

APPENDICES

Table 1A The area of crops in Nam Dong district during 1998-2003

No.	Crop types	Crops	Year					
			1998	1999	2000	2001	2002	2003
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1	Food crops	Paddy rice*	224.0	238.0	293.0	342.3	354.9	355.9
		Paddy rice**	215.2	243.7	292.4	341.0	354.3	343.5
		Seasonal rice***	167.0	174.0	118.6	140.4	117.0	54.0
		3 months rice***	76	131.0	75.5	75.0	56.5	33.2
		Maize	156.6	125	161.3	182.8	180	142
2	Tuber crops	Cassava	446.2	602	391	422.1	415	451.5
		Sweet potato	151	132.5	105.5	117.3	111	125.0
		Other potato	30.1	26.7	49.7	51.1	58.7	51.3
3	Food-stuff crops	Beans	230.7	223.5	188	150.5	102.5	96.5
		Vegetable	43.3	33.8	41.2	47.8	56	73.1
		Capsicum	12.3	9.9	20.4	13.6	18.7	20.3
4	Temporary industrial crops	Peanut	87.2	90.2	82.7	76.8	68.7	34.6
		Sugar-cane	16.7	15.5	18.9	21.7	40.1	48.1
		Tobacco	2.1	1.5	0	0	1.8	-
		Sesame	8	3	2.9	5.3	0.2	0.7
5	Perennial industrial crops (Harvest area)	Tea	71	71.5	78	78	75	57
		Rubber	80	250				368
		Coffee	9	10	12	15	15	15
		Pepper	10	14	17.5	19	22	22.5
		Coconut	3	2	3	5	5.2	4.5
		Areca	9	10.5	18.8	21	23	25
		Orange & Citrus	65	73	89	82	84	86
6	Fruit trees	Pineapple	19	20	33	52	80	95
		Banana	129	125	158.9	144	165	170
		Jackfruit	25	25	25	22	20	18
		Other	10	9.9	35.6	35.8	37.3	41.3

Source: Nam Dong Statistical Office, 2004

Note: * Paddy rice is grown in winter-spring season; ** Paddy rice is grown in summer-autumn season; *** Upland rice

Table 2A Growth rate of crops area in Nam Dong district during 1998-2003

No.	Crop types	Crops	Year					
			1998	1999	2000	2001	2002	2003
			-----%					
1	Food crops	Paddy rice*	109.6	106.2	123.1	116.8	103.7	100.3
		Paddy rice**	105.7	113.2	120.0	116.6	103.9	97
		Seasonal rice***	82.3	104.2	68.2	118.4	83.3	46.2
		3 months rice***	73.8	172.4	57.6	99.3	75.3	58.8
		Maize	92.2	79.9	129	113.3	98.5	78.9
2	Tuber crops	Cassava	111.4	134.9	65	107.9	98.3	108.8
		Sweet potato	98.2	87.8	79.6	111.2	94.6	112.6
		Other potato	85.3	88.7	186.1	102.8	114.9	87.4
3	Food-stuff crops	Beans	80.8	96.9	84.1	80	68.1	94.1
		Vegetable	126.4	78.1	121.9	116	117.2	130.5
		Capsicum	82	80.5	206	66.7	137.5	108.6
4	Temporary industrial crops	Peanut	174.4	103.4	91.7	92.9	89.5	50.4
		Sugar-cane	89.8	92.8	121.9	114.8	184.8	120.4
		Tobacco	105	71.4	0	0	0	-
		Sesame	266.7	37.5	96.7	182.7	3.8	350
5	Perennial industrial crops (Harvest area)	Tea	84.5	100.7	109.1	100	96.2	76.0
		Rubber				100	312.5	147.2
		Coffee	225	112.2	120	125	100	100
		Pepper	100	140	125	108.6	115.8	102.3
		Coconut	50	66.7	150	166.7	104	86.5
		Areca	100	116.7	179	111.7	109.5	108.7
6	Fruit trees	Orange & Citrus	104.8	112.3	121.9	92.1	102.4	102.4
		Pineapple	111.8	105.3	165	157.6	153.8	118.8
		Banana	101.6	96.9	127.1	90.6	144.6	103.0
		Jackfruit	100	100	100	88	90.9	90
		Other	105.3	99	359.6	100.6	104.2	110.7

Source: Nam Dong Statistical Office, 2004

Note: * Paddy rice is grown in winter-spring season; ** Paddy rice is grown in summer-autumn season; *** Upland rice

Table 3A The yield of crops in Nam Dong district during 1998-2003

No.	Crop types	Crops	Year					
			1998	1999	2000	2001	2002	2003
			-----quil./ha-----					
1	Food crops	Paddy rice*	38.9	40.5	42.2	36	43.8	48.6
		Paddy rice**	32.7	35.8	31.8	33.3	32.8	38.1
		Seasonal rice***	10	8.7	10	8.1	8	8
		3 months rice***	4.3	9.6	10	6	7	7.3
		Maize	18	18.5	21.8	23.2	24.5	24.5
2	Tuber crops	Cassava	81	86.6	78.7	79.7	81	87
		Sweet potato	48.3	46.3	50.8	49.7	49.2	49.2
		Other potato	55.6	51.6	52.8	53.2	51.8	51.7
3	Food-stuff crops	Beans	4.7	5.7	4.7	5.3	4.6	4.8
		Vegetable	61.2	58.6	72.6	82.4	47.4	65
		Capsicum	3.3	6.1	6.1	6.5	6.2	6.5
4	Temporary industrial crops	Peanut	12	13.7	12.4	13.2	12.7	12.6
		Sugar-cane	297.6	265.1	276	279.8	280	280
		Tobacco	4.6	5	0	0	6	-
		Sesame	3	3	3.5	3.1	3	3
5	Perennial industrial crops (Harvest area)	Tea	35	38	38	38	38	38
		Rubber				13	15.6	25.8
		Coffee	4	5	5	5	5	5
		Pepper	7.5	8.5	8	8	8	8
		Coconut	35.5	35	60	60	60	6
		Areca	30	40	88	88	88	16
		Orange & Citrus	60	100	80	80	80	80
6	Fruit trees	Pineapple	80	100	140	140	140	140
		Banana	100	150	150	150	150	210
		Jackfruit	100	100	160	160	160	160
		Other	23	24.5	51	49.3	50.2	49

Source: Nam Dong Statistical Office, 2004

Note: * Paddy rice is grown in winter-spring season; ** Paddy rice is grown in summer-autumn season; *** Upland rice

Table 4A Growth rate of crop yield in Nam Dong district during 1998-2003

No.	Crop types	Crops	Year					
			1998	1999	2000	2001	2002	2003
			-----%					
1	Food crops	Paddy rice*	102.1	104	104.2	85.3	121.7	111.0
		Paddy rice**	113.6	109.4	88.8	104.7	98.5	116.2
		Seasonal rice***	133.3	87	114.9	81	98.8	100.0
		3 months rice***	91.5	223.2	104.2	60	116.7	104.3
		Maize	100	102.8	117.8	106.4	105.6	100
2	Tuber crops	Cassava	100	106.9	90.9	101.3	101.6	107.4
		Sweet potato	87.8	95.9	109.7	97.8	99	100.0
		Other potato	101.7	92.8	102.3	100.8	97.4	99.8
3	Food-stuff crops	Beans	92.1	121.3	82.4	112.8	86.8	104.3
		Vegetable	104.8	114.5	123.9	113.5	57.5	137.1
		Capsicum	53.2	184.8	100	106.6	95.4	104.8
4	Temporary industrial crops	Peanut	103.5	114.2	90.5	106.5	96.2	99.2
		Sugar-cane	99.9	89.1	104.1	101.4	100	100
		Tobacco	88.5	108.7	-	-	-	-
		Sesame	100	100	116.7	88.6	96.8	100
5	Perennial industrial crops (Harvest area)	Tea	100	108.6	100	100	100	100
		Rubber				100	120	165.4
		Coffee	80	125	100	100	100	100
		Pepper	81.5	133.3	94.1	100	100	100
		Coconut	100	98.6	171.4	100	100	100
		Areca	75	133.3	220	100	100	181.8
6	Fruit trees	Orange & Citrus	75	166.7	80	100	100	100
		Pineapple	100	125	140	100	100	100
		Banana	71.4	150	100	100	100	140
		Jackfruit	100	100	150	100	100	100
		Other	54.8	106.5	208.1	96.7	101.8	99.6

Source: Nam Dong Statistical Office, 2004

Note: * Paddy rice is grown in winter-spring season; ** Paddy rice is grown in summer-autumn season; *** Upland rice

Table 5A The yield of crops in three communes during 2000-2003

No.	Crop types	Crops	Crop yield								
			Huong Loc			Huong Phu			Thuong Quang		
			2001	2002	2003	2001	2002	2003	2001	2002	2003
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1	Food crops	Paddy rice*	45.3	44.6	49.5	45.9	53.3	54.7	42.4	45.2	48.5
		Paddy rice**	27.9	29.4	39.5	39	33.8	40.6	30.3	35.7	42.1
		Seasonal rice***	-	-	-	12.0	9	-	10.0	8	8.1
		3 months rice***	-	-	-	-	0	12.0	-	-	-
		Maize	26.8	31.6	33	30.2	32.5	32.9	21.2	21.3	25.8
2	Tuber crops	Cassava	81.4	87.5	88	83.1	93.8	110	75.9	80.8	84.8
		Sweet potato	47.2	51.4	50.9	50.0	50.7	50.4	48.9	47	47
		Other potato	49.6	51.7	52	53.0	52.9	52.6	52.7	52.7	53
3	Food-stuff crops	Beans	5.0	4.6	5.2	4.6	4.8	5.0	4.8	4.5	5.0
		Vegetable	70.4	48.6	67	74.4	52.7	68	78.1	53.7	69.6
		Capsicum	6.2	6.2	6.5	6.0	6.3	6.5	6.3	5.9	6.2
4	Temporary industrial crops	Peanut	13.6	12.7	12.8	12.5	13.6	13.1	12.4	12.8	12.5
		Sugar-cane	268.0	285.9	290	280	284.9	280	250	260	250
		Tobacco	-	-	-	-	6	-	-	-	-
		Sesame	-	-	-	-	-	-	-	-	-

Source: Annual report of Commune Statistical Office, 2001-2003

Note: * Paddy rice is grown in winter-spring season; ** Paddy rice is grown in summer-autumn season; *** Upland rice

Table 6A Weights assigned for seven criteria following farmers in Huong Loc

	LU	CRD	SFM	PDM	YS	PF	ISS
Land use (LU)	1	1/2	1/2	1	1/3	1/5	1/2
Crop diversification (CRD)	2	1	1/2	2	2	1/4	1
Soil fertility management (SFM)	2	2	1	2	1/2	1/4	1
Pest-disease management (PDM)	1	1/2	1/2	1	3	1/4	1/4
Yield stability (YS)	3	1/2	1/2	1/3	1	1/3	2
Profitability (PF)	5	4	3	5	3	1	3
Input self-sufficiency (ISS)	2	1	1	2	1/2	1/4	1

Consistency Ratio (CR) = 0.062

Source: Discussions within group of farmers

Table 7A Weights assigned for seven criteria following farmers in Huong Phu

	LU	CRD	SFM	PDM	YS	PF	ISS
Land use (LU)	1	1/2	1/4	1/2	1/3	1/5	1/3
Crop diversification (CRD)	2	1	1/3	1	1/2	1/3	1/2
Soil fertility management (SFM)	4	3	1	3	2	1/2	2
Pest-disease management (PDM)	2	1	1/2	1	1/2	1/3	1/2
Yield stability (YS)	3	2	1/2	2	1	1/3	1
Profitability (PF)	5	4	2	4	2	1	3
Input self-sufficiency (ISS)	3	2	1/2	2	1	1/3	1

Consistency Ratio (CR) = 0.023

Source: Discussions within group of farmers

Table 8A Weights assigned for seven criteria following farmers in Thuong Quang

	LU	CRD	SFM	PDM	YS	PF	ISS
Land use (LU)	1	1	1/3	1/2	1/3	1/4	1/3
Crop diversification (CRD)	2	1	1/2	1/2	1/2	1/3	1/2
Soil fertility management (SFM)	3	3	1	2	1	1/2	1
Pest-disease management (PDM)	2	2	1/2	1	1/2	1/3	1/2
Yield stability (YS)	3	3	1	2	1	1/2	1
Profitability (PF)	4	4	1	2	2	1	2
Input self-sufficiency (ISS)	3	3	1	2	1	1/2	1

Consistency Ratio (CR) = 0.039

Source: Discussions within group of farmers

Table 9A Sustainability of crop production systems in Huong Loc (household level)

Indicators	Rice-A.Crop		I.A.Crop		Fruit-I.P.Crop	
	SI	PV	SI	PV	SI	PV
	%	Score	%	Score	%	Score
Land use (LU)	80.63	258	46.25	148	68.13	218
Crop diversification (CRD)	79.38	254	43.75	140	63.75	204
Soil fertility management (SFM)	41.88	134	80.63	258	63.75	204
Pest-disease management (PDM)	45.63	146	80.00	256	59.38	190
Yield stability (YS)	53.75	172	81.88	262	48.75	156
Profitability (PF)	43.75	140	81.25	260	54.38	174
Input self-sufficiency (ISS)	62.50	200	82.50	264	68.13	218
Performance percentage (%)		58.2		70.9		60.9

Source: Analyzed by sustainable indicator analysis method

Notes: SI: Sustainability Index; PV: Performance Value

Table 10A Sustainability of crop production systems in Huong Phu (household level)

Indicators	Rice-Fish-A.Crop		I.A.Crop		Fruit-I.P.Crop	
	SI	PV	SI	PV	SI	PV
	%	Score	%	Score	%	Score
Land use (LU)	52.50	168	41.88	134	63.75	204
Crop diversification (CRD)	78.75	252	50.63	162	58.13	186
Soil fertility management (SFM)	59.38	190	81.88	262	53.13	170
Pest-disease management (PDM)	44.38	142	78.13	250	47.50	152
Yield stability (YS)	55.00	176	74.38	238	56.88	182
Profitability (PF)	58.75	188	66.25	212	75.63	242
Input self-sufficiency (ISS)	71.88	230	55.63	178	65.00	208
Performance percentage (%)		60.1		64.1		60.0

Source: Analyzed by sustainable indicator analysis method

Notes: SI: Sustainability Index; PV: Performance Value

Table 11A Sustainability of crop production systems in Thuong Quang (household level)

Indicators	Rice-Fish-A.Crop		Fruit		Veg.Str.	
	SI	PV	SI	PV	SI	PV
	%	Score	%	Score	%	Score
Land use (LU)	76.88	246	66.88	214	52.50	168
Crop diversification (CRD)	74.38	238	63.13	202	56.25	180
Soil fertility management (SFM)	53.75	172	55.63	178	76.25	244
Pest-disease management (PDM)	48.13	154	58.75	188	73.13	234
Yield stability (YS)	68.29	224	58.75	188	64.38	206
Profitability (PF)	53.75	172	64.38	206	73.75	236
Input self-sufficiency (ISS)	56.88	182	65.63	210	81.88	262
Performance percentage (%)		62.0		61.9		68.3

Source: Analyzed by sustainable indicator analysis method

Notes: SI: Sustainability Index; PV: Performance Value

Table 12A Weights assigned for five criteria following authorities in study communes

	LU	CRD	ISS	LBU	FS
Land use (LU)	1	1/3	1/5	1/6	1/6
Crop diversification (CRD)	3	1	1/4	1/5	1/5
Input self-sufficiency (ISS)	5	4	1	1/3	1/2
Labor use (LBU)	6	5	2	1	1
Food security (FS)	6	5	2	1	1

Consistency Ratio (CR) = 0.020

Source: Discussions within groups of authorities of three study communes

CURRICULUM VITAE

Name: Ngo Tung Duc

Date of Birth: August 14th 1976

Educational Background:

1994-1998: Bachelor of Science of Forestry, Hue University of Agriculture and Forestry, Vietnam

2003-2005: M.S. Agriculture (Agricultural Systems), Chiang Mai University, Thailand

Scholarships: Department of Technical and Economic Cooperation (DTEC), Thailand

Working Experiences:

1999-Present: Lecturer at Faculty of Forestry, Hue University of Agriculture and Forestry, Vietnam

Address: 102 Phung Hung street, Hue City, Vietnam

E-mail: ngotungduc@yahoo.co.uk
or sfsp.hue@dng.vnn.vn

Telephone No.: Office: 84.54.538454/529137
Home: 84.54.862416

Fax: 84.54.538454