# Geological Investigations and Tests Conducted

The following geological investigations and tests have been implemented for the Project up to date;

- Surface geological investigation of the upstream and downstream damsites and the reservoir areas, thereof for geological mapping of them;
- Bore-hole drillings for the above-mentioned two damsites and the diversion damsite (head works site) to prepare borehole logs;
- Excavation of test trenches and hand auger holes for the borrow areas;
- Soil test for embankment materials and tabulation of the test results;
- Rock test for embankment material and tabulation of the test results

The above-listed geological investigations and tests are briefly described below;

### 1. Surface Geological Investigations

Surface geological investigations have been carried out covering the both damsites and the borrow areas of about  $9.7~\mathrm{km^2}$  in total by employing the Geology Section of 1.D. (see Figures 3B-6 and 3B-7) The major findings and some considerations made in the field reconnaissance survey and in geological mapping are described in Appendix 4D-2.

### 2. Bore-Hole Drilling

13 bore-holes in total have been drilled up to date as shown in the following table.

### Upstream Damsite

Location	Hole Number	Drilled Length	Remarks
River bed	В.Н.1	(m) 45.7	Vertical
River bed	B.H.2	30.5	Vertical
Left abutment	B.H.3	38.1	Vertical
Left abutment	B.H.4	35.1	Vertical
Left abutment	B.H.5	36.6	Vertical
Right aubtment	B.H.6	54.9	Vertical
Right abutment	B.H.7	48.8	Vertical

### Downstream Damsite

Location	Hole Number	Drilled Length	Remarks
Left abutment	B.H.1	12.2	Vertical
Left abutment	B.H.2	18,3	Vertical
River bed	B.11.3	45.7	Vertical
Right abutment	B.H.4	21.3	Vertical

## Diversion Damsite

Location	Hole Number	Drilled Length	Remarks
		(m)	
On the terrace	B.H.1	12.2	Vertical
Right side of st	ream B.H.2	14.3	Vertical

Figures 3B-8 shows the location of bore-holes and the geological logs at each bore-hole respectively.

## 3. Test Trenches and Hand Augers

Excavation of test trenches and hand auger holes has been undertaken at the borrow areas to study an obtainable quantity of impervious materials and to sample the soil test materials.

Five test trenches and 116 hand auger holes in total were excavated up to date. Figure 3B-7 show the location of these test trenches and hand auger holes.

#### 4. Soil Tests

Materials obtained at the open trenches and hand auger holes were sent to the Soil Laboratory of 1.D. for physical and dynamic tests of which results are shown in Tables 3B-15, 3B-16 and 3B-17 together with the physical test results of the Okkan river deposits.

#### 5. Rock Tests

Rock test of the boring cores obtained at the upstream damsite were carried out by the Soil Laboratory of 1.D. to study the lithic characters of the bed rock and the results are shown in Table 3B-18.



# FIGURE 3B-6 GEOLOGICAL MAP OF OKKAN AREA

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MICCENE-OLINOCENE KYMIKROK FORMATIONS

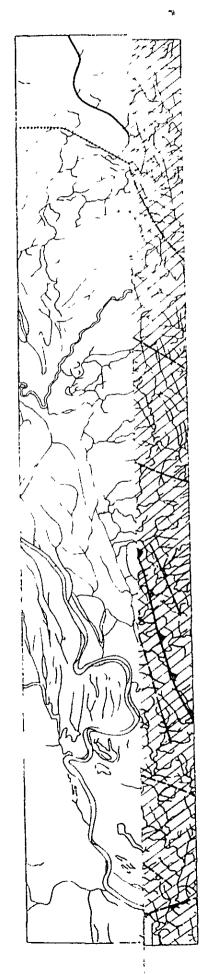
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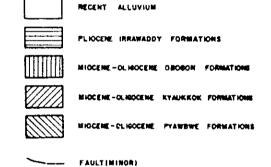


Appendix 3B-3 Page 4



# FIGURE 3B-6 GEOLOGICAL MAP OF OKKAN AREA

# INDEX



FAULT(MAJOR) FOLD AXIS

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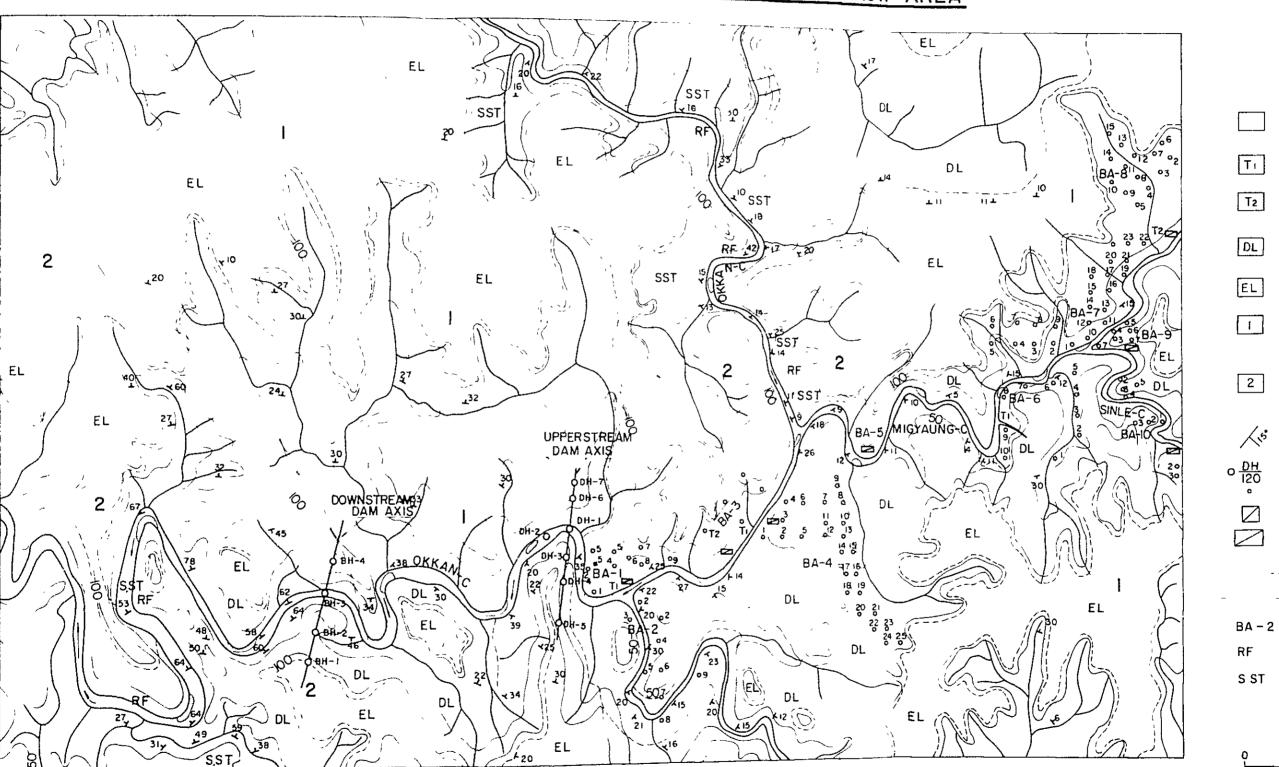
DRILL HOLE WITH DEPTH

TEST TRENCH

SCALE

# N

# FIGURE 3B-7 GEOLOGICAL CONDITION ON DAMSITE AND BORROW AREA



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T2 OLDER ALLUVIUM TERRAC

DL DELLUVIUM MATERIALS.

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INTERBEDDED SANDSTONE
THINLY TO MODERATLY BI
BEDDED JOINTED SANDS

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O DH DRILL HOLE WITH DEPTI 120 HAND AUGER HOLE

TEST PIT

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BOUNDRY BETWEEN DIFF

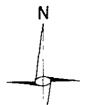
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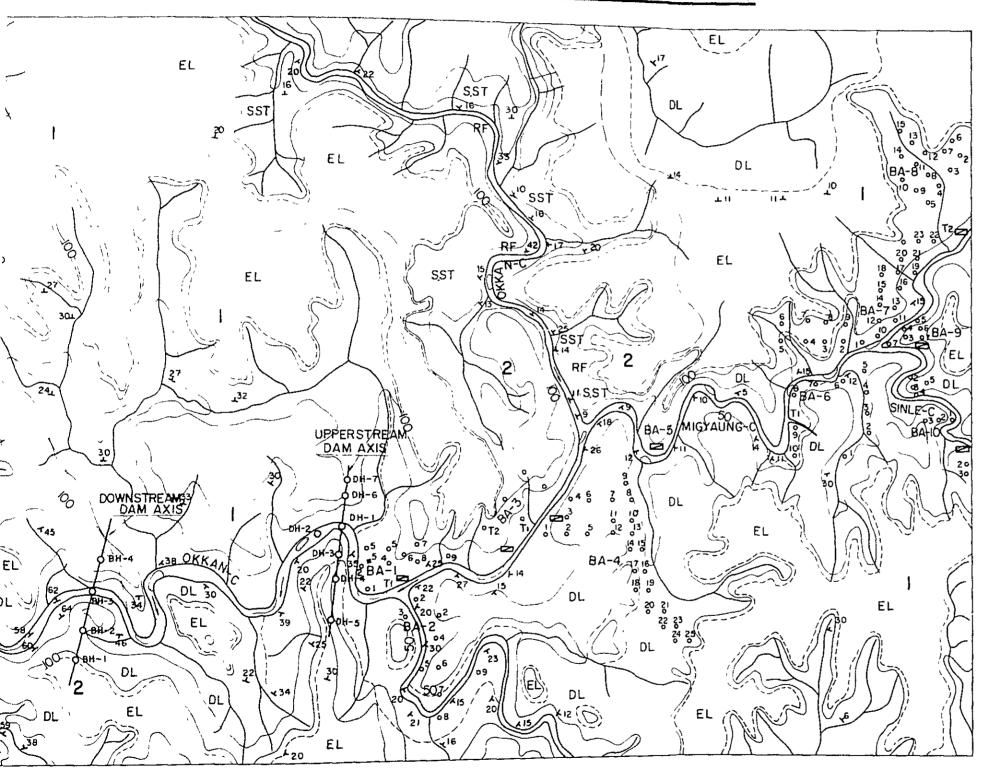
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SCALE



# FIGURE 3B-7 GEOLOGICAL CONDITION ON DAMSITE AND BORROW AREA



# INDEX

RECENT CHAUNG SAND AND GRAVELS FORMING BARS INCLUDING SOME AMOUNT OF FINE PARTICLES

TI YOUNGER ALLUVIUM TERRACE MATERIALS

T2 OLDER ALLUVIUM TERRACE MATERIALS

DL DELLUVIUM MATERIALS

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SANDY SHALE IN WHICH FINE SAND ARE MORE PROMINENT IN BEDDING PLANES

2 INTERBEDDED SANDSTONE B SHALE IN WHICH
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DIP AND STRIKE

DH DRILL HOLE WITH DEPTH 120 HAND AUGER HOLE

TEST PIT

TEST TRENCH

BOUNDRY BETWEEN DIFFERENT KINDS OF SOIL

BOUNDRY BETWEEN DIFFERENT KINDS OF ROCK

BA-2 BORROW AREA AND ITS DESGINATION

RF ROCK FALL

S ST LOCATION SHOWING STONE FOR CONSTRUCTION



# FIGURE 3B-8(1) GEOLOGICAL LOGS OF THE UPPERSTREAM DAMSITE

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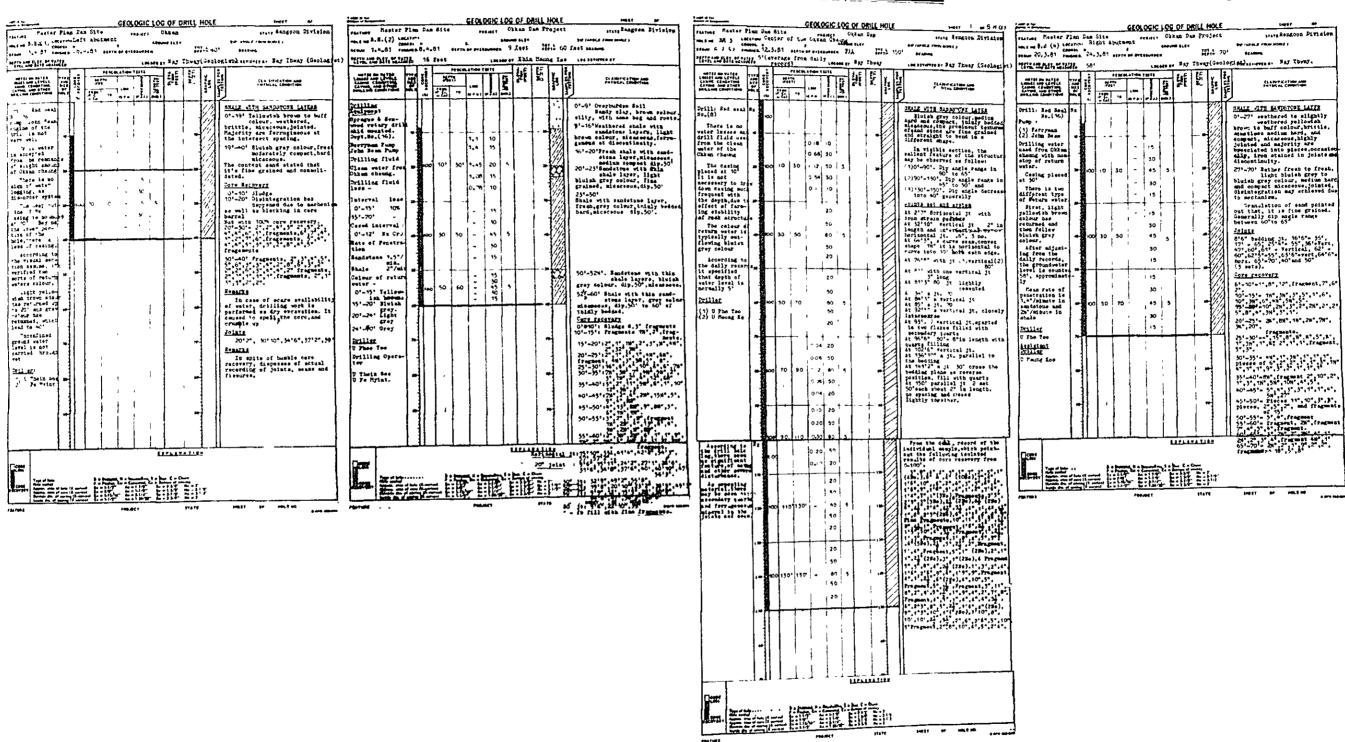
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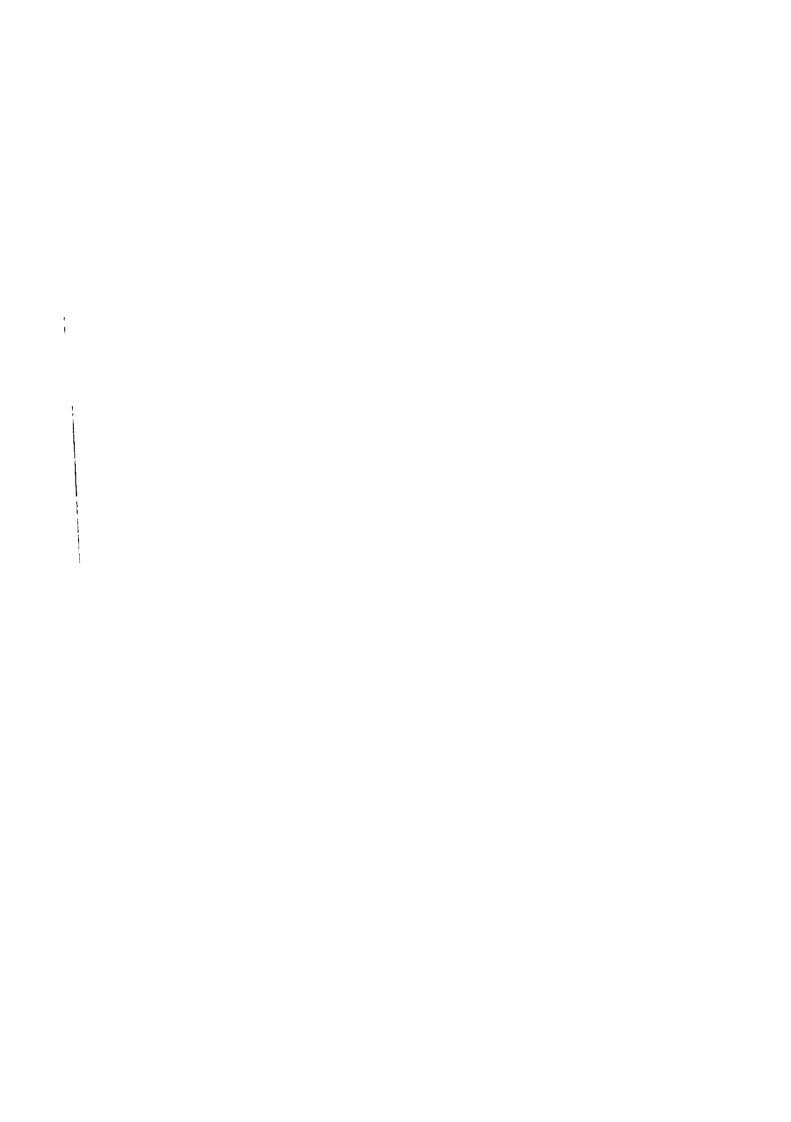
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# FIGURE 3B-8(3) GEOLOGICAL LOGS OF THE DOWNSTREAM DAMSTE



# FIGURE 3B-8 (4) GEOLOGICAL LOGS OF THE DIVERSION DAMSITE

SUBSURFACE EXPLORATION-PENETRATION RESILIPANCE AND LOG SUBSURFACE EXPLORATION-PENETRATION RESISTANCE AND LOG Checked by MYA THA, A.E.G. Checked by Mya Tha, AE.G. Feature DIVERSION DAN SITE Project ONKAN DAN PROJECT Township TATKETI Feature DIVERSION DAM SITE Project ORKAN DAM PROJECT Township TATKKYI G.W.L. 14 FT Hole No. B.H.2 Total depth 40 IT Total depth 47 Ft. Hole No. B.H.1 Date Measured 13.4.81 Logged by KHIN NG YEE Location Right Side of Streamlogged by KHIN MG YES Date Measured 16.4.81 Location OF THE TERRACE PENETRATION RESISTANCE CLASSIFICATION AND PENETRATION RESISTANCE .CLASSIFICATION AND DESCRIPTION OF (FT) Rlows per 100t Weight of Ha her 140lb Height of Drop 30 in DEPTH (FT) DESCRIPTION OF MATERIAL Blows per foot MATERIAL Notes BLOWS/FT WATER CONTENT SAMPLE F GRAPHIC WATER CONTENT SAMPLE F Weight of Ha zer 1401b Height of Drop 30 in Notes DEPTH 20 30 40 70 Or: 20 30 40 0'-9'- Bilty BIND, 0'-1' SAHD, Fine grained, yallowish Fine grained, dark brown, slightly cohesive. n 96 brown loose. core drill Deps No.8; Maremen pump from Okken stream Colour of return Mater: milky solon color of return amount of quarts grayals and shale flakes, fine grained, bluish grey, 1 to 5" thick dark grey coloured allt & silly clay layers are found at depth 8 to 9%. 9'-14' BARD, fine <u>ਆ</u> . grained, brown, con-36 taining grey colored thin clay layors. 1. Dept.No.8: F 8459-47. Color U Ppo Top & U 15 STREET, reddish brown 5 34 101-42' BARTO BOCK, fine to medium light bluish colour grained. fine grained, bind-O-201-Kede-Drilleys-U-Phe-res ing materials is clay, upper portion is soft; micaceous, low resistant to drilling penetration 152-19' SAND with er core drill. fine grained, grey, medium dense, contain ing quarts gravels & small shale flakes. 42'-47', SHALE, bluish grey with small smount of sand thinly bedded, mica-ceous, upper portion 19'-40' BAND ROOK, light bluish fine Drilling Equipment: Bed seal Drilling Equipment: Red se Drilling Fluid: Olear water Gassa interval: 0-25, N.x. grained, binding material is clay,lor resistants to drill. is ferrugeneous. ing penetration still it's H-value is 50 greater than 100. wicaceous. Cal 60 70 70 Bed rock's characters N. Value Depth Bed rock's characters H. Value Dopth N-value Depth N-value 121-6" 1316" 1416" SAND ROCK - core recovery-Depth 46 - 60 - 30% core recovery 18% 11'-6" 26 22 20 13 20 44 4'-6" 24 22 9 12 27 36 N value - 36 to 105 131 ->100 16 26 24 16 16 24 24 105 H - value 14'-6" permeability 8.6 lu. - 8 li parmeability 17 -6" 19' 20' 32' SHALE - core recovery - 90% 100 permeability. 109



Results of Soil Mechanical Tests of Okkan Dam Irrigation Project Table 38-15 (1)

		Field	Specific	-	Gradation	ŭ l		Con	Consistensy	1	Compaction	tion	Direct	Shear	Permeability Organic Content	ganic Content
ħ	Area	Moisture Content (%)	Gravity	Clay (%)	Silt (%)	Sand (%)	Gravel (%)	WL (%)	WP (%)	0 %   41	OMC (%)	MDD (g/ccm)	Cohesion Fricti (kg/scm) Angle (degree	Friction Angle (degree)	k ( am/sec )	(%)
<b>.</b>	C (B.A.4)	ł	2. 66	20.00	32.00	48.00	1	29.60 19.32	19.32	10.28	14.40	1.730	0.30	23°14′ 21°48′ <u>%</u>	6.39×10 <sup>-6</sup>	4. 2
03	D (B.A.3)	ì	2. 67	28.00	32,00	40.00	l	34.40	34.40 20.44 13.96		16.00	1.725	0.40	21°48′ 23°33′ <u>%</u>	$4.33 \times 10^{-8}$	4.3
က	н (в.л.8)	i	2. 66	20.00	28.00	52.00	1	28.00 18.75	18.75	9.25	15.00 1.736	1.736	0.30	27°51′	$4.97 \times 10^{-8}$	
4	I (B.A.9)	1	2. 66	18.00	34.00	48.00	1	26.80 16.29		10.51	16.60	1.691	0.40	26°34′	7.68×10 <sup>8</sup>	6. 1
က	J (B A 10)	1	2. 65	16.00	36.00	58.00	1	29.50	20 22	8.98	16.00 1.696	1.696	0.30	26°34′	1.06×10-7	4.1
	w w w	unsaturated data ( by quick test), the rest is Test Date ; March 1978	ata ( by qu March 1978	ick test	t), the c		saturat	ted data	હ							Appendix 3B-3 Page 10

unsaturated data ( by quick test), the rest is saturated data \*

Test Date; March 1978 Ж

Table 38-15 (2) Results of Soil Mechanical Tests for Okkan Dam Irrigation Project

					~	-													
Permea-	- X	(cm/sec)			a I	$2.59 \times 10^{-1}$			į	$2.13\times10$			Ĭ	$2.13\times10$			Î	$8.08 \times 10$	pendix s Page 11
Shear	Friction	Angle (degree)				20° 06'				16041				15° 45'				18° 22′	
Direct	Cohesion					0.35				0.40				0.475				0.475	
ction	MDD					1, 736				1. 725				1. 667				1.618	
Compaction	OMC					16.00				17.60				18. 20				20, 80	
sy	I P		15.90	21.95	16.68	14.06	18.78	18.24	4.34	11.37	18.71	23.99	14.97	18.72	24.84	17.07	17.92	20.27	
Consistensy	W P	(%)	17.70	20.36	21.33	19.47	19.47	17.96	18.06	17.73	19.60	24.15	17.02	19.76	21.16	16.58	18.47	19.73	·
Con	WL	(%)	33. 60	42.31	38.01	33. 53	38. 25	36, 20	22.40	29, 10	38.31	48.14	31.99	38,48	46.00	33,65	36.39	40.00	
E	Sand	(%)	27. 32	16.24	18. 12	27. 00	23.06	17. 40	33. 60	19, 90	38.06	31, 48	34.85	35.72	27. 76	19, 50	13.84	27. 72	
Gradatio	Silt	(%)	46.76	58.90	49, 96	39, 36	43.90	46. 28	42, 04	47.48	37.38	38. 24	39.68	32. 68	41. 76	49.38	49, 16	35.88	
Ğ	Clay	(%)	25.92	29.86	31.92	33. 64	33.04	36, 32	24.36	32. 62	24. 56	30, 28	25.44	31.60	30.48	31.12	37.00	36.40	
Specific	Gravity	S O	2. 66	2.68	2, 67	2.66	2. 67	2, 67	2.64	2, 65	2. 67	2. 68	2, 66	2, 67	2, 68	2, 66	2.67	2, 68	
Fie1d	Moisture	(%)	I	l	ł	ł	1	l	ı	l	1	1	ļ	1	Į	į	j	i	1980
	Depth		0, ~ 5,	5,~10,	10,~15,	Mixed Sp.	0'~ 5'	$5^{\prime} \sim 10^{\prime}$	$10' \sim 15'$	Mixed Sp.	$0' \sim 5'$	$5' \sim 10'$	$10' \sim 15'$	Mixed Sp.	$0'\sim 5'$	$5' \sim 10'$	$10' \sim 15'$	Mixed Sp.	Test Date : March 1980
	AH 16.		AH 1~12	è	*	:	AH 13~24	:	*	*	AH 25~36	*	*		A H 37~48	\$	*	*	% Test Da
	Ma		=	87	က	4	ഹ	9	2	œ	တ	10	11	12	13	14	15	16	

\* Test Date : March 1980

Table 38-15 (3) Results of Soil Mechanical Tests for Okkan Dam Irrigation Project

rmea – bi li ty	<u> </u>	(cm/sed)		ă	X10			α I	×10			ľ			ĭ	, O1>	Appendix 3B-3
Permea bili	[ ]	<u> </u>			1. 70×10				$3.05 \times 10$				3.51×10			$1.25 \times 10$	Page 12
Shear	Friction	Angle (degree)			18° 22′				15° 45′				20°06′			18° 22′	
Direct	Cohe -	sion (kg/scm)			0.475				0.475				0.35			0.475	
Compaction	MDD	(g/ccm)			1.643				1.685				1, 747			1.648	
Comp	OMC	(%)			20.60				20.00				16 80			19.80	
χs	IP		23.74	27.86	26.39	19.86	21.30	17.16	20.06	18.31	22.31	19.76	20. 26	21.34	23.62	22, 75	
Consistensy	WP	(%)	18.86	25.14	22.73	20, 73	22.37	18.64	19.94	18.22	22, 31	18.29	18.74	22. 16	23.45	24.50	
S S	WL	(%)	42.60	53.00	48.72	40.09	43.67	35.80	40.00	36.53	44.52	38.05	39.00	43, 50	47.07	47.25	
uo	Sand	%	12.80	13.00	26.28	40.04	17.62	35.28	17.00	23.38	14.32	65.56	27.76	9.52	33.08	17.66	
Gradation	Silt	(%)	39.84	43.60	37.20	31.82	47.26	39.84	43.42	41.42	39, 48	35.24	37.92	45.78	30, 90	43,86	
	Clay	(%)	47.36	43.40	36.52	28.12	35.12	24.88	39.58	35.20	46.20	34, 44	34.32	44.70	36.02	38.48	
Specific	5	מ כי	2. 68	2.70	2, 70	2.68	2.68	2.66	2.67	2.66	2.68	2.67	2.68	2, 69	2, 69	2.70	
Pield	Moisture	Content (%)	j	1	l	ļ	i	1	ì	1	ì	l	1	l	ì	ì	ch 1980
	Depth	-	,8 ~,0	8'~15'	Mixed Sp.	0,~ 2,	$5' \sim 10'$	10'~15'	Mixed Sp.	0,~ 2,	$5' \sim 10'$	10'~15'	Mixed Sp.	0,~ 2,	5'~15'	Mixed Sp.	Test Date; March 1980
	A H Ma		AE-49~60	*	*	AB-61~72	•	2	2	AH-73~81	•	*	*	AH-82~99	*	*	₩ Test
	<b>A</b>		17	18	19	20	21	22	23	24	25	56	27	82	29	80	

Test Date; March 1980 ×

Table 38-15 (4) Results of Soil Mechanical Tests for Okkan Dam Irrigation Project

}	I P		12.40	1	12.27	15.21	12.87	14.13	12.87	14.35	13.58	18 50	Appendi x Page	
Consistensy	ΨP	(%)	2 0. 3 6	) ;	1 9. 9 3	21.59	19.76	20.57	19.76	20.66	19.12	21.39	A Z	
Cons	WL	(%)	20.00	i	32.20	36.80	32.63	34.70	32.63	35.01	32.70	39.89		
	Sand	(%)	Δ 7 20	· i	47.34	33.12	32.92	47.62	48.06	48.64	34.60	24.74	65.70	
Gradation	Silt	(%)	37 76	٠ :	29. 52	38.78	3 9. 3 2	29.18	31.52	36.68	46.56	47.90	21.46	
Ð	Clay	(%)	•	24.06	23.14	28.08	27.76	23.20	20.42	14.68	18.84	27.36	12.84	
Specific	Gravity	s D		2 6 9	2 69	2.69	2 7 0	2.69	2. 6.9	2.69	2.69	2.70	.2. 6.8	
Field	Moisture	Content (%)	•	22 87	25.53	23.74	26.73	19.70	14.88	19.06	19.20	23.66	•	ruary 1981
		Depth		101	15/	101	15	701	15/	101	15/	10,		te : February
		Area Ma		BORROW 1	*	BORROW 4	2	BORROW 7	×	BORROW 8	2	BORROW 10	*	※ Test Date
		ħ.		-	8	က	***	ιū	9	ţ-	ø	ø.	10	

※ Test Date; February 1981

Table 3B-16 Results of Consolidation Test for Okkan Dam Irrigation Project

		Р		U	Cv	Мv	k
Ná	Area	kg/cn²	е	%	cπ² ∕ sec	m \	cm√sec
		0. 5	0. 517	1. 71	7. 85 × 10 <sup>-3</sup>	3.60 × 10 <sup>-5</sup>	2.83 × 10 <sup>-7</sup>
		1. 0	0. 511	2. 54	$1.04 \times 10^{-2}$	$1.70 \times 10^{-5}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
1	С	2. 0	0. 304	3. 70	$6.67 \times 10^{-3}$	1. $20 \times 10^{-5}$	$8.00\times10^{-8}$
^	(B.A.4)	4. 0	0. 463	5. 21	$7.20 \times 10^{-3}$	8. 00 × 10 -6	$5.76 \times 10^{-8}$
		8. 0	0. 434	7. 05	7. $85 \times 10^{-3}$	$5.00 \times 10^{-6}$ $5.00 \times 10^{-6}$	3.93 × 10 <sup>-8</sup>
<b></b> -		0.5	0. 529	1. 35	$1.04 \times 10^{-2}$	$2.85 \times 10^{-5}$	$2.96\times10^{-7}$
		1. 0	0. 517	2. 09	$1.42 \times 10^{-2}$	$1.60 \times 10^{-5}$	$2.27 \times 10^{-7}$
2	D	2. 0	0. 499	3. 23	$6.67 \times 10^{-3}$	$1.20 \times 10^{-5}$	8.00 × 10 <sup>-8</sup>
	(B.A.3)	4. 0	0. 479	4. 90	7. $32 \times 10^{-3}$	$9.00 \times 10^{-6}$	6 59 × 10 <sup>-8</sup>
		8. 0	0. 433	7. 19	$8.93 \times 10^{-3}$	$6.00 \times 10^{-6}$	5 36 × 10 <sup>-8</sup>
		0. 5	0. 508	1. 61	$7.74 \times 10^{-3}$	3.42 × 10 <sup>-5</sup>	$2.65 \times 10^{-7}$
ļ		1. 0	0. 489	2 63	$1.11 \times 10^{-2}$	$2.55 \times 10^{-5}$	$2.83 \times 10^{-7}$
3	(B,A,8)	2. 0	0. 467	4. 34	$7.32 \times 10^{-5}$	$1.54 \times 10^{-5}$	1.13 × 10 <sup>-7</sup>
	(0,7,0)	4.0	0. 441	6. 03	$7.74 \times 10^{-3}$	8.90 × 10 <sup>-6</sup>	6.89 × 10 <sup>-8</sup>
		8. 0	0. 413	7. 86	$8.82 \times 10^{-3}$	$4.90 \times 10^{-6}$	$4.32 \times 10^{-8}$
		0. 5	0. 550	1. 74	7 53 × 10 <sup>-3</sup>	3 67 × 10 <sup>-5</sup>	$2.76 \times 10^{-7}$
	I	1.0	0 532	2. 89	$1.31 \times 10^{-2}$	$235 \times 10^{-5}$	3 08 × 10 <sup>-7</sup>
4	(BA9)	2.0	0. 519	3 74	5 38 × 10 <sup>-3</sup>	8 80 × 10 -6	$4.73 \times 10^{-8}$
	(14.40)	4.0	0. 496	5 20	6. 45 × 10 <sup>-5</sup>	$7.60 \times 10^{-6}$	$4.90 \times 10^{-8}$
		8. 0	0. 457	7. 69	$7.53 \times 10^{-3}$	6 60 × 10 <sup>-6</sup>	4 97 × 10 <sup>-8</sup>
		0. 5	0. 511	3 22	8 40 × 10 <sup>-3</sup>	6.81 × 10 <sup>-5</sup>	$5.72 \times 10^{-7}$
	J	1.0	0, 497	4. 11	$1.94 \times 10^{-2}$	$1.80\times10^{-5}$	$2.10 \times 10^{-7}$
5	(RA10)	2 0	0. 481	5. 16	$8.17 \times 10^{-3}$	$1.05 \times 10^{-5}$	$8.58\times10^{-8}$
	,/	4.0	0. 461	6. 46	$9.68 \times 10^{-3}$	$6.50\times10^{-6}$	6. 29 × 10 <sup>-8</sup>
		8. 0	0 430	8 47	$1.26 \times 10^{-2}$	5 30 × 10 <sup>-6</sup>	6. 68 × 10 <sup>-8</sup>

½ P : Pressure e : Void ratio

U: Consolidation

Cv : Coefficient of

consolidation

My : Coefficient of volume compressibility

k : Permeability

<sup>※</sup> Test Date : March 1978

Results of Soil Mechanical Tests for Okkan Dam Irrigation Project Table 3B-17

Gradation

		Specific							
Sample Name	Ø	Gravity	Clay	8114	Fine	Med i um Sand	Coarse Sand	Fine Gravel	nemarks
		s Đ	(46)	(%)	(%)	(%)	(%)	(%)	
	Nä 1	2. 66	i	0.5	8 9. 9 5	10.00	i	Ī	
River Deposit (Okkan Chaung)	<i>f</i> a 2	2 65	¢i	1 4	37. 60	41.00	14 00	8. 00	
	<i>if</i> a 3	2. 66	õ	0.8	8 8 8	10.00	1	į	
	A5 1	2. 67	1	1. 38	12. 62	85.50	0. 50	1	Sand layer
Filter Material	A 2	2.66	6. 21	5. 42		38.98		49.39	Sand & Gravel layer
(Irrawaddy Forma- tion)	A 3	2. 66	7. 53	2.00		37. 52		52. 95	2
	hs 4	% %	17.	17.00	33.00	43.00	7. 00		Another Point (White Sand)

28 Test Date ; February 1981

Table 3B-18 Results of Rock Compression Test for Okkan Dam Irrigation Project

Na.	Specific Gravity	Area	Applied Load	Compressive Strength	Absorption	Slaking
••-	Gs	cm²	kg	k9/cm²	%	96
1	2. 37	23. 51	5568. 18	236. 84		
2	2. 35	22. 66	5795. 45	255.76		\$3 A \$5
3	2. 38	22. 83	6181.81	270.78	8. 55	first time destruction
4	2. 40	21. 66	5090. 91	235.04		
5	2. 37			_		
6	2. 38	23. 25	5000 00	215.05		
7	2. 38	23. 42	4659.09	198. 94		first time
8	2. 39	23. 34	5227. 27	223.96	8. 82	destruction
9	2. 37	23. 34	3409.09	146.06		
1 0	2. 35	22. 91	4090.91	178. 56		

<sup>🔆</sup> Test Date: February 1981

Sampling Depth is not clear

Table 38-19 classification of soil series by texture and drainage

SOIL					ļ		rext.	اِد		}							
SERIES		ldn	Upper Layer	Laye	12 C1						Lower		Layer			Drainage	Note
NOTATION	S	LS	SL S1		1. 8.	SICL CL	L C		S LS	S SL	511	ı	SICL	t CL	U		
2 L	r.	57	,		,	1	,	, , , , , , , , , , , , , , , , , , ,	S	7S ST	,	1	•	1		moderate	Sloped are
] [	ະກ	S.	,		·	1	•		S 1.S	ı və	ı	ţ	ı	ľ	t	s low	1
2 L m	S	. 51	'		,	,			1	31	1	J	•	1	ı	moderate	Sloped area
J.C.	ഗ	S	'				1			í	511	-1	1	1	1	stow	1
2 г. н	1	ខ្លួ	•		1		•		1	1	ı	1	•	J	ı	slow	Sloped area
3 L h	Ŋ	r S	,		ı	t 1	١		1	r	4	١	SICL	TO CE	υ	slow	,
2 N	•	1	51, 511	-	د	1	ı		1	SL	511		i	,	í	moderate	Sloped area
n N	•	,	St. Sit.		.1	'	ı		1	S.L.	515	٦	1	1	t	slow	t .
2 M 1	•	1	- S1t		٠	1	•		S	LS SL	1	1	1	3	1	slow	Sloped area
3 M 1	•	1	St Sit		.1	;	ı		ง	1.5	ı	t	1	1	ŧ	slow	
2 M h	1	1	St Sil		.1	1	1		i	ŧ	•	ŧ	1	CE	•	moderate	Sloped area
3 M h	ı	1	St Sit		.1	,	1		1	1	1	1	SICL	11 CL	1	slow	1
Σ Ε	1	ı	_ S1L	۲)		1	1		1		1	ı	1	CL	1	poor	Depressed area
E E	1	ı	•			ı	;		'		S11.	1	1	1	t	slow	ł
 = =	ı				ı	SICL C	OF TO		,	•	ı	1	SICL	כר כד	Ų	slow	1
4 H	1	1	•		ŧ	υ ι	CL C		,	1	ı	ı	ı	CL.	U,	poor	Depressed area
# ^ f	ı	1	`			1	U	<del></del>			1	•	•	1	U	n pod	Compact Clay. Depressed
X. Q.	Ŋ				'n	ı	ı,	·	ı u	,	ı	ᆑ	ı	บี	,	poor	Diversified Thin

Texture of soils: S = Sand, LS = Loamy Sand, SL = Sandy Loam, S1L = Silty Loam, L= Loam, S1CL = Silty Clay Loam, CL = Clay Loam, C = Clay. = Note:

5 classes of drainage: Rapid, Modarate, Slow, Very slow, Extremely slow, which are determined by hight of water table, colour and mottles in the suil profile. 7

Topography: to = 0-6.3%,  $t_1$  = 0-0.3% undulating or 0.5-1%,  $t_2$  = 0.5 - 1 undulating or 1-3%,  $t_3$  = 1-3% undulating sions. 31

1981 Or S MISHIGAKI, Source Soul Report of The Okran Dam Project, I.D 1980

Table  $3B-2\theta$  Criteria For Topographic Class in the Series Classification

Topographic	Slope 4	Micro-relief Within 30meter of Radius	) JOmeter of Radius	Limit	Limitations for Irrigation	ıgatıon
		Reliet	Undulation	Degree	Leveling	Drainage
۲0	0 - 0.5	Flat	Less than 30cm	Slight		Surface D.
-	0 - 0.5	Gently undulating	30 - 60ся	Slight	Some cost	Surface D.
3	0.5 - 1.0	Undulating	Less than 30cm	Slight	Contered	•
c.	0.5 - 1.0	Gentry undulating	30 - 60cm	Moderate	Contered	•
7.3	1.0 - 3.0		Less than 30cm	Moderate	Contered field	1
t J	1.0 - 3.0	Undulating	30 - 100cm	Severe	Contered small field and erosion control	1
t.4	ao i	Undulations	(gullies)	Ver, severe	Unsuitable	-
t.S	8 - 30	Undulations	(gullies)	Very severe	Unsuitable	1

1981 Dr. S. HISHIGAKI, Source: Soil Section, Irrigation Depailment.

(u) (y)E C CEC micrombo (E) 1.1/pass (E) (n) Salr contant lyje c micromho 1.1/paes 120 8 86 1973 Dr S. Hishiyaki 275 85 (1) there topographs ×=45 (a) pH (elfres ultroh B20 KCL Fe203 3 Actdit CaCl2 For An Extract X=76 k=64 K=24 K=55 Stream alluvium Ed. (f)Country 3.9 <u>~</u> Caco, 1 'n 5.8 (6.2) (6.4) (6.4) 5.9 abrupt (6.2 5.8 clear (6.5 (hiland physiografio Gently (1) East of Kan Gon System

(hiland physiografio Gently (1) Land form of (1) position undulating serrounding country Unper picdmont plain (bonthly mean tamp. Annual roinfall traterials 01d gradu. gradua roote boundary brological (q) (r)
brological Content Matura
origin of of Lymnon Smooth Navy Mavy Wavy (g)Salt alkalı Very few fine roots (f)Proutnes few fine roots Very few fine roots fine roots 2 40'1 20 C=1.0 N=0.05 C=0 7 N=0.10 ç 0 0 0 5 0 0#1 N#0 0.5 0#Z Erosion Fe-Mn Concretions Content of thinard nodules concrition Non Content of Rocks 4 Wineral fragments 3 (s) Author (a)Surface etones (v) Cemunization Common fine pores. fine pores. Few fine pores. Common fine pores. Consisted Pressure
1) vet face
1) most State
1) dry (d) Oute Dry fraable cable sticky slightly plastic plastic. friable. Slightly Sticky plastic. Slightly sticky non plastic. plastic. SIIghtly sticky Sticky E 95-59' [fg/ 7.3m crop of paddy a year Moderate medium subangular blocky. subangutar blocky. subangular blocky Prismatic Weak fine subangular blocky Strugture S angular blocky Joderate Modelate lodarate fine fine condition ł Meadow Soils SATUR. (315) (J.) (F.S) 3 SCL (CL) Langs Ende ب 102201 3 ű Oue II (b) external and interna distinct bright brown M. faint brown M. faint brown M reddish brown M. Abteling nedium medium (3)Yegetation Land wee Common Common Comman fine N 17\*15' UN3Lh tl oks 313 7.51R 7.5YR 5/2 7.5YR 5/2 7.5YR 5/2 10YR 5/2 2,0 (a) Profile Oup th E E E E E 3 Ę 1105191 150 100 100 [a] LO1 LO) ē 2 ? ë ŝ so 2 0 5 20 9 2

Table 3B-21 (1) Diagramatic Representative Soil Profiles

Table 38-21 (2) PHYSICAL AND CHENICAL PROPERTIES OF SOIL

Pro	Profile	NOOKS 31	57	Place:	East	9	Kan (	Gon						Class.	- 1	Meadow St	soil UM3Lh	- 1	<del>+</del> 1	Land		use:Paddy		7
No.	Hori-	Depth		PEI	PERTICLE	E SIZE		DISTRIBUT	BUTION	e/a			MOISTURE S	TURE	e/a ~		Hd O'H	KC1	CaCO3	Gyp-		ORGANIC	N/ J	<del></del>
		e E	ලි	Gravel	Sand	Sand Silt		Clay Textur	e e	F.S.	C.S.	Sat.	1/10	1/3	15	Airdry		2	<i>a/a</i>	9%	) % <sup>0</sup>	- %		
-		0- 1	3	1	56.6	32.	3 11	.2	SL	-	-		ı	-	-	7,14	5.8	4.1	1	1	1	0.05		
2		13- 25	υ ·	,	48.4	27.	5 24	1	SCL	;	-		,	1	ı	2.05	5.9	4			-1	0.05		
ы		25- 63		•	74.7	7.	4 17	6	SL	ı	'	'	1	,	'	4.64	5 6	4.1	t	1	0	0 04		
4		63-100		1	28.3	27.1	44	9.	U	ı	1	-	1	,	,	2.80	5.8	3.9		·	1.0	0.05		
S		100-150	_	:	30.6	20.9	9 48.	.5	ນ	١.	٠		ا'	, !	1	4.10	5.8	3,9	•	,	0.7	0,06	'	
9					ļ				-															
7						   				-														
∞							_	_																
						30,64					טונטטונט טרום	10		AL COURT										
No.	<u>ក</u>	Free		Cal	Cations	S (med	0	1006)	Base	<b>—</b> —	(mg/100g)	0g)	<u>.</u> 5	MIINOGEN (MR/100g)	(a)	tic			Е. С.	Ex. Na	Cat	Cation		
	штро	3	Ex.			ł			sat.	Ŀ	-	0.2N	Z	Inci	Incubated	_	1ty A	Av. N		meq/	(me	(meg/100c)	(1)	
	/cm	o%-	capa	Ca	Ng	Na	×	Stun	e/e		۵	HC1-P		_	NII4	(me/10	- T- G- G- G- G- G- G- G- G- G- G- G- G- G-	mda	/cm	100g	田	7	+	_
7	275	3	3,6	0.92	0.03	0.650	0.14	1.88	3 5.3	1	21					11.8	-	107	,		26	28	54	
2	86	1	3.6	08.0	0.04	0.430	0.06	1.3	3 37	-	17	1	i			6.8		122	-,	'	16	20	36	
۲	120	1	5.7	1.00	0.08	0.600	0.16	1.84	1 32	1	31	-				6.0		91	•	1	16	20	36	
4	06	-	5,3	1.18	1.12	0.780	0.19	3.2	7 62	•	21	1				6.1		115	,	'	26	20	46	
s	98	,	3.7	1.02	0.02	0.950	0.12	2.1	1 59	1	33	'				11.5		93	•	1	16	4	20	
9										-									-					
7																								age
æ											kg/ha	- G3												4
										,	Truog										i			
																			197	1973 Form Dr. S. Nishinaki	Dr. S	Ain	inaki	_

								1		
T					(y)E C microwing 1:1/pard (n) Salt	120	140	150	130	170
					333	-				
BURAGA		(3) Marotopography	e		ul Exch Acidit		K=32	K=57	K=63	x 5 4 7 5 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5
f/scoursy		Jharoto	stream alluvium	F •						
	Ì	2	am s	th) human snfluence	~ 1	· ~	4.5	4.2	0.	3.8
ļ			Old stre	(H)	02.17		(6.0)	(6.0)	(6.0)	6.3
				นอม	(r) Nature Of Boundary	havy	Маvу	Smooth.(6.0)	Smooth	
(f)Province	Thanatchaung		II materials	(g)Salt alkali	(q) Content of	Common fine roots	Few fine roots	Very few fine roots		
	4			non .	biological origin.	C=1.0	C*1 0 N*0 10	C=1 0 N=0.08	C=1.0 N=0 05	C=1.0 N=0.03
	Location West	izziand form of surrounding country	(k)	Eroston	2	end' (m)	Iron stain	fron stain	Nn-stains	
(s)Author	CO		Abnehly mean temp	non	fk) Content of Rooks 4 Anneral	Tagmente	1			
3		Flat piain	(k)	etan						
. 18	System	1		(e)Surface stones	rys Peres	Cemintation	Common fine pores	fine pores.	Common fine pores	Common fine pores.
(d) Date 18 feb 81	(0) S <sub>3</sub>	form (1) possition	Climate (A)	-	+	9				
		9	Ι.	(d) Ground witer	<b>4</b> 44	Sticky & plastic	Slightly sticky non plastic Friable	STIERELY sticky 6 slightly plastic	Slightly sticky 6 slightly plastic.	Slightly sticky 6 slightly plastic
	Headow Soils	g5°56' (0) 10	paddy a y		(f)	ıne	heak fine Stubangular			Moderate fine subangular blocky.
1 1 1		ļ "	1 8	foldon ture	(a)		10S (3E)	3Cr.	700	138
טאנזאט נ	1 501501	tongs (mgs	3	ternal	(d)	5 L F	Few fine faint brown M	Common brown faint boren M.	, i i i	Common medium distinct yellow- 1sh brown M.
OKS 352	UNISM E1	N 17.22	3	Drivinge Moderate	Colour Colour moraç		10YR F. 5/2 65	5/2 C	101R 5/3	5/3 5/3
of 11.	2		0 3	Lings Node	(e) 43 d	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		35.		06
faltrofile	1105/91	Sati trade	Slope	Drain.	IV (a) (b)	1 1	30 Jos		0, 0, 0,	120-12
~	44	4	-	Ξ	1 2					

Table 38-21 (5)

Table 38-21 (4) PHYSICAL AND CHEMICAL PROPERTIES OF SOIL

e: West of Thanatchaung Class, Meadow soils UM3Mt1 Land use: Paddy	SIZE DISTRIBUTION % MOISTURE % PH CaCO <sub>3</sub> Gyp-ORG/(atmosphare) H <sub>2</sub> O KC1 Sum C	Sand   Silt   Clay   Texture   F.S.   C.S.   Sat.   1/10   1/3   15   Airdry   1:2   5   8   8   8	54.3 20.6 25.1 SCL 1.0 0.11 -	51.5 20.2 28.4 SCL 1.1 6.5 4.5 1.0 0.10 -	49.8 22.0 28.2 SCL 1.6 6.5 4.2 1.0 0.08 -	55.7 12.8 31.5 SCL 6.1 6.5 4.0 1.0 0.05 -	67.2 11.9 20.9 SCL 4.8 6.3 3.8 1.0 0.03 -			
NOT	SA_FA0]	Texture F.S.	SCL -	.4 SCL -	. SCL -	.5 SCL -	- 72S 6			
Place: West of	113	511t	20.6	.5 20.2	.8 22.0	.7 12.8	.2 11.9			
Profile NOOKS 352	Hori - Depth zon	ED	0- 10	10- 35	35- 45	45- 90	90-120			
Prof	No.			7	ъ	4	S	9	7	œ

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kg/ha Truog

				(y)E.C. m.crombo 1.1/paes (n) Salr contant					
BURNA	phy			38325					
<b>a</b>	pagada	i		Aordit Trract					
(f) country	(1)therotopography	stream alluvium	man nos	1 pH (11) Fee 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
			(h) Buman saftwence	(1) pK K20 KC1 CaC12	(6.0)	I (6,5)	(6.0)	(6.5)	(6.5
		ale Old	non	Hature #20 KCT 05 CaCO 1	Mavy clear	Smooth gradus1	Smooth gradual	Shooth gradua]	
ration halon		11 fallurant	(9)5918 01kal1	(q) Contant of roots	fine roots	ew fina roots	Few fine roots		
st of P		110/1	1100	pifeatures biological origin (Peati					
Location	faring form of -	The Arnual roinfall	(f)	(1) Content of Unneral nodulus (m) Pans	fron stain	Iron stain		iron 6 Mn stain	Coarse aron stains G gley
1	form of literature that that the country country country	Mathly man tep (k)		Content Rooks a Mineral					
System	ration Flat	<i>a</i> , ∵ .	rook cutorope		fine	Common Fine Pores	Cump)	Common fing pores	Common fine pores
	contraditional formation of	(Cit+ate	Cart fac	2 - 2 - 3	ا پسد د-ست				
	Ę	11 .	Ory Filishie cabia	(3) 	Thibhely's sticky hon plastic.	STICKY G	Sticky	Sticky 6 plastic	Slightly stick) slightly
- J - Meadew Soils	F '15"51'   Flavorian			5	yorak ne stur- subangutar bl.cky	Spartate Louten Subangulat Blacer	Coarse redium, Scio angular biccks and r, smatt. S	(b) bisex and plastic (Sich) Frishatic S	Moderate nedlum ar gular h cr. s
1105(1)			talenditt	S Age	E 1	(Sul)	(5101)	(1) (1)	(158)
	W 17 11 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Herr	Solour Solour			Few fine faint yealow- ash brown M	fine fine faint yellow- ish brown M	1018 (cormon 5/3 medium 13.00
(b) Soil UN3H 11		10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	POXTO LOGO		ž,	9.7	5/3	10) R 5/3	101R
1,05(4)	(1)	repert (	101	son Bapth			v I	N.	1 20 THE STATE OF

-	T	1	τ	ī —	11: 9:	15.0	T		,									
S. reshauche					(y) E. C. micrombo			125		95		150		06			99	
5		14	}	{	1	F. S. 2		_						<del></del>				-
AHUB K		(3) Historotchography			JEzoh Acidit	Extract 7		¥-90		K=78		X=87		\ <del>=</del> 85			06*4	
f ficountry		Muses	stream alluvium	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(e) Free Fe 203 3	Fa # # 2											<del></del>	-
3			E III	th) Human	í — —	71		5.2	-			<del></del>				<del> </del>	نم	-
			,	33	Hq (*)	Sec	[5.5]	5.7	9		(6.2	7 2 9	(6	6.3	<u></u>	(6.5)	6.4.	-
			ale Old	non	(r)	0/ boundary	Smooth		Smooth		Smooth		mooth	<del></del>	····	<u> </u>		
(f)Provinos	lon	Almost flat.	II faffarent msternale	(8)5aft	(q) Content	100		roots	Fex		Very few fine roots		Very Few	roots		very fex fine	roots	-
=	Thayetkon	Ę	}	5			<u> </u>	200	+	~~~	<del></del>		>			<del>                                     </del>		-
	of Tha	,	Annual rainfall	יים .	p) Features brological	(Feat) OC 5, OH I		C=0.5 N=0.09		C=0.6 N=0.07		C=0.0 №=0.07		C-0 3 N=0.04		9	N=0 02	
	East	of owite	2	Eroeion (7)	20	:			1				i	<del></del>		<del> </del>	_ <del></del>	-
	Location E	(1) land form of turnering country	75. Annue		(1) Contant of	nodules (m) Pans												
} 	C Co	4257	1	กงก	70.		_		<del> </del>				<del> </del>		<del></del>			-
telAuthor			Abnehly mean temp.	\$000 E	(k) Content of	Kneral Kneral Inspense												
			52	taro		tion		•	1				<del> </del> -	<del></del>	·····			-
	folland System	rafio i eton		felSurface econes rock outdrops	******* (f)	(i) Comentation	Common fine	pores.	Common	pores			fer			Few fine pores	-	
(d) pste		thitand Physiografia form (1) position	ate	water	(h)Cutane Pressure	Slicken slicken								·				
		J E			€£	<u> </u>			-	<del></del>				<del> </del>		<u> </u>		
				(d)Growd table	(6)	ទីទី	cky	stic. Bie.	11.7	ghtly stie.	cky		cky istic			tic	<u></u> -	
		71.0m		93 a	Cons	 	STIGNETY sticky	non pia fria	S11ghtly	slightly plastic Friable	Stly		Sticky			Sticky		
		Elevation (g) 21.	4 62	friable						<u>.</u>			1			<del> </del>	·	-
			6	Dry fr	\$	Structure		subangulat blocky	24	mealum subangular blocky.	E 22 >	ند ر		, , , , , , , , , , , , , , , , , , ,		9 5 5	: <b>.</b>	}
		E 95°54'	cro	Ď		2	Neak fine	subang blocky	Abderate	mealum subang blocky	Strong medium angular blocky	Prismatic	Strong	angular blocky Prismatic		Moderate medium	blocky.	{
s		n 0	ddy	lathaietu conditson			=		<del></del>	<del></del>	ς	<u> </u>	100			<del>  -</del>		_
Meadow sotis	(a) Sor (	tongs tinds	One pa	condi	3	Texture	t (FSL)		];	32.	(C L)	SCL	(CL.)	316	<del></del>	(13)	£	
Mead	60	20	5	erna 1	_ 5	gual	ev fine distinct	yellowis brown M.	<sub>5.</sub>	distinct yellowis	any medium faint veliovis	brown M	5	raint brownish black at		2	yellowi brown N	
-	ē	17.52: (1)	regeta Land w	e ext	(d)		Few fine distinc	7 e1	Consmon	distin yellov	Hany medium faint vellow	bro	Many	brown black		Common	yellovi brown N	
4 4	5	ZT N	Stope (1) 10.3 1 Land we One paddy crop a year	Moderate exte Slow internal	(a) Colour	35.5	10YR 5/2	/	IOYR .	7/5	10YR 5/2	-		10YR 5/2		/	10YR 5/2	
1a) Profits		3	5	4 ° ° ° S	(9)	5 6 6		=======================================	<del></del>		-\	<b></b>	r	<del></del>	<del></del>	<del>}</del>	<del>.}</del>	٥ 1
Iair	(b)Soil Series	300	3(3)	. Se	(e)	- E	<u> </u>	=	2	- 6	<del>-                                    </del>	<u></u>	<u> </u>	i	2	730	1 :	\$   
E	[-]	5	-	=	=	Norison						L	·	[_		-, -i		

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t	<del></del>			<del></del> 1							1 [	1		7		7	32	27	39	35			-1	}
th.	C/N		١	-	-	1	1		<del> </del>					(300	+	27	_	}		_	_}			
Paddy	ORGANIC	0/0	0.09	0.07	0.07	0.04	0.02						Cation	(meg/100g)	F	의	20	12	24	24				
use:	ORC	0//0	0.5	9.0	,	0.8	0.8						Ca	E	王	17	12	15	15	11				
Land	Gyp- sum	0/0	'	ş	ı	-	_						Ex.Na	] /bəш	100E	1	1	,	'	_				
	503	6/0	'	'	,		ı						E.C.	mmhos	/cm	'	ı	-						
UM3Mh	III KC1 C	1	5.2	5.1	4.8	4.7	4.5							Av.N	maa	73	64	62	56	65				
- 1	H <sub>2</sub> 0   K	1:25		6.4	6.2	6.3	6.4			-		11-[										<u> </u>		
soils			1.6 5	6.	7.	(10.4)	(14.3)					Hydroli-	tic	Acidıty	(me/100g)	7.2	3.0	3.3	3.7	3.8				
Meadow		Airdry			4					_		_												
	o, o	15	,   	1	1	1	\$					CEN	(mg/100g)	NII, Incubated	NH4									
Class	MOISTURE tmosphar	1/3			1	-	1					NITIROGEN	(mg/	<u> </u>					<u>.</u>		-			
	MOISTURE %	1/10	1		ı		ŧ							<del> </del> —		1		- l	•					
		Sat.	1	,	ı	1	ť					KUS	/100g)	0,2N	呈			~				<u> </u>	,h.	
!		C.S	ı	,	,	,	1					PHOSPHORUS	(mg/10	<u>L</u> _	٦	33	31	17	15	14	_	_	kg/h	Truog
	%	F.S. (		 I	,	,	,					<u>=</u>	_	Т, Р.		•	1	,	<u> </u>	<u>'</u>		]   		
	0	lol	,	١.		U					1 1		Base	Sat.	%	43	51	61	70	76				
uc	DISTRIBUTI [USA-FAO	Textur	ST	CLL	SCI	Sic	CL								Sum	2,84	2.37	4.63	3,89	4.43				
thayetkon	D15	Clay	13.1	28.0	35.1	52.8	35.3						/100g		×	.23	.20	.22	. 22	.23	-			
tha:	SIZE	Silt	22.4	23.5	38.8	41.0	31.3	-				E S	(med	-	Na	.95 0	78 0	86 0	04 0	.52 0	-	-		
st of	PERTICLE	Sand	64.5	48.6	26.1	6.2	3.4	-	-	-		EXCHANGE	Cations		Ng	유	.550	1.351	181	.081				
e: Ea	PERT		9	4	2		3	-	<u> </u> 	-	-	BASE	Cat		Ca	91 0	84 0	2   1	45( 1	6 1				
4plac		Gravel	1	1	<u>'</u>	,	,					<b>24</b>		 		6 0	6 0.	5 1.	5 1	8 1.	<u> </u>	-		
(S 41	ıth	E	. 13	40	80	90-125	150				} }			3 EX	capa	9	4	7.	5	5	}	-		
NO. OF	- Depth	cm	-0	13-	40-	-06	125-150					7700	ט נו נו נו	2	%	1	ı	<b>'</b>	,					
Profile NO. OKS 414place; East	Hori						] [ [					<u>ر</u>	ر :	mmho	/сш	125	95	150	90	80				
Pro	o			2	177	4	S	9	^	~		_	No.			~	7	ю	4	N.	9	~	80	

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PHYSICAL AND CHEMICAL PROPERTIES OF SOIL

Table 38-21 (7)

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P)	RUMA	(3)//cr-copograp/y	}		e ulExch		<u>;</u>	7 # *		x-37		K= 54		Υ 			л о к	-
faguno3[])		13///10	er.	לברשו 1871טפּר	felfrag Fe203 E									<del></del>				
			alluvn	th) Human	Hd Las	rath Gacos s	5.6 1 6	) o	6.3 1.4		_	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		6.0.		6 7 (1. I	<del></del>	
			Pio		(2)		Smooth 5.6	C 1 E 2 E 2	Smooth clear.			Smooth 6		Smooth 6 9 (gradual(7.0)		9 ()	<del></del>	-
ולוף מטייתם		n a la	14) (81	(g)Salt albati	(a)			r-015	Few S		-{	Very Si few R fine roots			10013	ery	roots	-
1	Xvvehot	(2) Land Form of Producting Product	Annual rainfull trafficent the			0715th (Peat) 00 1,0/1 5	•	N=0.10	<u></u>	C=0 2 N=0.06		C=0 7 N-0 05		C. 0. 2		<u></u>	N=0.04	-
	90	of ountry	ון בפרוו	Erosion (f)	- <del></del>	i		J Z		U Z				Üź		, , , , , , , , , , , , , , , , , , ,	<u>ځ</u>	  -
	Coration	- F	l .		fo turtuo)	Mineral nodules Int Fans												
loi!	35	(2) (5)	ean tem		ck)					·		<del>-</del> ,				, — — — — — — — — — — — — — — — — — — —		-
וסוקחדונהו			thathly mean temp	etonee	ty)	Roaks d Anneral fragments	 			·			7.7		: ! 		_	
1	ta) tend System			felsurface etones rock putarops	ly) Fores	fs] Commtation	Common	iine pores.	Common	pores		Common Eine pares,		tine fine pores.		ommon fine	pores	
141 Dete	27	Internal Physiographia form (11) position	Climate (k)	rotor	Pressure	Slicker										Ŭ.		
 		To I	55	5	}	-	2	<u> </u>	>.	tic.				<u>ب</u> ب	บ	>		<u> </u>
			1	2 2	Constitute	20 Co.	Stightly	sticky non plastic	Siightly	non plustic Friable.		Sticky		Stightly sticky slightly	plastic	Slightly	non plastic.	
		for 22.9m	ar	friable	S	•		ular.		ılar		- te-		lar			Le	
		95 "55"	ор а уеаг	220	2	Struature	heak	ine subangular blocky. Friable . Friable.	toderate	subangular blocky,		Moderate medium subangular blocky		Moderate medium subangular	blocky,	Weak fine	subangular biocky.	
	50115	ш	ice cr	(a)Hoisture condition	3	extere	=	33.) (JST) 17.7	35.			SCL NG ( 1 )		St. /10	<u></u>	SCL 1/26 (51)		
	102101 501 1015011 61511	tongretude	[	İ			-				{			*	- K	<del> </del>		-
	] _		Lord we One	Oranoge Moderately slow (b) external internal	P.	Colour	Few fine	distinct yellovish brown M	Common	discinct yellowish brown M.		Common medium distinct brown M		Common medium distinct	yellawish brown M.	Fev	distinct yellowish brown M.	
	OKS 425	3,7	0.53	derate hal in	Calour	25	IOYR	5/5	107R	*		10YR 5/1	<del></del>	10YP (C		10YR 8		-
3/110	_		0	oge Noder elternal	ā	Depth 1	-		}- <u>-</u> -	<del></del>				√ ₽			<del></del>	150+
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	ORGANIC	U	0/0	0.7 0.10	0.2 0.10	0.7 0.05	0.2 0.07	0.9 0.04	-	-	+
		1		-		0			-	-	-
-	Cyp.	Suff	6/6	,	,	'		'		_	_
	CaCO,		o/a	,	١	,	,	,			
	pll   caco, Gyp-	۲۰۲ ۲۰۲	2	4.5	4.0	4.3	4.3	4.1			
	라	120	1:2	5.6	5.8	6.4	6.9	6.7			
		_	Airdry	0.6 5.6 4.5	0.2 5.8 4.0	3.7 6.4 4.3	2.3 6.9 4.3	(14.0) 6.7 4.1			
		_	15	1	,		,	,			
	MOISTURE %	share)	1/3	,	,	ı	1	-			
-	MOIST	(atmosphare)	1/10	,	-	1	,	1			
			Sat	•	,	,	ŧ				
			C.S.	4	1	1	ı	,			-
	el <sub>o</sub>	_	F. S.	ż	,	,	,	J			
	PERTICLE SIZE DISTRIBUTION %	[USA-FA0]	Sand Silt Clay Texture F.S. C.S. Sat. 1/10 1/3 15 Airdry 1:2 S	LS	SL	SCL	SL	SCL			
	DIST		Clny	6.4	12.8	31.0	19.5	20.8			
	SIZE		5111	9.6	17.5	3.3	22.8	9.8			
	TICLE		Sand	84.0 9.6 6.4	69.8 17.5 12.8	65.8 3.3 31.0	57.7 22.8 19.5	60.6 18.6 20.8			
	PEI		Gravel	1	ι	ı	-	-			
	No. Hori- Depth		CH	0- 20	20- 48	48-80	80-113	113-150			
-	Hori-	201						-			
_	No.		1	-4	2	3	4	S	9	7	∞

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Table 38-21 (9) PHYSICAL AND CHENICAL PROPERTIES OF SOIL

								-	þ	ago	11	
		P)	+	9	20	28	28	32				1
	Cation	(meg/100e)	Al	4	01	191	12	20			-	1
	Cat	(me	Ξ	2	01	12	16	12	-	-	1	1
	eN.X	leq/	100g	,	,	,	,	,		1	-	1
	E.C. Ex. Na	ı İsoyuu	/cm   100g	'		'	'	-	-	-		-
	_	Av.N		81	41	43	39	'				1
Hydroli-	tic	Acidaty Av.N mmhos meq/	(me/100g) ppm	4.5	1.7	2.5	2.7	3.1				7
NITROGEN	(mg/100g)	ted	,									1
NITH	/gш)	I V	r				<u> </u>		-		-	1
S	_		HC1-P	ı	,	,-	'	,				}
PHOSPHORUS	(mg/100g)	_	۵.	11	4	4	9	80			kg/ha	
PHOS	8 E)	T.P.			ı	,	,					
	Base	sat.	e)(e	40	41	54	53	56				
			Sum	2.50	2.93	2.94	2.76	4.14				
	Cations (meq/100g)		×	6.3 1.07 0.990.34 0.12 2.50	5.5 0.79 0.230.91 0.09 2.93	0.22	5.2 0.58 0.441.52 0.22 2.76	7.4 0.94 0.952.08 0.17 4.14		<u> </u>		
BASE EXCHANGE	S me		Na	0.34	3.91	5.5 0.93 0.581.12 0.22	1.52	2.08				
EXC	1 t 1 on	-	Mg	0.99	0.23	0.58	0.44	0.95				
BASE	أذ		Ca	1.07	0.79	0.93	0.58	0.94				İ
			capa.	6.3	5.5	5.5	5.2	7.4				
Free	Fe.0.	? ?	,,	,	,			,				
E.C.F	<u>[1.</u>	0	5	220	110	100	90	08				
<u> </u>			+	7	2	3	4	5	و	7	8	

UM 3 M t.2 Class	17.29. Chartenda	totion in on	external internal co	Colour Colour (1)/1) Jettling Fee	10YR (F	10yR Few ((i 5/2 fine distinct yellough brown 4	S/3 fine S/3 distinct brown "	Tinet Found	10YR Few 5/1 free dirting yellowish brun it
5. 3.4.3	E 95°53'	ropayea	(a)Naieture condition net soft	(f) (f)	(FSL) heak finc subangular blocky	(151.) Noderate medium subangular blocky	t ) Strong medium anpular hlocky	(15b) Prograte Fine Scongular Stocky	1 ) Nader 11th substant and 11th substant and 11th Florky
	Elevation (h)Land Physiografia	T Clumate	(d) Drownd water ft table	Consisted Pressure 1) wet face 2) moist Staken 3) dry side	Slightly sticky non Plastic	1 Kh t 1 C 0 A 1 A S	Silpnerv strokky slishtly plastic	Slightly S.J.C.P.	Stricktory Stricktory Stricktory prostric
Fortand System		ري. دي:	felSurface stones rook autorops	utune (1) uuru Paree face (1) ten (1) ende (eruntation	Common fine pores	Common fine pores	tores forman	fine fine Pores	Common fine fine
3	(2) La	12	atones pe non	(k) Content of Rooks 4 Knoerst fragments					
Cocation East of	form of	To. Annual rainfall	Eroston.	Contant of bio innared (P					
of Okkan		1	non all	biological Conte origin Conte origin of	Common fine roots	few fine roots	Very fen fine roots		
	predmont plain	Is faterals 0	folSalt alkalt n	Content Matura of roots. boundary	non Smooth ne clear.	Smooth c clear its	Smooth gradun ts	Smooth gradual	
		Old alluvium.	non thi mon	(a) py 20 kct CaCl <sub>2</sub>	.(6 4)	(7.0) Non chicareous.	(6 5)	(7.2) Non cacarrous	(7.4) non calcureous
	(3)theretopography		E 7 0	For the Litror		eous.		ns.	eaus.
BUICHE	yndpy			it CEC merombo (1/2 / CEC ) (1/					

Ė				}											5	1973 Dr. S. Nishigaka	N. I.	1 × 1
-	, e.j.	u 79	Meadow soils	5 1 101	-		and (P)		(e) Author		2_	(f)Prouince Rangoon	Agngoon Division		(f)Country	Bure		
≈ &   -	(b) Soil Semee		roj U	folsor! Clase		ļ	3	lastand Syetem	22	foration	4f post,	okkan,	Taikkyı	Township		' :		
7 2 2	נל) נל)		Congretude (f)	tude	Elavation		Thisand physiografia	}	1214	(2) Land form of	Shalle	wiy inu	ndated b	(Shallowly inundated by rain/(3)merotopography Upper part of very gently undulating land	Minerote Jating	postophy Pand		
2	Slope	3	(3) Vegetation Land wed Jute followed	follor	by I		:53		schity mean ter	Honehly mean temp. Annual rainfall	infail.	11 (a) Parent	14 Subr	Subrecent alluvium	luvium			
1:	(b)			(a) was a fund		(d)Crown	7,777	(e)Surjace stones rook outorops	a tone a	Eroston	110	1915216		influence	20			
IV (q)	re)		(d) Colour	3	(J)	(g) Consistent	(h)Cutune Pressure	ff) Porus	Content of	(1) Contant of	p)Features biological	(q) Content	•	(a) p8 (c)Free ul	F2203 X	T TO	333	fylf C. micromho I:1/past
,¥0 <b>1.</b> €0 n	on Depth	12/22 Can	Abttling	745667	Structure	30 dey	Straken	(1) Curuntation	Ansmal	nodules (ml Pans			toundary 3	2000	E 4	1 F.F.K	1-	(n) Sale
Ap 8	5	57 5/1	Conviors 7 SYR 4/6	ปี							C=0 88 C=0 55.			5 2			16	
	÷:		tubular "														68:	
, C		SY 5/1	Common 7 SYR 4/1							Few Mn concretion								
			few					,		(4 mm crushable		····						
5	es es		7 51R 4/6											<del></del> -				
C 28		*bttled 2.5%/7 and 10%R4/0		5						Few Mn concretion (5 mm crushable								
9	· 		q			······································												
70.	2 20													<del></del>				
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Table 58-21 (11)

1973 Form Dr.S.Nishigaki

Table 38-21 (12) PHYSICAL AND CHEMICAL PROPERTIES OF SOIL

PERTICLE SIZE DISTRIBUTION %

								AF	Pag	e 1	3E	<u> </u>
			Ng						lag		1	
	Ę.	<u></u>	Ca	$\rightarrow$				-	$\dashv$	$\dashv$		
ACT	Cation	(med/L)		_	_	_			_		{	
EXT			Na									
LION	X. N	/bau	100g		}				Ì			
SATURATION EXTRACT	.C:	l Sor	/cm 100g		_							
SA					_	_		_	_			
	Hď										ļ	
f	ble	2	008)	157 5.8 44 5.3 11.1								
Avai	ក ដ	Sio	mg/1	11.								
-		ted		•	ekg)	4						
GEN	00g)	cuba	NH4	5.3	40 Zweeks	6.7% of (N)						
ITRO	mg/1	III,	<u>.</u>	-	40	إف						
2		E	Δ,	_								
]S_		0. ZN	된	44							· !	
HORL	$^{'}100_{g}$	ray	. م	8								
18011	/8m)	P. 1		7								
		H										
	Base	sat.	9/0	68								
			um,	0.72								
	100	_	KSum	.241								
QE	(med/	-	Йa	08 0								
SHO)	Suc	_		0	_							
BASE EXCHANGE	Cations (meq/100g)	_	Mg	ızı					<u> </u>			
BAS			Ca	5.3								
		×	capa.	15.8 5.3 5.1 0.08 0.24 10.72								
-	נייי מי כ	mmho   re2 3   Ex	- No									
L		- e	٠,-		_	-						
ľ	_	յ հարհ	EJ/	100						-		
	80.			н	7	ы	4	ស	9	7	80	

													_						Pa	ge	15
1	N.	1	13.8	_									Ng								
addy	NIC N C	0/0	0.04		}						E-	Cation	(meq/L) a Ca								
use:paddy	ORGANIC	0/0	55								XTRAC	Cat	Na Na								
Land 1	<u>_</u>	9/0	0								SATURATION EXTRACT	Ex.Na	meq/ 100g								
	CaCO3 G	-								$\dashv$	FURAT		mmhos m /cm l								-
3		77									SAT										_
	C2-1	Cac.	_							-	_	표									_
oi 1s	H <sub>2</sub> 0		4.8	_	_						Avai-	lable	SiO <sub>2</sub> (mg/100g)	4.1							\ \ \ \
dow s	ı	Airdry									Av				eks)	of TN)				_	
Class, Meadow soils	% <u></u>	15									EN	(mg/100g)	ubat NH4	1.7	40°2 weeks)	2% of					
Class	MOISTURE (atmosphare	1/3									NITROGEN	mg/10	4 Inc		040	04					_
	MOISTURE	1/10									Z	_	z o.		_						$\dashv$
510h	(a	Sat. 1	-								105	(g)	0.2N HC1-P	-							
Divi		.s. s	4.3			-					PHOSPHORUS	8/100	T.P. Bray 0.	0.6							
Rangoon Division	_	빔	8								PHO	٤	T.	18							
	NOI	re F.S	62					_		_	-	Base	sat.	23							
Tagwa, Taikkyi Townshp,	DISTRIBUTION	Clay Texture											Sum	19							
cyi Te	DISTRIB	lay	9.9		65%	13%	22%				•	/100g)	S.	.05							
Taikk	SIZE D	Silt	23.1		7 A º (	10A°	14A°				NGE	(med/	Na B	040							
адма,	_	Sand	67.0 2			-	1				BASE EXCHANGE	Cations	Ng	₽							
	PERTICLE (USDA		9					i	-	-	SASE	Cat	Ca	7							_
Place:	Š	Gravel						 			1			2 0			<u>'</u>				
80	Depth	cın	- 12										3 Ex.	2							
Profile NO.B		i	-0					<u>-</u>					\$ 203								
file	No. Hori-										(	ز ن	mmho /cm								
Pro	No.			2	33	ಶ	ស	9	2	æ		No.			2	3	ব	S	9	7	œ

(a)tand Location Taikky: Township.
form of (SI
timate (A) (A) (A)
(d) topied wiser (e) Surface stones (f) alball alball
(g) (consistent () moist () dry
0.0
Few Fe concretion ( 2 mm
Consisted Pressure 1) wit State 1) wist State 1) dy 1 dy
(d) Constitue (1) wet
(4) (4) (4) (4) (4) (4) (4) (4) (4) (4)
Sec.
(a) Solidaria (Clare or Puddy or Clare
Common 7.57RS/6 Common 7.57RS/6 Common 7.57RS/6 Common 7.57RS/6 Common 7.57RS/6 Common 7.57RS/6
2 2/8 2 3/8 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

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			<u> </u>		,	fy)E.C micromho J·1/past	in Sale	200	1	200	270	220	225
			) 						1			<u> </u>	
	BURN		hagraphy	1.0			<del>,</del>	K=35		K=44	K=62	K=59	<del> </del>
	untry		harotop	tutt	,	1		7	7				ITEOUS
	16)(6)	,	Ē!	eam.	/uman		211		+	n	ณ์	9.	
			1	at str	ווענו	te ph	CaCl CaCl	6.0)	+	(6.2)	6.5)	6.6	
			21212	ate Rece	1 1				1		4. <del>Z</del>		
	Province	Iawgon	-dengt	to) Fare	(9/5alt alkali	(a) Content	of roots.			fine roots	>		
		of No aukch			aon .	Features		C=0 2 N=0 06			0×0.9 N=0.06	C=0.3	C=0.0 N=0.05
		editon West c	nd form of	P. Annual rate	Erostor	Jo 31171102			1				
	) ]	27	(1) Car	thiy made tam	* tone * a	(k) ontent of	Rooks 4 Nineral fragmants						
Color   Colo		) Land Suetem		}	(e) Surface on torol	(f) Fores	(i) Camentation	Common fine pores		Common fine pores.	Common fine pores.	Common fine pores.	
Col.   Col.	/d) Date	ارو	and Physiogr	limate (k)	rater	(h)Cutane Pressure	Streken	<del>_</del>					
Color   Colo					table	(g)		ilightly sticky non plastic Friable.	Friable	Sticky Sticky Slightly plastic Friable.	Slightly sticky slightly plastic.	Slightly sticky slightly plastic.	Slightly sticky slightly plastic.
10   10   10   10   10   10   10   10	2118	1		1's'	Crop a rest	(L)		J E		lar	lar	L E	ingular iky.
(a)   Profite   Near     (b)   South     (c)   (c)   (d)	1 1	1	ш	Vistor	Cornorati	3	Tortura				1	(SL)	
(a) Fro file No. S. 30  (b) Social Coll Coll Social Coll Coll Coll Coll Coll Coll Coll Co	Neadow			E E	rate	1					Z Z Z	ris)	N N N
(a) No. (b) No. (c) No	5 308	1 N L	N 17*1		Moder	(0)		07.8 5/2	1	07R 4/2	1		1
	ofite OX	7			100	बैं बे	₹ £		<del></del>				
	(a)	(b) So	35	Stopi		ê	4-	_ !	-			_	011
	7		7			<del></del>		<u></u>					

Table 38-21 (15)

Table 38-21 (16) PHYSICAL AND CHEMICAL PROPERTIES OF SOIL

z	7	$\neg$								_	Γ.	-1	<u> </u>			٦			, -		-1	j-
IC N C/N	9/0	90	7	- 9	5	1 2					_	100	+	7	75	26	36	26	_	_		-
ORGANIC C N	-	20.0	2 0.07	9 0.06	3 0.05	0.05					Cation	(meg/100g)	7	20	29	4	20	14				:
L_	9%	0		0	0	0.0						٦	Ŧ.	12	œ	16	16	12				,
S	2/0	<u>'</u>	,	,	_	,					Ex, Na	/baw	100g	ı	f	-	,					
CaCO3	ا %			,	ı	1					E.C.		/cm			,						
KCI			5.	2	٥	∞	<u> </u>						-	~	_		2					
H <sub>2</sub> 0   K	1:25	8	1 4	4	6 5	3 5		<u> </u>				y Av.N	mcld [	122	107	82	2,7	37				
= '		4 5.	6.	4	3 6.	8 7.				llydrolli-	tic	cidit	(me/100g)	6.3	7.8	2.86	0.86	0.92				
	Airdry	1.4	2.4	4	2	5						ک <del>ا</del> ت	(III)				-					
9/o ~	15	,	١	1	1	,				2	)g)	Incubated	NIK									
a	1/3	1	,	ı						NITROGEN	(mg/100g)											
MOISTURE	101			,	,	,					_	Ĭ.										
_ G	1								-	0	. ~	0.2N	HC1-P	1 1	ı	t	,	,				
	S. Sat			_	1	1	·	<u> </u>		SHROHR	(mg/100g)		Ь	41	41	19	19	27			ke/ha	goı
	S O			-						SOlid	) Tu	<u> </u>		_		-		1				Truog
~~	F.S	1		•	,	'					0	E.										
DISTRIBUTIO [USA-FAO	xture		CL	ပ	CL	SicL					Bas	Sat	ey <sub>o</sub>	.39	40	55	42	24			ļ	
STRI [US,	X Te	2	1	8	3	4 S			-		(100g)		Sum	1.64	2.73	6.17	6.17	6.12				
		13.	36.	43.	36.	33.		_			0		×	0.650.09	.6 0.11	2.780.15	0.15	0.19				
E SIZE	511	43.0	19.6	21.9	29.1	65.6				BYCHANCE	s (meg/	,	ਹ Z	0.65	1.6	2.78	3.120	3.730				
PERTICLE	Sand	43.8	44.3	34.4	34.6	1.9				1 1	• 4		2 K	0.3	0.24	0.43	0.74	0.58				
PER	Gravel Sand Silt Clay Texture									2000	Sa		rg S	09.0	. 78	.78	16	.62				
<u> </u>	S		0	0		2 -		-	_	1		×	capa.	4.1	6.8 0	9.4	4.72	4.9	-			
Depth	E O	- 12	40	- 70	-100	-152					ا به	03 EX	Ü		-	-	14	24	-	1	<u> </u>	}
	_	0	12	40	70	100		-	-		Free	, re <sub>2</sub>			,	'	'	'		-	<u> </u>	
Hori-								ļ			ပ်	mmho	Cm/	200	200	270	220	225		_		
No.		-	2	10	4	'n	ø	_	√ ∝		SON.				2	m	4	l N	9	1	8	} }

						<b></b>				
					(y)E.C. micromho I 1/past (n) Salt	175	265	200	175	110
		_			1 CEC #					9
BURNA	ŀ	(1)Hicrotopography flat	Ę		Acridant Erracit	1 = 55	X=80	₹#67	X=75	K=66
untry		torator	Recent Stream alluvium		(elfrac   201   Fe203   A Fe   201   E   201					
(f)Country	İ	) E 13	ream	(h) Kuman enfluence	. 50	0.4	4.4	4 .5	4.2	4.0
		,בסשלפ	int st	3.2	Had KCL Caco	5.8	6.5	6.2	6.4	6.4
		ntela	nt 11ª Rec	ř	fr) Rature Of boundary	<del></del>	Smooth gradual	Smooth gradual (7.0	Smouth	
(f)Provinos	12 Ron	edmont	sal Pare materia	(g)Salt alkali	(q) Content of roots	Common Smooth fine clear roots	Very few fine roots	Very few fine roots		
13.	West of Nyaung gon	Lower by	att	กอก	p) Features biological prigin (Feat) OC 3, DM 3	C=1 0 N=0 10	C=1.0 N=0.06	C=1.0 N=0.06	C*1.0 N=0.06	C=1.0 N=0.06
	Location (f) West	(2) Land form of surrounding courtry	To Annual Patr	Eroston (f)	(1) Cantent of Mineral nodules (m) Pans			,		
(a) Author	30	(2) (Z) (Z) (Z) (Z) (Z) (Z) (Z) (Z) (Z) (Z	Honehly mean temp.	stones ope non	Content Rooks Mineral Fragmen					
	tal Land System			fajSurfoce etones	(1) Fores (i) Cementation	common fine pores.	Common fine pores,	Common fine pores	Common fine pares.	few fine pores,
4 (d) Pate		Sorm (11) position	Climate fkJ	Drowd witer	(h)Cutans Pressure face Slicken					
(non calcareous)	1	E.		E -	fg) filestere ff wet filmose f	Slightly sticky slightly plastic Friable.	Slightly sticky slightly plastic. Friable.	Siightly sticky siightly plastic.	Slightly sticky slightly plastic.	Sticky plastic.
(non calca		95°57' Klevation	eron a year	(c)Hotatura Dry friable	1 5	heak fine subangular blocky.	Hodyrate fine subangular blocky,	Modrate medium subangular blocky.	Modyrate medium subangular blocky.	Moderate medium subangular blocky.
	716	w	paddy	ol Hora	ea finte	5 -	3	70s	5 1	(G.)
Meath	Class	Longs tuch	(1) Vegetation	in terr	(d) Colour Metiling Ju	- -		Many medium fain redish brown M.	Mury medium faint dark reddish gray M.	Fex distinct dark reddish broun N
716 OKS 320	IG 3 N E1	N 17°17'	0.5 Lan	Frate	·	10YH 5/3	7.5YR 6/2	7.57R Na 6/2 n	5/3 7 7 15/18 No. 1	10YR 4/3
(a) Profile	-	7		124	(a) 45 E	177			3	
1 (a) P	1 (8)5011 Series	f (f)	\$ \$10pe	11 (6)	IV (a) (b) Torizon Depth	6 9	20 00	2 2	02 5 2	051
L	!	L	٠			<del></del>	<del></del>	<u></u>	<del></del>	<u></u>

Table 38-21 (17)

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SOIL
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PROPERTIES
CHENICAL
AL AND
PHYSICAL
(18)
58-21
lable

Burma

Ī	-		1							
		3	'							
Land use: Paddy	ORGANIC	≥ % ≥ %	1.0 0.09	1.0 0.10	1.0 0.06	1.0 0.06	1.0 0.06			
use	- 1	% ر	1.0	1.0	1.0	1.0	1.0			
Land	CaCO <sub>3</sub> Gyp-	v E %	2	,	J	,	1			
	CaCO3	<i>0/0</i>	-	'	ŀ	1	'	_		
115	PH H_O   XC1	ν.	4.0	4.4	4.5	4.2	4.0			
sy so	H,0 H	1:2	2.3 5.8	3.5 6.0 4.4	5.0 6.2 4.5	4.5 6.4 4.2	5.1 6.4			
Class, Meadow gley soils	- ·	Airdry	2.3	3.5	5.0	4.5	5.1			
. Nea	~ e.	15	ı	1	-	1	١			
Class	MOISTURE %	1/3	\$	,	ı	•	ı			
	MOIS	1/10 1/3	J	,	1	'	,			
		Sat.	1	, !	_	,	•			
		C.S.	,	,	,	,	,		_	
	% 7	F.S.	1	,	\$	   	1			
uu	PERTICLE SIZE DISTRIBUTION %	Gravel Sand Silt Clay Texture F.S. C.S. Sat. 1/10 1/3 15 Airdry 1:2   5	L	ľ	SCL	1	U			
ng gu	DIST	Clay	26.5	21.9	31.0	37.8	34.0			
flya	SIZE	Silt	43.8	33.0	19.9	19.1	24.9			
Yest c	TICLE	Sand	29.7 43.8 26.5	45.1 33.0 21.9	49.1 19.9 31.0	43.1 19.1 37.8	41.1 24.9 34.0			
Place: 1	PEA	Gravel	ı	•	1		1			
Profile NOOKS 320 Place: West ofNyaung gon	No. Hori- Depth	E	. 0- 13	13- 35	35- 63	63- 95	95-150			
Tile N	Hori-	107								
Prot	No.		1	2	2	4	S	9	7	8

									, u	gc	20	
		(20	+	46	28	25	28	32				
	Cation	(meq/100g	Al	20	12	16	12	16				
		Ē	H	26	16	9	16	16				
	E.C. Ex. Na	med/	100g	,	,	_	,	,				
	E.C.	soum	/cm	-	•	1	,	,				
		AV. N	mdd	195	89	91	72	54		<del></del>		
Hydroli-	tíc	Acidity Av. N munhos meq/	(me/100g) ppm /cm 100g	8.0	4.1	3.9	4.0	5.3	-			
NITROGEN	/100g)	Incubated	-P " NH4 (me,							-		
TIN	gm)	¥.	3		1							
S		0.2N	HCI-P	1	_	1_	1	1				
PHOSPHORUS	/100g		d.	43	83	50	31	41	·		kg/ha	T'223.50 @
PHOS	(mg/100g)	Т. Р.		t		1	'	•				È
	Base	sat.	0,0	48	45	46	47	5.1				
			Sum	4.5 1.32 0.06 0.650.14 2.17	10.3 0.78 0.84 2.780.21 4.61	10.3 1.7 0.22 2.690.17 4.74	9.3 0.82 0.46 2.910.19 4.38					
	7100		×	),14	).21	1.17	0.19	1.17				
ANGE	(mec		Na	0.69(	2.78(	2.69(	2.91(	2.20(			-	
BASE EXCHANGE	Cations (meq/100g)	-	Mg	0.06	3.84	3.22	0,46	0.12				
BASE	Cat	-	Ca	, 32 (	.78 (	.7 (	.82	.76				<u>}</u>
		.:	capa.	1.5 1	0.30	3 1	0.30	8.5 1.76 0.12 2.260.17 4.31			-	
-		3 EX	Ca	7	1	H	-	-			-	
	i i	mmho   523   Ex	9/10	+	1	1	'	,				
0		пш	/cm	175	265	200	175	110				
	No.			~	7	ы	4	S	9	7	∞	

						12:27			<u>-</u> -							l					
				,	meronio 1.1/past	(n) Salt content		100			110			180					400		-
					383	7														_	
BURMA	}	(3)Aterotepography				v) pph		h=67			K=150			k=67					7		
(f)Country		Microte	LTM.	E 8.	ft. 17.res Fe 20.3 X	74" "42" "52" "44"" "52" "52" "52" "52" "													<u>.                                    </u>		
Š	-	ا ت	alluvıum	th) Human influence	نياء	7 12 12		*			4		~~ <del>~~</del>	5.5	<del></del>				*		20
j			Recent al	(H)	(=) pR R20 KCL	CaCi	(5.5)	2.2		(6.9)	6.2		r (6.0)	6.6					6.0	5	1 9)
				-	(r) hatur	of boundary	Smooth			clear			Smooth					Smooth	Clear		
(f)Province	North of Yindaikkwin	plain	II miterials	1915alt alkalı		of of roote. boundary		1001 5		fer	roots	,	Very fer fine	ropts							
2	but Y 1			הסר		(Peat) OC 3, OH 3		C+1 0 N=0 N=0			C=0.7 N=0.05			C=0 6 N=0.05					C*1.7	00.02	
	Tt)	5.	arula	, ,	<u> </u>			S ž			څ ت		<del></del>	- Z							
į	NO	(2)land form of surrounding country	Annual rainfall	Eronion	Contrat of	nodules fm/ fank													concretion		
	Location (f)	(2)land form of extrounding oou	4	non		<u> </u>	1		_	<del>-</del>	······				<u>,</u>			Ĺ	- S		_
thor		12.	finithly mean temp.		(k) Content of																
(e) Author			Honehly (k)	rope	60		-											<del>-,</del>			-
	(o) Land System			lejSurjade stones rock outcrops	G.	(i) Cemantation	Common	pores.		fine			Common fine pores.			:		Common	fine pores.		
Put.	(o) Sye	Phyerografia (1) poettion			101		15-			<u> </u>			<del>                                     </del>	<del></del>					•		
eard (P)		and Phy	Climate (K)	18181	Preseure	Stiel															-
		(h)land	·	15.2	(a)	1) vet 2) roint 3) dry	Slightly	stightly pinstic	Firm Friable,	plastic.	<u>.</u>		Slightly stick)	plastic				oht 1 v	sticky slightly	plastic.	STIPPED
<u> </u> 		Elevation (a) 7.9m			E		S118	st.	Frim	Sticky plasti			S118 5118	=				í			21
		Eleva		Ory friable		<u>*</u>		ular			: :		e ular					<b>6</b>	rular		ine
1 2 2 5		95.50	3		1	Structure	fine	subangular blocki		Moderate medaum	sucanguiai blocky.		Moderate fine subangular	blocky				Ladensta	fine	blocky	weak ting
		-		17 Slow (o) Holeton	3	ferture	(1)	د ۷۰		(CL.) "	SCL !		(J.)	 	<del></del>	<del>-,</del>		3	3	SCL	-
(non ca	(4/5017	Longituda		5 6			=			=			+-	<u></u>				<del></del>		ź	
5	- :		(J) regetation	. 10		Colour Nottling				Common	faint yellowish brown M.		Common fine						fine	dark	304
111	ž -	בן ב	(1)	Moderat	(0)		101R			101'R	<u>-</u>		101'R			<del>-, ,</del>		<del> ·</del> i		IOYR	4/2
(a) Profile	1	1		٠.		ر بر اخ از بر اخ			/	<del>,=</del> -	<del>-,</del>	<del>.</del>	8	<del></del> -		<del>1</del>	58				-
166	(6) 501.6	1	Siore	\ <u> </u>	3	Merical F			<b>-</b> -	6	30	- 5	1=-		- 6		2	7007		2	0,1

.Table 38-21 (19)

Table 38-21 (20) PHYSICAL AND CHEMICAL PROPERTIES OF SOIL

N/	=			_	 	1					7						1		1	~		
) (c)		60										רפטה	]	38	42	34	32	36				
Use:Paddy ORGANIC		0 0.0	7 0.05	0.05	0.06	0.03					Carion	(men/1000)	V	12	16	18	16	20				
	 	7.	0.7	0.6	1.7	1.0					5	ָבָּ פֿרָלָ	12	26	26	16	16	16				
Cyp-	0 2 %	1	1	1	1	١					EV Na	700	100g	'		-						
LG3Mt1 CaCO3	a/a	-	_	,	,	,					2		1									
~		0	5	s.	4.6	9.		<del>-</del>			-	Е		0	5	6					<u> </u>	
있된_	1:25	9 4	.2 4	6 4	9	.5 4			-			N		90	85	79	99	52				
20		9.	5 6.	5 6.	0 6.	1 6.				Hydroli-	77075	27.7	(me/100g)	8.8	2.8	3.1	2.6	1.2				
Meadow	Airdry	9	4	4	4.0	3.1				11	_		<u> </u>				· <u>-</u>					
	115	,		'	'	,				2 4		Troubated	NII4									
(A)	1/3		١	}	1					NITROCEN	01/2	120087	1				 	 	-			
Cla MOISTURE	101	,	1	,	,	,				2	. `		<u> </u>									
	Sat. 1	-		-	,					ប្	) ~	200	HC1-P	ı	ı,	ļ ,-	ı	,				
	.S. S.			_						SHROHESOHE	(000110011	3001	c,	43	68	35	17	19			kg/hh	gor
	2	<u> </u>		<u>'</u>	-	<u>'</u>			-	DHIO								-	-			Truog
% NO	S. 7	'	<u>'</u>	'	,	1			-	-	Ţ						_	-	<u> </u>			
daikkwın DISTRIBUTION IUSA-FAOI	Texture	د	SCL	SC	SCL	Sic					13.00		ป 65º ภ	74 54	1 42	0 47	26 49	4 37	-	-		
Yındaikkwın ZE DISTRIBU	ay Te	2	6.	0.	· s	9.			_		1,001	787	Sum	7 3.7	3 5.71	6.1	9	1.74				
<u>=1</u>	$\mathcal{L}$	1 23	.3 32	3 36	.5 31	.7 58			-	 			<u>~</u>	170.1	2.990.38	3.730.17	4.130.17	0.690.15				
0£	S11t	34	18	17.	20	39				UN VI		hall	Z G	2		ı	1	1				
e:North PERTICLE	Sand	42.4	48.8	46.7	48.0	1.7				SACHANG	3   6	Cactoria	N. S.	0.68	1.28	0.50	1.00	0.06			<del>-</del>	
Place: North PERTICLI	Gravel		,	,	,					n A C E		3	Ca	0.72	. 06	7.	92	8.4				
<del></del>	15	 	 		<u>'</u>							<b> </b>	capa.	7.0	3.6 1	3.1	2.80	4.70		-		 
NO.OKS327 Depth	E	0- 13	- 48	- 85	85-135	135-150					1	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		<u> </u>	1	-				-		
			13-	48	85	135	-		-		Free	Fe,0,		'	'	,	'	'	_			
Profile N No. Hori-	, ,										я С	) 1 1	CIIIIIII	100	110	180	400	300				
Pro No.			7	3	4	۲S	9	7	8		2				2	2	4	2	9	7	8	

					(y)E.C. m.crombo 1:1/past (n) Sate	100	001	110	011	110
				İ	(E) (E) (E) (E) (E) (E) (E) (E) (E) (E)					
y BURNA		graphy	-		WEEGH (	h. 34	K=45	K*45	κ* 6 3	72
		(3) Hearo topography	UVIUM		3 6 3 5		*	<u> </u>	×	
(f)Country		(3) HLO	n all	10.6	(t) Free 1	:			80	-
11			stream alluvium	thi Human influence	(e) p8 (t)Free   H20 KCL   Fe mm   CaCle   Fe	53	5.9 4.2	6.0 4.4	6.5)	(6.5)
			Recent		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	r (5 5)	a1[(6	<del></del>		9 .
					Kati	Smooth	Smooth gradual(6 0) 5.9	Smooth	Smooth gradua	
(f)Province	นอธิเ	חונ	II (a)Parent II maternale	(g)Salt alkali	fol Content of roofs.	Common fine roots	for fine roots	Very fer fine roots		
1	East of Kungyangon	Flat pla	nfall	non	and and a	C=1 0 N=0 10	C+0 7 N+0.01	C=1.0 H=0 05	C=1.4 N=0.05	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
	Location (f) East 0	for	Annual rainfall	Eroston	Content of Mineral Mineral Modules					
(e) Author	()) ())	7(2)	2	gtonge pe non	Content Roaks Mastral	<del></del>				
	(o)Land System		5€	(a)Surface stones	(1) Pores (1)	Common fine pores	Camman fine pares.	Cammon fine pares.	Few fine pores.	fine pores
(d) Date		(h) Land Physiografion form	Clumbe	Cater	(h)Cutame Presente face Stucken		!			
		E		(d) Ground water	Consisters 11 wet 21 moist 31 dry	Slightly sticky non plastic Friable	Slightly sticky non plastic frinble	Stightly sticky non plastic	Sticky plastic,	Sticky
\$0115		95°52' (g) 9 8	y crop a year	condition Dry Friable	\$5.	heak fine subangular blocky.	Moderate fine subangular blocky	Neak fine subangular blocky	Moderate medium subangular blocky.	Abderate redium subingular hlock)
Meadow gley	(0)5011	t add	pped a	fel Hote tu	(e)	(FSL)	3r (115)	(S1L)	o ("C")	(10)
Neadon	=		())Vegetation Land wee On	ernai	(d) Colour Hoteling		Few fine distinct dark brown M		fine fine dastinct brown M.	10XR Cornon 10XR (CL) 4/1 fine datus datus 1000000000000000000000000000000000000
5 338		-		00er	1 5 7	5/2 5/2	10YR 5/2	37.4 57.4	107R 5/2	10YR 4/1
(a) Profils	_	3	90	Drainings (b) Ext	(b) Depth	~	- · · · · ·	ų.		8
[ [4]	f Series	35	J Sleps	130	Iv (a)			The same of the sa		

Table 38-21 (21)

Table 58-21 (22) PHYSIGAL AND CHENICAL PROPERTIES OF SOIL

	Z					_			_	I	}	<u> </u>			7	_		-1				1	1	
ddy	C TC/N	-	- 0	1	5 -	5 -				_				130	+	30	36	36	7					
use: Paddy	ORGANI	9/0	01.0	0.01	0.05	0.05							Cation	(meg/100c)	7	4	20	2		20				100
		e/o	1.0	0.7	1.0	1.4							Ç	٥	王	26	16	26	7	17				
Land	Gyp- sum	0,0	1	-	-	1							Ex. Na	med/ [	100g		'		'					1072 Born Dr. C. Nichianhi
LG3Mht1	CaCO <sub>3</sub>	0/0	1	1	1	1						( {	E.C.	mmhos	/Cm		<del> </del>		-				<u> </u>	107
	KC1		3.9	4.2	4.4	3.8								Av.N m	maa	100	89	09	98	80				
y soils	PH 1120	1:2 5	5.8	5.9	6.0	6.1							_	tty A	<u>교</u>	ı	_	{						
gley	<u>'</u>	Airdry	.2	2.4	7.2, (	5.	.7			-	}	llydrol1-	tic	Acida	(me/100g)	5.7	3.7	3.5	7.2	5.4				
adow		Air	2	2	7		S					E		eq	<u> </u>		-							
Class Neadow	% ⊖ % ⊖	15		_	1	,	,		<u> </u> 	<u> </u>		GEN	00g)	Incubated	MA	}								
Cla	MOISTURE atmosphare	17.3	1	l —	ı	,	ı 					NITROGEN	(mg/100g)		<del>,</del>		-							
	MOIS	1/10	î	•	1	ı	1					_		Z.										
		Sat,	-	,	:	,	,				}	SO	(8)	0.2N	HC1-P		'   		'				- 15-	
ļ		:S		_					-	_		PHOSPHORUS	g/10d	r. P.)	ام	39	27	35	25	48			kg/h	Truog
		.S. C								-		PHO	٣	T.P.		1	٠,	'	'	1				ř.
	ION %	1		-			'						15 c	1t.		45	71	-11	50	49			_	
Ę.	SIZE DISTRIBUTION (USA-	Textur	SL	SL	SL	ບ	v		<u>{</u>   				Bas	33	ۍ. د	98	13 4	31 4	65 5	78 4				
Kungyangon	ISTR	-	5.5	5.6	4.4	5.2	5.1	-		-			(100g)	_	Sum	.09 2.	12 3.	4	9	m				
Kung	12E	Sand Silt Clay	.0 16	.2 1	.3 1	.45	.0 46			-		{	(meq/)	_	<u> </u>	.690.0	690.1	390,12	.690.16	340.18				
ο£		d Si	5 21	.2 16	2 10	.4 32	9 15		_			EXCHANGE	1	L.	Na	50 1.	32 1.	56 1.	00 1.	2 1.		j .		
Place: East	PERTICLE	San	62.	68.	75.	12.	38.			_			Cations	_	<u></u>	ં	0.3		2.	1.1				
lace	± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±	Gravel	1	-	1	1	ı					BASE	U		S	0.70	1.0	1.24	2.80	1.14				
38		(C)	3	5	5	8	2		}	-				Ex.	capa	6.6	6.7	10.7	13.3	7.7				
NOOKS 3	Depth	E	0-1	13- 3	35- 6	65-118	118-152			} }		27.20	ر د د	2.3	مه			,	,	,				
- 1	.d C	-				1	1.			-		ָרָבָּ בּי	; ;	ho	,	100	100	110	110	110		-		
Profile	<del>-</del>					-		_	-	-		B.C	_	mmho	/cm								-	
P.	N 0	1	7	2	3	4	ß	9	1 ~	∞	1	}	<u>0</u>		ł	~	2	2	4	N	9	7	ω	

(u) (y)E.C. CEC merombo (z) 1:1/past B.S (n) Sale 1 content (y)E.C. m.crombo 1:1/post 1973 Dr. S. Mishigaki (3)tharotopography BURNA 11 (a)Parent In miterials Recent Stream alluvium (f)Country th) Kuman influence (6.5)6.5) gradual(6 5) (6 5) gradual(6 S) Srooth gradual(( Smooth clear Smooth Common Smooth fg)Salt alkali (q) Content (f)Provinge Few fine roots Ver) few fane roots fine Poots. South of Kyungyaung 6 Location South of Kyungyaun (f) South of Kyungyaun (liland form of surrounding committy Flat plain. p)Feature biological origin. (Peat) of 1,0H 1 חסת Honthly mean temp. Annual rainfall (k) Eroeson Contant of Managal nodules (m) Fans non Content of Roaks & Wineral Inagmente (a) Author (e)Surface etones Camantation fores Common pores. fine fine pores. fine fores. fine Common fine pores 3 חסותיום (a) land System Juc (h) Land Physiografia Consisters Pressure
1) ast foos
2) moist Sticken
3) dry side 6 (d) Net (d) Ground water Clandle (k) Slightly sticky slightly plastic. Firm sticky slightly plastic. Slightly stacky non plastic farm Slightly Slightly 511ght 1v sticky plastic sticky 95"53' [gl 10.3m ColHaisture Ory friable (1) Vegeration and paddy corp a year weak fine subangular block) (H·1) subangular block), fine subangular subangular blocky. subangular blocky Structure S eal fine 'fod-rate Moderate blocky, 50115 fine (FSL) | fine neak ш \_ (121) AKTUN. ( '' ) Medow glev 3 (25) Longs tude (a)5011 Class faint yellowish brown M 11 (b) extrace Moderatein Sion sellouish brown M faint yellowish brown N. fer fine cedium faint brown M Actiling medium faint brown M external internal edium Colour faint Common Common Common þ fine Corron N 17"25" ដ (a) Colour LG 3 N Harrison Depth (11) (2) laltrofile No. OKS 361 101A 101R 5/2 101 R 5/2 10YR 5/2 110YR 4 A (f) (b) 501 l t Stops 9

Table 3B-21 (23)

(f)Country BURNA	(3) there topography	in vision		(t) Free L) Each (t) (y) E. F. F. F. F. F. F. F. F. F. F. F. F. F.					
no.		(a)Parent II miterials Recent stream alluvium	(A) Huran alkali non influense	(q) (r) (r) (e) pH (L)Free (content Natura 420 ACL 1.2033 OC 201 Ever Hill Free Ever Hill Ever H	Cormon havy fine clear.(5.5) roots	fine graduai(6.0) roots	few Smooth fine gradual(6 0). roots	Smootli gradual(6.0)	(6.5)
רכבסנומט	form of	Annual rainfall	non [f] non	Content of broinging hyperpart origin, nodules (Patt) (C) Fatt		J.	Course Fe Mn concretions		Coarse Fe An Concretions
[4] [4] [4] [4] [4] [4] [4] [4] [4] [4]	r	0.0	felSurface stance rock autorope	to the state of the state of s	Cormon fine pores	Lores fores		lew fine pores.	few fine pores.
	Elevation (h)land Physiografia (g) 11 6m form (1) position		Ory friably table	(p) (h)Cutons (Consisters Pressure 1) and Sticken 3) dry side	Slightly sticky slightly plactic. friable.	Sliphtly sticky non plastic. Friable.	Sticky Plastic	Sticky	Sightly sticky non plastic
Meadow gley soilk GH (415011 Class	githda E 95°57'	٦٥ ا	condition	ig Ferrure Structure	†=	((Si,) Moderate medium angular blocky	(St) medium angular Al. blocky Prismitic	Coarse medium angular blocky Prismatic.	M SL) medium angular blocky
(b)Sout	N 17*19*	Siepe (g) Vegatation (l) 0.2 Land wre	(b) external internal	Horson Cepth (11)/[1] Hoteling	107R 6/3 70	10YR 6/3 10-30	6/3 fine 50/5 fine 50/6/3 fine 50/6/3		100 5/3 medium 100 5/3 medium 100 100 faint 110 brown M

のでは、1915年には、1917年には、1917年には、1919年には、

					(y)E C micrombo 11/pas d (n) Sale	200	1100	0501	1490	1500
BUIMA		ج		ľ	(E)					
		(3)tharotopography	alluvium		(t) Free [u) Exch Fe 20 1   Actdit Fe" An" Extract Zn" ppm [u) ppA	۱۰= 290	λ=130	K=76	9 9	K=75
danmon(f)		rre).	ent stream alluvium			0	6 2 3 3 6 0 9)	(6.0	5. 6. 0 8. 1. 8	5.4 3.6
	24		ale Recent	2	fr) Nature Of boundary	Smothh	Smooth	Wavy gradua	havy gradua	
( ) Provinde	Sliwemyayagong		is materials	(g)Salt alkali	Content of roots.	fine roots.	fine roots.	Very few fine roots.		
<u> </u>	ų,	<u>,</u>	senfall.	יסת חסת	biological origini frati	C=2 6 N=0 15	C=1.1 N=0.09	C=0 0 N=0.13	C=1 0 N=0 11	C=1.1
	theatton West	(2) Land form of surrounding abunity	imp. Annual minfall	Erosion,	(1) Content of Mineral nodules (m) Pans					
(a) Author		uo	- 0	stonds ps non	Conten Rooke Minera					
	folland System	5 5		rook outerops	(1) Porest	Few fine pores	few fine pares	Few fine pores	Few fine pords.	Few fine pares.
(d) Date		(h) Land Physiografic	Climate	water	(h)Cutane Pressure Jace Sticken					
		$\vdash$	1 5	(d) Ground table	(9) Consistede 1) ust 2) moist	Very sticky plastic	Very Sticky plastic Very firm. Very hard.	Sticky	Sticky plastic.	Sticky plastic.
(0,0)	Meadow gley soils	95°57' Elevation	naddy	ure n Dry hard	(f) Structure	Coarse prismatic angular blocky.	Coarse prismatic angular blocky.	Moderate medium megular blocky.	Hoderate medium angular blocky.	Hoderate medium angular blocky
	Cassout Mes	tude B 9	e plante	(a) Marat	(e) Jesture	300 (0)	<u>()</u>	3CT	ن (2)	Q 0
	(e)	14 ' Cange tude	regatation	(a) Halatura	(d) Colour Abttling				Common fine distinct dull reddish brown N.	Fer fine faint dull reddish brown 4
14 OKS 312	15311	N 17*14	1 12 0		3 3 5	10YR 4/3	10YR 4/2	7.5YR 3/2	7.5YR 3/2	7.5YR 3/2
(a)Profile	(b)Sat 2 Series	Lates tude	Slope	Drainage (b) Matka	TV (a) (b) fortison Depth	0 0[	25 02 01	, ,		120
) I	7	13 -		11	la la la la la la la la la la la la la l	1 .				4 4

Table 38-21 (25)

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ORGANIC C N C/N	2/0	0.15 -	0.09	0.13 -	0.11 -	0.10					Cation	(meg/100r)	4I +	, 20 47	4 16	5 31	22 48	16 42				
ဗ်ဴပ	6/0	2.6	1.1	-	1.0	1:1			-		Cat		Ξ	26	12	26	26	26				
Gyp- sum	0/0	ı	,	ı	,			:			Ex. Na	med/	100g	,	ì	ı	ï	,				}
caco <sub>3</sub>	9/0		-			,						<u>.</u>	/cm	1		1	ι	1				į
PHI KC1	, ,	4.0	3.9	3.9	3.8	3.6					1-		mdd	160	100	100	111	112				
H <sub>2</sub> 0		5.6	5.5	5.4	5.4	5.4				Vdroli-	ن			.4	0.	.4	.4	4				:
	Alrdry	3.4	4.1	4.1	9,2	10.8				Hydz	•		(me/100g)	8.	12.	12.	12.	12.4				
% <u> </u>	15	'	,	ı	-	,				EN	0g)	Incubated	NIK									
MOISTURE 9	13/3	1	(	1	ı	_				NITROGEN				<u>.</u>								
MOIS (atmos	1/10	,	,	1	•							ZN   NII	HC1-P	ı	_	1						
	Sat.	,	-	-	-	-				ORUS	(800					1	- 6	5 -			/ha	2
	C.S.	1		1	•	,				PIIOSPHORUS	(mg/100g)	<u>.</u>	Ь	.52	31	2	2	2	_		Kø/ha	Truog
% NO	P.S.			1	1	1					ا	<u>.</u>		1		<u>'</u>	'	'				
DISTRIBUTION IUSA-FAO	Texture	SCL	၁	SCL	ن	S					Bas	Sat		39 75	97 72	.68 32	.68 83	.14 50				
DISTR		27.8	75.8	24.5	84.4	89.0	_	-			/100g)		K Sum	74 3.89	4	9	<u>Lº</u> .	.19 4.		_	<u> </u> 	
SIZE	Silt Clay	16.3 2	19.0 7	8.5 2	12.0 8	9.6	-			NGB		-	Na Na	1.170.74	2.600.74	3.430.19	4.260.19	86.		<u>                                      </u>		
PERTICLE	Sand	55.9	5.2	67.0	3.5	1.4				FXCHANGE			Mg		0.04	0.04	0.02 4	0.32 0				
PER	Gravel	-		-	,	-			-	RASE	Ca	_	Ca	1.69 (	2.00	3.02	2.42	2.64		-	<u> </u>	
	15					0.5						Ex.	capa	5.2	6.9	9.1	8.3	8.3				
Depth	E	0-15	15-35	35-63	63-95	95-150		}			H G G	223	9/9	'	,			,				
Hori-											က် က	. oumm	/cm		1100	1050	1490	1500				
No.		1	2	3	A	Ŋ	9	7	∞		8			-	1	1	<del> </del>	1-	9	7	∞	

BURNA	(3) Atteratopography	מתו		(t) Free witzeh (u) Free 1 Arndit CEC Free Arn Arndit CEC Trans Arndit CEC Trans Arndit CEC Trans Arndit CEC	ous.			s n o	sno
I f) Country BUIDI	11371	Recent alluxium	thi numan influence	(s) pH (t)free u H20 KT   F=203 1 A L	Non Estenteous	(6.5)	6.2)	ton chicareous	(8.0) Yon chicareous
•	nk od plain	rait Lait Re	นอน	(r) Natura Of boundar	Smooth clear.(7	Smooth	Smooth gradual(6.2)	Smooth Rradual(7.5) Non c	
onsno ett.	Tron flo	II mater	igisalt alkalı	fal Content of 1001s.	Сопиол fine ioots	Fen fine roots	Very few fine roots		
	Morra of Jack Community  Markey Invindation flood	arıı fatt	יפיי	pyteatury brotogical prigin (Prati					
151011	nd form of	CK)	Erosion	(1) Contant of Mnaral nodules (m) Pane					
(e) Author	(2) Land	ا ق	Corte   non	(k) Content of Rooks 4 Mineral Indiments					
- In -	matra tron		rock outerops	(f) fores (h) Garuntation	rew fine pores	rew fine pores	Few (Inc pores	Common fine pores	Common fine pores
(d) (b)	d Physic	150	witer	(h)Cutans Pressura face Streten					
	3,11		(d) Growid	(g) Consistace 1) vet 2) moist 3) dry	Ver) stick) ver) plastic Firm	Very stick) ver) plastic firm	tery stacky very plastic Firm	Slightly Sticks Slightly plastic	Slightly sticky vlightly plantic
15110	95°54' [Fleuation		ture In Dry hard	5	Strong medium angular block).	Strong medium angular nlocky	Strng medlum angular blocks	Noderate medium subangular block)	ioderate medium subangular blocky
Y skampy soils	ш	Grasses	Condition	(a) Jertura	( 2 )	( 0 )	S ( 3 )	(F)	1
1 3	N 17*16   Congretada	(s) Vegetation Land use		i	Fet fine distinct yellowish brown M.	Fer medium distinct vellowish brown M.		fer fine distinct yellowish brown M.	fer fredum distinct yellocist brown M
	15 3 H		510.	Colour 13.15. (1) (2)		SB 4/1	586 5.71	4/1	58 4/1

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٠,	·	7	<u>,                                    </u>	1	<u>1025</u>	: [ <u>프</u> 후										<del></del> -			·			
HISTORIA					(y)E C.			900			420						140		150			֧֧֓֟֟֟֟֟֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝ ֓֞֓֞֞֞֞֞֓֓֞֞֞֞֓֓֞֞֞֓֓
7		ahy.			<b></b> _	F																
y BIRMS		())Incrotopography			ul Erah Joids	Ulphk (v)		N=48		3	× × × •						7 × 10		K*90	<del></del>		
(f) Country		Minera	- En	5 8	(tiffred								4.6. alchreous.	······································			— <b></b>					
15			al luv	influence	He ( e )	~ 1	3,7			3 4.2						4.7			D			
			Cent				9.6			5.8			6.6 (7.2) Non	·		6.6 (7.2)		<u> </u>	6.4			
		ntain		4			Smooth	1		Smooth	clear.		Smooth gradual			mooth clear.						
(f) Pourno	2	flat plain	-	(g)Salt alkali	fq} Content	of roots.	Соптол	roots.		Le K	roots.		few fine	51001			·				-	
	West of Aletu	Almost	the this mean temp. I hound rainfall	non	piFeaturen	(Feat) 00 1,0N 1		C=1 0		<u> </u>			<del></del>			<del></del>	0.0		00		<b></b>	 
	Sto	5	e/ure.	ron	116			ນ 2 2			N=0 0		C=1.0 N=0.01				N=0 02		C*0.0			
	l	form of	t lonual t	Erosion	fo justuoj	erat nodules Fans															· · · · · · · · · · · · · · · · · · ·	
1	Cocation	(altand form of aurrounding country	·due	นอน	Sout.	Hineral Jubon (m) Fans																
11101		(3)	א הפשע			Anneral fragments																
relautho			14.)	e tone	ė,								<u> </u>									
Ì	and ten			ie)Surface etonee rock outorope	(f) Pores	fi) Gementation	Common	pores		Common	rine pores.		Common fine pores.			fane	pores		tine	bores.		
	System	Judo		÷ č			8	· E-		S	<u> </u>	_	ت ت ق			Fer	Ĕ. <del></del>		2 5	<u>.                                    </u>	<del></del> .	
id) Dute		form (1) position	Climate	water	(h)Cutane Preseure	Sticken																
]		197	5€	(d) Ground table			<u>``</u> ,	······		<u>``</u>	ht ly tic	$\neg$	ky ky ht ly	;		U			-	tic.		
		5.5m		(d) Gro	(6) Constité	5 2 3 2 2 3	Slightly	non plastic	Firm Hard.	Slightly	sticky slightly plastic	Firm.	Slightly sticky slightly			Sticky plastic			ery sticky	very plasti		
		(6) S.	ļ	friable			1.65		<u> </u>	\ <u>\</u>		<u>14-</u>	<u>v</u>			<u> </u>			- ×			
			a year	논	Q,	Structure		subangular blocky		te	subangular blocky.		bderate Fine subangular blocky			₽.	subangular blocky.			<u>.</u>		
11 S.	1 1	95 53 .	e paddy crop	- T		Str	Yeak	subang blocky		Moderate	subangi blocky		Moderate fane subangu hlosiv		İ	koderate medium	subangu blocky.		oderate medium	angurar biocky.		
luvie	_	เม	addy	forHoretu condition	3	extrice	(FSL) W			1	<del></del>		~~~		-	~			1-			H
Meadow alluvial	(0)5016	(/) pm3181.07	ne p	o õ			<u>                                     </u>	วร		<u> </u>	τ <u>γ</u>	-		<u>;</u>		ਹੁ '	ر 		<u> </u>	<u></u>	- <del>-</del>	$\sqcup$
Meado			Land use One	rate internal	(g)	bttling				Common	distinct yellowish	brown M	Common medium distinct	brown Al								
697 S	ויי ו	17*15	24(1)	Moderate nal inte		\$25	α ν		-	<u>. U.</u>		-	<u>U</u>		-	a n	<del></del>	· <u> </u>	×		<del>-</del>	
OKS	FX	æ	7	5			10YR		_	10YR	<del>-,</del>	_	10YR 6/2		_	10YR 5/3	<del></del>		107R			Ц
(a)Profile	talsoit Serice	נונויק	Slope (1)	ادا	(4) 	L Orpet	<u> </u>	<u></u>			<u> </u>	·		<u> </u>		4	6		1 5 1	•	5	
-	5.2	35	1 510	11 000	<u> </u>	5		97	2		5		9	0		20	•	0 &	001	130	7 40	7 160
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1973 Form Dr.S.Nishigaki

Table 38-21 (29) PHYSICAL AND CHEMICAL PROPERTIES OF SOIL

Burma

			;	k k	1	,	:			i :			;	 						) 	)	
Proj	file N	Profile NO, OKS 4	469place:		West o	of Ale	Alezu						Class	•	Meadow al	alluvial	soil		FX3Mh Land	use:		Ī
o X	Hori-			PERTICLE		SIZE		DISTRIBUTION	% NO			MOI	MOISTURE	%° €		H <sub>2</sub> 0 H	KC1	CaCO3	Gyp-	ORGANIC		C/N
		E	Grav	elS	Gravel Sand Silt	11t	Clay	Texture	e F.S.	. C.S	Sat	1/10	1/3	115	Airdry			e%	0/0	9/0		
1		. 0- 15	1	9(	60.6 2	28.9	10.5	SF	1		1	' ,	•	1	5.4	5.6	3.7	-	-	1.00	-04	
2		15- 40	'	13	5	24.8	61.7	υ	,	<b>'</b>	-	•	*	1	4.1	5.8	4.2	,	-	0.60	0.07	
3		40- 68	1	10	0.0	8.1	81.8	ບ	1	-	'	,	1	_	5.1	6.6	4.6	-	,	1.00	0.03	
4		68- 95	, !	17	4.3 3	35.0	50.8	ט	1	·	<u>'</u>	_	1	*	4.2	6.6	4.7	'		1.00	0.02	_
5		95-150	,	9	3.6 2	20.02	16.4	18	,	,	'	,	' '!	•	(9.4)	6.4	4.9	-	i	-	0.07	,
9																						
7															_							
80				-	-																-	
			æ	RASE	FXCHANGE	NGE			-	dSOHd	PHOSPHORUS	-	NITROGEN	NEC	Hvd	Hydroli-						
No.	ם יי	rree o		14	Cations	(meq/	/100g	() Bas	70	/Bm)	(mg/100g)		(mg/100g)	(goo	, ,	ic		E.C.	Ex. Na	Cation	ion	
	, oumm	2 3 Ex	٠,			-		Sat	L	T. P.	0	0.2N	NII, IIN	Incubated	ed Ac	Acidity	Av.N	mmhos	meq/	(med/	(100E)	7
1	/cm	ٽ چو	capa Ca		Ng	P.	×	Sum			五	C1-P	-	N.H.	(me/	100g)	ppm	Cm	100g	프	A A	+
1	400	_ 14	2	0.95 0.	.800.82	82 0	.12	2.64	19	-	17	1	-		4	4.9	72	,	1	13	8	21
2	420	- 4	45.0 2.	2.37 2.	2,103,65	65 0	. 22	8.34	18	ı	14	,		ļ	3	3.4	59	;	1	10	7	17
۲٦	100	,	7.2 1.	12 0.	712	47 0	.14	4.44 (	62	1	10	<u> </u>			2	2.7	58	1	-	27	7	34
4	140	-	6.1 1.	1.02 0.	. 382.69	0 69	19	4.28	70	1	0	'		!	2	2.4	59	ı	,	13	12	25
r.	150	-	6.9 1.	.07 1.	.103.39	39 0	.23	5.79	84	-	0				2	2.3	63	,	1	16	5	21
9										-												
7							_				-		<b>-</b>								-	
 80								_			kg/ha											
										Truog	Jo									•		

<u>.</u>	1	T	7	T	142 142	T	γ	<del>1</del>	]		
W150 15 11 1					(y)E.C. microrilo 1:1/past (n) Salt content	110	70	80	09	80	
		aphy			355.	ļ					-
		(1)therotopography	<u> </u>		Acidit Acidit Extract	<del></del>	K=73	X=81	K=81	Ж 182	
(f) Councey		(3) Incr	1,000	70.	(1) Free fe201 1 Fe" An" Zn" Ppm	<u></u>	ļ				-
		4 000	(a) Parent	(h) Human	(*) PK #20 KC1 CaC12	6.0 4.0	3) 4.0	5.8	3.9	9,7	
		lum of the	Pron		Natura W	1 :	Smooth 5.8 gradual(6.2)	Smooth 5. gradual	Smooth gradual 6.1 (6.5)	6.0	
antho:		Diluvium top of	) Paren	fg/Salt ofkali	ta. to	<del> </del>	10	1	S 80		
(f) Provende			2	200	Content of roots.	Common fine roots	few fine roots	Very few fine roots			
	Kest of Pueys	Foot		Ę.	p) Features biological origin. (Peat) OC 1, CM 1	C=0.6 N=0.09	C=1.1	C=0 2 N=0 06	C#0 3 N=0 06	C.0 0 N.0 04	
	Kest	t of	Annual ruinfull	Ereston.	7 2 .						
	Location	50			Content of Mineral Modules (m) Pans						
2.0	35	(2) to	ian tem		al of	<u> </u>			<del></del>		
(a) Author			Ponthly mean temp.	a tones pe	(k) Content of Roaks 4 Kineral fragments						
	ז פי			(s)Surface stones rock outarops	(1) Pores (1) Comantation	6 .	c vi	- ·	E 10		
	10) Land System	igrafto istton		rock		Common fine pores.	Common fine pores.	Common fine pores.	Common fine pares		
(d) Dute		(h) Land Physiografical	Climate (N)	water	(h)Cutane Preseure face Slicken						
		3 1	32	اط		cky stic. ble	htly cky stle.	1y y 1c.	ky ky tie.	ly ky tic.	
		tt <i>o</i> n 18.3m		٠,	(g) Consistant 11 wet 13 moist 33 dry	Non sticky non plastic. Friable	Slightly sticky non plastic	Slightly sticky non plastic.	Slightly sticky non plastic	Sightly sticky non plastic	
		firmotion (g) 18	를 다.	Moist friable	,	eless ie re/	lar		fu 76.		-
		E 96 00'	in for	- Seisk	(f) Strugture	Structureless or Single grain structure/	eak fine subangular blocky.	feak fine subangular blocky.	Moderate fine subangular blocky.	eak fine subangular blocky.	
1105		E 96	00 00 00 00 00 00 00 00 00 00 00 00 00	ition ition		Str ) or gr st		<u>*</u>	<u> </u>		
eritic	falsari Class	15.00 (2)	Bambe Try C1	000	(e) Jeztura	s ) 15	1s (ES)	(S1)	(35)	SC (FSL)	
Late	ŀ	35	Land use Dry crops (Ya Land)	internal condition	(d) Colour Abitisng						
5 447	נז שו זן	N 17°14'	-	• Cood external	Colour moise (1)/(2) dry	10YR 4/3	7.5YR 5/3	2,5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	SYR 5/8	5/8 5/8	
(a) Profile Ad. OKS	; ; ;		20	. i	(b)	4		202		\(\alpha\)	$\dashv$
	26 F. 68		3	(9)	5 6		i Deniera	<u> </u>	र जिल्लाम्बर्ग निर्म		֡֝֝֝֟֝֝֟֝֓֓֓֓֓֓֓֓֓֟֝֟֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓
لنا	5]	1	-	=	ار ار ار						

land	ပ	N C/N	.,0	60	- 80	- 90	- 90	0.07					ני
Land use: Upland		ပ		1.0 0.09	1.1 0.08	0.2 0.06	0.3 0.06	<u>.</u>					Cation
Land			7			1	,	t					F C FX Na
าmt3	pil caco, Gyp-	3	%	1	i	1	_	ţ					נ
s YL2I	pil	VC1	5	4.0	4.0	4.6	4.7	4.9			<u> </u>	       	
soil	C .	H20	1:2	1.6 6.0 4.0	4.4 5.8	7.3 6.6	3.7 6.6 4.7	3.8 6.4 4.9				Hydroli-	ر +
Class, Lateritic soils YLZLmt3			Alrdry 1:25	1.6	4.4	7.3	3.7	3.8				Hyd	
s, Lat	0/0	~	15	,	,	,	,	,			<u> </u>	EN	( " ( )
Clas	MOISTURE %	phare	1/3		1			ı				NITROGEN	(2001/2011)
	NOIS	(atmosphare)	C.S. Sat. 1/10   1/3   15	'		<b>.</b>	,	,				_	_
			Sat.	-		1	ı	ı				ORUS	(200
			c.s.	•	,	1	1	1				PHOSPHORUS	(~001/~~)
	<i>%</i> ∘	,	я. S.	1	ı	1	ı	1				ο,	
	PERTICLE SIZE DISTRIBUTION %	USA FAO	Gravel Sand Silt Clay Texture F.S.	SL	SL	C	SCL	SC					1000
gyı	DIST		Clay	14.7	6.4	71.7	30.4	35.6					1000
of Pu	SIZE		Silt	72.8 12.5 14.7	62.1 31.5	2.0 26.3 71.7	60.4 9.2 30.4	47.1 17.3 35.6				ANGE	100
West	RTICLE		Sand	72.8	62.1	2.0	60.4	47.1				BASE EXCHANGE	( 2001 / 20H) Junitary
Place:	PE		Gravel	1	1	1	ı	1				BASE	ز
Profile NO, OKS 447Place: West of Pugyı	No. Hori- Depth	•	E	0- 20	20- 50	50- 75	75-110	110-150				003	
ile NC	Hori-	201					<del>                                     </del>					ن د د	コンプレー・フ・コ
Proí	So.	•		1	2	ы	4	ហ	9	7	8		2

Burma

Table 3B-21 (31) PHYSICAL AND CHEMICAL PROPERTIES OF SOIL

	2		BAS	SE EXI	BASE EXCHANGE	E			9110	PHOSPHORUS		LIN	NITROGEN	Hydroli-						
יייי. מיק	ט כ			ation	Cations (med/	eq/10	/100g)	Dase	Ē	(mg/100g)		gar) 	/100g)	t1c		E.C.	E.C. Ex.Na	Cat	Cation	
mmho   ' 223	)	Ex.						sat.	T.P.		13	NH	Incubated	Acidity Av.N mmhos meq/	Av.N	mmhos		Jue (Jue	(meg/100g)	1
	<i>∞</i>	capa.	ت ت	Mg	Na		K Sum	9,0		Ь	HC1-P	<b>.</b>	-P 4 NH4 (me.	(me/100g) ppm	ррш	/сш	100g	H	A1	+
110	,	8.9	1.0	1.2	00.52	0.21	8.9 1.0 1.200.52 0.21 2.93	33	-	8	ı			4.5	90	-	'	12	80	20
70	,	4.7	0.76	5 0.5	80.39	0.19	4.7 0.76 0.580.39 0.19 1.92	41	1	4	ı			4.1	93			2	4	9
20	1	5.3	0.97	9.0	20.56	0.21	5.3 0.97 0.620.56 0.21 8.53	45	1	14	-			4.0	96	1	ı	4	4	Ø
40		6.5	1.02	2 1.0	00.52	0.21	6.5 1.02 1.000.52 0.21 2.75	42	1	14	,	 		4.3	82	-	(	2	4	9
50	,	5.3	0.85	5 0.7	20.47	0 21	5.3 0.85 0.720.47 0.21 2.25	43	•	10	1			4.8	77	,	,	2	80	10
	] 																			
										kg/h										
									£	£										

Table 3D-1 Present Land Use by Village Tract

Village tracts	Paddy Land	Fallow land	subtotal	Other land	lotal land
KYWE POAT TK	49	5		<del></del>	
GNNYINDON TK	49 41	5 5	54	0	54
KANMYAUNG TK			46	0	16
	1,011	49	1,060	65	1,125
	480	18	198	69	567
TABU YLTHO TK	1,300	71	1,371	36	1,407
YEDWINGON TK	1,204	50	1,254	64	1,318
INI. GYI TK	592	25	617	66	683
YINDAIKLLBIN TK	272	10	28 <i>2</i>	6	288
OKKAN KANGON TK	1,234	16	1,250	95	1,345
OKKAN SHANSU TK	150	20	170	7	177
OKKAN YLTHO TK	980	39	1,039	53	1,092
KUN GANGON TK	1,132	15	1,147	15.7	1,301
PHALON YWAMA - TK	1,111	16	1,150	84	1,211
KYLL BINLAHA IK	1,475	22	1,497	109	1,606
PYIN MAGON TK	0	0	0	θ	0
THANUT CHAUNG TK	2,130	102	2,232	217	2,449
HLAING TK	0	0	0	0	Ú
SABA GAING TK	2,353	333	2,686	154	2,840
OKPON TK	2,621	147	2,768	261	3,029
PHALON KANGON TK	934	18	952	121	1,073
PHALON STATION TK	1,153	65	1,218	118	1,536
GOBYU TK	2,443	89	2,532	258	2,790
KYAIK SAKAING IK	2,072	80	2,152	125	2,275
THEN HYA KYAT.					
EAST FA	()	Û	()	0	()
HANUT CHAUNG FK	1,192	1_	1,239	137	1,576
YIMDAIK KWIN TK	2,270	26	2,296	183	2,479
KYA INN TK	0	υ	U	()	Ú
FAIKKYI MYOMA TK	1,857	18	1,885	541	2,426
POTTA TK	3,786	178	5,961	254	4,218
THAYET CHAUNG TK	1,882	140	2,022	187	2,209
TAUNGYAT ZILGON TK	0	O	θ	()	θ
THAGMA TX	5,636	99	3,753	252	5,96
LAUKEL CHAUNG TK	4,171	478	1,649	289	1,938
MY LTKYO MB	1,731	1,239	2,978	100	3,070
NYAUNG GON MB	1,596	185	2,081	137	2,218
MYAUNG TANGA MB	505	102	(51) ~	26	653
SHWLMYAYA GON MB	1,884	549	2,433	245	2,678
DIRECT -					
LI TBADANSU MB	392	244	6.36	19	655
TOTAL	49,622	4,850	54,472	1,113	<u> 38,885</u>

Note: TK: Taikkyi, MB: Hmawbi

Table 3D-2 Area of Single and Double Crop Land

					•	•	
	rot a l	Single	Paddy	land with	one of	ther cro	р
Village tracts	paddy	paddy	Winter	Late	Premon		
VIIIIg.	1 and	<u>land</u>	ground	sesamum	soon	Other	Total
			nuts		jute	crops	Total
				0	0	()	11
KYML POAT TK	19	49	()	0	0	0	
GNN/INDON TK	41	11	()				{J
KANID AUNG I K	1,011	623	23	58	146	161	335
PANIBIN IK	480	193	9	66	44	168	28"
TABU YETHO TK	1,300	1,244	10	0	0	46	111
LADO TELIKA EN	- , -						
ALDMINGON IN	1,204	1,052	44	0	42	66	1.
11 ( 1) 1 1111 111	592	500	23	0	34	35	0.7
1 44 /14 4	272	140	20	7	90	15	$1_{2}$
1 T (41-14 ) 11-1-	1,234	1,032	87	3	75	37	200
OKKAN KANGON TK	150	121	7	Ð	14	8	313
OKKAN SHANSU TK	150	1 1					
	980	885	38	0	44	13	,
OKKAN YETHO TK		843	83	0	190	14	254
KUN GANGON 1 K	1,132		48	3	109	24	164
BHALON ARAMA - TR	1,111	930	20	0	0	16	31
KYH BINDAHA IK	1,475	1,439		0	0	0	,1
PYIN MAGON 1 K	()	()	()	· ·	ζ,	· ·	* '
			150	2	45	43	\$40
THANUL CHAUNG TK	2,130	1,590	450				
HLAING 1k	(1)	0	0	0	0	0	1 7
SABA GAING IK	2,353	1,882	100	3	350	18	1 ° .
OKPON TA	2,621	2,443	52	25	93	8	1 - 8
PHALON KANGON - FR		813	34	2	80	5	ì _
PHATON STATION IN	1,153	641	27	107	341	34	21.1.1
GOBYU 1K		1,794	344	71	13	221	trit
KYAIK SAKAING TK		1,827	230	2	0	13	24
CIDIN TINA ENAT.	•			O.	0	0	
LAST TK	. ()	0	0	0	U	U	
HANUT CHAUNG TA	1,192	973	69	60	55	35	_! +
MANUL CHANNO LE	. 4 9 4 - 1 4-	2.,					
YINDAIK KWIN IK	2,270	1,871	350	5	30	11	3.11
	0	0	0	0	O	0	ì
		1,773	20	31	11	2	$\ell_1$
TATIANTE MYOMA TA	1,837		10	5	Ô	13	Žħ.
POTTA TK	3,786	3,758		0	10	60	124
THAYET CHAUNG IK	1,882	1,758	54	v	10	00	1 - *
DAILS ON A PLANT COOK! TO	nt 43			O	0	0	į i
TAUNGYAT ZIEGON T		()	0	0			46.5
THAGNA TK	3,636	3,173	8	5	30	420	
LAUKLE CHAUNG TK	4,171	3,929	98	2	90	52	24.
MY I TKYO MB	1,731	1,709	15	0	0	7	
NYAUNG GON MB	1,596	1,570	0	22	3	1	<u>"l</u> h
							_
MYAUNG TANGA MB	505	502	2	1	0	0	ñ
SHWEMYAYA GON MB	1,884	1,840	0	0	0	44	11
DHIICY ·						Α.	**
LETBADANSU MB	392	392	0	0	0	0	()
WO'LDWINGO							
TOTAL	49,622	43,336	2,277	480	1,939	1,590	6,286
4~ ******	72,022	70,000	4,411	400	1,000	= 9 47 57 57	

Note: TK: Taikkyi, MB: Hmawbi

Nos. of Household and Population in Faikkyi Township Table 30 - 3

	Nos. of	Total	Umo	ler 12 Years		Abc	Above 12 Years	v.
Year	Household	Population	Male	lemale	Total	Male	lemale	Total
1970/71	29,875	150,806	19,486	18,947	58,455	45,034	47,339	92,373
1971/72	30,015	134,826	20,486	19,947	40,433	46,044	18,349	94,393
1972/73	30,108	136,506	20,906	20,367	41,273	46,464	48,769	95,233
1973/74	30,330	139,300	21,606	21,067	42,673	17.164	49,469	96,633
1974/75	30,330	139,112	21,631	21,092	501.40	47,192	49,497	689,96
1975/76	30,305	139,511	21,641	21,112	12,755	47,226	19,532	96,758
1976/77	30,403	145,807	22,972	22,510	15,312	48,693	51,602	100,295
1977/78	30,342	148,598	23,51	25,140	16,712	49,493	52,393	101,886
1978/79	50,550	151,630	21,37	25,840	18,212	50,219	53,199	105,418
1979/80	30, 337	151,765	24,386	23,856	18,242	50,266	53,257	103,523
1980/81	30, 397	15.,000	24, 187	22,015	18,452	50,307	53,360	103,667

Ave. increasing rate of population = 1 51% / year

Source: Immigration & Manpower Dept., Laikkii Founship

Table 3b - 1 Population and Nos. of Household in Hmasbi Township

lear	Nos. of Household	lotal Population	Unde Vale	Under 12 Years 01d	01d [otal	Male	Above 12 Years Old	Jotal
15/0/61	15,008	266,90	16,040	16,050	52,090	17,401	17,506	54,907
1971/72	15,279	68,573	10,705	16,845	33,550	17,521	17,502	35,023
19-2/75	85.11	026,18	17,811	17,412	35,223	25,446	23,251	46,697
1975/74	19,032	780,70	24,096	21,897	18,993	24,759	24,235	48,994
1974/75	18,945	92,309	21,096	20,042	41,138	25,997	25,174	51,171
1975/76	18, 339	91,204	10,762	16,267	35,029	268,62	28,283	58,175
1976/77	18,881	96,326	18,091	17,597	35,691	31,222	29,613	60,835
1977/78	19,705	101,848	19,426	18,927	38,353	32,552	50,943	63,495
1978/79	25,607	100,270	18,075	18,080	36,155	55,879	34,236	70,115
1979/80	23,944	108,124	17,939	17,948	55,887	56,937	35,500	72,237

Ave. increasing rate of population = 5.76% / year

Source: Immigration & Manpower Dept., Hmawbi Township

Nos. of Peasant Farmers and Occupied Area by Farm Size (1979/80) Table 50 - 5

Ave. Farm Size (ac)			0.6				9.9				11.5				10.4	Арр
Total S	15,888	(100.0)	142,911	(100.0)	11,502	(100.0)	76,168	(100.0)	10,654	(100.0)	122,204	(100.0)	6,331	(100.0)	65,617	(100.0)
0ver 20	732	(4.6)	19,833	(14.0)	369	(5.2)	12,002	(15.8)	650	(6.2)	17,07	(14.1)	349	(5.5)	8,875	(13.5)
15 - 20	 96	(3)	62	.2)	922	( 6.7)	13,270	(17.4)	957	(0.6)	16,312	(13.3)	732	(11.5)	12,784	(19.4)
(ac)	5,296	(33.3)	74,662	(52.2)	1,830	(15.9)	25,962	(34.1)	5,970	(57.3)	53,196	(43.5)	1,825	(28.8)	25,901	(39.5)
Farm Size (ac)	4,831	(50.4)	38,016	(36.6)	2,125	(18.5)	15,440	(20.3)	4,195	(39.4)	33,623	(27.5)	1,923	(30.3)	14,376	(21.9)
2 - 5	2,351	(14.8)	7,341	(5.1)	1,916	(16.7)	5,289	(6.9)	562	(5.3)	1,711	(1.4)	751	(11.8)	2,659	(4.1)
Under 2	2,678	(16.9)	5,059	( 2.1)	4,486	(39.0)	4,203	(5.5)	300	(-2.8)	285	(0.5)	751	(11.8)	1,022	(1.6)
	Nos, of Farmers	(0)	Occupied Area (ac)	(%)	Nos. of Farmers	( 0)	Occupied Area (ac)	(%)	Nos, of tarmers	(%)	Occupied Area (ac)	(%)	Nos. of Farmers	(°,)	Occupied Area (ac)	( o )
Item	All Farmers,	Taikkyi lownship			All Farmers,	Imawbi Township			Paddy Cultivation	Farmers, Taikkyi	Armenno		Paddy Cultivation	farmers, Hmawbı	Township	

Source: SLRD., Taikkyı and Hmawbı Townshıp

Appendix sh-3

Cropped Area by Crop and Cropping Intensity in Taikkyi lownship Table 311 - 6

_	_
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2	

Item	1570/1	1971/72	1	1973/71	1974/75	9//9	1976/77	1977/78	1978/79	1979/80
. Cropped Area (Total)	151,935	156,2	, 304	159,983	5,78	968	158,836	4,7	8,709	157,431
1. Paddy (Total)	127,355	_	5	127,939	128,663	,369	131,118	131,266	,804	.26,436
- Wet Season	127,355	-		127,939	128,663	133,369	131,118	131,266	128,804	126,436
- Dry Season	1	1	ı	1	ı	1	1	1	ı	•
2. Maize (Total)	110	302	196	134	195	144	212	249	192	193
- Wet Season	13	1	1	l	12	13	61	86	9	68
- Dry Season	105	302	196	154	183	131	151	151		125
3. Jute (Total)	2,637	5,407	7,357	7,698	3,151	869	2,316	4,200	4,336	5,004
- Pre-monsoon	2,346	4,927	6,583	6,983	2,436	726	1,862	3,377	3,	4,722
- Monsoon	167	.180	1 1	715	715	143	45.1	823	663	282
4. Groundnuts (Fotal)	5,253	5,594	5,611	6,145	6,059	6,053	5,401	6,946	6,090	5,446
- Rain	69	89	50	41	34	23	138	486	490	496
- Finter	5,164	5,526	5,561	6,104	6,025	6,030	,26	6,460		O,
5. Sesame (Total)	794	587	831	1,638	1,623	2,252	2,515	2,529	3,363	3,423
- Early	ı	!	1	ı	,	ŀ	1	1	1	48
- Late	794	587	831	1,638	1,623	2,252	2,515	2,529	3,363	3,375
6. Sunflower	1	•	t	f	•		350		20	80
7. Beans (Total)	3,759	3,994	4,360	3,787	.30	3,668	1,663	3,870	8,5	,94
- Matpe	3,388	5,640	5,813	3,398	2,837	3,386	929	3,1	3,1	3,198
- Bocate	554	301	465	352	398		<u></u>	376	376	576
- Gram	7	7	6	**	C1	-	_	1	1	13
- Others	33	49	73	ιΩ	67		357	357	357	357
8. Garden Crops (Total)	4,578	5,452	4,848	4,707	5,073	4,846	47	,65	M,	6,524
- Vegetables	1,185	2,090	<u>,</u>	1,45	L.	9	2,149	2,342	1	5,215
- Tree Crops	5,393	5,362	3,23		, 28	3,15	-	•	3,309	5,309
9. Other Crops (Total)	7,069	7,000	8,15	85	7,715	8,695	10,138	76,	6,844	6,381
II. Net (ultivated trea	158,040	130,008	150,573	111,469	141,009	146,526	147,147	148,392	142,548	140,113 %
Cropping, intensity of 11810.	<del>-</del> -				=	Sè ₽	_	1 10	1.11	1.12

Source of the later a lawer at

Appendix 3D-3 page 2

(Unit: ac)

Cropped Area by Crop and Cropping Intensity in Hmawbi Township

Table 3D - -

Item	1970/71 1971/72 1972/73 1975/74 1974/75 1975/76 1976/77 1977/78 1978/79 1979/80	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80
Cropped Area (Total)	A.N	4.Z	K. N	A.N	A.N	N.A	A.N.	N N	N.A 77,360 77,713	77,713
1. Paddy (Total)	63,960	65,149	63,808	64,166	66,597	67,212	66,801	63,960 65,149 63,808 64,166 66,597 67,212 66,801 66,674 65,842 64,348	65,842	64,348

1979/80	77,713	64,348			ব	1	**	4	<del>-+</del>	I	œ	71	ιλ	ı	п	445	ı	445	450	2	448	15		,	14,439	ľ	89	4
1978/79	•	65,842	5,76	.7	ı	ı	ı	27	27	1	21	16	Ŋ	í	•	415	1	415	450	:	450	21	,	707	10,534		76,473	1.01
1977/78	N. A	66,674	66,604		4	1	4	25	25	ı	29	20	10	Ŋ	~~	456	•	456	494	1	194	14	N.A	A.N	A.N	N.A	N.A	N.A
1976/77	A.N	66,801	66,741	09	•	1	1	9	9	54	19	10	13	1	9	263	•	263	407	1	407	49	N.A	N.A	N.A	A.N	N.A	N.A
1975/76	•	67,212	, 14	65	1	1	1	17	17	ı	51	49	<b>C1</b>	1	ı	478	1	478	415	,	415	i	N A	N.A	N.A	N.A	N.A	X. X
1974/75		66,597	,54	20	64	1	64	178	135	45	9/	50	15	,	11	319	•	319	348	1	348	,	N.A	N.A	N.A	V.V	N.A	N.A
1973/74	∢.×	64,166	64,096	70	15	1	15	177	151	26	29	<del>-1</del>	35	1	28	298	6	289	350	1	350	ı	N.A	N.A	4. N	Α. <i>N</i> .	N.A	A.N
1972/73	A.N	63,808	^	20	16	1	16	227	194	33	63	ŧΩ	34	1	26	94	9	38	318	•	318	ı	N.A	N.A	A.N	A.N	N.A	N.A
1971/72	N.A	65,149	,08	09	26	•	26	ι	ı	1	32	,	24	80	1	137	18	119	276	,	276	•					N.A	
1970/71	N.A.	63,960	63,905	55	33	ı	53	,	•	1	24	ı	17	7	ı	200	72	128	272	•	272	t	Α.Ν.	K N	A.N	۷. ۲.	N.A	N. N
Item	<ol> <li>Cropped Area (Total)</li> </ol>	<ol> <li>Paddy (Total)</li> </ol>	- Wet Season	- Dry Season	2. Maize (Total)	- Wet Season	- Dry Season	5. Jute (Total)	- Pre-monsoon	- Monsoon	4. Beans (Total)	- Matpe	- Bocate	- Gram	- Others	5. Groundnuts (Total)	- Rain	- Winter	6. Sesame (Total)	- Early	- Late	7. Sunflower	8. Garden Crops (Total)		- Tree Crops	9, Other Crops (Total)	II. Net Cultivated Area	III. Cropping Intensity (1/11x100)

Source: SLRD, Hmawbi Township

Table 30 - 8 Cropped Area under Irrigation in Taikkyi Township

Average		1	•	•	2,518	I	2,518		81	1,816	1	1	1	1,897	
1978/79		•	1	1	4,722	1	4,722		•	4,722	•	1	,	4,722	
1977/78		N.A.	N. A.	N. A.	N.A.	N.A.	N.A.		N.A.	N. A.	N.A.	N.A.	N.A.		
1976/77		ı	ı	ı	1,862	ı	1,862		1		•	1	,	1,862	
1975/76		I	1	ŀ	971	1	971		244	726	1	1	1	971	
Items	1. Cropped Area by Means of Irrigation	(1) Canal	(2) Pond	(3) Well	(4) Pumps	(5) Others	Total	2. Irrigated Area by Crop	(1) Paddy	(2) Jute	(3) Sesamum	(4) Vegetables	(5) Others	Total	

Source: SLRD., Taikkyi Township

Table 3D - 9 Cropped Area under Irrigation in Hmawbi Township

					(Unit: ac)	
	Items	1975/76	1976/77	1977/78	1978/79	Average
1.	Cropped Area by Means of Irrigation					
	(1) Canal	1	1	1	1	1
	(2) Pond	I	ı	1	i	•
	(3) Well	155	101	759	475	118
	(4) Pumps	200	250	377	90	 
	(5) Others	5.20	260	1	ı	195
	Total	\$7.3	911	1,136	535	865
2.	Irrigated Area by Crop					
	(1) Paddy	208	504	6.20	24	26.7
	(2) Jute	170	S	f)	<del>- '</del>	52
	(3) Sesamum	š	1	I	r'	-
	(4) Vegetables	ì	ţ	489	175	241
	(5) Others	507	.(+	τ	ſ	216
	[ota]	1,435	6.1	1 136	535	1,005

Source: S.RD., Umawbi Township

Table 3D - 10 Paddy Cropped Area by Way of Planting and Flooded Area

			ed	0.	1	,	25	841	29	92	1	,	ı
	Area		Damaged	350			25,625	8	9,159	1,676			
ip	Flooded Area		Flooded	2,115	ı	,	29,664	2,122	9,475	4,879	1,169	643	1
Hmawbi Township	1		Total	63,960	62,099	63,808	64,166	66,597	67,212	66,801	66,679	65,842	64,348
Hmav	Cropped Area	Broad-	casted	1,807	2,103	1,941	2,874	1,856	2,142	1,973	2,011	2,259	•
:	Cro	Trans-	planted	62,153	62,996	61,867	61,792	64,741	65,070	64,828	64,668	63,583	64,348
٠	Flooded Area		Damaged	t	•	•	24,466	47,859	•	32,692	15,730	1	12,225
hip	L i		Flooded	1	1	1	29,832	54,212	125	58,997	26,403	4,536	22,528
Taikkyi Township	ದ		Total	127,355	127,872	126,002	127,939	128,663	153,369	131,118	131,266	128,804	126,436
Tai	Cropped Area	Broad-	casted	•	1	1	t	,	ı	1	1	1	1
	O	Trans-	planted	127,355	127,872	126,002	127,939	128,663	153,369	151,118	131,266	128,804	126,436
			Year	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80

Source: SLRD., Taikkyi and Hmawbi Township

Table 30 + 11 Crop Production of Maior Crops in Taikkyi Township

	Production (bkt)	1 200,690	8 186,123	4 185,909	3 178,603	5 213,811	5 195,364	0 184,363	3 242,472	5 212,026	5 187,880	0 198,724			Production (bkt)	1,383	1,186	1,823	1,475	1,638	916	132	1,692	1,729	1,729	1,376
Groundaut (hinter)	11eld (bkt/ac)	(36.1) 36.1	(33.7) 33.8	(33.4) 33.4	(29 3) 29	(35.3) 35.5	(32.4) 32.5	(35.0) 35 (	(37.5) 38.3	(37.9) 38.5	(38.0) 38.5	(34.8) 35.0	1 to 10 to 1		Yield (bkt/ac)	(4 1) 4.1	(3.9) 3.9	(3.9) 3.9	(4.2) 4.2	(4.1) 4.1	(4.0) 4.0	(5.1) 5 1	(4.5) 4.5	(4.6) 4.6	(4.6) 4.6	(4.2) 4.2
Grounder	Matured Acreage (ac)	5,564	5,507	5,560	6,103	6,023	6,014	5,263	6,327	5,514	4,880	5,676	ř		Acreage (ac)	334	301	465	352	398	241	26	376	380	376	325
	Sown Acreage (ac)	5,564	5,526	5,561	6,104	6,055	6,030	5,263	6,460	5,600	4,950	5,711			Acreage (ac)	334	301	465	354	398	241	56	376	380	376	325
	Production (viss)	351,184	728,311	1,269,058	1,125,284	288,440	106,302	363,954	572,068	637,925	889,628	633,215			Production (ac)	20,427	18,500	13,854	14,066	12,989	13,838	1,989	19,705	21,504	21,600	15,847
Jute (Pre-ronsoon)	Y1eld (1154/ac)	(149 7) 152 2	(147.8) 150.7	(192 8) 194 4	(161.1) 166.9	(118 4) 195.3	(146.4) 188.8	(195.5) 209.4	(169.4) 230.2	(173.7) 219.5	(188 4) 217.1	(168 3) 186.4	11.00 to 0.00		$\frac{11e1d}{(b\bar{k}t/a\bar{c})}$	09(09)	(5 1) 5 1	(3.6) 4 3	(4 1) 4.1	(4.6) 4.9	(41)49	(21)41	(6 3) 6.6	(6.8) 6.6	(6.8) 7.2	(5 2) 5.5
Jute	Matured Acreage (ac)	2,308	4,834	6,582	6,743	1,477	563	1,738	2,722	2,909	4,098	3,397			Acreage (ac)	3,388	3,620	3,222	3,398	2,670	2,853	485	2,971	2,990	3,000	2,860
	Sown Acreage (ac)	2,346	4,927	6,582	6,983	2,436	726	1,862	3,377	3,673	4,722	3,763			Acreage (ac)	3,388	3,640	3,813	3,428	2,837	3,386	626	3,137	3,150	3,198	3,091
	Production (bkt)	4,741,250	4,697,859	4,501,034	4,458,160	4,119,389	4,849,345	5,103,500	6,874,240	6,645,375	6,633,948	5,262,410			Production (bkt)	2,436	1,740	2,493	4,012	5,121	6,734	8,256	000'6	8,591	10,019	5,841
Paddy	Vield (bkt/ac)	(37.2) 38 2	(36.7) 38 9	(35.7) 36.0	(34.8) 36.8	(32.0) 35.0	(36.4) 36.9	(38.9) 39.3	(52.4) 54.0	(51 6) 55.0	(52.5) 57.0	(40 8) 42 6	3	DESAMILE (FILLE)	Y1e1d (bkt/ac)	(3.1) 3.1	(30)30	(3.0) 3.0	(2.4) 3.0	(32) 32	(3.0) 3 0	(3 3) 3.3	(3.6) 5 6	(2.6) 3.9	(3.0) 3 \$	(3 0) 3.2
}	Matured Area (ac)	124,242	120,923	124,994	121,089	117,728	131,572	129,794	126,831	120,825	116,519	123,452	i d	Macac.	Matured <u>Acreage</u> (ac)	794	587	828	1,344	1,622	2,219	5,506	2,514	2,793	2,900	1,811
	Area (ac)	127,355	127,842	126,002	127,939	128,663	133,369	131,118	131,266	128,804	126,436	128,879			Acreage (ac)	794	587	831	1,638	1,623	2,252	2,515	2,529	3,363	3,423	1,956
	Year	15/0/61	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	Mean			Year	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	Nean

Note: The figures in the parenthesis show the unit yield based on the sown areas.

Source: SLRD, Taikkyi Township

Table 30 - 12 Crop Production of Hajor Crops in Hmambi Township

	2.5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Puddy	:		Jute	Jute (Pre-non-oon)	!	•	Groundt	Groundnut (hinter)	
Year	Acreage (ac)	Acreage (ac)	(bkt/ac)	Production (bkt)	Acreage (ac)	Acreage (ac)	Yield (vissinc)	Production (viss)	Sown Acres (3c)	Acreage (ac)	Y1e1d (bkt/ac)	Production (bkt)
17/0/61	63,960	63,477	(31 1) 31 3	1,986,317		•	•	,	128	128	(28 5) 28 5	3,649
1971/72	660, 26	64,857	(23 6) 34.5	2,240,711	52	25	(145 0) 115 0	3,625	119	106	(26 1) 29 3	3,104
1972/73	63,808	63,642	(29 8) 29.9	1,903,919	194	181	(134.2) 143 9	26,040	38	38	(30.2) 30 2	1,148
1973/74	64,166	63,066	(31 0) 31 6	1,991,476	151	60	(66.4) 115 2	10,025	586	284	(27.0) 27 0	7,666
1974/75	265,597	62,533	(30 0) 31 9	1,996,921	135	c	O	0	309	302	(28 3) 29 0	8,750
1975/76	67,212	65,931	(32 0) 32 6	2,150,669	170	0	0	0	478	410	(23 8) 27.7	11,372
1976/77	66,801	66,485	(34 7) 34 9	2,318,678	9	Ŋ	(70.8) 85 0	425	263	263	(29 1) 29 1	7,660
1977/78	66,679	63,476	(32 1) 33.8	2,143,540	52	7	(136) 70.0	490	456	440	(27.3) 28 3	12,454
1978/79	65,842	64,673	(45 2) 46 1	2,978,235	27	2	0 08 (6.5 )	160	415	358	(21.1) 24 5	8,760
1979/80	64,348	63,726	(52.3) 52 8	3,366,407	₹	4	(100 0) 100 0	400	445	427	(30.0) 31.5	13,360
Mean	68,451	64,187	(33.7) 36 0	2,307,687	64 80	35	( \$\$ 8) 130.7	4,574	294	276	(26 5) 28.2	7,792
		Sesai	Sesamum (Winter)				Marne				Bocate	
	100	Marined			200	Margaret			100	Managad		
Year	Acreage (ac)	Acres ge (ac)	Yseld (bkt/ac)	Production (bkt)	Acreage (ac)	Acreage (ac)	Y1e1d (bkt/ac)	Production (bkt)	Acreage (ac)	Acreage (ac)	Yield (bkt/ac)	Production (bkt)
1970/71	272	252	(3 2) 3 5	879		•	٠	•	17	17	(4.8) 48	28
1971/72	376	256	(3.6) 3.9	040	•	٠	ı	•	24	34	(5.0) 5.0	119
1972/73	318	307	(3.4) 3.5	1,075	ы	m	(4.7) 4.7	14	34	34	(5.0) 5.0	170
1973/74	350	345	(3.6) 3 6	1,259	4	₹	(5 0) 5.0	20	35	33	(4.7) 5.0	164
1974/75	348	348	(3.3) 3.3	1,131	20	0	0	0	15	15	(4.8) 4.8	7.2
1975/76	415	382	(30) 31	1,203	49	61	(5 0) 5.0	245	C4	C1	(4 0) 4.0	90
1976/77	407	707	(3 5) 3 5	1,420	10	10	(4 0) 4.0	07	376	373	(4.6) 4.6	1,716
1977/78	494	191	(3 5) 3 5	1,744	30	م	(2 0) 4 0	32	м	м	(4 0) 4.0	12
1978/79	450	4.35	(3 5) 3 6	1,557	C.	70	(00) 00	240	10	90	(8 5) 8.5	585
1979/80	4.50	137	(38) 39	1,716	0.7	7	0 6 (0 6)	360	s	s,	(10 0)10.0	20
ž.	378	ያ የተ	54.18)	11,37	۲,	9.	(11)63	119	25	52	(4 8) 4.8	248

Table 3D - 13 Paddy Production by Variety in Taikkyı Township (1977/78)

Varieties	Sown Area (ac)	Matured Area (ac)	Unit Yield (bkt/ac)	Production (bkt)
1. Special HYVs				
(1) Shwe-ta-soku	12,939	12,519	72.2	903,874
(2) Shwe-wa-tun	12,133	11,719	79.7	934,456
(3) Ma-Nauha-ri	568	562	73.1	41,054
(4) Yar-Kyaw (2)	8,149	7,938	79.5	631,243
(5) Sein-ta-lay	287	284	71.1	20,192
(6) Shwe-wa-lay	-	-	-	-
(7) C4-63	149	147	65.8	9,665
(8) Sin-shwe-wa	-	-	-	-
(9) Others	178	176	65.3	11,493
Sub-total	34,403	33,345	76.5	2,551,977
2. Ordinary HYVs				
(1) Shwe-ta-soku	-	-	_	_
(2) Shwe-wa-tun	<b>⊸</b>	-	-	_
(3) Ma-Nauha-ri	-	-	-	-
(4) Yar-Kyaw (2)	-	-	-	-
(5) Sein-ta-lay	-	-	-	-
(6) Shwe-wa-lay	-	-	-	-
(7) C4-63	-	-	-	-
(8) Sin-shwe-wa	-	-	-	-
(9) Others	10,662	10,457	69.9	730,856
Sub-total	10,662	10,457	69.9	730,856
3. L1Vs	48,556	46,614	49.2	2,295,390
4. Local Varieties	37,645	36,415	35.6	1,296,017
Total	131.266	126,831	54.0	6,874,240

Source: AC., Faikkyi Township

Table 30 - 14 Paddy Production by Variety in Taikkyi Township (1978/79)

	Varieties	Sown Area	Matured Area (ac)	Unit Yield (bkt/ac)	Production (bkt)
1.	Special HYVs				
	(1) Shwe-ta-soku	32,693	32,256	67.2	2,168,610
	(2) Shwe-wa-tun	8,201	8,146	70.2	571,441
	(3) Ma-Nauha-ri	510	510	67.0	34,170
	(4) Yar-Kyaw (2)	1,804	1,768	75.8	128,622
	(5) Sein-ta-lay	309	303	66.4	20,119
	(6) Shwe-wa-lay	_	-		-
	(7) C4-63	26	26	63.5	1,653
	(8) Sin-shwe-wa	-	-	-	-
	(9) Others				
	Sub-total	43,543	43,009	68.0	2,924,615
2.	Ordinary HYVs				
	(1) Shwe-ta-soku	-	-	-	-
	(2) Shwe-wa-tun	-	<u>~</u>	-	-
	(3) Ma-Nauha-ri	-	-	-	-
	(4) Yar-Kyaw (2)	-	-	-	- '
	(5) Sein-ta-lay	-	-	-	-
	(6) Shwe-wa-lay	_	-	-	-
	(7) C4-63	_	<del>-</del>	-	-
	(8) Sin-shwe-wa	-	-	-	-
	(9) Others	22,178	21,370	64.5	1,377,296
	Sub-total	22,178	21,370	64.5	1,377,296
3.	LIVs	34,043	30,986	46.2	1,431,553
	Local Varieties	29,040	25,460	35.8	911,911
	Total	128,804	120,825	55.0	6,645,375

Source: AC, Taikkyi Township

Table 3D - 15 Paddy Production by Variety in Taikkyi Township (1979/80)

Varieties	Sown Area (ac)	Matured Area (ac)	Unit/Yield (bkt/ac)	Production (bkt)
1. Special HYVS				
(1) Shwe-ta-soku	43,648	42,993	68.8	2,957,918
(2) Shwe-wa-tun	3,232	3,232	80.5	260,176
(3) Ma-Nauha-ri	1,040	1,040	75.1	78,101
(4) Yar-Kyaw (2)	2,646	2,646	81.2	2,141,855
(5) Sein-ta-lay	274	274	74.2	20,330
(6) Shwe-wa-lay	-	-	-	-
(7) C4-63	41	41	74.4	3,050
(8) Sin-shwe-wa	145	155	75.0	10,875
(9) Others	-	-	-	-
Sub-total	51,026	50,371	70.4	3,545,308
2. Ordinary HYVs				
(1) Shwe-ta-soku	11,808	11,276	60.3	679,942
(2) Shwe-wa-tun	16,778	15,939	56.8	892,584
(3) Ma-Nauha-ri	-	-	-	-
(4) Yar-Kyaw (2)	-	-	-	-
(5) Sein-ta-lay	-	-	-	·-
(6) Shwe-wa-lay	-	-	-	-
(7) C4-63	-	-	-	-
(8) Sin-shwe-wa	-	-	-	-
(9) Others	-	-	-	-
Sub-total	28,586	27,215	57.8	1,572,526
3. LIVs	20,792	18,912	45.1	853,275
4. Local Varieties	26,032	20,021	11.1	662,839
Total	126,436	116,519	57.0	6,633,948

Source: AC, Taikkyi Township

Table 3D - 16 Paddy Production By Variety in Taikkyi Township (1980/81)

	(1500)	-		
Varietie <u>s</u>	Sown Area (ac)	Matured Area (ac)	Unit Yield (bkt/ac)	Production (bkt)
1. Special HYVs				
-	38,851	37,969	72.6	2,754,725
(1) Shwe-ta-soku	6,893	6,798	81.0	550,638
(2) Shwe-wa-tun	5,046	4,982	81.0	403,542
(3) Ma-Nauha-ri	3,306	3,264	82.0	267,648
(4) Yar-Kyaw (2)	-	- · ·	-	
(5) Sein-ta-lay	_	_	-	•
(6) Shwe-wa-lay	11	11	70.1	771
(7) C4-63	<b>, 1</b>	<u>-</u>	_	-
(8) Sin-shwe-wa	-	-	-	•
(9) Others	_		75 0	7 070 12
Sub-total	54,118	53,035	<u>75.0</u>	3,978,17
2. Ordinary HYVs				
(1) Shwe-ta-soku	24,462	23,712	60.6	1,437,5
(2) Shwe-wa-tun	5,525	5,401	66.0	1,437,54
(3) Ma-Nauha-ri	2,893	2,834	67.0	189,87
(4) Yar-kyan (2)	3,814	3,725	68.0	253,3
(5) Sein-ta-lay	39	39	52.8	2, 5
(6) Shwe-wa-lay	-	-	-	•
(7) C4-63	-	-	-	
(8) Sin-shwe-wa	-	-	-	*
(9) Others	6,660	6,158	59.3	364,174
Sub-total	43,393	41,869	62.2	2,604,2
5. LIVs 1/	23,639	14,571	<u>30.2</u>	439,31
4. Local Varieties			<del></del>	<u> </u>
ſotal	121,150	109,475	64.1	7,021,7-
Note: 1/ Including	Showe-ta-soku Sown Area	, Matured Area	Unit Yield	
	14,704	13,353	46.0	614,238
C				

Source: AC., Taikkyi Township

Table 3D - 17 Multiple Cropping Area by Village Tract (1979/80)

Village Tract	Gross Sown Area	Net Sown Area	Raitio (1)/(2)
A. Taikkyi Township			
<ol> <li>Kywe Poat</li> <li>Gonnyindan</li> <li>Kan Maung</li> <li>Panibin</li> <li>Tabu Yetho</li> <li>Yedmindon</li> </ol>	1,032 446 1,589 N.A. 1,401 1,451	976 406 1,343 N.A. 1,374 1,370	1,057 1,099 1,189 N.A. 1,020 1,059
Sub-total (Region I)	5,919	5,469	1,082
7. Ling Gyi 8. Yindaik Lebin 9. Okkan Kangon 10. Okkan Shansu 11. Okkan Yetho 12. Kungyangon 13. Phalon Ywama 14. Kyee Bin Laha 15. Pyin Ma Gon	909 N.A. 1,516 N.A. 1,996 1,416 1,286 1,498 1,962	834 N.A. 1,352 N.A. 1,632 1,132 1,114 1,475	1,030 N.A. 1,121 N.A. 1,223 1,251 1,154 1,016 1,362
Sub-total (Region II)	10,583	8,980	1,176
16. Thanut Chaung Udo 17. Hlaing 18. Sabakaing 19. Okpon 20. Phalon kangon 21. Phalon Station 22. Gyobyu 23. Kyaik Sagaing 24. Khun Hna Kaik (L) 25. Thanut Chaung 26. Yin Daik Kwin 27. Kya Inn	2,890 1,261 2,822 2,794 1,053 N.A. 2,867 3,104 1,695 N.A. 2,724 1,937	2,350 1,105 2,353 2,621 934 N.A. 2,433 2,615 1,545 N.A. 2,339 1,769	1,250 1,141 1,199 1,066 1,127 N.A. 1,178 1,187 1,097 N.A. 1,165 1,095
Sub-total (Region III)	23,147	20,064	1,154
28. Taikkyi Myoma 29. Poatta 30. Tha Yet Chaung 31. Taung Yatzee Gon 32. Tagwa 33. Lauk Le Chaung Sub-total (Region IV)	N.A. 3,808 2,412 4,997 3,935 5,072 20,224	N.A. 3,786 2,266 4,720 3,895 4,752 19,419	N.A. 1,006 1,064 1,059 1,010 1,067

(Cont'd)

Village Tract	Gross Sown Area	Not Sown Area (2)	Raitio (1)/(2)
B. Hmawbi Township			
34. Myityo 35. Nyaunggon 36. Myaung Tanga 37. Shwe Myayagon 38. Phugyi	2,080 1,674 2,774 2,208 2,210	2,060 1,654 2,743 2,196 2,182	1,009 1,012 1,011 1,005 1,012
Total	10,946	10,835	1,010
Grand Total	70,819	64,767	1,093

Note: (1) The data are not available for the Village Tracts where their juridiction areas are not fully included in the Project Area.

Source: SLRD., Taikkyi and Hmawbi Township

Table 3D - 18 Production of Major Crops by Village Tracts Related to the Project Area, Paddy

			1977/78				97,79				979/80	
Village Tract	Sovn Area (ac)	Area (ac)	$\frac{\text{Yield}}{(\text{bkt/ac})}$	Production (blt)	Soun Area (ac)	Area (ac)	Yield (bkt/ac)	Production (bkt)	Soun (rea	Matured Area (ac)	Yield (bkt/ac)	Production (bkt)
A. Taikkyi Township												
1. Kan Haung	1,680	1,680	61.63	101,891	1,680	1,680	59 90	100,630	1,680	1,680	57.69	96,919
	1,023	1,023	62.02	63,443	1,015	1,015	57.46	58,318	166	997	56.69	56,716
3. Tabu Yetho	- X-	1,364	53.78	73,361	1,349	1, 5.19	57.38	77,406	1,345	1,345	53.57	72,052
4. Yedmindon	1,285	1,285	60.22	77,383	1,315	1,315	42.20	55,493	1,299	1, 299	58.21	75,615
5. Eing Gyı	798	798	65.58	52,354	790	790	59 56	47,055	786	786	65.73	51,667
	441	44]	63.78	28,567	441	441	63.00	27,781	441	439	68.53	30,085
	1,322	1,322	63.24	83,604	1,315	1,315	61.63	81,050	1,312	1,312	67.38	88,404
	986	956	63.29	61,435	365	950	60.37	57,348	936	809	66.05	53,422
	1,765	1,493	45 40	72,261	1,678	1,618	56.00	909'06	1,615	1,410	59.49	83,874
	1,157	1,157	62.35	72,139	1,132	1,132	66 48	75,258	1,127	1,127	68.95	77,712
	1,106	1,106	64 50	71,337	1,112	1,112	63.43	70,536	1,102	1,102	61.78	68,095
	1,492	1,492	62.00	92,504	1,441	1,440	65 30	94,032	1,462	1,462	67.82	99,152
13. Thanut Chaung Udo	2,400	2,316	63 40	146,834	2,400	2,359	60 47	142,646	2,350	2,210	63.40	140,121
	2,647	2,417	57 00	139,701	2,301	2,301	56 68	130,427	2,351	2,301	58.03	133,546
15. Okpon	2,689	2,689	51 41	138,250	2,746	2,746	54 79	150,464	2,616	2,616	59.88	156,647
	1,032	1,032	69 32	71,539	1,032	1,032	57 66	59,505	1,013	1,013	62.94	63,768
17. Phalon Station	1,809	1,809	09 69	125,906	1,707	1,706	62 82	107,171	1,702	1,702	61.14	104,060
_	2,700	2,700	62 20	167,940	2.631	2,631	60 60	159,447	2,561	2,505	61.45	153,942
	2,685	2,550	60.80	165,240	2,627	2,589	57.78	149,603	2,615	2,480	58.59	145,298
•	1,414	1,401	52 50	73,552	1,348	1,348	52 14	70,285	1,090	1,072	52.36	56,130
-	2,322	2,313	6.5 11	157,537	2,322	2,322	66.95	155,470	2,329	2,241	65.34	146,435
22. Taikkyı Myoma	3,585	3,580	53 46	191,371	3,640	3,640	55 27	201,185	3,608	3,532	56.07	198,030
23. Poatra	3,798	3, 791	56.34	213,585	3,800	3,790	67 62	256,279	3,780	3,750	60.93	228,487
24. The Yet Chaung	2,211	2,200	54.34	119,637	2,177	2,150	55 64	119,632	2,165	2,033	60.71	123,425
25. Tagwa	3,447	3,433	56 98	155,612	3,444	3,432	58 56	200,321	3,472	3,435	55.57	190,900
26. Lauk Le Chaimg	4,844	4,831	57 69	273,826	4,910	4,830	53.07	256,692	4,752	4,495	62.32	280,150
Total	52,004	51,179	58 44	2,990,809	51,318	51,039	58 67	2,994,640	50,506	49,153	60.52	2,974,652
B. Hmawbi Township												
1. Hystyo	2,204	1,630	40 89	66,645	2,131	1,957	49 28	96,304	2,080	2,060	51.10	105,560
2. Myaung Gon	1,773	1,673	55.45	59,311	1,681	1,646	47.81	78,690	1,674	1,654	49.98	82,674
3. Myaung Tanga	2,900	2,833	39 19	111,037	2,898	2,850	45 02	128,313	2,774	2,743	62.42	171,231
4. Shwe Myayagon	2,349	2,253		75,702	2,283	2,282	43 51	95,309	2,208	2,196	49.50	108,804
Total	9,226	8,389	36 93	312,695	8,993	8,735	45 46	398,616	8,736	8,653	53.77	468,269
Grand Total	61,230	59,568	55.46	3,303,504	60,311	59.774	56.77	3,393,256	59,242	57,806	59.56	3,442,921
Yield per Sown Arca (bkt/ac)	] []		(53.95)				(56 26)				(58.12)	

Table 3D - 19 Production of Major Crops by Village Tracts Related to the Project Area, Groundhut (Minter)

			1977/78				978/19				1979/80	
	Sown	Matured		1	Soun	Matured			Sown	Matured		
Village Tract	Area (ac)	Area (ac)	) 1 c 1 d (bk t/ac)	Production (bkt)	Area (ac)	Area (ac)	(bkt/ac)	Production (bkt)	Area (ac)	(ac)	Y1e1d (bkt/ac)	Production (bkt)
A. TAIKKYI TOWNShip									,	1	;	
1. Kan Maung	22	22	28.00	616	32	32	25.75	824	32	E 1	25.75	824
2. Panibin	18	18	25 00	<b>\$</b> 20	21	21	26 00	246	21	21	76.00	546
3. Tabu Yetho	10	01	25 00	250	10	9	24 00	240	10	01	24 00	240
4. Jedaindon	45	A N	35 00	1,575	44	44	25 00	1,100	44	4	25.00	1,100
	22	27	30,00	810	30	30	30 00	906	30	30	26 00	780
	39	29	27 00	783	20	20	30 00	009	20	20	26 00	220
	154	154	40 00	6,160	87	87	35 00	3,045	87	87	27.00	2,349
	216	310	40.00	8,640	200	200	36.00	7,200	130	130	46.15	000, 9
٠.	182	152	51 58	7,840	150	150	40 00	000'9	150	150	36.00	5,400
	110	110	35 00	3,850	115	115	39 82	4,580	85	85	47.35	4,025
	\$5	55	30 00	1,650	4 38	48	40 00	1,920	48	44 00	35.00	1,680
12 Kyee Bin Laha	e,	30	30.00	006	20	20	30.00	009	20	20	25.00	200
	200	200	40 00	20,000	487	457	40 00	18,280	450	380	40.43	15,362
	200	200	45 00	000'6	100	100	38 00	3,800	100	100	38.00	3,800
	100	100	45 00	4,500	72	72	33 00	2,376	72	72	33.00	2,376
	~	-	4 00	₹	~	L1	2.50	'n	34	ř	35.00	1,190
17. Phalon Station	25	25	35 00	875	40	40	35.30	1,412	40	40	28 30	1,132
18. Gyobu	491	451	40 00	18,040	465	465	32.00	18,592	395	365	42.72	15,592
19. Ayazk Sagazng	475	475	20 00	23,750	460	44.4	40 00	17,760	460	360	41 45	14,972
	85	85	25 00	2,125	105	105	35 00	3,675	69	69	57.46	3,965
-	450	400	37.37	14,946	350	350	35 00	12,250	350	350	31.00	10,850
22. Tailkyi Myoma	63	63	29.53	1,860	33	33	29.40	076	40	40	29.50	1,180
23. Postta	35	SS	29 00	928	10	10	24.00	240	10	10	24.00	240
24. Tha Yet Chaung	138	238	40.00	9,520	107	107	47.05	5,035	107	107	37.71	4.035
25. Tagwa	60	90	30.00	240	<b>6</b>	œ	25.00	200	60	∞	25.00	200
26. Laul Le Chaung	225	225	35.56	8,000	160	160	37 00	5,920	130	130	40.62	5,280
Total	3,894	3,674	39 55	145,317	3,176	3,130	37 72	118,070	2 942	2,742	37.98	104,138
B. Hmawbi Township												
1. Mystyo	57	8.7	30 15	2.623	93	93	30 10	2,799	66	66	27 18	2,691
	•	•					•		•	•	1	•
3 Weating Tanga	43	43	30 00	1,290	46	46	31 05	1,428	48	48	32.21	1,546
4 Shwe Myayagon	٠	,	•	,	•	,	•	•		•	•	•
Total	130	1 30	30, 10	5,913	139	1 39	30 41	4,227	143	147	28 82	4,237
Grand Total	770 7	3 414	57. 43		3,115	1,264	37 41	-62,11	3,064	5 80	3.51	108,375
Yield per Sown Area (hht/ai)					•	ı	50 105	l! •	•	1  ,	15 08)	

Table 30 - 20 Production of Major Crops by Village Tract Related to the Project Area, Secamum (Late)

,	1 £1																												<u>Ap</u>	pε r	en o a	di g€	X	3 16	D-	<u>3</u>
•	Production (bkt)		180	,	•	9	17	<b>o</b>	9		• •	on.		s	œ	07	'n	624	246	17	175	0	009	12	₹	12	12	2,575			116	136	•	252	2,827	
1979/80	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		3.00	3 '	•	3.00	2.43	3.00	3.00	•	• •	3,00		3.00	2.66	3.50	2.50	4.00	3 00	3.00	3 50	3, 33	3.00	3.00	4.00	3.00	4.00	3.43			4.00	4.00	•	4.00	3.48	(3.25)
	Matured Area (ac)		60	} ·	•	61	7	m) i	71	,		m		C1	m	20	ſΊ	156	82	₹	20	м	200	4	-	4	m	749			53	34		63	812	
	Sown Area (ac)		080	) 1	•	7	7	м	<b>64</b>		4 1	м	•	2	m	52	'n	156	82	₹	6D	'n	200	vı	-	'n	ы	808			29	34	•	31	871	
	Production (bkt)		180	7	,	\$	17	D)	•		•	1	•	φ	•	70	Ŋ	896	246	12	175	•	594	12	₹	12	12	2,742			110	108	120	338	3,080	
1978/79	Y1eld (bk1/ac)		3 00	20.1	ı	3 00	2.43	3 00	•					3 00		3.50	2.50	3 00	3.00	3.00	3 50	•	3 00	3 00	4.00	3 00	4.00	3 73			3 80	. 00 ·	7.00	3 93	3.75	(3.55)
,	Area (ac)		09	,	•	7	7	m	,	•		•	•	7	•	20	2	156	8.2	4	20	•	198	7	~-	~7	m	736			29	27	23	86	822	
ļ	Sown (ac)		80	3 1	1	71	7	n	•	,	•	•	,	7	•	22	7	156	82	♥	20	•	198	Ŋ	-	4	n	782			29	27	23	86	868	i
	Production (bkt)		418	433	332	9	15	9	<b>-</b>	•			•	27	•	460	₹	684	263	15	340	•	609	01	•	13	ō,	3,725			125	121	5. 38	304	4,029	
1977/78	Yield (bkt/ac)		3.80	4.20	4.00	3.00	3.00	3.00	4 00	•			•	3.00	•	4.00	4 00	4.00	3.50	3 00	4.20	1	3.00	3.33	•	3.25	3.00	3.73			3 90	3.90	3.60	3.85	3.74	(3.73)
	Hatured Area (ac)		110	103		~	м	7		•	1	•		6	•	115	-	171	75	s	81	•	203	m	h	₹	m	998			32	31	16	79	1,077	
i	Sown Area (ac)		011	103	80	7	Ŋ	~	-	•	•	•	٠	13	,	115	-	171	75	S	81	1	203	m	٠	•	M	1,002			32	33	16	79	1,081	( Je )
	Village Tract	A. Taikkyı Township	1. Kan Maung	2. Panjoin 3. Tahu Yetho					-	9. Okkan Yetho	10. Kungyangon	11. Phalon Ywama	12. Kyee Bin Laha						_			Z1. Yin Daik Kein	•	23. Poarta	-			Total	B. Haawbi Township	1. Myityo	2. Nyaumg Gon		4. Shve Mynyagon	Total	Grand Total	Yield per Sown Area (bkt/ac)

	Production Area   (ac)   (ac	rc) [bkt] Area Area (ac) (ac) (ac) (ac) (ac) (ac) (ac) (ac	1978/79  Wield Production Area Area (bkt/ac)  (bkt/ac) (bkt)  (ac) (ac) (bkt/ac)  (bkt	1 Production Area Area (ac) (bkt) (ac) (ac) (ac) (ac) (ac) (ac) (ac) (ac
(1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,		א אראינונוני אינט אינוני אינט אינוני אינט אינוני אינט אינוני אינט אינט אינט אינט אינט אינט אינט אי	רי ברו בי בי בי איז ו וי בי בי בי איז איז ו בי בי בי בי בי איז ו בי בי בי איז ו בי בי בי בי בי בי בי בי בי בי בי	2 (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
		Area (ac) (ac) (ac) (ac) (ac) (ac) (ac) (ac		

Table 30 - 21 Production of Maior Crops by Village Tracts Related to the Project Area, Matpe

Table 3D - 22 Froduction of Major Crops by Village Tracts Related to the Project Area, Jute (Pre-monsoon)

		1977	77/78			Ä	97/8/19			1	08/6/61	
Village Tract	Ares (ac)	Matured Area (ac)	Yield (bkt/ac)	Production (bkt)	Sown Area (ac)	Matured Area (ac)	11eld (6kt/ac)	Production (bkt)	Sown Area (ac)	Matured Area (ac)	Y161d (bkt/ac)	Production (5kt)
A. Taikkyi Township												
1. Kan Maung	40	40	185.00	7,400	140	140	237.14	33,200	203	203	220.49	44,760
2. Panibin	159	141	220.00	31,020	85	85	221.76	18,850	105	105	220.00	23,100
3. Tabu Yetho	•	•	,	•	1	•		•	•		•	
4. Yedmindon	83	83	170.00	14,010	20	43	210.00	9,030	4.2	4	215.00	9,030
	74	74	180.00	13,320	59	20	305.00	15,250	45	45	217.00	9,765
٠,	<b>9</b>	64	180.00	11,520	55	52	286.35	15,750	06	90	217 00	19,530
7. Okkan Kangon	100	100	220.00	22,000	120	100	190 00	19,000	75	73	215.00	15,480
_	113	108	220.00	23,760	120	120	238.33	28,600	249	249	226.00	56,274
9. Okkan Yetho	140	140	220.00	30,800	129	11	220 00	16,940	175	170	218.00	37,060
	68	89	230.00	15,640	145	133	250.00	30,590	190	190	225.00	42,750
	30	30	230.00	006, 9	85	72	230.00	16,560	109	109	220.00	23,980
	15	13	250.00	3,250	ιΩ	'n	200.00	1,000	t	1	•	•
13. Thanut Chaung Udo	18	84	190.00	3,420	30	20	200.00	4,000	<b>4</b>	€) ¥	215.00	9,245
	249	149	231.09	34,432	250	235	244 26	57,400	350	342	225.00	76,950
15. Okpon	7	-	150.00	150	9	49	150.00	006	93	80 80	225 00	19,800
	•		٠	•	41	4]	210.00	8,610	90	99	210.00	13,860
	250	021	228.92	50,363	400	378	229.86	86,890	200	449	222.00	829,66
_	62	62	200.00	12,400	9	9	200 00	1,200	15	11	110.00	1,710
	7	9	210.00	1,260	'n	Ŋ	210 00	1,050	' ;	' ;	1 6	, ,
	32	35	180.00	5.760	•		•	1	5.5	5 5	220.00	006,6
•	9	40	200.10	8,004	=	11	220 00	2,420	2	15	215.00	5,25
-	16	16	150.00	2,400	18	13	130.00	1,690	22	4	200.00	800
23. Postta	ዳ	18	200.10	3,601	•	•			• ;	1 1	• ;	• •
-	60	47	200.05	9,402	34	£ 7	180 00	3,240	20	<b>-</b> ;	210.00	1.470
25. Tagwa	25	21	201.03	4,221	23	=	200.00	2,200	OS ;	91.	220.00	3,780
26. Lauk Le Chaung	80	80	201.50	16,120	79	67	214.92	14,400	170	108	750.00	001,62
Total	1,757	1,471	225.12	331,153	1,896	1,691	229 05	388,770	2,643	2,471	220.72	545,407
B. Hazwbi Township												
1. Myityo	25	7	70.00	490	27	7	80 00	160	4	4	150.00	909
Z. Nyaung Gon	,	•	•	•	•	•		•	•			
	•	•	•		,	ı			•	,	•	•
4. Shwe Myayagon	,	,		•	ſ		,		•	•	•	
Total	23	7	70.00	430	77	мI	80.00	160	<b>4</b> ∣	∢ !	150.00	009
Grand Total	1,782	1,478	224.39	331,643	1,923	1,693	229.00	388,930	2,647	2,475	220.61	546,007
Yield per Sown Area (bkt/ac)			(186.11)				(202.25)				(206.27)	

Table 30 . 23 Sown Area by Crop and Village Tract in the Project Area (1979/80)

																																						ļ	\p		ndi ago		3(). 19
	Hartio 27 11		0	0	1 1 89	1 254	02.0	010	660.1	1.094	1.238	1.121	1 424	1 223	1.251	1,154	1.016	1.230	1,199	1,099	1.127	1.454	1.178	1.187	1.105	1.165	1.035	1.006	1 064	1.010	1.067	1,116	600	1.012	110	700	3	>	1.009	1.104			
	Total		0	0	1 597	707	403	102	704.	480	573	1,516	80	498	. 415	1,286	1,498	2,890	2,822	2, 791	1.053	1,676	2,878	1,553	1,317	2,725	1.898	3,808	1,207	3.935	3,206	47.063	1.062	1.282	319	7 252	7.	>	4,935	:1,998			94
	Others		0	0	145	3	) i	,	• ;	2 .	15	37	<b>~</b>	₹	•	13	13	•	7	•	•	31	201	7	30	11	•	9	20	416	•	1,176	•	-	,	4.4	; =	>	45	1,221			the sown areas by crop are estimated in the
	Sun- flover		•		,	•	,		٠	1		,	0	•	,	•	•	Ŋ	м	•	+	•	•	٠	,	•	1	•	~	1	₹	16	· •	•	,	•	٠ ،	Ì	ø	22			,mr25= 3.
	Gram		•	•	•	•	٠			1	•	•	0	m	,	•	•	٠	,	•	•	•	•	•	•	٠	•	٠	•	•	٠	•	•	•	•		, ,	1	•	۲			CFDp AT
	Bocate		•	•		,				,		~	<b>D</b>	~ (	ת	9	m	38	æ	167	'n	•	0.	11	Ŋ	•	_	m	€.	2	33	157	•	•	•	•	'	1	•	157			ras by
	Matpe				•		•			•	•		,	•		•		1	'n	•	•		•	٠	•	•	•	•	,	•	,	J.	-		•	•		•	~	9			A CWO A
- 1	Jute (Plonscon)		0	•	œ			:		,		,	-	m	•	•		•		•	•		í	,	•			•	•	•	10	4	•	•	•	•	•	•	٠	47		Ira	Arca the
SOWN Area by Crop-	Jute (Pre-monsoon)		0	c	7.45	7	: '	. :	7 .	25	06. F	75	7	रा । च	061	109	•	45	350	93	80	341	13		55	30		•	10	30	06	1.936	•	₩1		•	•	,	m	1,939		f the Project Area	tall areas in illuste tracts are not included in the Frobert Area. The sown areas by crop are estimated in the models of pathy ners sown in the respective village tracts.
os	Sesamum (Late)		0	c	8.5	2 40	3 '	•			. •	n				n	•	7	27)	25	7	107	71	2	9	s	31	'n	0	<b>.</b> 53	~	459	,	22	-	, ,	¢	• ;	23	482		reas outside of	anclinios in
	Sesamum (Farly)		•	1	,	٠	•	ı		,	,	,	٠.	4	л.	₹.		•			ı	1	10	,	•	•	•	4	m	•	•	28	•	,	•		•	1		28		ď	tare not
	G'nut (Ninter)		٥	c	2.2	σ	0,	2	; ;	5 1	9.5	×, '	- ;	ا د د	n i	α 7	20	450	100	23	34	27	344	230	69	350	20	20	54	æ	98	2,260	5	•	2	: 1	•	!	17	2,277		cluding t	BAR TESCT
	G'nut (Rain)		0	0	80	-	60	1 4	90		•	,	٠	•	•	•	•		•	•	•	Ŋ		•	93	•		1	•	ĸı	•	120	•	•		•	•		ı	120		ract. e.	ef part
, 1	7,1dd		0	0	1.209	7	1.345	2000	003	080	- T	1,382	, i	, tuc	, , , ,	707	1.462	2,350	2,351	2,616	932	1,162	2,239	1,308	1,090	2,329	E .	3,780	1.093	3, 472	3,564	40,855	1,040	1,256	3.36	2.208	0		4,840	48,695	:	111386 1	II areas
	Area 1/		0	0	1,343	559	1.374	1 170	264	9	403	1,554	900	9 5	7711	7	1,475	2,350	2, 353	2,621	934	1,153	2,443	1,307	1,192	2,339	1,837	3, 786	1,133	3,895	3,572		1,052	1,263	336	2.241	0		4	47,078		not sown area by village truct, excluding the	the are
	Village Tract	Tatkkys Tounship			3. kan Maung	4. Panibin					9. Other tenen				14. Anthropolities		14. Avec Bin Laha			17. Okpon	Fhalon Langon	Phalon Station	Gyobu	Kyaik Sagaing	Thanut Chaung	Tin Daik Avin	IZIKKYI MVORZ	roarts	Inayet Chaung	Tegva	Laukle Chaung	Total	Mystvo	Nyaunggon	Hraung Tanga	Shwe Wayagon	Phugyi		1 10	Grand Total	71 410%	<b>&gt;</b> 1 •	1/ In case of thats of the

Stock and Distribution of Seeds, Taikkyi Township Agriculture Corp. (1977/78) lable 5D - 24

				Stock			Distribution		
			Carried			Taikkyi	Other		
	Crop	Unit	Over	Purchace	Total	Township	Townships	Total	Balance
-	Paddy								
	(1) Shwe-wa-htun	basket	1	7,210	7,210	7,016	ı	7,016	194
	(2) Shwe-ta-soku	g: Ir	ì	12,480	12,480	10,862	1,200	12,062	418
	(3) Ma-nawha-ri	<b>=</b>	ı	4,216	4,216	4,074	J	4,074	142
	(4) C4-63	Ξ	1	I	1	1	ı	r	ť
	(5) Sein-ta-lay	=	ı	i	1	ı	ı	r	ı
	(6) Ya-Kyaw (2)	=	1	3,148	5,148	5,062	ı	5,062	122
	(7) Zeyar	Ξ	1	i	•	ı	ı	•	í
	(8) Others	=	ŧ	216	216	216	4	216	1
	Total	=	1	27,306	27,306	25,230	1,200	26,430	876
2.	Jute	\$	422	1,518	1,940	540	t	540	1,400
3.	Groundnut	Ξ	ŀ	ı	,	ı	ı	ſ	
4.	Sesamum	=	ŀ	3	•	I	I	r	•
s.	Sunflower	=	12	09	77	13	i	13	59
6.	Maize	=	ţ	i	1	i	ı	1	ı
7.	Matpe	Ξ	20	142	192	27	ı	5,4	158
8.	Gram	Ξ	1	J	1	ì	ı	1	1

Source: AC, Taikkyi Township

Table 3D - 25 Stock and Distribution of Seed, Taikkyi Township Agriculture Corp. (1978/79)

			Stock		- 1	Distribution		
Crop Unit	Unit	Carried	Purchace	Total	Taikkyı Township	Other Townships	Total	Balance
Paddy								
(1) Shwe-wa-htun basket		 194	1,259	1,723	1,640	,	1,640	83
(2) Shwe-ta-soku "	=	.118	15,450	15,868	12,310	2,562	14,872	966
(3) Ma-nawha-ri	Ξ	142	468	610	610	1	610	1
(4) C4-63 "	=	ı	120	120	120	l	120	t
(5) Sein-ta-lay "	=	•	100	100	88	ı	88	12
(6) Ya-kyaw (2) "	:	122	1,820	1,942	1,868	ı	1,868	74
(7) Zeyar	=	1	3,145	3,145	3,145	ı	3,145	ı
(8) Others	=	•	1	i	1	1	1	ı
Total "	Ξ	876	22,632	23,508	19,781	2,562	22,343	1,165
Jute	=	1,400	ı	1,400	260	1	260	840
Groundnut "	=	ı	1	ı	1	ı	1	1
Sesamum	=	ŧ	ı	1	1	ı	ı	ı
Sunflower	=	59	ı	59	20	ı	20	39
Maize	ε	1	ı	•	1	,	1	1
Matpe "	:	138	1	138	17	1	17	121
Gram .	=	ŧ	ı	1	i	ı	ı	1

Source: AC, Taikkyi Township

Table 3D - 26 Stock and Distribution of Seeds, Taikkyi Township Agriculture Corp. (1979/80)

	Total Balance		1,408 15	11,410 1,434	1,164 46	492 8	504 8	434	1,082	1	16,494 1,511	672 216	1		30 4	30 4 38 13	Н	н
Distribution	Other Townships		ı	6,280	ı	ı	ı	ı	ì	I	6,280	ı	ŧ		ı		1 1 1	1 1 1 1
Dis	Taikkyi Township		1,408	5,130	1,164	492	504	434	1,082	i	10,214	672	,		30	30 38	30 38	30 38 - 118
	Tota1		1,425	12,844	1,210	200	512	434	1,082	,	18,005	888	ı	t	40	51	ç <u>r</u>	51 - 121
Stock	Purchace		1,340	11,848	1,210	200	200	360	1,082	1	16,840	888	ı	3.1		5.7		51 - 51
	Carried Over		83	966	ı	1	12	7.4	1	ı	1,165	840	1	1		39	39	39
	Unit		basket	=	Ξ	=	=	=	Ξ	=	<b>*</b>	÷	Ξ	:		=	: :	: : :
	Unit	1. Paddy	(1) Shwe-wa-htun	(2) Shwe-ta-soku	(3) Ma-nawha-ri	(4) C4-63	(5) Sein-ta-lay	(6) Ya-Kyaw (2)	(7) Zeyar	(8) Others	Total	2. Jute	3. Groundnut	4. Sesamum		5. Sunflower		5. Sunflower 6. Maize 7. Matpe

Source: AC., Taikkyi Township

Inputs Recommendation per Acre, Taikkyi Agriculture Corporation (At Present) Table 30 - 27

	Crop	Seed Rate	Urea	fertilizer 1, S. P	M.O.P	Organ	Organic Fer. FYN Compost		217		Gypsum
		(bkt)	(168)	(1bs)	(1bs)	(10n)	(ton)	(1bs)	(gal)	(onuce)	(V1SS)
	Paddy										
	- Special HYV.	1.5	\$27	56	1.1	0.5	0.5	0.5	0.7	1	ı
	- Ordinary HYV.	1.5	56	28	i	0.3	0.4	0.4	0.1	1	1
	- LIV	1.0	\$7	1	1	0.1	0.2	0.3	0.1	r	1
C1	Jute	1/16	112	ı	28	0.3	0.3	0.3	9.0	1	ı
10	Maize	1/4	56	1	ı	0.1	0.2	0.2	0.3	ı	ı
4	Groundnut	8-9	56	28	ı	0.3	0.3	0.3	0.5	ı	1
ß	Sesamum	1/4-1/8	26	28	ι	0.3	0.3	0.3	0.4	ı	•
9	Sunflower	1/4	56	28	1	0.3	0.3	0.2	0.4	t	1
1	Matpe	1/4	36	ı	1	0.3	0.3	0.1	0.2	ı	ı
œ	Gram	1/4	56	1	t	0.3	0.3	0.2	0.3	ı	ı

Source: AC, Taikkyi Township

Inputs Recommendation per Acre, Umawbi Agriculture Corporation (At Present) Table 3D - 28

		Seed	F	ertilizer		Organ	ic Fer.		hemicals		
	Crop	Rate (bkt)	Urea (1bs)	a T.S.P s) (1bs)	N.O.P (1bs)	FYN (ton)	FYM Compost (ton)		Powder Liquid Others (1bs) (gal) (ounce)	Others (ounce)	Gypsum (viss)
7	Paddy										
	- Special HYV.	1.5	84	56	14	0.5	•	40	1/4	•	ı
	- Ordinary HYV.	1.5	26	28	14	0.5	1	=	<b>:</b>	ı	ı
	- LIV	1.5	28	14	,	1	1	2	:	ı	t
7	Jute	1/16	112	ı	,	1	•	t	z	ı	t
83	Maize	1/2	1	ı	1	1	ı	£	E	1	1
4	Groundnut	œ	56	99	,	1	ı	t- 20	=	1	ſ
Ŋ	Sesamum	1/8	26	99	28	1	ı	=	Ξ	1	i
9	Sunflower	1/4	26	56	14	1	ı	ŧ	=	1	1
7	Matpe	1/4	i	1	•	1	ı	÷.	ε		ı
œ	8 Gram	1/8	i	1	r	t	t	=	Ξ	ı	1

Source: AC, Hmawbi Township

Table 3D - 29 Istimated Fertilizer Requirement at Present

Insecticides Liquid 1bs ('000 oz) ('000 1bs)		(2) (0.5) 40 10	(1) (0.5) 12 1	(0) (0.2) 0 4	52 15	$(0) \qquad (0.3) \\ 0 \qquad 1$	(0) $(0.3)$ $0$	$(0) \qquad (0,3) \\ 0 \qquad 0$	(2) $(0.5)$	56 17
Organic ('000 cart)		01 (0.5)	(0.5) $13$	0 (0)	23	(0)	0 (0)	(0)	(0)	23
M.O.P ('000 lbs)		(14)	(u)	(0)	277	(0)	(0)	(0)	0 (0)	277
Fertilizer T.S.P M.C ('000 lhs) ('000		(56) 1,109	(28)	( <sub>0</sub> )	1,456	(0)	(0)	(0)	(0)	1,456
Urea ('000 lbs)		(84) 1,663	(56) 694	(28)	2,844	(28)	(o)	(o)	(o)	2,906
Sown Area		19.8	12.4	17.4	49.6	ر: د:	0.5	0.3	2.0	54.6
Crop	l Paddy	- Special HYV	- Ordinary HYV	- Others	Total	<pre>2 Groundnut (Winter)</pre>	3 Sesamum (Late)	4 Peas & Beans	<pre>5 Jute (Pre-monsoon)</pre>	Total

Note: The figures in the parenthesis show the fertilizer requirement per acre.

Table 3D - 30 Distributed Fertilizer by Agriculture Corporation

파	Fertilizer	Unit	1977/78	1978/79	1979/80	1980/81
_	l Urea	tons	2,590	2,653	2,945	2,901
7	2 T.S.P	Ξ	760	848	1,136	1,460
ы	3 Rock Phosphate	=	120	r	ſ	
4	M.O.P	=	256	538	538	232
ß	Others	Ξ	1	i	1	1

Source: AC, Taikkyi Township

Table 3D - 31 Distributed Farm Inputs by Agriculture Corp. (Hmawbi Township)

Items	<u>Unit</u>	1977/78	1978/79	1979/80
1. Fertilizers				
(1) Urea	ton	602	1,609	1,517
(2) T.S.P.	11	55	697	704
(3) Rock Phosphate	11	-	-	-
(4) Potash	11	-	18	40
(5) Others	11	~	-	_
2. Chemicals (Major ones)				
(1) Endrin 19%, EC	gallon	64	-	625
(2) EPN 45%, EC	11	3	40	42
(3) Diazinon 40%, EC	11	-	1	3
(4) Dimecron 50°, EC	11	1	-	63
(5) Aldrin 5%, P	pound	~	-	1,772
(6) Lindane 0.65%, P	**	3,577	-	752
(7) Zinc Phosphate	11	22	_	13
(8) DDT 75%	TT.	112	-	_

Source: AC., Hmawbi Township

Farm Labor Requirement in the Project Area (At Present) 32 lable 3D

(Unit: '000 man-day)

Total	1,288.00	591.60	95.50	14.50	129.00	2,118.60
Dec.	35.42 74.06 215.74 164.22	93.96	13.50 17.00	ŀ	1	275.18
Nov.	215.74	93.96 93.96	13.50	1	t	74.06 523.20 275.18
Oct.	74.06	ı	1	ŀ	•	74.06
Sep.	35.42	8.70	1	ŧ	1	44.12
Aug.	48.30 222.18 344.54 183.54		1	1	1	75.53 348.84 532.48 293.16
Jul. Aug.	344.54	20.88 85.26 158.34 109.62	ı	1	29.60	532.48
Jun.	222.18	85.26	ı	1.00	40.40	548.84
May	48.30	20.88	10.00 5.00 27.50 22.50	4.35	2.00 40.40 29.60	
Apr.	,	1	22.50	2.00	8.00	32.50
Mar.	ı	ı	27.50	3.00	21.20 23.80 8.00	54.30 3
Feb.	1	1	5.00	3.60	21.20	29.80
Jan.	ı					31.43
Area	32.2	s 17.4	1/ 2.5	0.5	2.0	54.6
Crop Area	. Paddy HYV	. Paddy Other:	. Groundnut	. Sesamum	. Jute	Total

3 .

. v

Animal Power Requirement in the Project Area (At Present) 33 Table 3D -

'000 animal-day)

(Unit:

Total	289.80	156.60	26.25	5.00	21.00	498.65 da	ge ]
Dec.	38.64	20.88	12.50	ı	ı	72.02	
Nov.	12.88 45.08	20.88	13.75	1	ŀ	79.71	
0ct.	12.88	ı	ı	1	1	12.88	
Sep.	1	ı	l	ı	1	•	res)
Aug.	32.20	22.62	1	ŀ	1	54.82	sand ac
Jul.	25.76 67.62 67.72 32.20	12.18 34.80 34.80	1	t	1.40	38.09 105.07 103.82	.3 thou
Jun.	67.62	34.80	1	0.15 0.05	2.60	105.07	0 = ) s
May	25.76	12.18	F		ì		nd bean
Apr.	1	1	1	0.05	ı	0.02	peas a
Mar.	ı	1	ı	2.00	00.6	10.80 10.35 11.00	reas of
Feb.	ı	ţ	ţ	0.40 2.35	8.00	10.35	рріпд а
Jan.	ı	10.44	1	0.40	1	10.80	the cro
Area	32.2	s 17.4	1/2.5	0.5	2.0	54.6	Including
Crop	<ol> <li>Paddy HYV</li> </ol>	2. Paddy Others 17,4	3. Groundnut $\frac{1}{2}$ 2.5	4. Sesamum	5. Jute	Total	Note: $\frac{1}{2}$ Including the cropping areas of peas and beans ( = 0.3 thousand acres)

Table 3D - 34 Numbers of Livestock and Poultly (All Ages)

Township	Year	Cattle	Buffaloes	Goat	Pigs	Fowls	Ducks
Taikkyi	1977/78	45,442	6,287	844	16,068	232,173	19,821
	1978/79	44,711	6,445	689	15,203	197,263	19,906
	1979/80	48,354	696,9	534	15,670	206,189	22,490
Hmawbi	1977/78	20,961	8,333	364	16,212	211,390	69,321
	1978/79	23,626	9,957	1,199	17,572	295,027	58,735
	1979/80	28,981	11,394	1,626	18,808	304,904	61,499

Note: 1/ Including dairy cattle

Source: Dept. of Veterinary, Taikkyi and Imawbi Township

Table 3D - 35 Numbers of Cattle by Sex and Age

(Only Draft Cattle)

Source: Dept. of Veterinary, Taikkyi and Ilmawbi

Number of Tractors and Attachments Owned by AMD Tractor Station Table 59 - 56

		Nos. of Tractor	tor	Ž	os. of Major	ALLACINI	curs or	Iractors
				Disc	Disc Rotary Disc Tooth	Disc	Tooth	:
Year	SOUP	Over 50HP	Total	Plow	Plow Cultivator	Harrow	Harrow	Trailer
84/4461	42	ŧ	4.2	4	,	42	1	4
62/8/61	45	ſ	45	**	ı	45	ı	₽
1979/80	45	r	. 45	7.	ı	45	1	4

Source: AMD, Taikkyı Tractor Station

Table 3D - 37 Utilization of Tractors Owned by AMD Tractor Station

			<u> </u>			Арр
Ave. Acre	-turm per	Tractor	(acre-turn	220.00	270.15	401.79 J
	ŧ	Total	acre-turn)	9,239.97	12,156.00	18,080.50
llage Acre-	Other	Crops	acre-turn)	2,100.00 7,139.97 9,239.97	2,444.50 9,711.50 12,156.00	3,835.50 14,245.00 18,080.50
Total Ti	Other	Paddy	(acre-turn) (acre-turn) (acre-turn) (acre-turn)	2,100.00	2,444.50	3,835.50
Ave. Field	Hours per	Tractor	(hr)	243.35	258.59	403.03
s		Total	(hr)	15,044.00	2,815.50 75,802.00	5,325.00 21,459.50
ration Hours	Road	Hours	(hr)	0,220.50 4,823.50 15,044.00		
odo	Field	Hours Hou	(hr)	10,220.50	12,986.50	18,136.50
		Tractor		7	45	42
		Year	İ	1977/78	1978/79	1979.80

Source: AMD, Faikkvi Tractor Station

Numbers of Farm Mechanization Owned by Cooperatives and Individuals lable 30 - 38

Individuals	Water Pump (Low Lift)	11	2	10	20	-	14	15	ιΩ	11	29	S	19	7	ស	36	10	18	15	14	10	19	11	1	16	10	13	4	17		13 98			18	)
In	Power Tiller	1	1	1	J	1	1	ı	1	ţ	ı	1	ı	ı	ı		ſ	1	ı	1	1	1	1	ı	•	7	1	ı	•	7	-	1	1	П	•
	Water Pump (Low Lift)	1	•	1	7	ſ	ſ	١	1	'n		1	<b>←</b>	7	-	<b>C</b> 1	1	เง		1	1	ເດ	~	1	1	-	7	1	105	ı	-	7	-	2	ı
	Water Pump (High Lift)	ı	ı	1	ı	ı	ı	•	•	t	1		•	,	ţ	1	1	1	ı	ı	ı	1	•	ı	ı	ı	1	,	-	•	1	•	1	ı	
Cooperatives	Power Tiller	ı	1	ı	1	1	ı	1	1	ļ	ı	,	ı	,	,	ı	1	1	ı	t	ı	1	ı	1	1	ı	1	ı	2	1	,	,	1	ı	
Cooper	Trailer	ī	1	ı	1	ı	1	1	ſ	ı	1	ı	1	ł	•	1	1	1	1	1	1	1	1	1	ŀ		ı	ı	-	ı	1	1	ı	1	
	Disc Harrow	<b>-</b>	ı	i	ı	1	i	1	1	ı	C3	•	П	~	1	2	7	ı	-	<b>C</b> 3	1	7	1	1	1	7	7	ı	ю	<b>-</b>	2	ı	7	7	ľ
	D1 SC Plow	Н	1	r	ı	r	ī	1	1	ſ	<b>~</b>	,	Ţ	<b></b> 4	ſ	2	<b>~</b> 1	•	-	7	,	-	r	1	ſ	-	7	t	33	1	7	ı	7	7	1
	Tractor (50 HP)	1	•	1	ı	1	ı	ı	•	ŗ	2	1	7	~	1	<b>C1</b>	7	1	-	2	,	7	1	í	1	2	7	ı	ъ		2	•	2	2	i
	Village Tract	1. Kywe Poat	2. Gonnyin Dan	5. Kan Maung	4. Panibin	5. Tabuyetho	6. Yedwindon	7. Eing Gyi	8. Yindaik Lebin	9. Okkan Kangon	10. Okkan Shanzu	ll. Okkan Yetho	.2. Kungyangon	3. Phalon Ywama	4. Kyee Bin Laha	l5. Pyin Ma Gon	.6. Thanut Chaung Udo	7. Hlaing	8. Sabakaing	9. Okpon	20. Phalon Kangon		22. Gyobyu	23. Kyaik Sagaing		25. Thanut Chaung	26. Yin Daik Kwin	27. Kya Inn	28. Taikkyi Myoma	29. Poatta	30. Tha Yet Chaung	31. Thaung Yatzee Gon	,		

Appendix 3E-1 Page 1

Table 3E-1 Power Development Program of EPC

Sr. No.	Project	Installed Capacity (MW)	Firm Capacity (MW)	Scheduled Commission Date
	HYDRO			
1.	Sedawgyi Hydro Electric Power Station	25.00	25.00	1983-84
2.	Zaung-Tu Hydro Electric Power Station	24.00	16.00	1984-85
3.	Lawpita No. (1) Hydro Electric Power Station	24.00	24.00	1984-85
4.	Nyaung gyat Hydro Electric Power Station	56.00	56.00	1985-86
5.	Paung Laung Hydro Electric Power Station	136.00	94.00	1987-88
6.	Kyain-Ta-Le Hydro Electric Power Station	36.00	36.00	1987-88
7.	Billin Hydro Electric Power Station	250.00	92.00	1989-90
1.	THERMAL Thaton	18.00		1983-84
	GAS TURBINE			
1.	Prome	36.20		1981-82
2.	Chauk	15.26		1982-83
3.	Kyait Lat	15.26		1982-83

Table 3E-2 Total Length of Electric Power Lines

(Unit: mile)

Seri No.		Parti	culars	1961/62	1975/76	1976/77	1977/78	1978/79 (Provisional Actual	1979/80 (Prov <sub>1-</sub> sional
I		··	2	3	4	5	6	7	8
1	2		head ca V line	able 250	250	250	250	250	25(4
	2		V line	224	314	314	314	314	314
	2 3		V line	10	149	189	189	349	522
	4	33 K	V line	472	653	673	729	730	752
	5	11 K	V line	1,492	2,213	2,269	2,294	2,334	2,384
	6	6.6 K	V line	196	140	142	415	420	435
	7	3.3 K	V line	33	18	18	9	9	9
	8	0.4 K	l line	3,125	3,956	4,009	4,121	4,136	4,156
		Under	-ground	d cable					•
	1	33 K	V line	30	59	59	59	79	86
	2	11 K	V line		1	1	1	2	‡
	3	6.6 K	V line	103	249	249	249	252	257
	4	0.4 K	V line	53	87	87	104	107	112

Table 3E-3 Power Installed Capacity

(Unit: 1,000 KW)

Serial	Year	llydro	Thermal	Gas- Turbine	Diesel	Other Govern- ment Organi- zation	Total
1	2	3	4	5	6	7	8
1	1961/62	84.45	55.00		49.95	51.82	241.22
2	1967/68	84.45	57.75		50.85	\$6.85	249.90
3	1968/69	84.45	57.75		53.86	56.85	258.91
4	1969/70	84.45	57.75		53.88	56.85	252.93
5	1970/71	84.45	57.75		53.82	56.85	252.87
6	1971/72	84.45	57.75		54.12	56.85	253.17
7	1972/73	84.45	57.75		54.12	56.85	253.17
8	1973/74	168.45	57.75	54.30	53.93	56.85	391.28
9	1974/75	168.45	52.75	54.30	53.93	56.85	386.28
10	1975/76	168.50	52.75	103.50	55.24	56.85	436.84
11	1976/77	168.59	52.75	103.50	56.34	56.85	437.94
12	1977/78	168.50	62.75	103.50	55.08	113.96	503.79
13	1978/79 (Provisional Actual)	168.50	62.75	103.50	59,21	134.60	528.56
14	1979/80 (Provisional	168.50 )	68.75	158.85	64.15	182.08	642.33

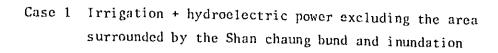
Table 3E-4 Units Generated, Consumed and Cost per Unit of Electricity (Electric Power Corporation)

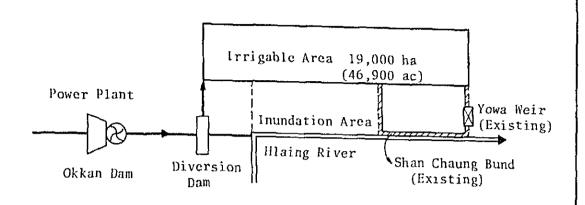
979/80 (Provi- stonal	.25	06.	259.45	14,255	258,564	775,691	440,101	214,195	91,847	29,548	196,645	21.39	25.19
1979/8 (Provi stonal	460.25	378.90	259	5 1,03									
1978/79 (Provi- Sional Actual)	393,96	287.80	206.50	976,813 1,034,255	283,874	632,939	377.725	195,510	162,16	28,313	178,110	21.22	25 42
1977/78	389.83	287.80	208.20	931,215	253,560	677,715	378,999	188,446	82,661	27,609	166,107	20.02	24 25
1976/77	381 09	277.80	208.20	839,969	211,749	628,220	346,411	174,204	81,237	26,348	144,801	21.37	22 79
1975/76 1	379.99	277.80	208 20	759,947	204,002	555,945	293,372	157,400	78,980	26,193	126,100	20.92	22.68
1974/75 1	329.43 3	27.75	172.00	682,160	174,268	507,892	266,382	145,039	70,134	26,337	113,773	20.71	22 40
1973/74	334.43 3	2 57.772	88.00 1	658,839	155,104	503,735	262,467	141,337	73,673	26, 258	115,554	18.07	22 94
1972/73	196.32 3	144 45 2	88.00	650,694	157,634	493,060	261,131	130,892	74,212	26,825	111,349	17.73	22 58
1971/72 1	196.32 1	144.45	88.00	618,858	155,066	463,792	247,734	124,829	65,533	25,696	100,591	17,48	21.68
1970/71 1	196.02 1	144.45 1	91.00	545,106 (	150,048	395,058	197,855	115,475	57,618	24,110	102,009	19.43	28.82
1 02/6961	1 36.08 1	144 45 1	89.00	476,239	136,609	339,630	155,390	108,990	52,100	23,150	93,838	21.77	27 63
1968/69 1 5	196.06	144 45 1	89 00		130		139,350		45,790	22,600	87,275	22 87	28.02
1961/62 1	189.40	144 45 1	89.00	323,870 436,570	92,710 125,	231,160 311,440	96,700	79,750 103,700	38,300	16,410	65,711	29.33	28 43
Unit 1	(000) 1 K h	:	:	(000) k.h H	÷	ı	;	=	ı	:	kvat in Thousand	ווי מו	:
Particulars 2	Installed Capacity	Installed Capacity (Mithin the principal grid area)	Available firm power (Nithin the principal grid area)	Units generated	Less losses in Genera- tion, Transmission, Distribution and Departmental uses	Units consumed (4-5)	l Industrial	Z Domestic	3 Hospitals, Offices, Schools, etc.	4 Miscellancous	Total Earnings	Cost per unit	Fer Unit Savles Valud
Serial No.	-	8	n	₹	ιń	ۍ					7	α¢	Ø

CHAPTER IV. THE PROJECT

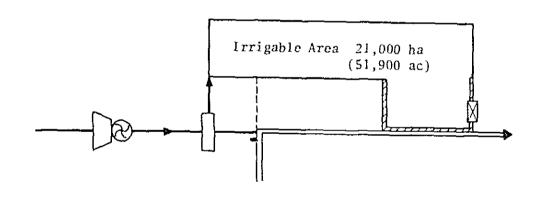


## FIGURE 4B-1 ALTERNATIVES ON OPTIMUM SCALE OF DEVELOPMENT





Case 2 Irrigation + hydroelectric power including the said area in case 1 except inundation area



Case 3 Irrigation + hydroelectric power including improvement of inundation area by provisions of bunds

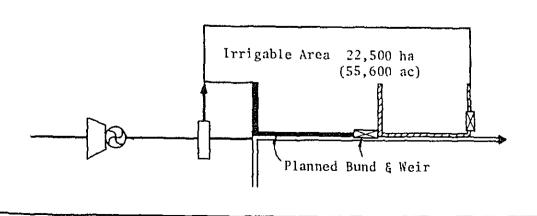


Table 48-1, Construction Cost of Civil Works in Each Case

(Unit: 1,000 Kyats)	Case 3		8,290	28,697	9,649	130,481	3,976	2,383	31,416	376	32,290	247,558	42,700	5,800
Ů.	Case 2		8,290	28,697	9,649	102,350	3,711	2,383	31,416	376	28,031	214,903	41,200	5,210
	Case 1		8,084	28,697	9,649	92,602	3,358	2,383	31,416	376	26,485	203,050	38,000	5,340
	Item	1. Construction Cost of Civil Works-	1.1. Preparation	1.2. Main Dam	1.3. Diversion Dam	1.4. Irrigation & Drainage Canal	1.5. On-farm	1.6. Road	1.7. Hydropower Plant	1.8. Pre-Engineering	1.9. Physical Contingency $\frac{2}{3}$	Total	2. Cropping Area (ha)	3. Unit Cost per Cropping Area (Kyats/ha)

Note:  $\frac{1}{2}$  Including depreciation cost of construction equipments  $\frac{2}{2}$  15 percent of 1.1 to 1.8