rendering assistance <sup>(a)</sup> to member countries in the field of agr cultural machinery production, sales and servicing and is engaged in promoting regional co-operation in production marketing and utilization aspects of agricultural machines.

8.5.2. The problems of declining production and sales of SOBU

graphically indicated in Fig. 4. (page 15) is continued. Official 1 work  
out for sale of structure and implements for 19-17 both in numbers  
and in price is much lower than the budget set for 19-14, it would  
be seen from the following figures.

Estimated Value

	19-14	19-17
Actual 19-14 structure (Estimated)	100	100
Actual 19-17 structure (Estimated)	100	100
Actual 19-17 structure (Estimated)	100	100
Total value of structure	100	100
and implements (Estimated)	100	100

As a result of the above figures it is seen that the value of  
structure and implements for 19-17 is estimated to be 100% of  
the value for 19-14. This is a significant increase in value  
and is due to the fact that the value of structure and implements  
for 19-17 is estimated to be 100% of the value for 19-14.  
This is a significant increase in value and is due to the fact  
that the value of structure and implements for 19-17 is estimated  
to be 100% of the value for 19-14.

It is noted that the value of structure and implements for 19-17  
is estimated to be 100% of the value for 19-14. This is a  
significant increase in value and is due to the fact that the  
value of structure and implements for 19-17 is estimated to be  
100% of the value for 19-14.

The value of structure and implements for 19-17 is estimated to be  
100% of the value for 19-14. This is a significant increase in  
value and is due to the fact that the value of structure and  
implements for 19-17 is estimated to be 100% of the value for  
19-14.

(4) The value of structure and implements for 19-17 is estimated to be  
100% of the value for 19-14. This is a significant increase in  
value and is due to the fact that the value of structure and  
implements for 19-17 is estimated to be 100% of the value for  
19-14.

Stage II.

<u>Operational activity</u>	<u>Amount</u>	<u>Source of funds</u>
<b>Assistance in strengthening country wide sales-service-network, establishment of a model-sales-service-center and demonstration of its commercial viability.</b>		
<b>Assistance:</b>		
<b>A. Expert services.</b>		
(a) International expert	} \$ 50,000	} - IFF - UNIDO Voluntary contribution or grant through UNIDO contribution
(b) Services of one based U.S. expert and one U.S. volunteer for 12 months period		
<hr/>		
<b>B. UNIDO Voluntary Contribution (UNIDO Voluntary Contribution)</b>		
1. Machinery equipment	\$ 10,000	} - UNIDO Voluntary contribution or grant through UNIDO contribution
2. Special work shop including tools and equipment	\$ 8,000	
3. Servicing vans and mobile workshops	\$ 10,000	
4. Technicians training	\$ 12,000	
5. Training aids and demonstration models	\$ 5,000	
<hr/>		
Total cost of Stage II	\$ 110,000	

8.6. A draft project request for UNIDO assistance under UNIDO aid programme for Stage I of the project to enable the authority to for submission of an official request is given in Appendix-7.

(a) Full details of the estimated cost sources of funds to be worked out at the time of preparation of detailed project.



DEALER SURVEY FORM

( استشارة جمع معلومات عن الوكلاء )  
( مسح ميداني )

APPENDIX  
P.J. Zacharia  
K.W Gulle

1 . General :

عام  
Name of dealer ----- Address -----

اسم الوكيل ----- عنوانه -----

When appointed as dealer ----- Location -----

تاريخ حصوله على الوكالة ----- المنطقة -----

is location good ----- Average ----- Bad -----

غير جيدة ----- متوسطة ----- جيدة ----- هل هي

2 . Activities now handled

الاعمال الاخرى

Sale ----- Type of products -----

بيع ----- نوع المنتجات -----

Agent of ( Name ) ----- Volume of business

( No for value )

وكيل لشركات اخرى ( الاسم ) ----- حجم الاعمال  
( العدد او المقدار )

Servicing ( Av. per month ) -----

الخدمات ( المتوسط في الشهر ) -----

3 . Facilities available :

التسهيلات المتوفرة

3.1 Show room Yes ( size sq. meter ) ----- No. -----

حجرة العرض ----- نعم ( المساحة - م<sup>2</sup> ) ----- لا -----

Items now Exhibited  
العروض المرئية

Products

المنتجات

No.

Remarks (good, Av, Bad)

الملاحظات / جيدة متوسطة غير جيدة المقدار

- 1 -
- 2 -
- 3 -
- 4 -
- 5 -

3.2 Sign board : Yes ----- No. ----- Good----- Av.&----- Bad-----  
اللافتة توجد ----- لا توجد ----- جيدة ----- متوسطة ----- غير جيدة -----

3.3 Staff ( type & numbers )  
الموظفون ( النوع والعدد )

Administrative Yes ( Number ) ----- No Sales----- Nos.-----  
ادارى نعم ( العدد ) ----- كلا بائعون ----- العدد -----

Mechanics Yes ( No. ) ----- No.----- other ----- Nos.  
الميكانيكيون نعم ( العدد ) ----- كلا ----- اخرين ----- العدد -----

- Whether the technical staff are trained and has good previous  
experience -----

هل تلقى العمالة الفنية اى تدريب ولديها خبرة سابقة جيدة -----

3.4 Repair and maintenance

التعليق والصيانة

Size of workshop ----- Covered area----- (sq. meter)  
حجم الورشة ----- المساحة المغطاة م<sup>2</sup> -----

Open area ----- (sq. meter)  
المساحة المفتوحة م<sup>2</sup> -----

- Mechanics available Nos. -----  
العدد الميكانيكيون -----

Casual workers Nos. -----  
العدد عمال وتشيرون -----

Equipment available  
المعدات الموجودة

- General tools -----  
ادوات عامة -----

- Special tools -----  
ادوات خاصة -----

- Grinder ----- Welding machine ----- drill machine-----lathe-----etc.  
المخروطية ----- آلة اللحام ----- آلة الحفر ----- آلة لف ----- الخ

( If available give names and No. )

اذا كانت متوفرة اعط الاسم والعدد

- Cars and Jeeps etc. Yes ( No. ) \_\_\_\_\_ No. \_\_\_\_\_  
السيارات وطاحنات اخرى نعم ( العدد ) \_\_\_\_\_ الرقم \_\_\_\_\_

Spare parts :  
الادوات الاحتياطية

- Spare parts stores Yes (sq. meter) \_\_\_\_\_ No. \_\_\_\_\_  
مخزن للادوات الاحتياطية نعم (المساحة م<sup>2</sup>) \_\_\_\_\_ كلا \_\_\_\_\_  
- Value of spare parts in stock ( I.D) \_\_\_\_\_  
قيمة الادوات الاحتياطية بالدينار ( دينار - عراقي ) \_\_\_\_\_

4 - Monthly sales \_\_\_\_\_ ID  
مبيعات شهر ( دينار عراقي ) \_\_\_\_\_

No. of Anter tractors sold Year 1972 \_\_\_\_\_  
( عدد تراكتورات منتر المبيعة خلال سنة ١٩٧٢ ) \_\_\_\_\_

From Jan. to Feb. 1973 \_\_\_\_\_  
( مبيعات من كانون ثاني - شباط ١٩٧٢ ) \_\_\_\_\_

- No. of implements sold , Local make \_\_\_\_\_ Iskandariya make \_\_\_\_\_  
انتاج الاكديريية \_\_\_\_\_ انتاج محلي ( عدد الالات المبيعة ) \_\_\_\_\_

If local made implements are sold indicate  
( اذا كانت المبيعات المحلية المنتم سجل )

1) Types \_\_\_\_\_ 2) Prices \_\_\_\_\_  
١) (الانواع) \_\_\_\_\_ ٢) (الاصار) \_\_\_\_\_

5 - Estimated No. of tractors the dealer can sell in one year \_\_\_\_\_  
(تقدير المبيعات) عدد التراكتورات التي يمكن بيعها في سنة واحدة

6 Finance :

المورد المالي \_\_\_\_\_

- Whether dealer avails credit \_\_\_\_\_ source \_\_\_\_\_  
هل يحصل على اقسادات ( مئلف ) \_\_\_\_\_ المصدر (المئلف) \_\_\_\_\_

7 - Whether free servicing to tractors is given \_\_\_\_\_ give No. \_\_\_\_\_  
هل يتم خدمات بدون مئلف للتراكتورات \_\_\_\_\_ عدد المئلف \_\_\_\_\_

- Estimated expenditure per servicing \_\_\_\_\_  
مئلف نفقات الخدمات \_\_\_\_\_

8 - Complaints if any -----  
على توجد شكوى

9 - Where the distributor ( Smic or Isk. officers) visited the  
dealer ----- when ----- What were their suggestions  
-----

من اسم من الشركة العاط لا شراء المعدات والكائن أو من صاحب الاسكندرية زيارة الوكلاء  
على ----- وما من مفرطهم

10 - Type of implements for which demand exist ( Name of implement )

نوع المعدات التي يطلب وجودها لديه ( الاسم )

11 - Suggestions of dealer, on servicing facilities, sales promotion etc.

تذرات الوكلاء على اقامة الخدمات وزيادة البيع الخ

- 1 -
- 2 -
- 3 -
- 4 -

12 - Remarks of the Investigator

- 1 -
- 2 -
- 3 -
- 4 -

ملاحظات القائم بالعمل

EVALUATION OF USER REACTION

To be issued to those attending the demonstration  
 on 20 - 11 - 72.

1. Does you or your organization use implements and machines made in the Iskandariya factory. Yes... No...

2. If yes the name of machine or implement.

- |         |         |
|---------|---------|
| 1 ..... | 4 ..... |
| 2 ..... | 5 ..... |
| 3 ..... | 6 ..... |

3. Indicate briefly your experience on the following.

- a. General performance .....
- b. Durability .....
- c. Spare parts availability .....
- d. Repair and servicing facilities .....
- e. The need for training of your operators. ....
- f. Any other. ....

4. Out of the implements demonstrated, what items are of interest to you or your organization.

- |         |         |
|---------|---------|
| 1. .... | 2. .... |
| 3. .... | 4. .... |
| 5. .... | 6. .... |

5. Are there new implement which you require and should be developed and manufactured in the Iskandariya factory ( Indicate the name of the implement against each.

<u>Type of work</u>	<u>Names of implements</u>
Land development and irrigation.	.....
Soil tillage.	.....
Seeding and planting.	.....
Intercultivation	.....
Other	.....

DEALERS FOR AGRICULTURAL MACHINES AND REPLENISHMENTS

as on Feb. 1973

ANNEX II

Sl. No.	Name	Zone	Type of Machines
1	Mun Majeed Fragdile	Minevab/Damam St. Store No. 64/2/251	Antar, Bolinder, Tractors, Harvesters, pumps and spare parts.
2	All used Khider Haj-Muhammad	Minevab/Khair Aldeen Al-Qnary St. Al-Qamah show room 15/252	Tractors, Harvesters pumps and spare parts
3	Mohamed ali P. thebe Al-Jghoory	Minevab/Damam St. Tel. 4496	" " " " " "
4	Ahmed Haj Yonis Suliman	Minevab/Technical Works Company	" " " " " "
5	MOHAMED YOUSSEF AL-KHARJO	Minevab/Talassar, Main St. Opposite Rafidain Bank	" " " " " "
6	Martineo Sarkis	Minevab/Khair Aldeen Al-Qnary St. Vagabond shop	" " " " " "
7	Mohamed Basim	Minevab and Bagh./Nan Mohsal St. Near the Bank.	Laverade harvesters tractors pumps and spare parts
8	Muhtar M. ash Bushad	Arbil/Alholaly St. Alarab zone shop	Antar tractors pumps and spare parts harvesters.
9	Abu-Baber Aziz Al-Majaf	" " " " " " Tel. 362	Tractors pumps and spare parts harvesters
10	Ammar Aziz Dasil	Arbil/Sufain St.	" " " " " "
11	Sharief Morie Kader	Arbil/Abdulah St.	" " " " " "
12	Mohamed saad Mastafa	Kirkuk/Althavrah St. Tel. 3028	" " " " " "
13	Makrouf Abd Al-Jaber Abdairahman	Kirkuk/Al thavrah St. Baladia Building	" " " " " "
14	Samah Jamal Albama	Defence Building.	" " " " " "
15	Shehab Ahmed Alhumisy	Kirkuk/Near Emergency Hospital shop No. 21	" " " " " "
16	Abd Alwahed Khalai Khalil Ali Aidorie	Kirkuk/Haweja-Main St.	" " " " " "
17	Sebah Botiris	Kirkuk/Althavrah St. Ghase Garage	" " " " " "
18	Ali Rashed Alrabob	Bagh/Tikret-Rafidain Show room	" " " " " "
19	Abd Alister Yonis Al Sage	Bagh/Samara-Younis Al Sage Building	" " " " " "
20	Mohamed Hassan Al Arabdie	Bagh/Bagd Sultan Ali-Nirman St.	" " " " " "

Hassan Abdessalam Ghannouchi	Bugl/Al Jurooria St. Shetja Building 2nd Floor	Grain Cleaners pumps harvesters
Muhammad Estem and Dawad Abdallah	Bag/Malroocia	Tractors pumps and spare parts harvesters
Ghazi Hassan Al Artidjo	Diala/Industry St.	Andria Machines and spare parts harvesters
Mohamed shafiek salim	Diala/Alfalah shop near Rafidain bank	Bolindar , Anter Tractors spare parts harvesters
Muslim Eaj-Saleh	Diala/Rail way Station tel. 289	Anter Tractors and spare parts harvesters
Muhsin Salal Al Zubidi	Babylon/Al Wathba St. Al-Mashd Bab	Bolindar Antar tractors and spare parts harvesters
Mohamed Hassan Al Khatib	Babylon/Hindia-Alkhitby shop	Anter , tractors and spare parts harvesters
Mohamid Abd Al-Hassan	Babylon/Musayeb-Main St. shop No. 71/79	Anter tractors pumps and spare parts harvesters
Jeffar Hadie Al Dugaily	Kerbela/Almujif main st. shop	=
Abid Salman Al Marorie	Kerbela/Kofa, Al Jisir st.	=
Jigun Sulin	Ambar/Ras Al-Jisir Al Kadien	=
Mohamed Abd Jabar Al Mirdawe	Ambar/Asizia Zone	=
Eshid Majed Al Anis	Ambar/Arsh	=
Muslim Al Artidjo and talib	Qadisiya/Al shria tel 24 ,	=
Jumah Kadim Jirah	Qadisiya/shop No 1877	=
Paraj Saad Moeah	Waset/Al Fawrah st. tel 20	=
Khalid R. abed	Waset/Al Fawrah st. tel. 25	=
Salch Abd Moneem Javed	Waset/Al Fawrah st. tel. 25	=
Hassan Mohamed	Waset/Al Fawrah st. tel. 25	=
Mohamed Al Azal	Waset/Al Fawrah st. tel. 25	=
Jafer Ichya Rustin	Waset/Al Fawrah st. tel. 25	=
Ghadban Saad Ali	Waset/Al Fawrah st. tel. 25	=
Abd Al-Ghannie Kasir Al-Jawhr	Waset/Al Fawrah st. tel. 25	=
Muhammad Hassan Al-Moawrie	Waset/Al Fawrah st. tel. 25	=
Khalid Zozan	Waset/Al Fawrah st. tel. 25	=
Kadim Matricije	Waset/Al Fawrah st. tel. 25	=
	Basrah/Al Aroba shop No. 19	=
	Basrah / Baghdad St. shop No. 5751	=
	T. i-Qur / Near Saray shop No. 314	=
	T. i-Qar / Agri serving show room	=
	Basrah/M. havel St. New Farmer store	=
	Basrah/Zubir tel. 82	=
	Basrah/Achar Kamrik St. tel. 3900	=

TABLE/8/7/573

FORM FOR USER SURVEY ON AGRICULTURAL EQUIPMENT

Date .....

Name of person collecting the information .....

1: General

Name of user ..... Address .....  
 make of tractor ..... Serial Number ..... model #  
 ..... Purchased on ..... From .....

Other Agricultural Equipment Possessed .

<u>Type of equipment .</u>	<u>When purchased.</u>	<u>From.</u>	<u>Price paid.</u>
----------------------------	------------------------	--------------	--------------------

1/ .....	.....	.....	.....
2/ .....	.....	.....	.....
3/ .....	.....	.....	.....

2: Usage condition . Size of farm ..... Donums .

Type of soil ..... Crops grown .....  
 Annual usage Donums. ....  
 Hours. ....

Whether the tractor and implements are operated by the  
 owner . ....

If operator is engaged , his experience. ....

3: Performance.

Is the owner satisfied with the performance of the equipment .  
 If not causes: and nature of complaint

1/ .....	2/ .....
3/ .....	4/ .....

4: Details of breakdown if any.

<u>Name of part affected.</u>	<u>Nature of</u>	<u>Possible</u>	<u>How rectified.</u>
-------------------------------	------------------	-----------------	-----------------------

1/ .....	<u>Failure.</u>	<u>cause</u> .....	.....
----------	-----------------	--------------------	-------

2/

3/

5: Difficulties if any in meeting requirements of spare parts .

6: Adequacy of repair and servicing facilities

7: Requirements of new implements .

8: Remarks .



**TRACTOR USER SURVEY**

Appendix - 4

Date/

Observer/

**1. General details :**

1.1 Name of farmer \_\_\_\_\_ Address \_\_\_\_\_

1.2 Size (Dorans) \_\_\_\_\_

1.3 Crops :  
Wheat \_\_\_\_\_, Barley \_\_\_\_\_, Vegetables \_\_\_\_\_, Orchard \_\_\_\_\_, Fallow \_\_\_\_\_

**2. Agricultural machinery possessed :**

**Tractor** الجرار  
Make and model \_\_\_\_\_, When purchased \_\_\_\_\_, Price paid \_\_\_\_\_  
Price paid \_\_\_\_\_  
From \_\_\_\_\_

Implementa الآلات

Plough محرث

Cultivator محرث

Ridger رازه

Ditcher قارو ساق

Grade leveller مدرار

Other اشياء اخرى

Source of funds مصدر الاموال

**3. Usage الاستخدام**

Type of operation نوع العمل

Days/hrs. per year الوقت السنوي

Own Farm استخدام المزرعة الخاصة

For hiring لا If hired out, rate charged او اجرت

Ploughing محرث

Cultivating محرث

levelling تسطيح

Ridging محرث

Ditching قارو ساق

Transport نقل

Other (state) اشياء اخرى

41 Any new operation for which the owner wishes to use tractor if  
 اية عمليات جديدة يرغب المالك في استخدامها - حيثما لا تتوفر الآلات الزراعية  
 implement is available

51 Repair tools possessed اذوات اصلاح الخناجر

61 Maintenance and servicing الصيانة والخدمة

Whether any training was received at the time of purchase or operation  
 هل تلقى المالك اي تدريب على التشغيل والصيانة وقت الشراء  
 and maintenance and if so intensity of training .  
 والتدريب على الصيانة والخدمة في ذلك الوقت

Whether free servicing was received .  
 هل اصبحت صيانة مجانية

Spare parts , source and availability , difficulties if any  
 الاذوات الاحتياطية المصدر والاعتمادية الصعوبات اذا وجدت

special servicing and maintenance tools possessed  
 اذوات الخدمة الخاصة والصيانة الخاصة

Previous training in use  
 التدريب السابق في الاستخدام

71 Performance and durability :  
 الكفاءة والمتانة

Breakdowns التوقف	Parts affected الاجزاء المتضررة	After hours of use عدد الساعات خارج الاستخدام	No. of failures عدد الفشل	Reason السبب
----------------------	------------------------------------	--	---------------------------------	-----------------

81 Any other details :  
 معلومات اخرى

91 Hand tools if any possessed :  
 الادوات اليدوية المملوكة (اذا وجدت)

101 Complaints and suggestions .  
 الشكاوى والاقتراحات

FACILITIES AVAILABLE WITH DEALERS IN THE DIFFERENT GOVERNORATES  
FOR SALE & SERVICES OF AFTER TRACTORS AND IMPLEMENTS - AS ON

Appendix

MAY, 1972....

NAME OF DEALER	FACILITIES AVAILABLE						REMARKS
	1 sales office	2 Spare part stores	3 Repair shop	4 Farm hand	5	6	
<u>CAIRO</u>							
1 Mohamed Mansour Mustafa	yes	yes	yes	No.			He sold several tractors and willing to work as dealer
2 Shokab Ahmed Alkarmaly	No	No	No	No			Dealer specialized to sell harvesters & for their repairs has a show room but not in a prominent place. Engaged in selling water pumps and some spare parts
3 Mohamed Abd Al-Jabar	No	No	No	No			
4 Saad Joudi Albana	.	.	.	.			
<u>ASIS</u>							
5 Abu Babur Asis	yes	yes	yes	No			He is specialized only in handling harvesting machines and interested in selling tractors.
6 Bahdar Moun Bahrod	yes	yes	yes	yes			Has a show room good sale office with a tractor. He gets repairs done in the work shop of Abu Babur Asis
7 Ammar Asis	No	No	No	No			He vacated the place. He is a lawyer.
8 Hadea Saad Abou	yes	yes	No	No			He does not sell tractors but he is a general mechanic

PAGE 1 31/7/1973..

9	2	3	4	5	6	
	San Majeed Prangole	Yes	Yes	No	No	The place since vacated No tractor being exhibited and also sale of tractor and spare part made by him The agent died and no tractor sold
10	Mohamed and Hazim Jemla	No	No	No	No	He has a show place for second hand cars & he desires to sell tractors but not sold any so far
11	Said Ali Said Khidir	No	No	No	No	He is engaged in selling water pumps
12	Mohammed Ali Pethi Al-Jooor	Yes	Yes	No	No	
	<b>DEALERS</b>	No	dealers	but	tractors sold	to the engine division and so on tractorate
13	A. I. Said Al-Sabir (Tikrit)	Yes	Yes	Yes	No	Sold one tractor and has a show room on the main road and is prepared to sell tractors and other production at Iskandariya factory
14	Abd Al-Satar Yusif Al Sa'je	No	No	No	No	His main job is a living of material and has small shop in a textile place which is not profitable also he gets the repair work in street garage and has hired workers. He does not give enough services

15	<p>1. <b>ALPHA</b></p> <p>2. <b>BETA</b></p>	Yes	Yes	Yes	Yes	<p>... ..</p>
16	<p>1. <b>ALPHA</b></p> <p>2. <b>BETA</b></p>	No	No	No	No	<p>... ..</p>
17	<p>1. <b>ALPHA</b></p> <p>2. <b>BETA</b></p>	Yes	Yes	Yes	Yes	<p>... ..</p>

... ..

REGISTRATION, LICENSING AND INSURANCE - 2010  
in \$ mil.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Registration</b>	102	107	113	119	125	131	137	143	149	155	161	167	173	179	185	191	197	203	209
<b>Licensing</b>	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195
<b>Insurance</b>	108	113	118	123	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198
<b>Total</b>	315	330	346	362	378	394	411	426	442	458	474	490	506	522	538	554	570	586	602
<b>Change</b>	-	4	16	16	16	17	17	15	16	16	16	16	16	16	16	16	16	16	16
<b>2010-2020</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2019</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2018</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2017</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2016</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2015</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2014</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2013</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2012</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2011</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2010</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	102	107	113	119	125	131	137	143	149	155	161	167	173	179	185	191	197	203	209
<b>Change</b>	-	4	16	16	16	17	17	15	16	16	16	16	16	16	16	16	16	16	16
<b>2010-2020</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2019</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2018</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2017</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2016</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2015</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2014</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2013</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2012</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2011</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2010-2010</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Fig. annual change of registration - 1910 and 1911 and annual reports of 2012 for 1910-11.

Draft Project Request  
Draft Project Description

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

1. **Project title.** ASSISTANCE IN IMPROVING A SYSTEM OF TOWING  
SALOON BOATS
2. **Date of formal submission of request** .....  
(To be filled in by the Govt.)
3. **Govt. Agency submitting the request.** The Company for Industrial Incentives  
in the Ministry of State Organization for  
Economic Industries, Ministry of  
Industry
4. **Govt. Agency concerned with the project.** State Company for Industrial Incentives  
(as a partner)

5. **Background and Justification**

In order to assist the Govt. to establish and improve the use of the  
towing saloon boats, the following and other activities are planned to  
be carried out by the engineering production manufacturer, the State  
Company for Industrial Incentives, Ministry of State Organization for  
Economic Industries, Ministry of Industry. The project would be carried out over a period of 6 months. The project is concerned with the following activities in the  
field, which would produce the following objectives:

1. Study the capabilities and requirements for the towing saloon boats  
and determine the most suitable design and construction.
2. Study the availability, technical and organizational requirements of  
the towing saloon boats and determine the most suitable design and  
construction (including, management, training, etc.).
3. Determine the most suitable design for production, including, design,  
construction, maintenance and repair, and determine the most suitable  
management system.
4. Assist in developing, setting up and operating a towing saloon boat  
production and distribution program, including, design, construction,  
management and training requirements, etc.
5. Assist in developing a maintenance program, which would include  
the design, construction and operation of the towing saloon boats,  
including, design, construction, management, training, etc. The cost  
of the maintenance program would be shared with the I.D.O. and the Govt.

6. Background Information.

Government of Iraq had set up the Inkhadariya agricultural implements factory with an investment of over I.D. 25 million (@ 75 million) for manufacture of about 30,000 implements of different types, agricultural tools, and allied engineering products. The factory which had gone into production in 1971 is presently manufacturing, ploughs, cultivators, ridger, harrows, etc. besides progressive manufacture of tractor tractors and accessories for them. The capacity of the factory is large. For fully utilising the manufacturing capacity, besides meeting the domestic requirements, it is necessary to develop an export market. The experience has shown that the existing sales service network has to be reorganised and improvements are required to be made to help improve sales and production.

7. Relationship with other technical assistance projects

UNIDO is rendering assistance to the Inkhadariya factory through services of an expert for testing, development and research in agricultural machinery. A detailed study carried out under this project has shown, that a large number of new equipment offers scope for introduction and manufacture. United Nations is also assisting Govt. of Iraq in the execution of a large number of agricultural projects with a heavy mechanisation component.

8. Project Summary, Duration and Estimated cost

Field of Activity	Duration	Cost
(a) Expert in Ag. Machinery (Sales and servicing)	6 months	0.17.00
(b) UNIDO Staff Mission for project formulation	2 weeks	

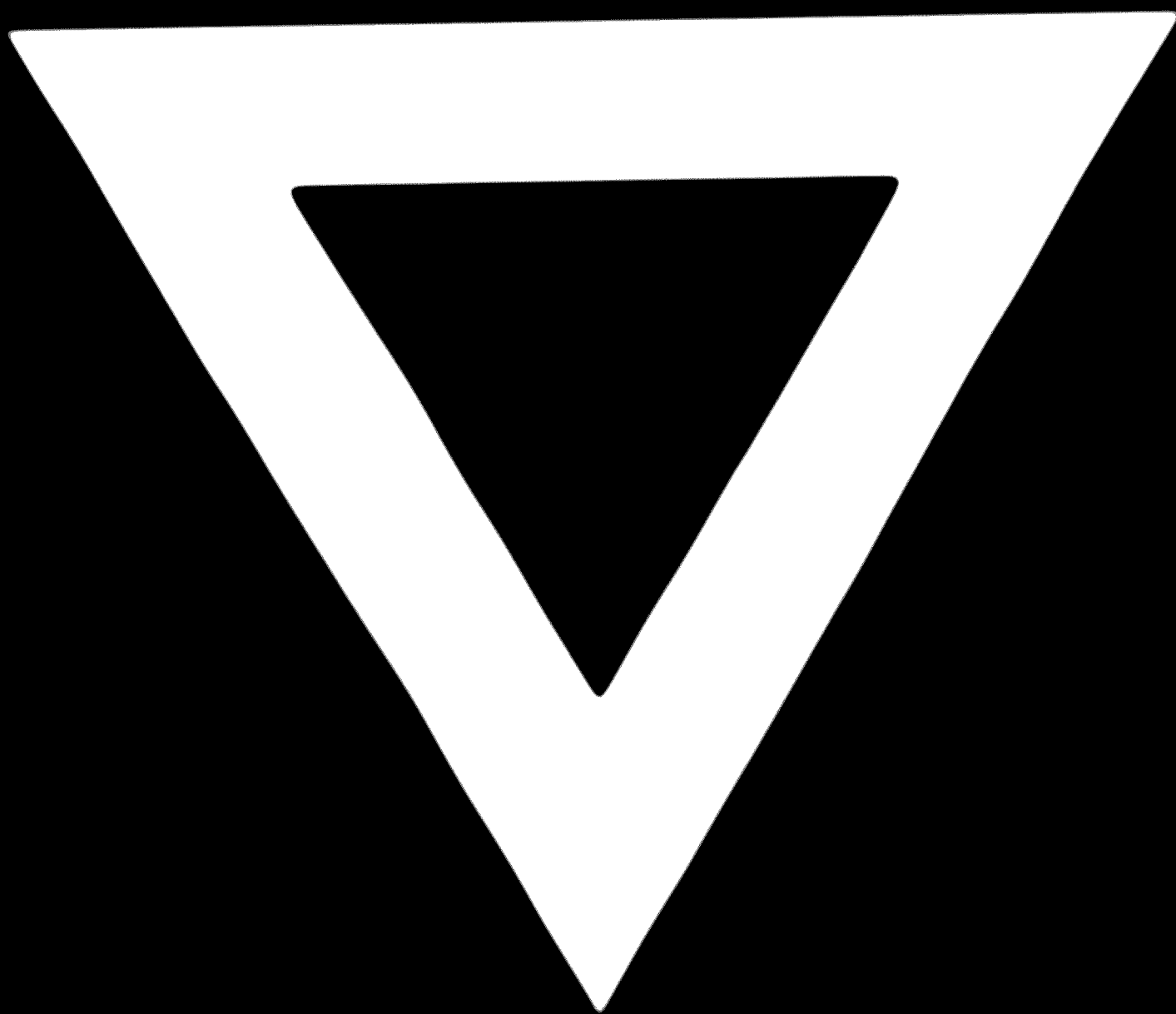
9. Approval Authority

For UNIDO - Date \_\_\_\_\_ For UNDP - Date \_\_\_\_\_

This request is based on Report No. P/12/16 IDU-45 July '71  
 \* Improvements in Sales and Services of Inkhadariya Ind. Agricult. of  
 Machines and Implements For Promoting Iraq's Farm Mechanisation.  
 P. John Scherish.



**B-898**



**82.09.23**