TABLES

FOR

APPENDIX XIII

Table XIII.3-1 Results of Survey on Undang and Openg Floods (1)

Durntion of Tunndation Fourse Road Paddy House Road Paddy House Road Paddy House Road Paddy House Road Paddy I day	No. of			Undi	Undang Flood							Openg Flood	lood	•	
Note Solid	irvey	Inund	ation Water	Depth (m)	FWL		of Inund	ation	Inunda	tion Wate	r Depth (m)	FWL	Duration o	f Inundation	Remarks
0.6 0.4 22.4 1 day 0.6 2.6 2.6 2.6 2.6 2.2 2.0 22.6 2.7 0.65 2.0.6 2.7 2.0 2.0.7 2.0.7 2.0.7 2.0 2.0.7 2.0.7 2.0.7 2.0 2.0.7 2.0.0 2.0.7 2.1 2.0.0 2.0.0 2.0.0 2.2 2.0.0 2.0.0 2.0.0 2.3 2.0.0 2.0.0 2.0.0 2.4 2.0 2.0.0 2.0.0 2.5 2.0 2.0 2.0 2.0 2.6 2.0 2.0 2.0 2.0 2.7 2 2.0 2.0 2.0 2.8 2.0 2.0 2.0 2.9 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	\$0 UTO	House	Road Padd	ly Others	(#)	House	Rond	Paddy	House	Road Pad	dy Others	ļ	House Ro	ad Paddy	
0.4 22.4 23.5 23.6 22.6 22.6 23.6 22.6 23.6 22.6 23.0 22.6 23.0 22.0 23.0 23.0 23.0 23.0 23.0 23.0	ત	9.0				1 day								•	
-0.8 22.6 0.2 23.6 -0.9 22.9 0.4 23.3 -0.9 21.7 22.0 0.4 23.3 -0.5 21.7 2 days 1 veek 1.7 22.8 3 days -0.5 21.7 2 days 1.7 2.5 27.7 20.2 2.4 27.2 2 days 4.4 2.5 27.7 20.2 0.65 2.2 27.7 2.3 27.7 20.5 27.2 0.5 2.2 27.7 2 days 1.4 2.5 27.2 0.5 2.2 2.7 2 days 1.4 2.5 20.0 1.5 days 0.5 2.0 2 days 1.4 2.6 2.1 2.1 2.1 2.1 2.2	ĊΙ		4.0		22.4		·								
2.2	m		8.9		22.6					0.2		23.6			
2.2 -0.9 23.0 2.1.7 2 days 1 veek 1.7 22.8 3 days 2.1.7 2.2.8 3 days 2.1.7 2.2.8 2.2.0 2.4 2.2 22.0 27.7 2 days 4.4 2.5 27.7 2.2.8 3 days 2.2.8 2.2.7 2.2.8 2.2.9	4		٩ı		22.9					4.0		23.3			
0.65 -0.5 21.77 2 days 2.4 2.2 2.4 2.2 2.4 2.5 2.7.7 0.65 2.2 2.4.2 2.5 2.7.7 0.65 2.2 2.4.2 2.2 2.4.2 2.5 2.7.7 0.65 2.2 2.4.2 2.2 2.4.2 2.4.4 2.5 2.7.7 2.5 2.7.7 2.6 2.7.7 0.65 2.7.7 0.7 2.7.7 0.8 2.7.7 2.	5	8			23.0										
0.65	ý		6.0-		21.7										
2.4 2.5 27.7 2 days 4.4 2.5 27.7 29.2 27.7 2 0.65 24.2 27.7 29.2 27.7 29.2 27.7 29.2 27.7 29.2 27.7 29.2 27.7 29.2 29.2	~	0.65	:		21.75	2 days		l veek	1.7			22.8	3 days		
2.4 2.5 2 days 4.4 2.5 27.7 2 days 6.5 4.4 2.9.2 27.7 2 days 7.1 2 days 7.1 2 days 7.2 2	ထ		-0.5		22.0										
2.4 2.2 2 4ays 4.4 29.2 2.2 2.2 2.7 2 4ays 6.65 24.2 2.2 2.2 2.2 2.3 4.2 2.2 2.3 4.2 2.2 2.3 4.2 2.2 2.3 4.2 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2	ø		1.0		26.2					2.5		27.7			
2.2 27.7 0.65 24.2 2.0.4 2.2 2.3.4 2.2 2.3.4 2.2.2 2.3.4 2.2.3 2.3.4 2.3.5 2.3.6 2.3	or Or	2.4			27.2	2 days			4.			29.2	•		
0.65 24.2 0.65 24.2 23.4 22.87 24.2 2.87 24.2 2.87 24.2 2.87 22.87 24.8 24.0 20.15 19.95 24.8 24.0 20.15 24.8 24.0 20.15 24.8 24.0 20.15 24.8 24.0 20.15 24.8 24.8 24.8 24.8 24.8 24.8 24.8 24.8	- -		2.2		27.7										
22.87 -1.0 R.B 23.0 0.5 0.5 19.95 0.8 19.4 1 day 20.5 0.5 10.5 10.6 2 days 10.7 10.9	12	0.65	-	٠.	24.2		-		0.65			24.2			
22.87 -0.15 19.95 0.5 0.8 19.4 1 days 2.5 0.5 2.5 2.015 19.95 2.5 2.029 19.9 19.6 2 days 1 veek 1.5 20.0 1.5 days 1.5 20.0 2.03 2 days 1 veek 1.5 2 days 1 veek 1.5 2 days 3 days	ជ				23.4							-			by MPWH
-1.0 R.B 23.0 -0.15 19.95 0.5 19.1 2 days 2 days 1.4 20.0 1.5 days 0.8 19.4 1 day 3 days 2.5 20.59 2 days 1 veek 1.6 21.0 1.3 2 days 1 veek 1.5 21.0 1.3 2 days 1 day 2 days 2 day	41				22.87									. •	by MPWH
0.5	15	÷		-1.0 R.B	23.0			٠			다 요 요				R.B-River bank
0.8 19.4 1 day 2 days 2.5 19.6 2 days 2.5 0.5 1.3 19.6 2 days 2 days 2 days 2 days 3 days 2.5 0.5 1.3 1.4 20.0 1.5 days 19.9 19.	76	-	-0.15		19.95		٠.		-						Dy MPWH
0.8 2.5 19.6 2 days 20.59 0.5 19.9 0.5 20.59 1.3 20.59 1.3 20.59 20.50 2 days 1 veek 1.5 2.0 20.0 2 days 1 veek 1.5 0.8 27.2 25.4 7 hours 0.3 24.4 1 day 2 days 1.3 25.4 1 day 2 days 3 days	17.	0.5	-	•	19.1	2 days		2 days	4,۲	·		20.0			
2.5 19.6 2 days 3 days 20.59 0.5 19.9 0.5 days 1 veek 1.6 1.3 1.3 1.3 2.0.0 2.	87	8			19.4	l day		3 days	۲.			19.9			· .
0.5 0.5 19.9 0.5 days 1 veek 1.6 21.0 20.0 2 days 1 veek . 1.6 1.3 1.3 1.3 2.0.0 2 days 1 veek . 1.6 1.5 19.5 3 days 0.3 -0.4 -0.4 25.4 7 hours 0.3 24.4 1 day 3 days 3 days	19	2.5			19.6	2 days		3 days		.*					
0.5 19.9 0.5 days 1 veek 1.6 21.0 1.3 20.0 2 days 1 veek -0.4 19.6 1.3 27.2 1 day 2 days 2 days 2.7.2 -0.1 26.4 -1.5 25.0 25.0 26.4 7 hours 2.5.0 -0.4 22.4 1 day 3 days 3 days 2.4.4 1 day 3 days	8				20.59						٠			-	ьу мРин
1.3 ±0 20.0 2 days 1 veek -0.4 19.6 1.3 0.8 27.2 days 1 day 2 days 0.8 27.2 3 days -0.1 26.4 -1.5 25.0 25.4 7 hours 1 day 3 days 0.3 25.4 7 hours 1 day 3 days 0.3 24.4 1 day 3 days	72	0.5			19.9	0.5 days		1 week	9°t .			21.0			
1.3 19.3 2 days 1.5 19.5 3 days 0.8 27.2 27.2 2 days 2 days 2.6.4 -0.1 26.4 -1.5 25.0 0.3 25.4 7 hours 1 day 3 days 0.3 24.4 1 day 3 days	22		₽ _i		20.0		2 days	l week		4.0		19.6			
0.8 27.2 1 day 2 days 0.8 27.2 -0.1 26.4 -0.1 25.0 25.0 25.4 7 hours 1 day 3 days 0.3 24.4 1 day 3 days	83	1.3			19.3	2 days			1.5			19.5	3 days		
-0.1 -1.5 0.3 -0.4 24.4 1 day 3 days	24		8.0		27.2		l day	2 days		8.0		27.2			
-1.5 25.0 25.4 7 hours -0.4 24.4 1 day 3 days 0.3 24.4 1 day 3 days	52		-0.1		26.4								•		
0.3 -0.4 24.4 1 day 3 days 0.3 24.4 1 day 3 days	58		-1.5		25.0						=		•		
-0.4 24.4 1 day 0.3 24.4 1 day	27	0.3			25.4	7 hours		- :		. ;				3 days	
0.3 24.4 I day	28		4.0-		24.4		1 day	3 days	:						
	59		0.3		24.4			3 days							

Table XIII.3-1 Results of Survey on Undang and Openg Floods (2)

	Remarks					by MPWH		R.WmRailway	R.W=Railvay				by MPWE									by MPWE	by MPWH	•			* :				•	(Continue)
	Duration of Inundation	House Road Paddy	1.5 days			-			-		2 days				-		l week		3 days					l week			6 hours	8 hours			4 hours	
Openg Plood	PWL	(m)	25.1 1.	24.95				-0.8 R.W 23.0	-1.0 R.W 20.7	20.2	20.05				:	19.4	19.4		19.7		18.4		÷	40.0			33.0	32.0	32.9	32.4	32.7	
	Inundation Water Depth (m)	House Road Faddy Otl		0.15	:			9.0	7.7							1.9										:	7.0	1.0	6.0	0.5	2.5	
	1		1.5	1 day	l week		1 week	l day	l day	1.9	3.2	2 days			l week	l week	4.0		3.3		3.3		. •	2 days	2 days	• -			3 days			
	Duration of Inundation		ьуз			<i>y</i>						1 day			2 days	2 days	, n		S.	8	n X											
Plood		(m) House	.1 1.5 days	24.25	ڻ.	4				ů.	20.05 2 days	20.0	19.03	6	6.	6	.7 4 days	0	19.0 2 days	.1 2 days	.7 1.5 days	16.95	15.68	٠.	0.	0			00		30.5	
Undang Plood	Inundation Water Depth (m) F	Others	, 25.1		1.5 23.5	23.4	21.7	-0.3 R.W 23.5	-0.5 R.W 21.2	20.3	20	50	19	18.9	17:9	17.9	18.7	18.0	. 19	1.61	7.71	91	15	37.5	1.0 35.0	31.0			31.8		30	
ال ا			2.5	-0.55	8.0.		0.2			2.0	3.2 0.9	1.5		1.9	0.8	4.0	3.3	2.5	2.6	2.7	2.6					-0.5			위		0.3	
No. of	Survey	roints	8	33	32	2	*	33	*	33	×	39	0	4	42	5	1	4.	4	47	\$	4	Š	13	25	53	%	55	26	2.2	8	

Table XIII. 3-1 Results of Survey on Undang and Openg Floods (3)

Trundation Water Depth (# House Road Peddy Other 1.0 0.6 1.0 0.4 0.4 0.5 0.4 0.5 0.5 0.1 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 0.8 0.8 0.8 0.8 0.9 0.9 0.9 0.9 0.9 0.9 0.	No. of			Unde	Undang Flood						V	Openg Flood	od .			
1.0 2.0	Survey	Irundation	Water De	٤	FWL			ation	Inunda	tion Water 1	Depth (m)	PWL	Duration	of Inundati		marks
1.0 26.3 4 hours 2.0 22.8 5 hours 2.0 2.2 8 5 hours 2.0 2.2 8 1. day 2.0 2.2 1. day 2.0 2.0 2.2 1. day 2.0 2.2 1. day 2.0 2.2 1. day 2.0 2.2 1. day 2.0 2.0 2.2 1. day 2.0 2.2 1. day 2.0 2.2 1. day 2.0 2.2 1. day 2.0 2.0 2.2 1. day 2.0 2.2 1	Points	House Road	Paddy	Others	(m)	House		Paddy	House	Road Paddy	Others	(m)	House	Road Padd	χ	
1.0 26.2 4 hours 1.5 26.2 1 day 26.2 1.0 26.5 1 work 26.2 1 day 26.4 1.0 26.5 1 work 26.2 1 day 26.4 1.0 26.5 1 work 26.4 1.0 26.5 1 day 26.5 1	53	ı	1							2.0		32.8	5 hours	-	•	
26.2 26.2 26.1 26.1 26.1 26.1 26.1 26.2 26.5 26.5 26.5 26.5 26.6 26.5 26.5	9	1.0			26.3	4 hours			\$*#			26.8	1 day			
0.6	61				26.2										<i>5</i>	HMAW /
1.8 22.8 1 day 1.6 0.4 20.65 1 day 1.6 0.3 1 day 1.7 2 days 1 vesk 1.5 1 day 1.7 2 days 1 days 0.85 1 17.25 20.3 17.1 2 days 1 vesk 1.5 1 day 20.4 18.2 1 day 2 days 0.85 17.25 20.5 18.5 1 day 2 days 0.85 17.25 20.6 18.2 1 day 2 days 0.85 17.25 20.6 18.2 1 day 2 days 0.85 17.25 20.6 18.5 1 day 2 days 0.85 17.25 20.7 17.2 2 days 1 vesk 4 days 0.5 1.5 18.5 20.1 17.1 2 days 1 vesk 4 days 0.5 1.5 18.5 20.1 17.1 2 days 1 vesk 4 days 0.5 1.5 18.5 20.1 17.1 2 days 1 vesk 4 days 0.15 17.25 20.1 17.1 2 days 1 vesk 4 days 0.15 17.25 20.1 17.1 2 days 1 vesk 4 days 0.15 17.25 20.1 17.1 2 days 1 vesk 4 days 0.15 17.25 20.1 17.1 2 days 1 vesk 4 days 2 days 2 days 4 days 2 days 1 day 1	62	9.0		-	26.1	12 hours		4 days	9.0			26.5	l week		ż	
1.6 22.8 1 day 1.6 20.65 1 day 1.6 20.65 1 day 1.9 20.65 1 day 0.3 18.5 1 day 0.4 18.2 1 day 0.5 1.2 18.5 1 day 0.5 1.2 18.5 1 day 0.7 17.2 2 days 0.7 17.1 2 days 0.8 17.1 1 3 days 0.7 17.2 1 day 0.7 17.2 2 days 0.7 17.1 1 3 days 0.7 17.2 2 days 0.7 17.2 1 day 0.7 17.2 2 days 0.7 17.2 2 days 0.7 17.2 2 days 0.7 17.3 1 day 0.7 17.3 2 days 0.7 17.3 1 day 0.7 17.3 2 days 0.7 17.5 1 day 0.7 17.5 1 day 0.7 17.5 1 day 0.7 17.5 2 days 0.7 17.6 1 day 0.7 17.6 1	63	9 1			24.75				0.4			25.15				
1.6 0.4 20.65 1 day 0.5 0.3 1.5 0.3 1.8 0.4 1.9 21.3 1 day 0.4 1.8 0.4 1.8 1.9 21.3 1 day 1.9 21.3 1 day 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.4 1.8 0.8 0.8 0.8 0.9 1.7 1.8 0.1 1.9 1.9 1.9 1.8 1.8 1.8 1.8 1	2				22.8		1 day								Έ.	HM-JM
1.6 20.65 1 day 1.9 21.3 1 day 1.9 20.3 1 day 1.9 20.3 1 day 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	65	4.0			21.0		l day									:
0.9	99				20.65	1 day										
0.3 19.8 1 days 1 days 1 veek 1.5 18.5 18.5 0.3 18.4 0.4 18.2 1 days 1 days 2 days 0.85 17.0 2 days 1 day 2 days 0.85 17.25 1 day 2 days 0.5 1.5 18.5 1 day 2 days 0.5 1.5 18.5 0.3 17.1 2 days 1 day 2 days 0.15 17.25 0.3 17.2 2 days 0.15 17.25 0.3 17.2 2 days 0.15 17.25 0.3 17.2 2 days 0.15 17.2	229	6.0			20.3	l day			9,1			21.3	1 day			
1.5 18.5 3 days 1 days 1 week 1.5 18.5 0.8 17.9 2 days 5 days 0.4 ±0 18.2 1 day 5 days 0.6 18.3 1 day 6 days 0.85 ±0 18.5 1 day 4 days 0.85 17.25 1 day 2 days 0.9 17.25 0.3 17.1 3 days 1 week 0.1 17.2 2 days 0.2 days 0.3 15.5 2 days 1 day 15.5 2 days 0.15 15.0 1 day 16.0 1 day 16.0 1 day 16.0 1 day 16.0 1 day 17.2 2 days 0.15 1 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.	89	0.3			39.8	٠.									,ò°	/ MPWH
0.3 18.4 17.9 2 days 5 days 0.4 18.2 1 day 5 days 0.85 17.25 1 day 5 days 0.85 17.25 1 day 4 days 0.85 17.25 18.0 12 hours 2 days 0.5 18.3 0.1 17.1 2 days 1 week 0.3 17.1 2 days 2 days 0.3 17.2 2 days 0.15 17.25 0.3 15.5 1 day 1 day 0.15 15.5 2 days 1 day 0.15 15.5 1 day	69	1.5			18.5		2 days	l week	1.5			18.5				
0.8 17.9 2 days 5 days 0.4 18.2 1 day 0.6 18.2 1 day 0.6 18.3 1 day 0.8 17.25 1 day 0.8 17.25 1 day 0.9 18.0 12 hours 0.1 17.2 2 days 0.1 17.2 2 days 0.2 16.9 1 day 0.3 16.0 1 day 0.3 16.0 1 day 0.3 16.5 2 days 0.4 16.0 1 day 0.5 15.5 2 days 0.7 16.9 1 day 0.9	5	0.3			18.4										Ď.	r MPWH
0.4 18.2 1 day 5 days 0.8 18.3 1 day 6 days 0.85 17.25 1 day 4 days 0.85 17.25 10.9 18.0 12 hours 2 days 0.9 17.8 1 week 0.5 17.1 3 days 1 week 0.1 17.2 2 days 0.1 17.2 2 days 0.2 15.9 1 day 2 days 0.3 15.9 1 day 2 days 0.3 15.5 2 days	r t	8.0			17.9	2 days		5 days							-	
0.4	72	4.0			18.2		l day									
0.85 17.25 1 day 4 days 0.85 17.25 1 day 2 days 0.9 17.25 18.0 12 hours 0.5 18.0 12 hours 12 hours 12 days 0.5 18.5 17.1 2 days 0.5 18.5 17.1 3 days 1 veek 4 days 0.15 17.2 2 days 0.15 17.2 2 days 0.15 17.2 2 days 4 days 0.15 17.2 2 days 4 days 0.15 17.2 2 days 4 days 4 days 1 day 15.5 0.3 15.5 15.5 15.5 15.5 15.5 15.5 15.5 15.5 15.5 15.5 15.5 15.5 17.25 17.25 17.25 17.25 17.25 17.25	5	위		·	18.2	1 day		5 days	-							
0.85 17.25 1 day 4 days 0.85 17.25 1 7.25 1 day 2 days 0.9 17.8 1 week 17.8 1 week 18.0 18.5 1 day 2 days 0.5 18.5 1 day 2 days 0.5 18.5 1 day 2 days 1 week 2 days 0.1 17.2 2 days 1 day 2 days 0.15 17.25 15.9 1 day 1 15.3 2 days 1 day 1 day 1 day 1 15.5 2 days 1 day 1 day 1 day 1 15.9 2 days 1 1 day 1 15.9 15.9 15.9 15.9 15.9	74	0.4			18.3						1	٠		-		
±0 16.9 2 days 0.9 17.8 1 week 0.5 18.0 12 hours 2 days 0.5 18.5 0.5 17.1 2 days 1 week 0.1 17.2 2 days 2 days 0.1 16.9 1 day 2 days 0.15 0.3 15.5 2 days ±0 15.2 ±0 15.6 2 days ±0 15.5 ±0 15.6 15.6 0.35 15.95	75	0.85			17.25		·	4 days	0.85			17.25				
1.2 18.0 12 hours 1.5 18.3 18.5 18.5 0.3 17.1 2 days 0.5 18.5 18.5 0.1 2 days 2 days 2 days 2 days 17.2 2 days 2 days 2 days 2 days 15.2 15.0 1 day 1 day 1 day 1 day 2 days 1 day 1 day 2 days 2 days 2 days 15.5 2 days 1 1 day 1 1 day 1 1 15.5 2 days 1 1 day	76	윕			16.9			2 days	6.0			17.8	1 week			. %
0.5 18.5 1 day 2 days 0.5 18.5 18.5 0.5 18.5 0.3 17.1 2 days 1 week 2 days 4 days 4 days 4 days 17.2 2 days 2 days 16.9 1 day 2 days 16.0 1 day 1 day 1 day 15.5 0.15 15.5 2 days 15.5 2 days 2 days 2 days 15.5 2 days 15.5 15.9 15.5 15.9 0.35 15.5	#	1.2			18.0		12 hours			1.5		18.3				
0.3 17.1 3 days 1 week 2 days 2 days 4 days 4 days 4 days 9.1 17.2 2 days 2 days 16.9 1 day 2 days 1 day 1 day 1 day 1 15.5 2 days 15.5 15.5 2 days 9.15.2 2 days 9.15.2 2 days 15.5 15.5 2 days 15.5 15.5 15.5 15.5 15.5 15.95	87	0.5			18.5			2 days	0.5			18.5				
2 days 4 days 4 days 6.1 -0.2 16.9 1 day 1 day 0.3 15.5 0.1 15.2 15.2 15.6 0.35 15.95	42				17.1		3 days	l week	,							
0.1 -0.2 16.9 1 day 0.3 15.5 -0.1 15.3 2 days 0.15 17.25 17.25 17.25 15.2 15.3 2 days -0.1 15.3 2 days 15.9	8							2 days								
0.1 17.2 2 days 2 days 0.15 17.25 17.25 0.3 15.5 15.3 2 days 2 days 0.15 15.2 15.95 15.95	81			-				4 days		-	-					· .
0.3 15.5 16.9 1 day 2 days 0.15 17.25 0.3 15.5 2 days 2 days 15.2 15.9 15.9 15.95	82	0.1			17.2	2 days						-			٠	
0.3 15.5 15.5 0.1 15.2 2 days ±0 15.2 15.95 15.95	83	-0.2			16.9	l day		2 days		0.15			17.25			
0.3 15.5 2 days 0.1 15.3 2 days	\$	0.3			16.0				:							:
6.1 15.3 2 days ±0 15.2 ±0 ±.0 ±.0 ±.0 15.95	85	0.3			15.5										Ġ.	Y MPWE
±0 15.6 0.35 15.95	98	0.1			15.3	2 days	:			위		15.2			•	
	87	위			15.6		. •			0.35			15.95			

Table XIII.3-1 Results of Survey on Undang and Openg Ploods (4)

	of Inur	Road Paddy														by MPWR	2 veeks								ENAM ACQ			1 week	HMAM AG	HWMM Pd
Openie' Flood	FWL Duration	House	14.7	5.0	13.6 4 days		13.7	13.6		13.8 1 day		14.2	14.1 1 veok				14.0		13.8	13.8		14.35 1 week	14.5	15.1		15.0		13.45		
Ope	tion Water Depth (m)	Paddy' Others	Ŷı	0.2	1.6		6.0	4.0		4.0		2.2	9.0				6.1		H. C.	1.6		1.9		3.0		3.6		1.8		
	ndr	Road Paddy									2 weeks	2. weeks		5 days			l week	5 days					1 सम्भ							
.	Duration	House			1 day		•	. :	3 days.			3 days	2 days	2' days				3. days			-	2 days				£		1 week		
Undang Frood	(m)		, 4.	τ. Τ.		£3:0	12.8		13.6	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	13.8	13.5	13.5	12.8	:.	13.OI	12.95	13.2	12.6	12:8	13:15	13:15	13:3	13.9	13:05	13:2	12.9	12:75	15.6	15:2
The second of th	Inundation Water Depth (m)	House Kond Paddy Others	7.01	Ŷŀ	1.15	0.6 bridge	Ŷı		1.3		in in	5.4	~	भ	Not inundated		0.85	# ·	6:0	9.0	Q I	7.0		60 H	0.45	8.7	0.4		1:67	
No. or	Survey Points	4	8	68	8	ደ	92	ድ	94:	95	96	26	86	66	82	IOI	102	103	104	105	106	101	108		110	111	112	113	114	511

Table XIII.3-1 Results of Survey on Undang and Openg Floods (5)

	ji.	Road Paddy House	House Road Paddy 2 days
	eek 2.8 1.95	l week	
	96k 3.2	1 week	5 days 1 week
•	2.1	4 days 2.1	
	eck 1.65	l day	1 week
		3	1 day
	αγ .0.5 Αγ	1 day .0.5 1 day	
	yee ''''	1 week	e 4 e
	oek Jest	o days it week I woek	o pays
	ay 0.5 eek 1.6	l day	1 day
		Xeex L	1 week
٠	99K 1.3	I week	week
	ays.	day 3 days	M .
	4ys	4 days	12.0
	1.0		12.3 1 day 1.0

Table XIII 3-1 Results of Survey on Undang and Openg Ploods (6)

House Road Paddy Others (m) House Road Paddy 1.25
5. 7. 11. 12. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.
11.77 15.5. 15.5. 15.5. 17.11 17.01 17.01 17.01 18.8 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5
5. 7. 11. 12. 4. 51. 51. 51. 51. 51. 51. 51. 51. 51. 51
5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5
5
5, 8, 11 4, 6, 11 11 11 11 11 11 11 11 11 11 11 11 11
5, 5, 11 6, 01 7, 11 7, 01 8, 8, 8 8, 8, 9, 9, 7, 8 8, 8, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9,
2, 3, 11 4, 4, 4, 4, 4, 51, 51, 6, 6, 7, 11, 11, 11, 6, 6, 7, 8, 8, 8, 7, 5, 8, 8, 8, 8, 5, 5, 5, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,
5, 7, 11 11 11 6, 4, 6, 11 8, 8, 8, 8, 6, 7, 7, 7, 8, 8, 8, 6, 7, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,
5, 7, 4, 4, 6, 1, 4, 6, 6, 7, 6, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,
7. 11. 11. 4. 4. 4. 7. 11. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.
11. 4 4 1. 4 1. 4 1. 4 1. 4 1. 4 1. 4 1
γ, H 4.1. 11.9. φ 61.8.8.8.9.7.8.8.9.9.7.9.9.9.9.9.9.9.9.9.9
7. II. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.
4. 9. 9. 9. 5. 4. 9. 9. 9. 7. 8. 8. 8. 9. 9. 7. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.
1. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4
7.01 8.8 8.95 7.9 9.2
7.01 8.8 8.8 8.55 9.2 9.2 9.2
8.88 8.75 8.75 8.75 8.75 8.75 8.75 8.75
9.55
9.5
7.9
9.7
7.9
7.9
8.2 1 week

Table XIII. 3-1 Results of Survey on Undang and Openg Floods (7)

Remarks		-		by MPWH		un e	by MPWH			by MPWH			by MPWH	by MPWH					EMAN Aq		:		by MPWH		by MPWH			by MPWH		by MPWII
ood Duration of Tunndation	House Road Paddy		1 week		1 week			•	2 weeks		l'week 3 days 5 days				3 days 2 weeks	12 days	7 days 10 days	1 week			5 days			2 weeks					4 days	
Openg Flood	Œ.		7.5		7.0	7 2		4	5.2		5.1	5.1			4	3,4	2.3	4.0		2.3	2.55			3.7				: .	3.6	
Inundation Water Douth (m)	House Road Paddy Others		0.0		7.4	6.0		1.0	1.3		7.7	2.05			4.01	۱٠ - ۲	6.0	2.0		0.6	1.35			7.1					9.6	
lation	Paddy	l week				1 veek		2 weeks			4 days	l week			l week	12 days	16 days	l week												
of Inundation	Road						2 days		l week		3 days		2 days		3 days			3 days	2 days									4 days		3 days
Duration	House	3 days	5 days	٠.	2 days	1 week					l week					4 days	12 days			10 days	l week			l week					1 day	
Undang Flood	(B)	7.3	7.3	16.9	6.2	7.0	6.7	4.	7.4	4.	£.4	3.05	2.8	5.6	3.1	4.	2.3	3.0	2.3	2.5	2.95	3.1	3.03	4	3.55		2.4	3.1	3.4	2.9
Undan Inundation Water Depth (m)	Paddy Others						÷							**				•						,						
toion War	Road Pa		7.0				6.3			,	0.3		0.3	٩				7.0	9.0			4.0			1.35	Not inundated		1.2	 	0.2
Inunde	House	rr			0.7	0.7		8.0	8.0			P 1			1.3	0.5	6.0			8.0	1.75			7.4		Not 1x	9.0		0.4	
No. of Survey	Point	175	176	177	178	179	1.80	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	500	201	202	203

Table XIII.3-1 Results of Survey on Undang and Openg Ploods (8)

No. of			Unda	Undang Flood	:				ဝိ	Openg Flood	50		
Survey	Inund	ation Water	Survey Inundation Water Depth (m)	FWL	Duration	성	Inundation	Inundation Wa	Inundation Water Depth (m)	FWL	Duration of Inundation	indati on	Kemerks
roints	House	Road Pade	Paddy Others	(m)	House	Road	Paddy	House Road P	Paddy Others	(a)	House Road	Paddy	
ğ				3.4									HMAW Aq,
205	7.7			4.			* :	0.7		3.6			
506	2	0.35		3.15		1 day			٠				by MPWH
207		4.0	٠	3.3	. :	4 days	5 days	8.0		3.7			
208	4.0		•	4 	3 days		1 week	9.6		4.3	. :	:	
506		4.0		3.5	-	3 days							by MPWH
210		0.5		8.2		4 days						-	by MPWH
211		0.45		2.65		2 days							by MPWH
212	7			2.5	3 days			ר.ר	٠	2.9	l week		
213	0.5			1.9	. 2 veeks			0.3		1.7	•		
214			0.1 Dike	2.4	10 days								
215	٠.		0.4* Dike	2.1*									
216	*9.0			2.3*	30 min.*								
217			1.4* Dike	0 m		-				-			·
218	<u>п</u>			5.6	1 week		,		:			: . :	4.
219	0			3.0			l week	8.0		8		÷	
220	0.0			12.6 1.9*	l week	÷		1.3		5.9			
221	8.0	•		2.6	2 days								
222	6.0			2.3	3 days	٠		0.5		٠. و.	3 days		n e
223	0.65			1.95	3 days			. •					
224	0.5			5.6	1 veck								
225			1.0* Dike	¥1.	1 hour*								
526			1.9* Dike	*6.0	1 hour*								
227	6.0			5.6	1 day							1.	
228	1.85			3.45	4 days		4 days						
229	0.7		4	4.2	3 days			;					
230	4.0	:		2.4		2 days	. :	1.3		က ကို (6 days		
233	0	÷		2.1	3 days	·		1,4		3.1			(
3	*												(continue)

Note: * indicates tidal wave

Table XIII.3-1 Results of Survey on Undang and Openg Ploods (9)

	Remarks		•										. •						:	-							
	Duration of Inundation	House Road Paddy	3 days	5 days	2 days 3 days	1 wook	2 days			4 days 1 week	4 bours	3 days . I wook		3 days	16 hours					12 hours 1 day						4 days	
Oneno Plood	FWL	(m)	2.5	3.5	2.0	e G	۴.5			4.	2.3	2.1		1.9	2.0		13			1.7					-	3.0	-
	Inundation Water Depth (m)	House Road Paddy Others	1.0	₹. t	8.0	1.3	8.0			7.0	0.3	1.3	Not inundated	9.0	9.0	Not inundated	7.0	Not inundated	Not inundated	8.0			Not inundated			1.15	
41.	Flood NV. Duration of Inundation		2.5 3 days 1.8* 10 min.*	2.75 3 days	1,6* 4 hours*	2.2 5 hours 3 days	2.1* 4 hours*	1.6* 3 hours*		9:		3 1 day 3 days	1.8* 1 hour*			****	*6*1	1.6* 1.5 hours*	3.6* 30 min.*	0.9	1.7 4 hours 8 hours	6.1		2.2 days			1.7 12 hours
	ndan	House Road Paddy Others		0.75		0.3	1.0*	0.4*	Not inundated	-0.1	Not inundated	0.5	*E*O	Not inundated	Not inundated	0.1*	*****		2,3*	ŶĮ.	0.4	0.2	Not inundated	6.0	Not inundated	Not inundated	0.6
,	No. of Survey		232	233	234	235	236	237	238	539	240	241	242	243	2 4	245	246	247	248	249	250	251	252	253	254	255	256

Note: * indicates tidal wave

Date	Agricultural Damage	Building and Other Damage
7une 3–6	Data Collection of comprehensive damages affecte government in Manila	comprehensive damages affected by the Typhoon in head offices of the
2-9	Data Collection of sectoral damage from Provincial Offices of MAF, BAECON, NIA, BFAR.	Data Collection of damages in the Capiz Governor's Office and MPWH District Engineer's Office.
11-6	Data Collection of sectoral damage from regional branch of the national government as like BAECON, MAF, NIA and etc.	Data Collection of sectoral damage from each regional branch of the national government such as NEDA, OOCD, and MSSD in Iloilo City.
9-17/20	Data Collection of agricultural damages by Village by Municipalities.	Data Collection of sectoral damage through city or municipal mayor's offices.

(i)

TABLE XIII. 4-2 CONSOLIDATED TOTAL DAMAGES BY TYPHOON "UNDANG"

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		Human Damage	Латаде	:	Hot	Houses Damaged		Damages in Monetary Terms (F1000)	onetary Tea	ms (P1000)
	Dead	Injured	Missing	Total	Totally Damaged	Partially Damaged	Total	Agriculture	Others	Total
Region IV		1		1	09	616	999	19	4,000	4,019
,					9	(1)	0)	(0)	(ô)	0)
Region VI 41	629	2,077	461	3,168	96,814	688,99	163,723	321,308	564,336	885,644
	(87)	(16)	(88)	(63)	(69)	(84)	(24)	(28)	(75)	(46)
Aklan	27	68	m	119	24,926	18,587	43,513	47,393	21,419	68,812
	(4)	(4)	(1)	(4)	(11)	(23)	(20)	(4)	(3)	(4)
Antique	9	ľ	4	14	5,494	4,882	10,376	9,685	11,500	21,185
	3	•	Ĵ	0	(4)	(9)	(2)	3	(2)	(1)
Capiz	487	1,965	277	2,729	46,939	31,732	78,671	195,406	457,229	652,635
	(67)	(85)	(53)	(80)	(34)	(40)	(32)	(11)	(61)	(34)
Iloilo	105	24	173	302	18,405	11,625	31,030	68,824	74,188	143,012
	(15)	(T)	(33)	(6)	(14)	(15)	(14)	(9)	(10)	3
Negros	•	1	4	4	20	63	877 7	•	1	ŀ
Occidental	Ĵ	ĵ.	(1)	0	6)	<u>0</u>	9	<u>-</u>)	<u>;</u>	<u> </u>
Region VII	ដ	ਜ	4	25	œ	00	16	34,578	10,045	44,623
	(5)	(0)	(8)	(2)	0)	9	<u>(</u>)	(3)	(1)	(2)
Region VIII	83	99	23	170	44,464	12,227	56,691	802,937	178,060	980,997
	(11)	(3)	(3)	(2)	(31)	(15)	(56)	(69)	(24)	(51)
Total	721	2,145	524	3,390	141,336	79,740	221,096	1,158,842	752,441	1,911,264
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)

Remarks : /1 Figures come from NEDA except damages in monetary terms. /2 Figures in parentheses are parcentage distribution.

Sources: "Comprehensive Report of typhoon "Undang", November, 1984,000D

TABLE XIII.4-3 DAMAGES OF CROPS AND LIVESTOCKS CAUSED BY TYPHOON UNDANG IN REGION VI.

	Activ		7 T.	one that			e or or or or or		11.	710410		
Province/Item	Amount	Danage	Amount	Damage	Amount	Damage	Amount	Damage	Amount	Damage		Total .
	(ha) <u>/1</u>	(4)	(ha)	(a)	(PQ)	(æ)	(ha.)	(a)	(ha)	(a)	(ha)	(a)
1. CHOPS												
	,							1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
Rice	629	4,560,250	735	7,056,000	11,031	106,117,400	80 80 80	265,299	10,816	59,885,616	23,769	177,884,565
Corn	66	103,950	1	1	816	2,985,000		1	. 29	477,334	1.079	3,566,284
Fruit	25	797,650	7,404	314,500	3,612	15,820,560			41,496	888,980	52,537	17,821,690
Banana	6,249	28,216,400	56	309,760	3,426	16,446,000	4	9,025	366	1,832,585	10.074	46,813,770
Mango	241	220,220	•		•	i	009	765,000	1,076	1,650,500	1,917	2,535,720
Vegetable	720	12,291,720	298	1,442,750	868	6,944,000	•		200	1,822,781	2,386	22,501,251
Sub-total		46,190,190	,	9,123,010		148,312,960	. •	1,039,324		66,557,796		271,223,280
(percentages)		(17.0%)		(3.4%)		(54.7%)		(0.4%)		(24.5%)		(100%)
2. LIVESTOCKS	(heads) /2	(*	(heads)	(a)	(heads)	(a)	(heads)	(4)	(heads)	. (â)	(heads)	(a)
Buffaloe	검	42,000	44	116,500	167	668,000	7	2,000	156	420,500	388	1,249,000
Cattle	82	84,000	22	152,000	69	252,000	1	t	318	331,000	279	819,000
Swine	1,070	1,070,000	115	006,09	3,382	2,705,000	1	i	381	381,000	4,948	4,216,900
Goat	57	6,840	6%	8,300	1,442	252,000	4	280	320	39,800	1,912	307,220
Poultry	1	•	1,093	20,610	104,352	3,027,000	•	•	4,085	51,700	109,530	3,099,310
Sub-total		1,202,840		358,310		6,904,000		2,280		1,224,010	-	9,691,430
(hereentages)		(12.4%)		(3.7%)		(71.2%)	-	<u>î</u>	e e	(12.6%)		(%00%)
TOTAL (Crops + Livestocks)	Livestocks) zes)	47,393,030		9,481,320		155,216,960		1,041,604		67,781,806		280,914,710

"Nource: "Nummary Report of Damage Gaused by Typhoon Undang, Miniatry of Agriculture and Food, Region VI.

Romarka, 1: Area damaged.

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TABLE XIII.4-4(1) AREA AND VALUE DAMAGED BY TYPHOON UNDANG IN THE PROVINCE OF CAPIZ (CROPS)

Cuartero (ha) (103E)	I							
(ha) (1) Cuartero 1,474 1 Dao 723 Dumalag 697 Dumarao 250 Ivisan /1 26 Jamindan 133 Maayon 577 Maayon 577 Maayon 577 Panay 1,175 1 Panay 1,175 1 Panay 226 Pilar /1 253 Pontevedra 730 Pres. Roxas 28 Sapian /1 305 Sigma 1,484 1		Area Value	Area	Value	Area	Value	Area	Value
Cuartero 1,474 1 Dao 723 Dumalag 697 Dumarao 250 Ivisan 1 Jamindan 133 Maayon 577 Mambusao 516 Panay 1,175 Panitan 253 Pontevedra 730 Pres. Roxas 28 Sapian 1,484 John 250	(10 ³ ₽) (ha)	a) (1032)	(ha.)	(3€01)	(ha.)	(103₽)	(pa)	(103₽)
Dao 723 Dumalag 697 Dumarao 250 Ivisan 26 Jamindan 133 Maayon 577 Manbusao 516 Panay 1,175 Panitan 926 Pilar 253 Pontevedra 730 Pres. Roxas 28 Sapian 1,484 Ponte 250	14,371 7	7 23	300	1,314	150	720	20	400
Dumalag 697 Dumarao 250 Ivisan 26 Jamindan 133 Maayon 577 Mambusao 516 Panay 1,175 Panitan 926 Pilar /1 253 Pontevedra 730 Pres. Roxas 28 Sapian 1,484 Ponte 250	6,941	t	19	8	95	456	45	360
Dumarao 250 Ivisan 1 26 Jamindan 133 Maayon 577 Mambusao 516 Panay 1,175 Panitan 926 Pilar 253 Pontevedra 730 Pres. Roxas 28 Sapian 1,484 Ponte 250	6,691	7 55	280	1,226	200	096	350	2,800
Ivisan /1 26 Jamindan 133 Maayon 577 Mambusao 516 Panay 1,175 Panitan 926 Pilar 253 Pontevedra 730 Pres. Roxas 28 Sapian 2505 Sigma 1,484 Janay 250	2,400 20	0 65.	1,000	4,380	450	2,160	ı	ì
Jamindan 133 Maayon 577 Mambusao 516 Panay 1,175 Panitan 926 Pilar 24 Pontevedra 730 Pres. Roxas 28 Sapian 255 Sigma 1,484 Pres. 250	250	3 10	₹.	237	72	346	다 다	88
Maayon 577 Mambusao 516 Panay 1,175 Panitan 926 Pilar /1 253 Pontevedra 730 Pres. Roxas 28 Sapian /1 305 Sigma 1,484 1	1,277 65	5 211	20	21.9	250	1,200	ı	•
Mambusao 516 Panay 1,175 Panatan 926 Pilar 253 Pontevedra 730 Pres. Roxas 28 Sapian 205 Sigma 1,484 Pres. 250	5,539 112	2 364	350	1,533	200	2,400	62	496
Panay 1,175 1 Panitan 926 Pilar 253 Pontevedra 730 Pres. Roxas 28 Sapian 1,484 Toner 250	4,954 17	55 7	50	219	238	1,142	m	24
Panitan 926 Pilar 1 253 Pontevedra 730 Pres. Roxas 28 Sapian 1 305 Sigma 1,484 1		1	<u>.</u>	13	30	144	i	ı
Pilar /1 253 Pontevedra 730 Pres. Roxas 28 Sapian /1 305 Sigma 1,484 1	8,890	5 i.6	44	193	207	466	215	1,720
Pontevedra 730 Pres. Roxas 28 Sapian 1 305 Sigma 1,484 1	2,428 130	0 423	100	438	75	360	. 1	ŧ
Fres. Roxas 28 Sapian /1 305 Sigma 1,484	7,008 34	4 111	29	127	100	480	1	1
Sapian /1 305 Sigma 1,484 1	269 267	898 2	176	777	50	240	ı	ı
Signa 1,484]	2,928	6 20	88	385	147	706	_	56
Circ Corc	14,246 26	85	. 230	1,007	392	1,882	26	208
234	2,400 209	629 6	800	3,504	320	1,536	13	144
17. Roxas City 1,484 14,	14,246	C .	39	171	150	720	81	648
Total 11,031 106,	106,118 918	8 2,985	3,612	15,820	3,426	16,446	868	6,944

SOURCE: Typhoon Undang Final Damage Report, Ministry of Agriculture and Food, Province of Capiz. NOTE, 1: These municipalities are not included in "Panay River Basin Area".

TABLE XIII.4-4(2) NUMBER OF HEADS AND VALUE DAMAGED BY TYPHOON UNDANG IN THE PROVINCE OF CAPIZ (LIVESTOCKS)

	Buffa	aloe	Cattle	tle	Swine	60	Goat		Poultry	ر م
Municipality	Heads	Value	Heads	Value	Heads	Value	Heads	Value	Heads	Value
		(103₽)		(103₽))	(103₽))	(₹01)		(103₽)
1. Cuartero	į,	20	4	16	96	77	42	7	1,500	44
2. Dao	. 1	•	t	ı,	10	∞	S	н	1,000	29
3. Dumalag	m	12	1		15	12	16	<u>ش</u>	1	1
4. Dumarrao	ส	44	61	œ	40	32	42	7	5,384	156
5. Ivisan 1	9	24	71	89	13	10	142	25	470	4.
6. Jamindan	9	24	H	4	œ	9		ŧ	1	t
7. Maayon	16	.64	Ŋ	50	71	57	43	∞	7,949	231
8. Mambusao	4	16	: :	50	38	30	4	7	4,379	127
9. Panay	20	80	7	∞	124	66	282	49	677	20
10. Panitan	φ	24	Ś	50	2,261	1,809	ដ	8	13,930	404
	6	36	4	16	72	58	124	22	3,125	16
12. Pontevedra	51	204	4	16	109	87	210	37	520	35
13. Pres. Roxas	14	56	71	∞	258	206	109	19	11,780	342
14. Sapian /1	ŧ		m	12	105	84	46	∞	1	•
15. Sigma	73	œ	۲-	28	33	56	i	1	488	14
16. Tapaz	H	4	63	00	12	10	42	7	2,350	67
	13	52	1	` 1	118	94	287	50	50,800	1,473
Total	167	668	63	252	3,382	2,705	1,441	252	104,352	3,027

SOURCE: Typhoon Undang Final Damage Report, Ministry of Agriculture and Food, Province of Capiz. NOTE, 11: These municipalities are not included in "Panay River Basin Area".

TABLE XIII.4-4(3) FISHERY DAMAGES CAUSED BY TYPHOON UNDANG IN THE PROVINCE OF CAPIZ

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;	1		Fishpond			Fishing Boat	Boat		Repairing	Total
Mun	Winnella Lagrania.	Area	Milkfish	Prawn	Motorized	ized	Non-Mo.	Non-Motorized	Cost	Дападе
		(ha)	(103€)	(3€01)	(Piece)	(3€01)	(Piece)	(103₽)	(₹601)	(₹601)
	Cuartero		τ.	ŧ	•	ŧ	. •	•	•	•
71	Dao	ſ		1	1	. 1	, ()	•	. 1	ŧ
3	Dumalag	E	į	. 1	. 1	. 1	1	ı	1	
4	Dumarao	ı	. 1	I	ı	E			i	1
5.	Ivisan 🗘	420	829	ı	20	750	225	1,125	59	2,733
9	Jamindan	y 1	1	1	•	t	I	1	ŧ	t
.	Maayon	1	ľ	ı	1	1	:	1	i	•
 ∞	Mambusao		1	1	1	t.	ı		· 1	1
6	Panay	834	416	2,102	495	4,125	135	375	38	7,076
10.	Panitan		;	., i		ı	ì	ı	1	1
11	Pilar /1	417	415	160	95	1,425	135	685	43	2,728
12.	Pontevedra	314	145	714	52	780	4	200	27	1,866
13.	Pres. Roxas	į.	507	2,051	170	2,550	9	300	74	5,482
44	14. Sapian /1	1,034	2,044	i	20	150	70	350	72	2,616
15.	Sigma	ı	1	1	í	. 1	ı	: 1		• •
16.	Tapaz	ŧ	ı	· •	j			. 1		
17.	Roxas City	217	387	1	135	2,025	15	75	19	2,506
	Total	3,236	4,743	5,027	1,007	11,805	089	3,110	322	25,007

SOURCE: from Ministry of Agriculture and Food, Bureau of Fisheries and Aquatic Resources, Province of Capiz. NOTE, /1: These municipalities are not included in "Panay-River Basin Area".

TABLE XIII.4-5(1) AREA AND VALUE DAMAGED BY TYPHOON UNDANG IN THE PANAY RIVER BASIN AREA (CROPS)

With the state of	R	Rice	ပိ	Corn	Fruit	Trees	Baj	Banana	Vege	Vegetables
So traditation.	Area	Value	Area	Value	Area	Value	Area	Value	Area	Value
	(ha)	(4°01)	(pq)	(1032)	(ha)	(103æ)	(ba)	(103₽)	(pa)	(103₽)
1. Cuartero	1,474	14,371	· ·	23	300	1,314	150	720	Š	400
2. Dao	723	6,941	t	1	19	83	95	456	45	360
3. Dumalag	269	6,691	17	10	. 280	1,226	200	096	350	2,800
4. Dumarao	250	2,400	50	65	1,000	4,380	450	2,160	1	1
5. Jamindan	133	1,277	65	211	20	219	250	1,200	1	
6. Maayon	577	5,539	112	364	350	1,533	200	2,400	62.	496
7. Mambusao	216	4,954	17	55	Š.	219	238	1,142	ń	24
8. Panay	1,175	11,280	ı	i	<u>e</u>	£1.	30	144	ı	
9. Panitan	926	8,890	<u>د</u>	16	44	193	207	994	215	1,720
10. Pontevedra	730	7,008	34	111	29	127	100	480	1.	
11. Sigma	1,484	14,246	26	85	230	1,007	392	1,882	56	208
12. Tapaz	250	2,400	509	629	800	3,504	320	1,536	18	144
13. Roxas City	1,484	14,246		1	33	171	150	720		648
						#1 #1	1 :		1.0	·
Total	10,419	10,419 100,243	512	1,664	3,194	13,989	3,082	14,794	850	6,800

SOURCE: Typhoon Undang Final Damage Report, Ministry of Agriculture and Food, Province of Capiz.

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TABLE XIII.4-5(2) NUMBER OF HEADS AND VALUE DAMAGED BY TYPHOON UNDANG IN THE PANAY RIVER BASIN AREA (LIVESTOCKS)

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	ry	Value	(3€01)	4	53	•	156	.1.	231	127	8	404	15	ц 4	67	1,473		2,580
	Poultry	Heads		1,500	1,000	•	5,384	ı	7,949	4,379	677	13,930	520	488	2,350	50,800		88,977
	a.t	Value	(4 ₆ 01)	1	н	W.	· •	ı	œ	! -	4	7	37	1	t ~	50		178
	Goat	Heads		4	ĸ	16	4 4 5	i	4	40	282	דד	210	1	42	287	· .	1,020
******	Swine	Value	(3€01)	27	w	12	32	9	2.2	30	66	1,809	87	26	01	46	. : .	2,347
	MS	Heads		96	10	15	04	ω	7.	38	124	2,261	109	33	12	118		2,935
	tle	Value	(103₽)	16	i	ı	∞	4	20	50	œ	20	16	28	ω	1		148
	Cattle	Heads		4	·	ì	Ġ	ч	 	2	63	ĸ	4	7	71	i,		37
	aloe	Value	(10 ₃ æ)	8	\$	12	4	24	. 49	16	80	24	204	υs	4	52		552
	Buffaloe	Heads		ľ		т	11	Ý	16	4	50	9	. 51	61	, - 1	13		138
	Minician 1 ites	50 + + 54 + 5 + 1		Cuartero	Dao	Dumalag	Dumarao	Jamindan	Maayon	Mambusao	Panay	Panitan	Pontevedra	Signa	Tapaz	Roxas City		Total
	×				ૃતં	m	4	7	•	7	∞	6	10.	11:	12.	13.	•	:

SOURCE: Typhoon Undang Final Damage Report, Ministry of Agriculture and Food, Province of Capiz.

TABLE XIII.4-5(3) FISHERI DAMAGES CAUSED BY TYPHOON UNDANG IN THE PANAY RIVER BASIN AREA

		Fishpond			Fishing Boat	r Boat		Repairing	Total
munici patroy	Area	Milkfish	Prawn	Motorized	zed	Non-Motorized	rized	Cost	Дашаде
	(ра)	(₹601)	(Æ601)	(Piece)	(10 ₃ ±)	(Piece)	(10 ³ æ).	(1032)	(103æ)
1. Cuartero	•	•	. t	1	i	t	ì	1	. I
2. Dao	1	1	ŀ	1	1		ı		
3. Dumalag	1		t	1	1		:		*
4. Dumarao	Ì	ı			f	ŧ	 1		: .
5. Jamindan	1		.1	1	1	1	1		
6. Maayon	1		ı	ı		1	ı	·	· F.
7. Mambusao	1	.1.	ì	ì	:	.1		•	i
8. Panay	834	416	2,102	495	4,125	135	375	58	7,076
9. Panitan	•	1	Ĺ	ı	I	1	•	İ	!
10. Pontevedra	314	145	714	52	780	40	200	27	1,866
11. Sigma	ı	1	ı	ŀ	1	ı	•	1	1
12. Tapaz	, 3	ı		t	ı	ı	•	1	· •
13. Roxas City	217	387	. 1	135	2,025	15	7.5	19	2,506
						•			
Total	1,365	948	2.816	682	6.930	190	650	104	11.448

SOURCE: from Ministry of Agriculture and Food, Bureau of Fisheries and Aquatic Resources, Province of Capiz.

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TABLE XIII.4-6 PLOOD DAMAGES CAUSED BY TYPHOON UNDANG IN THE PANAY RIVER BASIN AGEA

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3

			Crop Damages	ядея			,		Fishe	Fishery Damages				
Municipality	Rico	60	Corn	r,	Vegetables	nbles			Fish Pond		Repairing	Livestock— Damages		Total
	Area	Value	Area	Value	Area	Value		Aren V	Milkfish	Prawn	Cost			
	(ha)	(# ₆ 01)		(4cot)	(ha)	(4 ₆ 01)		(ha)	(ac01)	(#€01)	(æ ₆ 01)	(aç01)		(10 ³ p)
l. Cuartero	1.474	14.371	2	53	S S	400		1	1	•	•	164		14,958
. Dao	723	6,941	ı		45	360		1	. 1	. 1		38		7,339
3. Dumulag	269	6,691	17	. 55	350	2,800		ι	1	•	1.	. 27		9,573
1. Dumarao	250	2,400	នូ	65	ı	ı		•	•		. 1	247		2,712
5. Jamindan	133	1,277	9	211	1	ı		t		,	ì	*		1,522
6. Manyon	577	5,539	112	364	62	496		,		,	•	380		6.779
7. Mambusao	516	4,954	1,1	55	'n	24		1	•	1		200		5,233
8. Panay	1,175	11,280	•	•		ı		834	416	2,102	28	256		14,112
9. Panitan	926	8,890	ę,	16	215	1,720		•	•	1	1	2,259		12,885
10. Pontevedra	730	7,008	34	111		ı	•.	314	145	71.4	. 27	359		8,364
11. Sigma	1,484	14,246	26	 83	56	208		ı	ì		1	76	• .	14,615
12. Inpar	250	2,400	500	629	18	144		•	1		•	96		3,319
13. Roxer City	1.484	14,246	ı	•	83	648		217	387	à.	19	1,669		16,969
Total	10,419	10,419 100,243	512 1,	1,664	850	6,800		1,365	848	2,816	104	5,805	rt .	118,380

SOURCE: Typhoon Undang Final Damage Report, Ministry of Agriculture and Food, Province of Capiz.

"NUMBER OF HEADS AND VALUE DAMAGED BY TYPHOON UNDANG IN THE PANAY RIVER NOTE, 1: Breakdown of livestock damages is shown on Table hasin Alea (Livestocks)".

TABLE XIII. 4-7 (1) RESIDENTIAL BUILDING DAMAGE IN CAPIZ PROVINCE

1

	Nuim	ber of Damaged Un	it	Amount
Municipality	Totally	Partially	Total	(21000)
Cuartero	2,341	1,434	3,775	20,012
No. of the second				18,495
Dao	2,717	1,646	4,363	
Dumalag	1,679	1,969	3,648	12,793
Dúmarao	2,531	1,751	4,282	15,400
Ivisan	1,990	1,186	3,176	15,771
Jamindan	789	3,588	4,377	15,213
Maayon	3,064	1,209	4,273	9,916
Mambusao	3,939	1,324	5,263	18,198
Panay	3,654	1,731	5,385	22,245
Panitan	2,333	1,650	3,983	16,996
Pilar	3,773	1,669	5,442	23,102
Pontevedra	3,390	1,868	5,258	12,714
Pres. Roxas	1,328	2,094	3,422	9,189
Sapian	2,598	657	3,255	21,686
Sigma	2,335	1,632	3,967	14,938
Tapaz	2,530	1,822	4,352	13,660
Roxas City	5,948	4,502	10,450	24,034
Total	46,939	31,732	78,671	284,362

Sources : Capiz Governor's Office; Roxas City Mayor's Office

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RESIDENTIAL BUILDING DAMAGE IN THE PANAY RIVER BASIN TABLE XIII. 4-7(2)

cipality Population 18,511 18,	Number of Number of Residence 3,344 4,325 4,070 5,381 7,4,299	Num Totally 2,341 2,717 1,679 2,531	Number of Damaged Unit Partially T 1,434 3,	Unit	Amount
tero lag rao ndan on usao y tan	Residence 3,344 4,325 4,070 5,381 4,490	2,341 2,717 1,679 2,531	Partially 1,434		(00014)
Cuartero 18,511 Dao 23,904 Dumalag 22,188 Dumarao 29,931 Jamindan 25,652 Maayon 25,711 Mambusao 32,066 Panay 31,649 Panitan 24,431 Pontevedra 30,482	3,344 4,325 4,070 5,381 4,299 4,490	2,341 2,717 1,679 2,531	1,434	*000*	/ADDITA!
lag rao ndan on usao usao tan	4,325 4,070 5,381 4,299 4,490	2,717 1,679 2,531	646	3,775	20,012
n o u u o u o o u o o o o o o o o o o o	5,381 4,299 4,490	1,679 2,531 789	7	4,363	18,495
o d d d d d d d d d d d d d d d d d d d	5,381	2,531	1,969	3,648	12,793
an con con con con con con con con con co	4,490	789	1,751	4,282	15,400
o d de dra	4,490		3,588	4,377	15,213
og u		3,064	1,209	4,273	9,916
an vedra	5,639	3,939	1,324	5,263	18,198
	5,502	3,654	1,731	5,385	22,245
	4,874	2,333	1,650	3,983	16,996
	5,120	3,390	1,868	5,258	12,714
Sigma 20,038	3,807	2,335	1,632	3,967	14,938
Tagaz 35,129	6,377	2,530	1,822	4,352	13,660
Roxas City 80,953	13,943	5,948	4,502	10,450	24,034
Total 403,645	71,171	37,250	26,126	63,376	214,614

Sources : Capiz, Governor's Office ; City Mayor's Office; Municipal Mayor's Offices; MSSD Remark : /1 1980 Population and Housing ; NCSO

TABLE : XIII: 4-7 (3) NON-RESIDENTIAL BUILDING DAMAGE IN CAPIZ PROVINCE

	Educa	Educational ⁴	Medi	Medical ⁶	Indu	Industrial 4	Comme	Commercial,	Religious/	-yenoi	S O	Others-	ř	Total
Municipality.	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Cuartero	47	1,675	ដ	45		424		240		486		823		3,683
Dao	24	2,414	ď	1,933		2,068		210		ტ ქ დ		1,032		8,570
Dumalac	17	2,686	Ŋ	86		628	:	46		649		6,768		10,875
Dumarao	ខា	2,440	m	30		296		277		1,389		1,170		5,601
Ivisan	27	2,287	Н	35		171		170		568		911		4,142
Jamindan	55	3,482	~	09		395		410		1,982		1,991		8,320
Maayon	47	1,423				92		79		335		183		2,111
Mambusao	វ្តេ	2,103	ω	850	٠.	446		S S		2,719		135		6,308
Panay	88	2,844	7	100		1,300	÷	20		1,277		712		7.253
Panitan	54	2,442	Ó	20		691		160		733	:	1,373		5,449
Pilar		2,985	ထ	09		175		305		206		1,131		5,162
Pontevedra	37	2,614	Ó	540		11,150		0		459		7,900		22,663
Pres. Roxas	36	1,077				271		275		395		15,870		17,888
Sapian	33	11,547	7	675		310		150		620		1,385	٠	14,687
Sigma	93	2,718	4	50		7777	•	8		855		1,005		5,285
Tapaz	54	1,774				109		35		527		1,180		3,625
Roxas City	32	3,954	н	150		1		77		ı		2,300		6,481
Capiz Total	÷	50,264	ဆ	4,676		19,291		2,589	7	14,414	•	. 45,870		137,104

Notes: 1 School
2 Hospital and Health Center
2 Rice mill and Warehouse
4 Market
5 Church and Chapel
6 Municipal and Barangay halls and others

Sources : Gapiz, Governor's Office; MPWH, District Engineer's Office & City Engineer's Office

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NON-RESIDENTIAL BUILDING DAMAGE IN THE PANAY RIVER BASIN

	Edu	Educational/1		Medical/2	Industrial ²	Commercial/4	Religious/5	Others/6	Tótal
Municipality	8	Amount	ટ્ટ	Amount	No Amount	No Amount	No Amount	No Amount	No Amount
Cuartero	4	1,675	Н	45	414	240	486	823	3,683
Дао	24	2,414	4	1,933	2,068	210	913	1,032	8,570
Dumalag	17	2,686	ഗ	86	628	46	649	6,768	10,875
Dumarao	35	2,440	m	30	296	277	1,389	1,170	5,601
Jamindan	55	3,482		09	3900	410	1,982	166,1	8,320
Maayon	47	1,423			92	79	335	183	2,111
Mambusao	5	2,103	ω	850	446	ហ	2,719	135	6,308
Panay	· ω Μ	2,844	73	001	1,300	20	1,277	712	6,253
Panitan	\$	2,442	Ø	20	169	160	733	1,373	5,449
Pontevedra	37	2,614	Ó	540	11,150.	0	459	7,900	22,663
Sigma	39	2,518	4	20	777	ဝ	855	1,005	5,285
Tapaz	54	1,774			109	3.5	527	1,180	3,625
Roxas City	32	3,954		150	0	77	0	2,300	6,481
Total	524	32,369	42	3,906	18,366	1,689	12,324	26,572	95,224
Notes : /1 School	yor get			57 7	Z Hospital and Health /5 Church and Chapel	Health Center	7 7	/3 Rice Mill 4	Rice Mill and Warehouse

Sources : Capiz, Governor's Office; MPWH, District Engineer's Office & City Engineer's Office

TABLE XIII.4-8(1) INFRASTRUCTURE DAMAGE

Item	Amount of Damage (P1000)	Remark
1. Roads and Bridges	17,224	Table XIII.2-7(2)
2. River Structure	8,840	Table XIII.2-7(3)
3. Water Supply	83	Table XIII.2-7(4)
4. Electricity	1,818	Table XIII, 2-7(5)
5. Telephone	73	Table XIII, 2-7(6)
6. Railway	249	Table XIII,2-7(7)
7. Irrigation Facilities	3,581	
Total	31,869	

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TABLE XIII.4-8(2) DAMAGE OF ROADS AND BRIDGES

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	Nat	National	Prov:	Provincial	Munic	Municipal	Bar	Barangay	HO.	Total
Municipality	Length (km)	Amount (₱1000)	Length (km)	Amount (P1000)	Length (km)	Amount (F1000)	Length (km)	Amount (#1000)	Length (km)	Amount (P1000)
Cuartero				220		0		507		
Dao				350		0		246		
Dumalag		·		160		0	•	425		· · · · · · · · · · · · · · · · · · ·
Dumarao				440		0		398		-
Maayon	(((765		14		288		
Mambusao	7.00 ^	6,8,0	4	380		100		451		16,364
Panay				089	٠.	16		449		
Panitan				770	-	23		545		
Pontevedra		÷.		170		0		1,354		
Sigma			á -	240		ထ		485		_
Roxas City	14.6	200		250		0		410	· · · · · · · · · · · · · · · · · · ·	860
Total	72.9	7,075		4,425		166		855.5		17,224

Sources :MPWH, District Engineer's Office & City Engineer's Office; Capiz, Governor's Office; NEDA, Region VI

TABLE XIII, 4-8(3) DAMAGE OF FLOOD CONTROL FACILITIES

Municipality	Location	Length (m)	Amount (P1000)
Cuartero	Panay River	220	2,900
Mambusao	Mambusao River	80	1,000
Panay	Panay River	80	2,000
Panitan	Banga-an River	30	360
Pontevedra	Agbalo River	200	2,000
Sigma	Nambusas River	15	180
Roxas City	Panay River	-	400
Total			8,840

Sources: MPWH, District Engineer's Office and City Engineer's Office

TABLE XIII.4-8(4) DAMAGE OF WATER SUPPLY FACILITIES (LEVEL I)

Municipality	No. of Unit	Amount (Pesos)
Cuartero	2	10,632
Dao	1	4,000
Dumalag	2	7,868
Dumarao	3	10,967
Maayon	1	8,500
Mambusao	1	4,000
Panay	2	6,967
Panitan	1	3,934
Pontevedra	3	14,566
Roxas City	3	11,934
Total		83,368

Sources: MPWH, District Engineer's Office and City Engineers's Office

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•	Whole Service	Whole Service Area (Capiz)		
Item	Number	Amount (P1000)	Amount (P1000)	Owner
1. Supply Cable	553 km	5,300	1,357	CAPELCO
2. Pole	2,206	1,800	461	CAPELCO
3. Transmission		1,750	-	CAPELCO
4do-		144	-	NPC
Total		8,994	1,818	

Note: Most of above facilities might be destroyed by gales of wind. A part of cable and pole damages might be caused by flood, the amount of which would be in proportion to the ratio (0.256) of affected road length (72.9km) to total road length (285.1km).

Sources : NPC; CAPELCO

TABLE XIII.4-8(6) DAMAGE OF TELEPHONE NETWORK SYSTEM

	Item	Amount (P1000)	Remark		
£	Service Cable	73	$p_{1,818,000}$ x 208 x $(14.6 \text{km}^{4}/72.9 \text{km}^{5})$		
	Total	73			

- Notes: /1 According to a manager of Public Affairs Division of PLDT, the amount of telephone cable damage would be estimated less than 20% of the damage of electricity network, because the telephone cable is set up on the poles established by CAPELCO. Furthermore, they are serving only within Roxas City.
 - /2 Damage of the electricity network
 - /3 Damage ratio of telephone network to the electricity network
 - /4 Length of affected national road in Roxas City
 - /5 Length of affected national road in Capiz

TABLE XIII, 4-8(7) DAMAGE OF RAILWAY

Item	Number	Amount (P1000)	Remark
1. Embankment	19km	60.0	Washed out at the 77km point from Iloilo
2. Bridge	2	159.4	
Total		249.4	

Source : Panay Railway, Inc.

TABLE XIII. 4-9 RELIEF OPERATIONS

Item	Amount (P1000)
1. Commodity assistance program (For 12,513 families)	3,504 ^{/1}
2. Distribution of various types of medicines	489
Chlorination of water sources (9315 water sources chlorinated)	28
4. Tetanus toxoid immunization (100 vials)	6
Total	4,027

Note: 1 Calculated on the fact that P34,776,000 is spent for 124,201 families as a commodity assistance program.

Source: NEDA, Region VI

TABLE XIII.4-10 HUMAN DAMAGE IN CAPIZ PROVINCE

1

Municipality	Dead .	Injured	missing	Total
Cuartero*	3	82	O	85
Dao*	5	27	o	32
Dumalag*	5	168	. 0	173
Dumarao*	2	84	0	86
Ivisan	2	211	0	213
Jamindan*	11	319	0	330
Maayon*	· · · Ö	7	0	7
Mambusao*	13	256	0	269
Panay*	225	: 331	18	574
Panitan*	12	108	0	120
Pilar	119	73	250	442
Pontevedra*	28	73	1	102
Pres. Roxas	19	34	4	57
Sapian	7	22	0	29
Sigma*	. 13	80	2	95
Tapaz*	2	24 ⁻	0 .	26
Roxas City*	21	66	2	89
Total (in Capiz)	487	1,965	277	2,729
Total (in the Basin)	340	1,625	23	1,988

Remark : * means municipalities related to the basin.

Sources: Capiz, Govenor's Office and City Mayour's Office

TABLE XIII.4-11 DIRECT DAMAGE BY THE FLOOD IN THE BASIN

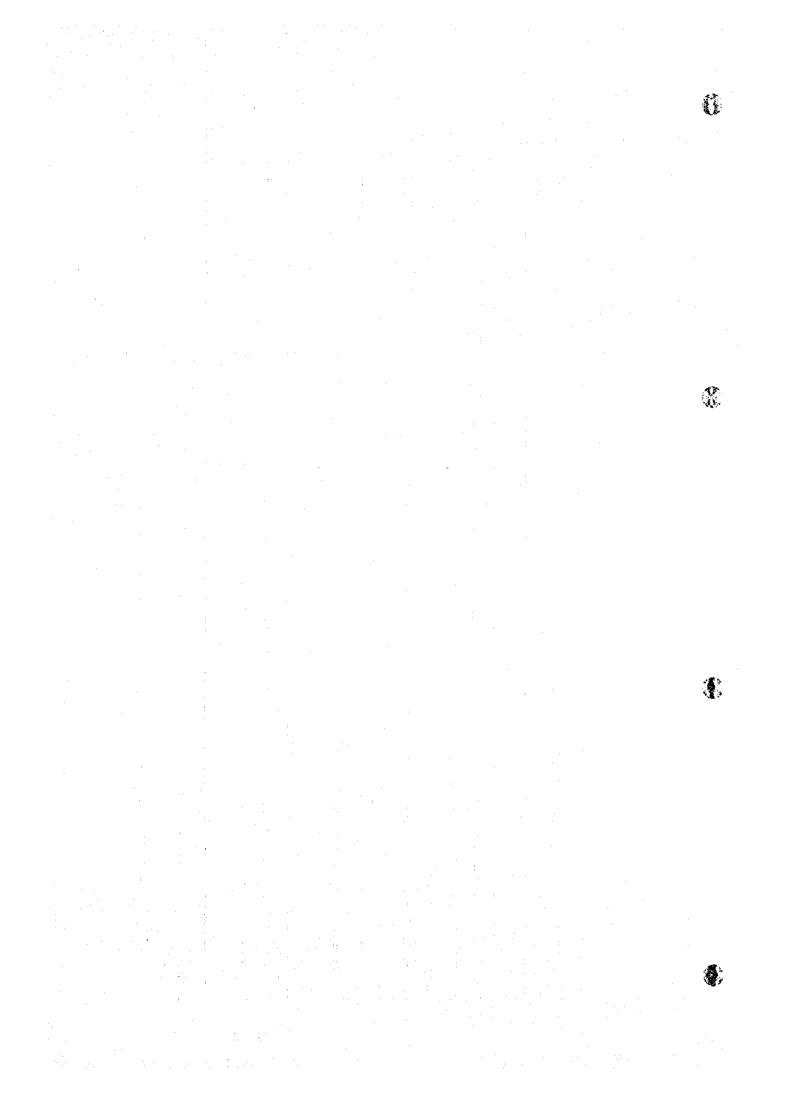
		Control of the Contro	
Item	Amount (P1000)	Percentage	
1. Crop Damage	115,938		
Paddy	100,243	40	
Corn	1,664	. 1	
Sugar Cane	7,231	3	
Others	6,800	3	
. Livestock Damage	5,805	2	
. Fishpond Damage	3,868	2	
. Building Damage	90,149	36	
Residential Building	42,373	17	
Non-residential Building	47,776	19	
. Infrastructure Damage	31,868	13	
Total	247,628	100	

TABLE XIII. 4-12 DAMAGE RATIO OF INFRASTRUCTURE

\	Item	9 ಸಿದ್ಧಿಬ್ ಆ
1. To	Total Number of Damaged Residential Building within the Flood Prone Area(Table XIII. 2-6(1))	63,376
2. Ic	Total Amount of Damaged Residential Building within the Area (Table XIII. 2-6 (1))	#214,614×10 ³
3. Av	Average Damage Amount Per Unit	P3,400
4. Tc	Total Number of Damaged Non-residential Building within the Area $^{-1}$	2,300
5. B	Total Amount of Damaged Non-residential Building within the Area (Table XIII. 2-6(2))	#95,224×10 ³
6. Av	Average Damage Amount Per Unit	P41,400
7. NC	Number of Inundated Building 2 A. Residential	12,513
σ.	B. Non-residential	1,154
O.	Estimated Damage Amount of Inundated Building [(3)x(7)+(6)x(8)]	P90,149x103
10. De	10. Damage Amount of Infrastructure Affected by the Flood (Table XIII. 2-7)	#31,868×10 ³
11. Da	11. Damage Ratio of Infrastructure to Buildings [(10)/(9)]	35%

emarks : /1 Refer to section 2-6.

/2 The number is calculated by the river system model





PIGURES

FOR

APPENDIX XIII







