

Administration (RIA), respectively, and National Economic and Development Authority (NEDA) is responsible for the coordination of the Project.

4. The Team will convey the desire of the Government of the Philippines to the Government of Japan that the Japanese Government will take necessary measures to cooperate in implementing the Project by providing necessary agricultural commodities within the scope of Japan's Economic Cooperation Program in the Grant Form.
5. Agricultural commodities to be provided will be finalized by the Team on the basis of the results of study, taking into full consideration the request of the agencies concerned of the Government of the Republic of the Philippines.
6. The Philippine authorities concerned understood and accepted Japan's Grant Aid System explained by the Team.
7. The Philippine authorities concerned have confirmed that the necessary measures to be taken by both Governments are listed in ANNEX II on condition that grant aid by the Government of Japan is extended to the Project.
8. Tentative schedule for the implementation of the Project is as attached in ANNEX III.
9. Philippine side assured that the Grant Aid request for the 1986 Increased Food Production will be made in the earliest possible time.

## ANNEX A

NEAC

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>
<b>Fertilizer</b>		
Urea	7,000	MT
14-14-14	7,300	MT
16-20-0	3,000	MT
25-0-0	6,000	MT
<b>AGRICULTURAL CHEMICAL (Technical Grade)</b>		
<b>Insecticide</b>		
MIPC	40,040	kg
BPBC	20,000	kg
Diazinon	50,000	kg
MEP	30,000	kg
Fenvalerate	3,000	kg
EAP	50,000	kg
DEP	2,300	kg
<b>Fungicide</b>		
EDDP	4,000	litre
<b>Herbicide</b>		
Benthiocarb	59,400	kg
SMCA	30,000	kg
<b>Rodenticide</b>		
Coumatetralyl (10%)	1,000	kg
Coumatetralyl (0.75%)	10,000	kg

NFA

	<u>Specification/ Capacity</u>	<u>No. of Units</u>
<u>A. Grains Processing Equipment</u>		
1. Portable Pre-Cleaner	1 ton per hour	18
2. Portable Dryer	Recirculating Batch Type 2 tons per 8 hours each	18
3. Ricemilling Equipment and parts	1 ton per hour	18
4. Portable Storage Facilities	250 tons/set	18
<u>B. Grains Laboratory Equipment</u>		
1. Laboratory Testing Husker		38
2. Laboratory Testing Mill		38
3. Double Beam Balance		45
4. Thickness Grader		38
5. Infrared Moisture Meter		3
Distribution Areas:		
1. Cagayan	6. Iloilo	
2. Isabela	7. Bukidnon	
3. Nueva Ecija	8. South Cotabato	
4. Bulacan	9. Davao del Norte	
5. Pampanga	10. Agusan del Sur	

NIA

Item	Project Name												Total Units
		A	B	C	D	E	F	G	H	I	J	K	
1.	Backhoe, Wheel Tractor 0.5-0.8/0.15-0.25 m buckets	3	4	3	3	2	3	4	2	2	3	3	32
2.	Tractor Dozer 56-85 HP	1	1	-	1	1	-	-	1	1	-	-	6
3.	Grader, 60-75 HP	1	1	-	1	1	1	1	1	1	1	1	10

## LIST OF PROJECTS

## Service Area (Iia)

A. Region I		
1.	San Fabian RIS	2,766
2.	Masalip RIS	1,620
3.	Tagudin RIS	1,384
		-----
		5,770
B. Region II		
1.	Pinacanauan RIS	1,500
2.	Baggao RIS	1,818
3.	Banurbur RIS	936
4.	Solana-Tuguegarao	1,320
		-----
		5,574
C. Region III		
1.	Sto. Tomas RIS	3,448
2.	Porac Gumain RIS	5,263
		-----
		8,711

D.	Region IV	
	1. Mabacan RIS	598
	2. Dumacaa RIS	2,500
	3. Pagbahan RIS	1,378
		-----
		4,476
E.	Region V	
	1. Libmanan-Cabusao IS	3,427
	2. Daet-Talisay IS	3,728
		-----
		7,155
F.	Region VI	
	1. Mambusao RIS	1,440
	2. Aklan RIS	3,956
	3. Sibalom-Tigbauan	2,020
		-----
		7,416
G.	Region VIII	
	1. Bito RIS	1,700
	2. Binabaan N & S IS	3,330
	3. Soong RIS	1,200
	4. Dao RIS	1,917
		-----
		8,147
H.	Region IX	
	1. Sibuguey IS	3,100
	2. Labangan RIS	3,000
		-----
		6,100
I.	Region X	
	1. Roxas Kuya RIS	1,378
	2. Andaman RIS	5,200
		-----
		6,570
J.	Region XI	
	1. Marbel RIS	2,700
	2. Saug RIS	4,100
	3. Lupon IS	2,000
		-----
		8,800
K.	Region XII	
	1. M'lang RIS	2,308
	2. Malasila RIS	3,900
	3. Rughan RIS	3,680
		-----
		9,888

## ANNEX II

Necessary terms to be taken by both Governments

- |  | RP | Japan |
|--|----|-------|
| 1. To provide agricultural commodities   |    | o     |
| 2. To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement   | o  |       |
| a) Advising Commission of Authorization to Pay   |    |       |
| b) Payment Commission  |    |       |
| 3. To ensure unloading, customs clearance, bonded warehouse charge and tax exemption of the agricultural commodities connected with the Project at the port of disembarkation in the Republic of the Philippines | o  |       |
| 4. To ensure that the products purchased under the Grant will make effective contribution to the increase of food production and eventually to the stabilization and development of the Philippines' economy     | o  |       |
| 5. To bear all the expenses, other than those to be borne by the Grant   | o  |       |
| 6. To maintain and use properly and effectively the agricultural equipments and machineries purchased under the Grant  | o  |       |
| 7. To appropriate in the budget in Philippine currency an amount equivalent to the yen disbursement paid with respect to the purchase of agricultural machineries and equipment                                  | o  |       |

ANNEX III

The tentative Schedule for the implementation of the Project is as follows:

	1985		1986			
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Exchange of Notes		o				
B / A		o				
Tender				o		
Contract					o	
Verification of Contract					o	
Issuance A/P					o	
Notification of A/P						o
Execution of the Project						o

## BANNED AND RESTRICTED PESTICIDES IN THE PHILIPPINES

FERTILIZER AND PESTICIDE AUTHORITY August 1983

### I BANNED PESTICIDES

BANNED PESTICIDES are not to be brought into and used in this country, any circumstances.

### II RESTRICTED PESTICIDES

#### Guidelines on Restricted Pesticide

A Restricted pesticides are covered by two basic guidelines:

- A. They may not be allowed for distribution, sale and use in certain crops and /or areas of the country, and;
- B. They may be used only by and under the supervision of certified applicators, or under such conditions as the F P A Administrator may require.

#### Classifications of Restricted Pesticide

The List of Restricted Pesticides is categorized as follows:

1. Those which are not for importation except in case of emergency. Such cases are to be determined by the Authority.
2. Those to be used for termite control only
3. Those to be used under specified limitations
4. Fumigants and other chemicals for use only by certified fumigators



### III STOP SALE, STOP USE, REMOVAL AND HOLD ORDERS

When a pesticide is being offered for sale or used in violation of this Restriction Notice, the F P A through its authorized representative, may issue and enforce stop sale, stop use, removal or hold order to the owner or custodian of said pesticide, ordering it to be held at a designated place until the law or the Rules and Regulations of this Authority shall have been complied with; the said pesticide is released in writing by the F P A or its authorized representative; or until all said violations have been disposed by the proper authorities.

The provisions of Presidential Decree 1144 and the F P A Rules and Regulations and their penal provisions shall apply for violations of this circular.

### IV BANNED AND RESTRICTED PESTICIDES IN THE PHILIPPINES

#### Banned Pesticides

1. Parathion-ethyl
2. Copper Aceto-arsenite (Paris Green)
3. DDT containing mosquito coils
4. D B C P
5. Nitrofen
6. Leptophos
7. E P N
8. Endrin
9. Mercuric fungicides
10. Toxaphene

11. Elemental phosphorous (White & Yellow)
12. Thallium sulfate
13. 1-Naphthylthiourea (ANTU)
14. Gophacide
15. Sodium Fluoroacetate
16. Sodium Poluroacetamide (1081)
17. Strychnine

Restricted Pesticide

A. Importation Not Allowed Except in Cases of Emergency as Determined  
by the Authority.

1. 2, 4, 5-T
2. Heptachlor - only allowed use in agriculture is for pineapple plantations under conditions enumerated in Pesticide Circular NO.9, Series of 1982.
3. DDT - the only allowed use is for malarial eradication program.
4. Aldicarb
5. Technical HCH or BHC - For direct importation in sugar plantation stipulates in Pesticide Circular NO.4S.1983
6. Chlorobenzilate

B. For Termite Control Only

1. Aldrin
2. Dieldrin
3. Chlordane
4. Heptachlor

C. For Use Under Specified Limitations

1. Not for Use near Aquatic Ecosystem

- a. Aldrin
- b. Chlordane
- c. Dieldrin
- d. Endosulfan

2. Too Hazardous for General Use (For Institutional Use Only). 1/

- a. Paraquat -for use in Banana plantations only
- b. Phenamifos -Nemacur -for use in Banana plantations only
- c. Etroprop -Mocap -for use in Banana plantations only
- d. Methidathion -Supracide -for use in Banana plantations only
- e. Inorganic Arsenicals (Arsenic Trioxide) - For use in wood preserving plants only.

D. Fumigants and Other Chemicals for Use Only By Certified Fumigators

Adequate time for aeration is required after treatment before commodities are processed into food or feed.

1. Methyl bromide
2. Ethylene dibromide
3. Carbon Disulfide
4. Phosphate generating compounds
5. HCN-generating materials
6. Carbon tetrachloride
7. Chloroform
8. Ethylformate

---

1/ Strict compliance to guidelines for Institutional Use imperative

## INTENSIFIED RICE PRODUCTION PROGRAM

I 背景

Masagana 99 1973年以来10年以上に渡り、稲作農民に対し種々の支援体制（貸し付け、技術援助、インフラストラクチャー整備、投資材供給、マーケティング等）を通して稲生産に大きな貢献をしてきた。しかしながら、Masagana 99 プログラムが計画されたのは1973年以前であることから、このプログラムが約2年に1度の割合でマイナーな改善では、周辺状況の大きな変化に対応できなくなってきた。その様な状況下において、Masagana 99 プログラムを現況に適応する方向へ操舵すべく Masagana 99 プログラムの一環としての Action Program である Intensified Rice Production Program が実施されるに至った。

II 目的

1. 1985年6月末迄に粳で60万トンの増産を行なう。
2. 米で40万トン相当の政府緩衝在庫の供給。

III 方法

1. かんがい田に限定し年2回の稲作を実施する。
2. 政府、銀行及び民間機関（農薬・肥料会社）からの適切かつ適宜の資金援助。
3. NFAは、農民からの収穫物を適切な価格で購入。
4. 施肥、水管理、病虫害防除等の技術援助。

IV 資金援助方式

三者択一の作物生産援助用資金源が計画された。

1. NFA 援助方式

NFAが既存のネットワークを利用し、篤農家、農民組織、農協等へ農業投資材

資金と技術指導を実施する。

## 2. Trader-Miller/ Input Supplier援助方式

### (1) Trader-Miller援助方式

Quedan Guarantee Fund Board からTrader-Millerを通して農民へ資金援助を行なうTwo-step Loan がこれである。返済は収穫物によって行なわれる。

### (2) 農業資材供給業者援助方式

農業資材供給業者が農民にローン・ベースで資材を供給し、返済を収穫物か現金で行なうものである。この際、技術指導は従来の農業改良普及員によって実施される。

## 3. 銀行援助方式

この方式は従来のMasagana 99 の方式とほぼ同じである。

## V プログラム実施

プログラム地域として 20Provincesが選定し、1984年11、12月には合計15万haを目標として開始された。かんがい方式別には、National Irrigation Systemが80,700ha、Communal Irrigation Systemが56,700ha、Pump Irrigation System 12,600ha の計15万haである。

## VI 貸付金額

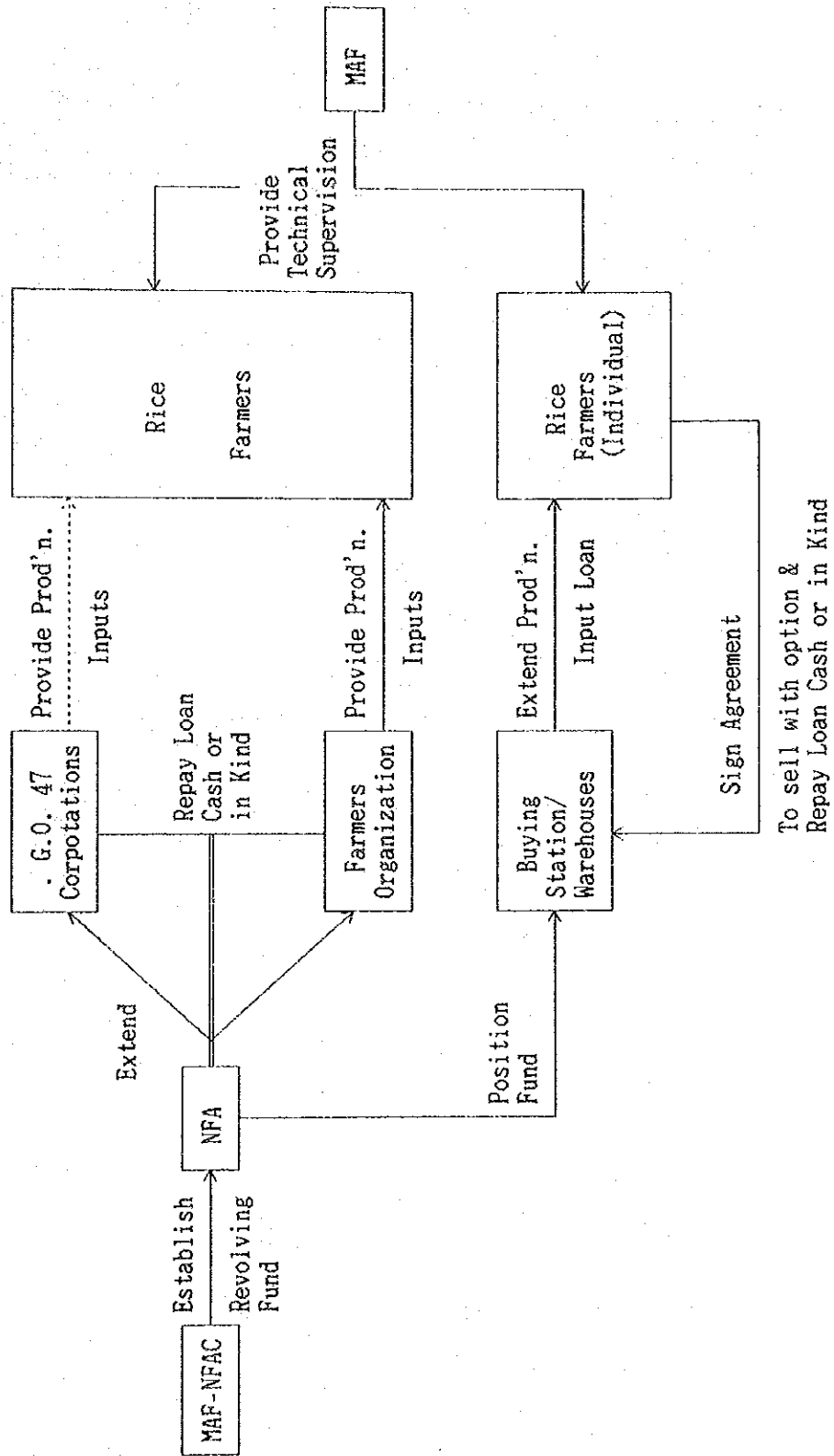
貸付金額はヘクタール当たり 3,000ペソを越さない範囲で、農民の必要に応じて決定する。貸付金額が 3,000ペソの場合の一例を示すと次のようになる。

種子	400	ペソ
肥料	1,675	"
農薬	775	"
作物保険	150	"
合計	3,000	ペソ

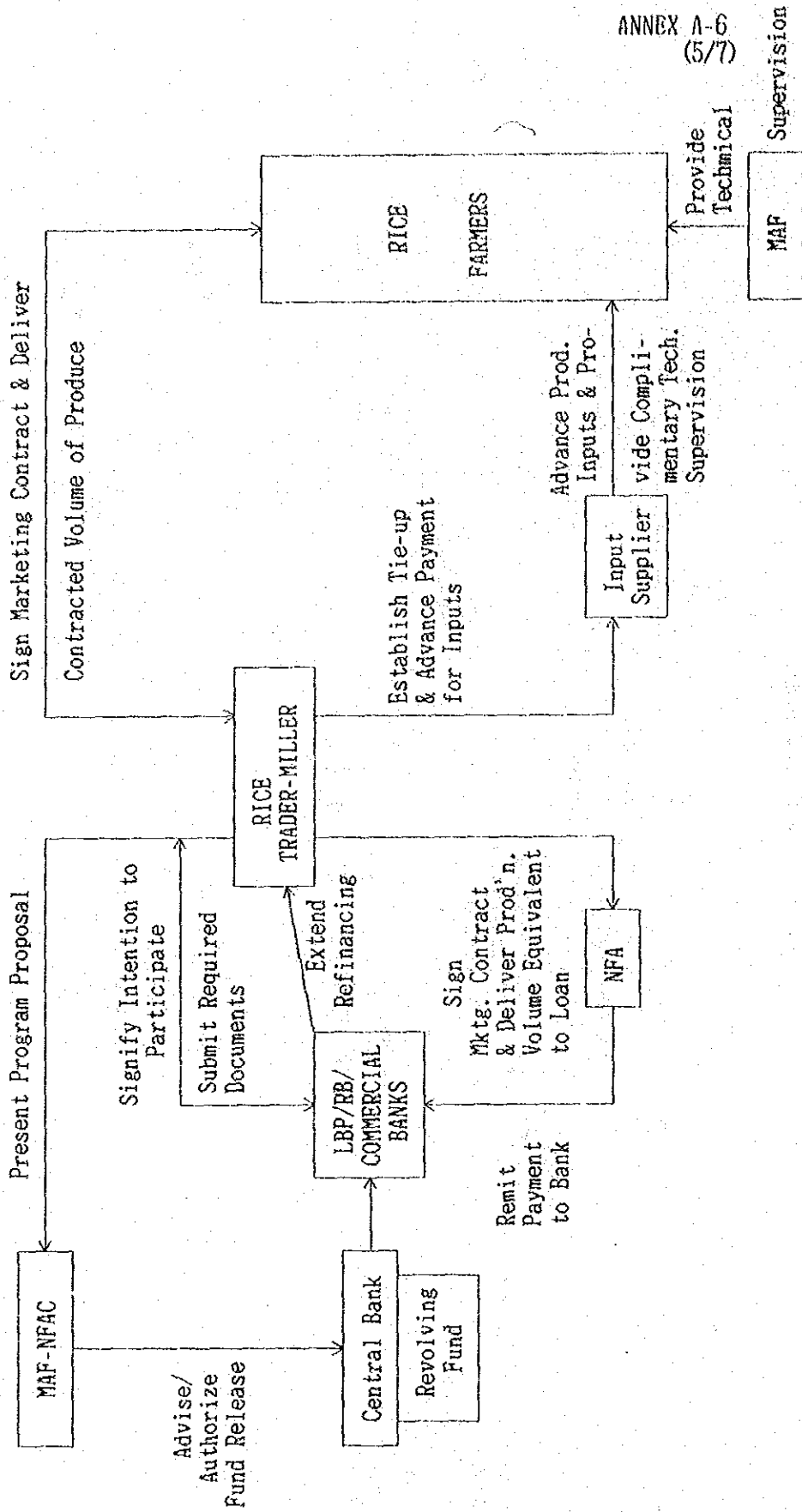
上記項目以外にLand Preparation、労賃のための現金によるローンも 800ペソまで認められている。ただし、この 800ペソは、上記 3,000ペソに含まれるものとする。

貸出金利は年間15%であり、120日の1作期当り 5%となる。

THE NFA ASSISTANCE SCHEME



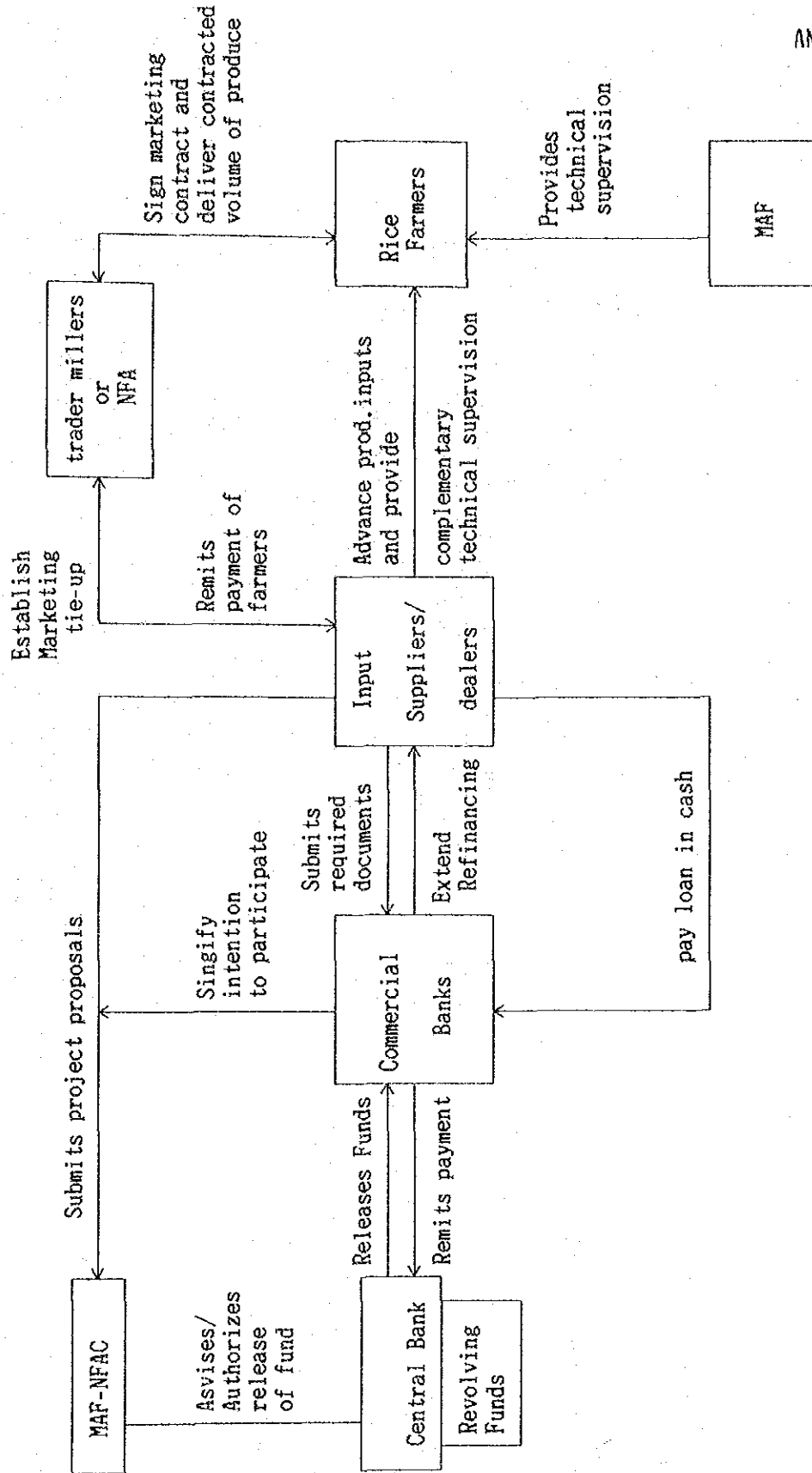
THE RICE TRADER-MILLER APPROACH



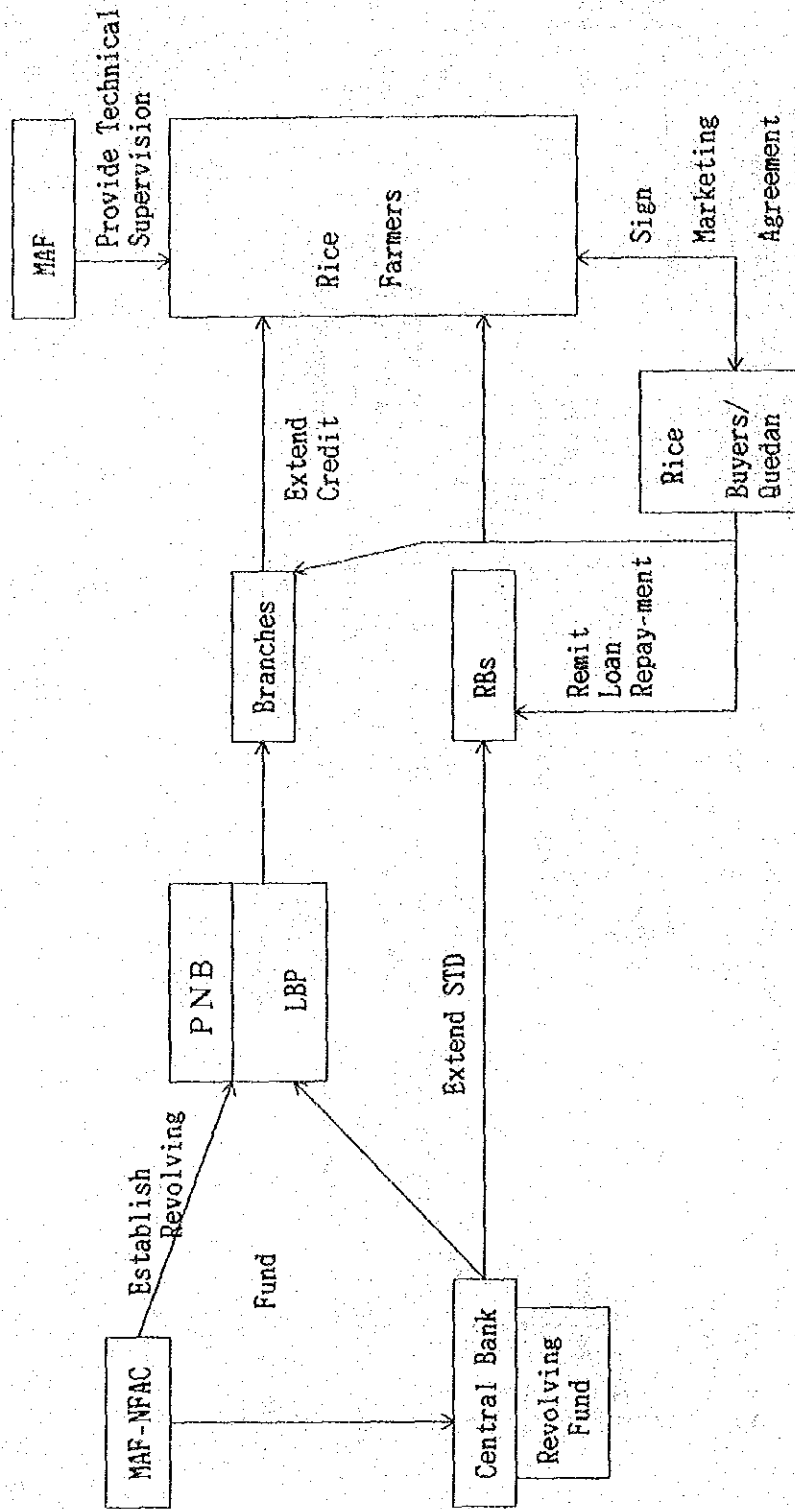
ANNEX A-6  
(5/7)



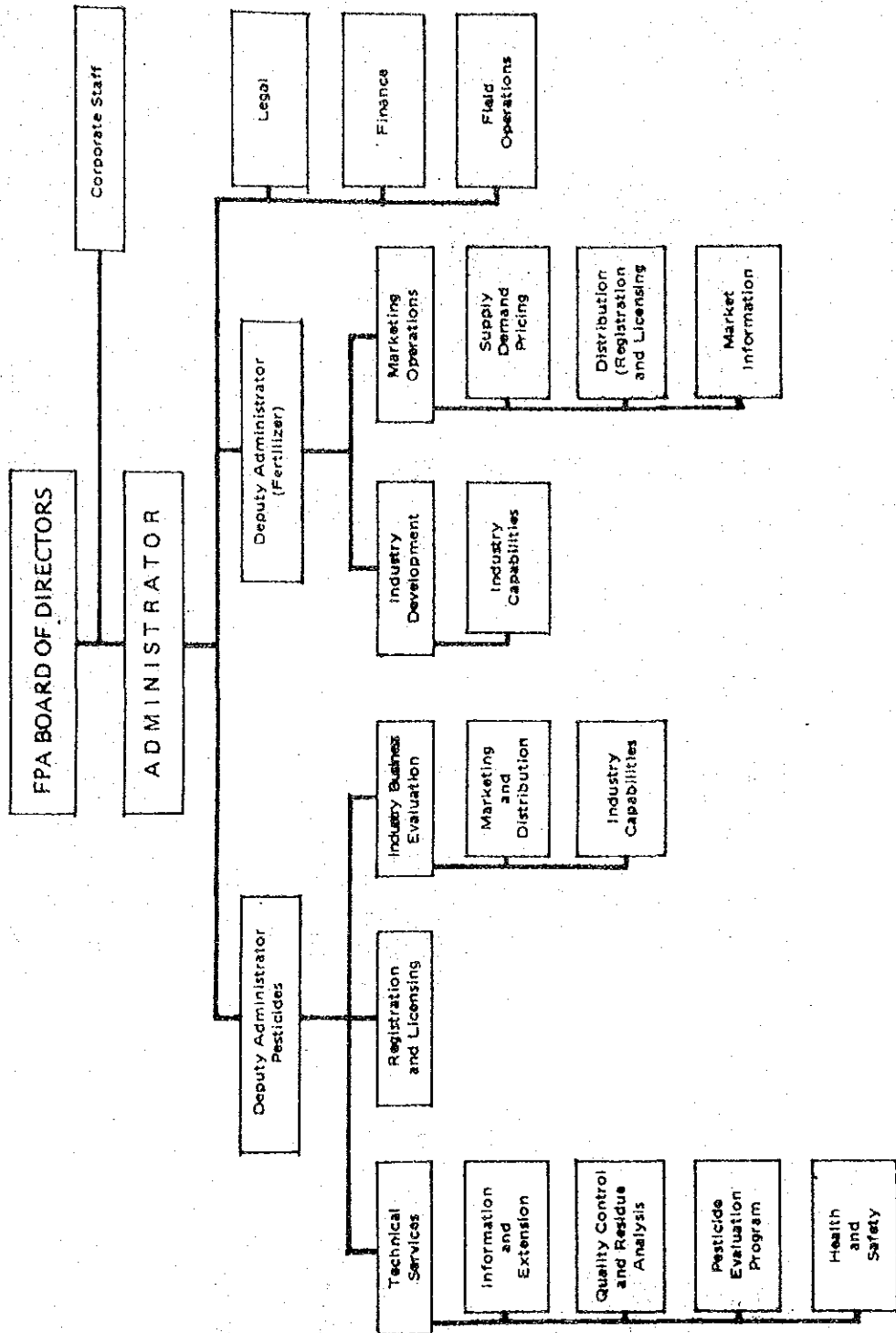
THE INPUT-SUPPLIER ASSISTANCE SCHEME



THE BANKING SYSTEM ASSISTANCE SCHEME



ORGANIZATION CHART OF THE  
FERTILIZER AND PESTICIDE AUTHORITY (FPA)



LIST OF RECOMMENDED INSECTICIDES FOR THE USE  
OF MASAGANA 99 PROGRAM  
1983-84

COMMON NAME	BRAND NAME	% ACT.	FORMULATION	PACKING	CODE NUMBER
<u>GRANULARS</u>					
CARBOFURAN	FUR/DAN 3G	3.0 %		16.7 kg 3 kilos	P1
DIAZINON	BASUDIN 5G	5.0%		15 kg	P107
	DIANOL 5G	5.0%		10 kg	P4
	DIAGRAM 5G	5.0%		15 kg	P13
	DAZVIN 5G	5.0%		16.7 kg	P143
ENDOSULFAN	THIODAN 5G	5.0%		20.0 kg	P8
PHENIOATE + MIPC	CARBOPHEN 6G	3.0% + 3.0%		17 kg	P145
<u>LIQUIDS</u>					
AZINPHOS ETHYL	BIONEX	40.0%		8 oz 1 pt 1 qt	P137
	COTNION 40 EC	40.0%		1 liter	P31
				1,000 ml	
CARBARYL	SEVIN XL R	48.0%		500 ml 1 liter	P140

page 2

COMMON NAME	BRAND NAME	FORMULATION % ACT. ING.	PACKING	CODE NUMBER
<u>LIQUIDS</u>				
BPMC (BASSA)	HOPCIN 50 EC	50.0%	500 ml 1 liter	P 53
	BAYCARB	50.0%	500 ml 1 liter	P 52
	CARVIL 50 EC	50.0%	1 qt	P136
	VINDEX EC	50.0%	1 qt 1 pt	P142
BPMC + CHLORPYRIFOS	BRODAN EC	21.0% + 10.5%	8 oz 1 pt 1 qt	P 73
DIAZINON	BASUDIN 20 EC	20.0%	1 liter	P 70
ENDOSULFAN	THIODAN 35 EC	35.0%	500 ml 1 liter	P 29
	ENDOX 35 EC	35.0%	8 ounces 1 pint 1 qt	P144

COMMON NAME	BRAND NAME	% ACT.	FORMULATION ING.	PACKING	CODE NO.
<u>LIQUIDS</u>					
MONOCROTOPHOS	AZODRIN 202 R	30.0%		1 liter	P 57
				.360 liter	
PHOSPHAMIDON	NUVACRON 300 SCW	30.0%		1 liter	P146
	DIMECRON SC	50.0%		1 liter	P 28
TRIAZOPHOS	HOSLATHION 40 EC	40.0%		500 ml	P 27
				1 liter	
MIMC	TSUMACIDE 30 EC	30.0		1 liter	P 66
<u>WETTABLE POWDER</u>					
CARBARYL	SEVIN 85 S	85.0%		500 grams	P 69
	TEENYI.	85.0%		500 grams	P138
MIPC	ETROFOLAN WP	50.0%		500 grams	P 63
				1 kg	
	HYTOX WP	50.0%		500 grams	P 64
	MIPCIN WP	50.0%		500 grams	P 65
MIMC (Propoxur)	TSUMACIDE 50 WP	50.0%		500 grams	P 66
ACEPHATE	ORTYENE GI 73	75.0%		50 gr. tin	P116
BENC	SHELLCARB WP 40	40.0%		250 grams	P134
				500 grams	

LIST OF RECOMMENDED HERBICIDES FOR THE USE OF  
MASAGANA 99 RICE PROGRAM  
 1983-84

COMMON NAME	BRAND NAME	% ACT.	FORMULATION	PACKING	CODE NO.
<u>GRANULARS</u>					
<u>BUTACHLOR</u>					
2,4-D ETHYL ESTER	Lambast 5 G	5.0%		20 kg	H <sub>71</sub>
2,4-D ISOPROYL ESTER	Weedtrol 5 G	3.2%		25 kg	H <sub>4</sub>
2,4-D ISOBUTYL ESTER	Hedonal	3.2%		25 kg	H <sub>6</sub>
	Hoechst 2,4-D	3.2%		25 kg	H <sub>7</sub>
	Planters 2,4-D	3.2%		25 kg	H <sub>8</sub>
	Shell 2,4-D	3.2%		25 kg	H <sub>10</sub>
	Atlas 2,4-D	3.2%		25 kg	H <sub>43</sub>
<u>ISOOCTYL ESTER IBE</u>					
	Plantguard				
	2,4-D IBE	3.2%		25 kg	H <sub>9</sub>
	Agroxone G	3.2%		25 kg	H <sub>11</sub>
<u>THIOBENCARB</u>					
	Saturn 5% G	5%		20 kg	
THIOBENCARB + 2,4-D	Saturn D	4.0% + 2.0%		20 kg	H <sub>13</sub>
PIPEROPHOS + 2,4-D	Rilof H 4.2	4.0% + 2.0%		15 kg	H <sub>67</sub>
TRIFLURALIN + 2,4-D	Treflan R	1.67% + 2.13%		20 kg	H <sub>14</sub>

COMMON NAME	BRAND NAME	% ACT.	FORMULATION ING.	PACKING	CODE NO.
<u>LIQUIDS</u>					
2,4-D AMINE EC	2,4,-D Amine Hoechst	50.0%		500 ml	H <sub>18</sub>
				1 liter	
Weedtrol 2,4-D EC	Weedtrol 2,4-D EC	3.31% + 40.0%		1 liter	H <sub>20</sub>
2,4-D Amine 400 Planters	2,4-D Amine 400 Planters	3.31% + 40.0%		8 oz	H <sub>21</sub>
				1 pt	H <sub>21</sub>
				1 qt	
2,4-D Amine WB	2,4-D Amine WB	4.0% + 40.0%		8 fl. oz.	
				16 fl. oz.	H <sub>22</sub>
				32 fl. oz.	
2,4-D Amine Agchen	2,4-D Amine Agchen	3.34% + 40.0%		1 liter	H <sub>31</sub>
Hedonal	Hedonal	3.34 + 40.0%		500 ml	H <sub>17</sub>
2,4-D IBE	Weedtrol 2,4-D EC	3.34% + 40.0%		1 pt	H <sub>59</sub>
	2,4-D IBE UCPI	3.34% + 40.0%		500 ml	H <sub>24</sub>
	2,4-D Shell	3.34% + 40.0%		1 liter	H <sub>44</sub>
				.360 liter	
2,4-D IBE Hoechst	2,4-D IBE Hoechst	3.34% + 40.0%		500 ml	H <sub>29</sub>
				1 liter	
2,4-D IBE Planters	2,4-D IBE Planters	3.34% + 40.0%		8 Oz	H <sub>32</sub>
				1 pt	
				1 qt	



COMMON NAME	BRAND NAME	FORMULATION	PACKING	CODE NO.
		% ACT. ING		
<u>LIQUIDS (cont.)</u>				
MCPA, EC	Agroxone S	3.34% + 40.0	16 fl. oz 32 fl. oz 8 fl 8 oz 1 pt 1 liter	H37
BUTACHLOR	Lambast EC			H72
PIPEROPHOS + 2,4-D	Rilof H EC	70.0%	500 ml 1 liter	H67
THIOBENCARB	Satum 60 EC	60.0%	1 liter	H69
THIOBENCARB + 2,4-D	Satum D EC	50.0%	500 ml 1 liter	H57
BENTAZON	Basagran	50.0%	500 ml 1 liter	H63

LIST OF RECOMMENDED FUNGICIDES FOR THE USE OF  
MASAGANA 99 RICE PROGRAM  
1983-84

COMMON NAME	BRAND NAME	% ACT.	FORMULATION ING.	PACKING	CODE NO.
BENOMYL	Benlate WP	50%		100 grams	F 14
THIOPHANATE METHYL	Fungitox	70%		120 grams	F 13

LIST OF RECOMMENDED RODENTICIDES FOR THE USE OF  
MASAGANA 99 RICE PROGRAM  
1983-84

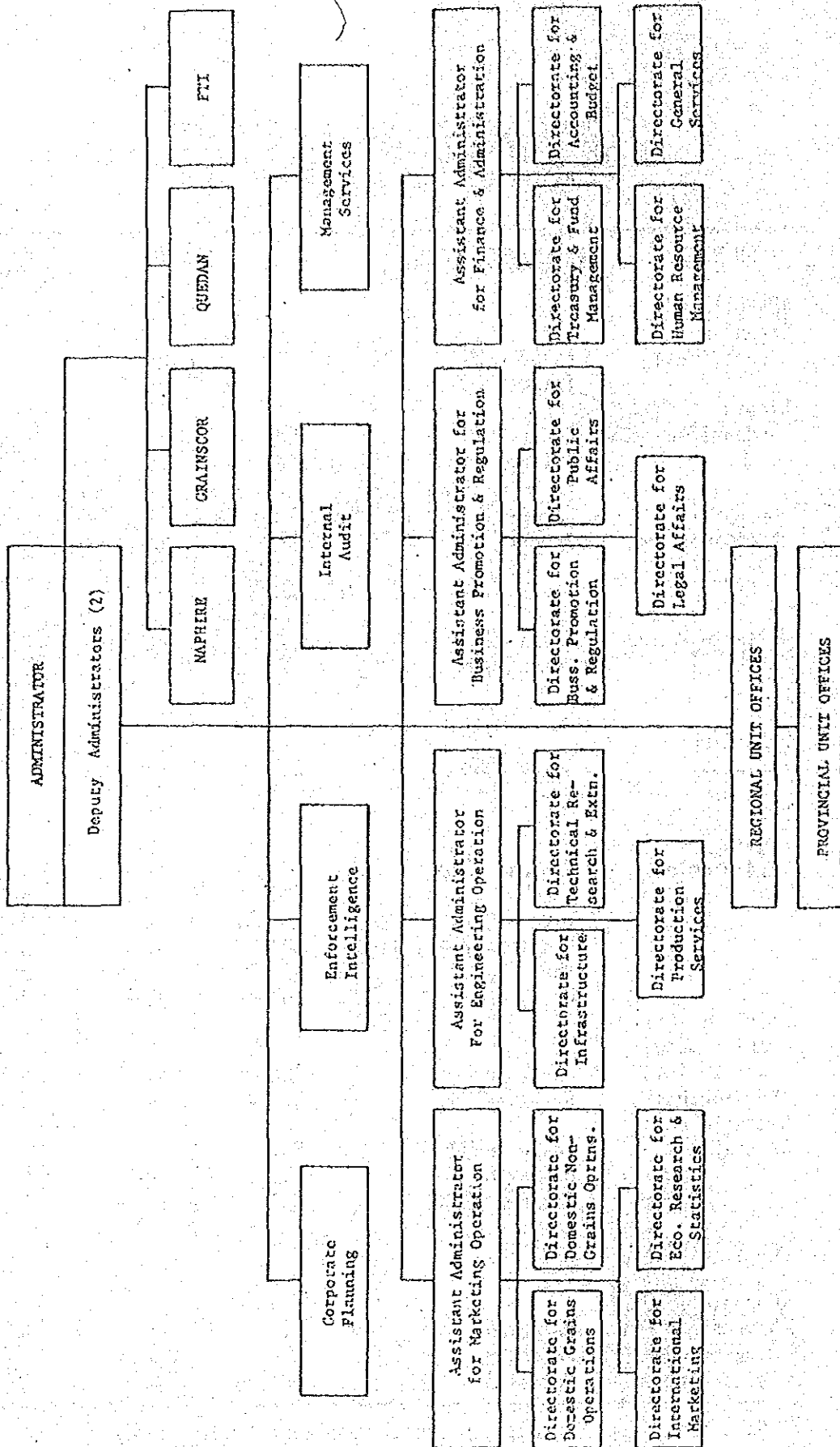
COMMON NAME	BRAND NAME	% ACT.	FORMULATION ING.	PACKING	CODE NO.
WARFARIN	Ratoxin			1 kg	R 3
COUMACHLOR	Racumin 0.75			1 kg	R 9
				500 grams	
	Tomorin 1.10			500 grams	R 5
CHLOROPHACINONE (CHLORADIONE LM 91 RAVIAC)	Liphadione			50 cc	R 1
				200 cc	
				1 liter	
DIPHACINONE	Diphacin 110			1 kg	R 4
	Racimon			250 grams	R 7

UPDATED LIST OF RECOMMENDED PESTICIDES  
FOR THE USE IN THE EXPANDED YELLOW CORN PRODUCTION  
ASSISTANCE & MAISAGANA PROGRAM 1985

<u>COMMON NAME</u>	<u>BRAND/FORMULATION</u>	<u>% a. i.</u>	<u>PACKING</u>	<u>CODE</u>
<b>A. INSECTICIDE:</b>				
<u>Granular</u>				
Carbofuran	Furadan 3G	3%	16.7kg	P 1
	Thimet 10G	-	1 kg	-
<u>Liquid</u>				
Endosulfan	Endox 35EC	35%	1 qt	P144
	Thiodan 35EC	35%	1 lt	P 29
	WB Endosulfan	35%	not available	P103
Methomyl	Lannate L	20%	1 lt	P 79
Monocrotophos	Azodrin 202-R	30%	1 lt	P 57
Chlorpyrifos +BPMC	Brodan 31.5 EC	21%+10.5%	1 qt	P 73
<u>Wettable Powder</u>				
Carbaryl	Sevin 85S	85%	1 kg	P 59
	Vetox 50 WP	50%	500 g	P 20
<b>B. FUNGICIDE:</b>				
Metalaxyl	Apron 35SD 1/	35%	1 kg	F 28
<b>C. HERBICIDES:</b>				
<u>Liquid</u>				
2,4-D Amine	Hedonal 400S	40%	1 lt	H 17
	Hoechst 2,4-D	50%	1 lt	H 18
	Miracle 2,4-D	40%	1 lt	H 31
	Planters 2,4-D	40%	1 qt	H 21
	Shell 2,4-D	40%	1 qt	H 74
	WB 2,4-D	40%	1 qt	H 22
MCPA (Methyl- chlorophenoxy Acetic Acid)	Agroxone S	40%	1 qt	H 37
Pendimethalin	Herbadox 330E	31.7%	1 qt	H 73
<u>Wettable Powder</u>				
Atrazine	Gesaprin 80 WP	80%	1 kg	H 49
	Premox 80 WP	80%	1 kg	H 50
	Atranex 80 WP	80%	1 kg	H 76
<b>D. RODENTICIDES:</b>				
<u>Anticoagulant (Chronic Type)</u>				
Warfarin	Ratoxin	1%	1 kg	R 3
Diphacinone	Racinon	2%	250 g	R 4
Coumatetralyl	Racumin	0.75%	1 kg	R 9

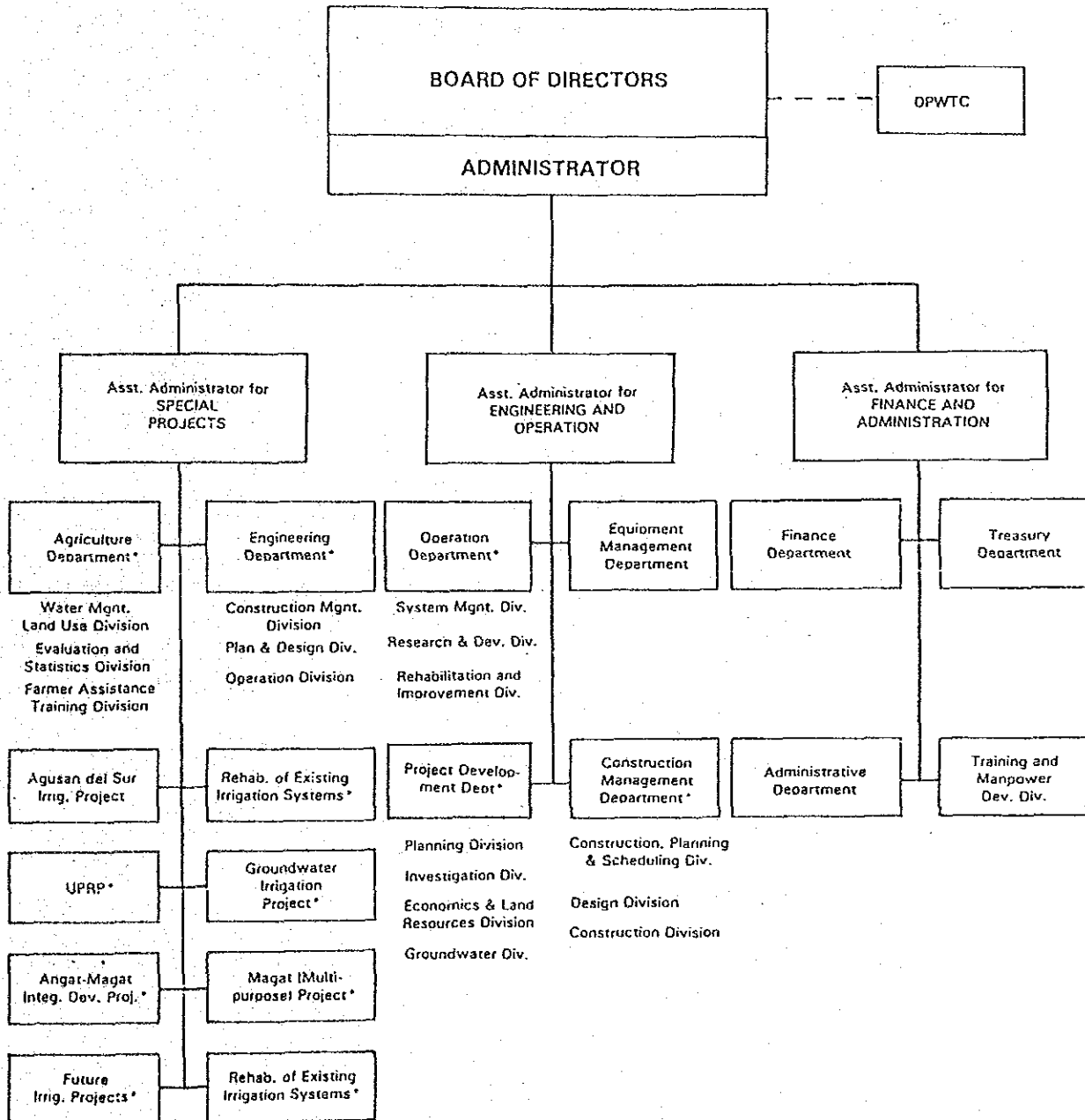
1/ Seed Treatment to provide protection against downy mildew.

国家食糧庁



# 国家かんがい庁

## NATIONAL IRRIGATION ADMINISTRATION



## ANNEX B

### Technical Specification

1. 肥料
2. 農藥
3. 農業機械

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FERTILIZER

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Specifications

<u>Name of Commodity</u>	<u>Packing</u>	<u>Quantity (MT)</u>
1. Urea (45% Nitrogen)	50kg PP woven bag with one ply PE inner bag	7,000
2. Mixed Fertilizer (14-14-14)	- do -	7,300
3. Compound Fertilizer (16-20-0)	- do -	3,000
4. Ammonium Chloride 25% Nitrogen	- do -	6,000

## AGRO-CHEMICALS (1)

Specifications

<u>Name of Commodity</u>	<u>Minimum Purity (%)</u>	<u>Packing</u>	<u>Quantity (kg)</u>
1. 2-Isopropyl-phenyl-N Methyl carbamate	98	130kg net in iron drum	40,040
2. 2-Sec-Butryl phenyl-N - Nethylcarbamate	98	130kg net in iron drum	20,000
3. O.O-Diethyl - O(2-isopropyl 6-methyl-4-pyrimidinyl) phesphorothioate	96	200kg net in iron drum	50,000
4. Fenitrothien Technical Grade 0.0 Demethyl 0-4 Nitro-M-Tolyl Phosphorothioate	95	250kg net in iron drum	30,000
5. Fenvalerate Technical (RS)-Alpha-cyano-3 Phenoxybenzyl, (RS)-2-(4-Chlorophenyl)-3-Methylbutyrate	92	200kg net in iron drum	3,000kg
6. Phenthoate Technical Grade 0.0-Dimethyl, S-(X-(ethoxy carbonyl benzyl)) Phosphorothiologhionate	92%	200kg net in iron drum	50,000
7. Dimethyl (2.2.2-trichloro -1-hydroxyethyl) phosphate	95%	50kg/bag	2,300
8. O-Ethyl-S,S-diphenyl phospolodithioate	50 EC (Formulated)	200ℓ/Drum	4,000
9. S-(4-cholorobenzyl)-N, N-diethylthiolcarbanate	93	220kg net in iron drum	59,400



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AGRO-CHEMICALS (2)

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Specifications

<u>Name of Commodity</u>	<u>Minimum Purity</u> (%)	<u>Packing</u>	<u>Quantity</u> (kg)
10. Sodium Monochloroacetate	98	20kg net in Inner lined PP woven bag	30,000
11. 4-Hydroxy-3-(1,2,3,4- Tetrahydro-1-Naphthyl) Coumarin	10 (Pre-mixed)	50-kilo-drum	1,000
12. 4-Hydroxy-3-(1,2,3,4- Tetrahydro-1-Naphthyl) Coumarin	0.75 AI (formulated)	50-kilo- drum	10,000

NIA-1

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Item No. 1

BACKHOE: WHEEL TRACTOR

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Quantity Required: 32 units

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Specifications

Description

Four wheel drive type, rubber tyred loader equipped with heavy duty general purpose type front bucket with changeable teeth and rear backhoe attachment, driven by a diesel engine

Performance

1. Loader capacity:  
SAE heaped  $0.5\text{m}^3$  or more
2. Loader lift load max. height:  
not less than 1,600kg
3. Loader dumping clearance,  
max. height and 45 deg. dump  
angle:  
not less than 800mm
4. Loader reach at max. height and  
45 deg. dump angle:  
not less than 800mm
5. Operating weight:  
not less than 5,000kg
6. Static tipping load:  
not less than 2,500kg at full  
turn
7. Breakout force:  
not less than 3,500kg
8. Turning radius:  
not more than 4,500mm  
(outside corner of bucket)

Backhoe

1. Bucket capacity:  
SAE heaped  $0.13\text{m}^3$  or more
  2. Max. digging depth:  
not less than 3,00mm
  3. Max. reach from pivot point not  
less than 4,000mm
  4. Max. dump clearance:  
not less than 2,300mm
  5. Swing arc:  
not less than 180deg.
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Specifications

Engine

1. Type:  
Water cooled, 4-cycle, fuel  
direct injection type diesel  
engine
2. No. of cylinders:  
4 cylinders
3. Displacement:  
not less than 2,900cc
4. SAE flywheel horsepower:  
not less than 50HP at rated RPM
5. Max. torque:  
not less than 18kg-m at rated  
RPM
6. Fuel tank capacity:  
not less than 60 lit.
7. Lubrication system:  
Lubrication oil filter:  
Full-flow replaceable  
paper element filter  
Crankcase oil capacity:  
Approx. 7 lit.
8. Cooling system:  
Forced circulation by  
centrifugal water pump with  
suction or exhaust type fan
9. Air cleaner:  
Dry type
10. Starting method:  
24V, electric starting
11. Alternator:  
24V, not less than 20A
12. Battery:  
24V, not less than 65Ah

Torque converter

Three-element, single-stage,  
single or 2 phase type

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## Specifications

### Transmission

Power shift with torque converter,  
all wheel drive type.

At least 3 forward and 1 reverse  
speed.

Driving speed:

not less than 30.0km/h at top gear

### Transmission gear

1. Differential gear type  
Straight bevel gear type
2. Final reduction gear:  
Planetary gear type

### Axles

Drive system:

Four wheel drive type

### Wheels

1. Service brake:  
Hydraulic type on 4 wheels,  
wet disc type
2. Parking brake:  
Mechanical internal or disc type  
on drive shaft

### Steering

Frame articulating full hydraulic  
power steering

### Hydraulic system

1. Type:  
Gear pump
2. Capacity:  
not less than 70 lit./min. at  
rated RPM
3. Relief valve opening pressure:  
not less than 170kg/cm<sup>2</sup>

### Hydraulic control loader

Control position:

Boom: raise, hold, lower and  
float

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Specifications

Canopy and Seat

Canopy:

sun and rain protection

seat:

Adjustable, with back rest and arm rests

Others

Shall be equipped with necessary accessories

Spare parts

Manufacturer's recommended spare parts of 10% of total machinery cost

NIA-1

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Item No. 2                      TRACTOR DOZER, 56-85HP

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Quantity Required:    6 units

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Specifications

Description

Power shift crawler type tractor driven by not less than 56 flywheel horse power diesel-engine, equipped with hydraulic straight or angle tilting dozer and hydraulic control unit

Performance

Max. travel speed

Forward: not less than  
6.5km/hr

Reverse: not less than  
7.0km/hr

Max. drawbar pull:  
not less than 8.5 ton at lowest  
gear used

Operating weight:  
not less than 6 ton (with dozer  
and complete accessories)

Engine

1. Type:  
Water cooled, 4-cycle, direct injection type, diesel engine
  2. Dieplacement:  
Not less 4,300cc
  3. No. of cylinders:  
Not less than 4
  4. SAE flywheel horsepower:  
Not less than 56HP at rated RPM
  5. Max. torque:  
Not less than 25kg.m at rated RPM
  6. Fuel tank capacity:  
Not less than 110 lit.
  7. Lubrication system:  
Gear pump, forced lubrication, full-flow filter type  
Crankcase oil capacity;  
Not less than 12 lit.
  8. Cooling system:  
Forced suction or exhaust fan type  
Coolant capacity;  
Not less than 20 lit.
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Specifications

9. Air cleaner:  
Dry type
10. Starting method:  
12V or 24V electric starting  
motor
11. Alternator:  
12V or 24V, Not less than 25A  
12V or 24V, Not less than 120Ah

Transmission

Torque converter or damper with  
power sifft type with 3 forward and  
3 reverse speeds

Steering system

Steering clutch:  
hydraulically actuated, multiple  
disc type

Steering brake:  
wet, contracting bank type

Final drive

Spur gear, single reduction type

Under carriage

Suspension:  
oscillation or rigid type

Carrier roller:  
1 pcs on each side

Track gauge:  
not less than 1,800mm

shoe type:  
assembled, single grouser

Shoe width:  
not less than 300mm

Lubrication:  
sealed and lubricated track

Hydraulic control system

Pump capacity:  
not less than 55 litres/min. at  
rated RPM

Relief valve opening pressure:  
not less than 170kg/cm<sup>2</sup>

Hydraulic oil tank capacity:  
not less than 50 lit.

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Specifications

Dozer

Type:

hydraulic controlled, hydraulic angling and tilting, reversible cutting edge end bits, straight or angle type

Dimension:

Width: not less than 2,400mm

Height: not less than 740mm

Max. lift above ground:

not less than 860mm

Max. digging below ground:

not less than 370mm

Max. tilt adjustment:

not less than 350mm

Canopy and Seat

Canopy:

sun and rain protection seat: adjustable, with back rest and arm rest

Others

Shall be equipped with necessary accessories

Spare parts

Manufacturer's recommended spare parts of 10% total machinery cost



NIA-1

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Item No. 3                      GRADER 60-75HP

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Quantity Required:    10 units

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Specifications

Description

Articulated motor grader with six wheels, scarifier, leaning front wheels and mouldboard.

Performance

Speed: Maximum travel speed not less than 30km/h  
Turning radius: less than 9m Max.  
drawbar pull: not less than 4,200kg  
Operating weight:  
not less than 7,400kg  
Front wheel loading:  
not less than 2,200kg  
Rear wheel loading:  
not less than 5,200kg  
Gradeability:  
not less than 20deg.

Engine

1. Type:  
Water cooled, 4-cycle, direct direct fuel injection, diesel engine
2. No. of cylinders:  
not less than 4
3. Flywheel horse power:  
approx. 75HP at rated RPM
4. Max. torque:  
not less than 25kg.m at rated RMP
5. Total piston displacement:  
approx. 4,400cc
6. Fuel tank capacity:  
not less than 90 lit.
7. Lubrication system:  
Lubrication method:  
Gear pump forced lubrication  
Crank oil capacity:  
approx. 15 lit.
8. Cooling system:  
Forced circulation by water pump with suction or exhaust fan type

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Specifications

- 9. Air cleaner:  
Dry type
- 10. Starting method:  
24V electric starting motor
- 11. Alternator:  
24V, not less than 30A
- 12. Battery:  
24V, not less than 100Ah

Transmission

Not less than 4 forward and 4 reserve speeds, 1st or 2nd constant mesh and the others synchromesh

Clutch

Dry, double disc type

Steering

Full hydraulic power

Final drive

Spiral level gear  
Tandem, roller chain drive

Brake

Service:  
Hydraulically actuated on rear wheels, internal expanding type

Parking:  
Mechanical, internal expanding type, actuated on transmission output shaft

Mouldboard

Hydraulic controlled, box-section, reinforced, reversible cutting edge type

Blade dimension:  
Length: approx. 3,000mm  
Height: approx. 500mm  
Thickness: not less than 12mm

Lift above ground:  
not less than 320mm

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Specifications

Lift above ground:  
not less than 320mm  
Drop below ground:  
not less than 270mm  
Max. shoulder reach:  
Left: not less than 1,100mm  
Right: not less than 1,100mm  
Turning angle: 360 deg.

Scarifier

Hydraulic controlled  
No. of teeth: not less than 6  
Digging width: not less than 950mm  
Max. digging depth: not less than  
200mm  
Max. lift above ground: not less  
than 240mm

Hydraulic system

Gear type pump  
Pump capacity: not less than 80  
lit.  
Relief valve opening pressure:  
not less than 100kg/cm

Frame

Box-section, steel plate welded  
construction frame shall be  
designed to withstand the stress  
or ordinary operations

Tyres

To be pneumatic lug type tread  
with tubes  
Size and ply rating:  
Front: 9.00-20-10PR (min.)  
Rear: 10.00-20-10PR (min.)

Axles

Front:  
Hydraulic leaning  
Max. leaning angle:  
not less than 18 deg. left or  
right  
Center ground clearance:  
not less than 420mm

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Specifications

Canopy and Seat

Canopy:  
sun and rain protection, safety  
glass windshield with wipers

Seat:  
adjustable foam rubber seat with  
back rest and arm rests

Others

Shall be equipped with necessary  
accessories

Spare parts

Manufacturer's recommended spare  
part of 10% of total machinery  
cost

NFA-1

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Item No. A-1

PORTABLE PRE-CLEANER

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Quantity Required:

18 units

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1. Type:  
Mobile paddy cleaner driven by diesel generator, with destoner.
  2. Function:  
To remove impurities such as straw threads, unmaturred rice, stones, sands, clay, dust and others from paddy harvested.
  3. Capacity:  
Total capacity:  
more than 1 ton long rice paddy per hour at 26% of moisture content.
  4. Construction:
    - 1) It shall be mainly steel construction for long durability
    - 2) It shall consist of grid remover for large size impurities, bucket elevator, aspirator, vibrating sieve, destoner, 5.5kW 3-phase diesel generator with more than 9.5HP diesel engine, base with 3 pneumatic tired wheels for all equipment mounted and blower for light impurities.
    - 3) All equipment shall be driven by 5.5kW diesel generator.
    - 4) Light impurities removed shall be discharged by blower to a distance of 10m or more.
    - 5) Impurities removed by sieve shall be discharged automatically from impurity outlet.
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- 6) Stone and sand removed by destoner shall be discharged from stone outlet.
  - 7) Diesel generator shall be removable and driven by more than 9.5HP diesel engine.
  - 8) Base for all equipment shall have more than 3 pneumatic tired wheels which shall be steered by drawbar.
  - 9) Overall dimension except drawbar shall not be more than 3.5m in height, 2.0m in width and 3.7m in length.
  - 10) Drawbar shall be joined to 4 wheel tractor or other tracting vehicle.
  - 11) Spare parts  
Manufacturer's recommended spare parts of 10% of total machinery cost

NFA-1

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Item No. A-2

PORTABLE DRYER

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Quantity Required:

18 units

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1. Type:

Recirculation vertical box type with kerosene furnace and air blow fan.

2. Function:

To dry wet paddy evenly from 26% to 14% of paddy moisture content within 8 hours with minimum breakage.

3. Capacity:

Total capacity:  
More than 2 tons holding of long rice paddy with 26% moisture content per batch.

4. Construction

- 1) It shall be mainly steel construction for long durability.
- 2) It shall consist of mainly tempering portion, drying portion, intermittent paddy discharge devices for recirculating and unloading, recirculating devices, hot air generating furnace, air blow and exhaust fan with dust duct, necessary electric operating control system and fire extinguisher.
- 3) It shall be utilized for paddy with maximum 30% of moisture content.
- 4) Construction assemblage/disassemblage shall be carried out with minimal effort and without sophisticated tools and machinery.

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- 5) Fuel supply devices shall be controlled to adjust the flow rate of kerosene, and shall not fuel automatically when accidents such as sudden fire ignition, extinction, abnormal temperature rise, earthquakes etc. occur.
  - 6) Heated air temperature shall be control manually or automatically at desired position.
  - 7) Drying period shall be set at desired position with drying operation to stop automatically when drying period has been completed.
  - 8) Bucket for bucket elevator shall be nylon.
  - 9) Screw for screw conveyor, if existing, shall be reinforced on the face, and easily exchangeable.
  - 10) Inside of the dryer shall be cleaned easily without disassemblage.
  - 11) All part of dryer shall be driven by electric motor(s) of 3 phase 220V.
  - 12) Spare parts  
Manufacturer's recommended spare parts of 10% of total machinery cost



NFA-1

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Item No. A-3

PORTABLE RICE-MILL

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Quantity Required:

9 units

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1. Type:

Portable one pass friction type  
rice-mill

2. Function:

To hull husk of dried paddy and  
whiten brown rice.

3. Capacity:

More than 1 ton of dried long  
rice paddy per hour.

4. Construction:

- 1) It shall be mainly steel construction for long durability.
  - 2) It shall be composed of receiving devices with grid impurity remover and magnetic iron collector, one pass type friction ricemill(s) with rubber roll huller(s), and more than 18HP diesel engine and machine base with removable wheel.
  - 3) Receiving devices shall be bucket elevator to load dried paddy to rice-mill set(s), shall have grid impurity remover and magnetic iron collector on the bucket elevator hopper or rice-mill hopper. Bucket shall be nylon.
  - 4) One pass rice-mill shall be one or two set(s) of friction type coupled with more than 3 inches of rubber roll huller(s).
  - 5) Husk blowing fan of huller shall have a capacity to blow off husk to a distance of 5m or more with ducting from the huller.
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- 6) Rubber roll of huller shall be hard type for long rice and easily exchangeable.
  - 7) The clearance of rubber roll and pressure of milling chamber shall be adjusted by manual control.
  - 8) Milling chamber shall be colled by air injection to remove bran easily.
  - 9) Rice bran shall be discharged from bran outlet and be collected in bags directly.
  - 10) All components shall be driven by one unit of more than 19HP diesel engine.
  - 11) All components shall be mounted on the mono-construction base which has a draw bar and 4 removable pneumatic tired wheels able to be transferred from site to site.
  - 12) Spare parts  
Manufacturer's recommended spare parts of 10% of total machinery cost

NFA-1

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Item No. A-4

STATIONARY RICE-MILL

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Quantity Required:

9 units

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1. Type:

Able to be disassembled  
stationary dual pass type  
friction and/or abrasive rice-  
mill unit.

2. Function:

To produce higher quality  
milled rice from dried long  
rice paddy.

3. Capacity:

More than 1 ton dried long rice  
paddy per hour.

4. Construction:

- 1) It shall be mainly steel construction for long durability.
- 2) It shall be composed of receiving bucket elevator(s), recleaner with destoner, paddy huller with paddy separator, dual pass rice mill of the combination of one friction with one abrasive or both friction, rice bran collecting system, fine broken rice separator, counter shaft for driving all component and machine base(s).
- 3) Bucket for bucket elevator shall be nylon.
- 4) Precleaner shall consist of aspiration and vibrating sieve, The impurities aspirated shall be discharged 10m distance or more with duct. The impurities separated by sieve shall be discharged automatically from impurity outlet.

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- 5) Destoner shall be coupled with precleaner. Stone and sand shall be separated by perforated tray with aeration of destoner, and discharged automatically from stone outlet.
  - 6) Paddy huller with paddy separator shall be more than 4 inches of rubber roll, mounted type. The clearance of rubber rolls, inclination of separating trays and partition plates shall be adjusted manually automatically. Rice husk aspirated shall be discharged through ducting of 10m or more. Brown rice separated shall be loaded to rice-mill hopper automatically.
  - 7) Rice-mill shall be dual pass type of the combination of one friction with one abrasive or both friction polishes. Both stages of mill shall be air injected to cool milling chamber. Pressure of milling chamber shall be adjusted manually. Rice bran shall be collected through a rice bran hopper and then passed through to fine broken rice separator.

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- 8) Fine broken rice separator shall be located between rice bran hopper of rice polisher and rice bran suction fan. Fine broken rice shall be separated by method of trapping the air flow for rice bran suction fan, and be discharged automatically from broken rice outlet.
  - 9) Rice collecting system shall be composed of rice bran suction fan and cyclon.
  - 10) Rice bran suction fan shall be located between fine broken rice separator and cyclon, with all parts duarable and easily exchangable.
  - 11) The cyclon shall be made of steel with stand for easy bagging of bran.
  - 12) All components shall be driven by counter shaft operated by diesel engine or electric motor provided by user.
  - 13) All components shall be mounted on steel made base of mono or separated construction.
  - 14) All components shall be dismountable for transferring from site to site without any canibalizing of each component.
  - 15) Spare parts  
Manufacturer's recommended spare parts of 10% of total machinery cost
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NFA-1

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Item No. A-5

PORTABLE GRAIN WAREHOUSE

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Quantity Required:

18 units

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1. Type:  
Gable or semi-circle roof type steel warehouse.
  2. Function:  
To store dried paddy in sacks for maximum 6 months period without moisture damage.
  3. Capacity:  
250MT of dried paddy in sacks with less than 45% of loading ratio.
  4. Construction:
    - 1) It shall be erected dismantled/erected with minimal skill and labor required. minimum tools, and without serious damage to parts.
    - 2) It shall be composed of sectional intermediate units and gable wall units for both ends.
    - 3) The intermediate unit shall be composed of at maximum, 4 main parts of two pieces each of roof and wall.
    - 4) The gable wall units shall be composed of at maximum, 5 main parts of two pieces each for roof and wall, and a gable wall with two hanging slide doors.
    - 5) Each main roof unit, wall and door shall be galvanized, panel, prepainted and ribbed steel sheet on the frame of lipped light gauge steel.
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- 6) Each part of each unit shall not be more than 160kg in weight, and not be larger than 5m x 2m x 0.5m in length; width and thickness.
  - 7) Each unit shall be jointed by minimum number of galvanized bolts and nuts with other necessary connectors.
  - 8) Ribbed steel shall be fixed to the frame in a manner that the rib-line runs in the direction from ridge to floor.
  - 9) Ribbed steel shall be overlapped at least one rib on the joint part of unit frame.
  - 10) One half of intermediate unit shall have approximately 1m<sup>2</sup> of skylite and steel louver with vermin-proof wire grid.
  - 11) More than 4 units of ridge ventilator which shall be operated under natural wind power, shall be installed.  
The diameter shall be more than 40cm.
  - 12) Slide doors shall be locked at closing time.
  - 13) The letters "PR-JAPAN FOOD INCREASING PROJECT" shall be written in blue color on both sides of wall, Each letter shall be larger than 70cm x 70cm in size.
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The building shall be designed under the following conditions.

- a) Wind pressure:  $146.3 \text{ kg/m}^2$   
(Min.)
  - b) Seismic Coefficient:  $K=0.1$
  - c) Structural calculation:  
Design Standard For  
Steel  
Structure of Japan.
- 14) Lipped light gauge steel for frame shall be as follows.
- a) All primary lipped light gauge steel shall be shop prefabricated. It shall meet JIS G 3101 SS41 and/or JIS G 3350 SSC 41. Mild steel bolts and nuts for jointing shall be in accordance with JIS B1180.
  - b) Shop-painting:  
Surface preparation shall be done by hand tool cleaning to JASS General Treatment Class-4. One coat of zinc chromate red primer shall be applied to all lipped light gauge steel. One coat of oil type finishing paint in cream white color shall be shop applied to all lipped light gauge steel.



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- 15) Ribbed steel sheets shall be thicker than 0.5mm, and be galvanized in minimum 275g zinc and shall be prepainted to meet to JIS G3312, SCG2AB. The exterior surface shall be coated with one layer each of baked epoxyester undercoat and baked silicon polyester paint. The depth of rib shall be deeper than 37mm at higher ridge and 4.5mm at lower ridge.
  - 16) The material for skylight shall be glass or transparent plastic able to resist tropical weather conditions.
  - 17) The hanger slide doors on the gable walls shall be treated the same as other main unit panels, comprising 2 pieces on both sides. The size of each door shall be approximately 3.6m x 1.8m.
  - 18) Tripod with 2 pulleyes  
Function:  
To hang up units for warehouse installation  
Construction:  
Steel pipes with 2 pulleyes and ropes  
Hight:  
1.5m heigher than ridge of warehouse
  - 20) Spare Bolts and Nuts  
1 full set of spare bolts and nuts which are used for erection of warehouse
-

NFA-1

Item No. B-1

LABORATORY TESTING HUSKER

Quantity Required:

38 units

Specifications

Description

Equipped with aspirator and cyclone for separating and collecting husked rice, husks and immature paddy, rubber roll type, laboratory model husker

Husking capacity

Approx. 50kg/h (on paddy)

Dimensions

Overall length: approx. 720mm

Overall width: approx. 320mm

Overall height: approx. 730mm

Rubber roll size

Approx. dia. 100mm x 40mm

Motor

250W or more AC 220V, 1ph

NFA-1

Item No. B-2

LABORATORY TESTING MILL

Quantity Required:

38 units

Specifications

Description

Equipped with milled rice collecting box, bran collecting box, abrasive roller for popular rice variety in Philippine and time switch for control of whitening time, laboratory model mill

Input Capacity

Not less than 150kg/one time

Dimensions

Overall length: approx. 560mm

Overall width: approx. 360mm

Overall height: approx. 400mm

Motor

400W, AC 220V, 1ph

Equipped with changeable revolution speed by pulley or gear

NFA-1

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Item No. B-3

DOUBLE BEAM BALANCE

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Quantity Required:

45 units

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Specifications

Description

Equipped with single top pan,  
double beam carrying type balance

Performance

Weighing capacity: 200g

Measuring accuracy: 50mg

Dimensions

Overall length: approx. 400mm

Overall width: approx. 130mm

Overall height: approx. 200mm

NFA-1

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Item No. B-4

TEICHNESS GRADER

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Quantity Required:

38 units

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Specifications

Description

Equipped with hexagonal screen for popular rice variety in Philippine, thickness grader

Input Capacity

600g/one time

Dimensions

Overall length: approx. 470mm

Overall width: approx. 390mm

Overall height: approx. 700mm

Motor

100W, AC 220V, 1ph

NFA-1

Item No. B-5

INFRARED MOISTURE METER

Quantity Required:

3 units

Specifications

Description

Equipped with measuring moisture content of rice and other grains, consists of a balance and an infrared lamp, moisture meter

Performance

Measuring range: 0 to 100%

Accuracy:  $\pm 0.1\%$

Scale range: 0 to 20%

Graduation: 0.2%

Sample weight: 5g

Dimensions

Overall length: approx. 240mm

Overall width: approx. 120mm

Overall height: approx. dia. 330mm  
10mm depth

Infrared lamp

185W, AC 220V, 1ph

Accessories

Rice crasher and necessary accessories









