THE FEASIBILITY STUDY ON DEVELOPMENT OF AGRARIAN REFORM COMMUNITIES IN MARGINAL AREAS IN THE REPUBLIC OF THE PHILIPPINES

ANNEX (II)

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DEVELOPMENT OF AGRARIAN REFORM COMMUNITIES

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DEVELOPMENT OF AGRARIAN REFORM COMMUNITIES

ANNEX (II) JULY 1997 S

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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) DEPARTMENT OF AGRARIAN REFORM (DAR)

THE FEASIBILITY STUDY ON DEVELOPMENT OF AGRARIAN REFORM COMMUNITIES IN MARGINAL AREAS IN THE REPUBLIC OF THE PHILIPPINES

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JULY 1997

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Calculation of Reference Crop Evapotranspiration (ETo) for Sappaac ARC Table J.2-1(1)

Treesan (°C)	Lat.	.: 17° - 30° .: 220 m	long.	128° - 38'					:					
These (%) The same (%) The s	-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	*						Mont	٠,	,	í	,		;
The case (%) The	· ·	Lten) me.	July	a	Sept.		Nov.	Dec.	Jan.	ក ស ស ស	Mar.	Apr.	A RIV
Ritheam (%) 83 85 87 85 81 75 75 75 75 75 75 75 7	-4	Theam (°C)	27.9	27.4		27.2	27.3	27.0	25.9	25.5	26.0	27.6	28.8	1- 28:
Wind Speed (km/day) 184 189 206 203 86 86 86 86 86 96 96 Wind Speed (km/day) 17 17 16 15 14 13 14 4	i s	RHmean (%)	æ	85		82	81	79	75	74	75	75	75	200
Demyoint (°C) 17 17 17 16 16 15 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	<u>ું</u>	Wind Speed (km/day)	184	189		203	98	88	98 8	98	98 86	8	88	98
Cloudiness 6 7 7 7 6 5 4 4 4 4 4 4 4 6 6 6 6 6 6 6 6 6 6 6	➾	Dewpoint (°C)	17	17		91	16	15	14	13	13	7.	16	16
Sun shine hour thr) Sun shine hour throw three hour throw thr	us.	Cloudiness	B	7		2	9	ιΩ	4	7	4	7.7	េ	9
os (mbar)	છ	Sun shine hour (hr)				· 								-
ca (mbar) (ca - cd) (mbar) (ca - ca -	<u>.</u>	oa (mbar)	35.9	35.8		35.7	35.7	35.7	31.9	31.8	33.6	35.8	38.0	0 86 87
(ea - ed) (mbar) 6.1 5.4 4.4 5.4 6.8 7.5 8.0 8.3 8.4 9.0 0.50 (1-w) 0.77 0.78 0.83 0.82 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.5	∞	ed (mbar)	29.8	30.4		30.4	29.0	28.2	23.9	23.0	25.2	26.9	28.5	29.6
f(u) (1-w) (1-	တ်	(ea - ed) (mbar)	6.1	υ, 4		5.4	8.8	7.5	8.0	က တ	α. 4	9.0	9.5	∞; 4
(1-w) (= 9 * 10 * 11) (mm/day) (= 10.1	9	f(u)	0, 77	0.78		0.83	0.50	0.50	0. 50	0.50	0.50	0.53	0.50	0.50
(= 9 * 10 * 11) (nmn/day) 1.08 0.96 0.87 1.05 0.82 0.90 1.00 1.04 1.05 1.09 Ra (mmv/day) 16.1 16.1 15.8 14.9 12.7 12.1 11.2 11.7 12.1 14.6 Rs (mmv/day) 6.44 5.22 5.14 4.84 5.48 5.75 5.88 6.14 6.88 7.67 Rts (= 0.75 * Rs) (mmv/day) 6.44 5.22 3.86 3.63 4.11 4.31 4.41 4.61 5.16 5.75 (Cecl) 0.10 0.10 0.10 0.11 0.12 0.13 0.13 0.15 (To (mwv/day) 0.24 0.24 0.37 0.51 0.60 0.60 0.60 0.60 Rn1 (17 * 18 * 19) 0.60 0.38 0.39 0.38 0.62 0.87 1.19 1.20 1.14 1.09 Rn (=16 - 20) (mmv/day) 4.23 3.54 3.47 3.25 3.49 3.44 3.22 3.41 4.02 4.66 Rn (=16 - 20) (mmv/day) 3.56 3.59 3.59 3.47 3.55 3.49 3.47 3.50 3.40 0.40 0.60 0.60 0.60 0.60 Rn (=17 * 18 * 19) 0.60 0.38 0.39 0.38 0.62 0.87 1.19 1.20 1.14 1.09 Rn (=18 - 20) (mmv/day) 4.23 3.54 3.47 3.25 3.49 3.44 3.22 3.41 4.02 4.66 Udat/Unight 1.00 1.00 1.00 0.98 0.10 0.04 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0	===	(* 1)	0. 23	0.23		0.24	0.34	o. 22	0.25	0, 25	0.25	0, 23	0. 13	0.29
Ra (mm/day) 16.1 16.1 15.8 14.9 12.7 12.1 11.2 11.7 13.1 14.6 n.N o.30 0.15 0.15 0.15 0.15 0.30 0.45 0.55 0.55 0.55 0.55 0.55 Rs (mm/day) 6.44 5.23 5.14 4.84 5.48 5.75 5.88 6.14 6.88 7.67 Rs (mm/day) 6.44 5.23 5.14 4.84 5.48 5.75 5.88 6.14 6.88 7.67 ff (T) 16.1 16.1 16.1 16.1 15.9 15.9 16.2 16.0 16.1 16.1 16.1 16.1 15.9 15.9 16.2 16.0 16.1 16.1 16.1 16.1 16.9 15.9 15.9 16.2 16.0 10 0.10 0.10 0.10 0.11 0.12 0.13 0.12 0.10 17 (17 * 18 * 19) 0.60 0.33 0.34 0.34 0.37 0.51 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.6	្ឋ	(# 9 * 10 * 11) (mm/day)	80:	96.0		1, 05	0.82	0.90	1.8	8	1.05	1.09	1.05	
Rs (mm/day) Rs (m	ដ	Ra (mm/day)	16.1	16.1		14.9	13.7	12.1	61 []	11,7	ដ	14.6	15.6	16.1
Rs (mm/day) 6.44 5.23 5.14 4.84 5.48 5.75 5.88 6.14 6.88 7.67 Rths (= 0.75 * Rs)(mm/day) 4.83 3.92 3.86 3.63 4.11 4.31 4.41 4.61 5.16 5.75 f(T) 16.3 16.2 16.0 16.1 16.1 16.9 15.9 15.8 15.9 16.2 16.0 11 16.1 16.9 15.9 15.9 16.2 16.0 11 16.1 16.1 16.9 15.9 16.2 16.0 11 16.1 16.9 15.9 16.2 16.0 11 16.1 16.1 16.9 15.9 16.2 16.0 11 16.1 16.1 16.1 16.9 15.9 16.2 16.0 11 16.1 16.1 16.1 16.1 16.1 16.1 1		N/u		0, 15		0.15	0.3	0.45	0. 55	0.55	0.55	0.55	0,45	0
Rths (= 0.75 * Rs) (mm/day) 4.83 3.92 3.86 3.63 4.11 4.31 4.41 4.61 5.16 5.75 (T) (15.2 16.0 16.1 16.1 16.1 15.9 15.9 16.2 16.0 16.1 16.1 16.1 15.9 15.8 15.9 16.2 (Cd.) (0.10 0.10 0.11 0.12 0.13 0.12 0.11 (0.12 0.13 0.12 0.11 0.12 0.13 0.12 0.11 (1.14 1.0.9) (1.14 0.12 0.13 0.12 0.13 0.12 0.11 (1.14 1.0.9) (1.14 0.13 0.12 0.13 0.12 0.13 0.12 0.14 (1.14 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13		Rs (mm/day)		5.23		4.84	5.48	5.75	ςς 28 28 29	6.14	6.88	7.67	7.41	9
f(T) f(Ged) f(Ged) f(Ged) f(Ged) f(Ged) f(Ged) f(Ged) f(Ged) f(I/N) f(I/N * 18 * 19) f(I/N) f		Rhs (= 0.75 * Rs) (mm/day)		3.92		3, 63	4.11	4.31	4.41	4.61	5, 16	5, 75	5, 56	8
f(ed) f(ed) f(ad) f(m/N) 0.37 0.24 0.24 0.37 0.10 0.10 0.10 0.11 0.12 0.13 0.12 0.11 f(m/N) 0.37 0.24 0.24 0.37 0.24 0.37 0.24 0.37 0.60		f(T)		16.2		16.1	16.1	16.1	15.9	15.8	15.9	16, 2	16.5	16.4
f(n/N) Rn1 (17 * 18 * 19) 0.60 0.38 0.39 0.38 0.62 0.87 1.19 1.20 1.14 1.09 Rn (=16 - 20) (nm/day) 4.23 3.54 3.47 3.25 3.49 3.44 3.22 3.41 4.02 4.66 # * Rn (mm/day) 3.26 2.73 2.64 2.47 2.65 2.61 2.42 2.56 3.02 3.59 (=12 + 22) (mm/day) 4.33 3.69 3.51 3.52 3.47 3.52 3.42 3.60 4.07 4.68 Udat/Unight 1.00 1.00 1.00 0.85 0.77 0.70 0.68 0.61 0.55 Uday (m/sec) 1.02 1.00 1.00 0.99 1.01 1.02 1.02 1.04 0.4 ETo (=23 * 24) (mm/day) 4.4 3.7 3.5 3.5 3.5 3.5 3.5 3.7 4.9		f(ed)		0.10		0.10	0.10	0.11	0. 12	0.13	0.12	0.11	0, 11	0.10
Rnl (17 * 18 * 19) 0.60 0.38 0.39 0.38 0.62 0.87 1.19 1.20 1.14 1.09 Rn (=16 - 20) (mm/day) 4.23 3.54 3.47 3.25 3.49 3.44 3.22 3.41 4.02 4.66 W * Rn (mm/day) 3.26 2.73 2.64 2.47 2.65 2.61 2.42 2.56 3.02 3.59 (=12 + 22) (mm/day) 4.33 3.69 3.51 3.52 3.47 3.52 3.42 2.60 4.07 4.68 Udat/Unight 1.00 1.00 1.00 0.85 0.77 0.70 0.68 0.61 0.55 Uday (m/sec) 1.10 1.1 1.2 1.2 0.5 0.4 0.4 0.4 0.4 0.4 C 1.02 1.02 1.00 1.00 1.00 0.99 1.01 1.02 1.02 1.04 1.05 ETo (=23 * 24) (mm/day) 4.4 3.7 3.5 3.5 3.5 3.5 3.5 3.7 4.2 4.9	6	f (n/N)	0, 37	₹ 6		0.24	0.37	0.51	0, 60	0.60	0.60	0.60	0. 51	0.37
Rn (=16 - 20) (mm/day) 4.23 3.54 3.47 3.25 3.49 3.44 3.22 3.41 4.02 4.66 W * Rn (mm/day) 3.26 2.73 2.64 2.47 2.65 2.61 2.42 2.56 3.02 3.59 (=12 + 22) (mm/day) 4.33 3.69 3.51 3.52 3.47 3.52 3.42 2.60 4.07 4.68 (dat/Unight 1.00 1.00 1.00 1.00 0.85 0.77 0.70 0.68 0.61 0.55 (day (m/sec) 1.1 1.1 1.2 1.2 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	8	RnI (17 * 18 * 19)	09 0	0.38		0.38	0.62	0.87	1. 19	1. 30	1, 14	1.09	0.88	0.61
# * Rn (mm/day) 3.26 2.73 2.64 2.47 2.65 2.61 2.42 2.56 3.02 3.59 (=12 + 22) (mm/day) 4.33 3.69 3.51 3.52 3.47 3.52 3.42 2.60 4.07 4.68 Udat/Unight 1.00 1.00 1.00 1.00 0.85 0.77 0.70 0.68 0.61 0.55 Uday (m/sec) 1.1 1.2 1.2 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	ដ	Rn (=16 - 20) (nm/day)	4, 23	ა 2		3, 25	3, 49	3,44	လ []	3.41	4.02	4.66	4.68	<u>4</u>
(=12 + 22) (mm/day) 4.33 3.69 3.51 3.52 3.47 3.52 3.42 3.60 4.07 4.68 Udat/Unight 1.00 1.00 1.00 0.85 0.77 0.70 0.68 0.61 0.55 Uday (m/sec) 1.1 1.1 1.2 1.2 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	<u>;;</u>	# * Rn (ma/day)	3. 26	2, 73		t; ci	2,65	2.61	: 42 :	2.56	3.02	3,59	3.65	3.00
1.00 1.00 1.00 1.00 0.85 0.77 0.70 0.68 0.61 0.55 1.1 1.1 1.2 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 1.02 1.02 1.02 1.02 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05	ព	(#12 + 22) (mm/day)	4.33	3, 69			3,47	3, 52	건	3.60	4.07	4.68	4, 70	4.21
1.1 1.1 1.2 1.2 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4		Udat/Unight	1.00	1.00		3.8	0.85	0.77	0. 70	0.68	0.61	0.55	0.79	0.82
1.02 1.00 1.00 0.99 1.01 1.02 1.02 1.02 1.04 1.05 3.4 3.7 3.5 3.5 3.5 3.6 3.5 3.7 4.2 4.9	- Tr	Uday (m/sec)	7	ä		C1	0	4.0	4	0.4	4.0	\$ 0	* 0	0
4.4 3.7 4.3 4.9	ž	Ů	1.03	3.8		0.99	1.01	1.02	1. 03	33	 2	1.05	1.04	1.03
	8	ETo (=23 * 24) (mm/day)	4.4	3.7	į	3.5	3.5	9	3.5	3.7	4.2	4.9	4.9	بر ج

				198	
				1977 -	
				- May (
:				Oct.	
			:	. (986)	
				7	
36)	36)	(986)	: (986)	ept. (1977	
5	Ġ;	1		Š	
- 2261	1977 -	(1977	(1977)	June	
llocos, (llocos, (La Union,	a union,	La Union,	La Union,
Vigan,	Vigan,	Bagio,	Barno,	Bagio,	Bagno,
•	••	٠-	· •	• •	• •
Mean Temperature	Relative Humidity	Wind Speed	Dewpoint	Cloudiness	Uday/unight
••					
		:			
	. Vigan,	Station : Mean Temperature : Vigan, Ilocos, (1977 - Relative Humidity : Vigan, Ilocos, (1977 -	Station : Mean Temperature : Vigan, Ilocos, (1977 - Relative Humidity : Vigan, Ilocos, (1977 - Wind Speed : Bagio, La Union, (1977	Station : Mean Temperature : Vigan, Ilocos, (1977) Relative Humidity : Vigan, Ilocos, (1977) Wind Speed : Bagio, La Union, (197) Dewpoint : Bagio, La union, (197)	Station : Mean Temperature : Vigan, Ilocos, (1977 Relative Humidity : Vigan, Ilocos, (1977 Wind Speed : Bagio, La Union, (197 Dewpoint : Bagio, La union, (197 Cloudiness : Bagio, La Union, June

Calculation of Reference Crop Evapotranspiration (ETo) for Cofcaville ARC Table J.2-1(2)

Item						Ach+	_					
	June.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
	28. 4	27.9	28.0	27.6	36.8	26.1	25. 1	24. 4	25.0	26.1	27.3	28.3
	80	80	79	81	82	78	73	73	72	72	70	74
Wind Speed (km/day)	112	137	66	105	98	98	86	98	98	98 80	98	86
Dewpoint (°C)	23	61	គ្	5	61	50	18	19	ຊ	ᄗ	63	61
	S	S	9	ເກ	5	9	φ	9	4	ო	က	4
Sun shine hour(hr)		. •					-					
	37.9	35.9	37.8	35.8	33.8	33.6	31.7	29.9	31.7	33.6	35.8	37.9
	30, 3	28 7	29.9	29.0	27. 7	26: 2	တ ငေါ်	8. 13. 8	o Si Si	9.4. €1	25.0	38.0
(mbar)	7.6	()	6.7	6.8	6.1	7.4	80	 00	8 9	9.4	10.7	6
	0.57	0.64	0.54	0.55	0.50	0.50	0.50	0.50	0, 50	0.50	0, 50	0.50
	0.55	0.23	0. 23	o.	0.23	0.25	0.36	0.25	0.26	0.25	0.24	0.23
9 * 10 * 11) (mm/day)	0.95	1,06	0.98	0.83	0. 7	0, 93	1.16	1.01	1.16	1. 18	1, 29	1.14
(a (mn/day)	15.9	15.9	15.7	15.0	13.8	12.3	11.5	11.9	ਹ ਲੁੱ	14. 7	15.6	16.0
	0,45	0.45	0.3	0.45	0.45	0.3	0.3	0.3	0.55	0.65	0.65	0.55
Rs (mm/day)	7,55	7, 55	6.28	7, 13	6.56	4, 92	4.6	4.76	6.93	8, 45	8.97	8.4
0.75 * Rs) (mm/day	5, 66	5, 66	4.71	5.35	4.92	3, 69	3,45	3, 57	લ જ	6.34	6.73	6.30
•	16.4	. 16.3	16.3	16.6	16.1	15.9	15, 6	15.5	15.7	15.9	16.2	16.4
	0.10	0, 10	0. 10	0.10	0, 11	0, 11	0. 13	0.13	0.13	0.12	0.12	0. 11
	0.51	0.51	0.37	0.51	0.51	0.37	0.37	0.37	9.0	0.69	0.69	9
18 * 19)	0.82	0.86	09.0	0.87	0.89	0.68	0, 75	0.77	23	1.36	1.34	1.05
- 20) (mm/day)	4.84	93 T	4.11	4.48	4.03	3.01	C)	∞ ci	3, 98	4.98	5, 39	5. 25
* Rn (mm/day)	3, 78	3, 70	3, 16	3.49	3. 10	2, 26	6 6	2, 10	2, 95	3, 74	4.10	4.04
(mm/day)	4.73	4. 76	4.14	4.32	3.80	3.19	3, 16	3. 11	4.11	4.92	5, 39	5, 18
نو	1.00	8	1.00	1.00	1.04	1. 02	1.00	1.02	1.05	1. 03	1.03	1.07
Uday (m/sec)	9.0	00 0	0.6	9.0	0.5	0.5	0.5	0.5	0.5	0.5	o. s	0.0
	7.06	1.04	1.02	1.03	1.03	1:0	0.97	1.0	1.03	1.06	1.06	1.05
ETo (=23 * 24) (mm/day)	5.0	4.9	4.2	4.5	3.9	63 63	3.1	 	4.2	5, 2	ري در	5.4

: Baler, Qurino, June - Sept. (1980 - 1986), Oct. - May (1977 - 1986) : Baber, Qurino, June - Sept. (1980 - 1986), Oct. - May (1977 - 1986) : Tuguegarao, Cagayan, June - Sept. (1980 - 1986), Oct. - May (1977 - 1986) : Tuguegarao, Cagayan, June - Sept. (1980 - 1986), Oct. - May (1977 - 1986) : Tuguegarao, Cagayan, June - Sept. (1980 - 1986), Oct. - May (1951 - 1985) : Tuguegarao, Cagayan

PACASA Mean Temperature Relative Humidity

Data source Data Station

Uday/Unight

Wind Speed Dewpoint Cloudiness

Calculation of Reference Crop Evaportranspiration (ETo) for Marangog ARC Table J.2-1(3)

Lat Alt	. : 10° – 26° . : 150 m	Long.	: 124° - 49'	49'				*		•		:	
L							Month	. ų					*
	Item	June.	July	Aug.	Set	Oct.	Nov	Dec.	Jan	Fcb.	Mar.	Apr.	Мау
	Tmeam (°C)	27.8	27.0	27.6	27.3	27.6	27.0	26.3	25. 7	25.9	26.5	27.5	83
e i	Nimean (%)	88	88	98		8	98	87	98	85	83	ဒ္ဓ	82
c)	Wind Speed (km/day)	173	144	173		98	68	86	173	120	120	120	96
÷	Dewpoint (°C)	23	8 1	; ;		S	63	<u>:</u>	22	C1 C1	53	S	4,
ις.	Cloudiness	ശ	ໝ	ţņ		ເດ	ro G	νo	S	4	Ç#	n	4.
Ġ	Sun shine hour (hr)		٠			٠							e producer
۲.	ea (mbar)	35.9	35. 7	35.8	35.8	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9
oś	ed (mbar)	30.8	31.4	30.8	31.5	30.1	30.8	31.2	30.8	30.5	29.8	29.4	δ! 4
ග්	(ea - ed) (mbar)	9.0	4.3	5	4	ر. در	S. O	4.7	5.0 0.0	5.4	6. 1	6.5	<u>ئ</u> ئ
<u>ુ</u>	f(n)	0.74	0.66	0.74	0.66	0.50	0.51	0.50	0.74	0.59	0.59	0.59	0.53
		0.23	0.24	0.23	0.23	0.33	0.24	0.25	0.25	0.25	0.25	0.2	0.23
2	(= 9 * 10 * 11) (mm/day)	0.85	0.68	0.85	0.65	0.66	0.61	0.59	0.93	o. 8	0.91	0.93	0. 79
ej ej	CE	15.3	15.3	5.5	15.3	14.6	13.5	12.8	13.1	14.1	15.2	15.7	15.6
7		0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.55	0.55	0.65	0.55
5	Rs (mm/day)	7.27	7.27	7.36	7.27	6.94	6.41	6.08 9	6. 22	7.4	7.98	9.03	8.19
9		5.45	5, 45	S. 52	5, 45	5.21	4.81	4.56	4.67	5, 55	5, 99	6. 77	6.14
<u>:</u>		16.3	16.3	16.2	16.2	16.2	16, 1	16.0	15.8	15.9	16.0	16.2	16.3
∞	f(ed)	0.10	0.09	0.10	60:0	0.10	0.10	0.09	0.10	0.10	0.10	0, 10	0. 10
6	f(n/N)	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	9.6	9.0	0.69	0.6
8	Rnl (17 * 18.* 19)	0.79	0.78	0. 79	0.77	0.81	0. 79	0. 77	0.77	0.92	0.96	1. 13	0.99
21:	Rn (≈16 - 20)	4.66	4.67	4, 73	4.68	7	4.02	3, 79	ტ წ	4.63	5, 03	s. 2	5, 15
81	W * Rn (mm/day)	3, 59	3, 55	3,64	3, 60	3, 39	3.06	6. 8.	2. 93	3, 47	3, 77	4, 29	26 6
ફ	(#12 + 22) (mm/day)	4.	4.23	4.49	4.25	4.05	3.67	3, 43	3.86	4.27	4.68	5.23	4.76
	Udat/Unight	8	8	1.00	1.00	0.75	0, 73	0. 72	0.79	0.70	0, 67	0.67	0.67
	Uday (m/sec)	1.0	8.0	1.0	9.0 8	0.4	7.0	0.4	6.0	9.0	9.0	0.6	0.4
2	b	1.8		75	7.04	1.08	1.02	1.02	1.02	1.05	1: 06	1.06	1.07
કુ	ETo (=23 * 24) (mm/day)	4.6	4.4	4.7	4 4	4.2	3.7	3.5	3.9	4.5	5.0	5.5	5.1

: Tacloban, leyte, June - Sopt. (1981 - 1983), Oct. - May (1961 - 1964); Tacloban, Tcyte, June - Sept. (1981 - 1983), Oct. - May (1961 - 1964); Maasin, Leyte, June - Sept. (1981 - 1983), Oct. - May (1981 - 1986); Maasin, Leyte, June - Sept. (1981 - 1983), Oct. - May (1981 - 1986); Maasin, Leyte, June - Sept. (1981 - 1983), Oct. - May (1981 - 1983); Maasin, Leyte Relative Humidity PAGASA Mean Temperature Wind Speed Cloudiness Dewpoint Data Source Data Station

Uday/Unight

Table J.2-1(4) Calculation of Reference Crop Evapotranspiration (ETo) for Silae ARC

Lat. : 8° - 08°

:	Item	June.	July	Aug.	Sept.	θετ.	Month Nov.	Dec.	Jап.	Feb.	Mar.	Apr.	Жаў
	Theam (°C)	24. 6	24.1	24. 1	() () ()	23.9	24.2	23. 7	23. 2	23. 2	23.9	87.8	25.3
	Rimean (%)	68	8	68	88	98	80	85	98	83	82	79	8
3. Wind	Wind Speed (km/day)	94	110	112	61	98	86	86	98	98	98	98	98
	Dewpoint (°C)	Ĉ.	c i	6	63	<u>0</u> 2	30	61	13	61	<i>(</i> 7) 7:-4	61	ន
5. Clour	Cloudiness	7	~	1	7	9	G	ဖ	9	9	9	Ŋ	9
6. Sun	Sun shine hour (hr)						. •						
	ea (mbar)	29.9	29.8	29.8	8 .63 8 .83	28.3	29.8	28.3	28. 1	28.1	28.3	30.0	31.8
8. ed (1	ed (mbar)	36.6	8.92 36.8	26.5	26.3	24.9	25.4	24.0	61 61	23. 4	23.2	23, 7	25.7
9. (ea.	- ed) (mbar)	හ භ	0 %	3.3	9.6	· · ·	(3)	4.5	න න	8.7	is is	6.3	9.0
10. f(u)		0, 52	0.57	0.57	0.57	0.50	0.50	0.50	0.50	0,50	0.50	0.50	9
1. (1-1)		0.26	0:27	0.24	0.27	0, 27	0.27	0.27	0.28	0.28	0.27	0.26	0.26
6 .;	<pre>= 9 * 10 * 11) (mm/day)</pre>	0.45	0.46	0.51	.0.55	0.54	0, 61	0.57	0, 55	0.67	0.69	0.83	0.75
13. R2 (n	Ra (mm/day)	15.0	15.1	15.4	15.3	8.4.8	13.9	13.3	13.6	14.5	15.3	15.6	15.3
A n/N		0, 15	0.15	0.15	0.15	က ဝ	0.3	გ 0	0	0.3	0.3	0.45	0
	Rs (mm/day)	4.88	4:91	5.01	4.97	5, 92	5.56	5, 32	5.44	5.8 8	6. 12	7.41	6. 13
	(= 0.75 * Rs) (mn/day)	3 66	3.68	3,76	3, 73	4.44	4 17	3, 99	4.08	4.35	4,59	5.56	4.59
		15.6	15.4	15.4	15, 5	15.4	15.5	15.3	15, 7	15.7	15.4	15.6	15.4
8. f (ed)	^	0.11	0.11	0.11	0.11	0.12	0.12	0. 12	0.12	0.13	0.13	0.13	0.
9. f(n/N)	2	0.24	0.24	0.34	0.24	0,37	0.37	0.37	0.37	0.37	0.37	0.51	0.37
S	(17 * 18 * 19)	0.42	0.41	0.42	0.42	0.7	0,68	0.7	0.72	0.74	0.73	~	0
S.	(=16 - 20) (mm/day)	3.24	3, 27	3.34	3.31	3, 74	3,49	3, 29	3,36	3.61	3.86	1.56	3,93
-	/ * Rn (mm/day)	2.40	2, 39	2.44	2, 42	2, 73	53.5	2, 40	2.43	2.60	83 ci	3, 37	6.6
_	(=12 + 22) (mm/day)	2.85	2.85	2,95	i. 97	3, 27	3, 16	2.97	2.97	3, 27	3.51	4, 19	3.70
Udat/	Jdat/Unight	1.00	1.00	1.00	1.00	0.73	0.68	0.71	0.63	0.64	0.59	0.61	0.65
Uday	Uday (m/sec)	0.5	0.6	0.6	9.0	0.4	7 0	0.4	0.4	4.0	0.4	0.4	0.4
24. C		1.03	1.03	1.03	1.03	1.04	1.04	1.04	1.04	1.05	1.05	1.07	30
25. ETo (ETo (#23 * 24) (mm/dav)	or c:	0 6	C &			0	•					

	⇔	œ.	<u>.</u>	æ	æ	
	. 1986	1986	1986)	1986	1985	
			(1981)			
	- May	- May	Oct May	- May	- May	
	Oct.	Oct.	Oct.	Set.	8 6 1:	
	1994),	1994).	1994)	1994)	1994)	
	(1987 -	(1987 -	- Sept. (1987 -	(1987 -	(1987 -	
	Sept.	Sept.	Sept.	Sept.	Sept.	
1	June	June	June -	June -	June -	
	Bikidnon,	Bukidnon,	Bukidnon,	Buki dnon,	Bukidnon,	Bukidnon
	Malaybalay,	Malaybalay,	Malaybalay, Bukidnon,	Malaybalay,	Malaybalay,	Malaybalay.
		•		٠.		
PAGASA	Mean Temperature	Relative Humidity	Wind Speed	Dewpoint	Cloudiness	Uday/Unight
••						
Data source	Data Station					

Table J.2-2(1) Determination of Crop Coefficient for Garlic (Sappaac ARC)

Garlic planted in late of November, growing period of 90 days Crop Climate conditions Light to Moderate (0 - 5 m/sec) Wind > 70 % Mid-summer RH Irrigation 3.5 mm/day 7 days (assumed) Irrigation Frequency: : Late of October I. Planting date Length of growth stages H. 20 days Initial 40 Crop development 20 Mid-season 10 Late-season refer to below Figure III. Plot period as indicated Kc Value IV. : Kc initial = 0.52 (refer to Figure-2) Ke initial stage : 3.5 mm/day Irrigation frequency = 7 days : Ke mid-season = 0.95 (refer to Table-13) Kc mid-season stage Wind = light/moderate Humidity = high >70 % : Ke end of season = 0.75 (refer to Table-13) Kc late-season stage (end) Wind = light/moderate Humidity = high >70 % : Kc development stage = 0.35 - 0.95 Plot Ke value and connect values with Kc late season stage = 0.95 - 0.75straight lines

VI. Read Kc value from prepared graph for each selected period at mid-point of 30-days

Given:

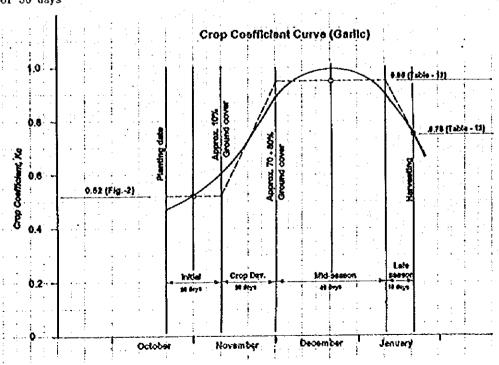
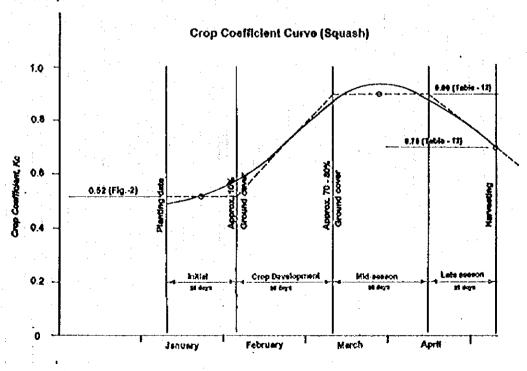


Table J.2-2(2) Determination of Crop Coefficient for Mungbean (Cofcaville ARC)

Given: Squash planted in middle of January, growing period of 120 days Crop Climate conditions Light to Moderate (0 - 5 m/sec) Wind Mid-summer RH > 70 % Irrigation ETo 3.9 mm/day Irrigation Frequency: 7 days (assumed) : Middle of January Planting date Length of growth stages 25 days Initial Crop development 35 35 Mid-season Late-season III. Plot period as indicated refer to below Figure IV. Kc Value : Kc initial = 0.52 (Refer to Figure-2) Kc initial stage ETo = 3.9 mm/dayIrrigation frequency = 7 days : Ke mid-season = 0.90 (Refer to Table-13) Ke mid-season stage Wind = light/moderate Humidity = high >70 % : Kc end of season = 0.70 (Refer to Table-13) Kc late-season stage (end) Wind = light/moderate Humidity = high >70 % : Ke development stage = 0.52 - 0.90 Plot Ke value and connect values with

VI. Read Ke value from prepared graph for each selected period at mid-point of 30-days

straight lines



Ke late season stage = 0.90 - 0.70

Table J.2-2(3) Determination of Crop Coefficient for Squash(Marangog ARC)

Given: Munghean planted in late of November, growing period of 60 days Crop Climate conditions Light to Moderate (0 - 5 m/sec) Wind > 70 % Mid-summer RH Irrigation $3.2 \, \text{mm/day}$ ETo Irrigation Frequency: 7 days (assumed) : Late of November I. Planting date Length of growth stages **(I.** 10 days Initial 25 Crop development 25 Mid-season 10 Late-season refer to below Figure III. Plot period as indicated IV. Kc Value : Kc initial = 0.55 (refer of Figure-2) Kc initial stage ETo = 3.2 mm/dayIrrigation frequency = 7 days : Kc mid-season = 0.95 (Refer to Table-13) Kc mid-season stage Wind = light/moderate Humidity = high >70 % : Kc end of season = 0.85 (refer to Table-13) Kc late-season stage (end) Wind = light/moderate Humidity = high >70 % : Kc development stage = 0.55 - 0.95 Plot Kc value and connect values with Kc late season stage = 0.95 - 0.85 straight lines

VI. Read Ke value from prepared graph for each selected period at mid-point of 30-days

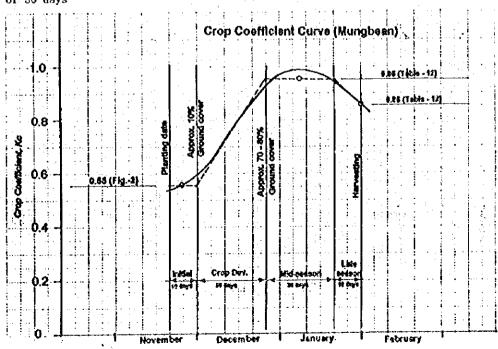
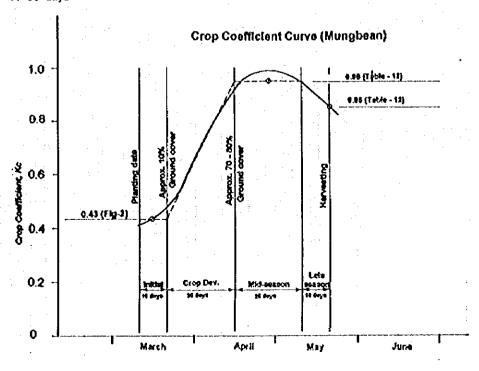


Table J.2-2(4) Determination of Crop Coefficient for Mungbean(Silae ARC)

Given: Mungbean planted in middle of March, growing period of 60 days Crop Climate conditions Wind Light to Moderate (0 - 5 m/sec) Mid-summer RH > 70 % Irrigation 5.2 mm/day ETo Irrigation Frequency: 7 days (assumed) : Middle of March Planting date H. Length of growth stages 10 days Initial 25 Crop development 25 Mid-season Late-season 10 refer to below Figure Plot period as indicated IV. Ke Value : Kc initial = 0.43 (refer of Figure-2) Ke initial stage ETo = 5.2 mm/dayIrrigation frequency = 7 days : Kc mid-season = 0.95 (Refer to Table-13) Kc mid-season stage Wind = light/moderate Humidity = high >70 % : Kc end of season = 0.85 (refer to Table-13) Kc late-season stage (end) Wind = light/moderate Humidity = high >70 % : Ke development stage = 0.43 - 0.95 Plot Ke value and connect values with Kc late season stage = 0.95 - 0.85straight lines

VI. Read Ke value from prepared graph for each selected period at mid-point of 30-days



Estimation of Irrigation Water Requirement for Sappaac Area (Without Effective Rainfall) Table J2-3(1)

	Jenuery	Transfer)	que,	April	ANA.	Towe	ylut	August	September	Jetober C	A CAMPAGE	HQWOUGH)
Decription	7 - 1		1 6 2 1	1 2 3	1 2 3	1 2 3 1	1 2 3	, ç	1 2 3	2 3		3 1 2
	,	- 1							-			-
Proposed Crooping Pattern			-								-	
	7. 1	7					-					-
	Carlic	/						Padny Kice	-			3
										1		
									-			-
80 % Reinfall(mm/10-days)	0	0 0		-		0 0 10	0 10 10	0 0 ;0	0 0	0 0	0 0 0	0 0 0
Reference Crop Evapotranapiration (ea/10-days)	37.0 37.0 4	37.0 37.0 40.7 42.0 42.0				44.0, 44.0 48.4 3	37.0 37.0 40.7	35.01 35.0 36.5	35.0 35.0 35.0	35.0 35.0 38.5	35,0 36.0	36.0 36.0 35.0
Perceletion (mm/10-deva)	-				_	10.01 10.0 10.01	10.01 10.01 11.0 10.01	10.01	10.01 10.0 10.0	10.0 10.0		
Crop Coefficient, Paddy Rice (me/10-days)			-			1.00 1.00 1.00 1	1.00 1.00 1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00		-
(foland Gross (mm/10-days)	0.85 0.84 0.75 0.75	0.75 0.75 0.75			_					80	0 0.56 0.66 0.82	66.0 96.0 78
Creo Evacotransoiration, Paddy Rice (ma/10-days)	-	-				44.0 44.0 48.4 3	37.0 37.0 40.7	35.0 35.0 38.5	35.0 35.0 35.0	35.0 35.0		
Upland Crop (es/10-days) 35.2 31.1 30.5 31.5 31.5	35.2 31.1 3	10.5 31.5 31.5	-	_		 	-			39.3	19.6 23.8	79.5 33.8 34.7
Crac Pater Reputrement, Paddy Rice (ma/10-days)	- -			 	_	54.0 54.0 58.4	47.0 47.0 51.7	45.0 45.0 49.5	45.0 45.0 45.0	45.0 45.0		-
Upland Crops (em/10-days)		35.2 31.1 30.5 31.3 31.5	ļ				_			19.1	19.6 23.8	29.5 33.8 34.7
Irrigation Amguirement, Pandy Rice (mm/10-days)						54.0 54.0 58.4	47.0 47.0 51.7	45.0 45.0 49.5	45.0 45.0 45.0	45.0 45.0		_
3		35.2 31.1 30.5 31.5 31.5	-1		_		_			19.3	19.6 73.8	79.5 33.8 34 7
Diversion Requirement, Paddy Rice (mm/10-days)	-					S. 2, 95. 2, 103	82.9 82.9 91.2	79.4, 79.4 87.3	79.4 79.4 79.4	79.4 79.4	-	-
(b) and Croo (mm/10-days)	72.4 64.0	72.4 64.0 52.8 64.8 64.8		-						39.7	40.3 49.0	60.7 69.5 71.4
(1(r./aac/la)	0.24 0.74 0	0.84 0.74 0.75 0.38 0.13				0.18 0.55 0.99	126.0 126.0 126.0 38.0 136.0 136.0	26.0 26.0 26.0	0.92 0.92 0.77	0.48 0.15 0.07 0.21	71 0 21 0.43 0.64	. FA 0 77 0 75

Estimation of Irrigation Water Requirement for Cofcaville Area (Without Effective Rainfall)

	January February Varich April	[VIV] June [July]	August September September September
Decription			
Proposed Cropping Pattern			
	Paddy Rice		Parily Rice
	The same of the sa		
60 * Points 130 - 200 - 20	4	-	
OU A MEANITALLY INCORAS)		0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
Reference Crop Evapotrampoinstion (mm/10-days)	31.0 31.0 34.0 42.0 42.0 32.6 52.0 52.0 57.2 57.0 57.0 57.0 57.0	54.0' 59.4 50.0 50.0 50.0 49.0 49.0 49.0 42	0 82 0 87 2 87 0 87 0 87 0 84 0 84 0 84 0 80 0 80 0
Percolation (se/10-days)	10.0 10.0 11.0 10.0 10.0 8.0 10.0	01 0.01 0.01 0.01 0.01 0.01	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0
Crop Coefficient (Paddy)	1.00:1.00:1.00 1.00:1.00:1.00:1.00:1.00:	1,00 1.00 1.00 1.00 1.00 1.00 1.	1.80 1.80 1.80 1.80 1.80 1.80 1.80 1.80
(Upland Crop)	0.43 0.54 0.55 0.92 0.99 0.97	0.9 0.85	
Croo Evapotranspiration, Paddy (-10-daya)	31.0 31.0 34.1 42.0 42.0 33.6 52.0	30.01 50.01 49.01 49.01 49.01 42	30.01 50.01 50.0 49.0 49.0 49.0 42.0 42.0 45.2 45.0 45.0 39.0 39.0 42.9 32.0 32.0 32.0 32.0 32.0 31.0
(ip) and (mm/10-days)	22.4 30.9 31.4 52.4 56.4 52.4 48.6	8	
Crop Water Requirement, Paddy Rice(se/10-days)	41.0 41.0 45.1 52.0 52.0 41.6 62.0	60.01 60.0 50.0 53.01 59.0 60.0 52	60.01 60.01 50.01 59.01 59.01 50.01 52.01 57.01 55.01 55.01 55.01 49.01 49.01 42.01 42.01 42.01 42.01 42.01
(loland(m/10-daya)	22.4 30.9 31.4 57.4 36.4 52.4 48.6 50.5 42.5 42.5	48.6 50.5 42.5 42.5	
Irrigation Water Requirement, Paddy Rice(ww/10-de; 41.0 41.0 45.1 52.0 52.0 41.6 62	1.0/41.0/45.1 52.0/52.0/41.6/62.0	50.0 60.0 50.0 59.0 59.0 59.0 50.0 52	60.0 60.0 60.0 50.0 50.0 60.0 52.0 52.0 57.2 55.0 55.0 55.0 49.0 49.0 53.9 42.0 42.0 42.0 42.0 42.0
(m/sp-01/mm) puerdi	22.4 30.9 31.4 52.4 36.4 52.4 48.6 50.5 42.5 42.5	48.6 50.5 42.5 42.5	
Divertifien Requirement, Paddy Rice (am/10-days)	72.3 77.3 73.5 21.7 91.7 73.4 109	105.8105.8105.8104.1104.1105.8	105.8105.8105.8104.1104.1105.8 91.7 91.7100.9 97.0 97.0 97.0 86.4 86.4 95.1 74.1 74.1 74.1 74.1 74.1 74.1
Upland Crop (ea/10-days)	46.1 63.6 64.6 108 116 108	100	
(1(T./me/ha)	0.64 0.44 0.04 0.00 0.00 0.00 0.00 0.00	1.16 0.91 0.71 0.78 1.02 1.21 1.21 1.11	1.21 1.21 1.21 1.08 1.08 1.06 1.12 1.12 0.04 0.50 0.17 0.17 0.40 0.72 0.48 0.48 0.48 0.78

Estimation of Irrigation Water Requirement for Marangog Area (Without Effective Rainfall) Table J2-3(3)

	Table 1 Table
(Secretarion)	
Proposed Cropoing Pattern	
	Street, Control of the Control of th
	ı
At & Parinfull (mar/10-dayer)	
Original Contraction (may/IC-days)	133.01 82.01 85.01
Partition (am/10-days)	
Con Confficient, Puddy Rice (m/10-days)	1.00 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
(b) and Crop (ma/10-days)	0.20 0.32 0.37 0.55 0.74 0.32 0.32 0.32 0.32 0.32 0.32 0.30 0.70 0.70 0.70
Come Functionalist in Paddy Pice (an/10-days)	
(toland Cros (a_70-dava)	3 18.5 22.3 55.7 58.3 56.6 41.0 45.5 51.2 52.6 16.4 45.1 35.1 38.3 13.2 2
Crab Water Requirement, Puddy Rice (ma/10-days)	ľ
Un) and Cros (ma/10-dava)	13.5 12.3 155.7 13.3 156.6 41.0 (45.5 151.2 150.6) 49.4 (45.1 137.7 135.7 139.3 132.2
Imigation Requirement, Puddy Rice (au/10-days)	
(b) and Crop (m/10-days)	135.5 2.3 35.7 37.3 56 6 41.0 45.5 57.2 50.6 49.4 45.1 37.7 38.3 22.2
Diversion Requirement, Paddy Rice (mm/10-days)	
Upland Crop (set/10-days)	-1
(1st./aac/ha)	0.00 0.24 0.51 0.70 0.79 0.80 1.13 1.13 1.13 1.13 1.07 0.80 0.71 0.80 0.57 0.88 1.10 1.10 1.10 1.10 1.10 1.10 0.37 0.38 0.31 0.14

Estimation of Irrigation Water Requirement for Silae Area (Without Effective Rainfall)

	VI STORY	Vinetament .	ŀ	Military	Acris	-	į		2	 -	Alor		AURURE		Sent Property		Unioner.		COMPANY		Table (March
Decription	1 2 1			7	-	;	7		7	-	2	- ::	2		~	-		-	2	-	2
Processo Crassing Patram						-	+	-	-			***	-	-	+	į,	and the second s	+	-		
		7					i			ľ		-	-			/		1			
	Phddy Rice		Y			The state of		1		//			Paddy Kice	1		4					Paddy Fice
	-											-	1				+	-	- - - - -		-
80 % Rainfall (wm/10-days)	0,0	0 0 0	0	0	0	o 20	o o	o ō	6	0	6	o	0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0	0	0	6	0	0
iretion (mm/10-days)	31,0 31.0 34.1 34.0 34.0 27.2 37.	34.0 34.0	0 12 2 12	o ar o ar 1 as o as	45.0 45,	0 45.0 33	9.0 39.0	42.9 29	0,23.0	79.0 29.	0 23.0	31 9 30	30.0	0 33 0	31.0 33	0 33 0	34.0 37	4 33 0	33.0 33	0 33 0	31.0 34
i	01 0, 10, 01 11, 0 10, 0 10, 0 8, 0 10,	10.0 10.0	0.01 0.8	_			_	10	0.01	10.01	0 10.0	11.0 10.	10.01	10.01 10.01 10.01 10.01 10.01 11.01 10.01 11.01 10.01 10.01 10.01 10.01 10.01 11.01 10.01 1	10.01	0 10 0	10.01	0 10 0	10.0	0 10 0	10.01
Sea)	1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00	1.00	-					8 1 8	8.	8	1.00	1.80	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00	00 1.00	1 80	1.00	1.00	30.	8
(Upland Crop)	_			0.43 0.54 0.75 0.97 0.99 0.98 0.9 0.85 0.85 0.85	0.75 0.9	2 0 89 0	98 0.9	0.85 0.	M5 0.85		_		-	-	-			-	-	_	
Crop Evapotrampiration, Paddy Rice(me/10-daym) 31.0 31.0 34.1 34.0 34.0 27.2 37.	31.0 31.0 34.1	34.0 34.0	77.2 37.01					23	0 29.0	83.0 23	0.62 0	31 9 30.	30.0 3	23.01 29.01 29.01 29.01 29.01 31.01 30.01 30.01 31.01 31.01 31.01 34.01 34.01 37.41 33.01 23.01 33.01 31.01 34.1	31.0 3)	20	34.0 37	4 33.0	33.0 33	0 31 0	31.0
Upland Crop (am/10-daya)		_		15.9 22.0 33.8 41.4 44.6 38.2 35.1 36.5 24.7 24.7	33.8 41.	4 44.6 34	3.2 35.1	36.5 24	7, 24.7	-		-	-	-	_		_			-	
Crop Cater Requirement, Phddy Rice(am/10-days) 41.0 41.0 45.1 44.0 44.0 35.2 47.	41.0 41.0 45.1	0.2						39	0, 39,0	33.0	0.39.0	42 9 40 (0,40.0.4	39.01 39.01 33.0 33.0 33.01 42.91 40.01 40.01 40.01 41.01 41.01 41.0 44.01 48.41 43.01 43.01 43.01 43.0 41.0 41.01 45.1	41.0 41	0.44.0	44.0 48	4 43.0	43.0 43	0 41 0	41.0 45.
Upland Crop (em/10-days)			-	1 15.9 22.0 33.8 41.4 44.6 38.7 35.1 36.5 24.7 24.7	33.6 41.	4 41.6 34	5.2 35.1	36.5 24	7. 24.7	-	_		-		_	-				1	-
Traigation Requirement, Poddy Rice(mw/10-days) 41.0 41.0 45.1 44.0 44.0 35.2 47	41.0 41.0 45.1	66.0 44.0	35.2 47.0	-			-	33	0.33.0	39.0 39.	0.33.0	47.9 40.0	40.04	33.01 23.01 39.01 39.01 30.01 42.91 40.01 40.01 44.01 41.01 41.01 44.01 44.01 48.01 43.01 43.01 43.01 43.01 43.01 43.01 43.01	41.0 41	0 25 0	44.0.48	43.0	43.0' 43	0.10	41.0 45.
Upland Crop (mm/10-day)	_			1 15.9 27.0 33.8 41.4 44.6 38.2 35.1 36.5 24.7 24.7	33.8 41.	4 44.6 34	1.2 35.1	36.5 24	7, 24.7	-		-	_	-			-		-		
	72.3 72.3 79.5 77.6 77.6 62.1 82.	77.6 77.6	62,11 87.9		-			8	8.88.8	58.8 68.	8 68 8	75. 7 70.	5 70.5 7	68.86 68.8 68.8 68.8 68.8 75.7 70.5 70.5 70.6 72.3 72.3 77.6 77.6 77.6 65.4 75.8 75.8 75.8 72.3 72.3 73.5	7.3 7	3 77.6	77.6 85	4 75 8	75.8.75	8 72 3	72.3 79.
Upland Crop (am/10-days)			-	32,7 45,3 69,5 45,2 81.8 78.6 72,2 75,1 50.8 50.8	89.5 85.	2 81.8 7	1.6 72.2	75.1.50	8,50.8					_	_	_	-	-	-	_	-
(Tit./aec/ha)	0.84 0.84 0.84 0.90 0.75 0.45 0.	0.90 0.75		। । । । । । । । । । । । । । । । । । ।	0,67.0.8	9 1 06 0	M. 0 16.	0.68 0.	43: 0.76	0.66 0.4	0.80	9. RO 0. R.	0.82.0	R. 0. NA	0.70 0.	A4 0.45	0.15/0.	15 0 64	0.77.0	M 0 M	0.86 O.R.

Estimation of Irrigation Water Requirement for Sappaac ARC (With Effective Rainfall) Table J2-4(1)

	VISUAGE VISUAGE	E L	April (April	auni	July August	Soptember	October	November	T-XX
Decription	-	_		3 1 2 3	1 2 3 1 1 2 3	1 2 2 1	8 2	1 2 3	8 2 1 1
	-		-	-					
Imposed Cropping Pattern								-	
	/			1					
	(write				Peddy Rice				Gerlic
				/	7	-			
	1 1 2						-	-	
80 % Rainfall(mm/10-daym)	0.2 1.1 0 0 0	_		387.8 183.4 101	101 100.1 242 105.8 113.2 12 35.3	35.3 131.4 159.5 53.9 38.	38.2 9.1 3.2	2.2	0 1.4
Reference Crop Evaportranspiration (mm/10-days)	37.0 37.0 40.7 42.0 42.01			44.01 44.01 48.4	37.0 37.0 40.7 35.0 35.0 38.5	35.0 35.0 35.0	35.0 35.0 38.5 3	35.0 36.0 36.0	36.0 35.0 38.5
Percolation (am/10-days)		-		10.0 10.0 10.0	0.01 10.01 10.01 10.01 10.01	10.0 10.0 10.0	10.01 10.01		
Cros Coefficient, Paddy Rice (me/10-days)		_		1.00 1.00 1.00	7.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00: 1.00		-
Voland Crops (m/10-days)	0.85 0.84 0.75 0.75 0.75						0.50	0.56 0.66 0.82	0.94 0.99 0.98
Croo Evacotraneoiration, Paddy Rice (mm/10-days)		<u> </u> -		44.0 44.0 48.4	37.0 37.0 40.7 35.0 35.0 38.5	35.0 35.0 35.0 35.	.0 35.0		
Upland Crop (mm/10-days)	Ubland Crop (mm/10-days) 35.2 31.1 30.5 31.5 31.5	-					19.3	19.6 23.8 29.5	33.8 34.7 37.7
Crop Water Requirement, Paddy Rice (==/10-days)				SK.0 SK.0 SB.4	47.0 47.0 51.7 45.0 45.0 45.5	45.0 45.0 45.0	45.0 45.0		-
(bland Crops (se/10-days)	35.2 31.1 30.5 31.5 31.5						19.3	19.6 23.8 29.5	33.8 34.7 37.7
Irrigation Requirement, Paddy Rice (am/10-days)				0.0 0.0 0.0	0.0 0.0 0.0 0.0 33.0 14.2	0.0 0.0 0.0	6.8 35.9		
Upland Crops (mm/10-days)	35.0 30.0 30.5 31.5 31.5						16.1	17.4 73.8 79.5	33,8 33,3 37,7
Diversion Requirement, Paddy Rice (me/10-days)				0 0	0 0 0 88.2 25	0 0 0	12 83.3		
Upland Crop (ww/10-days)	72.0 61.7 62.8 64.8 64.8	: :: :: ::				-	33.1	35.8 49.0 60.7	69.5 68.5 77.
\(\frac{1}{2} \sigma_{\sigma} \rangle \(\frac{1}{2} \sigma_{\sigma} \rangle \(\frac{1}{2} \sigma_{\sigma} \rangle \)	Let O lac O lac O lac O lac O		-	00 0 00 0 00 0 1	36 0 129 0 00 0 00 0 00 0 00 0	0.00 0.00 0.00	0.07' 0.12' 0.06' 0	0.191 0.43 0.64	0,73' 0,72' 0,82

Estimation of Irrigation Water Requirement for Cofcaville ARC (With Effective Rainfall) Table J2-4(2)

	January Fredright	(arch	April i	lay.	June	/ly/	's STORES	September	October	.ieqelovov)eceptor.
Decription			2 3 3	5 3 1 1	2 3	2 3	2 3	2 3	.c.	2 , 3	£ .
Description Description			-					-			-
			-	Y							
	Paddy Rice		(Lingboar	/	/	/	Paddy Rice	-		/	Padry Rice
			_							/	
					-		-	-		-	
				-							
80 % Rainfall(sm/10-days)	103.4 15/ 65/ 25.9 34.3 51.9 48.6/ 86.1	8.6 86.1 41.2 45.2	62.2 33.4	90.1 15.7/ 65.4 6	62 32.4 68.2 115.4	5.4 33.8 22	53 27.3 114.4 104.8 44.3	8 44.3 229	58 63.6 159.4 141.8	43.3 83.8	85.6 45.3 75.1
Reference Crop Evapotranspiration (=/10-days)	31.0 31.0 34.1 42.0 42.0 33.6 52.0 52.0	2.0 52.0 57.2 57.0	0, 57.0, 57.0 54.0	54.0 59.4 50.0	0 50.0 50.0 49.0	49.0	2.0 42.0 46.2 48	.0 45.0 45.0 3	49.0 42.0 42.0 46.2 45.0 45.0 45.0 39.0 39.0 42.9 32.0	32.0 32.0	32.0' 31.0 31.0
Percelation (ww/10-days)	20.0' 10.0' 11.0' 10.0' 10.0' 8.0 10.0'			10.	10.01 10.01 10.01	10.01 10.01 11.0 11	10.01 10.01 11.0 10.01 10.01	0.01 10.01 10.01	0.01 10.01 11.0] 11	10.01 11.01 10.01 10.01 10.01 10.01 10.01	10.01 11.0
	1.00 1.00 1.00 1.00 1.00 1.00 1.00	; 0 0°		1.0	0 1.00 1.00	1.00 1.00 1	1.00 1.00 1	00 1.00 1.00	.00 1.00 1.00 1	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00:1:00
(Upland Crop)		0.43 0.54 0.5	0.54 0.55 0.32 0.99 0.97	0.9 0.85	5 0.85						
Crop Evaporranapiration, Paddy (em/10-days)	31.0 31.0 34.1 42.0 42.0 33.6 52.0	2.0			50.0, 50.0 50.0 4	43.0 49.0i 43.0 42.0l	0 42.0 46.2 4	.0' 45.0' 45.0' 3	3.0 33.0 42.9 3	42.01 46.2 45.01 45.01 45.01 39.01 39.01 42.9 32.01 32.01 32.01 32.0	32.0 31.0
Upland(=170-day=)		22.4 30.9 31.4	4 52.4 56.4 52.4	48 6 50.5	42.5 42.5			_			
Crop Water Requirement, Paddy Rice(mm/10-days)	41.0 41.0 45.1 52.0 52.0 41.6 52.0		-		60.01 60.0 60.01 5	59.0 59.0 60.0 52.0	52.0 57.2	55.0 55.0 55.0 4	55.0 55.0 49.0 49.0 53.3 4	42.0 42.0 42.0 42.0	42.0 42.0
(cyc)10-days)		22.4 30.9 31.4	52.4 56.4	52.41 48.6 50.5 42.	42.51 42.5				-		
Irrigation Water Reguirement, Paddy Rice(ms/10-days) 0.0 25.0 0.0 26.1 17.7 0.0 13.4	0.0 26.0 0.0 26.1 17.7 0.0		_		0.0 27.6 0.0	0.0 25.2 38.0	0.0 24.7 0.0 0.0	10.7 0.0	0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0.00
(eyab-01/mm) bwlqU		0 0	0 0 0	0 32.9	0 10.1						
Diversion Requirement, Paddy Rice (mm/10-days)	0 45.9 0 46 31.2 0	0 23.6		0 0.	0.0 48.7 0.0	0.0 44.4 67.0	0.0 (3.5) 0.0	0.0 18.9 0.0	0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.81 0.0	0.0 0.0
Upland Crop (sm/10-days)		0,0	0 0 0	0 67.7	0 20.8	-				-	
(lit./sac/a)	0.00 0.53 0.00 0.48 0.30 0.00 0.05 0.00		0.00 0.00 0.00 0.00 0.00 0.00 0.78 0.00 0.00	0.000 0.00 0.0	0 0.04 0.00 0	00 0.51 0.71 0	00 0.51 0.00 0	00 0 22 0 00	0.00 0.00 0.00 0.00	0.00 0.00	0.00 0.00 0.00

Estimation of Irrigation Water Requirement for Marangog ARC (With Effective Rainfall) Table 32-4(3)

Decription	
Proposed Cropping Pattern	
	(sens)
20 % Rainfall(m/10-davs)	1 61.51 77.8 97.1 73.1 73.6 45.4 72.2 33.6 13.5 13.5 13.2 36.1 39.9 10.2 23.6 35.9 24.3 60.2 45.8 43 7.1 100.3 35.2 27 49.3 13.4 35.4
Received and prepared programme (17 July 18)	0 01
Percolation (=/10-days)	
Cross Confficient, Paddy Rice (an/10-days)	1.00, 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
(map) (may (my)	0.50 0.57 0.55 0.74 0.52 0.73 0.52 0.58 0.52 0.74 0.70 0.70 0.70
7 - 1 - 0 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	١
CHEST EMPORTAGESTALLION, PROCE LICE LIN LA COURT	
Upland Crop (mr/10-days)	
Cros Sater Remirement, Paddy Rice (sm/10-days)	56.01 56.01 56.01 56.01 56.01 56.01 57.01 57.01 57.01 57.01 58.01 58.01 58.01
(mysp-0/) ow) bastel)	19.5 27.7 27.7 28.8 56.4 10. 55.5 57.2 50.6 56.4 56.1 37.7 35.7 39.3 27.2
V = (2.0) (2.0) (2.0) (2.0) (2.0) (2.0) (3	
The second secon	0 0 0 0 0 0 0 0 0 0 0 1 1 2 1 2 9 1.6 0 23.1 2.6
(a) (a) (b) (a) (a) (b) (a) (b) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	
CANADAM MANAGAM TANAM TA	
(SARO-OLIVE) COLO DUDIO	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
(1) is /way/as	0.33 0.00; 0.14; 0.32 0.18 7.02 0.00 0.00 0.00

Estimation of Irrigation Water Requirement for Silae ARC (With Effective Rainfall)

	January	YORLOO!	Berch	(110)	, May		adi	ĺ	y (t	ALVE	August	Ŝ	S-pt-moer	October		Jequenos	<u>.</u>	December	į
Decription	-		1 2	1 2	2 : 1		. 2	-	2 3	_	5	1 . 2	17	r a	~ E:		-		-
													-		+	+	-		
Proposed Cropping Pattern									-								1		Ī
					-			/	-		1		/		1	/			1
	Paddy Rice	/			(Coety)				-	ğ	Paddy Kice	-	-		1		1	À	2
		-												1			4		1
	-	-					1	-	-		-		ļ	1	ĺ	-	+]
		_			-		,	-	-	-		-		-			1		1
80 % Rainfall (sm/10-days)	30.7 21.2 15.7	30.7 21.2 15.7 49 60.7 11.2 38.9115.8		56.6 20.5 24.6 25.5 23.1 73.7 40.1 69.7 36.7 105.5	5 23.1 73.	7 40.1 B	9.7: 36.710	3	56.2 39.8	34.5	4 68 4	139,3 73	.3 41.2	108 66.2 39.8 34.5 77.4 69.4 139.3 77.3 41.2 76.3 87.3 68 19.1 86.6 45 66.1 30.4 55.4	58	1.86.6	2	30.4	8.3
Reference Crop Evapotranspiration (==/10-days)	31.0 31.0 34.1	31.0 31.0 34.1 34.0 34.0 27.2 37.0 37.0		स्कर्म ५६० ५६० ५६० १६० १६० १६० १६० १६० १६० १६० १६० १६० १६० १६० १६० १६० १६० १६०	.0 39.0 39.0	3 42.9 2	3.0 29.0 2	9.0 29.0	29.0 31.9	30.0 30	0.03.0	31.0 31	0.10	34.0 St.0	77.4.73	0.53	33.0	0 31 0	3
Percolation (=/10-days)	10.01 10.01	10.0 10.0 11.0 10.0 10.0 8.0 10.0			_	ä	10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00	0.0 10.0	10.01	10.0	0.11.0	10.0	0.01	10.0 10.0	11.0 10.	0.01	10.01	0.0	1.0
Cros Coefficient (Paddy Rice)	1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00	1,00	,		1,	1.001 1	9.1	1.00 1.00	8	80.1	8	8	1.00	1.00	8	1.00	90.1	8
(loland Crop)		_	0.43 0.54	0.54 0.75 0.92' 0.89 0.98' 0.0 0.85 0.85 0.85	99 0.58 0.0	9 0.85 0	.85! 0.85	_		-	_			_		_			
Crop Evapotranapiration, Paddy Rice(mm/10-days)	31.0 31.0 34.1	31.0 31.0 34.1 34.0 34.0 27.2 37.0	37.0			**	25.0i 25.0i 25.0i 29.0i 29.0i 29.0i 39.0i 30.0i 33.0i 31.0i 31.0i 31.0i 34.0i 37.4i 33.0i 33.0i 33.0i 31.0i 34.0i	9.0 29.0	29.0 31.9	30.0	0.33.0	31.0 31	.0 31.0	34.0 34.0	37.4 33	0.33.0	33 0 31	0 21.0	Ž,
Upland Grop (mm/10-days)			15.9 22.0	22.0 33.8 41.4 44.6 38.2 35.1	.6 38.2 35.	36.5	24.7 24.7	-	-						_		-		
Crop Water Requirement, Paddy Rice(mm/IO-days)	41.0 41.0 45.1	41.0 41.0 45.1 44.0 44.0 35.2	47.0				39.0 39.0 38	39.0 39.01	39.0 42.9	40.0	0.04.0	41.01.41	0.14	39.01 39.01 42.8 40.01 40.01 44.0 41.01 41.01 41.01 44.01 48.41 43.01 43.01 43.01 41.01 41.01 45.1	48.4	0 43.0	43.0 41.	0.44.0	45.1
Upland Crop (ms/10-days)		-	15.9	22.0 33.8 41.4 44.6 38.2 35.1	6 38.2 35.	36.5	24.71.24.7		_	_	_	_	-						
Irrigation Requirement, Paddy Rice(mm/10-days)	10.3 19.8 29.4	0.0 0.0 24.0	8.1!				0.0 2.3 0.0 0.0 0.0 0.0 3.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.9 0.0 0.0 0.0 0.0 10.6 0.0	0.0 0.0	0.0	5,5	0.0	0.0	0.0	0.0 0.0	0.0	9 0.0	0.0	0, 10,6	0.0
Upland Crop (=_/10-day)		-	0.0 0.0	0.0 13.3 17.0 19.1 15.1 0.0 0.0 0.0 0.0	1,1 15.1 0.0	0.0 (0.0 10.0									-		-	
Diversion Requirement, Paddy Rice (mm/10-days)	18.2 34.9 51.9	18.2 34.9 51.9 0.0 0.0 42.3 14.3	14.3		-		0.01 4,11 0.01 0.01 0.01 5.51 9.71 0.01 0.01 0.01 0.01 0.01 0.01 0.01 4.21 0.01 0.01 0.01 18.71	0.0 0.0	0.0 5.5	9.7	0.0	0.0	0.0	0.0	0.0	2 0.0	0.0	0.18.7	0.0
Upland Crop (mm/10-days)			0.0 0.0	0.0 27.4 35.0 39.3 31.1 0.0 0.0 0.0 0.0	3 31.1 0.0	0.0 0	0.0 0.0		-			_	-	-		-		-	
(lit./mc/h)	0.21 0.40 0.55	0,21 0,40 0,55 0,00 0,00 0,31 0,03 0.00		o.co] බැනි බැනි ගැනි ගැනි ගැන ගැන ගැන ගැන් ගැන් ගැන් ගැන් ගැන් ගැ	45 0.36 0.00	0 00.0	001 0.041 0.	00 0 00	0.00 0.06	0,11, 6,	00 0 00	0.00 0.	00,00	0.00 0.00	0.00 0.7	000	0.00 0.0	0 0.72	0.0

Table J.2-5(1) Reservoir Operation Study for Sappaac ARC

Irrigated Area Paddy : 30 ha (Carlic) Upland : 6 ha (Carlic)

Month Interpretation (cum Interpretation Interpretati	Direct Inflow (1) (2)	Diverted		Diversion Requirement	٠,1	1	Irrigation	Reservoir		Effect. Storage	Water Level	o	Shortage
75997997995	flow (1)	F10%		Requirement	4					Effect. Storage	Level		Shortage
नुष्ण नुष्ण न पण न	. п/сау)	_ 	(3)=(1+5)	(4)	Paddy Kice (S)	Upland Crop	Requiement $(7) = (4) * (5+6)$	Losses (8)	Total (9)=(7)+(8)	(6-0) = (10) = (3-0)	=======================================	62	33
तुष्कृत्षक्तपक्		(cu. m/dav) (cu. m/dav)	_	(lit./sec/ha)	(ha)			(cu. m/day)	(cu. m/day)		(EL-m)	34	(cn. m/day)
June-1 -2 -3 -3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -3 -3 -3 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4			—	1							223.0	-	
3uly-1 -2 -2 -2 -3 -3 -2 -2	2, 094				30		0		16			3,720	0
-3 July-1 -2 -3 -3 Aug1 -3			-		30		0		91	3,		2,617	0
July-1 -2 -3 -3 -4861 -3 -3	846				30		0		16	က်		2, 172	0
Aug1 -2 -3 -3	5401				30		0		16	έ°		2, 167	0
Aug3	1,307		2,949	0	30		0		16	ຕິ		2, 933	٥
Aug1	571				8		0		16	3,		2, 197	O
Ç1 67 -1	612				30		0		16	က်		2, 238	0
53 3	65				30		1, 737		1, 752	င်		0	-46
Cont -1	191			0.26	30		674		069			1,097	0
7	086				30		0		16			2,606	0
C a	813				30		0		16			2, 439	٥
3	291				30		0		16			1,917	0
0ct1	206			0.	30		181		197			1,651	0
	64	:	- :	o.	တို		311		327			1,364	0
-3	18			0.		9	31		47			1,613	0
Nov1	121			0.		9	31		47			1, 204	0
	ō			o		9	4.5		29			774	0
5	0			o		. 6	57		73			359	0
Dec1	0			0		9	29		78			354	Ç
çı.	73			0.		9	29		78			427	0
ကု	O			o		9	7.3		88			344	0
Jan1	1			0.83		9	430		446	3, 153		0	-13
c)	4			o		9	368		384			40	0
-3	17			0.		9	768		410			68	0
Feb1	0			0.		9	261		213			519	0
1.2	C			0.		9	29		83			349	0
3	0						0		91			416	0
Mar1	92						0		16		 	443	0
-2	0						0		91	:		416	0
3	0						0		91			416	O
Apr1	19	432	451				0	16	16	3, 166		435	0
5.	2						0		16			423	0
-3	16						0		15			433	o
May-1	0						0		16			830	0
G-	36	:	1				0		15			1,316	0
-3	694		Ċ.≱				0		16			2, 320	0

Table J.2-5(2) Reservoir Operation Study for Cofcaville ARC

	Irrigated Area											
		Paddy(2)	- 45	na (Mungbean)	(ر							
		Inflow			Outflow						ļ	
Month	Direct Inflow	Diverted Total (2) (2) (3)=(1+2)	Diversion Requirement	Irrigation Paddy Rice (5)	Upland Crop	Irrigation Requiement (7)=(4)*(5+6)	Reservoir Losses (X)	Total (9)=(7)+(8)	Effect. Storage (10)=(10)-(3-9)	Water Level (11)	Spillage (12)	Shortage (13)
	(ve) m (ray)	(cu. m/day)		(ha)	(ha)	(cu. m/day)	(cu. m/day)	(cu. m/day)	(cu.m/day)	(EL-m)	(cn. m/day)	(cu. m/day)
	7								2, 400			
Tune		216	0	9	9	0	12	12			266	0
		216		9	9	41		53			2,619	0
		512	o	9		0		12			2,848	0
[n] y-1		216		9		0	12	12			2, 701	0
		216	o	9		264	::	276			2,468	0
12		216	0.71	9		368	12	380			2,431	٥
Aug		216'		9		0	12	12			2,786	0
		216	0.51	9		264	27	276			2,663	0
		216		9		0	12	C.			2,759	0
Sept		216	0	9		0	12	12			2, 774	0
		216	0.22	9		114	5	126			2, 723	0
	ľ	216	1	9		0	12	13			2,954	0
8		216	0	9		0	13	12			2,942	0
		216	0	و		0	3	12			2,663	0
		216	0	1		0	12	12			2,849	0
Nov.		216	0	7	1	0	12	13			2,837	0
		216	0	7		0		51			2, 726	0
		216	0	1		0	13	51			2,860	0
Dec.		216	0	1		0		12			3.037	0
		216	0	,		O		CI.			2,731	0
ľ		216	0	7		0		12	_ [2, 687	0
Jan.		216		7	· ·	0		12			2,803	0
		216	0.53	\$-		321	22	333			0	-14
£-		216		-		0		ę.	2,400		3,019	0
Feb		216	0			290		30.			707	0
-		216	0.30	۲-		181		193			2,589	0
1		216)	-1		0		12			3,463	0
Mar		216	0.05	7	_	30		42			2,791	o
ç,		216	0		9	Ö		13	2, 400		2,843	0
		216	0		9	0		12			3, 202	0
Apr1		216	.0		9	0		ç.1			3, 136	0
		216	0		9	0		12			2,766	0
<u> </u>		216	0		9	0		12			2,918	٥
May.	321		0	:	9	0	13	12			2,925	0
C.		216	0.78		9	404		416			0	S
1		216	0		છ	0					2,855	c

Table J.2-5(3) Reservoir Operation Study for Silae ARC

		rtage (13)	(cu. m/day)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-14	0	0	0	0	0	0	0	0	0	0	0	0
	_	Shortage (13)	-	-	-			-	-			_				-	_					_	_				-	-	-			_					_			-
		Spillage (12)	(cu. m/day)	_	1,117	965	1,117	1,117	1,117	296	832	1,117	1,117	1,117	1, 117	1,117	1.117	1, 117	1, 117	1881	743	556	556	349	556	338	141	٥	542	556	235	525	556	929	242	508	٥	308	930	1, 117
		Water Level	(E-13)														_																	ĺ						
		Storage (10)=(10)-(3-9)	(cu. m/day)	2900	2,900	2, 900	2, 900	2,900	2, 900	2,900	2, 900	2,900	2,900	2, 900	2,900	3 900	2, 900	2, 900	2,900	2, 900	2,900	2,900	2, 900	2,900	2, 900	2,900	2, 900	2,886	2, 900	2, 900	2, 900	2, 900	2, 900	2, 900	2,900	2,900	2, 900	2,900	2,900	2, 900
		$ \text{Total} \\ (9) = (7) + (8) $	(cu. m/day)		æ	158	9	9	9	191	291	9	9	9	9	9	9	9	9	255	9	9	9	213	6	324	421	576	9	9	327	37	9	9	320	54	562	44.	9	છ
		Reservoir Losses (8)	(cu. m/day)		မ	9	9	9	9	9	9	9	9	9	9	9	9	అ	9		9	,	:			. 6	æ	9	.6	9	. 9	. 6	9	9	. 9	. 9	9.	9	9	9
		Irrigation Requiement (7)=(4)*(5+6)	(cu. m/dav)		0	152	0	0	0	156	285	0	0	0	0	0	0	0	0	576	0	0	٥	207	0	218	415	570	0	0	321	31	0	0	314	48	929	435	0	¢
(Outflow	Area pland Crop (6)			14	14			W 12 W 12 W									-						=					-				14	14	14	14	14	14	14	14
30 ha 12 ha 14 ha (Mungbean)		Irrigation Paddy Rice U	(ha)	_	30	30	30	30	30	30	30	30	30	30	જ્ઞ	30	30	30	12	12	12	12	12	12	12	12	12	12	12	12	12	12	·							
30		Diversion Requirement (4)	() (t. /sec/ha)		0	0.04		00.00	0.00	90.0	0.11	0	٥	0	0	0	0	0	٥	0.24	0	0	0	0.5	0	0.21	0.40	0.55	0.00	٥	0.31	0.03	0	٥	0.26	0.04	0.46	0.36	0	0
Paddy(1) Paddy(2) Upland :		Total (3)=(1+2)	(cu. n/dav)		1, 123	1, 123	1, 123	1, 123	1, 123	1, 123	1, 123	1, 123	1, 123	1, 123	1, 123	1.123	1 123	1, 123	1, 123	986	749	295	295	295	562	562	295	295	562	295	295	562	295	295	295	295	295	749	936	1, 123
	Inflow	Diverted Flow (2)	Ü	·	1, 123	1,123	1, 123	1,123	1, 123	1,123	1,123	1,123	1, 123	1, 123	1, 123	1.133	1.123	1.123	1, 133	936	749	295	295	562	293	295	295	562	562	295	562	1 562	295	295	295	295	295	749	936	1, 133
Irrigated Area		Direct Inflow	(cu. m/day)	,			0		0			0			0						0										0						0		0	
		Month			June-1	57	۳-	July-1	c.	-3	Aug1	63	-3	Sept1	ç,	3	00 t.	5.	5	Nov1	ĉ-	-3	Dec1	23	-3	[Jan1	-12	<u>د</u> -	Feb1	23	-3	Mar1	2 -	-3	Apr1		5 -3	May-1	7.5	ę,

ANNEX K. POST-HARVEST AND RURAL AGRO-INDUSTRY

K.1 Post-Harvest and Rural Agro-Industry

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Table K.1-1 Existing Equipment and Facilities in the Marginal Area

	Reg. CAR Reg. I	3	Reg. II	Reg. III	Reg. IV	Reg. V Reg. N	Reg. Vi	Reg. Vii	н	Reg. X	Reg. Xi	Reg. XIII Surigan Del Mode
	Bangued		Maddela	Tuyo, Balanga Calaug	Calaug	Tinambac	Altabas	Trinidad	Hlongos	₹		Surigao City
		Taloglog	Cofcabille	Montilla	Mautawin		Abiera	San Vicente	3	Sitae		Mat-i
1. Agneuttural Facilities	i											
1. Agricultural machinery												
(1) Tractor	•	'n	•	. •	•	1	•	•	•		,	•
(2) Hand Tractor	,	÷-	•	•	•	•	.	•	,	,	•	•
(3) Irrigation Pump	•	;-	•	•	٠,		•	•	1	1	1	4
(4) Sprayer	• :	•	•	•	•	•	, .	•	Þ	1	•	·
2. Post Harvet Facilities												
(1) Multi-Purpose Pavement (MPP	•		%-	•	۲-	τ-	•	•	τ-		,	1
(2) Mechanical Dryer	•		•	•	•		,	1	,		1	4
(3) Reaper	•	+		١	•	•	,	•		1	1	4
(4) Rice Thresher (Foot Type)	•	Many	•	•	•		•	1	•	1	,	i i
(5) Rice Thresher (w/Prime Mover)		+		•	•	•	•	•	1	ı	;	•
(6) Winnower	•	•	•	,		•	,	•	•	,	1	1
(7) Rice Mill (One pass type)	81	<u>:</u>		•	•	•	•	•	,	1	;-	l
(8) Corn Sheller (Handy type)	i	,	•	•	•			•	,	ı	1	1
(9) Com Sheller (w/ Prime Mover)	٠,	•	; -		•	•	•	•	,	ŀ	· ·	;
(10) Com Mill	. 1	•	•			,	•	•	•	•	,	1
(11) Warehouse	•	,	ì	•	•	•	•	•	•		,	
(12) Citrus Proceesing Plant	4	•			1	•	1	,			1	•
(13) Weighing Machine	•	.)	•	•	•		•	•	•	4	•	•
(14) Cassava Grater	•	•	•	•	1		•		•		•	MLR.
(15) Truck	•		,	,	•	. •	•	,	,		,	i i
7.00 OF Miles	· ·		•	•			•		,		,	,

Remarks: 1. - = Not available
2. * = Private Own.
Source: Survey of This Study Team

Table K.1-2 Equipment and Facilities Initially Concleved in the Study Area

Study Areas	Equipment and Facilities Conceived	Location	Crops
eg. CAR	MPP(10x20m) 5sets, Rice Mill, Corn Mill, Corn Sheller	Sappa-ac	Rice
bra	Rice Thresher(foot type) funit for each 2-3H.H.	Proper	Corn
angued			1
арра-ас			
leg. 1	MPP(8x10m), Rice Thresher, Tractor	Sitio 1	Rice
a Union	, , , ,		Mango
an Juan			
gelguls			•
teg. fl	MPP(15x30m), Tractor, Corn Sheller, Corn Mill	Proper	Corn
tuirino	, , , , , , , , , , , , , , , , , , , ,		Rice
ladella			
ofcaville			
teg. III	Warehouse, Tractor	Proper	Rootcrop
alaan	TEMPOTO CONTRACTOR	i soper	Squash
uyo, Balanga			Cassava
lontilla			0033310
leg. IV	Rice Mill, Warehouse, Processing Plant	Centro	Rice
luezon	ruce will, videnouse, Flocessing Fidalit		
		Tigas	Citrus
alauag			
laulawin	Library W. Warahan Caraba Caraba Caraba Caraba		
teg V	Micromill, Thresher Sunits, Corn Thresher Sunits,	Proper	Rice
am. Sur	Sprayer 10units, Solar Dryer(15x30m), Mechanical Dryer,	:	Corn
inambac	Weighing Scale, Cassava Grater, 5t Truck,		Coconut
ag-asa	Mini-oil Mill, Warehouse (15x30m)	167.	
Reg. VI	MPP, Mechanical Dryer, Thresher, Warehouse	litik	Rice
klan "	Copra Oryer	Cabangahan	Corn
dtavas			Coconut
vierra			
teg VII	Rice & Corn Mill	Fatima	Rice
lohol			Corn
rinidad			, ·
an Vicente			ļ
teg. Viit	Tractor, MPP, Mechanical Dryer, Rice Mill, Warehouse	Proper	Rice
eyle	Corn Sheller(handy type) 10units, Corn Mill		Corn
lilonges			
farangog			
leg. X	Warehouse, Rice & Corn Mill, Corn Sheller	Silae	Rice
lukidnon		Dalacutan	Com
falaygalay			
ilae			ļ
Reg. XI	MPP 3 sets, Reaper, Rice Mill	Puruk 4	Rice
)avao		Puruk 8	
suncion		Puruk 9	
Joahli		<u> </u>	ļ
Reg. XIII	Rice Thresher	Proper	Rice
iuri, del Norte		'	
	•		

Source: Survey of This Study Team

Table K.1-3 Present Loan Program & Lending Activity (1)

		Type/Title	Loan/Purpose/Terms	Beneficiaries	Loan Value	Interest	Collateral
		COR		F	85% of face	Lower than	Commodit
		it Guarantee Program	Procurement, processing and distribu-	Farmer-group		commercial	Commodi
+		Agri-Aqua Inventry	tion of grains and agri-aqua produce.	Grain miller	value		
		Management (AIM)	60, 90, 120 or 180 days.	Food processor		bank	
1	(2)	Coordinated Agricultural	Integrated production, processing,	Farmer, Corp.	P2M to P10M	14-18%	Real estate
		Marketing & Production	marketing agri-business. Monthly,	Sole proprietor			Chatteis/
		(CAMP)	quarterly or semi-annually, Max, 5 years.	Partnership, Corp.			Co-maken
	(3)	Farm Level Agri-Machine-	Farm production & post-production ma-	Farmer, Corp.	P2M to P10M	14-18%	Real estate
,		ries & Equipment	chineries, equipment and facilities.	Sole proprietor			Chattels/
		(FLAME)	Monthly, quarterly or semi-annually.	Partnership, Corp.			Co-maker
		Livelihood & Acres Marine	Max. 5 years. Land-based (yelihood & aqua-culture	Fisherfolk or	P5M	14-18%	Real estate
1		Livelihood & Aqua Marine	project. Monthly, quarterly or semi-	their family		,	Chattels/
		Productivity (LAMP)	annually, Max. 5 years.	members			Co-maker
2	Guar	ranteed Co-financing Programs				•	
		Food & Agricultural	Retailing of food and agri-related	Public market	Individual:	14-18%	Trust
		Retail Enterprises	commodities. Weekly, monthly or	vendors	P5,000 - P50,000	* 7	receipt
		(FARE)	quaterly. Max. 360 days.		Group:	,	Co-maker Stock shar
		On a suffer stand of a standard because	Interested are duction, proceeding	Farmer, Coop.	P10,000 - P100,000 P2M to P10M	14-18%	Real estate
		Coordinated Agricultural	Integrated production, processing,		FZM 10 F IOM	14-1070	Chattels
		Marketing & Production	marketing agri-business. Monthly, quarterly or semi-annually.	Sofe proprietor Partnership, Corp.			Co-maker
		(CAMP)	Max. 2 years.	r andicising, corp.			
	171	Farm Level Agri-Machine-	Farm production & post production	Farmer, Coop.	P2M to P10M	14-18%	Real estate
		ries & Equipment	machineries, equipment and facilities.	Sole proprietor			Chattels/
		(FLAME)	Monthly, quarterly or semi-annually	Partnership, Corp.			Co-maker
			Max. 2 years.				
	(8)	Livelihood & Aqua Marine	Land-based livelihood & aqua-culture	Fisherfolk or	P5M	14-18%	Real estat
		Productivity	project. Monthly, quarterly or semi-	their family	•		Chattels/
		(LAMP)	annually. Max. 5 years.	members			Co-makers
. Soc	wiali	On Lending Programs					
		CARP-Barangay Marketing	Farm-level warehouse with solar dryer.	Agrarian reform	Warehouse P70,000	12%	Estate
		Center	Semi-annually starting second year.	beneficiaries	Marketing P150,000	12%	in loan
		(CARP-BMC) = (CBMC)	5 years.		Inventory: 85%	prefer	Inventory
					Rice Mdl: P150,000	12%	Chattel
			Face level warehouses the police days	Primary cooperative	Warehouse P70,000	12%	Estate
		Farm Level Grains	Farm-level warehouse with solar dryer	Tilliary cooperative	Marketing P150,000	12%	in loan
		Center I (FLGC I)	Semi-annually starting second year. 5 years.		Inventory: 85%	prefer	Inventory
				0	Change mant constant	6-8%	Signatures
		Development Assistance	Agricultural cooperative enterprises	Coop federations	Repayment capacity	6-070	of three
		Program for Cooperatives	Quarterly, semi-annually or annually	Primaries			Board
		and People's Organization	Max. 5 years.				Members
i.,		(DAPCOPO)					
	(12)	Grains Production	Agricultural cooperative enterprises	Coop federations	P10M	Coop:	Deposit
		Enhancement Program-	Semi-annually.	Primaries		less 6%	risk free
		Cooperative Credit	Max. 5 years			Individual:	asset
		Assistance Program				not more 9%	,
		(GPEP-CCAP)					
I. NF/	<u>.</u>						
		Farm Level Grains	Establishment of farm-level warehouse	managed by	Established by NFA		-:
		Center III	with small office, farmer's shed,	valable farmer			
		(FLGC III)	post-harvest facilities and ancillary	O LOND	***		* .
	101	M. minimal Layed Coning	components. Establishment of warehouse with	managed by	Established by NFA.		
	(2)	Municipal Level Grains Center	solar dryer.	LGU			
		(MLGC)				,	
				Carm	Complete the added	nnices of	
		NFA-JICA Post-Harvest	Establishment and/or supply of post-	Farmer-	Supply at the original facilities.	Prices of	100
		Facilities Assistance	harvest facilities.	organization	はいいいとう。	•	
		Program		Agri-business firms/coop.			

Quedan and rural Credit Guarantee Corporation National Food Authority

Table K.1-3 Preesent Loan Program & Lending Activity (2)

Type/Title	Loan/Purpose/Terms	Reneficiaries	Loan Value	Interest	Collateral
II. LBP					
1.LBP-PAG-IBIG Tie-up Progra	m Promote small business/livelihood ventures and income-generating project. Monthly.	Pag-ibig fund member who orga- nize into coop.	P75,000	16%	70-90%
2. General Lending Projects					Production:
(1) Short-Term a Crop and Livestock Production	Maturity: One crop cycle.	Small farmers Small Fishermen Cooperatives		Production/One- rating capital: 12%	PN/TRs PCIC- Insurance/ Guarantee
b. Operating Capital 1) Quedan Financing 2) Commodity Loans	Refer to QUEDANCOR lending scheme. Maturity: 6 months.	Small hog/poultry/ livestock raisers	Single: P150,000		Fixed Asset
3) Working Capital (2) Medium/Long-Term	Maturity: 1 year.	Small farmers Small Fishermen		Fixed asseV Medium & long	Financing/ Chattels/ REMs
a Crop and Livestock Production b Fixed Asset	Maturity: 2 years.	Cooperatives Small hog/poultry/		term loan:	Capital=
Sprayers, Weeders Power Tiller, Irrigation Pump,	Maturity: 3 years. Maturity: 4 years	livestock raisers			Stocks/ REMs/ Chattels
Protable Threshers 3) Haufing Trucks 4) 4-Wheel Tractors 5) Rice Mill, Warehouse c Cottage (Small and	Maturity: 5 years Maturity: 7 years Maturity: 10 years.				Commodity= Chattel of stocks
Medium Scale Industries d Irrigation Facilities e Income Generating Proje	•				
Other Acceptance Guarantees					
(1) Quedan Guarnatee					
(2) PCIC-CALF Guarantee ((3) GFSME Guarantee	Program				
Other Support Services (1) Coop Organization and					*
Development					
(2) Institutional Capability Strengthening (e.g. Coo	n Training)				
(3) Marketing Assistance	p training)				
(4) Technical Assistance					
Major Tie-up Programs					:
(1) Fishery Sector Program (LBP-ACPC	-PCICI				
(2) Program for Cotion Proc	duction				
(LBP-DA-PG (3) Integrated Social Foresti					. · ·
(LBP-DENR	3)				
(4) Irrigation Pump Acquisiti (LSP-NIA)	on Program				
(5) Program for Tobacco Pr (LBP-NTA)	oduction				
(6) Financial Incentives for E Livelihood Small coconu					
(L8P-PCA) (7) Joint Assistance Program	m				٠.
for Farmers and Family (LBP-DOST					
(8) Small and Medium Indus Technology Transfer De					
(LBP-DTI) (9) Production of Certified F (LBP-DA-M					• .
6. Farmer-Friendly Loan Packages	Institutional strengthening component Program assistance in shifting to high value crops.	Cooperatives of COA		10-12%	No coffa- teral

Table K.1-4 PhilRice Training Courcese, Workshops, Seminars and Conferences, 1994

	Number	Number	Total	
Items	of Batches	of Partici-	Man-	Remarks
	(days)	pants	days	
1. Season-long Rice				
Specialist' Training	2	60	7,260	Collaborated with
Course on IPM*	(121)			the National IPM Program
2. Season-long Rice IPM	2	263	4,208	Collaborated with
Farmers' Field Schools*	(16)			the National IPM Program
3. Seed Growers' Training	7	218	654	Requested by coops
Courses	(3)		i	
4. Seminar-Workshop on	1	25	75	Coordinated by Comm.
Technical Writing	(3)		i	Division for PhilRice
-]		researchers
5. Pre-departure Orientation	1	15	75	Cosponsored with NAFC
Course on Farm	(3)			
Mechanization	1		1	<u> </u>
3. Technical Briefing for	1	30	90	Requested by BPI/ATI
Seed Inspectors	(3)			(Camarines Sur)
7. Technical Briefings on Rice/	58	1,524	1,524	Requested by LGUs, NGOs
Rice Seed Production	(1)	}		and coops
for Famrers/Famer-Leaders/	`´			
Technicians and LGU officials				
B. Technical Briefings on IPM	35	1,575	1,575	Requested by IPM Training
for Trainors/LGU Techni-	(1)	and the second		Operation Teams and
cians/Farmers				Farmers' Field Schools
9. Briefings on Technology	2	45	135	Attended by the R&D
Transfer/R&D Networking	(3)			Network researchers
for researchers and planners				and technicians
Briefings for International	11	41	125	Requested by UPLB/
Trainees/Research and	(3)			SEARCA/IRRI/NIA
Extension Administrators	`′			
1. Institution Building	11	1,137	5,685	Attended by members
Workshops/Seminars within	(5)			of the rice R&D network
the PhilRice Network	``			
2. GATT hearings	2	630	630	Requested by the Senate;
	(1)			Coordinated by Comm,
	l			SSPR
Total:	26	5,558	23,034	

Remarks:

* = A four-month or season-long Rice Specialists' Training Course on IMP(RST-IPM) was simultaneously conducted with five famrers' field schools(FFS) in barangays near PhilRice. The RST-IPM and FFS are the flagship training programs of PhilRice in support of the National IPM Program known as the Kasaganaan sa Sakahan at Kalikasan (KASAKALIKASAN).

Source:

Philippine Rice R&D Annual Report, 1994 Philippine Rice Research Institute

Table K.1-6 Selection Criteria for Post-Harvest & Agro-Industry Facilities

Facilities	Selection Crireria	
Agricultural Machinery		
(1) Tractor	Expected area: 1/3 of total planting area. Available to 80-100ha/unit.	
	Supply: one unit for every approx, 300ha,	
	Remained 2/3 area should be done by means of traditional style.	
	Area which has flatter land is more advantageous.	
(2) Hand Tractor	Expected area: 1/3 of total planting area,	
• •	except above (1) area. Available to 5-10ha/unit.	
	Remained 2/3 area should be done by means of traditional style.	
•	Supply: one unit for every approx. 50 - 60ha.	
(3) Sprayer	Expected area: 1/3 of total planting area. Available to 5ha/unit.	
	Remained 2/3 area should be done by individual farmers.	
	Supply: one unit for every approx. 15ha.	
(4) Animal Drawn Plow	Supply: one unit for every 5 heads of dispersed carabaos.	
(), anna Grani i ion	Remained should be prepared by individual farmers.	
(5) Comb-Tooth Harrow	Supply: one unit for every 5 heads of dispersed carabaos.	
(O) COMO-TOURT HEROW	or one unit for every approx. 10ha.	
(6) Animal Drawn	Remained should be prepared by individual farmers.	
(6) Animai Drawn Sledge	Supply: one unit for every 5 heads of dispersed carabaos. Remained should be prepared by individual farmers.	
Post-Harvest & Agro-Industry	Facilities	
(1) Multi-Purpose	Expected crops: paddy, corn, beans, coconut, cacao and coffee.	
• •		
LAVEL	SOUDDLY, DIRECTOR EVERY ADDITOX, DULGT OTOTOGRACIOD	
Dryer	Supply: one unit for every approx. 50t of production, except below (7) (8) and (10) area.	
	except below (7),(8) and (10) area.	
(2) Mechanical Dryer	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn	
(2) Mechanical Dryer	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha.	
	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area.	
(2) Mechanical Dryer	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy.	
(2) Mechanical Dryer (3) Reaper	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type)	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover)	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4).	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production,	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover)	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment. Expected crops: paddy, corn, vegetables, rootcrops and fruit.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment. Expected crops: paddy, corn, vegetables, rootcrops and fruit. using for collecting, selecting, grading,	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment. Expected crops: paddy, corn, vegetables, rootcrops and fruit.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment. Expected crops: paddy, corn, vegetables, rootcrops and fruit. using for collecting, selecting, grading,	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment. Expected crops: paddy, corn, vegetables, rootcrops and fruit. using for collecting, selecting, grading, storing and marketing works. Supply: one set for every approx. 150-200 t of production,	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment. Expected crops: paddy, corn, vegetables, rootcrops and fruit. using for collecting, selecting, grading, storing and marketing works.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower (7) Warehouse with Solar Dryer	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment. Expected crops: paddy, corn, vegetables, rootcrops and fruit: using for collecting, selecting, grading, storing and marketing works. Supply: one set for every approx. 150-200 t of production, except below (8) and (10) production. Expected crops: paddy	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower (7) Warehouse with Solar Dryer (8) Rice Agro-Industry Center	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Supply: one unit for every approx. 80-100 t of paddy production. Remaineds should be done by above (4). Supply: one unit for every approx. 20-30 t of paddy production, except below (5) production. Collaborate with above (4) equipment. Expected crops: paddy, corn, vegetables, rootcrops and fruit. using for collecting, selecting, grading, storing and marketing works. Supply: one set for every approx. 150-200 t of production, except below (8) and (10) production. Expected crops: paddy Supply: one set for more than 150 - 200 t of production.	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower (7) Warehouse with Solar Dryer	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production,	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower (7) Warehouse with Solar Dryer (8) Rice Agro-Industry Center (9) Corn Sheller (handy type)	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production,	
(2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (w/prime mover) (6) Winnower (7) Warehouse with Solar Dryer (8) Rice Agro-Industry Center (9) Corn Sheller	except below (7),(8) and (10) area. Expected crops: seeds for paddy and corn Supply: one unit for more than approx. 100ha. Expected area: 1/3 of total harvesting area. Supply: one unit for every approx. 20-40ha of paddy. Remained 2/3 area should be done by means of traditional style. Supply: one unit for every approx. 20-30 t of paddy production,	

Note:

Numbers of equipment and facilities in the proposed plan should be deducted numbers of existing equipment and facilities.

Table K.1-6 Scale of Post-Harvest Facilities under Government Programs

Activity Program		**	Scale of Post-H	Scale of Post-Harvest Facilities			
	ε	(Z)				(E)	(4)
1. CARP-Baarangay Marketing Center (CARP-BMC) = (CBMC)	Solar Dryer 16xt8 m 448 m2 200 cab/day	Warehouse 8x20 m 160 m2 3,300 cav/ storage	Warehouse 8x18 m 144 m2	Details of Warehouse Office 2x6.5 m 13 m2	house CR 1.5x2 m 3 m2	Rice Mill Input = 15-20 cav/hr Output = 10 cav/hr	Weighing Scale Moisture Meter Wooden Pallets
2. Farm Level Grains Center ((FLGC 1)	Solar Dryer 16x18.m 448.m2 26tt cab/day	Warehouse 8x20 m 160 m2 3,300 cav/ storage	Warehouse 8x18 m 144 m2	Details of Warehouse Office 2x6.5 m 1	house CR 1,5% m 3 m2		Weighing Scale Moisture Meter Wooden Pallets
3. Farm Level Grains Center III (FLGC III)	Concrete Drive Way 6 m wide 27x42-15x30 684 m2	Warehouse 15x30 m 450 m2 10,000 cav/ storage	Warehouse 10x30 m 300 m2	Details of Warehouse Office Farm 5x6 m 55 30 m2 11	house Farmer's Shed 5x24 m 120 m2	Remarks: 1,800 - 2,000 m2 land required.	ired.
4. Municipal Level Grains Center (MLGC)	Solar Dryer 8x15 m 120 m2 100-150 cab/ day	Warehouse 8x14 m 112 m2 2,500 cav/ storage					: .

Table K.1-7 Proposed Scale of Post-Harvest & Agro-Industry Facilities

Facilities				Scale of Facilities	٠ ن	ı		
	(3)	4		*. *.			₩ ++	υ #
1. Multi-purpose Dryer	Solar Dryer 15x30 m 450 m2 100-150 cab/ day						Remarks: approx. 600 m2 land requird.	x. 600 m2 ird.
2. Warehouse with Solar Dryer	Solar Dryer 15x36 m 450 m2 100-150 cab/ day	Warehouse 6x16 m 96 m2 1,200 cav/ storage					Remarks; approx, 800 m2 land requird.	x. 800 m2 ird.
3. Rice Agro-Industry Center	Solar Dryer 15x30 m 450 m2 100-150 cab/ day	Warehouse 6x16 m 96 m2 1,200 cav/ storage	Warehouse 6x9 m 54 m2	Details of Warehouse Office Milli 3x4.5 m 4	house Milin Room 4x6 m 24 m2	Storage & CR 1.5x3 m 4.5 m2	Rice Mill Input = 6 cav/hr	Weighing Scale Moisture Meter Wooden Pallets
4. Com Agro-Industry Center	Solar Dryer 15x30 m 450 m2 100-150 cab/ day	Warehouse 6x16 m 96 m2 W 1,200 cav/ storage	Warehouse 6x9 m 54 m2	Details of Warehouse Office Milli 3x4.5 m 4 13.5 m2 2	house Millin Room 4x6 m 24 m2	Storage & CR 1.5x3 m 4.5 m2	Com Mill Input = 6 cab/hr Com Sheller Output = 100 kg/hr	Weighing Scale Moisture Meter Wooden Paliets

Table K.14 Proposed Post-Harvest & Agro-Industry Plan.

1. Agricultural machinery (1) Tractor (2) Hand Tractor (3) Sprayer (4) Animal Drewn Plow (5) Comb-Tooth Harrow (6) Animal Drewn Ployer (7) Multi-Purpose Dryer (1) Multi-Purpose Dryer (2) Mechanical Dryer (3) Rosport (3) Rosport (4) Ros Thresher (loot type) (5) Narchouse with solar dryer (6) Wirmower (7) Warehouse with solar dryer (8) Rice Agro-Industry Center (9) Rice Agro-Industry Center (9) Rice Agro-Industry Center (1) Warehouse with solar dryer (2) Rice Agro-Industry Center (3) Rice Agro-Industry Center (4) Rice Mat (one pass type)	Pacifices 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	-13+ причи	୍ୟ କ୍ୟ ପଶ୍ଚ ମଧି≀କ	Service (1997)	•ผพพพพ พ€	93c nonn.	,,-8-0 u§ĝ,	÷nonnn n€	ାଳୟଷଳଳ ପା⊖ି	୍∽ଶଶଶଶ ∽€	pp E	- 6
(2) Hand Tractor (3) Sprayer (4) Aprimal Drawn Plow (5) Comb-Tooth Harrow (6) Animal Drawn Stedge (7) Animal Drawn Stedge (1) Mull-Purpose Dryer (1) Mull-Purpose Dryer (2) Mechanical Dryer (3) Reapper (3) Reapper (4) Reapper (5) Ros Threather (Not type) (6) Ros Threather (Not type) (7) Warehouse with solar dryer (8) Rice Agno-Industry Center (9) Rice Agno-Industry Center (1) Warehouse with solar dryer (2) Rice Agno-Industry Center (3) Rice Agno-Industry Center (4) Rice Agno-Industry Center (5) Warehouse with solar dry	** *** *** *** *** *** *** *** *** ***	авана +€1+			ପ୍ରକଳ୍ପ କ୍ରି	93a nonn.	8-0 u⊕g.	поння п	- n m m m ∈	କ୍ଷ୍ୟର କର୍	- nn nn - E	- 6
(4) Arimal Drawn Plow (5) Comb-Troth Harrow (6) Animal Drawn Siedge (7) Animal Drawn Siedge (1) Multi-Purpose Dryer (1) Multi-Purpose Dryer (2) Mechanical Dryer (3) Rosper (4) Rosper (5) Ros Threaher (floot type) (5) Ros Threaher (wiprime mo (6) Varentouse with solar dryer (7) Werehouse with solar dryer (8) Rice Alla (one pass type) (9) Rice Ma (one pass type)	Pacifice 23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	-1 G+ NNN				man +66	ო-ი ო <u>ნ</u> ც.	nnn n∈	. m n n n n n n	• m m m €	- E	- 6:
(5) Comb-1 soon rearrow (6) Animal Drawn Siedge (1) Multi-Purpose Dryer (1) Multi-Purpose Dryer (2) Mechanical Dryer (3) Reaper (4) Rice Threather (foot type) (5) Rice Threather (wiprime me (6) Whitmower (7) Werefrouse with solar dryer (7) Werefrouse with solar dryer (8) Warefrouse with solar dryer (9) Rice Agro-Industry Center (10) Warefrouse with solar dryer (11) Rice Agro-Industry Center (2) Rice Agro-Industry Center (3) Rice Ma (one pets type)	*acirities 2 2 3 5 (2) 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	7 G + 8 N	າກ ຕິທີ,-		n n n €	NA କତିନ୍ତି	-n 488·	n n ∈	nn	n m	7 m = E	-6
2. Poet-Harvest & Agro-Industry Fr. (1) Nutl-Purpose Dryer (17) Poets and comp. (16r poets) (16r poets) (17) Reaper (19) Reaper (19) Reaper (19) Reaper (19) Presher (100t type) (19) Nutrenbouse with solar dryer (19) Nutrenbouse with solar dryer (19) Rico-Angrouse Rico-Angrouse (19) Rico-Angrouse (19	Pacifices 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	+ €	n (j) . −	• • •	ო €	ගලි ලි	୯ ତିନ୍ତି ।	n E	74€	5	- 9	- 63
(1) Nuttl-Purpose Dryer (for paddy and com) (for others) (2) Mechanical Dryer (3) Reaper (4) Rice Thresher (foot type) (5) Rice Thresher (wiprime mo (6) Wherhouse with solar dryer (7) Werehouse with solar dryer (8) Narehouse with solar dryer (9) Rice Agre-Indicaty Center Warehouse with solar dryer (9) Rice Agre-Indicaty Center (10) Rice Agre-Indicaty Center (11) Rice Agre-Indicaty Center (12) Rice Agre-Indicaty Center (13) Rice Agre-Indicaty Center (14) Rice Agre-Indicaty Center (15) Rice Agre-Indicaty Center (16) Rice Agre-Indicaty Center (17) Rice Agre-Indicaty Center (18) Rice Agre-Indicaty Center	(3) 1	+ 3 + -	n ĝ + ,−	· · · · · · · · · · · · · · · · · · ·	6 E	n ତିନ୍ତି	n (j) (j)	n E	и (- 5	- E	- 6
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Rice Mill (one pass type)	E	€	Ê	•	Ξ	•		€	•	•	ı	ı
	ε	ε	€	•	ε	•	•	E	•	•	B	•
	£	£	Ê	•	Ê	•	•	€	•	•	•	•
(9) Com Sheller (handy type)	ν ·	7	ω,	•.	ಣ	ĸ		es ·	ĸ	М.	E#	•
,		•	- \$	•	•	•	•	- §		- :		•
Con Mil	į.		36		• •	•	• •	E	• •	€€	•	, ,
Con Sheller (w/brime mover)			33	• •		• •		€£	• • •	€		
Ouelity control equipment		•	ε	•	•	1	•	E €	•	€€		•

Remarks:

-...not applicable

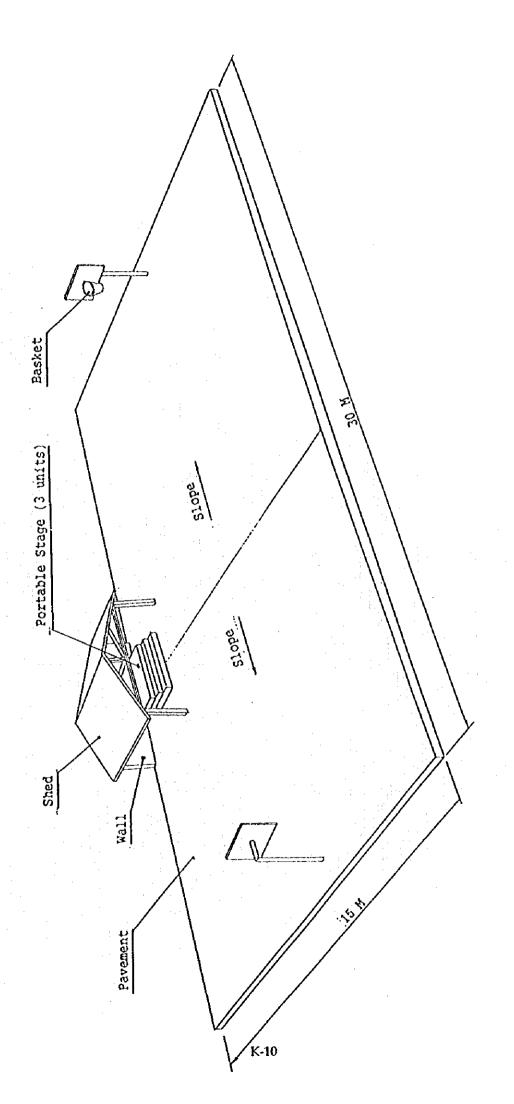


FIGURE K.1-1 GENERAL PLAN OF MULTI-PURPOSE DRYER

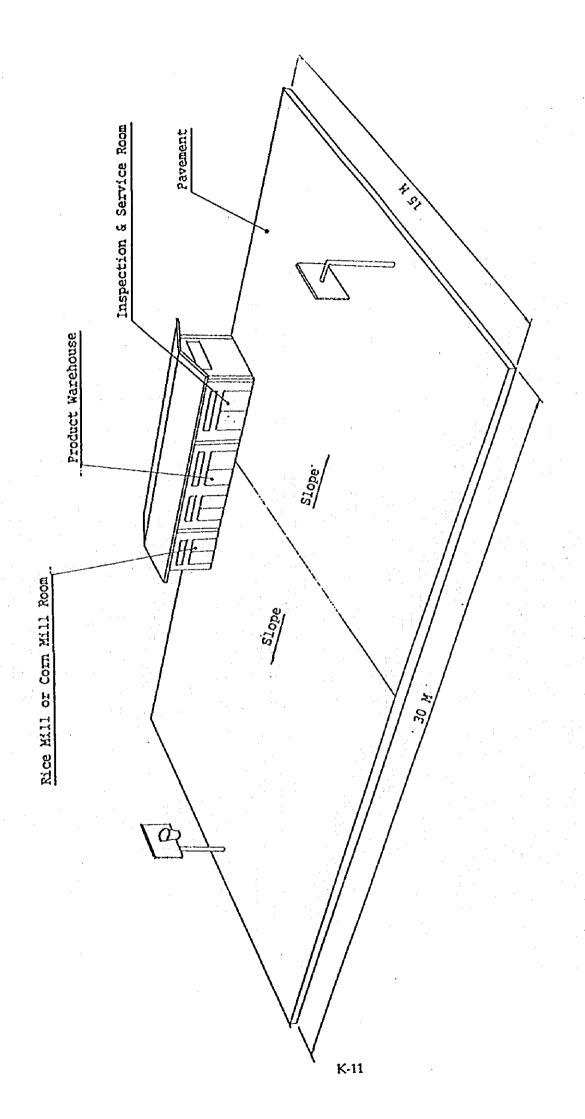


FIGURE K.1-2 GENERAL PLAN OF RICE OR CORN AGRO-INDUSTRY CENTER

Table K.2-1 Present Family Working Status

		CAR. Abra Bangúed Sappa-ac		Reg. II. Quirino Maddela Cofcaville		Reg. VIII. Leyte Hilongos Marangog		Reg. X. Bukdnon Malaybala Silae	-
		per H.H.	per person	per H.H.	per person	per H.H.	per person	per H.H.	per person
1. Own Farm	• • • • • • • • • • • • • • • • • • • •				**************				
(1) Labor Force	(person)								
a. Regular	(male)	1.26	63.00	1.26	63.00	1.20	60.00	1.18	59.00
	(lemale)	0.88	44.00		40.00	0.36	18.00	0.08	4.00
b. Temporary	(male)	0.56	28.00		4.00	0.24	12.00	0.16	8.00
	(female)	0.80	40.00	0.24	12.00	0.28	14.00	0.34	17.00
(2) Total Days of	,						•	• • • •	
Work	(man-day)	206.32	163.75	310.84	246.70	20.50	17.08	246.76	209.12
a. Regular	(male)	146.78	166.80	158.10	197.63	69.18	192.17	6.76	84.50
	(female)	37.72	67.36		129.50	15.76	65.67	9.88	61.75
b. Temporary	(male)	58.38	72.98		91.67	26.26	93.79	18.88	55.53
	(female)				- •				
	,,	٠							
2. Olher Farm									
(1) Labor Force	(person)								
a. Regular	(male)	0.24	12.00	0.04	2.00	0.32	16.00	0.08	4.00
	(female)	0.10	5.00	0.02	1.00	0.10	5.00	0.00	0.00
b. Temporary	(male)	0.18	9.00	0.08	4.00	0.34	17.00	0.08	4.00
	(female)	0.26	13.00	0.04	2.00	0.18	9.00	0.02	1.00
(2) Total Days of					•				
Work	(man-day))			•				
a. Regular*	(male)	31.66	131.92	14.60	365.00	40.18	125.56	9.84	123.00
	(female)	7.58	75.60	4.80	240.00	21.66	216.60	0.00	0.00
 b. Temporary 	(male)	10.16	56.44	9.08	113.50	25.20	74.12	10.24	128.00
* 1	(female)	14.78	56.85	2.60	65.00	17.50	97.22	0.20	10.00
				1					
3. Non-Farm Work							1 1		
(1) Labor Force	(person)		ŧ				. · · · · · · · · · · · · · · · · · · ·		
a. Regular	(male)	0.16	8.00		3.00	0.32	16.00	0.04	2.00
	(female)	0.14	7.00	0.04	2.00	0.16	8.00	0.02	1.00
b. Temporary	(male)	0.46	23.00		7.00	0.10	5.00	0.02	1.00
	(female)	0.34	17.00	0.10	5.00	0.08	4.00	0.02	1.00
(2) Total Days of									
Work	(man-day)								
a. Regular	(male)	52.58	328.63	19.90	331.67	96.28	300.88	11.80	295.00
	(female)	49.88	356.29		362.50	49.56	309.75	2.40	120.00
 b. Temporary 	(male)	49.16	106.87	17.94	128.14	25.86	258.60	0.96	48,00
	(female)	41.80	122.94	21.68	216.80	22.90	286.25	0.72	36.00

Source: Survey of This Study Team

Table K.2-2 Inventry of Post-Harvest, Agro-Industry and Others

	CAR. Abra Bangued Sappa-ac Sappa-ac	Bangued	Reg. II. Quirino Maddela Cofcaville Cofcaville		Reg. VIII. Leyte Hilongos Marangoo Marangoo		Reg. X. Bukdnon Malaybak Silae Silae	ay Malayblay
1. Post-Harvest Facilities			* * * * * * * * * * * * * * * * * * *					
(1) Rice Mill	2 (private)	-	0	14 (privale)	0	17	2 (private)	63
(2) Mechanical Dryer	0	-	0	4 (batch typ		0	0	3
(3) Solar Dryer	0	-	5 (Baranga)	111	1	-	3	111
(4) Warehouse	0	~	(Daranga)		0		2 (private)	76
(5) Tractor	0	_	0	. 7	0		0	0
(6) Hand Tractor	0	-	f (private)	-	. , -	-	1 (privale)	27
(7) Tresher	•	-	•	7	•	•	0	130
2. Agro-Processing Facilities	0	-	0	· · · -	0	0	0	(feed mill)
3. Electricity Supply	ABRECO 131H.H.	5,583H.H	QUIRELO 1 46H.H.	O 3,121H.H			BUSECO 16H.H.	
4. Business Shop (1) Sari Sari Store (2) Service (3) Retail (4) Whole Sale (5) Others	10 0 0 0	490 157 450		55 240 11	0	- -	0 5 0	365 1,033
5. Industry (1) Blacksmith (2) Handicraft (3) Others	0 0 0	•	. 1 . 1 . 0) , 0	-	1	6

Source: Survey of This Study Team

Table K.2-3 Present Transportation Status & Marketing Practice

	CAR. Abra Bangued Sappa-ac		Reg. II. Quirino Maddela Cofcaville		Reg. Vill. Leyte Hilongos Marangog		Reg. X. Bukdnon Malaybalay Silae	
1. Transportation Status	(by what)	(min)	(by what)	(min)	(by what)	(min)	(by what)	(min)
(1) to Barangay Hall	warking	5.0	warking	13.7	warking	17.3	warking	16.4
(2) to Poblacion	jeepney/ tricycle	29.6	jeepney	45.9	warking/ motorcycle	82.8	jeepney/ warking	108.1
(3) to Market	jeepney	35.5	jeepney/ tricycle/cart	54.8	carabao/ motorcycle	85.5	jeepney/ track	138.8
(4) Distance (km)								
a. to Poblacion	20.0	1.	7.0		14.0		13.0	
b. to Province Capital	•		35.0				58.0	-
2. Marketing Practice	•							
(1) Usual Destination	(per 50H.H.)		(per 50H.H.)		(per 50H.H.)		(per 50H.H.)	
a. Local Trader	12.0		50.0	+ 1	42.0		46.0	
b. Coopertives	0.0		0.0				-	
c. Consumers	4.0		0.0		: -			
d. Relatives	2.0		0.0		•		- '	
e. Export	1.0		0.0		-	•	• •	
f. NFA	0.0		0.0		-		•	
(2) Not Reseanable Price			40.0		40.0		44.0	
(3) Marketing Problem	transportatio	n :	transportatio	n	transportation	n	transportation	
							facilities	

Source: Survey of This Study Team

Table K.2-4 Willingness & Skill of Rural Industry/Handicraft (out of 50 persons)

		CAR. Abra Bangued Sappa-ac	Reg. II. Quirino Maddela Cofcaville	Reg. VIII. Leyte Hilongos Marangog	Reg. X. Bukdnon Malaybalay Silae	
	(1) Willingness (yes)	39	26	28	33 13	
Production	(no)	1	6 10	7	7	
	(2) Skill (yes)	15 20	14	27	27	
O Cabracal	(no) (1) Willingness (yes)	14	11	23	8	
Cahrcoal Production	(1) www.ingriess (yes) (no)	6	12	3	28	
	(2) Skill (yes)	8	5	16	8	
	(2) Skiii (903) (no)	7	8	8	16	
3. Firewood	(1) Willingness (yes)	23	. 8	19	22	
Production	(no)	1	11	4	15	
	(2) Skill (yes)	16	6	14	· 17	
	(no)	4	6	7	14	
4. Bamboo	(1) Willingness (yes)	19	10	17	37	
Timber	(no)	0	11	. 1	8	
Production	(2) Skill (yes)	3	4	10	25	
	(no)	10	10	7	11	
	(1) Willingness (yes)	22	6	" 15	26	
Shoot	(no)	1	11	1	14	
Production	(2) Skill (yes)	6	2	7	10 17	
	(no)	12	10 8	21	23	
	(1) Willingness (yes)	21	11	2	15	
Oil	(00)	0 9	4	. 11	11	
Extraction	(2) Skill (yes) (no)	9	10	11	17	
7. Coconut	(1) Willingness (yes)	1 Ť	8	20	15	
Charcoal	(no)	2	11	3	22	
Making	(2) Skill (yes)	8	2	16	9	
Hickory	(no)	8	11	7	16	
8. Coconut	(1) Willingness (yes)	17	9	14	16	
Lumber	(no)	2	⊞ 10	2	20	
Processing	(2) Skill (yes)	8	1	7	6	
• •	(no)	. 7	12	8	18	
9. Fish	(1) Willingness (yes)	38	38	12	28	
Culture	(no)	0	1	4	14 10	
	(2) Skill (yes)	14	9	3 13	18	
	(no)	19	18 14	15	21	
10. Handicraft	(1) Willingness (yes)	25 0	. 8		22	
Making	(no) (2) Skill (yes)	10	6	3 5	9	
•	(2) SKII (965)	11	ğ	. Š	22	
11. Sewing/	(1) Willingness (yes)	13	13	10	16	
Embroidering	(no)	ű	12	5	24	
Euthiologeima	(2) Skill (yes)	4	7	4	5	
	(no)	6	9	9	23	
12. Others	(1) Willingness (yes)		1	3	: <u>-</u>	
(Weaving)	(no)) <u>-</u>	• •	• · · · · · • · · · · · · · · · · · · ·	* *	
(Food Process)			* -		:	
V	(no)	-	1	3		

Source:

Table K2.5 Comparison of Crops & Crops Production without & with Project (1)

Case I.

Site:

Reg. CAR. Abra, Bangued, Sappa-ac

	1	Present									
Item		Without			With			Differen	ce	Remarks	•
	Area	Yield	Prodin	Area	Yield	Prod'n	Area	Yield	Prod'n	<u> </u>	
		(Vha)	(t)	(Ha)	(Vha)	(t)	(Ha)	(t/ha)	(1)		
Crops	<u> </u>		••	i	•	• •	1	•	-		
(1) Paddy, rainfed	i			l			ļ				
- wel season	88	1.20	105.6	58	3.10	179.8	-30	1.90	74.2		
- dry season	l						0	0.00	0.0	l	
Paddy, Irrigated	1			1						4	
- wet season		•		30	4.40	132.0	30	4.40	132.0		
- dry season	i	-		ļ.,	-			-			
sub-total:	88		105.6	88		311.8	0		206.2	1	
:				į .			İ		1	į.	
(2) Com						*					
- wet season	9	1.50	13.5	38	3.00	103.0	27	1.50	94.5	l	
- dry season]			İ	-			-		1	
- diver,rainfed,dry		-		23	3.00	69.0	23	3.00	69.0		
- diver,irrigated	1]	•		1				
sub-total:	9		13.5	59		177.0	50		163.5		
Sub-total:	97		119.1	147		488.8			369.7		
	"		11								
Vegelables	1		- '								
(1)Vegetables				1							
- wet season						:		_			
- wet season					-			-			
- diver irrigated dry		_		6	1.00	6.0	6	1.00	6.0		
- diver	13	1.30	16.9	Ĭ			-13	-1.30		tobacco	
(2)Beans	'*	,.00	10.0				'`				
- dry season	12	0.40	4.8	ľ	-		-12	0.40	-48	soybean	
dry season	'"		٧.٠	14	0.90	12.6		0.90		mungbean	
- wel season	ľ			14	0.90	12.6	14	0.90		peanut	
(3)Rootcrops	21	2.00	42.0	21	6.80	142.8		4.80		sweet potato	
Sub-total:	46	2.00	63.7	55		174.0	. 9		110.3		
010 (0(0).] '			"		3.					
Tree Crops	!	: .								1	
(1) Coconut			7								
- existing					_						
- supplemental planting							1	-			
(2) Banana	3	5.80	17.4	13	10.0	130.0	10	4.20	112.6	1	
(3) Mango	5	2.60			17.9	1,146		15.3	1,133		
(4) Cashew Nut		-		37	2.0	74	37	2.0	74		
(5) Cacao	•	_	•			. • •	ļ	~			
(6) Abaca								•			
(7) Coffee	}			1	•		•	•			
Sub-total:	8		30.4	114		1,350	106		1,319		
OLU WIMI.	ľ	: '	70,4	' '		.,000	1		.,010		
Forest Trees	[-		• •		4					
(1) Nurse Trees *				22		198.0	22		198	kakawate	
(2) Forest Trees (1) *				96		9,696				bagras	
(3) Forest Trees (2) *				41	- '	3,817				mahogany	
Sub-total:	0		0	159	_	13,711			13,711		
our cour.	Ιľ		Ū	١.,٠		10,111	١.٠٠		10,711	1	
otal(ex. forest trees):	151		213	316		2,012	165		1,799		
arailau, taraat magali	1 .01		2,0	1 ~					.,		

Remarks:

Source:

Table K.2-5 Comparison of Crops & Crop Production without & with Project (2)

Site:

Reg. CAR. Abra, Bangued, Sappa-ac

ltem		(Presen Without			With			Differen	ce	Remarks	
	Area	Yield	Prod'n	Area	Yield	Prodin	Area	Yield	Prod'n	 	
	(Ha)	(Vha)	(t)		(t/ha)	(t)	(Ha)	(t/ha)	(1)		
I. Crops										ļ	
(1)Paddy, rainfed	,						ļ			1	
- wet season	88	1.20	105.6	58	3.10	179.8	-30	1.90	74.2		
- dry season	i	•			-		0	0.00	0.0		
Paddy, Irrigated	l			}			•				
- wet season		-		30	4.40	132.0	30	4.40	132.0		
- dry season		•		1	-		ŀ				
sub-total:	88		105.6	88		311.8	0		206.2		
(2) Corn]							
- wet season,SALT	9	1.50	13.5	28	3.00	78.0	17	1.50	64.5	•	
- dry season				1			Ì			ì	
- diver,rainfed,dry	İ	_		23	3.00	69.0	23	3.00	69.0	1	
- diver,irrigated		-		~~							
sub-total:	9		13.5	49		147.0	40		133.5	l	
Sub-total:	97		119.1	137		458.8	40		339.7		
- Committee	"			l		.00,0	`~				
2. Vegetables	1			ļ			ļ				:
(1) Vegetables										1	
- wet season		_			_	÷		•	100		
- wet season		_	-]	÷	:	ļ]	
- diver,irrigated,dry				6	1.00	6.0	6	1.00	60	garlic	•
- diver	13	1,30	16.9	ŀ ĭ		0.0	-13	-1.30		tobacco	
(2) Beans	'`		,0.0	l ·			l '`		10.0		
- dry season	12	0.40	4.8	[•		-12	-0.40	· .48	soybean	
- dry season	'	5.45	7.0	10	0.90	9.0	10	0.90		mungoeans	
- wet season				10	0.90	9.0		0.90		peanut	
(3) Rootcrops	21	2.00	42.0	21	6.80	142.8	ő	4.80		sweet potato	
Sub-total:	46	2.00	63.7	47	5.00	168.8	1	7.00	103.1	ainoir botato	
Cap (ota).			55.1	"		.00.0	'	•	.50.1		
. Tree Crops				}			1			{	
(1) Coconut	100			·			l .	* .			
- existing				l			l .				
- supplemental planting				}		.1				}	
(2) Banana	3	5.80	17.4	13	10.0	130.0	10	4.20	112.6		
(3) Mango	5	2.60	13.0	64	17.9	1 148	59	15.3	1,133		
(4) Fruit	"	2.00	.0.0	~		1,170	``	. 10.0	,,,,,,,		
• •		-			•			<u>.</u> .			
(5) Cacao		•			-			-			
(6) Abaca (7) Coffee		-	·	}	-			-			1
Sub-total:	- 8	•	30.4	77	•	1,276	69	-	1,245		
Ouv-Wai.			30.4	l <i>''</i>	* •	1,210	Ja		1,240		
, Forest Trees						400.0				li në milinë n	
(1) Nurse Trees *		•		14	- ,	126.0	14			kakawate	1
(2) Forest Trees (1) *				92	-	9,292				bagras	
(3) Forest Trees (2) *		-		62	•	5,772	62			mahogany	
(4) Forest Trees (3) *		-	ام	7	:*	0	7			flemingla	
Sub-total:	0		O	168		15,190	168	:	15,190		
otal(ex. forest trees):	151		213	261		1,901	110	•	1,688		

Remarks:

Source:

Table K.2-5 Comparison of Crops & Crop Production without & with Project (3)

Site:

Reg. CAR. Abra, Bangued, Sappa-ac

Item		(Preser Without			With			Differer	ice	Remarks	
	Area	Yield	Prod'n	Area	Yield	Prod'n	Area	Yield	Prod'n		
		(Vha)	(1)	(113)	(Vha)	(1)	(Ha)	(Vha)	(t)		
1. Crops		` '	• • •	ľ. <i>′</i>	` •	• • •	[` ´	` .	• • •		
(1) Paddy, rainfed							i			ĺ	
- wet season	88	1.20	105.6	58	3.10	179.8	-30	1.90	74.2		
- dry season		•									
Paddy, Irrigated							ł			!	
- wet season				30	4.40	132.0	30	4.40	132.0		
- dry season		-		1	-	• • • • •	{				
sub-total.	88		105.6	88		311.8	0	•	206.2	!	
(2) Corn											
- wet season	9	1.50	13.5	9	3.00	27.0	0	1.50	13.5	1	
- dry season			_		-			-		i	
- diver rainfed dry				23	3.00	69.0	23	3.00	69.0	1	
- diver,irrigated		-						-			
sub-total:	9		13.5	32		96.0	23		82.5	•	
Sub-total:	97		119.1	120		407.8			288.7	1	
2. Vegetables		. :									
(1)Vegetables							1	.*			
- wet season					- '		1	-		1	
- wet season		•	1:		-	1	1	-			
- diver,imgated,dry	l '			6	1.00	6.0	6	1.00		garlic	
- diver	13	1.30	16.9	1.0	•		-13	-1.30	-16.9	tobacco	
(2) Beans				Į .]				::
- dry season	12	0.40	4.8	İ				•	* *:	soybean	
- wet season	1	-			. •		1			İ	
(3) Rootcrops	21	2.00		21	6.80	142.8		4.80		sweet potato	1
Sub-total:	46		63.7	27	:	148.8	-19		85,1		
3. Tree Crops]										
(1) Coconut							1		3 41		
- existing	1	. •		1	. •		•	; •	. 1		
 supplemental planting 	l .	•			•			•	- M		
(2) Banana	3	5.80		3	10.0	30.0		4.20	12.6		
(3) Mango	5	2.60	13.0	5	17.9	90	0	15.3	77		
(4) Fruit		•			-			-			
(5) Cacao				1	-			•	•		
(6) Abaca		•			-		}	-			
(7) Coffee		· •			-			• .			
Sub-total:	8		30.4	8		120	0		89		
4. Forest Trees		1							* **:		
(1) Nurse Trees *		-)	-		0			kakawate	
(2) Forest Trees (1) *	' '			1		1	0			bagras	
(3) Forest Trees (2) *		.• .		1	-		0			mahogany	
(4) Forest Trees (3) *	Ι.	-			-		0		0	flemingia	
Sub-total:	0		0	0		0	0		0		
Total(ex. forest trees):	151		213	155		676	4		463		

Remarks:

Source:

Table K.2-6 Comparison of Crops & Crop Production without & with Project (1)

Case I.

Site:

Reg. II.

Qurino, Maddela, Cofcaville

Item		(Presen Without			With	÷		Differer	ice	Remarks
	Àrea	Yield	Prod'n	Area	Yield	Prodin	Агеа	Yield	Prodn	
	(Ha)	(Vha)	(i)	(Ha)		(1)		(t∕ha)	(t)	
1. Crops	1			•						
(1) Paddy, rainfed	1			1			ł			
 wet season 	32	2.50	80.0	32	3.50	112.0	0	1.00	32.0	•
 dry season 	13	1.80	23.4	13	3.50	45.5	0	1.70	22.1	:
Paddy, irrigated	ì			l			í			1
 wet season 		-		6	4.90	29.4	6	4.90	29.4	1
- dry season		-		j 7	5.50	38.5	j 7	5.50	38,5	}
sub-total:	45		103.4	58		225.4	13		122.0	
(2) Com	I			ł		:				
- wet season	155	2.50	387.5	175	4.00	700.0	20	1.50	312.5	
- dry season	124	1.90	235.6	144	4.00	576.0	20	2.10	340.4	
 diver,rainfed,dry 	ſ	-		1	-	s.i	1	-		
 diver,irrigated 		-			-	1.1	1	. •		. :
sub-total:	279		623			1,276			653	
Sub-lotai:	324		727	377		1,501	53		775	
	1	•			*					
2. Vegetables	1		•	ľ						
(1)Vegelables			1.14							+ *
- wet season		-]	•			•		
- wet season		-		١			1	•		
- dry season	1	-			-			-		
- diver,imgated,dry	1	•		1		100				
(2) Beans-				ł	. :					1.5
- wet	- 8	0.20	1.6	19	0.90		11	0.70		nrungbeans
- dry	16	0.40	6.4	8	0.90		-8	0.50		mungbeans
- dry	1		100	8	0,90	7.2	8	0.90	7.2	
(3) Rootcrops	8	2.00	16.0	8	6.80	54.4	0	4.80		sweet potato
(4)Rootcrops,SALT	i	-		62	14.2		62	14.20		cassava
Sub-total:	32		24.0	105		966.3	73		942.3	
	ł		. !			٠. ١	}			la de la companya de la companya de la companya de la companya de la companya de la companya de la companya de
3. Tree Crops										:
(1) Coconut							l l			
- existing				1	- '		[- '		[
- supplemental planting		• • •					l	-		
(2) Banana	18	3.10	55.8	47	10.00	470.0	29	6.90	414.2	1
(3) Mango	5	0.50	2.5	54	0.17	9.2	49	-0.33	6.7	l
(4) Fruit		-		71	14.2	1,008	71	14.20	1,008	ramblan
(5) Cacao		•		i .			ľ	-		
(6) Abaca	1	-			. -			. •		
(7)Coffee	02	· -	E0 ^	470	•	4 40-	220	•	4 200	
Sub-total:	23	1	58.3	172		1,487	149		1,429	
4. Forest Trees			:	1		1.				
	1 .		;	40		171.0	40	9.00	174 0	kakawate
(1) Nurse Trees *		-		19 62	9.00	171.0 5,165	19 62	9.00		
(2) Forest Trees (1) *		-	£	14	:		14	•.		gmelina
(3) Forest Trees (2) *	0	•	_	95	•	1,304		-	6,640	mahogany
Sub-total:	"	•	. 0	93	• .*	6,640	95	-	. 0,040	
Total(ex. forest trees):	379		809	654		3,955	275		3,146	

Ŗemarks:

-...not available

Source:

*...yield unit = cu. m Survey of This Study Team

Table K.2-6 Comparison of Crops & Crop Production without & with Project (2)

Site:

Qurino, Maddeta, Cofcaville

Case II.

		(Presen									
Item		Without	!		With			Differer	ice	Remarks	5
	Area	Yield	Prodin	Area	Yield	Prodn	Area	Yield	Prodn		
	4	(t/ha)	(t)		(Vha)	(1)		(Vha)	(t)		
1. Crops	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	. ,	•	l` <i>′</i>	` '	• • •	·	• •		1	
(1) Paddy, rainfed	i						1			1	
- wel season	32	2.50	80.0	32	3.50	112.0	0	1.00	32.0	ı	
- dry season	13	1.80	23.4	13	3.50	45.5	0	1.70		I	
Paddy, irrigated											
- wel season	1	-		6	4.90	29.4	6	4.90	29.4	.1	
- dry season	1	-		7	5.50	38.5	7	5.50			
sub-total:	45		103.4	58		225.4			122,0	4	
(2) Corn											
- wet season	155	2.50	387.5	155	4.00	620.0	0	1.50	232.5		
- dry season	124	1.90	235.6			496.0		2.10			
- diver, rainfed, dry	124	-	233.0	124	- 4.00	490.0	"	2.10	200.4		
- diver,imgated	•	-			-			-			
sub-total:	279		623	279		1,116	0		493		
Sub-total:	324		727	337		1,341	13		615		
2. Vegetables											
(1) Vegetables	1				*	1.5	ŀ	٠.		ļ	
- wet season	į .	-									
- wel season	1				_					l .	
- dry season	ļ				_		•	_			1
- diver,irrigated,dry	į			İ			•				
(2) Beans				1		- 11.	•				
- wet	8	0.20	1.6					_ :		mungoeans	
- dry	16	1.10	17.6		- '					peanut	
- dry		-		22	0.90	19.8	22	0.90	19.8	mungbeans	
(3) Rootcrops	8	2.00	16.0	8	6.80	54.4	0	4.80		sweet potato	
(4) Rootcrops, SALT	1	-	17/7	62	14.2	880.4	62	14.20	880.4		
Sub-total:	32		35.2	92		954.6	84		938.6		
3. Tree Crops			• •					٠.	4.5		
(1) Coconut	1					. · i				1	
- existing	1	_				i				İ .	
- supplemental planting		_	·		<u>.</u>			-			
(2) Banana	18	3.10	55.8	47	10.00	470.0	29	6.90	414.2	1	
(3) Mango	5	0.50	2.5	''	10.00	410.0	2.3	0.50	717.2		
(4)Fruit	•	-							-	icarabian	1
(5) Cacao					_	1.0		-		rambian	
(6) Abaca		_						•			
(7) Coffee	l .	_			_			-		ľ	
Sub-total:	23	-	58.3	47		470	29		414		
4. Forest Trees		:									
(1) Nurse Trees *	1	_		2	0.00	المجو	5	0.00	A7.0	l	
(2) Forest Trees (1) *				110	9.00	27.0	3	9.00		kakawate	
(3) Forest Trees (2) *		-	÷	119	-	5,165	119	•		gmelina	
Sub-total:	0	•	0	119 241	•	1,304	119	•		mahogany	
		-	۲	441	-	6,496	241	-	6,496		
Total(ex. forest trees):	379		820	476	;	2,766	126		1,968		

Remarks:

Source:

Comparison of Crops & Crop Production without & with Project (3) Table K.2-6

Site:

Reg. II.

Qurino, Maddela, Cofcaville

		(Presen					i	.		1 _	
Item		Without			With			Differen	iC 0	Remark	\$
	Area	Yield	Prod'n	Area	Yield	Prodin	Area	Yield	Prodn		
	(Ha)	(Vha)	(1)			(t)		(Vha)	(1)	1	
, Crops	1										
(1)Paddy, rainfed	1						l				
- wet season	32	2.50	80.0	32	3.50	112.0	0	1.00	32.0	1	
- dry season	13	1.80	23.4	13	3.50	45.5	0	1.70	22,1		
Paddy, irrigated				Į.			ĺ				
- wet season	i	~		6	4.90	29.4	6	4.90	29.4	{	
- dry season				7	5.50	38.5	7	5.50	38.5	1	
sub-total:	45		103.4	58		225.4	13		122.0		
(2)Com							[.			[
- wet season	155	2.50	387.5	155	4.00	620.0	0	1.50	232.5	ł	
- dry season	124	1.90	235.6	124	4.00	496.0	o	2.10	260.4	1	
- diver, rainfed, dry	'-7	1,50	2.00.0	162.4	7.00	100.0	"	2.10	200.7	1	٠.
					-			• •	•		
- diver,imigated	270	-	600	270	•	4 446	<u>۸</u>	-	402		. :
sub-total:	279		623	279		1,116	0		493		
Sub-total:	324		727	337		1,341	13		615	1	
. Vegelablas]			-] .			j	
(1) Vegelables	}										
- wet season	1	_						_			
- wet season	ł									j	
	ſ	<u>-</u>			_					i	
- dry season		•			•		1]	
- diver,irrigated,dry							i			1	
(2) Beans		0.20	1.6	·		1. 1.	-8	-0.20	4.6	muaabaaa-	
- wet	8			١	•		l -ŏ	-0.20	-1.0	mungbeans	
- dry	16	1.10	17.6	20	. 0.00	40.0			40.0	peanut	
- dry	١ ,	`\. <u> </u>	40.0	22	0.90		22	0.90	19.8	mungbeans	
(3) Rootcrops	8	2.00	16.0	8	6.80	54.4	0	4.80		sweet polato	
(4) Rootcrops, SALT		-		62	14.2	880.4	62	14.20		cassava	
Sub-total:	32		35.2	92		954.6	76		937.0]	
T 0											
Tree Crops (1) Coconut	l .									:	
						-					
- existing	1	•			-			•			•
- supplemental planting	40	2 40	F.C.	00	10.00	990.0		6.00	474.0	•	
(2) Banana	18	3.10	55.8	23	10.00	230.0	5	6.90	174.2		
(3) Mango	5	0.50	2.5	1	-		· ·	-			
(4) Fruit					-	4 t		•		ramblan	
(5) Cacao		-			-	• ,					
(6) Abaca	}				-			•			:
(7)Coffee	1	-			- "			•	•	•	
Sub-total:	23		58.3	23	•	230	5		174		
Forest Trees	l		;							• •	
						-:			40	kahawala	
(1) Nurse Trees *		: •			•		- 0	· •		kakawate	
(2) Forest Trees (1) *	l	· •			•		0	•		gmelina	
(3) Forest Trees (2) *	_	-			-	٠,	0	-	ŭ	mahogany	
Sub-total:	0	-	0	0		0	0		0	:	
	•										

Remarks:

Source:

Table K.2-7 Comparison of Grops & Grop Production without & with Project (1)

Case I.

Site:

Reg. VIII.

Leyte, Hilongos, Marangog

item		(Presen			With			Differen	nce	Remarks
154114										7,01,21,0
	Area			Area		Prod'n	Area		Prod'n	
A	(Ha)	(Vha)	(1)	(Ha)	(t/ha)	(t)	(Ha)	(Vha)	(1)	
. Crops							1			
(1) Paddy, rainfed	1	0.50	42.0	1 42	2.40	40.0	1	9.00	200	ļ
- wet season	14	0.50	12.0 7.0		3.10 3.10	40.3 24.8	-11 -8	2.60 2.60		
- dry season] 14	0.50	7.0	l °	3.10	24.8	-0	Z.5U	17.8	
Paddy, Irrigated	Ì					10.4	٠,,	4.40	10.4]
- wet season	i	-		11	4.40	48.4	11	4.40	48.4	
- dry season	20	•	10.0	32	-	442.6	_	•	04.6	
sub-total:	38		19.0	32		113.5	-6		94.5	
(2) Com				[ĺ			Í
- wet season	1	_		29	3.00	87.0	29	3.00	87.0	
- dry season	10	0.40	4.0	25	3.00	75.0		2.60	71.0	
- dry season	26	0.50	13.0	~	5.00	10.0	-26	-0.50	-13.0	L
- intercrop	3	0.50	1.5		-	·	-20	-0.50	-1.5	
sub-total:	39	U.U (18.5		-	162.0	15	-0.00	143.5	
Sub-total:	77		37.5	88		275.5	9		238.0	
	''		57.5	~		210.0	i *		200.0	
Vegelables	1		÷							
(1) Vegetables	1			}		!	l .			1
- wel season		-			-					
- wet season	1	-			•					
- dry season diver	1	: _	- 1	11	3.20	35.2	- 11	3.20	35.2	squash
(2) Beans	1									
- dry season	9	0.50	4.5	27	0.90	24.3	18	0.40	19.8	peanuts
- SALT,wet	1	-		7	0.90	6.3	7	0.90		mungbean
(3)Rootcrops	13	2.00	26.0	11	6.80	74.8	-2	4.80		sweet potato
Sub-total:	22		30.5	56		140.6	34		110.1	1
			: **			4.				į .
Tree Crops	1		1.4							
(1) Coconut	1						:	:		
- existing	86	0.50	43.0	34	0.80	27.2		0.30		
- supplemental planting	1	•		52	2.50	130.0	52	2.50	and the second second	
(2) Banana	12	2.20	26.4	21	10.0	210.0	9	7.80	183.6	!
(3) Mango	1 .	-			•			•.		1
(4) Fruit	1	-		34	7.5	255.0	34	7.50	255.0	juckfruit
(5) Cacao	1	•			<u>.</u> :			-		
(6) Abaca	17	0.30	5.1	31	1.30	40.3	14	1.00	35.2	
Sub-total:	115		74.5	172		662.5	57	•	588.0	ļ
Forest Trees	1		*	1		.]				1
(1) Nurse Trees *	1	-		7		501.9	7	0.00	ደ ስተ ሱ	falcata
(2)Forest Trees *	1			95		2,185	95	0.00		mahogany
(3) Forest Trees *				95		7,667	95	0.00		bagalunga
(4)Forest Trees *				7		583	93	0.00		gmelina
Sub-totai:	0		0	204		10,937	204	0.00	10,937	Guienia
AD WIGH.	1 "			~~~		10,901	204		10,007	
otal(ex. forest trees):	214	1	143	314		1,079	100		936	}
	1			}						}
								-		

Remarks:

Source:

Table K.2-7 Comparison of Crops & Crop Production without & with Project (2)

Site:

Reg. VIII.

Leyte, Hilongos, Marangog

Item		(Preser Withou			With			Differen	ce	Remarks
	1	12:12	0		10-12	Des die			<u> </u>	
	Ařea (Ha)	Yleio (Vha)	(I) Prod'n	Area (Ha)	Yield (Vha)	Prod'n	(Ha)	Yield (t/ha)	Prod'n	
i. Crops	(101)	(viia)	(1)	(114)	(dita)	(1)	(ria)	(viid)	(9)	
(1) Paddy, rainfed	ļ			Ì					•	1
- wel season	24	0.50	12.0	13	3.10	40.3	-11	2.60	28.3	
- dry season	14	0.50			3.10	24.8	-6	2.60	17.8	•
Paddy, irrigated	14	0.00	7.0	"	3.10	24.0	~	2.00	17.0	
· -	1			11	4.40	48.4	11	4.40	48.4	
- wet season		•		l ''	4.40	40.4	''	4.40	40.4] .
- dry season	38	•	19.0	32	-	113.5	6	•	94.5	1
sub-total:	30		19.0	32		110.0	-0		84.0	
(2) Corn	ł								*	
* *	1			25	3.00	76.0	25	3.00	75.0	
- wet season	40	0.40	4.0	25 21	3.00	75.0 63.0		2.60	75.0 59.0	
· dry season	10 26	0.40		[~]	3.00	03.0	-26	-0.50	-13.0	
- dry	3	0.50		t	-		-26	-0.50 -0.50	-13.0 -1.5	
 intercrop sub-total: 	39	ช.ฮบ	18.5 18.5	46	-	138.0		-0.00	-1.5 119.5	
sub-total: Sub-total:	77		18.5 37.5	78		251.5	7		119.5 214.0	· ·
200-total:	1.11		31.3	10		231.3	'		219.0	ļ
? Vegetables										
(1) Vegetables			*.				i			, ,
- wet season		_	÷		_				.11	1
- wet season	l	_			-			•		1
- dry season diver	l	_		11	3.20	35.2	l 11	3.20	35.2	squash
(2)Beans	j) ' <i>'</i>	0.20		''		. 00.2	10000011
- dry season	9	0.50	4.5	23	0.90	20.7	14	0.40	18.2	peanuts
- SALT, wet				3	0.90	2.7	3	0.90		mungbean
(3) Roolcrops	13	2.00	26.0	11	6.80	74.8	2	4.80		sweet potato
Sub-lotal:	22	. 2.00	30.5	48	0.00	133.4	26		102.9	oneon perare
OLD WILL.	~~		,00.0			100.	-			,
). Tree Crops	.									1
(1) Coconut						44 1				
- existing	86	0.50	43.0	34	0.80	27.2	-52	0.30	-15.8	
- supplemental planting	. 50	•		52	2.50	130.0	52	2.50	130.0	
(2) Banana	12	2.20	26.4	21	10.0	210.0	9	7.80	183.6	
(3) Mango					-			-		
(4) Fruit		-	:	14	7.5	105.0	14	7.50	105.0	juckfruit
(5) Cacao		-					``	-		ſ · · · · · · · · · · · · · · · · · · ·
(6) Abaca	17	0.30	5.1	26	1.30	33.8	9	1.00	28.7	
Sub-total:	115	J	74.5			506.0			431.5	1
	[V.		
. Forest Trees					•					
(1) Nurse Trees *		-		- 3		215.0	3	0.00	215.0	falcata
(2) Forest Trees (1) *		-		29		2,700	29	0.00	2,700	mahogany
(3) Forest Trees (2) *	ł	·	·	29		7,667	29	0.00		bagalunga
(4)Forest Trees (3) *	Į	• •		2		583	2	0.00		gmetina
(5)Hedgerows		-		- 2		1.76	2	0.00	0	flemingia
Sub-total:	0		0	65		11,165	65		11,165	
olal(ex. forest trees):	214		143	273		891	59		748	

Remarks:

Source:

Table K.2-7 Comparison of Crops & Crop Production without & with Project (3)

Site:

Reg. VIII.

Leyte, Hilongos, Marangog

item		(Preser Without			With			Differer	nce	Remarks	
							<u></u>			TOMORY	
	Area			Area		Prod'n	Area		Prodin		
1 Croon	(ma)	(Vha)	(t)	(Ha)	(Vha)	(t)	(Ha)	(Vha)	(1)		
1. Crops											
(1) Paddy, rainfed	24	0.50	40.0	42	2 40	10.0	١.,	0.00	00.0		
- wet season	14	0.50		13	3.10	40.3	-11	2.60			
- dry season	14	0,50	7.0	8	3.10	24.8	-6	2.60	17.8	•	
Paddy, irrigated				مذا		46.4	١.,		40.4		
- wet season		-		11	4.40	48.4	11	4.40	48.4	ŀ	
- dry season	38	•	40.0	32	-	440.5	_	-			
sub-total:	36		19.0	32		113.5	-6		94.5	1	
(2) Corn	•]			j	
• wet season				22	3.00	66.0	33	2.00	ce o		
- dry season	10	0.40	4.0	18	3.00	66.0 54.0	22 8	3.00 2.60	66.0 50.0		
- dry season	26	0.40	13.0	10	3.00	54.0	-26	-0.50	-13.0		
- intercrop	3	0.50	1.5	ľ	-		3	-0.50 -0.50	-13.0 -1.5		
sub-total:	39	0.00	18.5	40	-	120.0	1	-0.00	101.5	,	
Sub-total:	77		37.5	72		233.5	-5		196.0		
Odd Iotal.	l ''		31.3	12		233.3	-3		190.0]	
2. Vegetables											
(1) Vegetables			- 1								
- wet season		:					:				
- wet season		1			-				++	,	:
- dry season, diver	ŀ		+ 1	11	3.20	35.2	11	3.20	35.2	squash	
(2) Beans	•				0.20	05.2	* *.	0.20		3408311	
- dry season	9	0.50	4.5	20	0.90	18.0	11	0.40	13.5	peanuts	
- SALT, wel	"	0.00	4.0	20	0.00	10.0	''	0.40	13.3	peanuts	
(3) Roolcrops	13	2.00	26.0	11	6.80	74.8	-2	4.80	48.8	sweet potato	
Sub-total:	22	2.00	30.5	42	0.00	128.0	20	4.00	97.5	Sweet potato	
			00.0	72		120.0	- 20		31.0		
3. Tree Crops		•				: "		400			
(1) Coconut									1		
- existing	86	0.50	43.0	34	0.80	27.2	-52	0.30	-15.8		
- supplemental planting			177.	52	2.50	130.0	52	2.50	130.0	,	
(2) Banana	12	2.20	26.4	21	10.0	210.0	9	7.80	183.6		
(3) Mango		•			-			-			
(4) Fruit								-	1 '		
(5) Cacao		-			·					ĺ	
(6) Abaca	17	0.30	5.1	26	1.30	33.8	. 9	1.00	28.7		
Sub-total:	115		74.5			401.0	18		326.5		
Court Torre										·	
Forest Trees					•				•		
(1) Nurse Trees *	** .	-			•	: 1				I	
(2) Forest Trees (1) *		- :						-		1	
(3) Forest Trees (2) *		• `.			-			• .	- 1		
(4) Forest Trees (3) *		7	l		* * •	,		-			
(5)Hedgerows	_	. •			•			÷ . ;			
Sub-total:	0		0	0		이	: 0		0		
otal(ex. forest frees):	214	1.	143	247		763	33		620	{	

Remarks:

-...not available

Source:

*...yield unit = cu.m

Table K.2-8 Comparison of Crops & Crop Production without & with Project (1)

Case I,

Site:

Reg. X.

Bukidnon, Malaybalay, Silae

		(Preser	H)							
Item		Without			With			Differer	ice	Remarks
	Area	Yield	Prodn	Area	Yield	Prodin	Area	Yield	Prodin	
		(Vha)	(1)		(Vha)	(1)	(Ha)	(Vha)	(1)	<u> </u>
1. Crops		• /	• • •	l` <i>'</i>	` ,	***	(,		• • •	
(1) Paddy, rainfed				۱			į			1
- wet season	7	1.30	9.1	.			-7	-1.30	-9.1	ľ
- dry season	3	1.20	3.6	l	_		-3	-1.20		
Paddy, irrigated	J	1.20	0.0	J			-	- ,,,20	-5.0	
- wet season	ļ			30	4.90	147.0	30	4.90	147.0	İ
	1	-		11	5.50			5.50		
- dry season	10	•	49.7		3,50			5.50		
sub-total:	10		12.7	41		207.5	31		194.8	
(2)Corn	1			1			1			1
- wel season	68	1.30	88.4	45	4.00	180.0	-23	2.70	91.6	
- dry season	65	0.50		38	4.00			3.50		
- diver, dry	4	1.80		~	00	. TT. O	-4	-1.80		
- SALT, dry	~	1.00	1.4	9	4.00	36.0	1	4.00		
	137	-	128.1	90	4.00	360.0		4.00		,
sub-total:				1					231.9	
Sub-Iolal:	147		140.8	131		567.5	-16	1	426,7]
2. Vegetablés	1					*			٠.	
(1) Vegelables	1]			1			i
· - wet season	ĺ			ĺ			1	-		
]	-							٠	
- wet season		. 760	22.5	l	•			7 60		
- dry season	3	7.50	22.5		•		-3	-7.50	-22.5	squash
(2) Beans					0.00	400			40.0	
dry season, diver	ĺ `	. •		14	0.90	12.6		0.90		mungean
- wet season, diver, SALT].	•		13	0.90	11.7		0.90		mungbeans
(3) Roolcrops, diver, SALT	1	•		13	0.90	11.7		0.90		peanut
Sub-total:	3		22.5	40		36.0	37	*****	13,5	
3. Trees		:								1.1
(1) Coconut										
									•	!
- existing	ĺ .	. •			•	[]		•	100	[
- supplemental planting					-		l .	•		· ·
(2)Banana	l	•			. •		1	•		l .
(3) Mango	l				-			0.00	00.00	and a
(4) Fruit			- No. 11	34	6.00	204.0	34	6.00	204.0	durian
(5) Cacao		. •	ļ		•		ĺ	-		[
(6) Abaca		•			. •		l	•		
(7)Coffee		-			• :			• .		1
Sub-total:	0		0.0	34	٠	204.0	34		204.0	
1. Forest Trees										
(1) Nurse Tree *				8		72.0	8		72 0	l kakawate
		: •		13		1,082	13	:		
(2) Forest Trees (1) *	·	-								gmelina
(3) Forest Trees (2) *		-		26		2,420	26	:		mahogany
(4) Forest Trees (3) *]	-		28		2,626	26			bagras
(5) Heagerows	١.	. •			-	. ,	0			flemingia
Sub-total:	0		0	73		6,200	73		6,200	
Total(ex. forest trees):	150		163	205		808	55		644	

Remarks:

Source:

Table K.2-8 Comparison of Crops & Crop Production without & with Project (2)

Site:

Reg. X.

Bukidnon, Malaybalay, Silae

		(Presen									
llem		Without	ł		With			Differer	ice	Remark	\$
	Area	Yield	Prodn	Area	Yield	Prod'n	Area	Yield	Prodn	 	·
	(Ha)		(1)		(Vha)	(1)	(Ha)	(Vha)	(t)	1	
. Crops	1	` '	.,	[` ´	. ,	• • •	, ,		• • •	1	
(1) Paddy, rainfed	ł			i			1				
- wet season	7	1.30	9.1	İ	_		-7	-1.30	-9.1	Ì	
- dry season	3	1.20	3.6		_		-3	-1.20		}	
Paddy, irrigated	1			Į.						1	
- wet season	ļ			30	4.90	147.0	30	4.90	147.0		
- dry season		-		15	5.50	60.5	11	5.50			
sub-total:	10		12.7	41		207.5			194.8		
(2) Corn							}				
- wet season	68	1.30	88.4	38	4.00	152.0	-30	2.70	63.6		
- dry season	65	0.50		38	4.00	144.0	-29	3.50			
- diver,dry	4	1.80	7.2	~	-	. (1.0	-4	-1.80			
- SALT dry	*	1.00	1 .2.	2	4.00	8.0	2	4.00	· · · · · · · · · · · · · · · · · · ·		
sub-total:	137	-	128.1	76	7.00	304.0		7.00	175.9		
Sub-total:	147		140.8	,		511.5	-30		370.7		
							ŀ			Ì	
. Vegetables	1										
(1)Vegetables	l		٠,							i	
- wet season	l	-	4.		• .					i	
- wet season		-									
- dry season	3	7.50	22.5		•		-3	-7.50	-22.5	squash	
(2) Beans											
- dry season, diver		- :		14	0.90	12.6		0.90		mungean	
- wet season, diver, SALT		•		10	0.90	9.0	10	0.90		nrungbeans	
(3) Rootcrops, diver, SALT	_	-		1	0.90	0.9	1	0.90		peanut	
Sub-total:	. 3		22.5	25		22.5	22	4.2	-0.0		
. Trees	ļ						1				
(1) Coconut	j							•			
- existing	1	•			•						
- supplemental planting	1	-			•			•			
(2) Banana	1	. •			•			-		ł .	
(3) Mango	1				6.00	40.0	م ا	- 6.00	20 A	المارية المارية	
(4) Fruit		•		8	6.00	48,0	8	6.00	48.0	ดีนก่อก	
(5) Cacao (6) Abaca]	-				1	l	-		1	
]	-			•	·			•		
(7) Coffee Sub-total:	0	•	0.0	8	•	48.0	8	-	48.0		
Oub-(Vid).	' '		Ų.U	°	•	40.0	ľ		48.0		
. Forest Trees	:										
(1)Nurse Tree *		•	• •	2		18.0	2			kakawate	
(2) Forest Trees (1) *	-	. •	÷	1		84	1			gmetina	
(3) Forest Trees (2) *		. •	1.34	38		3,538	38			mahogany	
(4) Forest Trees (3) *	1		į.	38	*	3,538	38			bagras	
(5) Heagerows		•		. 1		0.0	1		0	flemingia	
Sub-total:	0		0	79		7,178	79		7,178	}	
otal(ex. forest trees);	150	•	163	150		582	0		419	}	

Remarks:

-...not available

•...yield unit = ou.m

Source:

Table K.2-8 Comparison of Crops & Crop Production without & with Project (3)

Site:

Reg. X.

Bukidoon, Malaybalay, Silae

		(Presen	it)	·			<u> </u>			I	
Item		Without		İ	With			Differen	ice	Remark	(\$
	Area	Yield	Prodin	Area	Yield	Prod'n	Area	Yield	Prodin		
	(Ha)		(1)		(Vha)	(t)		(Vha)	(t)		
1. Crops	i` *		• • •		` `	, -	<u> </u>	` .	• • •		
(1) Paddy, rainfed	ł			}			ł			ł	
- wet season	7	1.30	9.1				-7	-1.30	-9.1	ŀ	
- dry season	3	1.20		j	-		-3	-1.20			
Paddy, imigated	`		4.5						0.0		
- wet season	l	_		30	4.90	147.0	30	4.90	147.0	ł	
- dry season		_		11	5.50			5.50	60.5		
sub-total:	10		12.7	41	0.00	207.5		0.00	194.8		
(A) A	l						1				
(2) Corn			60.4								
- wet season	68	1.30		36	4.00			2.70	55.6		
- dry season	65	0.50	-	36	4.00	144.0		3.50	111.5		
- diver,dry	4	1.80	7.2		. •		-4	-1.80	-7.2		
- SALT,dry]	•		I	•		0	0.00	0.0		
sub-total:	137		128.1	72		288.0	-65		159.9		
Sub-total:	147		140.8	113		495.5	-34		354.7		
										1 *	
2. Vegetables	1										
(1) Vegetables			100] .				:
- wet season	1	-						-	1	1 .	
- wet season	1							-		ĺ	:
- dry season	3	7.50	22.5				-3	-7.50	-22.5	squash	
(2)Beans										i	2.0
- dry season,diver		-		14	0.90	12.6	14	0.90	12.6	mungean	
- wet season diver			2	9	0.90	8.1	: 9	0.90		mungbeans	
(3) Rootcrops, diver	1	· <u>-</u>		9	0.90	8.1	9	0.90		peanut	
Sub-total:	3		22.5	32		28.8	29		6.3	}	
3. Trees	,		ļ								
]						1	•		1	
(1) Coconut	J:									J	
- existing		•						•			
- supplemental planting		4.						-			
(2) Banana		. =	1 1		-		i .	•			
(3) Mango	ļ		. '					- , .		J	:
(4) Fruit		, -			•			-			•
(5) Cacao	ļ	-			-			-	٠	•	
(6) Abaca	1	-			-			-]	
(7)Coffee	1	-	1	1	-			-		1	
Sub-total:	0		0.0	0		0.0	0		0.0		
4 Forest Trees											
	ļ									J	
(1) Nurse Tree		-			•			<u>.</u> .	. :		
(2) Forest Trees (1) *	1	-			-			-			
(3) Forest Trees (2) *		- :	•	:	•						•
(4) Forest Trees (3) *		-			-	·	İ	-			
(5) Heagerows		· · -						•			
Sub-total:	0		: 0	0		. 0	0		0		,
Total(ex. forest trees):	150		163	145	• .	524	-5		361		: : .
	L										

Remarks:

-...not available
*...yield unit = cu.m

Source:

Table K.2-9 Proposed Post-Harvest & Agro-Industry Plan

		Reg. CAR Abra Bangued Sappa-ac	Reg. II Qurino Maddela Cofcaville	Reg. VIII Leyte Hilongos Marangog	Reg. X Bukidnon Malaybalay Silae
1. Agń	cultural machinery				
(1)	Tractor	•	1	-	-
(2)	Hand Tractor	. •	2	1	1
(3)	Sprayer	6	12	5	3
(4)	Animal Drawn Plow	6 •	3	3	3
(5)	Comb-Tooth Harrow	6.	3	3	3
(6)	Animal Drawn Sledge	6 *	3	3	3
2. Post	l-Harvest & Agro-Industry Facilities				
(1)	Multi-Purpose Dryer	2	2	2	1
	(for paddy and corn)	(2)	. (2)	1 (1)	(1)
	(for others)	-	-	(1)	(0)
(2)	Mechanical Dryer	1 1	1	1	1
(3)	Reaper	. 2	2		1
(4)	Rice Thresher (foot type)	7	3	- *	- *
(5)	Rice Thresher (w/prime mover)	1	1	1	1
(6)	Winnower	7	3	•	•
.(7)	Warehouse with solar dryer	1	2	1	·· 1
(8)	Rice Agro-Industry Center	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	•	
	Warehouse with solar dryer	(1)	(1)	- 1	•
	Rice Mill (one pass type)	(0)	(1)		
	Quality control equipment	(1)	(1)		•
(9)	Corn Sheller (manual type)	5	6	2	
(10)	Corn Agro-Industry Center	•	1	· ·	1
	Warehouse with solar dryer	_	(1)	•	(1)
	Corn Mill	•	(1)		(1)
	Corn Sheller (w/prime mover)		(1)		(1)
	Quality control equipment	:	(1)		(1)

Remarks:

^{- ...}not applicable

^{(1) ...} included in above item.

^{*...}revised plan compared with M/P depending on site conditions

Table K.2-10 Estimated Price for Post-Harvest & Agro-Industry Facilities (1)

	ı	Specification	Unit Price (as of 1993	as of	Estimated Unit Price	Remarks
			1993	Dec 1996	(P)	
Agricultural Macl	hiner y					
(1)Tractor				1,433,300	1,433,500	
	Tractor	Diesel 50Hp		(1,177,000)		
	Disc Harrow	•		(155,000)		
	Disc Plow			(85,500)		
	Trailer			(15,800)		
(2) Hand Tract				34,300	34,500	
(Z) France Hace	Tractor	Medium, 1.0-1.5 ha/day		(16,500)	04,000	
	Tractor			(10,000)		
		Required: 11Hp		(+ 000)	•	
		with Moldboad plow		(1,800)		
		Comb-tooth harrow			:	
		Rubber tire		(3,000)		
		Trailer		(13,000)		
		Steel cage wheel				
		Engine and driving accessories				
(3) Sprayer		Knapsack, Plastic, 16 litre	•	2,850	3,000	
		Manual				
(4) Animal Ora	wn Plow	Steel made		1,200	1,500	
		L2100xW180xL850				
(5) Comb-Toot	h Harrow	Steel made		1,000	1,000	
		L1400xW280xH1000				
(6) Animal Dra	wn Sledoa	Bamboo made		300	500	
(0)// 41111101 010		L2500xW1000xH1000				
		CLOOMITIOUS			-	
	•		:		1 .	
Dest Haggest 8	Agro-Industry Facilities					
				300.000	395,500	
(1) Multi-Purpo	A CONTRACTOR OF THE PROPERTY O	45.00 450-0		395,500	393,300	
	Solar Dryer	15x30m, 450 m2		(342,000)		
		100-150 cav/day drying				
	Storage shed	3x5m, 15 m2		(43,500)		
•	Basket Pole	4 cot 12 calcel upod made		(10,000)		
		1 set, (2 poles), wood made				
(2) Mechanical	Dryer	r set, (2 poles), wood made		106,000	106,000	
(2) Mechanical	Dryer Oryer	Fait bed type		106,000	106,000	
(2) Mechanical		Fait bed type		106,000	106,000	
(2) Mechanical		Falt bed type Required 8Hp gasoline or		106,000	106,000	
		Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch				
(2) Mechanical		Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made		106,000 90,000	106,000 90,000	
		Falt bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steel made with gasoline engine				
(3)Reaper	Oryer	Falt bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900	1600	90,000	90,000	
	Oryer	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steel made with gasoline engine L2180xW170xL900 Steel and wood, 250 kg/hr	1,600			
(3)Reaper	Oryer her (foot type)	Falt bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900	1,600	90,000 1,867	90,000 2,000	
(3)Reaper	Oryer her (foot type)	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steel made with gasoline engine L2180xW170xL900 Steel and wood, 250 kg/hr L860xW750xH810	1,600	90,000 1,867 48,500	90,000	
(3)Reaper	Oryer her (foot type)	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp	1,600	90,000 1,867	90,000 2,000	
(3)Reaper	Oryer her (foot type)	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr	1,600	90,000 1,867 48,500	90,000 2,000	
(3)Reaper	Oryer her (foot type)	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp	1,600	90,000 1,867 48,500	90,000 2,000	
(3)Reaper	Oryer her (foot type)	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr		90,000 1,867 48,500	90,000 2,000 48,500	
(3)Reaper	Oryer her (foot type) her Thresher	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 t/hr L1800xW1500xH1700	1,600 1,500	90,000 1,867 48,500 (35,000)	90,000 2,000	
(3)Reaper (4)Rice Thresh (5)Rice Thresh	Oryer her (foot type) her Thresher	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr L1800xW1500xH1700 Diesel, 12HP		90,000 1,867 48,500 (35,000)	90,000 2,000 48,500	
(3)Reaper (4)Rice Thresh (5)Rice Thresh	Oryer her (foot type) her Thresher	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axiat flow, Required 7Hp 1.0 - 1.2 Vhr L1800xW1500xH1700 Diesel, 12HP Steet and wood Manual		90,000 1,867 48,500 (35,000)	90,000 2,000 48,500	
(3)Reaper (4)Rice Threst (5)Rice Threst (6)Winnower	Oryer her (foot type) her Thresher Engine	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr L1800xW1500xH1700 Diesel, 12HP Steet and wood		90,000 1,867 48,500 (35,000)	90,000 2,000 48,500 2,000	
(3)Reaper (4)Rice Threst (5)Rice Threst (6)Winnower	Oryer her (foot type) her Thresher Engine	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr L1800xW1500xH1700 Diesel, 12HP Steet and wood Manual L630xW430xH1220		90,000 1,867 48,500 (35,000) (13,500)	90,000 2,000 48,500	
(3)Reaper (4)Rice Threst (5)Rice Threst (6)Winnower	Oryer her (foot type) her Thresher Engine	Fait bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr L1800xW1500xH1700 Diesel, 12HP Steet and wood Manual L630xW430xH1220 6x16m, 96 m2		90,000 1,867 48,500 (35,000)	90,000 2,000 48,500 2,000	
(3)Reaper (4)Rice Threst (5) Rice Threst (6)Winnower	Oryer ther (foot type) ther Thresher Engine with Solar Drer Warehouse	Failt bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr L1800xW1500xH1700 Diesel, 12HP Steet and wood Manual L630xW430xH1220 6x16m, 96 m2 1,200 cay/storage		90,000 1,867 48,500 (35,000) (13,500) 659,000 (307,000)	90,000 2,000 48,500 2,000	
(3)Reaper (4)Rice Thresh (5)Rice Thresh (6)Winnower	Oryer her (foot type) her Thresher Engine	Failt bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steel made with gasoline engine L2180xW170xL900 Steel and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr L1800xW1500xH1700 Diesel, 12HP Steel and wood Manual L630xW430xH1220 6x16m, 96 m2 1,200 cay/storage 15x30 m, 450 m2		90,000 1,867 48,500 (35,000) (13,500)	90,000 2,000 48,500 2,000	
(3)Reaper (4)Rice Threst (5)Rice Threst (6)Winnower	Oryer ther (foot type) ther Thresher Engine with Solar Drer Warehouse	Failt bed type Required 8Hp gasoline or 3Hp motor, one ton/batch Steet made with gasoline engine L2180xW170xL900 Steet and wood, 250 kg/hr L860xW750xH810 Axial flow, Required 7Hp 1.0 - 1.2 Vhr L1800xW1500xH1700 Diesel, 12HP Steet and wood Manual L630xW430xH1220 6x16m, 96 m2 1,200 cay/storage		90,000 1,867 48,500 (35,000) (13,500) 659,000 (307,000)	90,000 2,000 48,500 2,000	

Table K.2-10 Estimated Price for Post-Harvest & Agro Industry Facilities (2)

Description		Specification	Unit Price	(P)	Estimated	
			as of	as of	Unit Price	Remarks
			1993	Dec. 1996	(P)	
(8) Rice Agro-In	dustry Center			825,000	864,000	
	Warehouse	6x16m, 96 m2		(307,000)	•	
		1,200 cav/storage				
	Solar Dryer	15x30 m, 450 m2		(342,000)		
	•	100-150 cay/day drying		(0.01000)		
	Basket Pote	1 set, (2 poles), wood made		(10,000)		
	Rice Mill	v dai, (z paiso), nijed nisad		{145,000}		
	Mill	Input 6 cav/hr		((77,000))		
	79141	Required 10Hp motor or engine 15Hp		((11,000))		
	Engine	Diesel, 19Hp		((68,000))		
	Weighing Scale	100kg, 0.5kg accuracy		12,500	(incl. above)	
	Moisture Meter	resistance, for paddy		25,000	(incl. above)	
	INDICATE INCIDE	Range: 11 - 35%		20,000	(iii). atove)	
	Crack Inspector	W80xD90xH19		4 000	final obsumb	
	Crack inspector			1,000	(incl. above)	
	Maadan Dallala	grass (see through) type		(04.000)		
	Wooden Patiets	30 pallets/set		(21,000)		
(9) Corn Sheller	(handy type)	Manual, 100 - 150kg/hr	-	12,500	12,500	
(0)Corn Agro-Ir	ndustry Center			840,000	: 890,000	
	Warehouse	6x16m, 96 m2		(307,000)	. 050,000	
		1,200 cav/storage		(00),000)		
•	Solar Dryer	15x30 m, 450 m2		(242,000)	:	
	· ·	100-150 cav/day drying		(342,000)		
	Baskel Pole		•	(40,000)		
	and the second s	1 set, (2 poles), wood made		(10,000)		
	Corn Mill			(160,000)		
() () () () ()	Mill	Hammer type		((75,000))	· · · · .	
		Capacity: 0.3-0.4 t/hr				
1.		Required 18Hp				
	Engine	Diesel 18HP		((85,000)		
	Corn Sheller			(44,000)		*
	Sheller	Double feeder		((15,000))		
•		Capacity: 1.0 - 1.2 Vhr				
		L1140xW110xH1240		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
	· · · · · · · · · · · · · · · · · · ·	Required 5Hp				
	Engine	Diesel 5HP		((29,000))		
	Weighing Scale	100kg, 0.5kg accuracy		12,500	(incl. above)	
	Moisture Meter	Capacitance, for corn and paddy		37,500	(incl. above)	
		Corn range: 6 - 30%				•
	Wooden Pallets	• • • • • • • • • • • • • • • • • • • •				

Source:

⁽¹⁾ Agricultural Mechanization Development Program
College of Engineering and Agro-Industrial Technology
University of the Philippines, Los Banos (UPLB)

⁽²⁾ Agricultural Machinery Manufacturers and Distributors Association Foundation, Inc.

⁽³⁾ Survey of This Study Team

Table K.2-11 Durable Year & O/M Cost of Post-Harvest and Agro-Industry Facilities

Description		Estimated	Durable	0 8 M		Operation
		Unit Price (P)	Year (year)	maint. (P/year)	worn part (P/year)	Nr of mer (person)
. Agricultural Machi	nerv					B=====================================
(1) Tractor	,					
(1)	Tractor	1,177,000	10	35,310	i i	
	Disc Harrow	155,000	7	4,650		
	Disc Plow	85,500	7	2,565		
	Trailer	15,800	7	474		
Sub-total:		1,433,300		42,999		
(2) Hand Tracto	ę.	34,300	7	1,029	-	
(3) Sprayer		2,900	5	87		
(4) Animal Drav	m Płow	1,200	5	36	-	
(5) Comb-Tooth	Harrow	1,000	5	30	-	
(6) Animal Drav	m Stedge	500	5	15	-	
	gro-Industry Facilities			. :		
(1) Multi-Purpos		395,500	30	-	-	
(2) Mechanical	Dryer	106,000	7.	3,180	-	
(3) Reaper	•	90,000	5	2,700	•	
(4) Rice Thresh		1,900	5	57		
(5) Rice Thresh						
	Thresher	35,000	, 5	1,050		
	Engine	13,500	7	405	<u> </u>	
Sub-total:		48,500				
(6) Winnower		2,000	7	60		
(7) Warehouse		659,000	30	i -	• •	
(8) Rice Agro-In	dustry Center	(863,000)	1, 1			
	Warehouse	659,000	30			
	Rice Mill	(145,000)	1			
	Mill *	77,000	10	2,310	2,310	
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Engine	68,000	7	2,040	-	
	Weighing Scale	12,500	7	· · -	•	
	Moisture Meter	25,000	5		•	•
	Crack Inspector	1,000	10	•	· -	
	Wooden Pallets	21,000	5	· · · · · · · · ·		
Sub-total:		863,500		4,350	2,310	
(9) Corn Sheller	(handy type)	12,500	7	375	-	
(10) Com Agro-Ir	dustry Center	(934,000)			•	
	Warehouse	659,000	30		•	
	Com Mill	(160,000)				
	Mile*	75,000	7	2,250	2,250	
	Engine	85,000	. 7	2,550	· -	
	Com Sheller	(44,000)				
	Sheller	15,000	5	450	•	
	Engine	29,000	7	870	· · · •	:
•	Weighing Scale	12,500	7		:. -	
	Moisture Meter	37,500	. 5	-	· · · · · · · · · · · · · · · · · · ·	
	Wooden Pallels	21,000	5	•	a talah	
Sub-total:	•	934,000		6,120	2,250	

Table K.2-12 Investment & O/M Cost of Post-Harvest and Agro-Industry Facilities (1)

	Estimated	Nr of		ı	nvestment Co	ost		O & M Cos
Oescription	UnitPrice			5-year	7-year	10-year	30-year	(P'000/
	(P'000)	ment		(P'000)	(P'000)	(P'000)	(P'000)	year)
Agricultural Machinery			_					
(1) Tractor '	1,177.0		0	-		0.0	-	0.0
Disc Harrow	155.0		0	-	0.0	-	-	0.0
Disc Plow	85.5		0	-	0.0	-	-	0.
Trailer	15.8		0	-	0.0	-	-	0.0
Sub-total:	1,433.3							
(2) Hand Tractor	34.3		0	-	0.0	-	-	0.
(3) Sprayer	2.9		6	17.4	-	-	•	0.
(4) Animal Drawn Plow	1.2		6	7.2	-			0.
(5) Comb-Tooth Harrow	1.0		6	6.0	-	-	-	0.
(6) Animal Drawn Sledge	0.5		6	3.0	-	-	-	0.
Post-Harvest & Agro-Industry Facilities					•			
(1) Multi-Purpose Dryer	395.5		2	•	-	-	791.0	
(2) Mechanical Dryer	106.0		1		0.0	-		3.
(3) Reaper	90.0		2	180.0		_	-	5.
(4) Rice Thresher (foot type)	1.9		7	13.3		-	-	0
(5) Rice Thresher	35.0		1	35.0	-	-		1
Engine	13.5		1	-	13.5	_	_	0
Sub-total:	48.5		•		10.0			·
(6) Winnower	2.0		7		14.0	<u> </u>		. 0
` '	659.0		1	_	14.0		659.0	V.
(7) Warehouse	039.0		,	-	•		033.0	
(8) Rice Agro-Industry Center	660.0	45	1				659.0	
Warehouse	659.0 77.0		Ó	•		0.0	039.0	0.
Rice Mill			0	- · · · -	0.0	0.0	-	0.
Engine	68.0		_	- · · · -	and the second second	-	-	V
Weighing Scale	12.5	2.0	1	05.0	12.5	-		
Moisture Meter	25.0		1	25.0		4.0	-	
Crack Inspector	1.0		1	-	-	1.0		
Wooden Pallets	21.0		1	21.0		-	-	J. G
Sub-total:	863.5	4 -	_					
(9) Corn Sheller (handy type)	12.5		5	. · · · · · · · · · · · · · ·	62.5		-	1
(10) Corn Agra-Industry Center			_					
Warehouse	659.0		0	•	-		0.0	0
Corn Mill	75.0		0		0.0	-		0
Engine	85.0		0	_	0.0	•	-	0
Corn Sheller	15.0		0	0.0		•	-	0
Engine	29.0		0	-	0.0	-		0
Weighing Scale	12.5		0		0.0	-	-	
Moisture Meter	37.5	7.	0	0.0	-	-	-	
Wooden Pallets	21.0		0	0.0	-	-	-	
Sub-total:	934.0			<u> </u>				
Total:				307.9	102.5	1.0	2,109.0	13
First Investment Cost:							2,520.4	
Yearly sub-total:	100	-		61.6	14.6	0.1	70.3	

Table K.2-12 Investment & O/M Cost of Post-Harvest and Agro-Industry Facilities (2)

Pool Pool	F-1	stimated	MIGI		Į.	Investment Co)\$ {		OAMC
Agricultural Machinery	U	InitPrice	Equip		5-year	7-year	10-year	30-year	(P'000
(1) Tractor		(P'000)	ment		(P'000)	(P'000)	(P'000)	(P'000)	year)
Disc Harrow 155.0			•						
Disc Plow 85.5 1					. •	-	0.0	-	3
Trailer	W				-			-	
Sub-total:					-			-	
(2) Hand Tractor				1	~	0.0	-	-	
(3) Sprayer 2.9 12 34.8 (1,433.3							
(4) Animal Drawn Plow (5) Cornb-Tooth Harrow (6) Animal Drawn Sledge (6) Animal Drawn Sledge (7) Multi-Purpose Dryer (8) Agro-Industry Facilities (1) Multi-Purpose Dryer (8) Reaper (9) Mechanical Dryer (10) Corn Agro-Industry Facilities (1) Multi-Purpose Dryer (10) Corn Agro-Industry Facilities (1) Multi-Purpose Dryer (10) Corn Sheller (10) Corn Sheller (10) Corn Steller (11) Multi-Purpose Dryer (12) Mechanical Dryer (13) Sp. 5		34.3		2	~	68.6	-	•	
(5) Cornb-Tooth Harrow (6) Animal Drawn Sledge (7) Multi-Purpose Dryer (8) Reper (9) Mechanical Dryer (10) Motis-Purpose Dryer (11) Multi-Purpose Dryer (12) Mechanical Dryer (13) Reaper (14) Rice Thresher (foot type) (15) Rice Thresher (16) Winnower (17) Warehouse (18) Rice Agro-Industry Center (19) Warehouse (19) Weighing Scale (19) Weighing Scale (19) Corn Sheller (handy type) (10) Corn Sheller (handy type) (10) Corn Sheller (10) Corn Sheller (10) Corn Sheller (10) Corn Sheller (10) Corn Sheller (10) Corn Steller (10) Corn Sheller (10) Corn Steller (10) Corn She		2.9		12	34.8	-		-	
(6) Animal Drawn Sledge		1.2		3	3.6	-	-	-	
		1.0		3	3.0	•	÷	-	
(1) Multi-Purpose Dryer		0.5		3 -	1.5	·		-	÷
(2) Mechanical Dryer	Facilities								
(2) Mechanical Dryer		395.5		2	-	-	, <u>-</u>	791.0	•
(3) Reaper 90.0 2 180.0 (4) Rice Thresher (foot type) 1.9 3 5.7 (5) Rice Thresher 35.0 1 35.0 (5) Rice Thresher 35.0 1 35.0 (7) Rice Thresher 35.0 1 35.0 - (7) Rice Thresher 35.0 1 35.0 - (7) Rice Mill 48.5 (6) Winnower 2.0 3 - 6.0 - (7) Warehouse 659.0 2 1, (8) Rice Agro-Industry Center Warehouse 659.0 1 (77.0 Engine 68.0 1 - 68.0 - (77.0 Rice Mill 77.0 1 - 77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 Rice Mill 77.0 1 - (77.0 Rice Mill 77.0 Rice M		106.0			-	0.0	-		
(4) Rice Thresher (foot type) (5) Rice Thresher Engine Engine 13.5 Sub-total: 48.5 (6) Winnower 2.0 3.5 (7) Warehouse 659.0 2.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 1.5 Rice Mill 77.0 Rice Mill	* *	90.0		2	180.0	-	-	_	
(5) Rice Thresher	1	1.9			5.7	_	• -	-	
Sub-total: 48.5 13.5 13.5 13.5	•	35.0		i	35.0	-	· .	· ·	
Sub-total: 48.5						13.5	-	· _	
(6) Winnower 2.0 3 6.0 (7) Warehouse 659.0 2 - 1, (8) Rice Agro-Industry Center Warehouse 659.0 1 - 7, (8) Rice Mill 77.0 1 - 77.0 Engine 68.0 1 - 68.0 - Weighing Scale 12.5 1 - 12.5 - Moisture Meter 25.0 1 25.0 - 1.0 Wooden Pallets 21.0 1 21.0 - 1.0 Wooden Pallets 21.0 1 21.0 - 5.0 (10) Corn Agro-Industry Center Warehouse 659.0 1 - 75.0 (10) Corn Agro-Industry Center Warehouse 659.0 1 - 75.0 - 6.0 (10) Corn Sheller (15.0 1 15.0 - 15.0 (15.0 1 15.0 - 15.0 (15.0 1 15.0 1 15.0 - 15.0 (15.0 1 15.0 1 15.0 1 15.0 (15.0 1 15.0 1 15.0 (15.0 1 15.0 1 15.0 (15.0 1 15.0 1 15.0 (15.0 1 15.0 1 15.0 (15.0 1 15.0 (15.0 1 15.0 (15.0 1 15.0 (15.0 1 15.0 (15.0 (15.0 1 15.0 (15.0				-					
(7) Warehouse 659.0 2 1, (8) Rice Agro-Industry Center Warehouse 659.0 1 77.0 Rice Mill 77.0 1 - 77.0 Engine 68.0 1 - 68.0 - 12.5 Welghing Scale 12.5 1 - 12.5 - 1.0 Wooden Pallets 21.0 1 21.0 - 1.0 Sub-total: 863.5 (9) Corn Sheller (handy type) 12.5 6 - 75.0 Corn Milt 75.0 1 - 75.0 Engine 85.0 1 - 75.0 Engine 85.0 1 - 85.0 - 1.0 Engine 85.0 1 - 85.0 - 1.0 Welghing Scale 12.5 1 - 12.5 - 1.0 Welghing Scale 12.5 1 - 12.5 - 1.0 Welghing Scale 12.5 1 - 12.5 - 1.0 Welghing Scale 12.5 1 - 12.5 - 1.0 Wooden Pallets 21.0 1 21.0 1.0 Sub-total: 934.0				3		6.0	· •	_	
(8) Rice Agro-Industry Center Warehouse 659.0 1 77.0 Rice Mill 77.0 1 - 77.0 Engine 68.0 1 - 68.0 - 77.0 Welghing Scale 12.5 1 - 12.5 - 7.0 Moisture Meter 25.0 1 25.0 1.0 Wooden Patters 21.0 1 21.0 - 1.0 Wooden Patters 21.0 1 21.0 1.0 Sub-total: 863.5 (9) Corn Shelter (handy type) 12.5 6 - 75.0 - 75.0 (10) Corn Agro-Industry Center Warehouse 659.0 1 - 75.0 - 75.0 Engine 85.0 1 - 85.0 - 75.0 Corn Shelter 15.0 1 15.0 75.0 Engine 29.0 1 - 29.0 - 75.0 Welghing Scale 12.5 1 - 12.5 - 75.0 Moisture Meter 37.5 1 37.5 - 75.0 Wooden Patters 21.0 1 21.0 - 75.0 Sub-total: 934.0			:					1,318.0	
Warehouse Rice Mill 77.0 1 - - - - - -	er	0.0.0		_		•		, -,	
Rice Mill 77.0		659.0		5		-		659.0	_
Engine 68.0				•	_	· _	- 77.0	_	
Weighing Scale 12.5 1	Engine			1		68.0	- 111 <u>-</u>	·	
Moisture Meter 25.0 1 25.0 Crack Inspector 1.0 1 1.0 Wooden Patiets 21.0 1 21.0 Sub-total: 863.5 (9) Corn Sheller (handy type) 12.5 6 - 75.0				i			_	_	
Crack Inspector 1.0 1 - - 1.0 Wooden Pattets 21.0 1 21.0 - - Sub-total: 863.5 - - - - (9) Corn Shelter (handy type) 12.5 6 - 75.0 - (10) Corn Agro-Industry Center -				•	25.0	-		<u>.</u>	
Wooden Patiets 21.0 1 21.0			*:	•			1.0	_	_
Sub-total: 863.5 (9) Corn Sheller (handy type) 12.5 6 - 75.0 - (10) Corn Agro-Industry Center Warehouse 659.0 1 - 75.0 - Corn Milt 75.0 1 - 75.0 - Engine 85.0 1 - 85.0 - Com Sheller 15.0 1 15.0 Engine 29.0 1 - 29.0 - Welghing Scale 12.5 1 - 12.5 - Moisture Meter 37.5 1 37.5 Wooden Pallets 21.0 1 21.0 Sub-total: 934.0	· ·			•	21.0	ā		_	·. ·
(9) Corn Shelter (handy type) 12.5 6 - 75.0 - (10) Corn Agro-Industry Center Warehouse 659.0 1	ancta			•	E1.9				-
(10) Corn Agro-Industry Center Warehouse 659.0 1	. '			£		75.0			
Warehouse 659.0 1 Corn Milt 75.0 1 - 75.0 Engine 85.0 1 - 85.0 - Com Shelfer 15.0 1 15.0 - - Engine 29.0 1 - 29.0 - Welghing Scale 12.5 1 - 12.5 - Moisture Meter 37.5 1 37.5 - - Wooden Pallets 21.0 1 21.0 - - Sub-total: 934.0 383.1 445.1 78.0 3,	ler In	12.5	•	•	_	10.0			
Corn Milt 75.0 1 - 75.0 - 85.0 - 85.0 1 - 85.0 - 85.0 1 - 85.0 - 85.0 1 - 85.0 - 85.0 1 - 85.		659 D		4	· _	· _		659.0	_
Engine 85.0 1 - 85.0 - Com Shelfer 15.0 1 15.0 Engine 29.0 1 - 29.0 - Welghing Scale 12.5 1 - 12.5 - Moisture Meter 37.5 1 37.5 Wooden Pallets 21.0 1 21.0 Sub-total: 934.0 Total: 383.1 445.1 78.0 3,				-	. -	75.0		. 000.0	
Com Shelfer 15.0 1 15.0	Engine			•	. -				
Engine 29.0 1 - 29.0 - Welghing Scale 12.5 1 - 12.5 - Moisture Meter 37.5 1 37.5 Wooden Pallets 21.0 1 21.0 Sub-total: 934.0 Total: 383.1 445.1 78.0 3,	•			•	15.0	-	· -	-	
Weighing Scale 12.5 1 - 12.5 -				•	10.0	- 20 0			
Mosture Meter 37.5 1 37.5	_			-					
Wooden Pallets 21.0 1 21.0 - Sub-total: 934.0 Total: 383.1 445.1 78.0 78.0 3,				•	27 5	12.0	· •		-
Sub-total: 934.0 Total: 383.1 445.1 78.0 3,						•	•	•	
Total: 383.1 445.1 78.0 3,	ancis			•	21.0	•	•	•	•
		337.0			383 1	445 1	78.0	3,427.0	7
							7.0	4,333.2	•
	* *				76.6	63.6	7.8	114.2	
transfer the second of the sec						04.0	1.0	336.2	

Table K.2-12 Investment & O/M Cost of Post-Harvest and Agro-Industry Facilities (3)

	Estimated	Nr of	į	nvestment Co			O & M Co
Description	UnitPrice	Equip	5-year	7-year	10-year	30-year	(P'000/
	(P'000)	ment	(P'000)	(P'000)	(P'000)	(P'000)	year)
Agricultural Machinery							
(1) Tractor	1,177.0	0	-	-	0.0	-	0
Disc Harrow	155.0	0	-	0.0	-	-	0
Disc Plow	85.5	0	-	0.0	-		9
Trailer	15.8	0	-	0.0	•	-	(
Sub-total:	1,433.3						
(2) Hand Tractor	34.3	1	-	34.3	-	-	1
(3) Sprayer	2.9	5	14.5	-	•	-	(
(4) Animal Drawn Piow	1.2	3	3.6	-	-	-	(
(5) Comb-Tooth Harrow	1.0	3	3.0	-	-	-	(
(6) Animal Drawn Stedge	0.5	3	1.5	•	-	•	. (
Post-Harvest & Agro-Industry Facilities							
(1) Multi-Purpose Oryer	395.5	2	-	-	-	791.0	-
(2) Mechanical Dryer	106.0	1	-	0.0		•	;
(3) Reaper	90.0	0	0.0	-	-	-	
(4) Rice Thresher (foot type)	1.9	0	0.0	-	_	-	
(5) Rice Thresher	35.0	. 1	35.0	-	-	-	
Engine	13.5	1	-	13.5	-	-	•
Sub-total:	48.5						
(6) Winnower	2.0	0	_	0.0	_	-	
(7) Warehouse	659.0	1	-	-	-	659.0	•
(8) Rice Agro-Industry Center			•				
Warehouse	659.0	0	.=	-		0.0	
Rice Mill	77.0	0	-		0.0	-	
Engine	68.0	. 0		0.0		-	
Weighing Scale	12.5	0		0.0	-	•	-
Moisture Meter	25.0	0	0.0	· - ;	-	-	-
Crack Inspector	1.0	0			0.0	-	
Wooden Pallets	21.0	. 0	0.0		_	•	•
Sub-total:	863.5		100			1	
(9) Corn Sheller (handy type)	12.5	2	-	25.0	•		. 1
(10) Com Agro-Industry Center						200	
Warehouse	659.0			-	-	0.0	-
Corn Mill	75.0	0	•	0.0	· .		•
Engine	85.0		-	0.0	· ·	-	4
Corn Sheller	15.0	0	0.0	: -		-	
Engine	29.0		•	0.0	: -	: · · · · · ·	
Weighing Scale	12.5			0.0	-	-	•
Moisture Meter	37.5		0.0	•	-	· ·	•
Wooden Pallets	21.0		0.0	-	-	•	-
Sub-total:	934.0			70.5		4.450.0	
fotal:			57.6	72.8	0.0	1,450.0	·
First Investment Cost:			11.5	10.4	0.0	1,580.4 48.3	
Yearly sub total:							

Table K.2-12 Investment & O/M Cost of Post-Harvest and Agro-Industry Facilities (4)

Reg. X. Bukidnon, Malaybalay, Silae O & M Cost Estimated Nr of Investment Cost UnitPrice Equip 5-year 7-year 10-year 30-year (P'000/ Description (P'000) (P'000) (P'000) (P'000) (P'000) year) ment I. Agricultural Machinery 1,177.0 0 0.0 0.0 (1) Tractor Disc Harrow 155.0 0 0.0 0.0 85.5 0.0 Disc Plow ۵ 0.0 Traffer 15.8 0 0.0 0.0 Sub-total: 1,433.3 (2) Hand Tractor 34.3 34.3 1.0 8.7 (3) Sprayer 2.9 3 0.3 (4) Animal Drawn Plow 1.2 3 3.6 0.1 (5) Comb-Tooth Harrow 3 30 0.1 1.0 (6) Animal Drawn Sledge 0.5 3 1.5 0.0 II. Post Harvest & Agro-Industry Facilities 395,5 395.5 (1) Multi-Purpose Dryer (2) Mechanical Dryer 106.0 0.0 3.2 90.0 (3) Reaper 90.0 2.7 (4) Rice Thresher (foot type) 1.9 0 0.0 0.0 (5) Rice Thresher 35.0 35.0 1 1.1 Engine 13.5 1 13.5 0.4 Sub-total: 48.5 (6) Winnower 0 0.0 2.0 0.0 (7) Warehouse 659,0 659.0 1 (8) Rice Agro-Industry Center 659.0 0 Warehouse 0.0 Rice Mill Ü 0.0 0.0 77.0 68.0 0 0.0 Engine 0.0 Weighing Scale 12.5 0 0.0 0 0.0 Moisture Meter 25.0 0.0 Crack Inspector Ò 1.0 Wooden Pallets 21.0 0 0.0 Sub-total: 863.5 (9) Corn Sheller (handy type) 0 12.5 0.0 0.0 (10) Com Agro-Industry Center 659.0 Warehouse 659.0 1 Corn Mill 75.0 75.0 4.5 Engine 85.0 85.0 2.6 15.0 Corn Sheller 15.0 1 0.5 Engine 29.0 29.0 0.9 Weighing Scale 12.5 12.5 Moisture Meter 37.5 37.5 Wooden Pallets 21.0 21.0 Sub total: 934.0 Total: 215.3 249.3 0.0 1,713.5 17.2 First Investment Cost: 2,178,1 43.1 Yearly sub-total: 35.6 0.0 57.1 Yearly Cost(incl. O&M): 153.0 Remarks: - ... not applicable

Table X.2.13 Estimated Benefits from Databaths of Postalement & Apro-Industry Facilities (1

Reg.CAR, Age, Bengued, Septe-ec	9€0		,				
Facilities	Berwins hers	Deficits Items	Number of improved & Facility Increased Value	Und	Benefit Vatue/Year Formula	Deficits Value(PD00) Formula	VBt.e(P000)
			ı	1		1	
1. Acrouting Machinery							
(1) Tractor	1. Reduction of farming hours.	1. Require fuel cost.	o	•			•
	1/30 compared with manual	Z. Kedune O.S. M. cost.					
	A PARADO IN COOR CARINADAY						
	A Medical of recing four.						
Chienel Institut	1 Anduration of farming hours	Post in the Contract of the Co	c				•
	1/19 compared with menual	2. Reduire O.s. M.cost.	•		:		
	2. Reduction of heuring hours.						
	1/20 compared with manual						
(C) Sprayer	1. Increasing of yield	1. Regulte Q & M cost.	5 6000		mel termino.	, (•
(4) Animal Drawn Prov	1. Reduction of farming hours	1. Redurte O.S. M. cost.	6 6x1na	4deyx-500	6x1x4x500x0.9=	D.	•
	A Designation of females	Section 1	4	Transpared (manager)	SALLOWANDER A	«	•
and the second s	15 concerns with makes	TO ME TO SERVICE OF THE PERSON	E XO C	Chierd helf chance!	ON I MANAGEMENT OF	•	•
(6) AnmelDrawn Sleope	1. Reduction of heuling hours.	1. Require O.S. M. cost	6 5x1nax489t/147na	200,000	6x1x489/147x2x400x0.5=		
	1/10 compared with manual			(hired, half chance)		16,0	
Suo-tasi						25.6	
2 Post-tones & Asm-industry Facilities				-			
(1) Multi-Purpose Diver	1. Reduction of givens hours.	1. Recuells tend					
	1/2 compared with no payament		•				
	2. morovement of drying quality.		2000 Delay	20% C. SuP3	2550,020x0,2x0,5x8x0,5=		
	up to 14% of monthure content.			(half increase)	(helf chance)	0.08	
			2000 com	20%0.5%5	260,000,0,0,0,0,6,0,0		
				(haif increase)	(ner crance)	80.00	
	Lo to 05% of purity		The second secon	(Page			
	4. Improvement of discolored semel.		(included in the above)	(ave)			
٠	up to 3% of dispolated lighter.						
	5. Improvement of immeture learner.		(included in the ebove)	(awe)			
(2) Mechanical Organ	1. Reduction of diving hours.	1. Recurs tend & house.	· · ·				
(Nor ments)	1/10 compared with no mavement.	2. Require fuel	88ha/5yes/	er/(0/96/00/04	88/5x4/600x0.5*	74.9.2 times x12x0x0x77.75	22
			59ha/5year		59/5/ch/1300x0.5=	202	:
	Table of the set of th	20,000	14ha/18kg murgbean	C 1	(helf chance)	1 trne x12/3x3x97.75	
	Control of Mark of Monthly control	C. Cardena describera de	(www.m.m.m.m.m.m.m.m.m.m.m.m.m.m.m.m.m.m	(Parce)		Afferday Decognision C	D.O.
	3. Improvement of purity quality.	4. Require O.E. M.cost.	(including in the above)	(awo)			50
	up to 95% of purity					1 tme x12/2x0,75kwx94 =	
							£.0
	 Improvement of decoded remei. Lo to 3% of decoded lemei. 		(noteing in the above)	(akor		(1900 tolerand)	
	5. Improvement of simmeture larmet.	-	(motuding in the above)	(940)		(2.1mes x2ds)-(1.1me x3ds)	ne x3ds)
	up to 10% of miniature learnel.					00x(\$+2) = 00c4x	15
	5, Improvement of mixed kernel. 7. Available to doore for every tool		(motiong in the above)	(P. C.			
	of weed endered of vectoble seeds.		a sur ta farancan)	(page)			
(3) Respen	1. Reduction of harvesting hours.	1. Reguine fuel.	2 2/20h	20de/A2pAP65	20000000000005**	52.0 2/20/dx0.20/5/PT	1.45*
	1/15 compared with manual.	2, Require O.S. M cost.		(hired, half chance)		(Operator cost)	
:	2, Reduction of heavy work,			•		2/20ds xP300+	12,0
(4) Rice Thresher	1. Reduction of threshing hours.	1. Regume O.S. M. cost	7 (180-80)	10gennP500/Bt	100/10/500/8/0.5*	6,16	
(floot tybe)	1/3 compared with manual.				(half chance)		
(5) Rice Thresher	1. Reduction of threathing hours.	1. Require fuel.	1 1x80t	100anyP500/8t	80×10×500/8×0.5×	25.0 10x8x0.25x10xP6.53=	43
(margin freing)	2 Sections of heavy work	A. Nogure U.S. M. CO.			(nen chance)	(Operator cost)	•
•	3. Reduction of withousping work.					ACCOUNT OF STATE OF S	
	4. Improvement of purity quality.	•		1.			
2017000000	Up to 50% of purity	0	100 000			4	
	1/10 companed with manual.	E STORES)(100-001) /	lounne-avison:	(het chance)	0.01	
	2. Improvement of purity quality.				,		
	up to \$5% of purity.						

able K.2.43 — Estimated Benefits from Distribution of Postate coast & Acrostodistino Pacifities (2

Reg. CAR, Azra, Bengued, Suppered				į				
Facilities	Benefits tems	Deficits items	Faciny increased Value	N. Calcal	Formula	Value(P000)	Formula	Value(P'000)
(7) Warehouse with Soler	1. Requestion of drying hours.	1. Require tand.	-					
È.	2. improvement of drying quality.		50t palay	20%/0.5698	50,000x0,2x0,5x6x0,5=			
	and the same and standard for the same and and		200	(helf increase)	(half chance)	20.0		
				(hart increase)	(helf chance)	15.0		
	3. Improvement of purity quality.		(included in the above)					
	4, Improvement of discolored kernel.		(motuded in the above)					
	up to 3% of decolored kernel. 5. Improvement of improvium percel		(authority and O) halfs should					
	up to 10% of immeture larmel.							
	 Stoney for emergency food sortage. Store to sell up to better once. 		JOB naise	Sheet faces	1000000 Oct 0000000			
	up to 20% higher price.			(half increase)	(half chance)	0,04		
			100 m	Chalf enchance)	1000000,200.5x6x0.5= (half chance)	9		
(8) Rice Agro-Industry								
- Weetstand Mr.	Washington with Solar 1 Best stop of stored name	1. Decume tand	The second secon					
Dyer	15 compared with no perement.	The second of	· · · · · · · · · · · · · · · · · · ·					
	2. Improvement of drying quality.		50t palev	20%00.5xP8	50,000x0,2x0,5x8x0,5=			
	up to 14% of monture content.		000 E	(half increase)	(haif chance)	20.0		
			3	(half increase)	(helf chance)	15.0		
	3. Improvement of purity quality.		(moded in the above)	•				
	4. improvement of discolored terms.		(mocked in the service)					
	up to 3% of decolored learnel.							
	5, Improvement of immeture kernel.		(included in the above)					
	5 Storng for emergency food sortage.						-	
	7. Store to sell up to better price.		100t paley	20%x0.5x098	100000x0.2x0.5x8x0.5=			
	Up to kick maner price.	:	100t com	(half inchesse) 20%x0.5x96	(half chance) 100000h0;2x0;5x6x0;5=	90.0		
	A CAR COLLEGE AND ACCOUNTS			(half inoresee)	(half chance)	30.0		
HW ACT	1. Regulation of making hours.	1. Require room						
	Reduction of white noe buying							
	price and transportation frour.	٠.						
	buying cost reduction and							
	2. Increasing welling price of rice.						:	
	higher then palary.							
	Food security for emergency. Obtaining of by-ordeling.							
	20% of noe husk and							
Anna Company	10% of noe bren.	THE RESERVE STREET						
Equoment	Up to 14% moeture content.	and a contract of	(aerros ar il parament)		,			
	2. Improvement of solling weight.		(evode att in bedonou)					
	Controlled of constitution		to a see of the section of the secti					
(9) Com Sheller	1. Reduction of shelling hours.	1. Require O & M cost.	5 5/20t	20eyxP65y0.5	5/20/2/65/0.5*	8.5		
(acti lavant)	1/10 compared with menuel.			(haif chance)				
70) Com Annual Asia	4. resource or many more.							
Center								
- Wershouse with So	Werehouse with Solar 1, Reduction of Gryng hours.	1. Require land.	o.	•				
5	2. Improvement of drying quality.							
	up to 14% of monture content.							
	3. Improvement of purity quality							
	5.54 5.6 A.O.O.O.							

Fecilities	Descript Remis	Denotta Itemo	FBCIMY	Increased Value	Value	TOTALGE	Value(P000)	- Comment	Value(P000)
	4. Improvement of cooperal terresis up to 3% of colored terresis. 5. Food security for emergency. 6. Store to set up to befrie price. up to 20% ingrief price.								
· Com Mis	Reduction of mainty hours. 1500 compared with manual, or Reduction of maled com buying once and transportation hour. 30% cost reduction and.	1. Require norm 2. Require fael 3. Required O.S. M.cost.	•						•
	one time per month. 3. Increasing velling price of com. 30% higher than grain. 4. Food security for emergency.							٠	
- Com Sheller (manual type)	 Cottening of feed for investock. Reduction of shelling hours. 170 completed with menual. 	1. Require D.E. M. cost					•		•
- Cushry Control Equipment	2. Reduction of hard work. 1. Improvement of quality. up to 14% mosture content.	1. Require room and table	0						•
Sub-total:	avelable to self on actual waight					٠	5.87.4		24.5
Total: Benefits Crand Total:			-				5627.0		24.6

Table X.2.14 Instrusted Seneffs from Distribution of Post-Kervers & Agro-Industry Feditions (1)

Reg. II, Cummo, Maddele, Coltantia								
Facilities	Benefits steme	Deficits items	Number of Pacitity	Improved & Increased Velue	Value Salue	Benefit Velue/Year Formula	Value(P000) Cefots Value/Yeer Value(P000)	Value(P000)
1. Agnouthural Mechmery (1) Theon	Reduction of ferming hours. Reduction of ferming hours. Available to colesp cultination. Reduction of heuring hours.	1. Require fuel cost. 2. Require O.& M cost.		1 100ne_Ztimes, 2010ps	15day, P1, 200/ha (hired, half chance)	100/202/1,200/0.5*	240,0 150,0,0,0,0,0,0 420,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,	4.1°C
(2) Hend Tractor	1/80 compared with menual. 1, Reduction of ferthing hours. 1/10 compared with menual. 2. Reduction of helding hours.	1, Require fuel cost. 2. Require O.S. M.cost.		2 10ha,2times,2crops	10c/10he,P1000ma (hed, helf chance)	2MOG2A1000M0.5**	40.0 2x10,2026x10 x710,45x0.5+ (Operator cost)	8
(3) Sprayer (4) Anmal Drawn Prow	1/20 compared with manual. 1. Increasing of yield. 1. Reduction of farming hours.	1. Require O.S. N. cost. 1. Require O.S. M. cost.	ħ.,	2 12/5/w 3 3/1/w	40ayxP500	end. ferming. 3x1x4x500x0.5*	2000m (2000m) 3.0	240
(5) Comp-Tooth Hamber	1/5 compared with manual. 1. Reduction of farming hours.	1. Require O.S. M. cost.		3 3xths	(hired, helf chance) 3dayxP-a00	3x1x3x400X0.5*	8.	•
(6) Annual Drawn Slooge Sub-total:	1/3 compared with menuel. 1. Reduction of haulang hours. 1/10 compared with manual.	1. Require O & M cost.		3 3x1nex1501/377ne	(hired, half chance) 2dayxP400 (hired, half chance)	3x1x1501.077x2x400x0.5*	9.6 294.4	. r.
2. Post-tennest & Agno-Inclusity Facilities (1) Multi-Purpose Dryer	1. Reduction of drying hours. 1.5 compared with no perement. 2. Improvement of drying quality. up to 14% of most ture content.	1. Require land.		2 2550 pelay 2550 com	20%cd 5xP8 (helf notesie) 20%d,5xP5	260,000,000,000,000,000 (half chance) 260,0000,220,00600.5=	9 8	•
	3 improvement of purity quality. Up to 55% of purity Improvement of decisioned kernel. Up to 5% of decisioned kernel. Up to 5% of decisioned kernel. Shappowers of amendment to the terrel.			(included in the above) (included in the above) (included in the above)	(Neil moreshe)	(helf Chance)	2 2 3	
(C) Mechanical Dryer (for sency)	ub to 10% of immeture vernel. 1. Requotion of dyngs hours. 1.10 compared with no mavement. 2. Improvement of dyng quality up to 14% of mosture content. 3. Improvement of purity quality. 3. Improvement of purity quality.	Require land & house. Require fuel. Require electhory or fuel. Require of & M cost. Require O & M cost.		SaharSyeer 31974-Syeer 2774-Sig mungbean (ncticing in the above) (including in the above)	-м-е000Э6крул- 1.671,300(84g)/та	58/5x4x000x0.5= 319/5x1x1300x0.5= (helf olence)	13.9 2 times x12x2xxx97 76* 41.5 1 time x12x3xxx97 75* 2 times x12x2x0.750×74*	£ 6.00
	4. Improvement of deacooned lennel, up to 3% of deacooned lennel, b. Improvement of immature lennel, up to 10% of immature lennel, c. Improvement of moved lennel, 7. Aveidable to drywg for any land			(motuding in the above) (including in the above) (including in the above) (including in the above)			Turie XI ZAMA, Favina Parina (Oberator coat) (Zernes X206)-(Utime X206) XP300 = (2+3)X000	6 6
(3) Reaper	or secon excepts or organizate secon. 1. Reduction of herveiting hours. 1/15 compared with manual. 2. Reduction of heevy work.	1. Require fuel. 2. Require O.& Micost.		2 20000	20cay/2pr0765 (hired, helf chance)	2,20,20,20,50,50	52.0 2x20x8x0,25x5xP10,45= (Operator cost) 2x20cs xP300=	2.4 0.21
(4) Rep Thresher (Bot tone) (3) Roy Thresher (with partie mover)	Reduction of threehing hours. Compared with manual. Reduction of threehing hours. 1/10 compared with manual. 1/10 compared with manual. Reduction of heavy word. Reduction of when yeary work.	1. Require O.S. M. cost. 1. Require O.S. M. cost. 2. Require O.S. M. cost.		3 (141-40); 1 1x8¢;	10asyxP500/8t 10asyxP500/8t	61x1 biscora.0 Se (haif eneme) 60x1 0x50x8x0.5s (haif enemoe)	19.1 25.0 10/8/0,25/r10/P8.53= (Operator cost) 10% XP300=	3.0
(5) Wenower	4. Improvement of purity quality, use to 20% of permy. 1. Reacution of wirnovemang work, 1/10 compared with menuel. 2. Improvement of purity quality, up to 95% of purity.	1. Require O. & M. cost.		3 (141.00);	10deyxP300/8t	61x10x300/8x0,5= (helf chance)	4.	•

Table K.2-14 Estimated Benefits from Distribution of Post-Harvest & Apro-Industry Facilities (2)

	Age II, Control methods, Colored									
1. (According of the proposal	Facilities	Bonefits Home	Deficits items	Number of Facility	Improved & Increased Value		Benefit Value/Year	Value(P000)	Deflots Varue/Year Formula	Value(P000)
2. Violational or protection of the control of control	(7) Warehouse with Solar	1. Reduction of drying hours.	1. Require land	7						
1	i i	1/5 compared with no pavement.		•						
Strong Control Contr		2. strandentiality of drying quarty		0		20%KO 5KPB	250,000x0,2x0,5x8x0,5=	ç		
1 10 10 10 10 10 10 10	٠		*	•	and in	SOMEO SAIDS	2000 0000 200 M650 5m	2		
Uniquened of both country						(half increase)	(net chance)	30.0		
United the above		3. Improvement of punty quality.		-	included in the above)		•			
10 10 10 10 10 10 10 10		Amnd to see an on				-				
6 Store of control of		up to 3% of depoined femel.		-	incauche in the acces)					
6 (0) O 19% of months of m		5. Improvement of ammature termal.		•	included in the above)					
7. Stands be also up to break process 2. District be also up to break process 3. District be also up to break process 4. District be also up to break process 4. District be also up to break process 5. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 6. District be also up to break process 7. Distr		up to 10% of immeture kernel			1		:			
100 to 200% righer pose 100 com (red case) 100 com		7. Store to sell up to better once.		•	OO: neien	SOME OF SOM	240000000000000000000000000000000000000			
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1. Security of entry tour. 1. Secure and of entry tour. 2. Intervalent of daily out. 2. Intervalent of daily out. 3. Intervalent of entry tour. 4. Intervalent of entry tour. 5. Intervalent of entry tour. 6. Intervalent of entry tour. 6. Intervalent of entry tour. 6. Intervalent of entry tour. 7. Secure and of entry tour. 7. Secure and of entry tour. 7. Secure and of entry tour. 7. Secure and of entry tour. 7. Secure and of entry tour. 7. Secure and of entry tour. 7. Secure and entry entry one transport of entry entry one transport of entry entry one transport of entry entry one transport of entry entry one transport of entry entry one transport of entry entry one transport of entry entry one transport of entry entry one transport of entry entry one transport of entry en					OC! COM	20%00.5%5	24000000.220.5x8x0.5=	9		
1. Recure since 1 1. Recure sin	(8) Rice Agro-Industry					(Superior in the control in the cont	(OK N. 3. 9)	3		
20 count of the present of chiral count of the count of				***						
2) Incomment of only Could. 2) Incomment of only Could. 2) Incomment of only Could. 3) Incomment of only Could. 4) Incomment of only Could. 4) Incomment of only Could. 5) Incomment of only Could. 5) Incomment of only Could. 6) Incomment of only Could. 6) Incomment of only Could. 7) Since is a few order on the soon. 7) Since is a few order on the soon. 8) Incomment of only Could. 9) Incomment of only Could.	Diver	Aging, regulation of drywing nouns, 1/5 companied with no desertant	1. Require land.							
17 14 14 17 14 18 18 18 18 18 18 18		2. Improvement of drying quality.			Ot patay	20%xd.5xP8	50,000x0,2x0.5x8x0.5=			
3. Intercement of burth quality (a) 19 9% of doors of ware (b) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9% of doors of ware (c) 19 9%	-	up to 14% of mosture content.		•		(half increase)	(half chance)	20.0		
Direction of noting short of sharing Constructed of noting above Constructed of noting above Constructed of sharing				ρ.	E8 5	ZUNKO DIOPE	20,000/0,200 Sir6x0,54 (heif obsect)			
United Section (International Section (Internation (International Section (Internation (Internation (Internation (Internation (Internation (Internation (Internation (Internation (Internation (Internation (Internation (Internati		3. Improvement of purity quality.	:		notuded in the above)	Company of the last		3		
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Simple for arrangement of the small control of small co		4. Improvement of decolored ternel.		5	notuded in the sbove)					
6. Store to set to to better proces 7. Store to set up to to better proces 7. Store to set up to to to to to to to to to to to to to		5. Improvement of immarcine lighted		ē	noticed in the above)					
7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store to safe the branch proces. 7. Store and to the branch proces. 7. Store and the branch proces. 7. Store branch proces. 7. Store and the branch proces. 7. Store branch proces. 7. Store branch proces. 7. Store and the branch proces. 7. Store br		up to 10% of immeture learner.								
1. Reduction of milling hours. 1. Require from 1. Require from 2. Require from 3. Require from 3. Require from 4. Committee of the from t		 Storing for emergency food sortage. Storing to self up to hether page. 		Ť						
1. Reduction of militing hours. 1. Reduction of militing hours. 1. Reduction of militing hours. 1. Reduction of militing hours. 1. Reduction of militing hours. 2. Reduction of militing hours. 3. Reduction of a militing hours. 3. Reduction folds. 4. Reduction of militing hours. 4. Colamany definition and hours. 5. Innovament of ability wight. 6. Colamany of hourset of ability wight. 7. Innovament of ability wight. 7. Innovament of ability wight. 7. Innovament of ability wight. 7. Innovament of ability wight. 7. Innovament of ability wight. 7. Innovament of ability wight. 7. Reduction of health wight.		Up to 20% incher pros			Ant hereal	(helf streets)	(helf chaces)	98		
Reduction of miling hour. Require from 1 Require fr					OOt oom	20%x0.5xP6	10000001.2x0.5x6x0;5=	}		
1500 compared with menual of the buying consumption of white near buying consumption of white near buying consumption and white near buying cost reduction had an elevation for site of the buying cost reduction of shall be consumed as the buying cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction and cost reduction of shall be consumed with the manual. 1. Require to 6. W cost. 2. Increase of the cost reduction of shall be consumption. 3. Cost reduction of shall be consumption. 4. Cost reduction of shall be consumption. 4. Cost reduction of shall be consumption. 5. Cost reduction of shall be consumption. 6. Cost reduction of shall be consumption. 1. Require the cost reduction of shall be consumption. 1. Require the cost reduction of shall be consumption. 1. Require the cost reduction of shall be consumption. 1. Require the cost reduction of shall be consumption. 1. Require the cost reduction of shall be consumption. 1. Require the cost reduction of shall be consumption. 2. Indicates the cost reduction of shall be consumption. 3. Cost reduction of shall be consumption. 4. Cost reduction of shall be consumption. 4. Cost reduction of shall be consumption. 5. Reduction of shall be consumption. 5. Reduction of shall be consumption. 6. Socioon 200 200 200 200 200 200 200 200 200 20	iiiX eOG v	The second secon	1 200			(half increase)	(hert chance)	000		
Presidentian of white near baying 3. Required O. B. M. doat, 100kg/pp consumption 20ks/pl/(10-kg)/ZT27P 100kg/base 100kg/pp consumption 2. Instrument of sets of the construction of set	illula de la companya	1/500 compared with manual or	2. Recure fuel	г						
Division and theresociation hour,		Reduction of white noe buying	3. Required O.&. M.cost.	Ē	doliging consumption	30% MP(10-8) x721p	100x0.3x2x721x0.5*	23.6	25/0.5/8)x8x0.25x18xP8.53x	•
2. Increasing services from months. 2. Increasing services from months. 3. Food recurs for contract. 3. Food recurs for contract. 3. Food recurs for contract. 4. Cotamon and table. 4. Cotamon and table. 5. Food recurs for contract. 3. Cotamon and table. 6. Excolor of selving from the above. 6. Excolor of selving from the above. 7. Recursor of recurs. 7. Recursor of selving from the above. 7. Recursor of s		price and transportation hour.		ě	firmes out and in	P65x160+FF	6x65x160x0.5=	31.2		17.3
2. Increasing selfing bride of nose. 2. Increasing selfing bride of nose. 3. Food security for interpercy. 4. Obtaining of by-protectict. 4. Obtaining of by-protectict. 5. Obtaining of by-protectict. 5. Obtaining of by-protectict. 5. Obtaining of by-protectict. 5. Obtaining of nose brain 1. Require to other of selfing the security of nose brain 1. Require to selfing the security of nose brain 2. Increasing of nose match 2. Increasing of nose or selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of selfing the security of nose of nose of selfing the security of nose of nose of nose of selfing the security of nose of n		one time eveery two months.					(nett chance)	64	Sperator cost)	
3. Food estanglish that the first passes of th		2. Increasing setting price of nce.		8	Z25x0,7)t-0.1t	P(10-8)/kg	(157.5-72.1)x(10-8)			
4. Obtaining of by-proclud. 2. Interpretation of black and 1. Require from and table. 1. Interpretation of obtaining selection of the above of the black and on education of all of the black and on education of obtaining selection selection of obtaining selection selection selection selection selection selection selection selection selection of obtaining selection selectio		3. Food security for ememory.		×	ريته	(half champe)	#0.5#	85. A.		
20% of noe head and 10% of	-	4. Obtaming of by-product.				•				
Trother final forms Table		20% of noe hunk and	:							
Up to John Mark modelle control of the above) 2. Control of the above) 3. Control of the above) 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 4. Reduction of shelling hours 5. Reduction of shelling hours 6. Size of the above) 6. Size of the above) 7. Reduction of shelling hours 7. Reduction	Country Country C	TONG OF INCO DISP.	The state of the s	e :	2007 7.	8. 8.	225x0.1x1000x5x0.5a	56.3		
2 improvement of seleng weight. 3. Contractor of seleng weight. 3. Contractor of seleng weight. 3. Contractor of seleng hours. 4. Reduction of shelling hours. 4. Reduction of shelling hours. 4. Reduction of shelling hours. 5. Reduction of shelling hours. 6 5:201. 6 5:201. 7. Reduction of shelling hours. 7. Reduction	Edubrieri	LO to 34% months confern.	1, Require room and table.	ē, r	ncluded in the above)		(haif chance)			
Ambitude to the weight. 3. Controlled in the above) 3. Controlled in the above) 4. Reduction of eheling hours. 4. Reduction of eheling hours. 5. Education of element with manual. 5. Reduction of finance of drying hours. 6. BODD (2.00 to 2.00 to		2. Improvement of selling weapt.			ncluded in the above)					
1. Reduction of shalling fours. 1. Reduction of shalling fours. 1. Reduction of shalling fours. 1. Reduction of driving hours. 1. Reduction of driving hours. 1. Reduction of driving hours. 1. Require and 1. Require and 1. So paids 1500 paids 1500 points 1500		evaluation to melt on actual weight.			4					
1/10 compared with manual. 2. Reduction of herd work. 2. Reduction of herd work. 1. Societ 1. Reduction of drying hours. 1. Societ 1. Reduction of drying hours. 1. Societ 2. Inspirement of drying hours. 2. Inspirement of drying quality. 2. Inspirement of purity quality. 3. Inspirement of purity quality. 3. Inspirement of purity quality. (motoded in the above).	(9) Com Sheller	1. Reduction of shelling hours.	1. Regure O.S. W. cost.	5 iõ	noluced in the above)	2devit xP65x0.5	6000005005	40		
1. Soft paley 20% d. Soft Som 1. Require land 1. Require land 1. Soft paley 20% d. Soft Soft Soft Soft Soft Soft Compared with no parentent. 20% d. Soft Soft Soft Soft Soft Soft Soft Soft	(manual type)	1/70 compared with manual.		, .		(helf chance)		•		
th Solard 1. Reduction of drying hours. 1. Require land. 1. Sequire land. 1. Sequire land. 1. Sequire land. 2. Improvement of drying quality. 2. Improvement of purity quality. 3. Improvement of purity quality. 3. Improvement of purity quality. 3. Improvement of purity quality. (motoded in the above).	10) Com Agro-Industry	4. respectively in the work								
arehouse with Solar 1. Require and 1. Sequire and 1	Contract					•				
Total more and in the parameter. 20 toom 20% 0.545 50,000,0.20.5 50,000	Wantehouse with So.	ter 1. Reduction of drying hours.	1. Require land.	7	Ot palley	20%xx0.5xPB	50,000x0.2x0.5x8x0.5x			
Control (half ingresse) (half chance) (half chance)	į.	2 International of these custors		*	1	(half moreage)	(helf chance)	200		
(Avoid and the action) (Avoid and the bottom)		up to 14% of mosture content		5	E 83	(half (noments)	-0.0x0x0.0x0.0x0x0.0=			
		3. Improvement of punty quality.		٤	ncluded in the above)	(management)	P 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	2		

the K.244 Estimated Benefits from Distribution of Post-Varvest & Accountrates V Facilities (3)

Facilities	Senefits Nems	Deflorts flems Facility	rumber of improved & Increased Value	Cetto Setto	Benefit Value/Year Formula	Deforts Value/Year Value(P000) Formula	Value(P000)
	4. Improvement of colored isemel.		(avode arth in bebuilding)				
	UP to 3% of colored lornel.		(note and in the street)				
	6 Store transfer to the Date was		100r pelay	20%-0-208	10000040 250 55550 55		
	up to 20% haher price.			(half incresse)	(haff chence)	0.04	
			100t som	20 %x0.5xP6	1000000,250,556,0,5*	·	
				(half increase)	(half chance)	900	
- Com Mid	1. Reduction of militing hours.	1, Require room	-			1	
	1/500 compered with menuel, or	2. Require fuel.					
	2. Reduction of milled com buying	3. Required O.S. M. cost.					
	once and transportation hour.						
	30% cost reduction and	-					
	one tame per morth.		:				
	3. Inchessing selling price of corn.		(0.406x160dex	30% ×06	0.4x8x780x7,000x0,3x0,5x6x0,5=	5= 180x8x0.25x15xP8.53=	-98
	30% ragner than grein.			(half increase)	(half chance)	259.2	
	 Food security for emergency. 						108.0
	Obtaining of feed for Investocic.						
· Com Shaller	1. Requebon of shelling hours.	1. Require O.& M cost.	1 20Vdey, 25de+25de	2dey/t.x995x0.5	20/60/2/65/0.54	65.0 50x8x0,25x7xP8,53=	6.0
(Engine type)	1/30 compared with manual.			(heif chance)		(Operator cost)	
	2. Reduction of hard work.					2P x50xP300=	30.0
- Overty Control	1. Improvement of quality.	1. Reduite from and table.	1 (included in the above)			•	
Equipment	up to 14% mosture content, 2, improvement of selling waynt.		•				
	available to sell on actual weight.						
Sub-total:						1,249.4	265.6
Total	-					1,563.7	4.746
Benefits Grand Total:						1,196.4	

which is for a preferenced Remedite force Prefer before American Contract Manager II have been able to design

Reg. VIII. Leyte, Huongos, Manangog	5						
Racktues	Benefits Items	Deficits items	Facility increased Value	Veloc	Benefit Value/Yes* Formula	Value(P000) Deforts Value/Year Value(P000) Formute	ute Velue(P000)
1. Agnoultural Machinery			 				
and the second s	1/30 compared with manual.	2. Require O.S. M. cost.					
	2. Average to deep cultivation.						
	1/60 compered with manual.						
(2) Hend Trector	1. Reduction of farming hours.	1. Require fuel cost.	1 10ha,2limes,2crops	10d/10ng, P1000/ns	10/202m 000m0.5=	20.0 10/2/2/8x0.25x10	9
	2. Reduction of heump hours			Constant Constant		(Operator cost)	
(3) SQU	1/20 compared with manual 1. Increasing of weld.	1. Recurs D. & Soot	500 S	(metaled in farming evete)	•	100s x2x2x200s	12,0
(4) Animal Crawn Plow	1. Reduction of farming hours.	1, Require O & M cost.	S SKITS	404747500	3x1x4x500x0.5=	On.	
(5) Comb-Tooth Harrow	1/2 compered with menual 1, Reduction of farming hours.	1. Require O.8: M cost.	S DAY	(hwed, helf chance)	3x1x3x400X0.5e	87	•
1	1/5 compared with member			(hired, helf chance)		!	
(6) Ahrmal Drawn Sledge	1. Reduction of hauting hours.	1. Require O & M cost.	3 3xnnext301t/3/7he	Allow half chapter	3x1x1501/377x2x400x0.5=	*0	•
Sub-total:						, 2 4	16.2
Post-teness & Apro-Jodynator Facilities							
(1) Multi-Purpose Dryer	-	1. Require land.	۲,				•
	1/5 compared with no pavement.		3		1 0 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
	up to 14% of mosture content.		ASSA VACO	(half moreage)	(net' chance)	900	
			Zx50t com	20%00.5000	250,000,020,5650.5=		
	2. (monovement of purity quality		(exode ed) or betakon)	(half increase)	(half chance)	90,00	
	up to 95% of pumy						
	4. Improvement of discolored kernel.		(included in the above)				
	5. Improvement of immature termel.		(included in the above)				
	up to 10% of mimeture kernel.						
(formation)	1/10 compared with no mavement.	2. Require fuel.	32ha/5year	AGP600(36)00/he	32/5x4600x0.5=	7.7 1 times x12x2x3x07,75s	
•			86ha/5year	1xP1,300(8kg)/he	96/5x1x1300x0.5=	11.2	9.0
	2 Immement of doors overthe	A Because effectively or	neadquum gwanas.		(helf chance)	1 times x12x3x3x407,75=	
	up to 14% of mosture content.	76.				T Demos X12X2XC OXXXX	75kwg04z
	3. Improvement of purity quality.	4. Require O & M cost.	(including in the above)				0.1
	4. Improvement of discolored learnel.		(motuding in the above)			- University Colony Col	7.0mmg/ca = 0.1
	up to 3% of pleopored kernel.		Company of Company			(Coerator cost)	
	up to 10% of immeture learner.		(access that the Services of			(10mes x2ds)+(10mes x3ds) x9300 = (2+3x300=	times x30s)
•	6, improvement of mosed semel,	:	(individing in the above)				
	of seed-expect of vecessions seeds.		(moudaing in the sooks)				
(3) Resper	1. Reduction of hervesting hours.	1. Require fuel.	0				
	1/15 compared with manual. 2. Reduction of heavy work.	2. Require O.S. M. cost.		•			
3							
(4) KOS IMBENST (TOST NOSE)	1. Heduction of Dreshing hours. 10 compared with manual.	1. Require O & M cost	•				•
(5) Ride Thresher	1. Reduction of threshing hours.	1. Require fuel.	1 1×80t	10dayx9500/8t	80x10x500/8x0,5=	25.0 10/8x0.25x10x	1.7
(with prime mover)	1/10 compared with manual.	2. Require O & M coet.			(heif chance)	(Operator cost)	
	2. Regulation of heavy work. 3. Reduction of waynowelving work.					100s x0300=	30
	4. Improvement of punty quelity.						<u> 1</u>
(6)Wignesser	1. Reduction of withowenths work.	1 Receipt O.S. M. cost					
	1/10 compared with manuel.						•
	Improvement of purity quality. up to 95% of purity						

Table K.245 Estimated Benefits from Outsitytion of Post-decrees & Acro-industry Pacifices

		Benefits Reme	Deforts Items	Y BOSE	increased Value	Value	Formula	Value(Pood)	Deficits Value/Year Formula	Value(P000)
Simplement of purity coults	(7) Warehouse with Soar Dryer	1. Production of drying hours 1/3 compared with no perement. 2. Improvement of drying quality. up to 14% of mostive content.	1. Require land.		50t painty 50t com	20%40.5xP8 (haff inchesse) 20%x0.5xP8	50,000-0,2-0,5-6-0,5- (haif chance) 50,000-0,5-6-0,5-	200		
United the design of the content with		3. Improvement of punity quality,	-		(included in the acove)	(half increase)	(half chance)	15.0		
Survey of the recovery of the control of the contro		up to 95% of pumy 4. Improvement of discolored termel.			(included in the above)					
1. Size to de 10 feet month water, 100 paley 1000000 20,2040.2— 1. Discus to de 10 feet month water, 100 paley 1000000 20,2040.2— 1. Discus to de 10 feet month water, 100 paley 1000000 20,2040.2— 1. Discus to de 10 feet month water, 100 paley 1000000 20,2040.2— 1. Discussion of derivative water, 100 paley 1000000000000000000000000000000000000		up to 3% of decolored lemel. 5. Improvement of sministure lemel.			(included in the above)					
7. Store was to to the store of charge one of the store o		up to 10% of investure liente. 6. Storing for emergency food sortage,								
1. Instrument of object from the parameter of the paramet		7. State to sell up to better price. up to 20% higher price.			Toot peley 100t com	20%x0.5xP8 (helf increese) 20%x0.5xP6	100000040,2x0,5x8x0,5= (helf chence) 100000x0,2x0,5x6x0,5=	0.04		
1. Repution of dying roun. 1. Require end, 2. Introdement of punity duality. 2. Introdement of punity duality. 3. Introdement of punity duality. 4. In 19 85 ye for the context of punity duality. 4. In 19 85 ye for the context of punity duality. 5. Introdement of punity duality. 5. Introdement of punity duality. 6. In 19 85 ye for the context of punity duality. 6. In 19 85 ye for the context of punity duality. 6. In 19 85 ye for the context of punity duality. 6. In 19 85 ye for the context of punity duality. 6. In 19 85 ye for the context of punity duality. 6. In 19 85 ye for the context of punity duality. 6. In 19 85 ye for the context of punity duality. 6. In 19 85 ye for the context of punity duality. 6. In 19 85 ye for the context of punity. 6. In 19 85 ye for the context	(8) Rice Acro-Industry					(half increase)	(half chance)	30.0		
1. Introvement of borns outside contact 1. Introvement of borns outside 1. Introvement of borns outside 2. Introvement of borns outside 3. Introvement of borns outside 4. In 50 SA of Living 4. In 50 SA of Living 5. Secure of borns outside 5. Secure of borns outside 5. Secure of borns outside 6. In 50 SA of Living 7. Secure of borns outside 7. Secure of borns outside 7. Secure of borns outside 8. Secure of borns outside 9. Secure of borns outside 9. Secure of borns outside 9. Secure of borns outside 9. Secure of borns outside 9. Secure of borns outside 10. Secure outside 10. Secure of borns outside 10. Secure outside 10. Secure outside 10. Secure outside 10. Secure outside 10. S	Center			01						
Up to 14% of mosture content. 3. Introducement of purity quality. 4. Introducement of purity quality. 4. Introducement of purity quality. 5. Show to describe described anneal. 5. Show to be sit up to better proce. 17. Show to be sit up to better proce. 17. Show to be sit up to better proce. 17. Show to be sit up to better proce. 17. Show to be sit up to better proce. 17. Show to be sit up to better proce. 17. Show to be sit up to better proce. 17. Show to be sit up to better proce. 17. Show to be sit up to better proce. 17. Show to be sit up to better proce. 18. Show to be the search for procerning to search to most the bungle. 19. Show to be search for processing of the	- Vigneriouse with Sour	7.3. Reduction of drying hours. 1/5 compared with no pavement. 2. Improvement of dools country.	T. Kegure Serd							
3. Improvement of puny quality, who to be formula to the formula		up to 14% of mosture comen.								
4. Interpretation of participations of participa		Commence and the set of the set into								
4. Inspectation of production desired. 5. Inspectation of malling hours. 1. Recurrent committees a control of production of malling hours. 1. Recurrent of malling hours. 1. Recurrent committees a control of production of malling hours. 1. Recurrent of control		uniformity of purify deminy								
Substancement of american behavior learned. So Story of a merican behavior learned. So Story of a merican behavior learned. So Story of a merican behavior learned. The advance of a merican behavior learned. The advance of white proce. The advance of white proce of merican learned. The advance of white proce of merican learned. The advance of the merican learned. The advance of behavior learned. The advance of behavior learned. The advance of behavior learned. The advance of behavior learned. The compared with no palesy. The co		 Improvement of discoored terme! up to 3% of discolored lighter! 								
Store to be selected from the control to co		5. Improvement of emerure kernel, up to 10% of emerture kernel.				٠.				
1. Reduction of military hours. 1. Requires the Reduction of military hours. 1. Requires the Reduction of military hours. 1. Requires to & M. coar. 1. Proceedings of the Reduction and Coarse and Coa		6. Storing for emergency food sortage. 7. Store to self up to better once.	٠							
1. Reduction of netting hours. 1. Require noom 1. Sequene tool. 1. Require noom 2. Require tool. 1. Require noom 3. Require noom 3. Require tool. 3. Require noom 4. Cheming to be you 3. Sed noom take and 4. Sequene tool. 3. Sequene tool. 4. Cheming proce of noo. 4. Cheming to be you 4. Cheming to be you 5. Cheming to be you 6. Cheming to be you 7. Sequene tool noom 8. Sequene tool noo		up to 20% higher price.								
Tablo contracted with member to buying the free buying the free buying the free buying to set the free buying to set the free buying to set the free buying one three every two months. 2. Required to set the free buying the free free. 3. Require free free. 4. Cheaning seting from or many that and 10% or members of the free free. 5. Require free free. 6. Cheaning of buying the free free. 7. Require free free. 8. Require of setting from the free free. 9. Require or extell weight. 9. Require or extell weight. 9. Require or extell weight. 9. Require free free. 9. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free. 1. Require free free. 1. Require free free. 1. Require free. 1. Require free free. 1. Require free free. 1. Require free. 1. Require free free. 1. Require free free. 2. All free free. 3. Require free free. 4. Require free free. 5. Require free free. 6. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 2. All free free free. 3. Require free free. 4. Require free free. 5. Require free free. 6. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require free. 1. Require fre										
Reduction of white has boying 3. Required 0.8 M coet, process and transportation hour, buryes and transportation hour, buryes and transportation hour, buryes and transportation hour, buryes on the transportation hour, buryes on the standing proce of nos. 2. Frods security for entire process. 3. Frods security for entire process. 4. Obtaining of high product. 5. Frod security of the entire product. 6. Obtaining of high product. 7. Require of one obtain weight. 8. Reduction of driving human. 9. Require of white process. 10. Compared with manual. 11. Require forms of white lend. 12. Require of one presented of driving quality. 13. Compared with manual. 14. Require forms of security of driving human. 15. Engineerment of driving quality. 16. Engineerment of driving quality. 17. Engineerment of driving quality. 18. Engineerment of driving quality. 19. Engineerment of driving quality. 19. Engineerment of driving quality. 19. Engineerment of driving quality. 19. Engineerment of driving quality. 19. Engineerment of driving quality.	TAKE INTE	1. Recycling of mileng nouns. 1/500 companied with menual, or	2. Recurs fuel							
Drove and transportation hour, Drywing cost requirition in but, Drywing cost requirition in but, Drywing cost requirition in but, Drove about the transportation of the product. S. Food security for emergency. S. Food security for emergency. S. Food security for emergency. S. Food security for emergency. S. Food security for emergency. S. Food most bread and the security weight. S. Command of the embt. S. C		Reduction of white noe buying	3. Required O. & M. coet.							
2. Foot security for months. 2. Foot security for emergency. 3. Foot security for emergency. 4. Obtaining of by-product. 5. Obtaining of by-product. 5. Obtaining of by-product. 5. Obtaining of by-product. 5. Obtaining of by-product. 5. Improvement of setting weight. 6. Emprovement of setting weight. 7. Require loss of obtaining weight. 7. Require loss of obtaining weight. 7. Require loss of obtaining weight. 7. Require loss of obtaining weight. 7. Require loss of obtaining weight. 7. Require loss of obtaining loss of obtaining loss. 7. Require loss of obtaining lo		problems transportation hour, busing cost reduction and	- *	.1.						
2. Froot security for entreasing proce of rote. 1. Food security for entreasing proce of rote. 2. Food security for entrepency. 3. Food security for entrepency. 4. Observing of be-product. 2. Improvement of setting weight. 3. Emphasize to set in control weight. 3. Emphasize to set in course with manual. 4. Reduction of dywing hours. 4. Reduction of dywing hours. 4. Reduction of dywing hours. 5. Reduction of dywing hours. 6. Reduction of dywing hours. 7. Require land. 6. Most. 7. Require land. 7. Require land. 7. Require land. 9. Require land. 10. Require confert. 11. Require confert. 12. Improvement of dywing quality. 13. Improvement of dywing quality. 14. Require confert.		one time eventy two months.								
2. Fidod security for emergency. 4. Coberang of by-product. 5. Control of the brain. 1. Improvement of adminy. 2. Improvement of adminy weight. 3. Control of of wing nown. 1. Require 0.5. M cost. 2. Control of of wing nown. 1. Require 0.5. M cost. 2. Reduction of of wing nown. 1. Require 1. Require 1. Require 1. Require 1. Require 1. Require 1. To compared with makinal. 2. Reduction of of wing nown. 1. Require 1. Require 1. Require 1. Require 1. Require 1. Require 1. Require 1. To compared with makinal. 1. Require 1. Require 1. The parameter 1. Require 1. The making 1.		 Increasing selling price of not. Notice than palor. 	•				-			
2. Concerning of expression of control of the contr		3. Food security for emergency.								
1. (Instruction of object) 1. (Instruction of object) 2. (Instruction of object) 3. Controlling of noe crack 1. Require norm and table 2. Controlling of noe crack 1. Require (O. & M. cost.) 1. Require (O. M. cost.) 1. Require		2. Cotaming of by-product. 20% of nos husik and								
Up to 14% incesture content. 2. Improvement of shirtly awaytt. 3. Contraining of new critical weight. 3. Contraining of new critical weight. 4. Reduction of bard work. 2. Reduction of bard work. 1. Require land. 1. Require land. 1. Require land. 1. Require land. 1. Require land. 1. Require land. 1. Incorpated with moderner. 2. Improvement of drying quality. 2. Improvement of drying quality. 2. Improvement of drying quality. 2. Improvement of drying quality.	Cuelty Control	10% of noe brain. 1, improvement of quality.	1. Recure from and table							
2. Unitroduction of adding weight. 3. Controlling of noe crack. 4. Require G & M cost. 5. Controlling of noe crack. 4. Require G & M cost. 5. Require G & M cost. 6. Require G & M cost. 7. Require G & M cos	Equoment	up to 14% mosture content.	•	•						
3. Contrainty of nee creak. 1. Require O.S. M. cost. 1. Require O.S. M. cost. 2. 2.0.001 2. Reduction of herd with trained. 2. Reduction of dying hours. 1. Require lend. 3. Improvement of dying hours. 2. Improvement of dying quality. 2. Improvement of dying quality. 3. Improvement of dying quality. 4. Improvement of dying quality. 4. Improvement of dying quality.		 Improvement of setting weight. Invalishe to self on actual weight. 				4				
1/10 compared with manual 2. Reduction of hard work. 1. Require land, 2. Improvement of drying quality, 2. Improvement of drying quality.	(9) Com Sheller	3. Controling of noe orack. 1. Recuction of shelling nours.	1. Require O.s. M. cost.		2000	2devit xP65x0.5	200065x0 5#	2.6		
th Solar 1. Reduction of dying hours. 1. Require land. 2. Improvement of drying quality. 4. Improvement of drying quality. 4. Improvement of drying quality.	(manual type)	1/10 compared with manual. 2. Reduction of hard work.				(Nati chance)				
iarehouse with Solar 1. Require land. 1. Require land. 1.15 compared with no pavement. 2. Improvement of drying quality. up to 14% of mosture content.	(10) Com Agreundustry									
(1	- Warehouse with Solar	ir 1, Reduction of drying hours.	1. Require land,	:						
up to 14% of mosture Contest.	ie.	1/3 compared with no pevement. 2. Improvement of grying quality.								
		up to 14% of mosture content.		-						

291.5 301.9 301.9

Leyte, Helongoe, Marengog	800		Airminer or	o pavorousi	Š	Denefit Value/Year		Defots Value/Year	
Facilities	C. C. Benefits thems	Deficite flems	Fecality	Increased Value	Vetue	Formula	Value(P000)	Formula	Value(P000)
	4. Improvement of colored learnel. up to 3% of colored learnel. 5. Food asounty for emergency. 6. Store to sell up to better price. up to 20% ingher price.								
· Com real	1. Reduction of milety froum. 1750 compared with manual, or. 2. Reduction of milet com buying constand the model from the property.	1. Require nom 2. Require n.et. 3. Required O.S. M. cost.	•						
	30% cost reduction and one time per month. 3 Increasing selling price of com. 30% Ingrate Then grain.								
· Con Steller	Octaming of head for heartock Reduction of shelling houre.	1. Require O.S. M. obst.	0	*					
(Engine type) - Quality Control Equipment	1/20 compared with manuel. 2. Reduction of hard work. 1, improvement of quelity. Up to 14% mosture content.	1. Require noom and table.	•						

Texas M. 2.46 Estimated Bundlin term Contribution of Free Laborat & Americanism Re-Miller (1)

Reg. X. Bulodnon, Meleybelley, Silee	. 3					•	:	
Feorties	Benefits Items	Ceforts Nems	Number of improved & Facility Increased Value	Value	Benefit Value/Year Formula	Value(P000)	Deriotts Vatue/Year Formula	Value(P'000)
1. Agricultural Mechinery (1) Tractor	1. Reduction of farming hours, 1/30 compared with manual.	1, Require fuel cost. 2, Require O.S.M.cost.	0					
	2. Available to deep cultivation. 3. Reduction of heums hours.		1					
(2) Hamd Tractor	1. Reduction of farming hours. 1.10 compared with manual.	1. Require fuel cost. 2. Require O & M cost.	1 10ha Zumes,2crops	10d/10ha, P1000ha (hired, half chance)	10/2/2/1000/00/5#	20.0 10/2/2/8/40 xP10.45/0.5*	0,2540 0,5*	4
	2. Reduction of healing hours 1/20 compared with manual.					(Operator cost) 10da x2x2x2300*	00s() %200e	1 20
(2) Spheyer (4) Ahmel Dhem Plow	1, inchesting of yield. 1. Reduction of lamming hours.	1. Require O.S. M. cost. 1. Require O.S. M. cost.	3 335he 3 331he	(included in farming eystem) 4deyx6500	stem) 3x1x4x500x0.5=	30,		• •
(5) Comb-Tooth Hanow	1,6 compared with manual, 1. Reduction of farming hours.	1. Require O.S. M. cost.	3 3778	(hired, half chance) 3dept/P400	3x1x3x400x0,5=	1.8		•
(6) Animal Drawn Sledge	1/5 compared with manual, 1. Reduction of hauling hours,	1. Require O.S.M. cost.	3 3x1hax1501t/377ha	(hired, half chance) 2dayxP400	3KK1501/077XXK400X0.5=			
Sub-total:	1/10 compared with manual,			(hired, half chence)		છ હ જ ત્ર		16.2
COSTANT OF ACTORISE OF THE PROPERTY OF THE PRO	1		-					
(1) Muta-Purpose Dryer	1. Reduction of caying hours.	1. Require land.	•	•				•
	2. Improvement of drying quary.		50t pallay	20%u0.5vPt	50,000,00,00,5,6x0.5=	•		
	up to 14% of mosture content.		50t com	(Nati morette) 20%x0.5xP6	(haff chance) 50,000x0,2x0,5x6x0,5**	0.04		
	3. Improvement of punty quality.		(included in the above)	(half increase)	(nail chance)	30.0		
	up to 95% of purity							
	ub to 3% of decolored kernel.		(according and the Companies)					
	5, improvement of immeture lighted. LO to 10% of immeture lighted.	:	(woded in the above)	•				
(2) Mechanical Dryer	1. Reduction of drymp hours.	1. Require land & nouse.	•			!		
(Oman .c.)	1730 compared with no maverneni.	Z. Kegure ruei.	9OheOwer	46-500(35/g)/ms	41/0x4x600x0.5e	9.8 1 time x12/00/00/775#	0000x77.75=	9
			Z7he/18kg mungbeen		(helf chance)	1 time x12	1 time x12x3x3x97.75=	
	 Improvement of cryong quarty, up to 14% of mosture content; 	 Require electricity or fuel. 	(evode and in pripalation)	· · · · · · · · · · · · · · · · · · ·		Cry style x12	1 time x12/200,75kwyg94=	90
	3. Improvement of purity queby, up to to 00% of a up.	4. Require O.S. Micoat.	(avode arth or graphical)				2000	F.0
	4. Improvement of discolared temes.		(avoda ert ru grabulorii)					0.1
	Lip to 3.% of disponed learner. 5. Improvement of immitture learner.		(moduding in the above)			(Doerstor cost)	cost) ds)=(10me x3cs)	
	up to 10% of ministure issue.) = 00cox	x9300 = (2+2)x300=	9
	7. Available to drying for any land		(avode arti in grabularii) (avode arti in grabularii)	. •				
(3)Reamer	of sead except of vegetable seeds. 1 Reduction of heaveshop fours.	Section of the Control of the Contro		27.c=0.0m0866	manovero es		- W. C. C. C. C. C. C. C. C. C. C. C. C. C.	ť
· ·	1/15 compared with manual.	2. Require O & M cost.	}	(hired, half chance)		(Sperator cost)	(2000)	
	Topic father of common of					00 m	ğ	ő
(4) Rice Thresher fibri Nesi	1. Reduction of threehing hours.	1. Require O.S. M.cost	۵		•			•
Section Transfer	1. Reduction of threshing hours.	1. Require fuel.	1 1x80k	10dayx0500/8t	60x10x000/8x0.5=	25.0 10x8x0.25x10xP6.53x	X10xP6.53#	1.7
(with prime mover)	570 compared with manual, 2. Reduction of heavy work.	2. Require O.S. M cost.			(helf chance)	(Operator cost)	0061)	ŕ
	3. Reduction of wirmovering work.					2 800	Į.	3
	4. Introvernent of purity queiny.			•				
(6) Winnower	1. Reduction of winnowering work.	1. Require O.&. Micoet	•		*			•
	2. Improvement of purity quality.							
	UP 10 95% of purmy							

Table K.2-16 Estimated Benefits from Distribution of Pyst-Hervest & Agro-Industry Fecilities (2)

Reg. X, Bundnon, Maleybelay, Stee	•			5	Benefit Value/Year		Defote Value/Year	
Facilities	Benefits Items	Cefforts Items	Facuity Increased Value	Value	Formula	Value(P000)	Pomyla	Varue(P000)
(7) Warehouse with Solar Dryar	1. Reduction of crying hours. 1/5 compared with no pevernent.	1. Regune land		SON GOOD	40 00000 00 0000 04	 !		1
	up to 14% of mosture concent		00 00c	(half increase) 20%x0.5xP8	(helf chance) 50,000x0,2x0,5x6x0,5x	20.0		
	3. Improvement of purity quality.		(moduded in the shove)	(half increase)	(haif chance)	0.6t		
	up to 95% of purity 4, Improvement of discolored kernel		(motivoed in the above)					÷
3	up to 3% of disodored lamel. 5. Improvement of immitture lamel.		(avode an the above)	: :				
	up to 10% of immeture kernel.			•				
	7, Store to sell up to better proc.		100% paley	20% to 5xP8	100000x0.2x0.5x8x0.5= (neff chence)	0.04		
			100t com	20%x0.5xP6	1000000.240.546x0.5=	•		
(8) Rice Agro-Industry				(var increase)	(Schreit) (Schreit)	3		
Certer - Wasshough un 1979 Sola	More and the Source of Darksman of Anners to us	- Pecuitte land	ဝဏ					
Dryer	1. reductors of crying in now. 1. foodmosted with no pavement. 2. Improvement of drying quality. up to 14% of mosture content.		•					
	· · · · · · · · · · · · · · · · · · ·	-						
	 Improvement of punity quality. up to 95% of punity 				٠			
	 Improvement of discolored liamel. up to 3% of discolored liamel. 							
	5. Improvement of immeture kernel, on to 10% of immeture kernel.							
	6. Storing for emergency hoot sortage 7. Store to sell up to better once.							
	up to 20% higher price.							
- Rice Will	1, Reduction of miling hours.	1. Regume room	0					٠
	7/200 compared with manual, or Recuction of white noe bowing	2. Require net. 3. Required Q & M cost.						
	proe and transportation hour.							
	one time every two morths.							
	 Increasing setting phose of noe. Ingher then palay. 							
	3. Food security for emergency.							
	20% of noe husk and							
- Questy Control	1. Improvement of quality.	1. Require room and	•					•
Equoment	up to 14% mosture content. 2: improvement of setting weight.	eggs eggs						
	everlable to est on ectual weight.							
(9) Com Sheller	1. Reduction of streting frount.	1. Require O & M cost.	0					٠
(10) Com Aoro-Industry	2, Reduction of hard work.							
Conte								
- Warehouse with Sold	 Warehouse with Solar 1, Reduction of drying hours. 1/5 compared with no covernment. 	1. Regule land.	1 SOt pally	20%x0.5x98 (half increase)	50,000x0.2x0.5x8x0.5+ (helf chance)	20.0		•
	2, Improvement of drying quality.		50t com	20%x0.5x6%	50,000x0,2x0,5x6x0,5+			
	up to 14% of montare content. 3 Improvement of partitionality.		(mode and or page (and page)	(Neil increase)	(ner chence)	0.61		
	up to 97% of purity							

able K.2.14 Estimated Benefits from Distribution of Post-Hervest & Agro-Industry Facilities (3)

Facilities 4 Insprove up to 34									
4. Improved to the control of the co	Benefits thomas	Deficits items	Fecility	Increased Value	Value	i	Varue(P000)	Formula	Vake(P000)
2000 A	4. Improvement of colored lame.			(included in the above)					
	up to an of colored remail. 5. Food security for emergency. 6. Store to set up to butter once.			(included in the above) 100t paley	20%x0.5xP8	1000000.2x0.5x8x0.5=			
X a d	up to 20% higher pros.			100t com	(half incresse) 20%x0.5x@6	(half ettence) 1000000.2k0.5k6k0.5#	0; G		
. Com Mail 1. Reduct 1/500 o 2. Reduct pros at 20% oo	1. Reduction of militral hours. 11500 compreed with manual, or 2. Reduction of milited com buying prose and transportation hour. 30% cost reduction and	1. Require from 2. Require fuel. 3. Required O.&.M. cost.			(tied average)		,		
one tem 3. Increase 30% htt	one time per morth. 3. Increasing sesting price of com. 30% higher their grain. 4. Food security for emergency.			(0.4vax180cs)t	30% xP6 (half increase)	0,4v8x180x1,000x0,3x0,5v6x0,5x (helf chance)	259.2	180/6x0,25x15x09.53# (Operator cost) 2p.x180x9200#	1.08.01
	 Obtaining of feed for Investock. Reduction of shelling hours. 	1, Require 0.5 M cost	•	1 20Vday,25ds+25ds	208//LxP65x0.5	20x50x2x65x0.5*	65.0 50x8x0.25x7x88.53x	5x7x878,53#	6.0
(Engine type) 1/30 oc 2. Reduct	1/30 compered with manual. 2. Reduction of hard work.				(nail chartes)		2P x50xP300=	300	98
Coupment 1, improve Equipment up to 1s	1, improvement of quality, up to 14% moieture content, 2, improvement of setting weight.	1. Require room and table.	÷ .	1 (included in the above)			•		
Sub-total.	everyble to well on actual weight.						676.7		200.0
Total: 2 Semetra Crand Total:				:			711.1		ä

Table K.2-17 Ownership and Person in Charge for Implmented Equipment and Facilities

popularities (n. n.), contrapt title externatur status till tilleco) (n.), degenta	Ownership	Management Planning	Opration & Maintenance
Land	Municipal or (Barangay)	and the second of the second o	(Municipal) or Barangay
Facilities	Provincial	Municipal	Cooperative (FO) (Beneficiaries)
Equipment with prime mover	Provincial	Municipal	Municipal (Cooperative) (FO) (Beneficiaries)
Equipment manual type	Provincial	Municipal	Cooperative (FO) (Beneficiaries)

Remarks:

() = second recommendation personnel

Project Status/ Title	OTI-CARP Cost	Proponent/Location	Beneficians FB's	LO _{\$}	Remarks
REG. CAR, Abra A. Operational Projects	**	Antonia da da Antonia	1. II. WHAT AND		
Transport Project (89 C.O.)	260, 0 00	Abra Guimpong Association Baay-Licuan, Cacub and Maliboong, Abra	1,500	0	Project operation/mgt. normal; with P106,617 repayment as of Mar '96.
2. Decortication Machine (91 i.O.)	28,261	Villaviciosa Integrated Women's Association Villaviciosa, Abra	122	0	Accounted operationalized 2nd quater 1995.
3. Rattan Furniture Mftg. ('91 I.O.)	9,975	Napaparan Rattan Furniture Makers Association Danglas, Abra	23	0	Amortization started in July of 1993; with P700 IRS payment
4. Transport Project ('89 C.O.)	260,000	Karao Ekip Farmers Assn. Karao and Ekip, Bokod, Benguet	201	0	The facility is fully paid with one ownership already awarded to proponent.
Sub-total (A):	558,236		1,846		•
REG. I, La Union					
A. Operational Projects 1. Palay Processing Facility	90 000	Inabaan Norte Agri MPC Inc.	200		Fully operational, with
(89 C.O.)	20,000	Baay-Licuan, Lacub and Maliboong, Abra, La Union		-	P47,216 IRS payment.
B. Inoperative Projects 1. Ceramics Manufacturing Facility ('89 C.O.)	34,600	Barrientos Ceramios Assn. Barrientos, Luna, La Union	15	0	Waived to DTI; CSF at the DTI La nion; scouting for qualified beneficiary for
Ceramics Manufacturing and Training Facility ('89 C.O.)	93,600	Damortis National High School Damortis, Sto. Tomas	50	0	possible transfer or sale. Waived to DTI; scouting for qualified beneficiary for possible transfer or
3. Palay Processing Facility ('89 C.O.)	90,000	Tubao Valley SWT Procoma, Inc. Leonest West, Tubao, La Union	140	0	sale. Non-operationl; waived to DTI and scheduled for COA
					valuation, with P5,000 repayment, identification or replacement proponent ongoing.
Lipay Loomweaving Livelihood Project ('91 I.O.)	38,000	Lipay Este Consumers' Coop. Incorporated San Gabriel, La Union	20	0	CSF waived to OTI. DAR is helping OTI in identifying ARC or NGO for possible
	256,200	La Gison	225	·. :	transfer or sale.
Sub-total (B):	210,200		220		
			:		
REG. II, Quinno A. Operational Projects					
Rattan Splitting and Coring Machine	310,500	Bugkalot Confederation of Rattan Gatherers Assn. Nagtipunan, Quinno	18	0	Operational, P15,000 IRS payment.
(91 C.O.) 2. Handmade Paper Facility (91 C.O.)	140,510	Oibul Farmers MPCI (DIFARMCO)	37	0	The DIFARMCO Handmade Paper Industry became the Regional Center for Paper Making.
3. Banana Chipping Machine ('89 C.O.)	12,960	Saguday, Quirino Maddela Food Processors Assn. Incorporated, Maddela,	36	0	Operating inefficiently; no regular buyer of banana
4. Rice and Corn Grinder ('69 C.O.)	12,320	Quinno Our Lady of Lourdes Credit Cooperative, Incorporated	100	0	chips. Operational w/ P12,230 loan fully paid
Sub-total (A):	476,290	Aglipay, Quirino	191	0	
B. Inoperative Projects Rattan Splitting and Coring Machine	302,829	Rattan Weaver's Association of Maddela	31		Non-operational; proponent signified her intent to
('89 C.O.)		Buenavista, Maddela, Quirino			return the equipment, with P120,868 repayment to date.

Table K 2-18 OTI-CARP Inventry of CSF/AIP Projects (2)

as of March, 1996

					os of Marche 1500
Project Status/ Title	DTI-CARP Cost	Proponent/Location	Beneficiaris F8's	LOs	Remarks
REG. III. Bataan			• • •		Brev from the time continues the con-
A. Operational Projects					
1. Palay Reaper	76,000	Mt. View MPCI	no data		Operationalized within 2nd
('931.0.)		Maligaya, Dinalupihan			quater of 1995; in good
		Bataan			condition; P12500 IRS
					payment, good management
B. Inoperative Projects	074000				
Garments Training and Gentler	274,000	Dinalupihan Economic Devit	150	0	Two(2) units of hi-speed
Production Center (911.0.)		Foundation, Incorporated Oinalupihan, Bataan			sewing machines were pulled
(311.0.)		Olitaicpitair, batsair			out by DTI Bataan; for transfer to another group
					to be identified.
					to be recording a.
			•		
REG IV. Quezon			-		
A Operational Projects	242.620	1 BEOM # 0	:	_	
1. CFS on Handmade Paper (91 LO.)	213,032	Lopez PEC Multi-Purpose	28	0	Machineries & equipment are
(9)10.)		Coop. Lopez			undergoing rehabilitation.
B. Inoperative Projects					
Brick/Rooftile Mfg.	210,770	Samahang Magsasaka ng Calutan	54	0	Facility is being prepared
Facility	·	Calutan, Agdangan, Quezon	· ·	•	for transfer to another
(89 l.O.)					proponent
					. To the second
REG. V. Camarines Sur					
A. Operational Projects	•				
Bamboocraft Making	11 180	Pinit Bamboocraft Makers	32	n	The new proponent, Gipi
(89 C.O.)		Assn. Bgy. Salvacion,		•	MPCI of barangay Salvacion
		Ocampo, Camarines Sur			merged with the Pinit
			*		Bamboocraft Makers Ass.;
				- F	with P6,471 IRS payment
2. Post-Harvest Facility	23,000	Quilomaon Multi-Purpose Coop.	37	0	Proponent identified to
(Corn Sheller)		Sangay, Camannes Sur		:	assume fine-twine billing
('89 C.O.)					eqpt. from Catanduanes;
3. Trade and Display	300,000	Federation of Manufacturers	200		w/ P3,000 IRS payment
Center	300,000	Assn. of Camarines Sur Inc.	200	υ	Coordinatio w/ provincial gov't planed to determine
('89 C.O.)		Naga City, Camannes Sur		1.5	its plan for the CFS and
					proponent.
Sub-total (A)	334,180		269	. 0	*
D. Innerson Desirate	•			-	
B. Inoperative Projects 1. Sack Making	63.035	1 Sablas de 14 de 5			
('89 C.O.)	02,033	Highlands Multi-Purpose Agriculture Cooperative	35	U	P20,385 tRS payment 777
(000.0)		Sigamot Libmanan			For delisting.
*		Camarinese Sur			•
2. Seap Production	47,973	Milagroso Mfg. Cooperative	42	. 0	Resident COA advised DTI
('89 C.O.)		Pamukid, Dan Fernando		. •	to request DOST technical
a de la companya del companya de la companya del companya de la co		Camarines Sur			team's appraisal of the
					CFS; for delisting.
3. Handloom Weaving	62,875	St. Joseph Handloom Weavers	25	• 0	Four(4) additional units
('89 C.O.)	•	Multi-Purpose Cooperative	:	•	of handlooms were donated
		Palsong, Bula, Cams. Sur			by CITC; with P25,150
		•	* .		IRS payment, the coop to convene for reorganization
	•				planning.
Batut Making	81,979	Milaor Manpower Resources	25	0	Audit team's report is
('89 C.O.)	1	Development Corporation		-	still for submittal:
0.1.4.1.01		Milaor, Camarines Sur			for delisting
Sub-total (B):	255,662		127	0	

Table K.2-18 OTI-CARP Inventry of CSF/AIP Projects (3)

as of March, 1996

Project Status/ Title	DTI-CARP Cost	Proponent/Location	Beneficiaris FB's	LOs	Remarks
REG. VI. Aktan		***************************************			
A Operational Projects					
Kiln (for pottery and bricks) CFS	173,650	Pot Makers Assn. of Lezo Poblacion, Lezo, Aldan	26	0	Kiln fireboxes for repair; w/ P10,500 IRS payment.
('89 C.O.) 2. CFS Handlooms	80,000	Makato MPCI	86	0	Strengthening of the coop.
(91,10.)	00,000	Poblacion Makato, Aktan	ω		is needed, 19 months in arrears; P12,300 payment on IRS.
Sub-total (A):	253,650		112	0	
B. Inoperative Projects					
1. Ibajay's Rice Mill & Warehouse ('89 C.O.)	186,912	Ibajay Farmers' MOCI Ibajay, Aklan	202	1	Not Operationg due to lack of working capital, some P30,827 IRS payment
REG. VII. Bohol					•
A Operational Projects 1. Loomweaving	150,000	Inabanga Federated	55	. 0	Project in full operation.
100 units of handlooms	130,000	Loomweavers Assn.	33	v	Project in 10% operation,
('89 C.O.)		Daet, Inabanga, Bohol			•
2. Banana Processing	125 002	Co illa Candaratta Dradicaca	42		Comb Al Al Al bear and arran & John
Odivery Vehicle ('89 C.O.)	135,000	Sevilla Foodcrafts Producers Cooperative Incorporated	42	U	1 unit AUV turned over 6 July 1990; in full operation with
(55-5.5.)		Sevilla, Bohal			rehab of the CSF completed;
					rehabilitated at P35,715
•		The second second			cost P170,715); the start of payment scheduled 3/96.
3. Antequera Production and	285,282	Antequera Producers Coop.	105	. 0	Project in full operation.
Trade Center		Incorporated			
('89 C.O.)	404.500	Antequera, Bohol	20		Billian Salah Balanda Salah Balanda
4. Matweaving ('89 C.O.)	101,908	Ubay Matweavers Association Ubay, Bohol	30	· U	Producing bread and butter mat designs; full operation.
5. Basketweaving	115,970	Mabini Basketweavers	28	0	Project in full operation;
(91 LO.)	400 500	Mabini, Bohol			P47,555 IRS payment
6 Basketweaving ('91 LO')	109,200	S. Bullones Weavers Assn. Poblacion S. Bullones, Bohol	35		Project in full operation; prodn. level dependent on orders placed.
7. Loomweaving	140,000	Tubigon Loomwevers Assn.	42	. 0	Ist qtr. '92 (Jan. 8); Prodin
(9110.)		Pinayagan Norte, Bohol			in full operation; P40,000
				-	cost of rehab for inclusion into IRS; P2,000 payment.
8. Hatweaving	1,000	Cansungay Hatweavers Assn.	25	0	Project in full operation.
(9110.)		Bohol			
9. Meat Processing ('93 LO.)	25,912	Soom Meat Processors Soom Trinidad, Bohol	40	0	Operationalized with the 2nd quarter 1995; full operation; supplying processed meat
10. Basketweaving	104 503	Balilihan MPCI	50	0	product in Trinidad. In full operation; w/ sub-con
('89 C.O.)		Balilihan, Bohol			orders from Antequera Producers Cooperative.
11. Woodworking	15 305	Sagbayan Farmers Woodworkers	15	0	Operationalized with the 2nd
(931.0.)		Association San Isidro, Sagbayan, Bohot			qtr. '95; in full operation supplying fashion accessories
Sub-total (A):	1,184,145	i	467	. 0	components in Cebu.
	• • •				
Inoperative Projects Dried Fruit Processing	60 200	Trinidad Fruit & Vegetables	34	n	Non-operational, for writing
('89 C.O.)	99,200	Growers Association Trinidad, Bohol		J	off, w/ P19,677 IRS payment
2. Kroepeck Making	131,198	Candijay Kroepeck Makers	27	0	Non-operational, product not
(89 C.O.)		Association Pob. Candijay, Bohol			perfected, market linkage activity needed; for rehab; P21,466 tRS payment.

Project Status/ Ti∉e	DTI-CARP Cost	Proponent/Location	Beneficiaris FB's	LOs	Remarks
3. Loomweaving ('91 LO.)	16,000	Magtangtang Loomwevers Assn. Danao, Bohol	41	0	Non-operational; production dependent on orders placed.
4. Loomweaving ('911.O.)	93,456	Valencia Loomweavers Assn. Amas, Valencia, Bohol	72	0	Still non-operational; w/ P33,475 IRS payment.
Sub-rotal (8):	339,854	Arias, Valencia, Dolloi	174	0	F35,475 in 5 payment
	:				
REG. VIII. Leyte					
A. Operational Projects					
1. Ticog Loom Weaving	2,300	Bahay Farmers MPCI	20	0	Scheduled to pay their 4th
('89 C.O.)		Barangay Bahay, San Miguet Leyte			ammortizatin; P800 IRS payment
8. Inoperative Projects					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Coco-Charcoal Making	1,800	Liwayway Charcoal Makers Assn.	0	0	For condemnation
(Pag-asa Kilns)	+ 4 - 5	Barangay Liwayway, MacArthur	•		
(89 C.O.)		Leyte		_	
2. Coco-Charcoal Making	2,000	Imelda Matam-is Charcoal	0	0	For condemnation
(Pag-asa Kiins) (189 C.O.)		Makers Association Barangay Imelda, Baybay, Leyte			
3. Coco-Charcoal Making	" 1 700	Albuera Charcoal Producers	0	n	For condemnation
(Pag-asa Kilns)	1,100	Association	•	v	7 of condemniason
(89 C.O.)		Sitio Mangga, Albuera, Leyte			
4. Coco-Charcoal Making	2,495	Hilongos Integrated Barangay	0	0	For condemnation
(Pag-asa Kilns)		Consumers Association			
(89 C.O.)		Bgy, Lamak, Hilongos, Leyte			
5. Coco-Charcoal Making	2,000	Kapunungan Ng Mga May-	0	0	For condemnation
(Pag-asa Kiins) ('89 C.O.)		Uuling Ng Ubang Industriya Brgy, Culasi, Leyte, Leyte	:		and the second second
6. Coco-Charcoal Making	1 800	KAMASIKA MPCI	0		For condemnation
(Pag-asa Kiins)		Bgy. Daro, Jaro, Leyte	•		t of condennator
(89 C.O.)					
7. Coco-Charcoal Making	1,800	Macupa Coconut Based Farmers	0	. 0	For condemnation
(Pag-asa Kilns)		Multi-purpose Cooperative			
(89 CO)	4.700	Macupa, Jaro, Leyte			
Coco-Charcoal Making (Pag-asa Kiins)	1,700	Campokpok Charcoal Makers Association	0	0	For condemnation
(89 C.O.)		Bgy. Campokpok, Tabango, Leyte			
9. Coco-Charcoal Making	1,900	Tinago Charcoal Makers Assn.	0	G	For condemnation
(Pag-asa Kilns)		Brgy, Tinago, San Isidro			10100114702011
('89 C.O.)		Leyte			
10. Coco-Charcoal Making	1,800	Pawa Coco-farmers Association	0	. 0	For condemnation
(Pag-asa Kilna)		8gy, Pawa, La Paz, Leyte			
('89 C.O.) 11. Coco-Charcoal Making	1.900	Canvertudes Small Coconut	0		Farandam askan ud D450
(Pag-asa Kilns)	1,500	Producers Association		U	For condemnation; w/ P158 IRS payment
(89 C.O.)		Bgy. Canvertudes.			nto poliment
		Alang-Alang, Leyte			
12 Coco-Charcoal Making	1,700	Malazarte MPCI	0	0	For condemnation
Center		Barangay Malazarte, Matag-ob,			
('89 C.O.) 13. Coco-Charcoal Making	1 000	Leyte Villaba Charcoal Makers Assn.			# Annual
(Pag-asa Kilns)	1,900	Bgy. Balite, Villaba, Leyte	0	. 0	For condemnation
(89 C.O.)		-3/			
14. Ceramics Production	58,492	Matalom Ceramics Devt. Assn.	35	0	To be reassessed by COA
Center		Brgy, Zaragosa, Matalom,			for the new proponent.
(89 C.O.)		Leyte			
15. Egg Processing (Balut) ('89 C.O.)	3,360	San Agustin MPCI	27	0	For condemnation
16. Coco-Vinegar Production	3.027	Bgy, Tugbong, Kananga, Leyte San Agustin Coco-Vinegar	21		Blan agnesieral kritatu
Center	5,021	Makers Association		U	Non-operational but the proponent to pay their
(89 C.O.)		San Agustin, Babatagon, Leyte	-		3rd amortization; with
	* 1				P500 IRS payment
17. Egg Processing (Balut)	4,000	Matica-a Balut and Salted Egg	30	0	For retrieval/pull-out
('89 C.O.)		Makers Association			
Sub-total (B)	03 274	Matica-a, Ormoc City, Leyte	445		
Cacrota (C).	93,374		113	Q	

					200,110101,1030
Project Status/ Title	OTI-CARP Cost	ProponenVLocation	Beneficiaris FB's	LOs	Remarks
REG. X. Bukidnon					
A. Operational Projects					
1. Rattan & Bamboo	450,000	Talakag Rattan Furniture/	15	0	Additional equipment are
Production Project		Handioraft Makers Assn.			afready installed.
(91 LO.)		Tafakag, Bukidnon			•
2. Rattancraft Processing	225,000	Tigwa Rattancraft Operators	15	0	Accounted operationalized
Project		and Workers Association			2nd quarter '95; CFS went
('89 C.O.)		Halapitan, Sari Fernando			unreported for more than
		Bukidnon			a year; 10-15 households
*					are benefiting from the
					facility.
Sub-fotal (A):	675,000		30	0	
O Lancackia Ossinata					
8. Inoperative Projects	200.000	Buildean Barris Crawam Anna	500		Accessor and a second
1. Ramie Processing Center	290,000	Bukidnon Ramie Growers Assn.	590	U	Operation suspended;
Vice Village Level Ramie Processing		Valencia, Bukidnon			negotiations on-going to pay-off loans by selling
(89 C.O.)					the technology or arrange
(69-0.0.)		* .			a package to convertioan
					component into grant
2, Rattan Processing Center	395,000	Provincial Production Center	25	n	Transferred from Bayugan,
('89 C.O.)	444,000	Valencia, Bukidnon	20	•	Agusan del Sur, the CFS
(50 0.03)		Tarana, Balastian			is planned to be used as
		A Property of the Control of the Con	*		training cum production
		**************************************			center (per travel report
•		÷			made last 4th qtr. 1994;
A Company of the Comp					no recent update).
Sub-total (B)	685,000		615	0	
•					
				; :	•
REG. XI. Davao	•				
A. Operational Projects	40.400			70	
Cold Storage & Food Processing Equipment	16,130	Kooperatiba ng mga Mansasaka ng Kalinan	110	73	Fully paid as of 16 May
('911.O.)		Magianos, Calinan, Davao City	+,		1994; marketing tie-up w/ SAMPCO is seen to max
(911.0.)		magistics, Camien, Daved City			utilization of the cold
		:			storage facility.
2. Cold Storage & Platform	18 200	Sunshine ARBA MPCI	47	. 6	Reported fully paid as of
Scale		(formerly Sirawan-Toni	•••		30 August 1994; assisted
(911.0.)		ABRA MPCI)			by Magnolia Chicken in
		Sirawan, Toril, Davao City			marketing activities; the
					P75,000 MEDP-CDF loan to
	1				be released January 1996.
Sub-total (A):	36,330		157	73	
		and the second second			and the second second
C. Project Established					
Rattancraft Tools and	8,679	DTI Davao City	0	0	Retrieved from Titugop
Equipment		Davao City		4	United Farmers MPCI;
(91 LO.)					no replacement proponent identified as of to date.
•					roenaneo as or to date.
4					
REG, XIII. Surigao del Norte					
A Operational Projects					*
1, Rootcrops Processing	51,000	Glenn New Mabuhay MPCI	365	0	P10,550 IRS payment made:
('91 l.O.)		Glenn New Mabuhay, Dinagat			9-10 hectares planted to
	•	Surigao del Norte			cassava
	£ 4 0 0 0	Anao-aon Ipil MPCI, Inc.	220		P7,250 IRS payment made:
2. Rootcrops Processig	51,000		220	. •	
2. Rootcrops Processig ('91 LO.)	51,000	San Francisco,	220		AIFAMUCO with 8 hectares
· · · · · · · · · · · · · · · · · · ·	102,000		585	0	

Table K.2-18 DTI-CARP Inventry of CSF/AIP Projects (6)

as of March, 1996

Project Status/ Title	DTI-CARP Cost	Proponent/Location	Beneficiaris F8's	LOs	Remarks
B. Inoperative Projects 1. Ceramic Processing Center (89 C.O.)	75,000	Garcia Ceramic Producers Assn. Garcia, Santa Monica Surigao del Norte	30	- `.—	5 Kiln ceased to operate deu to technical design defects; kiln redesigned with the first firing
2. Rootcops Processing ('911.o.)	51,000	Mainit Rootcrops Producers' Association, incorporated Magpayang, Mainit, Suriogo del Norte	\$15	(successful. P 12,750 IRS payment made; group not able to meet IRS commitments.
Sub-total (8):	126,000	onigae da istite	145	•	5

Source: Department of Trade and Industry

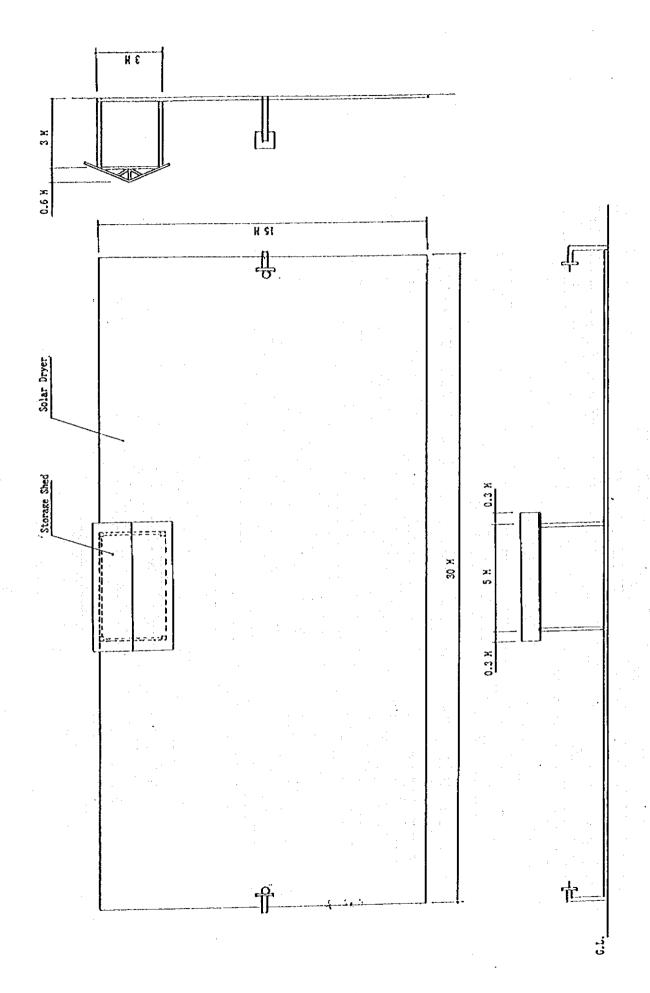
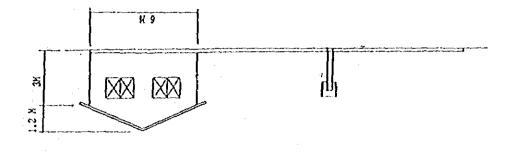


FIGURE K.2-1 PROPOSED PLAN OF MULTI-PURPOSE DRYER



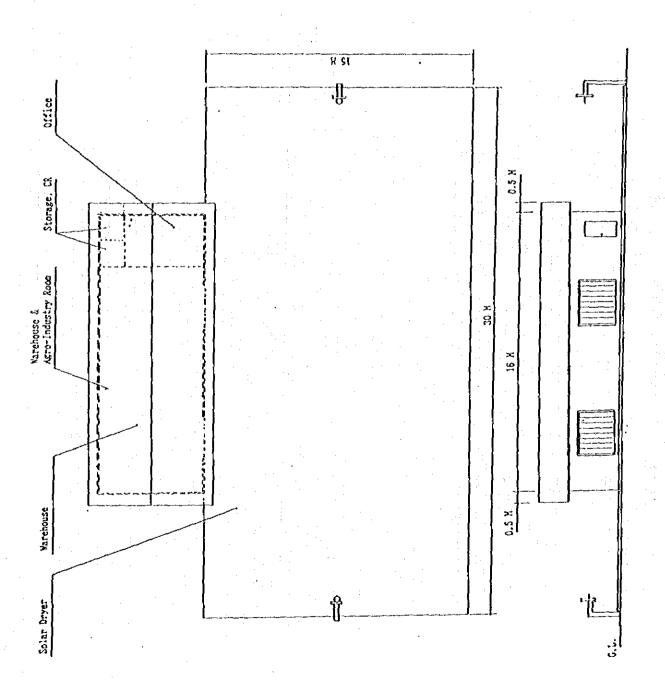


FIGURE K.2-2 PROPOSED PLAN OF RICE OR CORN AGRO-INDUSTRY CENTER

FIGURE K.2-3 FLOW CHART FOR GUIDLINE OF POST-HARVEST DEVELOPMENT PLAN

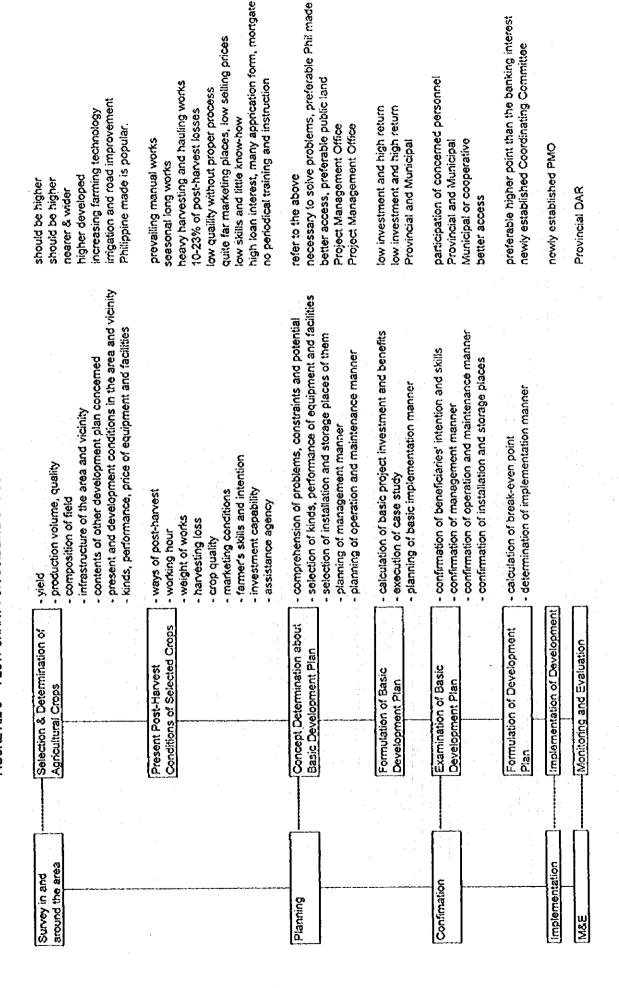


FIGURE K.2-4 FLOW CHART FOR GUIDLINE OF AGRO-INDUSTRY DEVELOPMENT PLAN

