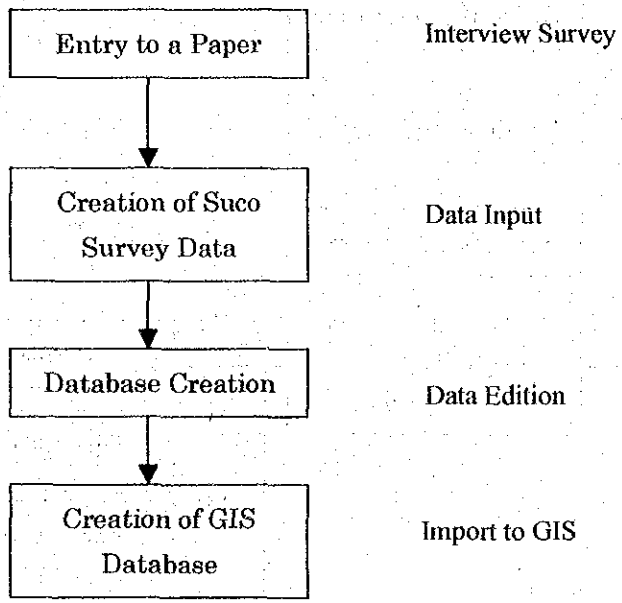
ANNEX Q. GIS AND DATABASE

CONTENTS

Q-1 Creation of Suco Survey Database

1. The Creation Method

Suco Survey database, which could be used for GIS was created based on the Suco survey, and the flow of creation is shown as follows;



2. Suco Database

Type of Suco Database

The contents of inventory survey could be divided into the 10 items. According to these items individual database was created. However, since the items of agricultural production have many sub-items, the item was furthermore subdivided in to five sub-items. As a result, total items become 14 databases.

Key Item for GIS

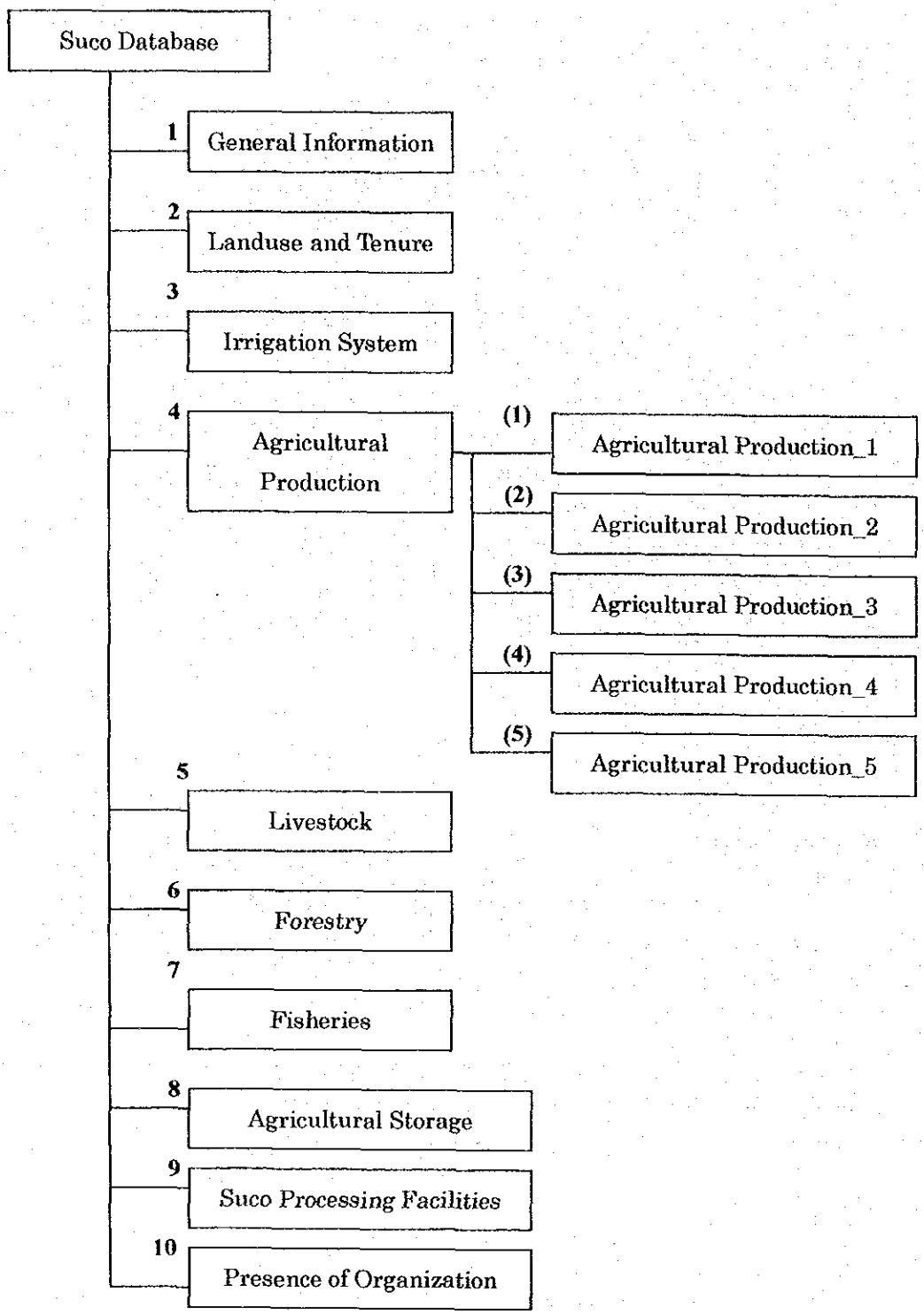
District code, Sub-district code, and Suco code were attached to each database. It is a code required for use of GIS. This code serves as the key, which ties up the figure database and attribute database of GIS. Suco database serves as attribute data.

GIS Use in Future

The database was created on the basis of Excel of Microsoft. If all suco survey data were finished and a database would be completed in the future, shift in database software such as ACCESS and Oracle will be attained. Creation of a relational database could be attained.

3. Structure of Suco Database

Followings indicate the structure of suco database;



Q-2 Survey Results of Suco Survey

1.General Information

District code	Sub_district Code	Suco code	Q1. Number of Household	Q2. Type of Main Road	Q3. Condition of Main Road	Q4. Lengh of Main Road(kms)	Q5. Percent of have Electricity Household	Q6. Percent of Have Piped-in Drinking Water Household(%)	Q7. Main Type of Water Sources	Q8. Financing Source	Q9. How Many Times of Agriculutur	Q10. Infrastructure Requiring Improvement		
												First Priority	Second	Third Priority
01	0101	010101	277	2	5	7	50	50	2	1	1	7	1	3
01	0101	010112	217	2	4	5	0	0	2	1	1	4	8	5
01	0102	010206	120	2	5	3	3	0	2	1	4	4	10	1
01	0104	010403	224	4	3	6	0	0	2	1	0	4	1	10
02	0201	020106	350	2	3	5	0	0	2	1	0	1	4	5
02	0202	020202	830	2	2	5	0	20	2	4	0	9	2	1
02	0204	020402	425	3	4	8	0	2	2	4	0	2	10	8
02	0204	020408	899	2	5	7	39	8	2	4	0	1	2	10
03	0302	030201	614	2	3	15	80	40	2	1	2	10	8	0
03	0302	030202	1,445	3	3	1	50	45	2	1	0	7	8	4

Q11. Product Markets						Q12. Fuel Prices							
General Market			Fisher Market			1.Diesel Price		2.Gasoline Price		3.Kerosene Price		4.Lubricant Oil	
Market Name	Market Code	Distance from Suco Center(km)	Market Name	Market Code	Distance from Suco Center(km)	1(Not Sold) 2(Sold)	Price (Rp/Liter)	1(Not Sold) 2(Sold)	Price (Rp/Liter)	1(Not Sold) 2(Sold)	Price (Rp/Liter)	1(Not Sold) 2(Sold)	Price (Rp/Liter)
		0				1	0	1	0	1	0	1	0
		0			0	1	0	1	0	1	0	1	0
		0			0	1		1		2	5,000	1	
		0			0	1		1		1		1	
Mau Suka		1			0	1	0	1	0	2	9,000	1	0
HATOBUILICO		1				1		1		2	5,000	1	
MAUBESI		4			0	1		1		1		1	
MAUBESI		0			0	2	6,000	2	7,000	2	5,000	2	30,000
MERCADO KOTA BARU		1			0	2	5,000	2	5,000	2	6,500	2	30,000
MERKADO KOTA LAMA		0			0	2	5,000	2	5,000	2	6,000	2	30,000

2.Land Use and Tenure

District code	Sub_district Code	Suco code	1.Irrigated Field						1.1Irrigated Field(use 1Season)						1.2Irrigated Field(Use 2/3 Season)					
			Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership(ha)	Other (specify) (ha)	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership(ha)	Other (specify) (ha)	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership(ha)	Other (specify) (ha)
01	0101	010101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
01	0101	010112	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
01	0102	010206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0104	010403	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0201	020106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170	0	0
02	0202	020202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020402	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030201	0	0	0	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0
03	0302	030202	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0

2.Rain Fed paddy						3Garden						4.Plantation					
Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)
0	0	0	0	0	0	0	0	0	438	0	0	0	0	0	81	0	0
0	0	0	6	0	0	0	0	0	434	0	0	0	0	0	434	0	0
0	0	0	0	0	0	0	0	0	240	0	0	0	0	0	240	0	0
0	0	0	0	0	0	0	0	0	330	0	0	0	0	0	336	0	0
0	0	0	0	0	0	0	0	0	800	0	0	0	0	0	2	0	0
0	0	0	0	0	0	0	0	0	1554	0	0	0	0	0	1036	0	0
0	0	0	0	0	0	0	0	0	210	0	0	0	0	0	185	0	0
0	0	0	0	0	0	0	0	0	1500	0	0	0	0	0	1150	0	0
0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	30	0	0
0	0	0	0	0	0	0	0	0	525	0	0	0	0	0	30	0	0

5.Dry Field						6.Bush/Underbuush						7.Grass/Unused					
Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)
0	0	0	0	0	0	990	0	0	0	0	0	1479	0	0	0	0	0
0	0	0	0	0	0	800	0	0	0	0	0	300	0	0	0	0	0
0	0	0	0	0	0	200	0	0	0	0	0	318	0	0	0	0	0
0	0	0	20	0	0	845	0	0	0	0	0	923	0	0	0	0	0
0	0	0	0	0	0	700	0	0	0	0	0	400	0	0	0	0	0
340	0	0	363	0	0	0	0	0	0	0	0	415	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	76	0	0	0	0	0
0	0	0	8	0	300	0	0	0	0	0	56	0	0	0	0	0	250
0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	0	100

8. Forest						9. Swamp						10. Housing/Urban					
Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)
160	0	0	0	0	0	0	0	0	0	0	0	23	0	0	2	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
10	2	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0
2287	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
259	0	0	0	0	0	0	0	0	0	0	0	7	0	2	382	0	0
1500	0	0	0	0	0	0	0	0	0	0	0	0	1	2	10	0	0
112	0	0	0	0	0	0	0	0	0	0	0	5	7	2	27	0	0
0	0	0	0	0	10	0	0	0	0	0	0	0	0	1	50	0	10
0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	40	0	20

11. Other(specify)							12. Total Suco						
Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership(ha)	Corporate Ownership (ha)	Other (specify) (ha)	Sprcify	Pubric Land (ha)	Community Land (ha)	Clan Ownership(ha)	Individual Ownership (ha)	Corporate Ownership (ha)	Other (specify) (ha)	Total (ha)
53	0	0	0	0	0	Perkanto	2705	0	0	525	0	0	3230
0	0	0	0	0	0		1112	0	0	888	0	0	2000
0	0	0	0	0	0		518	0	0	482	0	0	1000
0	0	0	0	0	0		1779	2	0	689	0	0	2470
0	0	0	0	0	0		3387	0	0	973	0	0	4360
822	0	0	0	0	0	LAINNYA	1843	0	2	3335	0	0	5180
35	0	0	0	0	0		1585	1	2	405	0	0	1993
0	0	0	0	0	0		193	7	2	2677	0	0	2879
0	0	0	0	0	860		0	0	1	313	0	1486	1800
0	0	0	0	0	750		0	0	0	790	0	920	1710

3.Irrigation System

District code	Sub_district Code	Suco code	No. 1												No.2					
			Name of Irrogation	Place of Irrogation	Shared with other Suco(Y/N)	Max. Irregation Area(ha)	Functioning (Y/N)	Type of Irregation (1,2,3)	Primary Canal Lengh (km)	No.of Households Benefiting	Presence of a WUA(Y/N)	Maintained the Past 12 Months (Y/S)	Maintained the Past 12 Months (1-4)	Specify (Name)	Name of Irregation	Place of Irregation	Shared with other Suco(Y/N)	Max. Irregation Area(ha)	Functioning (Y/N)	Type of Irregation (1,2,3)
01	0101	010101	AITOMU	LARAN	1	4	1	3	0	9	1	2	0		AITOMU	PERKATI	2	31	1	3
01	0101	010112	DAISOLI	RIBILI	1	12	1	3	2	99	1	2	0		DAISOLI	COILELA	2	1	1	3
02	0201	020106	Luakadc	Luan kadoi	2	30	2	3	3	60	2	2	0		Fatunaruk	Fatunaruk	2	50	2	3
03	0302	030201	UAILUA	UAILUA	2	12	1	3	0	152	1	1	3		UAIUSU	UAIUSU	1	11	2	3
03	0302	030202	UAILIA	UAILIA	1	56	1	3	6	75	1	1	3		UAIUSU	UAIUSU	1	64	1	3
03	0302	030203	MAKA OLI	MAKA OLI	1	37	1	3	4	45	2	2	0							
03	0302	030205	SOBA BERE	SOBA BERE	1	5880	2	2	10	510	2	2	0		KASAMETA	KASAMETA	2	344	1	3
03	0302	030207	KAULALE	KAULALE	2	113	1	3	1	200	2	1	3		KOBOE	KOBOE	2	113	2	3
03	0303	030302	UATOWA	UATOWA	1	1000	2	3	1	500	2	2	0		UAI RASA	UAI RASA	1	130	1	3
03	0303	030304	ULU ISI	ULU ISI	2	100	1	3	7	70	1	1	3		META BUU	META BUU	1	150	1	3

No.2						No.3											No4		
Primary Canal Lengh (km)	No.of Households Benefiting	Presence of a WUA (Y/N)	Maintained the Past 12 Months (Y/S)	Maintained the Past 12 Months (1-4)	Specify (Name)	Name of Irregation	Place of Irregation	Shared with other Suco(Y/N)	Max. Irregation Area(ha)	Functioning (Y/N)	Type of Irregation (1,2,3)	Primary Canal Lengh (km)	No.of Households Benefiting	Presence of a WUA (Y/N)	Maintained the Past 12 Months (Y/S)	Maintained the Past 12 Months (1-4)	Specify (Name)	Name of Irregation	Place of Irregation	Shared with other Suco(Y/N)
5	78	1	1	4	BANK DUNIA															
1	5	2	2	0		DAISOLI	HOLBA	2	2	1	3	1	6	2	2	0		DAISOLI	DATR	2
3	25	2	2	0		Dilukedo	Dilukec	2	40	1	3	3	20	1	2	0		Mbilsil	Mabils	2
0	20	2	2	0		UAIBAKA	UAIBA	2	12	1	3	0	15	1	1	3		UAILIA	UAILIA	1
3	100	1	1	3																
5	160	1	2	0		OOSO SEC	OSSO	2	218	1	2	4	48	1	2	0		MELAKA	MELA	2
5	100	2	2	0		KARBOE	KARBC	2	35	2	3	7	50	2	2	0		UAILIA	UAILIA	1
1	300	1	1	3																
6	130	1	1	3																

No4									No. 5										
Max. Irregation Area(ha)	Functioning (Y/N)	Type of Irregation (1,2,3)	Primary Canal Lengh (km)	No.of Households Benefiting	Presence of a WUA (Y/N)	Maintained the Past 12 Months (Y/S)	Maintained the Past 12 Months (1-4)	Specify (Name)	Name of Irregation	Place of Irregation	Shared with other Suco(Y/N)	Max. Irregation Area(ha)	Functioning (Y/N)	Type of Irregation (1,2,3)	Primary Canal Lengh (km)	No.of Households Benefiting	Presence of a WUA (Y/N)	Maintained the Past 12 Months (Y/S)	Maintained the Past 12 Month	Specify (Name)
3	1	3	2	15	2	2	0													
30	2	3	3	18	2	2	0													
40	1	3	5	66	1	1	3													
110	2	3	9	53	2	2	0													
10	1	3	2	22	2	2	0		UAISEMU	UAISEMU	2	113	2	3	0	100	2	2	0	

4.Agricultural Production

Agricultural Production 1

District code	Sub_district Code	Suco code	1. Rice-Upland						2. Rice-Rain Field						3. Rice-50% Irrigated					
			1997			2000			1997			2000			1997			2000		
			Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)
01	0101	010101	0	0	0	0	0	0	0	0	0	0	0	0	35	32	64000	35	34	51000
01	0101	010112	0	0	0	0	0	0	6	5	1000	6	5	3000	12	10	2000	12	11	5000
01	0102	010206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0104	010403	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0201	020106	0	0	0	0	0	0	0	0	0	0	0	0	170	170	340000	170	167	334000
02	0202	020202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020402	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030201	0	0	0	0	0	0	0	0	0	0	0	0	75	50	96000	75	45	89100
03	0302	030202	0	0	0	0	0	0	0	0	0	0	0	0	120	100	180000	120	120	331200

4. Rice-Fully Irrigated					
1997			2000		
Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

Agricultural Production 2

District code	Sub_district Code	Suco code	5. Mung beam						6. Maize Only					
			1997			2000			1997			2000		
			Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)
01	0101	010101	0	0	0	0	0	0	0	0	0	0	0	0
01	0101	010112	0	0	0	0	0	0	0	0	0	0	0	0
01	0102	010206	0	0	0	0	0	0	85	83	207500	80	78	117000
01	0104	010403	0	0	0	0	0	0	40	39	58	45	44	66
02	0201	020106	50	47	94000	48	40	80000	0	0	0	0	0	0
02	0202	020202	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020402	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020408	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030201	0	0	0	0	0	0	100	100	85000	100	100	90000
03	0302	030202	0	0	0	0	0	0	300	250	230000	300	300	277500

Agricultural Production 3

District code	Sub_district Code	Suco code	7.1 Corn with Squash						7.2 Corn with Cassava						7.3 Corn with Sweet Potato					
			1997			2000			1997			2000			1997			2000		
			Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)
01	0101	010101	0	0	0	0	0	0	186	184	460000	186	186	372000	186	185	508700	186	186	372000
01	0101	010112	19	18	45000	19	18	45000	150	150	450000	150	149	447000	100	99	247500	100	97	242500
01	0102	010206	0	0	0	0	0	0	80	78	195000	85	85	127500	79	79	197500	75	75	150000
01	0104	010403	5	4	6	17	15	30	30	28	56	40	38	82	25	20	35	88	86	172
02	0201	020106	0	0	0	0	0	0	400	397	780000	400	396	792000	98	98	190000	100	98	294000
02	0202	020202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020402	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

7.4 Corn with Tuber						7.5 Corn with Other					
1997			2000			1997			2000		
Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
950	950	1E+06	970	970	1455000	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
375	375	565500	310	310	542500	0	0	0	0	0	0
50	50	46250	50	50	50500	0	0	0	0	0	0
225	225	202500	225	225	250500	0	0	0	0	0	0

Agricultural Production 4

District code	Sub_district Code	Suco code	8. Cassava Only						9. Kindey Bean Only						10. Potato Only					
			1997			2000			1997			2000			1997			2000		
			Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)
01	0101	010101	0	0	0	0	0	0	50	49	98000	50	50	100000	10	9	18000	10	8	16000
01	0101	010112	0	0	0	0	0	0	80	78	117000	80	75	112500	70	67	134000	70	64	128000
01	0102	010206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0104	010403	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0201	020106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0202	020202	0	0	0	0	0	0	830	830	2E+06	780	780	2340000	480	480	1.4E+07	480	480	1.4E+07
02	0204	020402	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020408	0	0	0	0	0	0	370	360	450000	370	370	555000	410	410	8200000	410	410	8510250
03	0302	030201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

11. Sweet Potato Only						12. Tuber (Yam) Only						13. Squash Only						14. Peanuts Onl			
1997			2000			1997			2000			1997			2000			1997			
Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)
0	0	0	0	0	0	0	0	0	0	0	0	2	2	4000	2	2	4000	4	4	8000	4
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	30000	15
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	20	18	31	0	0	0	0	0	0	0	0	0	0	0	0	25	22	33	20
78	76	152000	78	76	152000	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4000	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	5400	10

Agricultural Production_5

District code	Sub_district Code	Suco code	15. Coffee						16. Tabacco						17. Coconuts						
			1997			2000			1997			2000			1997			2000			
			Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)
01	0101	010101	81	79	158000	81	77	154000	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0101	010112	434	430	860000	434	432	648000	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0102	010206	240	237	474000	240	235	470000	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0104	010403	100	95	190	100	80	160	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0201	020106	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3000	2	2	3000	0
02	0202	020202	380	380	456000	380	380	456350	0	0	0	0	0	0	0	0	0	0	0	0	502
02	0204	020402	185	185	222000	185	185	222500	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020408	950	950	807500	950	950	812700	0	0	0	0	0	0	0	0	0	0	0	0	395
03	0302	030201	0	0	0	0	0	0	0	0	0	0	0	0	10	10	19000	10	10	2500	0
03	0302	030202	0	0	0	0	0	0	0	0	0	0	0	0	15	15	3250	15	10	2300	5

19. Other						20. Total								
1997			2000			1997			2000			2000-1997		
Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)	Area Under Cultivation (ha)	Harvest Area(ha)	Production Amount (kg)
0	0	0	0	0	0	554	544	1318700	554	547	1077000	0	3	-241700
0	0	0	0	0	0	886	872	1886500	886	864	1657000	0	-8	-229500
0	0	0	0	0	0	484	477	1074000	480	473	864500	-4	-4	-209500
0	0	0	0	0	0	225	208	378	330	299	568	105	91	190
0	0	0	0	0	0	800	792	1563000	800	781	1657000	0	-11	94000
0	0	0	0	0	0	3142	3142	19537500	3117	3117	19656100	-25	-25	118600
0	0	0	0	0	0	185	185	222000	185	185	222500	0	0	500
0	0	0	0	0	0	2500	2490	10342950	2435	2435	10742200	-65	-55	399250
0	0	0	0	0	0	235	210	246250	235	205	232100	0	-5	-14150
0	0	0	0	0	0	675	605	622200	675	670	868208	0	65	246008

5.Livestock

District code	Sub_district Code	Suco code	1.Cattle		2. Buffalo		3. Horses		4. Goats		5. Sheep		6. Pigs		7. Chiken_Native	
			1997	2000	1997	2000	1997	2000	1997	2000	1997	2000	1997	2000	1997	2000
01	0101	010101	200	120	200	20	30	10	50	0	0	0	40	20	130	90
01	0101	010112	100	75	65	50	100	80	500	20	0	0	230	217	450	434
01	0102	010206	300	50	0	0	50	14	260	20	0	0	200	70	500	200
01	0104	010403	40	100	20	40	50	100	100	50	0	0	200	150	150	100
02	0201	020106	3000	200	5000	150	1500	30	1000	100	0	0	2000	500	5000	5000
02	0202	020202	267	205	230	120	245	480	211	310	0	0	1160	1250	2420	2575
02	0204	020402	187	200	191	200	280	300	185	200	35	50	420	400	3100	3000
02	0204	020408	5	10	25	30	2350	2600	30	40	6	10	4870	2870	5700	4500
03	0302	030201	10	4	160	120	70	40	200	150	60	20	400	350	1200	800
03	0302	030202	80	57	185	125	70	50	1007	505	850	424	1500	900	2500	2700

8. Chiken_Commorcial		9. Ducks!	
1997	2000	1997	2000
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

6.Forestry

District code	Sub_district Code	Suco code	1.Wood for Cooking (Y/N)	2.Get the Wood for Cooking	3.Plantin g Trees (Y/N)	4.How many Planted Hectares in the 3'y (ha)	5.Erosion Problem (1-3)	6.Reduce the Extent of Erosion or Rate of Soil Loss(Y to 1)							7. Who Undertakes the Erosion Control Measures(Y to 1					8.Hunt for Animals in the Forest(Y/N)
								1.Not Taking any Action	2.Plantin g Trees	3.Making Ponds	4.Reduci ng the Area	5.Increas ing Area	6.Growin g Cover Trees	7.Other	1.No Erosion Control Measure	2.People s Own Initiative	3.Farmer s Groupe	4.NGO?s	5.DAO/P PL	
01	0101	010101	1	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	2
01	0101	010112	1		1	21	2	0	1	0	0	0	0	0	0	1	0	0	0	2
01	0102	010206	1		2		2	0	1	0	0	0	0	0	1	0	0	0	0	2
01	0104	010403	1	2	1	1	2	1	0	0	0	0	0	0	0	1	0	0	0	2
02	0201	020106	1		2		3	1	0	0	0	0	0	0	1	0	0	0	0	1
02	0202	020202	1		1	15	3	0	1	1	0	0	0	0	0	1	0	0	0	2
02	0204	020402	1		2		2	0	1	0	0	0	0	0	0	1	0	1	0	2
02	0204	020408	1		2		2	1	0	0	0	0	0	0	1	0	0	0	0	2
03	0302	030201	2	4	2		1	1	0	0	0	0	0	0	1	0	0	0	0	2
03	0302	030202	2	2	1	2	1	1	0	0	0	0	0	0	1	0	0	0	0	2

9.If Y What Animalsare Hunt(Y to 1)					10.Forest Production								11.Plants for Medicinal Purposes (Y/N)	12.Grow Plants for Medicinal Purposes (Y/N)
1.Wild Pigs	2.Does	3.Oher Large Animals	4.Birds	5.Other	1.Timber Wood (cu m/year)	2.Fuel Wood (bunch/y	3.Honey (liter/year)	4.Rattan (piece/year)	5.Bamboo (piece/year)	6.Candle Nut (kg/year)	7. Other (/year)	8. Other (/year)		
0	0	0	0	0	0	4,044	0	0	150	0	0	0	2	2
0	0	0	0	0	20	3,124	0	0	4,340	250	0	0	2	2
0	0	0	0	0	2,000	3,456	0	0	200	120	0	0	2	2
0	0	0	0	0	0	3,270	200	0	100	0	0	0	2	2
1	1	0	1	0	720	10,080	0	0	1,000	1,000	0	0	2	2
0	0	0	0	0	0	79,680	0	0	1,150	0	0	0	1	1
					0	20,400	0	0	21,250	1,000	0	0	1	2
0	0	0	0	0	0	43,162	0	0	3,450	1,400	0	0	1	1
0					0	110	0	0	100	500	0	0	2	2
					0	210,900	0	0	1,000	5,000	0	0	1	1

7.Fisheries

District code	Sub_district Code	Suco code	1.Number of Fisherman			2.Number of Power Boats				Fishing Time and Season																
										Best Time for Fishing (1-4)	Worst Time for Fishing (1-4)	Best Monthfor Fishing(Y to 1)														
			1.Full-Time	2.Part-Time	3.Total	1.Non-Powered Skiffs/Canoes	2.Powered Skiffs/Canoes	3.Non-Powered Boats	4.Powered Boats			Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
01	0101	010101																								
01	0101	010112																								
01	0102	010206																								
01	0104	010403																								
02	0201	020106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0202	020202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020402	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030202	0	25	25	15	10	0	0	4	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0

Fishing Time and Season																			
Worst Monthfor Fishing(Y to 1)									Bad Monthfor Fishing(Y to 1)										
Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	1	0	1	0	1	1	1	0	0	0	0	0	0	0

District code	Sub_district Code	Suco code	7.3 Outboard Motor Related						4.Repair of their Outboard Motors (1-3)	Tradisinal Rules	
			Fuel Priceat the Landing Aera (Not Sold/Sold)	Much (Rp/Liter)	Lubricant Price aot the Landing Area	Much (Rp/Liter)	Gasoline Mixed with Lubricant Oil	Much (Rp/Liter)		Local Leader Selected(Y/N)	What Traditional Rules(1-7)
01	0101	010101									
01	0101	010112									
01	0102	010206									
01	0104	010403									
02	0201	020106	0	0	0	0	0	0	0	0	0
02	0202	020202	0	0	0	0	0	0	0	0	0
02	0204	020402	0	0	0	0	0	0	0	0	0
02	0204	020408	0	0	0	0	0	0	0	0	0
03	0302	030201	0	0	0	0	0	0	0	0	0
03	0302	030202	1	0	1	0	1	0	2	2	1

Fish Prices								
1			2			3		
Major Species	Landing Site(Rp/kg)	Markets in the Nearest City(Rp/kg)	Major Species	Landing Site(Rp/kg)	Markets in the Nearest City(Rp/kg)	Major Species	Landing Site(Rp/kg)	Markets in the Nearest
	0	0		0	0		0	0
	0	0		0	0		0	0
	0	0		0	0		0	0
	0	0		0	0		0	0
	0	0		0	0		0	0
TONGKOL	10000	15000		0	0		0	0

8.Agricultural Storage

District code	Sub_district Code	Suco code	1. Farmers in this Suco store their Harvest(y to 1			
			Inside Their Homes	Separete Building Next Home	Community Facility	Other
01	0101	010101	1	0	0	0
01	0101	010112	1	0	0	0
01	0102	010206	1	0	0	0
01	0104	010403	1	0	0	0
02	0201	020106	1	0	0	0
02	0202	020202	1	0	0	0
02	0204	020402	1	0	0	0
02	0204	020408	1	0	0	0
03	0302	030201	1	0	0	0
03	0302	030202	1	1	0	0

9.Suco Processing Facilities

District code	Sub_district Code	Suco code	1.Rice Mills			2.Drying Facilities														
						Net Mat Dryers			Pubric Concreat			Private Concreat			Mechanical			Flue Curing Barns			Drying Platforms		
			Total Units	Condition (1-4)	Total Capacity (kg/day)	Total Units	Condition (1-4)	Total Area (m*m)	Total Units	Condition (1-4)	Total Area (m*m)	Total Units	Condition (1-4)	Total Area (m*m)	Total Units	Condition (1-4)	Total (cu m/day)	Total Units	Condition (1-4)	Total Area (m*m)	Total Units	Condition (1-4)	Total Area (m*m)
01	0101	010101	0	1	0	0	1	0	0	1	0	35	2	840	0	1	0	0	1	0	0	1	0
01	0101	010112	0	1	0	0	1	0	0	1	0	125	2	3000	0	1	0	0	1	0	0	1	0
01	0102	010206	0	1	0	120	2	14400	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0
01	0104	010403	0	0		0	0		0	0		0	0		0	0		0	0		0	0	
02	0201	020106	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0
02	0202	020202	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0
02	0204	020402	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0
02	0204	020408	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0
03	0302	030201	2	2	50	10	2	25	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0
03	0302	030202	0	1	0	40	2	24	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0

3.Vegetable Processing Facilities			4.Fruit Processing Facilities			5.Fish Processing Facilities			6.Other Processing Facilities			
Total Units	Condition (1-4)	Capacity (kg/day)	Total Units	Condition (1-4)	Capacity (kg/day)	Total Units	Condition (1-4)	Capacity (kg/day)	Total Units	Condition (1-4)	Capacity (kg/day)	Specify
0	1	0	0	1	0	0	1	0	0	1	0	
0	1	0	0	1	0	0	1	0	0	1	0	
0	1	0	0	1	0	0	1	0	0	1	0	
0	0		0	0		0	0		0	1	0	Tidak ada
0	1	0	0	1	0	0	1	0	0	1	0	
0	1	0	0	1	0	0	1	0	0	1	0	
0	1	0	0	1	0	0	1	0	0	1	0	PENGILINGAN
0	1	0	0	1	0	0	1	0	0	1	0	
0	1	0	0	1	0	0	1	0	0	1	0	
0	1	0	0	1	0	0	1	0	0	1	0	

10.Presence of Organization

District code	Sub_district Code	Suco code	1.Farmers' Association								2.Water Users' Association(irrigation)								3.Drinking Water Association							
			Number of Groups	Total Number of Members	1.Loan/Credit 2.Input Purchases 3.Group Production Activities 4.Products Marketing 5.Others						Number of Groups	Total Number of Members	1.Loan/Credit 2.Input Purchases 3.Group Production Activities 4.Products Marketing 5.Others						Number of Groups	Total Number of Members	1.Loan/Credit 2.Input Purchases 3.Group Production Activities 4.Products Marketing 5.Others					
					1	2	3	4	5	Total			1	2	3	4	5	Total			1	2	3	4	5	Total
01	0101	010101	6	36	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0101	010112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0102	010206	6	60	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01	0104	010403	15	150	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0201	020106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0202	020202	8	10	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020402	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02	0204	020408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0302	030202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

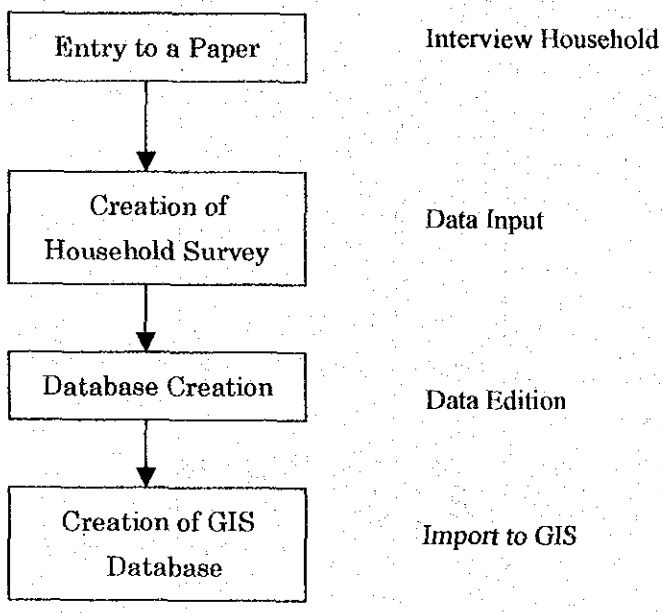
4.Livestock Organization								5.Forrestry Organization								6.Fishermen' Group							
Number of Groups	Total Number of Members	1.Loan/Credit 2.Input Purchases 3.Group Production Activities 4.Products Marketing 5.Others						Number of Groups	Total Number of Members	1.Loan/Credit 2.Input Purchases 3.Group Production Activities 4.Products Marketing 5.Others						Number of Groups	Total Number of Members	1.Loan/Credit 2.Input Purchases 3.Group Production Activities 4.Products Marketing 5.Others					
		1	2	3	4	5	Total			1	2	3	4	5	Total			1	2	3	4	5	Total
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	3	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

7.Traders' Organization								8. Total	
Number of Groups	Total Number of Members	1.Loan/Credit 2.Input Purchases 3.Group Production Activities 4.Products Marketing 5.Others						Number of Groups	Total Number of Members
		1	2	3	4	5	Total		
0	0	0	0	0	0	0	0	6	36
0	0	0	0	0	0	0	0	1	15
0	0	0	0	0	0	0	0	6	60
0	0	0	0	0	0	0	0	15	150
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	8	10
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

Q-3 Creation of Household Survey Database

1. The Creation Method

Household Survey database, which could be used for Computer was created based on the Household survey, and the flow of creation is shown as follows;



2. Household Database

Type of Household Database

The contents of inventory survey could be divided into the 13 Section. According to these Sections individual database was created. Household is created from the section of 13. Furthermore, each section is classified into some parts. The agricultural section of a section 9 is classified into the next part of 9 as an example. The database was created in Excel form according to the classified part.

Key Item for GIS

District code, Sub-district code, and Suco code were attached to each database. It is a code required for use of GIS. This code serves as the key, which ties up the figure database and attribute database of GIS. Household database serves as attribute data.

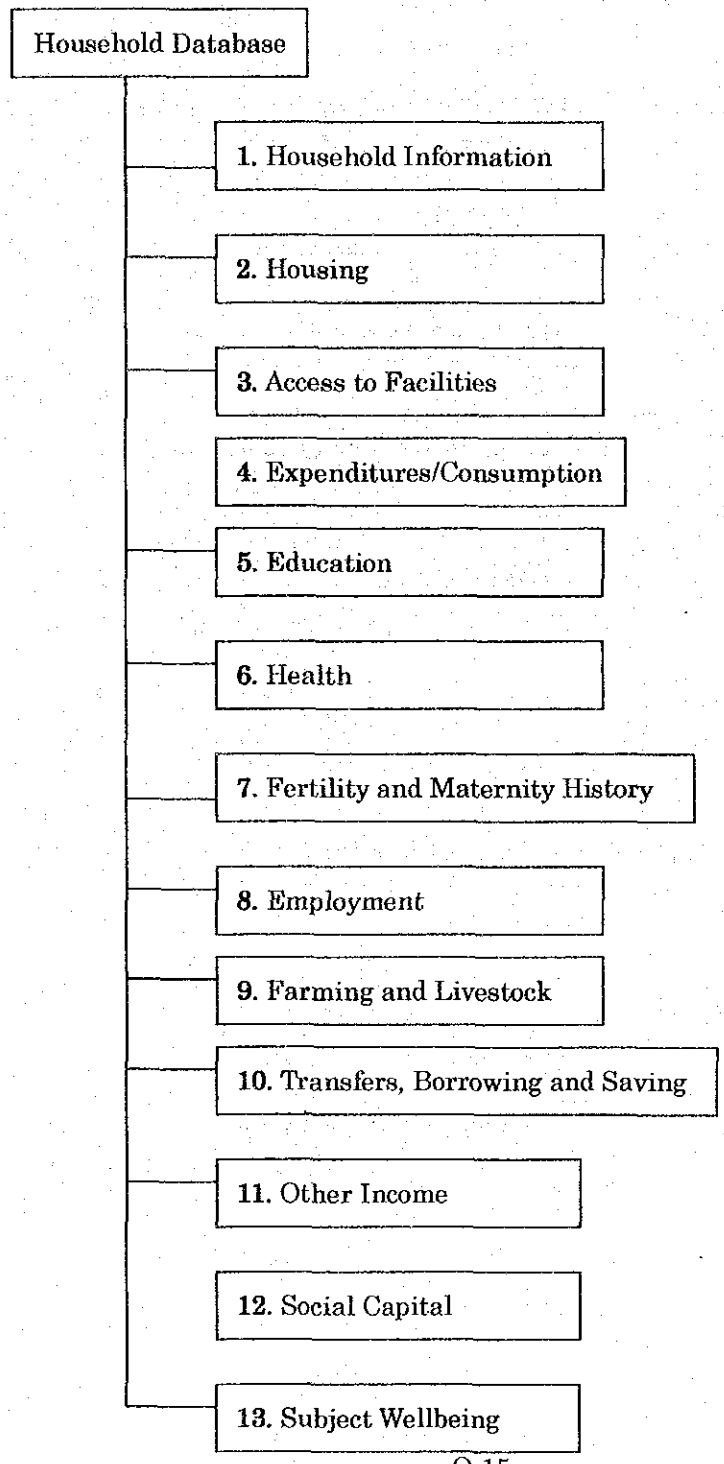
GIS Use in Future

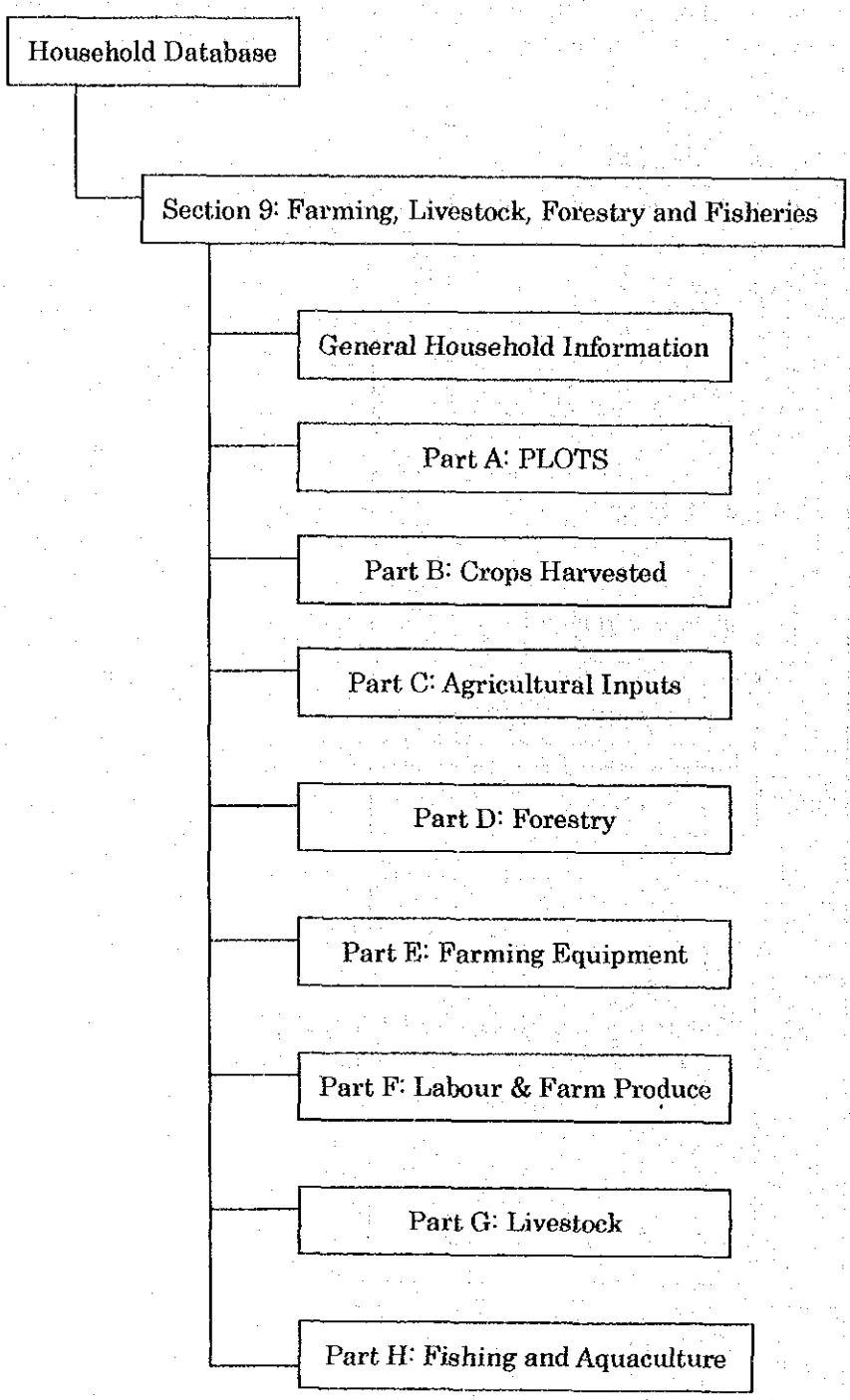
The database was created on the basis of Excel of Microsoft. If all Household survey data

were finished and a database would be completed in the future, shift in database software such as ACCESS and Oracle will be attained. Creation of a relational database could be attained.

3. Structure of Household Database

Followings indicate the structure of Household database;




Household Database
Section 9: Farming, Livestock, Forestry and Fisheries
General Household Information
Part A: PLOTS
Part B: Crops Harvested
Part C: Agricultural Inputs
Part D: Forestry
Part E: Farming Equipment
Part F: Labour & Farm Produce
Part G: Livestock
Part H: Fishing and Aquaculture

Q-4 Survey Results of Household Survey

Section 9: Farmer,Livestock,Forestry and Fisheries : General Household Information

			File 045	File 049	File 052			File 054												File 057	File 059
Task No	Team	HH No	Q01_09A1	Q22_09A5	Q01_09C1	Q02_09C1	Q03_09C1	Q01_09D1	Q02_09D1	Q03_09D1	Q04_09D1	Q05$A_09D	Q05$B_09D	Q05$C_09D	Q05$D_09D	Q05$E_09D	Q05$F_09D	Q06_09D1	Q07_09D1	Q08_09D1	Q02_09E2	Q01_09F1
			1 Has HH cultivated crops	22 Harvest any coffee past 12M	1.Manure/fertilizer/herbicides	2.Maize/rice/bean/seeds	3.Why not use fertilizer/pesticides	1 Does HH own wood for cooking	2 Main source of wood cooking	3 Plants trees for wood cooking	4 Trees planted last 3Y	5 Does HH hunt/catch						6 Gather plants for med. purposes	7 Species of plants gathered	8 Produces forest products	2 HH owns/rents any equipments	1 Hired farm labourers last Y
												PIGS	DEER	THER LARG	SMALL	FISH	BIRDS					
			y/n	y/n																		
0011	A	1	1	2	2	2	4	1	1	2		1	2	2	2	2	2	2		2	2	2
0011	A	2	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0011	A	3	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0011	A	4	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0011	A	5	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0011	A	6	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0012	A	2	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0012	A	4	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0012	A	5	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0012	A	6	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2
0012	A	7	1	2	2	2	4	1	1	2		2	2	2	2	2	2	2		2	2	2

File 061			File 063	File 066		Location Code		
Q06$A_09F	Q06$B_09F	Q07_09F3	Q01_09G1	Q01_09H1	Q02_09H1			
6 Spent on		7 Sold farm prods. cash past Y	1Has raised/owned livestock	1Has fished/raised past 12M	2 Uses boat for fishing			
transp. past 12M	irrigation past 12M					Distrito Code	Posto Code	Suco Code
20	0	1	1	2		10	1003	100302
10	0	1	1	2		10	1003	100302
20	0	2	1	2		10	1003	100302
10	0	2	1	2		10	1003	100302
0	0	1	1	2		10	1003	100302
30	0	1	1	2		10	1003	100302
0	0	2	1	2		10	1003	100302
0	0	1	1	2		10	1003	100302
0	0	2	1	2		10	1003	100302
0	0	1	2	2		10	1003	100302
0	0	1	1	2		10	1003	100302

Section 9: Part A:PLOTS

File No	Task No	Team	HH. No	PLOT ID	2 Name of plot	3 Who decides about plot		4 Area of the plot		5 What kind of land is this	6 Plant crops on entire plot	7 Why not crop entire plot	8 Tenure status of plot	9 How did HH acquire this plot	10 Legal title/right for plot	11 Years HH cultivated plot	12 Dispute ownership of plot	13 Value could sell plot today
						NAME	IDCODE	AMOUNT	UNIT									
046	0011	A	1	1	DAISUA	FERNANDO	1	1	3	1	5		1	1	3	5	2	1000
046	0011	A	2	1	BEMETAN	FERNANDO	1	2	2	5	5		1	1	3	20	2	5000
046	0011	A	2	2	CERO HUN	CARLITO	2	2	2	5	5		1	1	3	7	2	6000
046	0011	A	3	1	BESAKREN	AGUSTINHO P.	1	4	2	1	5		1	1	3	22	2	6000
046	0011	A	4	1	NUNUFU	1003	1	1	3	1	3	3	1	1	3	20	2	8000
046	0011	A	5	1	IMNOA	JOSE PEREIRA	1	4	2	1	5		1	1	3	11	2	6000
046	0011	A	6	1	NUNUFU	1003	1	2	2	1	5		1	1	3	24	2	8000
046	0012	A	2	1	LIA NAI'	CARLITO	1	1	2	1	5		1	1	3	15	2	9000
046	0012	A	4	1	FATUK HUN	CARLITO PEREIRA	1	1	3	1	4	3	1	1	3	20	2	9000
046	0012	A	5	1	KOLOKO	DOMINGGOS	5	500	1	1	4	3	1	1	3	16	2	2000
046	0012	A	5	2	AILOK LARAN	DOMINGGOS	5	2	2	5	4	3	1	1	3	20	2	2000
046	0012	A	6	1	AINELTETE	PAULINO M.	1	4	2	1	5		1	1	3	25	2	8000
046	0012	A	7	1	BOUCO	MANUEL	1	4	2	1	5		1	1	3	24	2	16000
046	0012	A	8	1	SISLULI	ALZIRZ DAC.	1	1	3	1	3	3	1	1	3	18	2	5000

14 Slope of the	15 Is the plot irrigated	16 Irrigat. seasonal/year-round	17 Mode of irrigation of plot	18 Who manages irrigation	19 How far is plot from road KM	20 Crop grown on plot					21 How does cultivate field	Location		
						1ST	2ND	3RD	FOURTH	FIFTH		District code	Postro code	Suco code
3	4				0.5	3	4	8	10	11	1	10	1003	100302
1	4				1.0	3	4	8	10		1	10	1003	100302
1	4				0.0	3	4	8			1	10	1003	100302
2	4				1.0	3	4	8	10		1	10	1003	100302
3	4				3.0	3	4	8	10		1	10	1003	100302
2	4				1.0	3	4	8	10	15	1	10	1003	100302
2	4				0.5	3	4	8	10		1	10	1003	100302
1	4				0.0	3	4	8	10	17	1	10	1003	100302
2	4				2.0	17	3	4	8	10	1	10	1003	100302
4	4				1.5	3	4	17			1	10	1003	100302
1	4				0.0	14					1	10	1003	100302
2	4				0.2	3	4	8	10	13	1	10	1003	100302
2	4				0.2	3	4	8	10	13	1	10	1003	100302
3	4				1.0	3	4	8	14	17	1	10	1003	100302

Section 9 : Farming,Livestock,Forestry and Fisheries Part B :Crops Harvested

File No	Task No	Team	HH. No	CROP CODE	1 Harvest any crop since lastY	2 Area of the plot		3 Times/year harvest this plot	4 Total yield last year		5 Percentage sold	6 Price for crop sold		7 To whom did you sell		8 Percentage bartered	9 Percentage lost	10 Percentage to pay labors	11 Percentage consumed by HH	12 Crop bought by HH	
						AMOUNT	UNIT		AMOUNT	UNIT		RUPIAH	UNIT	1ST	2ND					AMOUNT	UNIT
050	0011	A	1	03	1	4	2	1	1	5	0					0	10	0	90	0	5
050	0011	A	1	04	1	1	2	1	1	5	0					0	15	0	85	0	5
050	0011	A	1	08	1	2	2	1	2	5	0					0	15	0	85		
050	0011	A	1	10	1	1	2	1	20	1	0					0	0	0	100		
050	0011	A	1	11	1	1	3	1	2	6	30	120	6	1		0	3	0	67		
050	0011	A	2	03	1	2	2	1	1	5	50	100	5	1		0	10	5	35	0	5
050	0011	A	2	04	1	1	2	2	1	5	50	50	5	1		5	5	0	40	0	5
050	0011	A	2	08	1	1	2	1	1	5	0					10	5	5	80		
050	0011	A	2	10	1	1	2	1	30	1	0					5	10	0	85		
050	0011	A	3	03	1	4	2	1	2	5	50	100	5	1		5	5	0	40	0	1

13 Loose to pests while growing	14 Pests		15 Loose to pests while stored	16 Pests		Location		
	1ST	2ND		1ST	2ND	District code	Postro code	Succ code
2	2	3	2	1	2	10	1003	100302
2	2	5	2	1	3	10	1003	100302
2	2	5	2	1	3	10	1003	100302
2	2	5	2	1	3	10	1003	100302
2	1		3			10	1003	100302
2	2	5	2	2		10	1003	100302
2	5		3			10	1003	100302
2	1		3			10	1003	100302
2	1		3			10	1003	100302
2	5	1	3			10	1003	100302

Section 9 : Farming,Livestock,Forestry and Fisheries Part C : Agricultural Input

File No	Task No	Team	H.H. No	INP	Q04_09C2	Q05_09C2	Q06$A_09C	Q06$B_09C	Q07_09C2	Q08$A_09C2	Q08$B_09C	Q09$A_09C	Q09$B_09C2	Q10$A_09C	Q10$B_09C	Q11$A_09C	Q11$B_09C	Q12$A_09C2			Location		
				INPUT CODE	4 Used input last year	5 Why not used input	6 Purchased last year AMOUNT	6 Purchased last year UNIT	7 Spent last year RUPIAH	8 Where purchased 1ST	8 Where purchased 2ND	9 How much received free AMOUNT	9 How much received free UNIT	10 From whom received 1ST	10 From whom received 2ND	11 Self-produced last Y AMOUNT	11 Self-produced last Y UNIT	12 Crops used input for 1ST	12 Crops used input for 2ND	12 Crops used input for 3RD	District code	Postro code	Suco code
053	0023	A	1	6001	2	4															1	101	10112
053	0023	A	1	6002	2	4															1	101	10112
053	0023	A	1	6003	2	4															1	101	10112
053	0023	A	1	6004	2	4															1	101	10112
053	0023	A	1	6005	2	4															1	101	10112
053	0023	A	1	6006	1		0					10	1	8		50	1				1	101	10112
053	0023	A	1	6007	2	4															1	101	10112
053	0023	A	2	6001	2	1															1	101	10112
053	0023	A	2	6002	2	1															1	101	10112
053	0023	A	2	6003	2	1															1	101	10112

Section 9: Farmer,Livestock,Forestry and Fisheries Part: D Forestry

File No	Task No	Team	HH. No	PROD	Q09_09D2	Q10_09D2	Location		
				PRODUCT	9 Produced last year AMOUNT	10 Sold last year	District code	Postro code	Suco code
055	0032	G	1	8008	384	9600	6	602	60209
055	0092	A	6	8008	50	500	4	404	40402
055	0093	A	1	8001	0		4	404	40402
055	0093	A	1	8002	0		4	404	40402
055	0093	A	1	8003	0		4	404	40402
055	0093	A	1	8004	0		4	404	40402
055	0093	A	1	8005	0		4	404	40402
055	0093	A	1	8006	0		4	404	40402
055	0093	A	1	8007	0		4	404	40402
055	0093	A	1	8008	150	150	4	404	40402
055	0093	A	4	8008	250	250	4	404	40402
055	0101	D	1	8002	251	251	5	501	50101
055	0102	D	1	8002	180	180	5	501	50101
055	0102	D	2	8002	200	200	5	501	50101
055	0102	D	3	8002	200	200	5	501	50101

Part E : Farming Equipment

File No	Task No	Team	HH.No	IMP	Q01_09E1	Location		
				IMPLEMENTS	How many implements HH own	District code	Postro code	Suco code
056	0011	A	1	7004	2	10	1003	100302
056	0011	A	1	7005	2	10	1003	100302
056	0011	A	1	7011	1	10	1003	100302
056	0011	A	1	7012	2	10	1003	100302
056	0011	A	1	7013	12	10	1003	100302
056	0011	A	2	7001	2	10	1003	100302
056	0011	A	2	7002	1	10	1003	100302
056	0011	A	2	7003	1	10	1003	100302
056	0011	A	2	7004	4	10	1003	100302
056	0011	A	2	7005	2	10	1003	100302
056	0011	A	3	7001	1	10	1003	100302
056	0011	A	3	7002	1	10	1003	100302
056	0011	A	3	7004	2	10	1003	100302
056	0011	A	3	7005	2	10	1003	100302
056	0011	A	3	7011	2	10	1003	100302

Part E : Farming Equipment(Peralatan Pertanian)

File No	Task No	Team	HH. No	EQUI	Q03_09E3	Q04_09E3	Q05_09E3	Q06_09E3	Location		
				EQUIPMENT	3 Has any HH member owned	4 Has any HH member rented	5 Days rented equip. last Y	6 Spent rented equip. last Y	District code	Postro code	Suco code
058	0023	A	1	7021	2	2			1	101	10112
058	0023	A	1	7022	2	2			1	101	10112
058	0023	A	1	7023	1	1	8	100	1	101	10112
058	0023	A	1	7024	2	2			1	101	10112
058	0023	A	1	7025	2	2			1	101	10112
058	0023	A	1	7026	2	2			1	101	10112
058	0023	A	1	7027	2	2			1	101	10112
058	0023	A	1	7028	2	2			1	101	10112
058	0023	A	1	7029	2	2			1	101	10112
058	0023	A	1	7031	2	2			1	101	10112
058	0023	A	1	7032	2	2			1	101	10112
058	0023	A	1	7033	2	2			1	101	10112
058	0092	A	3	7021	2	1	1	350	4	404	40402
058	0092	A	3	7022	2	2			4	404	40402
058	0092	A	3	7023	2	2			4	404	40402

File No	Task No	Team	HH. No	ITEM	Q08_09F4	Q09_09F4	Location		
				PRODUCT	8 Has sold for cash past 12M	9 How much received from sale	District code	Postro code	Suco code
062	0011	A	1	6004	1	30	10	1003	100302
062	0011	A	2	6004	1	50	10	1003	100302
062	0011	A	5	6001	1	5	10	1003	100302
062	0011	A	5	6004	1	10	10	1003	100302
062	0011	A	6	6004	1	50	10	1003	100302
062	0012	A	4	6004	1	200	10	1003	100302
062	0012	A	6	6004	1	50	10	1003	100302
062	0012	A	7	6004	1	20	10	1003	100302
062	0012	A	7	6005	1	30	10	1003	100302
062	0012	A	8	6004	1	25	10	1003	100302
062	0013	A	1	6001	2		10	1003	100302
062	0013	A	1	6002	2		10	1003	100302
062	0013	A	1	6003	2		10	1003	100302
062	0013	A	1	6004	1	80	10	1003	100302
062	0013	A	1	6005	2		10	1003	100302

Section 9 : Farmer,Livestock,Forestry and Fisheries Part G : Livestock

File No	Task No	Team	HH. No	ANI ANIMAL	Q02_09G2 2 Has raised past Y/before 99	Q03_09G2 3 Animals owned before 99	Q04_09G2 4 Young animals owned today	Q05_09G2 5 Value if sold young today	Q06_09G2 6 Adult animals owned today	Q07_09G2 7 Value if sold adult today	Q08_09G2 8 Animals sold last year	Q09_09G2 9 Value for selling last year	Q10_09G2 10 Animals died last year	Q11_09G2 11 Animals stolen last year	Q12_09G2 12 Animals eaten last year	Q13_09G3 13 Animals purchased last year
064	0011	A	1	8008	1	3			7	120	2	50	2	0	0	1
064	0011	A	2	8005	1	2	1	80	1	200	0		0	0	0	1
064	0011	A	2	8008	1	10			10	50	5	250	5	0	2	1
064	0011	A	3	8001	2											
064	0011	A	3	8005	1	2	0		2	400	1	450	0	0	1	1
064	0011	A	3	8008	1	7			7	100	2	200	1	0	2	2
064	0011	A	3	8011	1	1	0		1	150	0		0	0	0	0
064	0011	A	4	8005	1	6	4	100	1	600	0		2	0	1	1
064	0011	A	4	8008	1	7			2	100	0		10	0	5	2
064	0011	A	5	8005	1	3	2	200	1	400	1	400	0	0	0	1
064	0011	A	5	8008	1	6			10	100	1	400	2	0	2	4
064	0011	A	5	8011	1	1	0		1	150	0		0	0	0	0
064	0011	A	6	8001	1	2	1	600	0		0		0	0	0	0
064	0011	A	6	8005	1	10	1	50	1	50	0		0	0	0	0
064	0011	A	6	8008	1	10			6	200	2	200	0	0	0	0

Q14_09G3	Location		
14 Animals vaccinated	District code	Postro code	Suco code
0	10	1003	100302
0	10	1003	100302
0	10	1003	100302
	10	1003	100302
0	10	1003	100302
0	10	1003	100302
0	10	1003	100302
1	10	1003	100302
0	10	1003	100302
0	10	1003	100302
0	10	1003	100302
0	10	1003	100302
0	10	1003	100302
0	10	1003	100302
0	10	1003	100302

Section 9: Farming,Livestock,Forestry and Fisheries Part H: Fishing and Aquaculture

(Boat)

File No	Task No	Team	HH No	BOA	Q03_09H2	Q04_09H2	Q05_09H2	Q06_09H2	Q07_09H2	Q08_09H2	Q09_09H2	Q10_09H2	Q11_09H2	Q12$A_09H	Q12$B_09H	Q13_09H3	Q14$A_09H	Q14$B_09H3	Q15_09H3	Q16_09H3	Q17_09H3
				BOAT	3 Type of boat	4 Ownership of the boat	5 Years owned the boat	6 Length of the boat [m]	7 Width of the boat [m]	8 Years for the hull	9 Members in the crew	10 Power source for boat	11 Value if boat sold today	12 Fishing gear		13 Tradit. rules prohibition	14 Time to fishing one-way		15 Days boat fished last 12M	16 Value earn fishing past 12M	17 Own kept
														1ST	2ND		HOURS	MINUTES			
067	0132	H	3	1	1	1	1	3	5	2	2	5	300	3		2	1	20	200	10000	5000
067	0182	F	3	1	1	1	5	5	5	5	2	1	1000	5	3	1	1	30	96	5000	4000
067	0231	B	4	1	1	1	15	4	15	3	1	1	1000	3		2	1	15	120	5000	5000
067	0232	B	7	1	1	1	2	3	15	2	1	1	1000	1	2	2	3	15	4	600	600
067	0473	F	2	1	1	1	2	25	1	8	2	1	800	5		2	3	30	320	7000	7000
068	0511	E	2	1										2	1	1	0	15	42	800	800
067	0511	E	5	1	1	1	4	7	5	4	2	1	10000	8	4	1	0	45	180	20000	8000
068	0512	E	1	1										2	3	2	0	10	63	2020	2020
068	0512	E	4	1										2	8	2	0	10	51	700	700
067	0542	H	5	1	2	2	2	3	1	4	2	1	10000	8		2	2	35	240	10000	5000
067	0551	C	4	1	1	1	5	5	3	5	3	1	5000	2		1	0	5	224	15000	5000
067	0553	C	3	1	1	1	1	5	3	1	2	1	5000	1	4	2	1	20	90	350	700
067	0621	D	1	1	1	1	1	4	5	1	1	1	500	5	4	2	2	0	300	19000	19000
067	0621	D	2	1	1	1	2	3	1	2	1	1	1000	3	4	1	4	20	264	25000	25000
067	0621	D	6	1	1	1	14	4	1	14	1	1	500	5	4	2	2	0	300	20000	20000

Q18_09H3	Q19$A_09H	Q19$B_09H4	Q19$C_09H4	Q20$A_09H	Q20$B_09H	Q20$C_09H	Q21_09H4	Q22_09H4	Q23_09H4	Location		
18. Percentage of catch	19 Percentage catch			20 Average price sold			21 Who do you sell this fish	22 How transports fish for sell	23 Percentage of catch consumed	District code	Postro code	Suco code
	LARGE	MEDIUM	SMALL	LARGE	MEDIUM	SMALL						
87	5	3	2	20000	10000	9	9	1	3	10	1003	100308
80	10	40	50	50000	30000	25000	8	1	20	6	602	60201
90	4	2	1	15	10	5	2	2	10	3	302	30207
80	2	3	0	45000	25000	10000	4	1	20	3	302	30207
75	0	25	50		200000	500000	8	1	25	6	605	60503
50	15	20	65	20	15	10	1	1	50	6	601	60101
90	30	40	30	15	10	5	5	1	10	6	601	60101
75		40	60		10	10	2	1	25	6	601	60101
70		10	90		10000	10000	1	1	30	6	601	60101
70	20	30	50	20	15	12	1	2	15	11	1105	110504
80	2	3	3	300	10000	5000	4	2	20	9	902	90202
50	5	50	20	50000	40000	7000	1	7	30	9	902	90202
90	30			10			8	1	10	8	802	80201
90	5	5	90	50000	25000	15000	6	1	10	8	802	80201
90	30			10000			8	1	10	8	802	80201

Section 9: Farming,Livestock,Forestry and Fisheries Part H : Fishing and Aquaculture(Aquaculture)

File No	Task No	Team	HH. No	BOA	Q24_09H5	Q25_09H5	Location		
				PONO	24 Has pond	25 Area of the pond [m2]	District code	Postro code	Suco code
070	0011	A	1	1	2		10	1003	100302
070	0011	A	2	1	2		10	1003	100302
070	0011	A	3	1	2		10	1003	100302
070	0011	A	4	1	2		10	1003	100302
070	0011	A	5	1	2		10	1003	100302
070	0011	A	6	1	2		10	1003	100302
070	0012	A	2	2	2		10	1003	100302
070	0012	A	4	1	2		10	1003	100302
070	0012	A	5	1	2		10	1003	100302
070	0012	A	5	2	2		10	1003	100302
070	0012	A	5	3	2		10	1003	100302
070	0012	A	6	1	2		10	1003	100302
070	0012	A	7	1	2		10	1003	100302
070	0012	A	8	1	2		10	1003	100302
070	0013	A	1	1	2		10	1003	100302

File No	Task No	Team	HH No	SPE	Q26SA_09H6	Q26SB_09H6	Location		
				SPECIE	26 Specie NAME	26 Specie PRODUCTION [kg/year]	District code	Postro code	Suco code
071	0043	D	7	1	MUJAIR	0	7	701	70102
071	0043	D	7	2	MAS	0	7	701	70102
071	0062	F	2	1	MAS	0	7	704	70403
071	0263	A	1	1	IKAN MAS	25	4	406	40606
071	0292	C	7	1	UDANG	16	3	302	30201
071	0563	B	3	1	MAS	10	3	305	30515
071	0701	E	6	1	MUSAIR	20	6	603	60309
071	0741	C	5	1	MUJAIR	12	13	1302	130207
071	0743	C	3	1	MUJAIR, IKAN MA	10	13	1302	130207

ANNEX R. DONOR'S AND NGO'S ACTIVITIES FOR AGRICULTURAL DEVELOPMENT

CONTENTS

List of Tables

Table R-1 : Main Donor's Activities and Progress for Agricultural Development

Components(Things to do) \ Agency	IBRD (TFET/ARP)	FAO/ UNDP	ADB (TFET/Com)	Aus AID	US AID	Portu-guese	China Norway	Others (*)
Agricultural Sector Strategy / Policy	◎	?						
Donors Coordination	◎	◎						
Agriculture & Crop Production (Rice, Maize)	◎	◎						□B
Coffee: ・Production ・purchase ・Processing				◎?	 ◎ ◎	◎ ◎		□B
Irrigation Facility / Canal / Drainage System	◎	◎						
Farming Machines / Tools	◎	◎			◎	◎	◎	
Land Tenure / Agrarian Reform								
Storage		◎		◎	◎			
Seeds		◎(J)		◎ ?				
Fertilizer / Agri-chemicals/ Insecticide							◎ (N&C)	
Horticulture (Fruits, Vegetable, Foods Crops)						○		
Reducing Post-harvest Losses (Rat control, etc.) / Quality Management		◎		◎	○			
Marketing Facility/ Trading Posts / Products *Distribution System*	○			○	○			
Farm to Market Roads / Rural Infrastructure Rehabilitatio	◎ (ARP 2)	◎	◎ (Communit)	◎ (Rural)	◎ ?			
Rural / Agricultural Credit / Micro Credit			◎					
Crop Diversification (Legumes, Root Crops, Vegetables & Citrus Fruit)						○		□ (B)
Forestry		◎						
・GIS Database				◎		◎		
・Inventory Survey				○				
・Community Forest								
・Agriculture forest							□(N)	
・Aforestation								

Components(Things to do) \ Agency	IBRD (TFET/ARP)	FAO/ UNDP	ADB (TFET/Com)	Aus AID	US AID	Portu-guese	China Norway	Others (*)
・Organization Develop								
Fishery / Fishing Equip.			○					□ Chili
・Small Scale Fishery / Fish Attraction Devices		◎ ◎		◎				
・Aquaculture / Fish Farm								
・Fishery Equipment / Fishing Boats				◎	○?		◎(C)	◎(I)
・Processing				◎				
・Fishing Port			◎(Hera)					
・Markets / Distribution								
Livestock								
・Distribution	◎							
・Meet Processing Facilities.								
・Vaccination / Medication	◎							
・Organization Development	◎	◎	◎					
Markets/Distribution								
Pilot Project / Pilot Agricultual Service Center (PASC)	◎ (3+3)?	□						
Capacity Building / Organization Development	◎	◎						
DAA Staff Training						◎		
Community Development	◎		◎					
Rural Development				◎				
Small Scale Agro-industry / Processing	○			◎				
Extension Service								
Training Center						◎		
GIS Data Base				◎				
GIS Mapping				◎		○?		
Inventory Survey. (Suco, Family, Census, Resource)	△	△	△	○ (Forest)				
NGO Support	◎	◎	◎	◎	◎	◎		◎ (Ca)
Reserch / Laboratories / Training	◎	◎(J)				◎		

Components(Things to do) \ Agency	IBRD (TFET/ARP)	FAO/ UNDP	ADB (TFET/Com)	Aus AID	US AID	Portu-guese	China Norway	Others (*)
Agriculture Statistic System								
Quarantine					○?			
Biomas (Methane Gas)								
EM Project								□ (T)
Disaster / Erosion / Watershed Management								
Environments/Preservation		◎						
O & M Support								
Mobil Brigade Monitoring							◎(N)	
Universidade Timor Lorosae (Agri,Faculty)	◎					◎		
Private Investment Promotion / Privatization								
Protection (Subsidy/Price Policy / Custom Policy)	X	X	X					

(Note) ① Progress of each donors' sub-components

- ◎ Mark: *Committed and Implemented*
- ○ Mark: Committed but not yet implemented
- △ Mark: Surveying (finished / on-going)
- □ Mark: Planning stage
- X Mark: Objection

② Others(*) include Brazil(B), Canada(Ca), Chili(Chi),Thai(T) and Iceland(I)

Table R-2 Donor Activities in the Agricultural Sector of East Timor (Previous Assistance)

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contacts*
AusAID	Small-scale Fisheries Activities	▪ Rehabilitation of Bidau Santana Fish Market ▪ Oecussi Salt Production ▪ Atauro Island Integrated Village Development ▪ Fisher boat engine survey and repair ▪ Supply of Fishing Equipment ▪ Engine Maintenance Training ▪ Training and Demonstration of new equipment ▪ Experimental boat building project Re-establishment of Hera Mechanics Workshop	$240,000	Dili Atauro Baucau Oecussi Manufahi Covalima Lautem Liquica Viqueque Manatuto	June 2000 – April 2001	
AusAID	Fisheries – Development of Strategic Plan and priority project proposals	▪ Assistance to ETTA Fisheries Officers to finalise 'Strategic Fisheries Directions for Timor Lorosae' ▪ Develop at least 3 priority project proposals suitable for international donor support; ▪ Develop TORs for the development of a long-term sustainable plan for ET fisheries management.	$20,650	National	February – March 2001	

Source: Joint Agricultural Donors Interim Mission to East Timor, Nov. 2001

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contacts*
AusAID	Rat Management Control Program	• Evaluate the extent and intensity of rodent populations in the major rice growing areas. • Estimate the potential for crop loss in the 2000 / 2001 season. • Develop a sustainable strategy to manage rodent populations in rice growing areas • Demonstrate, on a pilot scale, the feasibility of the critical elements of the strategy. • Design a training program for East Timorese DAA staff for immediate implementation.	$100,000	Oecussi Manufahi Manatuto Bobonaro Viqueque Lautem	August 2000 - January 2001	Report with recommendation for operating two demonstration sites (Viqueque and Natabora for a two-year period to consolidate farmer awareness.

Table R-3 Donor Activities in the Agricultural Sector of East Timor (Current Assistance)

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contacts*
TFET	Agriculture Rehabilitation Project Phase I	▪ Livestock vaccination ▪ 100,000 chicken to poor farmers ▪ 2,000 head of buffalo and Bali cattle ▪ Agriculture hand tools to 4,000 families ▪ Farmer information campaigns ▪ Community rehabilitation of 5,000 ha of irrigation schemes, and 100 km of agricultural roads ▪ Feasibility study and initial rehabilitation of medium to large irrigation schemes ▪ 3 Pilot Agriculture Service Centres ▪ Support to Faculty of Agriculture research ▪ Agriculture Training ▪ Technical assistance and equipment	$6.8 million	National " " " " " " " " Viqueque, Bobonaro, Aileu National " "	July 2000-December 2001 Effective - August 22, 2000	Administered by IDA
TFET	Small Enterprises I	▪ Credit line of US$4 million for small enterprise loans of US$500-50,000 each ▪ Strengthening land and property registration and policies	$4.85 million	National	April 2000-September? 2001	
AusAID	Agriculture and Forestry Landuse Mapping and GIS Development and Training	▪ Landuse mapping and GIS information: ▪ Soil resource/agro-ecological zones classification ▪ Zonation for organic coffee ▪ Identification of erosion risk areas ▪ Layout of major irrigation and condition of access roads ▪ Landuse baseline Phase I (Data Collection/Retrieval) Phase II (Database Development and Training)	$760,000	National	December 2000 - November 2002	

Source: Joint Agricultural Donors Interim Mission to East Timor, Nov. 2001

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contacts*
AusAID	Community based Watershed Management	Phase 1 ▪ Training to national Forestry Unit staff – assistance provided by University of South Pacific ▪ Support to community based watershed management in five watersheds	Phase I: $52,000	Los Palos Manatuto Liquica Atauro Island	Phases I-V: January 2001 to December 2002	
AusAID	Stock Assessment - Dili Harbour	• impact assessment of current fishing levels on fish stocks in Dili Harbour; and • provide scientific field skills transfer toi FMES Officers	$13,000	Dili	April 2001 - August 2002	NT and WA Fisheries providing technical staff at no cost to Aid Program.
ACIAR[25]	Seeds of Life	▪ Evaluate genetic materials developed by CGIAR for ET conditions ▪ Introduce modern cultivars to improve disease tolerance, nutrient imbalance and climatic conditions ▪ Improve farmers' access to high quality seeds of modern cultivars ▪ Gather base data for future development programs on increasing farm productivity.	$510,000	Demonstration sites in Ainaro, Bobanaro, Baucau, Aileu, Lautem Viqueque	November 2000 – October 2003	
China	Provision of Equipment	▪ Provision of Agricultural and Fishing Equipment	$6,000,000		January – June 2001	
JICA	Urgent Establishment Project: Topographic Mapping	▪ 1:1,000 and 1:2,000 digital topographic maps of Dili City ▪ Aerial photography of 1:8,000 in Dili, Liquica, Manatuto and Baucau	$1,060,000		February-August 2000	
JICA	Study of Integrated Agriculture Development of East Timor	▪ Formulation of mid-term comprehensive development plan of agriculture, forestry and fishery	$3,741,000		March 2001–December 2002	

[25] Australian Centre for International Agriculture Research

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contacts*
		▪ Assessment of present situation and problems as well as inventory survey ▪ Implementation of some pilot agricultural projects for human resources development				
JICA	Provision and O&M support of Hand Tillers	▪ Provision of 30 hand tiller units to UNTAET (Manatuto and Baucau) ▪ Technical assistance in operation and maintenance of hand tillers by agricultural machinery expert	$200,000		March 2000- May 2001	
JICA	Aquaculture	▪ Needs assessment in fisheries sector ▪ Rehabilitation of Greno hatchery in Ermera and provision of technical assistance in carp production ▪ Training in Thailand	$210,000		June-August 2000 January – August 2001 June – August 2001	
JICA	Capacity building in Japan and ASEAN countries	▪ Cambodia: Local NGOs Training ▪ Thailand: Marine Electricity & Electronics ▪ Malaysia: Enhancing small-scale enterprises for rural women ▪ Japan: Integrated agriculture and rural development ▪	$26,000		July 2000 September 2000 October 2000/2001 June- July 2001	
JICA	Rehabilitation and Strengthening of Capacity of Rice Farmers in Lautem and Manatuto districts	▪ Distribution of seeds and tools ▪ Rehabilitation of agricultural infrastructure ▪ Capacity building of farmers groups	$863,000		February 2000-January 2003	Partnership with CARE
JICA	Recovery Program for Village Based Economic Activities in Los Palos and Manufahi districts	▪ Needs assessment ▪ Group organizing and comparative studies ▪ Distribution of agricultural tools to farmers groups and assistance them in production and selling	$241,000		March 2001-March 2004	Partnership with Yayasan HAK

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/Contact*
MAPTL (Portugal)	Research on coffee production	▪ Varieties and seed selection ▪ Experiments on coffee respond on different shading rates ▪ Trials on compostation of several materials ▪ Experiments on diferent constructions techniques for nurseries ▪ Integrated pest management ▪ Trials on planting techniques	$ 41,000	Ermera Aileu Ainaro	November 2000-2003	
MAPTL (Portugal)	Replantation of coffee fields	▪ Plant distribution to communities ▪ Nurseries construction	$ 11,000	Ermera, Aileu, Same & Ainaro	Feb 2001-2003	
MAPTL (Portugal)	Integrated rehabilitation or construction of coffee processing facilities	▪ Rehabilitation of water capture, storage and allocation facilities ▪ Construction or rehabilitation of coffee processing facilities ▪ Coffee processing machinery supply ▪ Demonstration and maintenance of equipments	$ 132,000	Ermera, Aileu, Same & Liquiça	April 2000-2003	
MAPTL (Portugal)	Horticulture research and development centre	▪ Testing on the fitness on local edafo – climatic conditions of 65 varieties of fruit trees ▪ Research on suitability of food crops in the region ▪ Comparative studies of mechanised and traditional land management on horticultural practices ▪ Machinery supply	$ 75,000	Aileu	Feb 2001-2003	
MAPTL (Portugal)	Aquaculture	▪ Experiments on breeding different species ▪ Comparative studies under traditional facilities and others ▪ Fish supply to communities and evaluation of its acceptance and further development	$ 40,000	Ermera & Aileu	April 2001-2003	

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/Contact*
MAPTL (Portugal)	Capacity building	▪ Training on different techniques of nursery construction, considering coffee, fruit trees and forestry species ▪ Trainers training on aquaculture techniques	$ 50,000	Ermera , Aileu, Same & Ainaro	April 2001-2003	
FAO/ Sweden (CAP)	Co-ordination of Emergency Agriculture Interventions	▪ Co-ordination ▪ Crop Assessment ▪ Collection of data and information ▪ Evaluation of relief needs ▪ Kick start operations	$285,000		January – December 2000	Relief Operations
FAO/Japan (CAP)	Urgent rice and maize seed multiplication	▪ Extension on Seed Improvement and Seed Multiplication at farmer's level ▪ On-the-job training for national agronomist ▪ Training of farmers and rural leaders ▪ Evaluation of emergency needs and distribution	$465,000		April 2000 – February 2001	Relief Operations
FAO	Agro-Economic Study on Rice Pricing in East Timor and SE Asia	▪ Assist ETTA to formulate options for rice pricing	$53,350	*Bobonaro* Baucau Los Paolos Suai	August - September 2001	UNDP funded SPPD Project Mr Joseph Dome 0408 805 563
Germany BMZ/DW	Rehabilitation and food assistance to Oecussi and Covalima	▪ School furniture production and distribution (5.000 tables and 10.000 chairs) ▪ Improvement of irrigation schemes ▪ (aim is to improve 10 irrigation schemes) ▪ Rehabilitation and improvement of roads (5 Feeder roads (partly) improved) ▪ Supporting agricultural centres (2 physical *infrastructures rehabilitated or constructed* and provided with basic tools/instruments	1,500,000		01.07.2001-30.04.2002	German Ministry of Economic Cooperation and Development (BMZ) 80% German Agro Action 20 % Possible extension till 31.12.2002

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/Contact*
						The budget to support to agricultural centres is limited to USD$ 10.000 each
USAID (managed by NCBA)	Timor Economic Rehabilitation and Development Project (TERADP)	▪ Support and development of Coffee Co-operatives involves ▪ Co-ordination of crop extension activities ▪ Community welfare needs ▪ Finance ▪ Processing facilities ▪ Seedling nursery ▪ Demonstration plots ▪ Vanilla seedling nursery ▪ Community Primary Health Care (7 centres established, 15 planned in total) ▪ Cooperative and Small Enterprise Training Centre. ▪ Consumer Goods Wholesale Co-operative through Small enterprise village shops/kiosks	$12,000,000	Ermera Ainaro Aileu Manufahi Liquica Ermera	1994 to December 2002	Greater detail has been provided by NCBA. Mr David Boyce 0407 183 246
USAID/ OTI	Transitional Engagement for Population Support Program (TEPS II); Building Empowerment, Leadership and Engagement (BELE)	▪ Provision of agro-processing inputs (rice mills, corn mill, threshers, coffee grinding machine, hand sprayers and hand tractors)	$82,700		April 10, 2001 – December 30, 2001	The machines have been aided to 16 farmers groups Dr Nina Bowen 0419 850 275.

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/Contact*
USAID/ OTI	Transitional Engagement for Population Support Program (TEPS II); Building Empowerment, Leadership and Engagement (BELE) Agriculture : Irrigation	▪ Provision of materials and equipment for agriculture groups to rehabilitate small scale local area irrigation schemes	$87,250		April 10, 2001 – December 30, 2001	ETTA agriculture/irrigation unit has been coordinated for technical assistance. Dr Nina Bowen 0419 850 275
USAID/ OTI	Transitional Engagement for Population Support Program (TEPS II); Building Empowerment, Leadership and Engagement (BELE)	▪ Provision of materials and equipment to rehabilitate fishponds	$12,734		January 20, 2001 – December 30, 2001	ETTA agriculture/irrigation unit has been coordinated for technical assistance. Dr Nina Bowen 0419 850 275
USAID/ OTI	Civil Society	▪ Provision of materials and equipment to support general agriculture activities for local NGOs/CBOs	$192,316		August 3, 2000 – December 30, 2001	

Table R-4 Donor Activities in the Agricultural Sector of East Timor (Planned Assistance)

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contact*
TFET	Agriculture Rehabilitation Project Phase II	Expected to include: ▪ Pilot participatory development and natural resource management in 5-7 districts (particularly in upland areas) ▪ Rapid rehabilitation of irrigation schemes, access roads ▪ Sustainable vaccination and veterinary services ▪ Information to farmers (including radio) ▪ Adjustment and Expansion of Pilot Agriculture Service Centres ▪ Regulatory and policy support ▪ Capacity building ▪ Project Management	$8 million (plus $3 million supplemental)	Baucau, Manufahi, Covalima, Lautem, Liquica, Oecussi, Dili National " " " Bobonaro, Vique. Aileu and 2 others National " "	September 2001-December 2002	Administered by IDA
TFET	Small Enterprises Project II	▪ US$4 million line of credit for small enterprises (of which US$2 million earmarked for agribusiness) ▪ Market rehabilitation in 13 districts ▪ Capacity building and policy support in enterprise development	$7.5 million		July 2001-December 2002	
AusAID	East Timor Rural Development Program	**Phase 1** ▪ Project Establishment ▪ Rapid Impact Projects (RIP) in upland and lowland localities in first 12 months. RIPs to be determined but could support: ▪ Lowland rice production ▪ Upland subsistence farming ▪ Small livestock programs ▪ Chicken vaccination ▪ Support to coffee production ▪ 3 Technical Resource Services	Phase I and II: $9.5 million	Bobonaro Viqueque Aileu	Phase I: January 2001-December 2002	

Source: Joint Agricultural Donors Interim Mission to East Timor, Nov. 2001

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contact*
		Phase 2 ▪ Detailed design and implementation of longer-term Rural Development Projects			Phase II: January 2003-December 2005	
AusAID	Fisheries Management Planning	▪ build the capacity of FMES staff to develop the policy and regulation associated with the management of East Timor's marine fisheries. ▪ assist FMES staff to design and implement a series of fisheries management plans in co-operation with coastal communities.	$500,000	National	February 2002 – January 2005	Design/Appraisal Mission scheduled for late November early December 2001
ACIAR[26]	Rehabilitation of Agriculture Faculty - UET	Foster a twinning arrangement with selected Australian Universities to support: ▪ Curriculum development ▪ Staff development and training ▪ Small research projects ▪ Rehabilitation of experimental farm ▪ Redevelopment of agriculture library ▪ Post-graduate Fellowships	$550,000 (in 2001)	National	2001 - 2003	
UNDP/UN OPS/Japan	Urgent Irrigation Rehabilitation Project Phase II	▪ Rehabilitation of irrigation structures in Laclo ▪ Training of water users' association	$6,129,600	Manatuto	March – November 2002	Under consideration by the Government of Japan Ms Risa Ito Prog2.unops@east-timor.org
JICA	Study of Integrated Agriculture Development of East Timor	▪ (Pilot project phase) Implementation of some pilot agricultural projects for human resources development			March 2001–December 2002	

[26] Australian Centre for International Agricultural Research

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contact*
JICA	Agriculture Development Project in Baucau	▪ Technical assistance in rice production, vegetable production and livestock breeding in Baucau district ▪ Survey of further rural development assistance	$330,000 (Initial period)		November 2001- May 2001	
JICA	Capacity building in East Timor, Japan and ASEAN countries	▪ Technical assistance to Ministry of Agriculture and Fisheries by providing Japanese expert(s) and training in East Timor/ Japan/ ASEAN countries				To be discussed further based on the needs analysis of the Ministry of Agriculture and Fisheries
Portugal	Capacity building for Agriculture Division	▪ Ministry of Agriculture and District Directorates ▪ Associations and Co-operatives of farmers/experts	$190,000		October 2001 – December 2002	
FAO	Emergency assistance for the reduction of post-harvest losses	▪ Maize seed production ▪ Maize seed stock security ▪ Construction of metallic silos ▪ Training of blacksmiths ▪ Training on grain preservation methods.	$433,000	All districts except Dili	July 2001 – February 2002	Relief Operations (circulating for funding) Mr Joseph Dome 0408 805 563
FAO	Technical Capacity Building and Training Services for the development of the Agriculture Sector in East Timor	▪ Institutional strengthening of Agriculture Division of ETTA ▪ Establishment of a resource and information Centre ▪ Technical training for human resource development in various agricultural sectors for Timorese counterparts etc. ▪ Pilot demonstration in selected locations	$930,000			Funding to be explored. Mr Lingfeng Xu 0408 875 386

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contact*
Thailand	Agricultural Officer Training Program conducted in Thailand	Training in • basic operation of agricultural equipment and tools, • inland and coastal fishery, • crop production and management (particularly rice, corn and coffee) • animal husbandry.	?		?	
UNDP/ UNOPS	Ainaro and Manatutu Community Activation Program	• food security improvement • strengthen linkages to agricultural services • Integrated watershed management	$5,081,700	Ainaro Manatuto	December 2001 - 2005	Project document to be signed Ms Ayako Odashima Prog3.unops@east-timor.org
MAPTL (Portugal)	Reforestation projects	▪ Nurseries for coffee shade trees, firewood, timberwood (sandal , teak and others) and species for erosion control • Strategic distribution to communities		Ermera, Aileu and Liquiça	Jan 2002-2003	
MAPTL (Portugal)	Coffee	• Definition of suitable areas for coffee production		All districts	Jun 2002-	
MAPTL (Portugal)	Trails on alternative cash crops	▪ Trails on vanille, cashew nuts, spices and others		Ermera, Aileu	Jan 2002-2003	

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contact*
MAPTL (Portugal)	Capacity building	▪ Continuation of the training on diferent techniques of nursery construction, considering coffee, fruit trees and forestry species ▪ Training on coffee management ▪ Training on vegetative propagation of selected coffee plants ▪ Adaptation to ET conditions, in different locations, of techniques towards sandal wood production ▪ Training in all phases of post harvesting processing technologies towards quality improvement of several crops ▪ Continuation on trainers training on aquaculture techniques and also further utilisation on rice fields		Actvities to be implemented on the disctricts of Ermera, Aileu, Same, Liquiça & Ainaro	Dec 2001 2003	
MAPTL (Portugal)	Interaction with other institutions	▪ **CIFC** (Research Centre for Hemileia sp.): Studies on the possible existence of new strains of *Hemileia vastatrix*; Capacity building in CIFC (Portugal) for timorese technicians from MAF and others ▪ **ISA** (Instituto Superior de Agronomia): *Studies for strategies for an integrated approach of agricultural activities on the Basin basis* Definition of coffee processing facilities to be rehabilitated, aiming beneficiarian associations promotion Study on efluents treatment of coffee processing facilities			Jan 2002-2003	

Donor	*Project Name*	*Project Activities*	*Estimated Amount (US$)*	*Location*	*Implementation Period*	*Comments/ Contact*
		▪ **UTAD** (Universidade de Trás os Montes e Alto Douro): *Surveys on suitability for sandal tree production on ET territory* ▪ **INMG/UTAD** (Instituto Nacional de Meteorologia e Geofisica): *Phase I Rehabilitation project for the meteorological net in ET* Phase II Project implementation and capacity building of timorese technicians in INMG (Portugal) ▪ **UA** (Universidade de Aveiro): *Herbarium of the ETcultivated and medicinal plants* ▪ **UE** (Universidade de Evora): Phase I Studies on human nutrition improvement in ET Phase II Implementation of Phase I Study on sustainable pilot scheme and its extention considering agricultural land planning ▪ **IHERA** (Instituto de Hidraulica Engenharia Rural e Ambiente): Phase I Study on water resources concerning Loe Basin Phase II Infrastructures rehabilitation study in an irrigation area in Loe basin ▪ **Porbatt** (Portuguese Batalion): *Rehabilitation of heavy rural infrastructure* ▪ **ACIAR**: • Trails on corn production				

Table R-5 Activities of International NGOs

Name of NGOs	Activities	Notes
Action Contre La Faim (ACF) (France)	Coffee Processing Equipment in ERMERA Distribution of Vegetable Seeds and Farming Tools in Ainaro, Manufahi, Baucau, Manatuto Irrigation in Baucau and Manatuto	
ADRA, Japan	Market Construction in Dili (Comolo, Becola) Study on Marketing in East Timor Demand and Market Analysis in 5 Districts in/around Dili	
CARE	Distribution of Vege Seeds in Lautem, Manatuto, Covalima, Dili (AusAID and DFID) Distribution of Rodenticide in Lautem and Manatuto and Seed Multiplication (Development Partner Program of JICA) Integrated Pesticide Management and Integrated Cropping Management in Lautem and Manatuto Distribution of fertilizer in Lautem, Manatuto, Covalima and Dili Six Hand Tractors in Lautem and Manatuto Livelihood Security and Nutritional Improvement (Covalima, Manatuto, Lautem) (USAID) Community Empowerment for Improvement of Agricultural Production (Manatuto and Lautem) (JICA) Food Improvement Project (Covalima, Manatuto, Lautem) (Japanese MOFA) Capacity Building for Community Self-Management in Ainaro, Aileu (CIDA) Others	Oct., 1999 Sept., 1998 Fe., 2000 May, 2000 Jan. 1995～ Jun. 2000
CRS	Distribution Seeds and Farming Tools in Ainaro Capacity Building of 15 local NGOs in Lautem, Baucau, Viqueque and Manatuto	
CESVI	Distribution of Vegetable Seeds and Farming Tools in Dili	
OICOS	Distribution of Vegetable Seeds and Farming tools in Dili, Aileu, Manufahi	
Oxfam	Distribution of Vegetable Seeds in Dili Community Water Supply	
Peace Winds, Japan (From Sept. 1999)	Coffee Processing Equipment in Liquica (UNHCR) Fishing Tools in Liquica (523 Fishermen) (Aus. AID)	July, 2000 May, 2000

Name of NGOs	Activities	Notes
	Shelter Construction (4,500 house) in Liquica (3,950) and Ermera (550) (UNHCR) Rehabilitation of 3 Markets in Liquica (UNHCR) Construction of Community Center (USAID) Engines and Fishing Tools for Fishermen's Group in Atauro Island (Plan) Rehabilitation of Coffee Project (Plan) Others	Nov., 1999 July, 2000 May, 2000
Save the Children Federation	Small Fishing Boat in Liquica	
Timor Aid	Distribution of Vegetable Seeds and Farming Tools in Dili Execution of Small Asset Support Project (AusAID)	
World Vision Japan (1995～)	Distribution of Vegetable Seeds with Tools in Bobonaro (3.8ton), Emera (12.2t), Liquica (2.1t), Aileu (0.65t) and Dili (0.65t) (FAO) Foods Production Support in Bobonaro, Ermera, and Aileu (FAO/WFP) Heath and Medical Supports in Bobonaro and Aileu (WHO) Shelter: Blanket (6,000families), Community Houses, House Construction Materials (3,700Familes) Baseline Survey for Health Water Agriculture in Bobonaro, Ermera, Liquica and Aileu Others	
Peace Boat (Sept., 2000～)	Playground Equipment to School Incinerator to Clinic in Ermera	Sept, 2000
SHARE	Primary Health Care in Ermera (25,000People) (Japan Grant ?) (World Bank ?)	Sept. 2000

ANNEX S. ISSUES TO BE COORDINATED AMONG THE DONORS AND EAST TIMOR GOVERNMENT

CONTENTS

S-1. Issues to be coordinated among the Donors and East Timor Government

Main issues to be coordinated among different donors and ET government for efficient and effective agricultural development are provisionally indicated as follows.

1) Development strategy about the issues as mentioned in the following four items are necessary to be agreed.

   - Basic development strategy, Master Plan and decision of priority order in agriculture sector development standing on the spirit of self-help efforts and meeting the needs of rural majority and the rural people's absorptive capacity. This strategy must be in conformity with National Development Plan.
   - Selection of "Efficiency or Equality" in economic policy.
   - Selection of open market policy, closed market policy or middle of them in some extent.
   - Convergent development or equally balanced development in nationwide and in sector wide to avoid expanding the income discrepancy and social inequality.

In the transitional period(2000～2002) , many donors including NGOs have rushed and concentrated into same highlighted area and same type of materials and equipment without agreed development strategy and master plan or without system to reflect for evolving requests of the poor.

Development Plan should consider about coordination and combination between in area-wide and components of the project, concentration of the projects into big city / convergent development or equally balanced growth in nationwide. This is for the purpose of minimizing the increasing discrepancy of income. This is based on the view that exhaustion in rural area will induce the turning urban areas into a slam. The development of regional core town is effective to absorb the labor power in rural area.

2) Small CFET budget allocation to agricultural sector under national budget constraints and current development priority order is one of the most serious constraints in the implementation of the agricultural project.

   - Budget for maintenance and operation (M&O) of rural infrastructure projects (roads, irrigation systems, sanitation, etc.) and farm machines must be ensured to prepare even in the limited national government budget.
   - While donor's project aid will help, it typically does not pay for the recurrent costs such as operation and maintenance nor a DAA's operating costs. This implies a very minimal DAA activity.

Agriculture is a key sector for East Timor and accounted for about 34% of GDP in1997. About 80% of the populations live in rural area. Agricultural sector is the engine of growth for the economy of East Timor. However, budget allocation of CFET to Agricultural Sector is very small so far (about 1.1% for F/Y 00/01, and 1.8% for F/Y 01/02) in spite of the importance of this sector. Current CFET budget allocation to agriculture sector under emergency recovery

period is too small to increase foods security and to increase per capita income to double or to triple in real GDP.

3) It must be discussed about (a) Subsidy valid for a specified period of time up to realize self-sufficient rice production, within the limited subsidy in some range of no overprotection, and (b) the range of social net to be prepared for the defeated people in the free competitive market.

- In Indonesian rule period, farmers in East Timor have operated in a culture where the government regulated agriculture, formed so-called "cooperatives" and provided free or subsidized inputs.
- UNTAET/ETTA government policy is focusing the transition from a heavily subsidized sector to one with limited government funding. Small government policy in transitional government requests the peoples to have responsibility to secure the farmer's cost recovery efforts by individual risk through changing farmer's mentality to one of "self-help efforts spirit" or "reward based on effort".

Recent agricultural growth rate, according to some information, was about 4% annually. This was the result helped by many subsidies from transitional government through foreign assistance in the period of emergency recovery period.

Subsidies accrued from international donation is uncertain in continuity after transitional period. Future growth without donation from international society may possible be repressed, if there is no active efforts to get capital by the cost recovery efforts of subsistence farmers, and efforts on their farming expertise. In case that the rice producing farmers are defeated by cheap imported rice, what source of fund can provide the social nets to the farmers? Subsidies to some extent for standing on farmer's own legs and up to the time realizing self-sufficient rice production are necessary on considering current situation of agricultural sector within the financial frame.

4) Human resources and institutional capacity development of DAA, DAO and NGOs should be strengthened.

The implementing agencies, DAA and Local Administrations may, at present, not have the proper technical, financial, staffing and management capability to implement the project, more specifically to operate and maintain system for the project sustainability. Problems and constraints that may occur with inexperienced implementing agencies' are as follows:

- Coordination mechanism for sector development strategic framework, prioritization, project implementation, monitoring and evaluation
- Ownership status of projects implemented, capacity needed to implement
- Limited resources (budget and staffing) and lack of experience with execution as implementing agencies···limited financial resource is one of the most serious constraints of the DAA in the implementation of the projects.
- Establishing a system to enhance data collection and reporting of outputs and outcomes

of agency programs and activities,

- Procurement and disbursement arrangements from the donor to the recipient and to the other sub-implementing agencies;
- Responsibility and cost sharing···roles and responsibilities must be identified among each administrative agencies.
- Counterpart funding arrangement and delivery mechanisms
- Relation between modern administration system and traditional practice/custom of local people in some district(such as Viqueque, Suai, Ailcu,, Bobonaro Oequsse, etc,) connected to the former kingdoms ("Keliurajan")(liurai=king) and "traditional adat ruler", Aldeia(hamlet) chiefs or reino(commoners) . Only the projects supported by traditional rule are seemed to be the long-term income generation projects.

5) Leadership and partnership in development among National and Local Government, NGOs , Churches and University in each function and capability.

If NGOs execute the important role in development under small government policy, what is it's financial source? How NGOs secure the continuity of activity and combination with NGO and community.

Current institutional scheme, which has no modernized systems, are very weak and need the assistance of foreign donors and NGOs or Church. DAA are, in collaboration with foreign assistance, expected to provide technical, financial and academic support for the institutional development. The establishment of a strong coordinating agency working together with various implementing agencies will be required to overcome problems in traditional/ancient rules. But if it is difficult, establishment of good partnership with International and local NGO Groups, as "Development Partner" with government sector for agriculture/rural development is essential to the successful founding of newly independent "Timorese Timor State".

Many LGUs are still very weak and need the assistance of NGAs/NGOs/Church. The NGAs/NGOs/Church are expected to provide technical, financial and academic support The participation of NGOs, Church and Universitas Timor Lorosae will be requested for the development of rural area and agriculture sector. In East Timor, there are hundreds of NGOs, POs operating in variety of activities, particularly on community development, rural development programs, social development of depressed communities, etc. Combination with NGO, University and Community are important for institutional development in small government policy. In this aspect, local NGOs contribution must be institutionalized in development process. Development speed may be slow, but this type of bottom-up decision-making process and community participation process must, patiently, accept in present situation in East Timor.

6) Efficient and effective combination between technology transfer, institutional development and physical project construction. Expansion and enforcement of training on agricultural technology and extension service

The average yield of paddy per hectare is low (about 2.0 ton/ha or less). The low yield is

attributed to insufficient irrigation system, low quality seeds, pests or diseases as well as to primitive cultivation method. In East Timor, animal plow over a paddy field (animal drawn cultivation methods) is, presently, not introduced into cultivation with farmers. In the past two years of emergency recovery period, many donors contributed variety of farming machines and tools for agricultural production increase. But all of those are in the situation of "sleeping" in the stockyards without use due to no O&M budget and insufficient technology transfer to the farmers.

Training on agricultural technology to and extension services for farmers are indispensable to increase productivity in addition to irrigation facilities. Prior to construction of physical project, farmers farming expertise must be developed. After turbulence, number of extension workers was sharply decreased, nothing now in East Timor. Hence, the number of staff of DAA and DAO is very limited to implement these functions, in this fields also, NGOs and Church's contribution are expected.

7) Improvement of marketing/distributing system and post harvest processing of staple foods

As prerequisite condition to realize sufficient food security, it is most urgent issue to develop the marketing and distribution system which is reflected into high transportation cost and high milling cost of staple foods from producing (rice surpluses) districts to consuming (rice shortage) districts.

Main staple foods producing Districts (rice surplus districts) are Bobonaro, Viqueque, Covalima, and Aileu where there is located in the south coastal districts having adequate irrigation facilities. Main consuming districts (shortage districts) are Dili, Ermera, Liquica and Ainaro.

This marketing distortion between rice surpluses districts and rice shortage districts surely come from the reason of lack of distribution systems, transportation facilities and lack of milling facilities. Weak price competitive power of domestic rice against imported rice is probably affected by these reasons.

If it is failed to establish the efficient marketing system between these district, foods shortage problem and low farmer's income is not easy to settle, even though attained the increase of productivity.

8) Preparation of Action Plan to prepare the development system, law and regulation for agricultural sector development

While the implementation process in the sector or regions/districts focus on the development plan, institutions involved and participants concerned also embark on the formulation of their respective sectoral and regional targets. This is not only speaks of their commitment to make the national targets an operational reality, but more importantly, in ensuring that sustainable development takes root in their respective localities with definite legal and institutional background. For this purpose, action plan should be drawn out as a first step in translating further the national targets into institutionalized and localized targets for each sub-

sector and districts, sub-districts and villages. These are by no means a complete and comprehensive for each region. It is, however, a first attempt towards localizing this development plan and can serve as a basis in firming up a more thorough and comprehensive participatory development in the near future.

9) Minimization of duplication of the similar type of project construction in the same place and the establishment of a close combination or a clear demarcation to attain efficient development between different donors' on-going, committed and/or planning stages projects in earlier opportunity.

S-2. Proposed Action Plan by Sub-sector / by Region (As a part of donor's coordination)

Action Plans, which will be in shape, are embodied in this Annex S. While the development potentials and constrains and implementation process in the sector or regions focus on this Agricultural Development Plan, institutions involved and participants concerned also embark on the formulation of their respective sectoral and regional targets. This not only speaks of their commitment to make the national targets an operational reality, but more importantly, in ensuring that sustainable development takes root in their respective localities and ownerships based on the corroboration.

The sub-sector basis development issues contain in the matrix bellow that will follow articulates the emerging issues and concerns in the various region and can serve as a first step in translating further the national targets into local targets for each districts, sub-districts and villages. Beside of those targets, many legal/institutional frameworks must be provided on the primary stage of the implementation. These are by no means a complete and comprehensive for each region. It is, however, a first attempt towards localizing Agricultural Development Plan and can serve as a basis in firming up a more thorough and comprehensive participatory development in the near future. These action plans are indispensable for establishment of sustainability of agriculture sector. Following matrix are shown as a central and regional authorities' targets to realize in the plan period.

1) Sustainable Development

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
1. Macro-Economics	1.1 Growth⇒Revenue Up⇒More Budget Allocation to Agriculture / Rural Sector development based on nation's priority orders.	2,003~07	Planning Commission / DAA
	1.2 Food Import⇒Damage to rice producing farmers/ Foreign Exchange loss⇔Higher Foods Self-sufficiency⇒restraint on rice import ⇒ Save Foreign Exchange ⇒ Diversification of Economic Activities by effective use of limited foreign exchange	2,003~07	Planning Commission / DAA
	1.3 Attain the sustainable agriculture (⇔ Win against and free from vicious circle)	2,003~07	DAA
2. Foods Security	2.1 Domestic produced and imported food crops, livestock and fish products to meet the food requirements of the populace. Restraint rice import under shortage of foreign exchange	2,003~07	DAA/ Planning Comm.

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
	2.2 Give priority to domestic production of staple foods i.e. rice, corn, vegetables for domestic consumption	2,003~07	DAA/ Planning Comm.
3. Foods Self-sufficiency	3.1 Improve Domestic producing potentiality for the future populace.	2,003~07	DAA
	3.2 Promote the adoption of integrated financing approach covering all aspects of agricultural sectors operations.	2,003~07	
	3.3 Advocate for increased budget for sustainable agriculture.	2,003~07	DAA/ Planning Comm.
	3.4 Rationalize and strengthen farmer's organizations to facilitate the integration of the agricultural sector into the mainstream economy	2,003~05	
	3.5 Establish an information support system that will provide integrated and consolidated weather, soils, agricultural technology and market information	2,003~05	DAA/ Offices concerned
4. Relief for Poor Families and Poor Villages	4.1 Social nets If no subsidy prepared for farmers, social nets should be provided to the weaks. Criteria for judgment to apply of social nets	2,003~04	DAA
	4.2 District Administration Office (DAO) should grasp the wreaks situation.	2003~04	DAA/ Planning Comm.
5. Economic Incentives for the social activities	5.1 Give investment priority to trader, NGOs and peoples organization	2003~07	
	5.2 Strengthen and establish cooperatives by strengthening government support and neutralizing competition	2003~07	Planning Comm.
	5.3 Give investment priority	2003~07	Planning Comm.
	5.4 Provide accessible funding facility	2003~07	
6. Major Targets / Stakeholders	6.1 Farmers, rural peoples and landless rural workers should be focused as targets.	2,003~04	Planning Comm.
	6.2 Indirect targets are urban poor, disadvantaged groups, ethnic minority and indigenous peoples		Planning Comm.

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
7. Private Initiative	7.1 Transportation Private sector will promote the efficient transportation of agricultural products and goods. Farm-to-markets roads should be constructed by government. Focus not on the formulation of policies but on identification of specific infrastructure projects to support the growth of the transport industry / marketing system.	2,003～07	DAA/ Planning Comm
	7.2 Trading Delivery and transaction by private traders will be executed instead of DOLOG of Indonesian time. Provision of incentive on investment is important.	2,003～05	DAA/ Planning Comm
	7.3 Marketing Marketing facilities should be constructed by local government responsibility. Official institution should supply market information, so that farmers' income becomes stable.	2003～05	DAA/ Planning Comm.
	7.4 Processing/Agro-Industry ・ Investment incentives ・ Tax exemption ・ Micro-finance scheme	2,003～07	DAA/ Planning Comm.
	7.5 Coffee Sector ・ Production increase will be promoted by private basis. Coffee cooperatives will prepare support to individual farmers. ・ Processing/Quality improvement to realize export quality by foreign expert T/A	2003～05	DAA/ Planning Comm.

2) Crop Production and Irrigation

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
1. Absence of national Agricultural Land Use Policy	1.1 Formulate and strictly implement a national land use plan/policy for each district, such that it will regulate conversion as well as expansion of agricultural lands.	2,003~07	DAA/ Planning Comm
	1.2 Formalize tenure rights over agricultural lands being tilled by farmers	2,003~07	DAA/ Planning Comm
	1.3 Encourage the participation of communities in the formulation of the National Land Use Code and publish for broad/wide review	2003~05	DAA/ Planning Comm
2. Loss of Agricultural lands	2.1 To improve and rehabilitate irrigation systems and communal irrigation facilities like small water impounding projects.	2,003~07	DAA
3. Impact of Agriculture on Marginal Lands	3.1 Promote cultivation of high value crops to increase income and productivity of farmers	2,003~07	DAA
	3.2 Develop and implement sustainable agroforestry systems	2,003~	DAA
4. Idle Agricultural Land	4.1 Improve irrigation system	2,003~07	DAA
	4.2 Review on idle agricultural land and make new policy to use effectively	2,003~05	DAA/ Planning Comm
	4.3 Training of land cultivation by using machines and draft animal power	2,002~05	DAA
5. Food Security/ Production	5.1 Provide support to farmers in terms of better production technologies, marketing and financial assistance.	2,003~05	DAA
	5.2 Give priority to farmer's funds and agricultural markets.	2,003~07	DAA
	5.3 nterventions to ensure food security and agricultural development through construction of irrigation system and farm-to-markets roads.	2,003~07	DAA/ Planning Comm
	5.4 Broaden seed production/certification activities to include cash crops	2,003~07	DAA/ Planning Comm
	5.5 Produce food crops, livestock and fish products on a sustainable basis to meet the food requirement of the populace.	2,003~07	DAA/ Planning Comm

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
	5.6 Produce quality seeds and planting materials; and expand and maintain existing nurseries and research stations.	2,003～07	DAA/ Planning Comm
	5.7 Organize and strengthen agricultural cooperatives and promote marketing tie-ups between government and non-government organizations.	2,003～07	DAA/ Planning Comm
	5.8 Increase budget for sustainable agriculture to establish, upgrade and rehabilitate agricultural facilities i.e. irrigation, post harvest facilities.	2,003～07	DAA/ Planning Comm
	5.9 Protect small farms and farmers/workers by some social nets.	2,003～07	DAA/ Planning Comm
	5.10 Prepare the "Irrigation and Agricultural Productivity Enhancement Act"	2,003～07	DAA/ Planning Comm
	5.11 Provide incentives to farmers practicing sustainable agriculture.	2,003～07	DAA
	5.12 Give priority to production of staple crops i.e. rice, maize vegetables and fruits for domestic consumption		DAA
6. Inadequate Pre/Post Harvest Facilities and Infrastructures	6.1 Farming Machines are not effectively used. Many of the machines are sleeping at stockyards.	2,003～07	DAA/ Planning Comm
	6.2 Training, operation and maintenance methods are necessary.	2003～05	DAA/ Planning Comm
	6.3 Undependable rural farm-to-market roads to link key production areas	2,003～07	DAA
7. Slow and Inefficient Delivery of Extension Services	7.1 Coordination with District on the supervision of agricultural projects		DAA
	7.2 Provide training to extension workers	2,003～07	DAA/ Planning Comm
	7.3 Mobilize agricultural schools for research studies.	2,003～07	
8. Organization Development	8.1 Organize and strengthen agricultural cooperatives and promote marketing tie-ups between government and NGOs	2004～07	DAA/NGO
	8.2 Conduct capability-buildiong on participatory recources management notably on alternative marketing, organic farming and sustainable agriculture.		DAA/ Planning Comm

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
	8.3 Establishment of Irrigators Association and Collection of Water Charge	2002~03	DAA
9. Diversification and cash crop	9.1 Following to increase of self sufficiency of staple foods, diversification and introduction of cash crops should be promoted.		DAA
	9.2 Promote cultivation of high value crop to increase income and productivity of farmers	2003~05	DAA
	9.2 NGOs and extension workers efforts	2003~05	DAA/ Planning Comm
	9.3 Modernization of marketing system	2003~05	DAA/ Planning Comm
10. Poor livng conditions in rural areas	10.1 Formulate specific strategies/action agenda and targets related thereto	2003~04	DAA
	10.2 Protect poor farms and farmers / workers by government ffforts	2003~07	DAA
11. Data Collection & Statistics	11.1 Development of agricultural statistic data collection system	2003~05	DAA
	11.2 Drawing up the manual and system to use data efficiently for agricultural policy making	2003~06	DAA
12. Rural *Infrastructure*	12.1 Survey & Formulation of rural *infrastructure projects*	2003~05	DAA
	12.2 Budget allocation for O&M	2003~05	DAA/DAO

3) Forestry

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
1. Effective Use of forest Resource / Products	1.1 Enhance forest resource conservation	2,003~07	DAA/NGO
	1.2 Conduct to intensify forest rehabilitation	2004~07	DAA
2. Lack of Law	2.1 Impose total log ban and prohibition of useless burning the mountain and hill	2,003~07	DAA/DAO
	2.2 Impose illegal fuel woods ban	2005~	DAA/DAO
	2.3 *Provide buffer zones for virgin forests*	*2003~*	DAA
3. Sustain Ing of Succe ssful Initiatives in Watersheds and Forest Land/Uplands	3.1 Perform advocacy work of watershed protection on successful initiatives to other sites	2,003~07	DAA/DAO
	3.2 Mobilize support for forest reserve plans	2,003~07	DAA/NGO
4. Inadequ ate Financial and Technical Support to Integrate Upland Development	4.1 Formulate and generate financing for an Integrated Upland Development Program	2003~07	DAA/Planni ng Comm.
	4.2 Institutionalize multi-sectoral forest protection commitees	2,003~007	DAA/NGO
	4.3 Establish a comprehensive system of protected natural forests	2003~07	DAA/DAO/ NGO
5. Denudation of Forests	5.1 Rehabilitate and manage critical upland areas adopting the community-based approach in rehabilitating and managing critical upland areas. It has to be linked with ecosystem protection programs and policy reforms and institutional strengthening initiatives dealing with the socio-economic roots of ecosystem degradation	2,003~07	DAA/NGO
	5.2 Adopt a concerted action for the reforestation of denuded watershed areas and control of pollution		
6. IEC	6.1 Intensify IEC on ecological significance of trees and forests	2,003~07	DAA/NGO
	6.2 Impose total log ban in heavily denuded and environmentally critical areas	2,003~07	DAA

4) Fisheries

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
1. Marine and Coastal Fishery Promotion	1.1 Conduct an intensive review and strictly enforce / implement current fisheries laws and advocate for the enactment of the fisheries bill.	2003~07	DAA
	1.2 Procurement of fishing gear and fishing boats	2003~07	DAA
	1.3 Provide support services like financing for fisher folk	2003~07	DAA
	1.4 Encourage the formation of fishery and aquatic resources management	2003~07	DAA
2. Inland Fishery & . Aquaculture	2.1 Identify inland fishery potentials	2003~07	DAA
	2.2 Establish rehabilitate fish nurseries/hatcheries farm	2003~07	DAA
3. Marketing	3.1 Marketing System / Transportation Facility/Storage Facility must be studied	2003~05	DAA
4. Port	4.1 Necessary Fishery Port and Facilities must be surveyed	2003~05	DAA

5) Livestock

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
1. Lack of Animal Stocks	1.1 Prepare forecasts on animal stocks and brood stocks	2,003～07	DAA/DAO
	1.2 Upgrade animal stocks and breeds	2,003～07	DAA
	1.3 Implement cattle raising	2,003～07	DAA
	1.4 Establish breeding farms for cattle, buffalo, goat	2,003～07	DAA
2. Extension Workers	2.1 Provide training to extension workers	2,003～05	DAA/DAO
3. Incentives	3.1 Provide incentives to farmers practicing sustainable livestock	2,003～04	DAA
	3.2 Provide support services like micro-financing for farmers	2,003～05	DAA
4. Poverty Abbreviation of Smallholders	4.1 Deliver the animal population of farmers to take nutriment and to increase cash income	2,003～07	DAA/DAO
5. Draft Animal Power	5.1 Training for field cultivation by using draft animal power	2,003～05	DAA/DAO

6) Environmental Preservation

Issues/Concerns	Strategy/Action Targets	Time Table	Institutions & District Involved
1. Ecosystem	1.1 Sustaining of successful initiatives in watersheds and forest land/uplands	2,003～07	DAA
	1.2 Mobilize support for forest reserve plans	2,003～07	DAA
	1.3 Promote environmental education	2,003～	DAA/
	1.4 Control land based sources of pollution	2,003～	
	1.5 Set national standards on pesticides and fertilizer	2,003～	
	1.6 Promote organic and bio-dynamic farming technologies and practice	2,003～07	DAA
	1.7 Minimize use of commercial inorganic fertilizers and pesticides and intensify education campaign on organic farming.	2,003～07	DAA
2. Flora and Fauna	2.1 Conduct an inventory of ET flora and fauna.	2,005～	
	2.2 Protect contamination of Lake	2,005～	
3. Watershed Management	3.1 Urgent preparation of the main watershed protection manual	2002～04	DAA