

APPENDICES

Appendix Table 1 Land statistics of Dinhquan district in 2003

Banned with Decision No:
507/1999/QĐ - TCĐC 12/10/1999
General department of Vietnam cadastral
Table : 01-TK

Socialist Republic of Vietnam
Independence- Freedom -Happiness

Reporting unit
District: Dinhquan
Province: Dongnai

Statistic table of land area

01/01/2000

Land use types	Code	Delivered or rent Land divided in users							Land not delivered or rent
		Total of administrative boder area	Total	Individual household	Economic organization	Cooperating with FO	Committee of people	Other	
A	B	1=2+8	2=3+4+5+6+7	3	4	5	6	7	8
Total area	1	96,650	94,927	32,457	42,576	6	1,882	18,002	1,723
I. Agricultural land		38,334	38,334	31,165	6,939		110	121	
1. Annual crop land	3	19,208	19,208	15,628	3,462		54	64	
1.1. rice, rice-crop land	4	5,029	5,029	4,677	311		23	17	
1.2. milpa land	9								
1.3. other annual crop land	12	14,180	14,180	10,951	3,151		31	47	
2. Complex garden land	17	1,344	1,344	1,324	20		0	0	
3. Perennial crop land	18	17,651	17,651	14,090	3,453		51	56	
4. Land for breeding	23	2	2	2					
5. water surface land for aquatic production	26	128	128	121	4		4	0	
II. Forest land	30	35,578	35,578	131	35,254		125	67	
1. Natural forest land	31	27,325	27,325		27,320		5		
1.1. Producing forest land	32	22,932	22,932		22,927		5		
1.2. Protective forest land	33	4,393	4,393		4,393				
1.3. specific use forest land	34								
2. Planted forest land	35	8,253	8,253	131	7,934		120	67	
2.1. Producing forest land	36	7,860	7,860	115	7,620		120	4	
2.2. Protective forest land	37	244	244	16	228				
2.3. specific use forest land	38	149	149		86			63	
3. Cultivating perennial seedlings land	39								
III. Specialized land	40	19,425	19,425	10	74	6	1,547	17,785	
1. Construction land	41	220	220	4	63	6	36	112	
2. Transport land	42	1,466	1,466				1,466		
3. Irrigation and water surface land	43	17,657	17,657				3	17,653	
4. Historical, cultural relics land	44	2	2					2	
5. Security, national defense land	45	11	11					11	
6. Exploiting mineral land	46								
7. Land of building material	47	3	3		3			0	
8. Salt production land	48								
9. Cemetery land	49	49	49	1	4		42	2	
10. Other utility	50	18	18	5	5		4	4	
IV Residential land	51	1,027	1,027	940	84		2	2	
1. Urban residential land	52	95	95	95			0		
2. Rural residential land	53	932	932	844	84		2	2	
V. Unused land	54	2,285	563	211	225		99	28	1,723
1. Even and flat unused land	55	203	156	57	33		64	1	48
2. Hill and mountainous unused land	56	366	192	114	47		22	10	173
3. Water surface unused land	57	320	203	36	139		11	17	117
4. River, stream	58	1,384							1,384
5. Rock mountain without forest	59	12	12	4	7		1		
6. Other unused land	60								

Source: Result of statistical analysis of the existing land use of Dinhquan district, 2003

Appendix Table 2: Classification of soil type in the study area

Notation	Soil name	
	FAO/UNESCO	Vietnam
AC	I. Acrisols	Grey soil
ACf	1. Ferric Acrisols	Clotted grey soil
ACf.fh1/SCII	-Epihyperferric Acrisols	Clotted grey soil with shallow layer
ACf.fh2/SCII	-Endohyperferric Acrisols	Clotted grey soil with deep layer
ACg	2. Gley Acrisols	Gleyic grey soil
ACg.feI/GRII	-Epiferri Acrisols	Clotted Gleyic grey soil with shallow layer
ACg.vr/GRII	-Verti Acrisols	Chapped grey soil
ACr	3. Arenic Acrisols	Grey soil with Light mechanical composition
ACr.LiI/SCV5	-Epilithi Arenic Acrisols	Mixed stone grey soil with Light mechanical composition in shallow layer
ACr.ve/GRII	-Epilithi Chromic Acrisols	Grey soil with light mechanical composition, poor base
ACx	4. Chromic Acrisols	Yellow chrome grey soil
ACx.fa/SCII	-Hyperferralic Chromic Acrisols	Yellow chrome grey soil that agglomerated Fe & Al
ACx.LiI/SCIII	-Epilithi Chromic Acrisols	Yellow chrome grey soil with shallow rock layer
ACx.Li2/SCI2	-Endolithi Chromic Acrisols	Yellow chrome grey soil with deep rock layer
AN	II. Andosols	Pumice stone soil
ANh	1. Haplic Andosols	Typical Pumice stone soil
ANh.LiI	-Epilithi haplic Andosols	Typical Pumice stone soil with shallow rock layer
FR	III. Ferrasols	Red soil
FRr	1. Rhodic Ferrasols	Dark red soil
FRr.fe1/BTIII	- Epiferri Rhodic Ferrasols	Dark red soil that clotted and shallow rock layer
FRr.ac/BTII	- Acri Rhodic Ferrasols	Dark red soil that agglomerated clay
FRr.fe/BTIII	- Epiferri Rhodic Ferrasols	Dark red soil that clotted a little
FRr.fh1/BTII4	-Epihyperferri Rhodic Ferrasols	Dark red soil that clotted much in shallow layer
FRr.fh2/BTII4	-Endohyperferri Rhodic Ferrasols	Dark red soil that clotted much in deep layer
FRx	2. Xanthic Ferrasols	Yellow red soil
FRx.ac/BTIV4	-Acri Xanthic Ferrasols	Yellow red soil agglomerated clay
FRx.fh1/BTIV4	-Endohyperferri Xanthic Ferrasols	Yellow red soil that clotted much in shallow layer
GL	IV. Gleysols	Gley soil
GLu	1. Umbric Gleysols	Humus gley soil
GLu.eu/AIII	-Eutri Umbric Gleysols	Humus gley soil and little acid
LV	V. Luvisols	Black soil
LVf	1. Ferric Luvisols	Clotted black soil
LVf.feI/BTII4	- Epiferri Luvisols	Little clotted black soil in shallow layer
LVf.fh1/BTII4	- Epihyperferric Luvisols	Much clotted black soil in shallow layer
LVf.fh2/BTII4	- Endohyperferric Luvisols	Much clotted black soil in deep layer
LVg	2. Gleyic Luvisols	Gley black soil
LVg.fe2/BTI5	-Endoferric Gleyic Luvisols	Little clotted gley black soil in deep layer
LVg.Li1/BTII4	Epilithi Gleyic Luvisols	Stony gley black soil in shallow layer
LVg.vefh1/BTI4	Epihyperferric Verti Gleyic Luvisols	Poor base gley black soil that clotted little in shallow layer

Notation	Soil name	
	FAO/UNESCO	Vietnam
LVg.vrfe1/BTII	Epiferri verti Gleyic Luvisols	Gley black soil that clotted little in shallow layer
LVg.vrfh1/BTI3	Epiphyperferri Verti Gleyic Luvisols	Gley black soil that clotted much in shallow layer
LVg.vrli1/BTI5	Epilithi Verti Gleyic Luvisols	Chapped stony gley black soil in shallow layer
LVg.vrli2/BTII	Endolithi Verti Gleyic Luvisols	Chapped stony gley black soil in deep layer
LVh	3. Haplic Luvisols	Typical black soil
LVh.li1/BTI5	-Epilithi Haplic Luvisols	Typical black soil in shallow rock layer
LVx	4. Chromic Luvisols	Dark brown black soil
LVx.fe1/BTI4	-Epiferri Chromic Luvisols	Dark brown black soil that clotted little in shallow layer
LVx.li1/BTI4	-Epilithi Chromic Luvisols	Dark brown black soil in shallow layer

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Appendix Table 3 Distribution of land mapping unit derived from GIS analysis

LMU	Area (ha)	Proportion (%)
1	4,146	5.26
2	1,322	1.68
3	406	0.52
4	221	0.28
5	251	0.32
6	93	0.12
7	294	0.37
8	217	0.28
9	2,434	3.09
10	101	0.13
11	1,127	1.43
12	92	0.12
13	10	0.01
14	54	0.07
15	1,861	2.36
16	2,092	2.66
17	102	0.13
18	124	0.16
19	4,707	5.97
20	274	0.35
21	419	0.53
22	1,480	1.88
23	33	0.04
24	453	0.57
25	187	0.24
26	235	0.30
27	35	0.04
28	838	1.06
29	13	0.02
30	332	0.42
31	367	0.47
32	263	0.33
33	194	0.25
34	850	1.08

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LMU	Area (ha)	Proportion (%)
35	1,462	1.86
36	1,997	2.53
37	78	0.10
38	4,850	6.16
39	398	0.51
40	2,654	3.37
41	6,520	8.28
42	291	0.37
43	79	0.10
44	441	0.56
45	156	0.20
46	745	0.95
47	7,725	9.81
48	1,813	2.30
49	595	0.76
50	222	0.28
51	195	0.25
52	3,752	4.76
53	2,612	3.32
54	2,320	2.94
55	27	0.03
56	765	0.97
57	330	0.42
58	325	0.41
59	71	0.09
60	244	0.31
61	383	0.49
62	292	0.37
63	1,375	1.75
64	733	0.93
65	566	0.72
66	761	0.97
67	216	0.27
68	216	0.27
69	257	0.33
70	338	0.43
71	724	0.92

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LMU	Area (ha)	Proportion (%)
72	792	1.01
73	4,570	5.80
74	194	0.25
75	465	0.59
76	452	0.57
77	156	0.20
Total investigated area (ha)	78,784	100

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Appendix Table 4 Describing characteristics of LMU

LMU	Soil type	Slope (°)	Depth (cm)	Stoniness	pH	OM (%)	Drainage	Rainfall
1	FRr	0	120	0	4.8	1.7	Moderate	1900
2	FRr	0	120	0	4.8	1.8	Moderate	2000
3	FRr	3	50	3	4.7	1.7	Moderate	2000
4	FRr	2	30	0	4.7	1.7	Moderate	1900
5	FRr	0	30	5	4.7	1.8	Moderate	1900
6	FRr	0	120	5	4.8	1.7	Moderate	1900
7	FRr	3	70	5	4.8	1.7	Moderate	1900
8	FRx	3	120	5	4.8	1.6	Moderate	1900
9	FRx	0	60	3	4.7	1.6	Poor	2000
10	FRx	3	50	0	4.8	1.4	Moderate	1900
11	FRx	3	30	0	4.7	1.3	Moderate	1900
12	FRx	5	30	5	4.7	1.4	Moderate	2000
13	FRx	3	30	5	4.7	1.3	Moderate	2000
14	FRr	0	120	8	4.7	1.7	Moderate	2000
15	LVh	3	50	12	5.9	3.0	Moderate	1800
16	LVh	3	30	8	6.0	3.2	Moderate	1900
17	LVh	0	60	10	6.2	3.2	Moderate	1800
18	LVh	0	60	5	6.0	3.2	Moderate	2000
19	LVx	0	70	0	6.0	2.8	Moderate	2000
20	LVx	0	30	3	5.8	2.8	Moderate	2000
21	LVx	3	30	3	5.8	2.7	Moderate	1900
22	LVx	5	30	3	5.8	3.0	Moderate	1800
23	LVx	9	30	3	5.8	3.0	Moderate	1800
24	LVx	11	30	5	5.8	2.8	Moderate	1800
25	LVx	12	60	0	5.8	2.8	Moderate	2000
26	LVf	5	70	5	5.7	2.8	Moderate	1900
27	LVf	7	40	3	5.7	3.0	Moderate	1900
28	LVf	7	30	3	6.0	2.7	Moderate	1800
29	LVf	13	30	5	6.2	2.8	Moderate	2000
30	LVf	12	30	0	6.0	2.8	Moderate	1900
31	LVg	0	100	10	6.2	2.7	Moderate	2000
32	LVg	0	100	0	6.2	3.2	Moderate	1800
33	LVg	0	60	0	6.2	3.2	Moderate	1800

LMU	Soil type	Slope (°)	Depth (cm)	Stoniness (%)	pH	OM (%)	Drainage	Rainfall
34	LVf	5	30	0	6.0	3	Moderate	1800
35	ANh	8	40	20	5.5	3	Moderate	1900
36	ACx	3	100	8	4.8	1.4	Moderate	1700
37	ACx	0	50	5	4.7	1.3	Moderate	1800
38	ACx	3	50	5	5.3	1.5	Moderate	1800
39	ACx	0	40	5	4.8	1.4	Moderate	1800
40	ACx	5	30	5	4.7	1.3	Moderate	1900
41	ACx	5	30	3	4.9	1.5	Moderate	1800
42	ACx	8	70	0	5.3	1.6	Moderate	1700
43	ACx	3	30	0	5.2	1.7	Moderate	1800
44	ACx	12	30	10	4.8	1.5	Moderate	2000
45	ACx	17	60	5	5.5	1.4	Moderate	2000
46	ACx	20	30	8	5.5	1.3	Moderate	1900
47	ACx	3	30	12	5.4	1.5	Moderate	1900
48	ACf	5	50	8	4.7	1.6	Moderate	2000
49	ACf	5	30	10	4.5	1.7	Moderate	1900
50	ACf	5	30	5	4.6	1.6	Moderate	1800
51	ACr	0	100	0	4.5	1.3	Well	1900
52	ACr	3	100	3	4.3	1.4	Well	2000
53	ACr	0	100	3	4.5	1.2	Well	1900
54	ACr	5	60	3	4.5	1.3	Well	1800
55	ACr	14	30	3	4.5	1.4	Well	1700
56	ACr	0	30	5	4.5	1.5	Well	2000
57	ACg	0	100	0	4.5	1.4	Moderate	1800
58	ACx	10	30	0	5.5	1.5	Moderate	1900
59	ACg	5	30	3	4.5	1.6	Moderate	1800
60	GLu	0	120	0	6	3.2	Poor	1800
61	GLu	0	120	5	5.8	3.5	Poor	1700
62	LVg	0	100	0	6.3	2.8	Moderate	1900
63	LVf	0	60	10	6.5	2.5	Moderate	2000
64	LVg	3	30	0	6.4	3.5	Moderate	2000
65	LVg	5	50	0	6.0	3.4	Moderate	2000
66	ACf	5	100	0	4.8	1.8	Moderate	1800
67	LVf	5	100	8	6.5	3.0	Moderate	1800
68	ACx	9	50	5	5.3	1.2	Moderate	1800
69	FRr	0	120	0	4.7	1.7	Moderate	1900

LMU	Soil type	Slope (°)	Depth (cm)	Stoniness (%)	pH	OM (%)	Drainage	Rainfall
70	FRr	0	120	0	4.9	1.6	Moderate	1900
71	FRr	16	100	0	4.6	1.8	Moderate	1900
72	LVh	3	30	0	5.8	3.5	Moderate	2000
73	LVx	10	60	0	5.9	3.3	Moderate	1800
74	LVg	0	30	5	6.0	3.5	Moderate	2000
75	LVf	6	30	5	6.3	2.8	Moderate	2000
76	ACf	6	40	8	4.7	2.0	Moderate	1800
77	LVf	12	30	5	6.3	2.8	Moderate	1800

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