Use of land in the eastern shore of the 2 lakes

Zone	Rural commune	Fokontany	Households		Eastern shore of the 2 lakes	ne 2 lakes													٦
	1		interviewed	Rice fields	sht:				Tanety				1	Afforestation	_				٦
			Households 95		36 Jon	Average area	rea Min.	Max.		8	Average area	Min.	Max.	Number of	15%	Average area	za Min.	. Max	z
The State of				households		( <del>a</del> )			households		(a)		_	nouscholds	1	(3)		-	I
Mantasoa		Ambatolaona		8	0	0	0	0	0	0	٥	0	6	ō			0		0
	y :	Mahitsitady	02	8	0	0	0	0 0		4		0	10	ō	0			0	া
	Mantasoa	Andrefanivorona		8	0	0	ō	0 . 0		-	0	0	0		'n				2
		Aniozoro		8	0	<u></u>	, <u> </u>	<u></u>	<u>«</u>		9	്	02	0	0				0
		Mantasoa	48	8	=	2	70	70	m	9	520	8	1500		7	Ϋ́	500	20 20	ŠŠ
		Masombahiny	i di	8	0	0		0		ý		0	0	C	4	<b>=</b>			윉
		Miadamanjaka	: .	100		0			0	0	- 1		0	1	<u>e</u>		S	5	S
	Miadanandriana	Ambohimanjaka		8		2	11	2 19	-	-	6	4	6		-		:		-
	\$ 1 4		44	81	4	0	79	300	4	Ò	83	5	300	4	6	ĭ	108	1.5	ĝ
	Merikanjaka	Merikanjaka		8		0	0	- 1	0		0		0	0	o		0	0	0
		Tsiazompaniry-Kely	: 1	81	0	0	0	0	0	÷	<u> </u>	۲.	<del></del>	0	0			ਨ	o
			7	8		0	0	0		2	80	8	08	٥	0		리	<u></u>	9
	Sub-Total	Total		100	7	1			14				+	-	리		-	┙	Τ
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	Trimoloharano	Angodongodona	ΑĒ	8		<b>90</b>	\$	<u>2</u>			01	_	S S	m	v ·		٠, .	_	8
		Mahatsinjo	77	<u>.</u> 8	<u>િ</u>	· ·		8 8	2	27	0	8-	<del>~</del> -	00	0 0		0 0	0 0	0 0
		Ambohitsoa		8 8		4 (	1	$\perp$		4 -	- (	- (	- (	5 0	5 <				2 6
	Ambohimiadana	Iharamalaza	0	3 8	71 70	<del>-</del> - 0	4 %	n 5	- "	- 0	V 2	7 6	7 ¢	<del>-</del>	<del>5</del> C		<u> </u>	5 0	5 0
	Tankafatora	Morarano	1	38				. 6		L	15	-2	\$	0	0			0	0
		Analamihoatra	8	8	7	00	33 25		0	0	0	0	0	0	0			0	া
	Fitsinjovana	Ambohijanaka	1	8	-	1	6	3		1	2	77	۲۱ .	0	0			<u>.</u>	0
1 14 14 14 15		Kelimafana	3	8			-	_					+		+		-	•	Т
	Sub-Tota	Total	492	100	51	0	_		29	9		1	1	7	-			-	7
	Total		1001	100	28	9			001	10				18	2		_		_
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Reasons for using the land in the eastern shore of the 2 lakes

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To obtain land	-	Households				-	=	-	1			ŗ	7					+		$\dagger$		-	c	
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Low productivity		Households		- 5. - 5. - 2.									ľ	7	3 . 3 . 3 .		1					6	, (	
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To increase farm	PICOLIC TOTAL	Households		7		4		-					∞	4	<u>ŧ</u> c	<b>1</b>	3	4	10	7	7	-	1	6
se Se		18	99	14.				,	<u> </u>	14.00			7			8		. 17	32				2	
To increase	ıncome	Households						†	7				4			-		2	7			Ş	2	7
which	Ę,	%	001	8	00.	8	3 5	3 3	<u>3</u> <u>8</u>	0	0	2	8	90	3 8	3 2	8	100	100	100	100	<b>a</b>   9	3	<u>S</u>
Households which	responded	Households	0	2	<b>n</b>	<b>∞</b>	<u>ო</u> ი	7	η <b>4</b>	0			59	11	<u>Q</u> 1	<del>4</del>	4	12	22	5	8	- - 	5	126
	7	% Hon	<u>8</u> 2	<u> </u>	8	<u>8</u>	<u> </u>	3]:	<u> </u>	92	8	100	100	001	<u>8</u>	3 2	[돌	8	8	100	100	<u> </u>	<u></u>	100
Households	interviewed		873	22	<u> </u>	1,65	 		<del>8 4</del>	36		22	509		1399	24	1		66	24	601		492	1001
Hor	inte	Households																	ý					
Fokontany			Ambatolaona	Andrefanivorona	Anjozoro	Mantasoa	Masombahiny	Miadamanjaka	Ambohimanjaka	Merikanjaka	Tsiazompaniry-Kely	Miarinarivo	Sub-Total	Andriantsiajo	Angodongodona	Mahatsinjo	Tharamalaza	Manandriana	Morarano	Analamihoatra	Ambohijanaka	Kelimafana	Sub-Total	
Rural commune			Ambatolaona	Mantasoa				4	Miadanandriana A	Merikaniaka			Sub	Anosibe	Trimoloharano		A mbohimiadana		Tankafatora		Fitsinjovana	Bakaro	-qnS	Total
Zone			Mantasoa											Tsiazompaniry										

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	100000000000000000000000000000000000000	The state of the s	murviewod	-	"	Family USC	Family use products per 171	vale force	and purculase in	-1	Ŧ	ŝ		1			1						Ì
			Households &	Households	*	*	thronth	ŧ.	*	*	*	*		3	Case	Š		Son Scrain		1		+	1
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		Mahinciady		91	23	8	77	7	30	0		8	0				25 25	5 0	č	9	161	100	С
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Tsiazompanity	Anosibe	Andriantsiajo	25 100	0	Q	0	<del>o</del>	0	0	0	0	c	4			:-			σ'n	5 6	5 :	<b>&gt;</b> ;	5 ;
		Transleharano Angodongodona	001 19	0	<u> </u>	0	2	8	ਰ ੋ	3	<del>-</del>	8			<u>x</u>		ł.			2	57	8 3	‡ °
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	:	Ambobilsos	23 100	9	24	8	en	0	40	0	50	001	0	16				0		50	0	00	ा
	Ambohimiadana	Ibaramalaza	92 100	0	7	0 00	19	99	*	Э	0	8	_	9		D 4667	_	0	5	Ĭ	0 (	Q	5 7
		Mananchiana	32 100	0	0	0	О	0	٥	0	9	0	0	=		0	ė į			5	٥	=	1
	Tankafatora	Morarano	001 66	0	1	000	60	81	3	0	<del>-</del>	8	0							57	3 '	3	5 6
		Analamihoana	24 100	0	7	000	2	20	20	0	ð	100	0	20	009	3500	9		4	3	ô	5	ी
:	Filsinjovana	Ambohijanaka	001 601	0 0	0	0	٥	0	<del>~</del>	0	ä	0	0	0		0	0 :	0 0	3 (	5 7	÷ 6	5 6	3 3
	Bakaro	Kelimatana	27 100	0	0	0	0	ð	0	0	9	c	 	0	5	0	<b>3</b>	2	<b>†</b>	+	7	-	T
	Š	Sub-Total	492 100	81 0	+						-			-	-					$\dagger$	+		Ī
	Total		1001	691 0	17						_	_	_	4	_		_			4	-		]
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Gathering of firewood and honey

	Dural committee	Fokontany	Households interv	viewed Firewood	rewood									Honey		7
21107	Naidi communic		10 m 20 m 20 m		Gathering for family	Г		,	Average		Gather	Gathering radius		Gathe	Gathering of	
				asn	4	- 1	Gathering for sa	tor sal	amount	Less than	1 - 4km	5 - 10 km	More than	honey	honey for sale	_
			Households	<u>  ±</u>	Households	8	Households	%	gathered per	i km			10 km	Households	200	1
Mantasoa	Ambatolaona	Ambatolaona	30	100	28	66	T	m ·	3	39	\$4	- ·	• -	0 -		<del>-</del>
	The second secon	Mahitsitady	101	100	70	2	0	0	3	43		4 (				-[]
	Mantasoa	Andrefanivorona	22	901	22	<u>8</u>	0	0	4 (	82		0 6	<b>-</b>	<b>-</b>		5 6
		Anjozoro	26	<u>8</u>	26	<u>8</u> 8		च C	7 7	¥ 2	9 6	) C		-		0
		Mantasoa	84	3 9	9	9 6		7 7		- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10			214	_		0
		Masombahiny	50	3 2	\$ c	\$ 5	<b>1</b> C	rc	, 4	55		0	-	0		0
		Miadamanjaka	93	3 2		200	5 -	·   -	4	55	4	1	0	2		71
	Miadanandriana	Ambohimanjaka	00	3 2	7.	\$ 2	•	, с	. 4	4		0	0	9		4
	State San	Ambohipeno	1	3	1			1		26	30			2		Ñ
	Merikanjaka	Merikanjaka	39	<u>3</u>	33	<u></u>	5	5		2						26
		Tsiazompaniry-Kely	<b>3</b>	<u>8</u>	<del></del>	20.5	<b>)</b>	) v	4.	λ S			-	٠.		Ö
		Miarinarivo	22	100	07	7	7	7	7	3				ľ		1
	Su	Sub-Total	209	100	486	95	7	=		j				1		T
Siazompaniry	Anosibe	Andriantsiajo	25	100	25	8	0	0	ς.	F .		-5 -24:1	-	5 6	= -	- M
	Trimoloharano	Angodongodona	61	<u>8</u>	8	86	0	0	4 .	ያ ነ		7	- 	31. -		n c
		Mahatsinjo	24	8	21	80 6	2	<b>x</b> o <b>c</b>	4 .	7 8			5 6	5 6	<del></del>	Č
		Ambohitsoa	23	8	23	3	) ا	5	1	7				3 6		ৰ
	Ambohimiadana		89	100	99	56.5	<b>)</b>	5 c		800		7 0				6
		Manandriana	32	3	87	88	1	_		8						c
	Tankafatora			8	97	86	0	Э (	4 4	00 1	11 11 11 11 11 11 11	y V			~	1 4
	S-62,	Analamihoatra	24	2	24	2	0	3								~
	Fitsinjovana		601 3	8	107	86	7	Š		00	1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S 1 S	345			· ·	i 0
	Bakaro	Kelimafana	27	8	27	3		5		8						۳
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	Total		1001	100	964	96	12	1						*		آ
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Zone	Rural commune	Fokontany	Households	Number of owners		Afforestation area	n area	Tree species	ę.		Recent year of	ar of plantin	uting				<u> </u>	Planter						
			interviewed	of afforestation	, mo	owned		Eucalyptus	s Others	crs	Before 1970		$0861 \sim 0261$		1980~1990	After 19	1990 H	cad of hou	Head of household Family	mily	Gover	Government	Others	
			formeholds 96	Households	S. House	Households Min.	. Max.	Households	% House	Households 92	Housebolds	£8. ∓	Households	Se Ilon	Hensebolds 96	Households	8	Souscholds	96 Hou	Households 9	K Romebolds	olds Fe	Houcholds	쌼
Mantasoa	Ambatolaona	Ambatolaona	30 100	9	20	2	5 1	9	100	0 0	0	10	0	0	0	1 0	3	0	0	4	13	0 0		
		Mahitsitady	70 100	18	26	43	4		001		0 5	45	=	6	-	9 . 4	36	0	0	0	0			0
	Mantasoa	Andrefanivorona	22 100	11	20	20 0.	5 70	Ξ	8	0	9	55	0	0	0	0	0	0	0	-	33	0		ō
		Anjozoro	26 100	14	*	00	3	14	<u>8</u>	0	2	8	0	0	0	0	-	6	<del>-</del>	=	42			0
		Mantasoa	48 100	. 17	33	25 0.05	7	17	8	477	_	6		. 27	2 18	4		0	•	6	16		<u> </u>	5
		Маѕотбаһіпу	55 100	1		25	200	<b>C</b>	8	0	2	25	<u>.</u>	<u>e</u>	1 13	 	:	0	.: •	7	S			8
	7 W 17 (A)	Miadamanjaka	33 100	16	48	9			100		16	8	0	0	0			3	30	٣	30			ন্ত্র
	Miadanandriana Ambohimanjaka	Ambohimanjaka	86 100	38	4	37	200		100	0	7	<b>∞</b>	71	<b>00</b>	7 27	15	88	4	<u> </u>	7	20		_	36
		Ambohipeno	4	32	73	. 23	200	33	8	0	35	8	0	0	0 0	) 0	0	0	0	22	61	0	Ö	ō
	Merikaniaka	Merikanjaka	39 100	23	65	15 0.04		23	100	0	2	01	0	0	4 20	14	70	18	46	Ö	0		Ö	6
		Tsiazompaniry-Kely	34 100	11	33	48 0.3	200	= :	8	0	=	8	0	0	0	0	0	Š	15	0	0	0	O	0
			22 100	7	2	83	9	14	100	0 0	0 10	0	-	7	4 29	9	8	0	0	13	59	0		ō
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Tsiazompaniry	Anosibe	Andriantsiajo	25 100	14	20	12 0.3	20	14	100	0 0	0	-	00	80	11 84	'n	98	7	R	ō	0		0	0
	larano	Angodongodona	61 100	58	46	٠,	- S	39	8	0	4	31	٥	0	2 15		.,	0	0	36		0	01	27
		Mahatsinjo	24 100	15	8	5 0.5	20	61	8	- :	4	22	-	9			63	ν.	23	13	٤٢	0	0	ø
		Ambohitsoa	23 100	11	4	2 0.5	96	12	<u>5</u>	0		=	-	4				8	0	Ŷ			2	21
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		Manandriana	32 100		41	8 0.5			001	0	4	25	-	9	1 13			0	0	7			6	Š.
	Tankafatora	Moraiano	001  66	38	38	1 0.1	4	57	8	٠.	<u>ო</u>	<u>ত</u>	4	6	2	-	2	0	0	9	9		7	æ !
		Analamihoatra	24 100	15	. 63	1 0.5	ď.,	;	100	0 0	1	3	3	15	1 5			0	0	=	88	_	8	7
	Fitsinjovana	Ambohijanaka	109 100	65	54	1 0.01	_	28	8	į	9	Ξ	4	∞		37	2	0	0				21	Ç;
	Bakaro	Kelimafana	27, 100	14	52	6 0.5	72	18	3			9	9				5	0	0				2	Ž[
	Sui	Sub-Total	492 100	230	47			293	100	0			24	≘			ষ্ট	-2	-	123		0	113	*
	Total		1001	443	43	L		\$18	100	0 0	123	30	32	8	54 13	201	49	64	12	215	X.		133	Ä
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## Production of farm products and prices (rice)

				ſ								
Zone	Rural commune	Fokontany	Honseholds	1.7	Rice					10000000		
			interviewed	ved	Number of	er of	Average		٤	Avelage saic	Vendor households	≺
				*. *.	producer	•	area planted	Yield kg/10 a	_	percentage	who responded	FMG/Kg
			Households	%	Households	%			consumption (%)	(%)		
Montocoo	Ambatolaona	Ambatolaona	30	8	71	7557	21	1 230		0	<b>)</b>	
Malitasoa		Mahitsitady	02	100	59	84		26 · 242	5 67	33		1300
	Mantacoa	Andrefanivorona	22	8	20	16	2	28 320		43	···· (	1500
		Aniozoro	26	100	24	92	21	1 464		4		
		Mantasoa	48	28	38			28 232		54		1700
如我们就是一个		Masombahiny	55	8	38	69		18 313		<b>C</b>		1700
		Miadamaniaka	33	100	28	85		21 210		49	0	
	Miadanandriana	Ambohimanjaka	98	100	78						4 (	1513
		Ambohipeno	4	100	41	93		46 191		3	7 0	
	Merikaniaka	Merikaniaka	39	100	33	85		36 259		9	. n	
		Tsiazompaniry-Kely	34	8	24	71				23	9 1	
		Miarinanyo	22	18	20	16	3	36 221	1	-	C	367
	J	Sub-Total	509	18	420	- 83					24	
	2		2,	8	25	<u>8</u>		70 257	7 75	25	7	
Tsiazompaniry	Anosibe		} 7	2	. 45				3	26	<b>∞</b>	3 1153
	Trimolonarano	Angodoligodolia	5 8	3 2	3	9.		46 238	8	25	<b>E</b>	1310
		Manatsinjo	2 2	3 8	21	14				18		1400
	Ambohimiadana	Tharamalaza	89	100	89	100		41 293			<b>P</b>	697
		Manandriana	32	100	29	. 91	n in Va	30 378		0	4	
	Tankafatora	Morarano	66	188	95	96		46 286			<del></del>	
		Analamihoatra	24	18	23	96		64 234	7 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	Fitsiniovana	Ambohijanaka	109	18	92	84		42 273		CI	20	:
	Bakaro	Kelimafana	27	100	27	100		44 245	2 100	0		1850
		Sub-Total	492	18	458	93					9/	
	и		1001	8	878	87					100	
	TOTAL		1.22	,								

Motor:

1 Average percentage of family consumption (%) = family consumption/total production x 100

2 Average sale percentage (%) = (Total production - family consumption)/total production x 100

3 Table indicates unknown elements

## Production of farm products and prices (cassava)

Zone	Rural commune	Fokontany	Households	spl	Cassava							
			interviewed	yed	Number of producer		Average	Yield kg/10 a	Average percentage of family	Average sale percentage	Vendor households	[_₹_
			Households	%	Households	%	area planted		con	(%)	who responded	F.M.C./K.g
Mantasoa	Ambatolaona	Ambatolaona	30	100	10	34	<b>7</b>	100	0	0	0	0
		Mahitsitady	02	100	96	51	. <del></del> :	231	87	23	8 3	4840
	Mantasoa	Andrefanivorona	22	100	6	41	1.	5 183	001	0	0	0
		Anjozoro	26	100	12	46		7 547				500
		Mantasoa	48	100	24	50	. 13	3 362	6	16 0 0.0	4	8600
		Masombahiny	55	100	16	29	16	5 646	87	13	m.	350
		Miadamanjaka	33	100	15	45		573	98	14		1150
	Miadanandriana	Ambohimanjaka	98	100	40	47	18	345	26	3	11	467
	Agricultural Control of the Control	Ambohipeno	44	901	17	39	41	197	53	47	2	300
	Merikanjaka	Merikanjaka	39	180	4	10	24	1 946	88	63	2	213
		Tsiazompaniry-Kely	34	100	6	26	20	011	06	10	0	1
		Miarinarivo	22	901	=	50	. 13	3 154	£9 1	37		500
	nS.	Sub-Total	209	100	203	40					28	
Tsiazompaniry	Anosibe	Andriantsiajo	25	100	. 13	52	16	5 429	100	0	0	0
	Trimoloharano	Angodongodona	19	20	32	52	30	214	98	41	4	403
		Mahatsinjo	24	8	14	58	31	1 220	<i>L</i> 9	33	C)	275
		Ambohitsoa	23	100	14	56	20	353	79	21	3	800
	Ambohimiadana	Iharamalaza	89	100	35	.51	28	1	11	23	7	206
		Manandriana	32	100	-18	56	14	1 601	96	9	4	2500
	Tankafatora	Morarano	66	100	51	. 52	32		100	0	6	841
		Analamihoatra	24	200	12	20	59	321	84	16	1	650
	Fitsinjovana	Ambohijanaka	109	81	48	44	12	393	99	34	9	200
	Bakaro	Kelimafana	27	8	41	52	19	712	94	9	2	350
	Su	Sub-Total	492	9	251	49					38	
	Total		1001	<u>1</u>	454	45					99	
,												

Notes:

es: 1 Average percentage of family consumption (%) = family consumption/total production  $\times 100$ 

2 Average sale percentage (%) = (Total production - family consumption)/total production x 100

3 Table indicates unknown elements

# Production of farm products and prices (potatoes)

			,	4						
Zone	Rural commune   Fokontany	Hor	Honseholds	Potatoes						
		inte	interviewed	Number of	j.		Average percentage	Average sale	Wandor households	A viers do creix A
				producer 6	r and Average	Yield kg/10 a		percentage	who responded	
		Househo	% splc	Households	% area plan	3	consumption (%)	(%)	namedon our	8
Маптаѕоа	Ambatolaona Ambatolaona		30 100	) 2	17	6 503				•
	Mahitsitady		70 100	20	29 8	9 164	26	44	(****) ****	567
	Mantasoa Andrefanivorona		22 100	7	32	7 480	30	0/	4	313
	Anjozoro		<u>26  </u> 200	6	35	7				
	Mantasoa		48 100	15	31	4 338	74	26	<b>.</b>	433
	Masombahiny		55	6	16	5 380	001	0	4	363
	Miadamanjaka		33 100	8	24	4 413	1.6	e S	0	-
	Miadanandriana Ambohimanjaka		86 100	42	49	18 464	\$\$	45	32	370
			44 100	16	36	27 424	89	37	7	317
	Merikanjaka Merikanjaka	150	39 100	29	74	17 884	47	53	56	343
	ė, p		34 100	16	47	22 440	59	41	13	264
	Miarinarivo		0. or 1 d	18	82	17	54	46	29	304
	Sub-Total	Ψ,	001 609	194	38			-	501	
Tsiazompaniry Anosibe			25 100	23	92	43 758	22	8 <i>L</i>	61	343
	ano			. 10	87	37 50	16	84	46	390
	2.1				83	30 11111	16	<b>8</b>	17	353
	Ambohitsoa		23 100		64	19 492	32		8	297
	Ambohimiadana Iharamalaza		100	48	71	32 718	26	74	77	344
			32 100	13. 13.	72	23 881	39	61	21	336
	Tankafatora Morarano		001 66	16 91	92	36 705	77	73		•
	Analamihoatra		24 100	24	100	58	20		23	375
	Fitsinjovana Ambohijanaka		00   60	101	93	32 870	61	8	96	346
			27 100	23	85	21 871	27	73	15	356
	Su	4	92 100	422	83	-			371	
	Total	1	1001	616	62				479	

1 Average percentage of family consumption (%) = family consumption/total production x 100

2 Average sale percentage (%) = (Total production - family consumption)/total production x 100

3 Table indicates unknown elements

## Production of farm products and prices (sweet potatoes)

Zone	Rural commune	Fokontany	Households		Sweet potatoes	tatoes									
		の ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	interviewed	1 N	Number of producer	er of icer	Average	Yield kg/10	- 8	Average percentage of family		Average sale percentage	Vendor households	Ids Ave	Average price
	A Company of the Comp	A Programme of the control of the co	Households	%	Households	%	area pianted	g	5	consumption (%)	_	(%)	wno responded		FMG/Kg
Mantasoa	Ambatolaona	Ambatolaona	30	100	13	43		4			0	0		0	0
		Mahitsitady	70	100	32	46		8	310	1	00	. 0		2	450
	Mantasoa	Andrefanivorona	22	001	7	32		2	625	-	100	0 .		0	0
		Anjozoro	26	18	6	35		5	460						200
		Mantasoa	48	18	19	40		5	635		8	0		·	300
	The second of th	Masombahiny	55	18	11	20	3	96	11		66	<b>-</b>		p-4	150
		Miadamanjaka	33	100	11	33	1. 1. 1. 1. 2.	8	275		96	1		0	0
	Miadanandriana	Ambohimanjaka	98	100	27	31		17	298		84	16	1	2	400
		Ambohipeno	44	100	7	ા 6		10	367	Ť	001	0		0	0
	Merikanjaka	Merikanjaka	39	901	5	13		5	1		-	-		-	
		Tsiazompaniry-Kely	34	100	4	12	7	26	138	Ē	100	0		- 	750
		Miarinarivo	22	92	8	36		16	362	1	001	0	:	0	0
	NS	Sub-Total	806	100	153	30								8	
Tsiazompaniry	Anosibe	Andriantsiajo	25	100	7	28		8	154		78	22	-	0	0
	Trimoloharano	Angodongodona	919	100	22	36		<b>∞</b>	203		29	71			200
		Mahatsinjo	24	901	6	38	2	21	508	¥	8	0		0	0
		Ambohitsoa	23	100	7	28		10	160		1	.:			200
	Ambohimiadana	Iharamalaza	89	100	22	32		6	755	,	47	53			350
		Manandriana	32	100	8	25		6	862	7	46	54		3	350
	Tankafatora	Morarano	66	100	31	.31		7	857	22	200	0		0	0
		Analamihoatra	24	100	6	. 38	31	1	174		. 001	0		0	0
	Fitsinjovana	Ambohijanaka	601	100	41	38		5	200		98	7		<del></del> 1	200
	Bakaro	Kelimafana	27	100	× 1×11		1	1 5	0		0	0			0
	Sul	Sub-Total	492	100	167	34				.:				7	
	Total		1001	100	320	32			-		_			15	
												1			

Notes:

1 Average percentage of family consumption (%) = family consumption/total production x 100

2 Average sale percentage (%) = (Total production - family consumption)/total production x 100

3 Table indicates unknown elements

## Production of farm products and prices (corn)

Mantasoa Ambatolaona Ambatolaona Ambatolaona Ambatolaona Andre Mantasoa Andre Mantasoa Andre Mantasoa Ambatolaona Mantasoa Mantasoa Masoo Masoo Masoo Masoo Masoo Masoo Masoo Masoo Marikanjaka Ambatolaona Ambatolaona Ambatolaona Ambatolaona Marikanjaka Marikanjaka Marik		interviewed  Households % 30 100 70 100 22 100 26 100 48 100	Number o producer		Visid by	Average percentage	Average sale	Vendor households	₹
Ambatolaona  Mantasoa  Miadanandriana  Merikanjaka			producer		Vield Latto	offamily	_	A cardon monscription !	
Ambatolaona  Mantasoa  Miadanandriana  Merikanjaka					a or Waynor I	Or tailing	Privilage	who responded	FMG/Kg
Ambatolaona  Mantasoa  Miadanandriana  Merikanjaka	hitsitady drefanivorona jozoro intasoa sombahiny adamanjaka hohimanjaka		Households 70	aca yianica		consumption (%)	(%)	- 11	,
Mantasoa Miadanandriana Merikanjaka	hitistady drefanivorona jozoro intasoa sombahiny adamanjaka bohimanjaka	2 [w.]	0	0	0				
ana	drefanivorona jozoro ntasoa sombahiny adamanjaka bohimanjaka		0 0	0	0				
anna G	jozoro ntasoa sombahiny adamanjaka bohimanjaka		000	0	0			3	
ana	ntasoa sombahiny adamanjaka hbohimanjaka nbohipeno	ુ	0	0				Ö	<b></b>
ana S	sombahiny adamanjaka bohimanjaka nbohipeno		0	0	0		in the second se		
ana C.	adamanjaka bohimanjaka bohipeno	55 10	0		<b>o</b>	Φ (			
ana Cu	nbohimanjaka nbohipeno	ି ଓ 33 ି 10	000 000	0	0	0			
<i>5</i>	pohipeno	01 98	100 0 001	est.	0				
ď		44 10	100	0	0				
5	Merikanjaka	39 < 10	0 0 001	0	0	0			
Miari	Tsiazompaniry-Kely	34 10	0 001	0	0	0	0		
Sub-Tot	Miannanvo	22 10	0 0 001	0	0	0	0	0	
4757 T _617464	Sub-Total	509	0 001					0	
Tsiazomnaniry Anosibe Andri	Andriantsiaio		0 0 00	0	0	0 * * * * *	0	0	
Trimoloharano	Angodongodona		100	9	133	50	50		1250
	Mahatsinjo	24 10	0 0 001	0	0.	0	0		
Amb	Ambohitsoa	23 10	100 0 0	0	0				
Ambohimiadana	Iharamalaza	01 89	3 4		0	1 25	184	***	
Mana	Manandriana		100	4	25	01			
Tankafatora Mora	Morarano	N	001	1 (1) 1 (1) 1 (2) 1 (2)	0		1000		<b>-</b>
Analy Control of the Control of Analy	Analamihoatra	24 10	100	2	0 0				
Fitsinjovana	Ambohijanaka	109	0 0 001		0	13 13 13 13 14 14			
Bakaro	Kelimafana	27 10	100 0 0	0	0	0	0	5	7
Su	otal	492 10	100 7 1						
Total		1001	1000					1	

Notes

1 Average percentage of family consumption (%) = family consumption/total production x 100

2 Average sale percentage (%) = (Total production - family consumption)/total production x 100

3 Table indicates unknown elements

## Production of farm products and prices (taro)

Zone	Rural commane	Fokontany	Honesholds		Taro							
		Commercial Control	TOPPORT	. '								
		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	interviewed	B	Number of producer	. 1 ¥ . 1 4	Average	Yield kg/10 a	Average percentage of family	Average sale percentage	Vendor households	≺
			Households	%	Households	%	area planted	_	cou	(%)	who responded	FMG/Kg
Mantasoa	Ambatolaona	Ambatolaona	30	100	0	0	) when the	) (	0   0	0	0	0 0
	The second of th	Mahitsitady	200	001	0	0	0		0	0	0	0
	Mantasoa	Andrefanivorona	22	001	0	0	0	0	0	0	0	0
		Anjozoro	79	100	0	0	)	0	0	0	0	0
		Mantasoa	48	100	0	<del>-</del>	3	0	0	0	0	0
		Masombahiny	55	100	0	<u> </u>	0	0	0	0	0	0
		Miadamanjaka	33	100	0	0	0	0	0	0	0	0
	Miadanandriana	Ambohimanjaka	98	100	0	0	0	0	0	0	0	0
	The state of the second	Ambohipeno	44	100	0	0	0	0	0	0		0
	Merikanjaka	Merikanjaka	39	100	0	0	0	0	0	0	0	0
		Tsiazompaniry-Kely	34	100	0	0	0	0	0	0	0	0
		Miannarivo	22	100	0	0	0	0	0	0	0	0
	Su Su	Sub-Total	806	100	0				-		0	
Tsiazompaniry	Anosibe	Andriantsiajo	25	100	3	12	14	357	0	100	I	1000
	Trimoloharano	Angodongodona	61	100	13	21	4	173	100	0	0	0
		Mahatsinjo	24	20	2	80	4		0	0	0	0
		Ambohitsoa	23	100	1	4	0		0 0	0	0	0
	Ambohimiadana	Iharamalaza	89	100	2	7	3	333	0	0	0	0
	the contract to the contract of the contract o	Manandriana	32	100	3	6	4	0	0	0	0	0
	Tankafatora	Morarano	66	100	0	0	0	0	0	0	0	0
		Analamihoatra	24	100	3	13	5	0	0	0	0	0
	Fitsinjovana	Ambohijanaka	601	100	9	9	4	0	0	0	0	0
	Bakaro	Kelimafana	27	100	2	7	3		0	0	0	o
	Su	Sub-Total	492	100	38	8					I	
	Total		1001	<u>8</u>	38	4					p1	

1 Average percentage of family consumption (%) = family consumption/total production x 100

2 Average sale percentage (%) = (Total production - family consumption)/total production x 100 3 Table indicates unknown elements

## Production of farm products and prices (beans)

		-	YY	Doone						
Zone	Kural commune	rokoniany	rionsenoids	Dealis						
			interviewed	Number of producer	Average	Yield kg/10 a	Average percentage of family	Average sale percentage	Vendor households	∢,
1000円の大きのである。			Households %	Households %	- area planted		consumption (%)	(%)	wno responded	FINUME
Mantasoa	Ambatolaona	Ambatolaona	30 100	0	0 0	0	0	0	0	
		Mahitsitady	001 02	0	0 0	0 0	0	0	0	0
	Mantasoa	Andrefanivorona	22 100	0 0	0	0	0	0	0	0
		Anjozoro	26 100	0	0	0		0		0 (
		Mantasoa	48 100	0	0	0	0	0	0	0
		Masombahiny	55 100	0	0	0	0	0	0	
		Miadamanjaka	33 100	0	0	0	0	0	0	
	Miadanandriana	Ambohimanjaka	86 100	)     0     0	0 0	0	0	0	<b>0</b>	
		Ambohipeno	44 100	)   0   0	00	. 0	0	0	0	0
	Merikanjaka	Merikanjaka	39 100	0	0	0	0	0	0	
		Tsiazompaniry-Kely	34 100	0	0	0	0	0		·
		Miarinarivo	22 100	ુ 🤰 🕕 👾	0 0	S 0	0	0	0	0
	Su	Sub-Total	509 100	0 0					0	
Tsiazompaniry	Anosibe	Andriantsiajo	25 100	0	0	0	0	0	0	********
	Trimoloharano	Angodongodona	001 100	· 9	20	36	9	<b>~</b>	9	2000
		Mahatsinjo		0	0	0			0	
		Ambohitsoa	23 100	0   1   1   1   1   1   1   1   1   1	4 1 4	63	4	0		24(
	Ambohimiadana	Iharamalaza	001 89	3	4	40			0 (	
	· · · · · · · · · · · · · · · · · · ·	Manandriana	32 100	4	3 ि 11	42	. 83		2	162
	Tankafatora	Morarano	001 66	0	0	0			0	
		Analamihoatra	24 100	1 2	3 24	240	2000 to 2000	9	2	700
	Fitsinjovana	Ambohijanaka	001 601	\$	5	235	<b>.</b>			
	Bakaro	Kelimafana	27 100	0 % < > 3 % 1	1 % 13	25	9.2	24	8	2200
	Su	Sub-Total	492 100	25	5				14	
	Total		1001	25	2				14	
										:

Notes:

1 Average percentage of family consumption (%) = family consumption/total production x 100

2 Average sale percentage (%) = (Total production - family consumption)/total production x 100

3 Table indicates unknown elements

# Production of farm products and prices (other vegetables)

Zone	Rural commune	Fokontany	Households		Other vegetables	tables						
			interviewed	wed	Number of producer		Average	Yield kg/10 a	•	Average sale percentage	Vendor households	Average price
			Households	%	Households	80	arca pranicu		consumption (%)	(%)	with responded	INCAS
Mantasoa	Ambatolaona	Ambatolaona	30	100	2	-	7					3500
		Mahitsitady	0.2	100	4	9	2	2500			0	1
	Mantasoa	Andrefanivorona	22	92	0	0	0	0	0	0	0	0
		Anjozoro	26	<u>8</u>		4	•	•		•	0	
		Mantasoa	48	92	3	9	4	1 250	08	20	8	2000
		Masombahiny	55	8 1	0	0	0	0	0	0	0	0
		Miadamanjaka	33	100	2	9	2	+		ı	0	,
	Miadanandriana	Ambohimanjaka	98	100	2	2	1 1	200	100	0	0	0
		Ambohipeno	44	81		7	5	14	100	0		-
	Merikanjaka	Merikanjaka	39	001	0	0	0	0	0 7	0	0	0
		Tsiazompaniry-Kely	34	8	0	0	0	0		0	0	0
		Miarinarivo	22	8	0	0	0	0	0	0	0	0
	Su	Sub-Total	209	100	15	3					5	
Tsiazompaniry	Anosibe	Andriantsiajo	25	100	0	0	0	0	0	0	0	0
	Trimoloharano	Angodongodona	61	8	7	7	2	0	0	0	0	0
		Mahatsinjo	42	100	0	0	0	0	0	0	0	
		Ambohitsoa	23	100	0 - 3	0	0	0	0	0	0	0
	Ambohimiadana	Iharamalaza	89	001	<del>-</del>		7	0	0	0	0	0
		Manandriana	32	100	0	0	0	0 0	0	0	0	0
	Tankafatora	Morarano	66	001	1	1	0	0	100	0	0	0
		Analamihoatra	24	100	0	0	0	0	0	0	0	0
	Fitsinjovana	Ambohijanaka	109	100	0	0	0	0	0	0	0	Ö
	Bakaro	Kelimafana	27	100	0	0	0	0		0	0	0
	Su	Sub-Total	492	8	3	1					0	
	Total		1001	201	18	2					5	
NT-4-17												

Notes:

1 Average percentage of family consumption (%) = family consumption/total production x 100

2 Average sale percentage (%) = (Total production - family consumption)/total production x 100

3 Table indicates unknown elements

Average annual number of heads sold Average annual number of heads sold Number of Number of Sule price PMC/head Number of Sule price PMG/head 645,000 1,000,000 1,016,667 900,000 825,000 Average annual number of heads sold Merikanjaka Tsiazompaniry-Kely Miarinarivo Andrántsiajo
Angodongodona
Mahatsinjo
Ambohitsoa
Marandaza
Moranano
Analamihoara
Ambohijanaka Anjozoro Mantasoa Masombahiny Trimoloharano Ambatolaona Mantasoa

Total number of cattle sold and prices

Source: JICA socio-economic study, 1998

## ncome from forest product

7.		1-0-	1	۲			ļ.										
20ne	Kurai commune	rokontany	Households	- :	Charcoal		Firewood		Honey	1.		Construction wood	ction w	poo	Others (medicinal plants,	nedicin	al plants,
		· 有一個一個一個一個一個	interviewed	•						\. 9					mushrooms, etc.	ns, etc.)	
				्र	No. of households	۴	No. of households	v,	unt No. of	onsehol	T	and No. of he	onschold	ı		seholds	No. of households Total amount
					which responded	of income	which responded	ded of income		which responded	i of income	e which responded	sponded	l of income	which responded	ponded	of income
			Households	%	Households %	FMG	Households	% FMG	Households	spr	FMG	Households	15.	FMG	Households	%	FMG
Mantasoa	Ambatolaona	Ambatolaona	30	100	15   50	1,700,000	1	3 2,000,000	8	0	0	0		0	4	13	143,450
		Mahitsitady	70	100	14 20	2,395,000	2 3	3 705,000	8	_	20,000	0	:	1,000,000	0	0	
	Mantasoa	Andrefanivorona	22	001	10 45	10,802,500	1	5 200,000	00	0	0	0	\$	2,000,000	0	0	0
		Anjozoro	26	8	4 15	1,583,500	3	12 468,333	33	ः 0	<u> </u>	0	×		_	0	0
		Mantasoa	48	8	61 6		-	2 2,500,000	00	0	-	0	_	0	0	0	
		Masombahiny	55	8	13 24	1,319,846		2 2 240,000	<u>용</u>	3	5 246,667	0	0	0	0	0	~
		Miadamanjaka	33	8	17 52		0	0	. 0	3	9 69,167	7	. 3	1,500,000	0	0	
	Miadanandriana	Ambohimanjaka	98	001	40 47	3,202,563	1 - 1 - 1	1 200,000	Ω	3	199'19 18	7	1	200,000			50,000
		Ambohipeno	44	100	8 18	1,669,375	0	. 0	0	ं - +	9 235,000	5	1	174,000	•	0	_
	Merikanjaka	Merikanjaka	39	100	13 33	416,077	0	0	0	3	3 210,000	2	5	675,000		m	120,000
		Tsiazompaniry-Kely		8	<u> </u>	0	0	0	0	7 2	1 40,000	0 (	0	0	0	0	0
		Miarinarivo	22	2	0 0	0	0	0	0	, 0	0 0	0	0	0	0	0	0
	Sut	Sub-Total	509	<u>8</u>	143 29		01 - 10	7	5	24	3 [	14	3		9	1	
Tsiazompaniry	Anosibe	Andriantsiajo	25	100	0 0	0 12 125	0	0.00	0 (20)	3   1	2 153,333	I	4	300,000		4	520,000
	Trimoloharano	Angodongodona	. 61	<u></u>	\$ 6	491,667	7	3   115,000	: . :::	_	50,000		7	240,000,000	_	ÇI	2,000,000
		Mahatsinjo	24	8	3 13	1,200,000		4 250,000	2	4	7 63,750	4	17	1,300,000	0	0	0
		Ambohitsoa	23	100	4 16	1,343,750	1	4 75,000	0	1	220,000	)   1	4	150,000		4	2,400,000
	Ambohimiadana	Iharamalaza	89	100	2 3	837,500	0	0	0	8 12	80,938	9	6	216,667	0	0	0
		Manandriana	32	100	0 0	0 0	0	0	0	5 16	111,000	2	9	225,000	. 2	9	4,200,000
	Tankafatora	Morarano	66	001	1	3,450,000	0	0	0		30,000	5	5	000'984	0	0	0
		Analamihoatra	24	001	4 1 4	350,000	0	0	0	0	0	0	0	0	0	0	0
	Fitsinjovana	Ambohijanaka	109	100	0 0	0	0	0	0	2	5 286,000	2	7	285,000	2	2	112,500
	Bakaro	Kelimafana	27	100	0 0	0	0	0	0	1 4	0000	0	0	0		4	40,000
	Sub	Sub-Total	492	100	14		4	1	2	29 (	6	22	4		∞	CI	
	Total		<u>1</u>	9	157		14		,	53	S	36	4		14	=	

Source: JICA socio-economic study, 1998

## Other income

Zone	Rural commune	Fokontany	Households	٦	Fishing			Average income	come		Employment with wage	ent with	wage	Others		
To See			interviewed	ne."	No. of hous	eholds .	Fotal amount	No. of hous	eholds .	Fotal amount	No. of hou	seholds	No. of households Total amount	No. of hou	seholds	Total amount
				ç	which responded	papu	of income	which responded	uded	of income	which responded	onded	of income	which responded	onded	of income
			Households	%	Households	88	FMG	Households	%	FMG	Households	%	FMG	Households	%	FMG
Mantasoa	Ambatolaona	Ambatolaona	00	001	2.0		0 20 20 20 20 20 20 20 20 20 20 20 20 20	2	7	12,015,000	8	12	254,063	23	77	
のというでは、		Mahitsitady	0/	8	7		82,500	~		1.002.000	32		414,938	9		
	Mantasoa	Andrefanivorona	22	8	0	0	0,		'n	3,000,000	14	2	657,321	۲۱	01	
		Anjozoro	26	8	0	0	0	. 3	12	2,575,000	6	35	388,167	. 22	82	
		Mantasoa	84	8	00	117	1,614,875	4	80	1,178,750	25	52	189,520	<b>∞</b>	17	
		Masombahiny	55	8	3	S	283,333	2	6	000'189	22	6 6	850,591	14	25	
		Miadamanjaka	33	8	ć.	6	260,667	2	9	5,815,000	17	52	938,088	5	. 15	-
	Miadanandriana	-	98	<u>201</u>	2	2	000,000,9	9	7	2,837,333	30	35	240,433	6	01	
	3		4	8	18	14	1,158,000	3	7	1.946,667	. 22	50	460,477	9	20	1
	Merikanjaka	Merikanjaka	39	8	0	0	0	7	18	1,441,571	13	£8	324,000	13	33	
		Tsiazompaniry-Kely	34	8	0	0	0	7	9	430,000	16	. 47	158,125	<b>с</b>	φ.	
		Miannanyo	22	8	0	0	0	2	6	50,000	11	. 50	725,318	11	50	
	Sub	Sub-Total	509	100	36	7		42	80		219	43		135	27	'
Tsiazompaniry	Anosibe	Andriantsiajo	25	001	4	16	180,000	5	20	327,000	<b>∞</b>	32	519,750	7	- 38	
	Trimoloharano	Angodongodona	- 61	8	12	20	1,003,083	9	01	4,486,000	18	30	310,444	. 15	. 25	
		Mahatsinjo	24	8		4	45,000	9	<u>E</u>	300,000	10	42	239,500	2	5	
	· What expects	Ambohitsoa	23	100	0	0	0.	9	24	1.024,167	6	24	260.833	9	36	•
	Ambohimiadana	Iharamalaza	89	100	2	3	270,000	0	15	577,800	17	25	287,176	9	0	
		Manandriana	32	100	4	13	1.975,000	3	6	184,167	8	22	471.938	11	34	
	Tankafatora	Morarano	66	001	56	26	1,261,846	11	11	622,455	21	21	151,095	38	38	1
		Analamihoatra	24	100	0	0	0	10	42	196,700	<b>-</b>	4	300,000	10	42	
	Fitsinjovana	Ambohijanaka	601	100	2	2	247,500	91	15	1,780,000	46	42	242,543	42	39	
	Bakaro	Kelimafana	27	100	0	_ 0	0	4	15	356,250	12	4	266,667	6	33	
	Sub	Sub-Total	492	100	51	10		74	15		147	30		149	30	-
	Total		1,001	<u>8</u>	87	6.		116	12		366	37		284	28	-
		000							ļ							

Course. IICA socio-economic study 1998

## Annual expenses of households

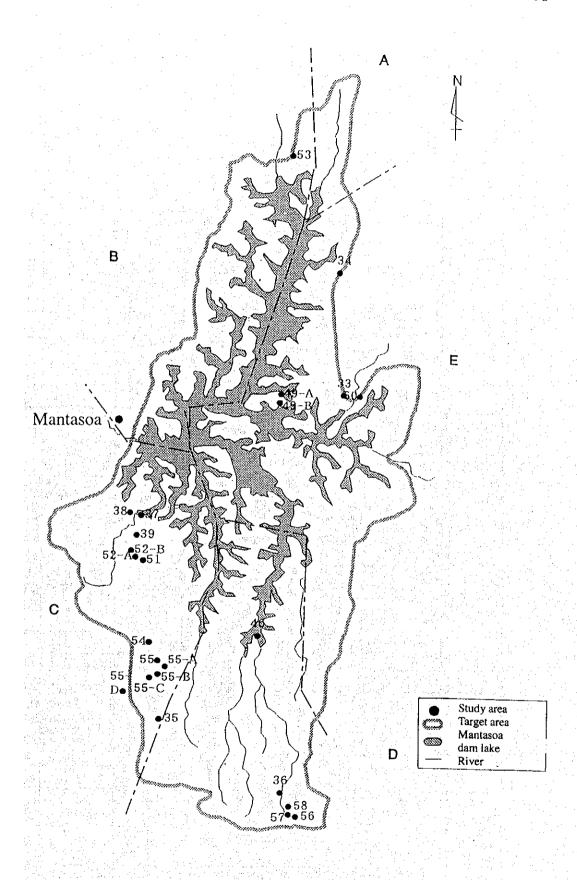
Ambatolacona         FMG         %	Zone	Rural commune	Fokontany	Households	Js	Total expenses	es	Breakdown	ď.					_
Ambatolaona         Households         %         FMG         %				interviewe			N - 4 - 4	Food	Clothes	Education	n Farming expenses		Others	Τ
Ambatolaona         30         100         1,497,403         100         76           Manitosiady         70         100         1,424,584         100         71         1           Maniasoa         Anjozoro         22         100         1,635,355         100         61           Maniasoa         Anjozoro         26         100         1,815,712         100         61           Miadamanjaka         33         100         1,216,798         100         55           Miadamanjaka         35         100         1,5120,70         100         73           Miadamanjaka         86         100         1,413,833         100         73           Miadamanjaka         86         100         1,413,833         100         70           Merikanjaka         86         100         1,413,833         100         75           Merikanjaka         Ambohipanjaka         39         100         1,413,833         100         75           Anosibe         Andrianisiajo         22         100         1,559,745         100         75         110           Ambohimadana         Iharamalaza         68         100         1,694,582         100	Company of the second			Households	%	FMG	%	%	%	%	%		%	1
Manitosiady         70         100         1,424,584         100         71         1           Mantasoa         Andrefanivorona         22         100         1,635,355         100         70         10           Anjozoro         48         100         2,166,798         100         55         100         73         1           Masombahiny         55         100         1,395,277         100         73         1           Miadanandriana         Ambohipeno         48         100         1,413,833         100         78         1           Miadanandriana         Ambohipeno         44         100         1,413,833         100         78         1           Merikanjaka         86         100         1,413,833         100         76         1           Merikanjaka         Ambohipeno         44         100         1,413,833         100         78         1           Mansibe         Ambohipeno         34         100         1,614,877         100         75         1           Ambohimada         Andodongodona         22         100         1,529,745         100         42         1           Ambohimada         Mahasinjo	Mantasoa	Ambatolaona	Ambatolaona	30	100	1,497,403	100	9/		- 6	4	5	9	1.4
Mantasoa         Andrefanivorona         22         100         1,635,355         100         70           Anjozoro         Anjozoro         26         100         1,815,712         100         61           Mantasoa         48         100         2,166,798         100         55           Masombahiny         55         100         1,395,277         100         73           Miadanandriana         Ambohimanjaka         86         100         1,413,833         100         78           Merikanjaka         Ambohimany-Kely         39         100         1,611,877         100         58           Merikanjaka         Merikanjaka         39         100         1,611,877         100         58           Merikanjaka         Marikanjaka         509         100         1,559,745         100         58           Anosibe         Andriansisijo         22         100         1,559,745         100         42         10           Ambohimada         Anabanisnjo         24         100         1,559,745         100         42         10           Ambohimada         Anabandriana         Ambohimada         24         100         1,246,651         100         45			Mahitsitady	70	i 100	1,424,584	÷ 100	71			7	6	'n	~~
Anjozoro         26         100         1,815,712         100         61           Mantasoa         48         100         2,166,798         100         55           Masombahiny         55         100         1,395,277         100         73           Miadamanjaka         33         100         1,550,209         100         70           Miadamanjaka         86         100         1,230,469         100         70           Merikanjaka         Merikanjaka         39         100         1,611,877         100         66           Merikanjaka         Merikanjaka         39         100         1,611,877         100         66           Merikanjaka         Merikanjaka         39         100         1,611,877         100         66           Merikanjaka         Misarinarivo         22         100         1,559,745         100         60           Anosibe         Andriantsiajo         21         100         1,694,582         100         1,694,582         100           Ambohirisoa         23         100         1,246,651         100         49         11           Ambohirisoa         24         100         1,185,941         100		Малтаѕоа		22	100	1,635,355	100	70			<b>3</b>	∞	0	_
Mantasoa         48         100         2,166,798         100         55           Masombahiny         55         100         1,395,277         100         73           Miadamanjaka         33         100         1,550,209         100         70           Miadamanjaka         86         100         1,230,469         100         70           Merikanjaka         Merikanjaka         39         100         1,611,877         100         66           Merikanjaka         Merikanjaka         39         100         1,611,877         100         66           Merikanjaka         Merikanjaka         39         100         1,611,877         100         66           Misimarinyo         22         100         1,559,745         100         60         1           Anosibe         Andriantsiajo         21         100         1,694,582         100         42         1           Ambohimadan         Iharamalaza         61         100         1,246,651         100         42         1           Ambohimadan         Iharamalaza         68         100         1,185,041         100         42         1           Tankafatora         Morazano			Anjozoro	26	8	1,815,712	100	9			\$	12	4	
Masombahiny         55         100         1,395,277         100         73           Miadamanjaka         33         100         1,550,209         100         78           Miadamanjaka         86         100         1,413,833         100         70           Miadamanjaka         Ambohipeno         44         100         1,413,833         100         70           Merikanjaka         Merikanjaka         39         100         1,611,877         100         58         10           Merikanjaka         Miarinarivo         22         100         1,611,877         100         58         1           Anosibe         Andriantsiajo         22         100         1,559,745         100         60         1           Trimoloharano         Angdongodona         61         100         1,694,582         100         42         1           Ambohimiadana         Ambohimiadana         23         100         1,246,651         100         49         1           Ambohimiadana         Monarano         24         100         1,246,651         100         45         1           Anakatora         Monarano         29         100         1,133,4566         100 <th></th> <th></th> <th>Mantasoa</th> <th>48</th> <th>8</th> <th>2,166,798</th> <th>92</th> <th>55</th> <th></th> <th></th> <th>7</th> <th></th> <th>20</th> <th></th>			Mantasoa	48	8	2,166,798	92	55			7		20	
Miadamanjaka         33         100         1,550,209         100         78           Miadanandriana         Ambohimanjaka         86         100         1,413,833         100         70           Merikanjaka         Ambohipeno         44         100         1,230,469         100         66           Merikanjaka         Merikanjaka         39         100         1,611,877         100         58           Marikanjaka         Marikanjaka         22         100         1,559,745         100         56           Anosibe         Andriantsiajo         22         100         1,559,745         100         60           Trimoloharano         Angodongodona         61         100         1,559,745         100         42           Trimoloharano         Angodongodona         61         100         1,559,745         100         42           Ambohimiadana         Ambohiisa         24         100         1,339,323         100         42           Tankafatora         Morarano         24         100         1,185,041         100         45         1           Total         Analamihoatra         24         100         1,588,767         100         44         1<			Masombahiny	55	001	1,395,277	100	73			2	∞.	2	
Miadanandriana         Ambohimanjaka         86         100         1,413,833         100         70           Merikanjaka         Ambohipeno         44         100         1,230,469         100         66           Merikanjaka         Merikanjaka         39         100         1,611,877         100         58           Merikanjaka         Miarinarivo         22         100         1,559,745         100         75           Anosibe         Andriantsiajo         25         100         1,559,745         100         60           Trimoloharano         Andodongodona         61         100         1,694,582         100         42         1           Trimoloharano         Anabohitisoa         24         100         1,246,651         100         51         1           Ambohimadana         Iharamalaza         68         100         1,246,651         100         42         1           Tankafatora         Morarano         Analamihoara         24         100         1,185,041         100         45         1           Fitisinjovana         Analamihoara         24         100         1,185,041         100         44         1           Bakaro         Kel			Miadamanjaka	33	100	1,550,209	100	78			2	7	0	
Merikanjaka         Ambohipeno         44         100         1,230,469         100         66           Merikanjaka         Merikanjaka         39         100         1,611,877         100         58           Marianarivo         Z2         100         906,780         100         75         100         75           Anosibe         Andriantsiajo         22         100         1,559,745         100         60         75           Trimoloharano         Angodongodona         61         100         1,694,582         100         42         1           Trimoloharano         Angodongodona         61         100         1,694,582         100         42         1           Ambohimiadana         Iharamalaza         68         100         1,246,651         100         49         1           Ambohimiadana         Morarano         99         100         1,185,041         100         45         1           Fitsinjovana         Analamihoatra         24         100         1,334,666         100         45         1           Bakaro         Sub-Total         402         1,174,137         100         42         1           Total         Sub-Total <th></th> <th>Miadanandriana</th> <th>Ambohimanjaka</th> <th>98</th> <th>100</th> <th>1,413,833</th> <th>100</th> <th>70</th> <th>H</th> <th></th> <th>9</th> <th>10</th> <th>3</th> <th></th>		Miadanandriana	Ambohimanjaka	98	100	1,413,833	100	70	H		9	10	3	
Merikanjaka         39         100         1,611,877         100         58           Merikanjaka         34         100         906,780         100         75           Miarinarivo         22         100         1,559,745         100         60           Anosibe         Andriantsiajo         25         100         3,538,265         100         15           Anosibe         Andriantsiajo         25         100         1,694,582         100         42           Trimoloharano         Angodongodona         61         100         1,694,582         100         42           Trimoloharano         Ambohitisoa         24         100         1,339,323         100         51           Ambohimiadana         Iharamalaza         68         100         1,246,651         100         49           Tankafatora         Morarano         99         100         1,185,041         100         45           Fitsinjovana         Anabohijanaka         109         100         1,588,767         100         44           Sub-Total         Kelimafana         100         1,174,137         100         62         1           Total         100         1,174,137			Ambohipeno	44	100	1,230,469	100	99	71		4	91	Ô	
Tsiazompaniry-Kely         34         100         906,780         100         75           Miarinarivo         Miarinarivo         22         100         1,559,745         100         75           Anosibe         Andriantsiajo         25         100         3,538,265         100         15           Trimoloharano         Angodongodona         61         100         1,694,582         100         42           Trimoloharano         Ambohitsoa         24         100         1,339,323         100         42           Ambohimiadana         Iharamalaza         68         100         1,246,651         100         49           Tankafatora         Morarano         99         100         1,185,041         100         45           Fitsinjovana         Ambohijanaka         109         1,588,767         100         44           Bakaro         Kelimafana         27         100         1,774,137         100         44           Sub-Total         2001         1,774,137         100         1,774,137         100         1		Merikanjaka	Merikanjaka	66	901	1,611,877	90 <u>1</u>	58	16	1	3	. 3	0	
Miarinarivo         22         100         1,559,745         100         60           Anosibe         Andriantsiajo         25         100         3,538,265         100         15           Trimoloharano         Angodongodona         61         100         1,694,582         100         42           Trimoloharano         Ambohitsoa         24         100         1,694,582         100         42           Ambohitsoa         24         100         1,339,323         100         51           Ambohitisoa         23         100         1246,651         100         49           Tankafatora         Morarano         99         100         1,185,041         100         45           Fitsinjovana         Ambohijanaka         109         100         1,588,767         100         44           Bakaro         Sub-Total         27         100         1,174,137         100         62           Total         Total         100         1,174,137         100         62         100			Tsiazompaniry-Kely	34	8	906,780	8	75	18		2	ν,	0	
Anosibe         Andriantsiajo         25         100         3,538,265         100         15           Anosibe         Angodongodona         61         100         1,694,582         100         42           Trimoloharano         Mahatsinjo         24         100         1,694,582         100         42           Ambohimiadana         Iharamalaza         68         100         1,246,651         100         49           Tankafatora         Morarano         99         100         1,185,041         100         45           Titsinjovana         Analaminoatra         24         100         1,334,666         100         44           Bakaro         Kelimafana         27         100         1,74,137         100         62           Total         Total         101         101,174,137         100         62         10			Miarinarivo	22	100	1,559,745	100	60	12		5	23	0	·
Anosibe         Andriantsiajo         25         100         3,538,265         100         15           Trimoloharano         Angodongodona         61         100         1,694,582         100         42           Ambohitsoa         24         100         1,339,323         100         51           Ambohitsoa         23         100         826,578         100         55           Ambohimiadana         Manandriana         32         100         1,185,041         100         49           Tankafatora         Morarano         99         100         1,185,041         100         45           Fitsinjovana         Ambohijanaka         109         100         1,588,767         100         44           Bakaro         Kelimafana         27         100         1,174,137         100         62           Sub-Total         100         1,014,137         100         62         100		April 1	b-Total	60\$	100				-			-		
harano         Angodongodona         61         100         1,694,582         100         42           Mahatsinjo         24         100         1,339,323         100         51           Ambohitsoa         23         100         826,578         100         49           miadana         Manandriana         32         100         1,185,041         100         49           tora         Morarano         99         100         1,185,041         100         45           ana         Analamihoatra         24         100         1,334,666         100         44           ana         Ambohijanaka         109         100         1,174,137         100         62           Sub-Total         492         100         1,174,137         100         62	Tsiazompaniry		Andriantsiajo	25	100	3,538,265	100	15	9	22		61	38	
Mahatsinjo         24         100         1,339,323         100         51           Ambohitsoa         23         100         826,578         100         55           miadana         Iharamalaza         68         100         1,246,651         100         49           tora         Morarano         99         100         1,185,041         100         62           tora         Analamihoatra         24         100         1,588,767         100         45           ana         Ambohijanaka         109         100         1,334,666         100         44           Kelimafana         27         100         1,174,137         100         62           Sub-Total         492         100         1,174,137         100         62		Trimoloharano	Angodongodona	[19	8	1,694,582	100	42	12	9		37	m	
Ambohitsoa         23         100         826,578         100         55           miadana         Iharamalaza         68         100         1,246,651         100         49           tora         Manandriana         32         100         1,185,041         100         62         1           tora         Morarano         99         100         1,313,557         100         45         1           ana         Ambohijanaka         109         100         1,588,767         100         39           Kelimafana         27         100         1,174,137         100         62         1           Sub-Total         492         100         1,174,137         100         62         1			Mahatsinjo	24	8	1,339,323	100	51	01	'n		59	,	
miadana         Iharamalaza         68         100         1,246,651         100         49         1           Manandriana         32         100         1,185,041         100         62         1           tora         Morarano         99         100         1,313,557         100         45         1           ana         Analamihoatra         24         100         1,588,767         100         39         1           ana         Ambohijanaka         109         100         1,334,666         100         44         1           Sub-Total         492         100         1,174,137         100         62         1           Total         1001         1001         1001         1001         1001         1001			Ambohitsoa	23	100	826,578	8	55	14			20	0	
Kalimafana         32         100         1,185,041         100         62         1           tora         Morarano         99         100         1,313,557         100         45         1           ana         Analamihoatra         24         100         1,588,767         100         39         1           ana         Ambohijanaka         109         100         1,334,666         100         44         1           Sub-Total         492         100         1,174,137         100         62         1           Total         1001         1001         1001         1001         1001         1		Ambohimiadana	Iharamalaza	89	100	1,246,651	100	49		\$		33	0	
tora Morarano 99 100 1,313,557 100 45 1 1 1 2 1 1 2 1 1 2 1 2 1 2 1 2 1 2 1		The second second second	Manandriana	32	100	1,185,041	100	62	11	5		22	0	
Analamihoatra         24         100         1,588,767         100         39         1           'ana         Ambohijanaka         109         100         1,334,666         100         44         1           Kelimafana         27         100         1,174,137         100         62         1           Sub-Total         492         100         1,001         100         100         100		Tankafatora	Morarano	66	100	1,313,557	001	45	15	4		34	2	
ana         Ambohijanaka         109         100         1,334,666         100         44           Kelimafana         27         100         1,174,137         100         62           Sub-Total         492         100         100         100			Analamihoatra	24	100	1,588,767	100	39	18	3		34	9	
Kelimafana   27   100   1,174,137   100   62   1   Sub-Total   1001   100		Fitsinjovana	Ambohijanaka	109	100	1,334,666	100	44	14	4		34	4	
b-Total creek was comed as 492 as			Kelimafana	27	100	1,174,137	100	62	13			24	0	
		qnS	-Total	492	100	The second section of		- T						
		Total	188, A. 18. 18. 18. 18. 18. 18. 18. 18. 18. 18	1001	100									

Source: JICA socio-economic study, 1998

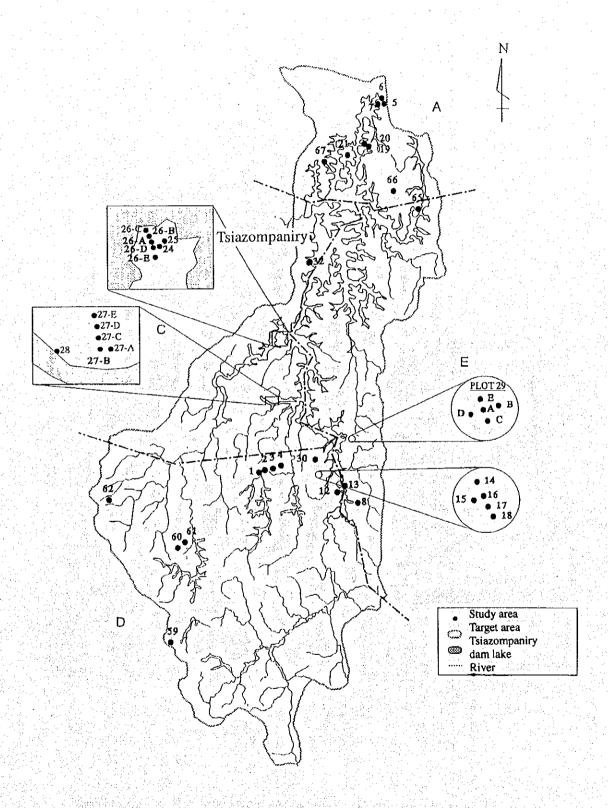
## Results of the study on needs

Zone	Rural commune	Fokontany	Households	sp1	×					
			interviewed	g	Isrlevel	2nd level	3rd level	4th level	5th level	
		Secretary of the second	Households	32						
Mantasoa	Ambatolaona	Ambatolaona	30		100 Possibilities of employment Electrical supply	Electrical supply	Increase in revenue	Increasing farm production Maintenance of hospitals	Maintenance of hospitals	
	**	Mahitsitady	ر مح		100 Electrical supply	Increasing farm production	Building of a dam	Maintenance of hospitals	Road repair	,
	Mantasoa	Andrefanivorona	22		100 Road repair	Increasing farm production	Obtaining fertilizers	Maintenance of hospitals	Maintenance of schools	
		Anjozoro			100 Road repair	Building of a dam	increasing farm production	Electrical supply	Maintenance of hospitals	
		Mantasoa		2200	illizers	action	Maintenance of hospitals	Road repair	Obtaining land	
		Masombahiny	55	27	uction	Maintenance of hospitals Road repair		Improving health	Electrical supply	
		Miadamaniaka	<b>2</b>	725	Obtaining fertilizers	Obtaining fertilizers See Increasing farm production Electrical supply		Road repair	Improving agricultural techniques	
	Miadanandriana	Viadanandriana Ambohimaniaka	98		100 Obtaining fertilizers	Road repair	Increasing farm production	Maintenance of hospitals	Improving health	-
		Ambohipeno	4	11.		roduction	Maintenance of hospitals	Obtaining fertilizers	Maintenance of schools	٠.,
	Merikanjaka		33		100 Road repair	Increasing farm production Obtaining fertilizers	100	Maintenance of schools	Improving health	
			*		arm production	Obtaining fertilizers	Improving health	Road repair	Maintenance of schools	
	14. 多人的	Miarinanyo	22		100 Road repair	r F	Increasing farm production   Maintenance of schools		Maintenance of hospitals	٠.
	Sa	Sub-Total	509	8						٠,
Tsiazompaniry	Anosibe	Andriantsiajo	25		100 Road repair	Obtaining fertilizers	Increasing farm production	Maintenance of hospitals	Obtaining land	_
	Trimoloharano	Angodongodona	19 2000	38.	100 Obtaining fertilizers	Road repair	Maintenance of hospitals	Electrical supply	Increasing farm production	
	1.14.1	Mahatsinjo	42	N. E.	100 Road repair	Obtaining fertilizers	Maintenance of hospitals	Maintenance of schools	Increasing farm production	
		Ambohitsoa	23	<u> </u>	100 Obtaining fertilizers	Road repair	Increasing farm production	Maintenance of schools	Security in the village	_
	Ambohama	horono or o	89	]	200	Increasing farm production	Electrical supply	Obtaining fertilizers	Increasing possibilities of employment	
			33	JE144	Road repair	Increasing farm production   Electrical supply		Improving agricultural techniques	Building of a bridge	
	Tombofotoes	Morarago	00	2	rulizers	Obtaining the right to	Road repair	Increasing farm production Maintenance of hospitals	Maintenance of hospitals	
	Townson The Control of the Control o	Anolamihoatra		∍ <u>8</u>	Obtaining fertilizers	farm production	Road repair	Improving agricultural techniques	Building of a bridge	
	Fitsinjovana	Ambohijanaka	109	20				ion	Increase in revenue	
本事 ありま	Bakaro	Kelimafana	77	8	100 Obtaining fertilizers	Road repair	Increasing farm production	Extension of farm lands	Mannenance of schools	
	Su	Sub-Total	492	90				-		_

Source: JICA socio-economic study, 1998



Points of the pedological study (Mantasoa zone)



Points of the pedological study (Tsiazompaniry zone)

## Data on locations of the pedological study

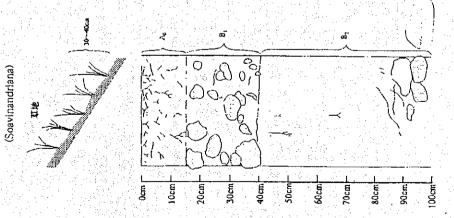
		Items	of the study					Locations of the study		
N	Plot No	Zone	Pedological peolite	Penetraticu	n Intiferation	Discharge	Site	Area	т-	
Tsl	Azompi	aniry				Щ	<del></del>	1 Mica	1	Coordinate
1	1	D	0	0	0		Southern Anaramifoatra	Lower part of the hill	S	19*22 530
2	2	D	1.6 .	0	0		Southern Anaramifoatra	Middle part of the hill	+=	47° 49′ 124
3	3	D	0	0	0		Southern Anaramifoatra		+	<del></del>
4	4	ם	ļ	0	Ö		Southern Anaramifoatra		╁	
5	5	A	0	0	0		Ambohitrandriana	Fallow land for farming away from home	ş	19*11 304
6	6	Α	0	0	0	1:	Ambohitrandriana	Philippia shrub area	S	47*53′042 19*11′303
7	7	Ä	·	<b></b>	0		Ambohitrandriana	Compa land to a significant	E	47 52 993
8	8	E	0	0	ŏ		Andongoa	Grass land (grazing) Natural forest east of the dam	Ļ	77 11
9	13	E		0	0	O	44.34.35	tokan kalendari da k	}***	19°23´619 47°51´665
	97		Tarle El		15.00	) :-	Hisalamarendrina	Natural forest east of the dam	1784	19° 22′ 845 47° 51′ 700
01	14	D ,		0	0 		Soakintana	Landslide area west of the dam (peak)	****	19° 22´ 585 47° 51´ 015
11	15	D		0			Soakintana	Landslide area (peak)	+-	31 01 010
12	16	D	g fpr 1 mm	0	::		Soakintana	Landslide area (central part)	1-	
13	17	D		0			Soakintana	Landslide area (base)	†"	
14	18	D		0	1.0%		Soakintana	Landslide area (sediments)	1	
15	19	A		0 ,	15.7		Ambolibe	North-east of the dam, grass land (peak)		19° 12´ 766 47° 52´ 313
16	20	Α	0	0	0	11-2 P.	Ambolibe	North-east part of the dam, grass land (lower/middle part of plot 19)		40 02 313
17	21	Α		0	1 (44) 1 (4)	1 (c) 4 (7)	Ambolibe	North-east part, grass land (opposite bank/peak in plot 20)	Ħ	
18	24	С	14 - 17 144 - 18	0	8/14/ 13/14 13/14		Ambatoaranankely	South of the dam, eastern side, grass land (hill summit)	s	19* 18~490
_ !9	25	С		0	0			South of the dam, eastern side, grass land (hill	E	47*49 717
_							Ambatoaranankely	summit) beside plot 24	5	19°20′376 47°49′576
20	26-A	С		0	***************************************		***************************************	South of the dam, eastern side, grass land (mid- hillside) below plot 25		
21	26-B	С	MARKE.	<u> </u>	esignit.		Ambatoaranankely	South of the dam, castern side, grass land (mid- hillside) cucalyptus forest		
3	26-C	С		0	Terrory		Ambaloaranankely	South of the dam, eastern side, grass land (mid- hillside) grass land  South of the dam, eastern side, grass land (mid-		
4	26-D	C	i përus Lektrat	0	42 A	201		hillside) grass land South of the dam, eastern side, grass land (mid-		
5	26-E 27-A	C C	Ö	<u> </u>	11.5%		Ambatoaranankely Soavinandriana	hillside) eucalyptus forest South of the dam, western side,		.00000000
4								grass land (mid-hillside)	L L	19° 20´ 376 47° 49´ 576
┪	27-B	С		0	3-14		Soavinandriana	South of the dam, western side, grass land (mid- hillside) eucalyptus forest		
-	27-C 27-D	C C			8-3 	*****************	30avinandnana	South of the darn, western side, grass land (mid- hitlside) above 27-B, grass land		
9	27-E	c	e de la companya de l	0	>			South of the dam, western side, grass land, peak South of the dam, western side, grass land,	H	31 Table
0	29-A	ε		0	0			northern slope opposite 27-D South of the dam, eastern side, grass land, (peak)	H	<u> </u>
1	29-B	E		0			Were Make the	South of the dam, eastern side, grass land, (eastern part)		
2	29-C	ε	indiana a	0	0	~ [	\mbohimandroso	South of the dam, eastern side, grass land, (southern part)		
3	29-D	E		0	1000 1000 1000 1100 1100 1100 1100 110	/	Ambohimandroso	South of the darn, eastern side, grass land, (western part)		
-	29-E	E		0	0	-	Ambohimandroso	South of the dam, eastern side, grass land, (northern part)		
5	30 32	D C		0	- 읒 ㅣ			South of the dam, western side, natural forest	I	15
7	59	D	0	0	0		darotaolana 💮	South of Tsiazompaniry, pine forest  Extreme south of the target area, grass land	S	19° 26´ 357′
В	60	D	0	0	0			South-east of the target area, grass land		47° 45 711′ 19° 24 663′
9	61	D	0	1.7				South-east of the target area, grass land near plot	Ε	47° 46´331′ 19° 24´663′
)	62	D	0 "	0	0			50	Ε	47° 46^3314
		1.5					Z. Z			19° 23 <sup>*</sup> 348′ 17° 44 <sup>*</sup> 238′

## Data on locations of the pedological study

			ltems o	f the study					Locations of the study		
	Na	Plot No.	Хине	Pedrological profile	Penetration	Intiltration	Discharge	Site	Area		Coordinates
	41	65	ε	0	0	0		Marohery	North-east of the dam, hill part, pine afforestation	S	19* 14* 373*
		(A,B,C)	:	1					A = summit, B = middle part, C = toot	E	47° 54′ 062″
	42	66	Α	0	0	0		Marohery	North-east of the dam, hill part, grass land	S	19*13 693"
		(A,B,C)	:		* -				A = summit, B = middle part, C = foot	Ε	47 53 129"
	43	67	Α	. 0	0	0		Ambala	North-west of the dam,	S	19' 13' 014"
		3.1	200	33				Part Har	upper part of grass land	Е	47 53 935″
	Mar	14808	40.00	9.7			- 1.ja	<u> </u>	. As the set of gradient of the $(\mathcal{A}_{i}, \mathcal{A}_{i})$ , where $(\mathcal{A}_{i}, \mathcal{A}_{i})$ is the set of $\mathcal{A}_{i}$	./\	and the same
	44	33	Е	0	0	0		Analavory	East of the dam, north of the weir of the dam,	S	19"00"640"
				112.1.1		10.00		3 82 3	Philippia afforestation	Е	47*54~075*
, i	45	34	Ε	0	0	0		Marorangotra	East of the dam, shrub area throughout	S	18* 58 856"
]			···	10.2		7.5		3 3 27 3	the road at the horder with the target area	Ē	47" 53" 790"
	46	35	С	-,0	0	0		Andavabalo	Southern part, lower part of the rocky	<u>s</u>	19° 04 '959"
		7.					ļ		mountain, eucalyptus forest	E	47 51 343"
	47	36	D		0			Andrenirano	Southern part, shrub area, eucalyptus forest	S	19'06 333"
	<u> </u>			13.5		1,111		Datas in se	Neith Arthur Annach (In the Ale Note 125	E	47 53 111"
4	48	37	С	0		0		Ambohivadiantany	Southern part, eucalyptus forest (4 years)	S	19 02 129"
		-			<del> </del>				The Elith Control Section and Develope in the end	E	47 51 024
	49	39	С	0	0	0		Andrefanivorona	Fucalyptus forest (40) years/24-28 cm)	S	19 02 400
100	<u> </u>	<u> </u>		2 - 3	<b></b>	<del>                                     </del>	<u> </u>	3.44 (1.15)	The Control of the Co	E	47 50 978"
	50	46	D	0	0	0		Andakana	Shrub area immediately downstream of plot 45	2	19 03 856"
		1,5	15.78			1	-	0. 11	<u> </u>	Ŀ	47 52 803"
	51	49-A	Ε.		0			Desokina	LAVUDEN V shrub area, southern slope, surrounding Philippia forest	2	19"04"407"
. 4	-	49-B	E			0		Besokina		Ę	47° 53′ 174″
	52	49-6	E			~		Besokina	LAVUDEN V, Philippia (shrubs, grass land)	1	19° 00´ 490″ 47° 53´ 135″
		50	E	0	0	0	-		northern slope, around plot 49-A	٥	
10	53	30	5			1		Ampasika	LAYUDEN V. only Philippia shrubs, 4 m,	5	19° 00 778″ 47° 54 082″
	54	51	С	26.5	0	<del> </del>	<del> </del>	Ambolobota	dense, eastern slope  South-west of the dam, north of the village,	녆	19*02*765*
	34	,,,	٦		1 ~			Allitiological	only Philippia shrubs	12	47°51′041″
	55	52-A	C	0	0	0	-	Sovorona	South-west of the dam, north of the village,	Į,	19 02 791"
144	••	1 " ``	Ĭ		l ŭ.			COVERTINAL	eucalyptus forest	Ë	47 50 952"
	56	52-B	С		0	<b>-</b>	14.3	Sovorona	South-west of the dam, north of the village,	╂┤	11 00 002
14	"	<b>"</b> "	74.			10 mg/s 20 mg/s	24.3	DOVOICHIA	eucalyptus forest near plot 52-A	Н	447443444
4,	57	53-A	В		0	0		Ampasiotsy	Northern part of the northern slope of	ŀ	18" 57 "082"
	"		- T		A A	l ĕ	1	629/05 17 6 Pg	the dam, Philippia area	Ē	47 53 194"
7.5	58	53-B	В	0	0	0		Ampasiotsy	Northern part of the northern weir of	s	18 57 082
100	••	- 3		Lay rath	W		1 27	gradien (ektry i in	the dam, eucalyptus forest (around 20 years)	F	47' 53' 194"
	59	54	С	2 pt N 50	0	0	1	Fanongoayana	South-east of the target area,	Īs	19*04 053"
	"	200	Ĭ					assessed Citize	eucalyptus forest	F	47 51 271"
	60	<del></del>	C	0		0	1	Anehano-kely	South-west of the target area,	s	19 04 736
	1	30		I Asi da	1 84				eucalyptus forest	Ě	47 50 080"
		1.5					<b>†</b>		South-west of the target area, eucalyptus forest,	Ť	
	61	55-A	С					Anchano-kely	peak BEET HELL CLEAR ASSESSED		13 81.34.
100	62	1 2		10.00	2567	1256	55/2		South-west of the target area, eucalyptus forest,		8 4/4
	1	30-0	C	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0		-	Anchano-kely	South wait of the terrer	╁	1 mg 3 mgs 300
4:4	63	55-C	С		0	1	1.5	Anchano-kely	South-west of the target area, eucalyptus forest, lower part		
		1	<b> </b>	415 254	†	1,359	-	And State of the second	South-west of the larget area, eucalyptus forest,	†	tigligatin él.
A. 34	64	55-D	С		0	11. 3.20	£, 29	Anehano-kely	base part		
100	65	56	D	0	. 0	0	3975	Λπbohibe	Southern end of the target area, natural forest	s	19 06 468
	L				14 1 7 7 7 1 No. 14 44	3.3	2400	9,5%, 5,7%, 1	□ 如何如此上記官員指揮令者会員記官	E	47*53~054"
	66		D	0	1877	0	10.1	Ambonilahitsara	Southern end of the target area, natural forest,	S	
4.51	_	15		P. 1. 187.		13.7%			grass land, north of plot 56	E	
	67		D	14.4	0			Ambohimarina	Southern end of the target area, natural forest,	Įs	19"06 256"
4 2 2 4	1	1.34		18,759	11.34 \$1.5		11.0		grass land, north of plot 57	F	47"52"195"

				_					-	
				Others					Altered conglomerate below 90 cm	
				Structure	Grains		Wall		Wall	_
				System of	Yes		Little		2	
				Soil	Fine sand		Fine sand/average and coarse	Dillac	Sandy clay including gravel	
1000/6/17	E	NETWORK-SE 344/average skine and	Grass land	Hd	6,18		6.12		5,93	
100		NETWORKSES	Grass	Humidity pH	Slightly	7	Slightfy humid		Slighdy humid	
Study date	Elevation	Relief/slope	Vegetation	Layer Soil color - Humus Conglomerate	None		Many stones 5-10 cm		No stone of 40-80 cm	
27	Tsiazompaniry	Soavinandriana	C	Humus	A little		None		None	
,_	Tsiazo	Soavir		Soil color	5YR 5/4		2.5YR 4/5		10R 5/6	
Piot No.	Zone	Sic	Division	Layer	<b>Y</b> (**)		В	Washing Co.	<b>е</b> .	

Pedological profile of the grass land (1)



Pedological profile of the grass land (2)

				Others			Non-altered conglomerate		
				Structure	Slightly spherical	Wail	Wall	Wall	Wall
				System of roots	Many fine roots	Fine roots	Fine roots	None	None
				Soil	Sandy clay	Sandy clay	Sand including gravel	Clay	Sandy clay
713	E	any sliding	pue	ьН	5,32	5,92	16'5	5,67	5.69
1999/7/13	1689 m	SW-NE 22/ many sliding sites	Grass land	Humidity	Ordinary - slightly humid	Slightly humid	Slightly humid	Slightly humid	Slightly humid
		٠,							
Study date	Elevation	Relief/slope	Vegetation	Conglomerate	Includes big stones	Big gravel in the entire layer	Big gravel in the entire layer	the entire	Big gravel in the entire layer
	 	Relief/slope		Humus Conglomerate Humidity	Low Includes big	Big gravel in None the entire	Big gravel in None the entire layer	None the entire	Big gravel in None Une entire layer
59 Sudy date	Tsiazompaniry Elevation		D Vegetation	Soil color Humus Conglomerate		T	<del> </del>		
	 	Relief/slope			Low	None	None	None	None

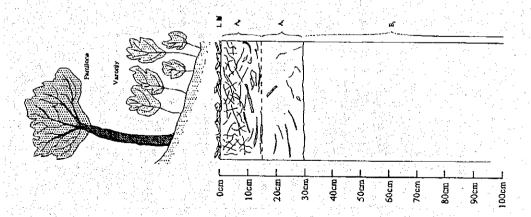
Plot 59
(Marctaolana)

(Aarctaolana)

1999/6/14	E	N-S 17/lower part of the slope	Philippia sop.	
Study date	Elevation	Relief/slope	Vegetation	
osc	Tsiazompaniry	Andongoa	ш	
Plot No.	Zone	Name	Division	

	Layer	Soil color	Humus	Layer Soil color Humus Conglomerate Humidity pH Soil System of most Structure	Humidity	摄	Soil	System of mous	Structure	C.
4.10	Ao	2,5YR 3/6	A lot as well as L.H.F	3.5YR A lot as well as L.H.F Solone Oute humid 5.00	Quite humid	5.00		Ouite a few	Form of	
	¥	7,5YR 5/8	Yes	7.5YR Yes None Quite humid \$5.00 Clay \$5 Many	Quire humid	5.00	Clay		Slightly	Slightly System of roots
									spherical	up to 50 cm
	æ	2,5YR 5/8	None	B S.30 None None Humide 5.30	Humide	5.30	Sandy clay	None	Wall	Sandy clay None Wall layer up to 50 cm
										deep

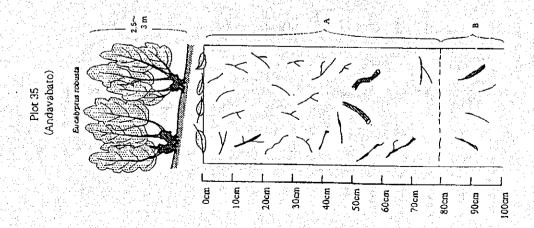
Pedological profile of the natural forest zone



	· '.				Others	Big roots 50 cm	
					Structure	Wall	
					Soil System of roots Structure	Many fine and medium size roots, eucalyptus roots	_
			 	<i>*</i>	Soil	Sand	
6/23	m	Sur la crêt	calyprus		ЬH	5,73 5,73 5,73 5,73 5,73 5,73 5,73 5,73	_
1999/6/23	1480 m	N-S 100K/Sur la crête	Forêt d'eucalyprus		Humidity	Ĝ	
Study date	Elevation	Relief/slope	Vegetation		Layer Soil cotor Humus Conglomerate Humidity pH	None	
35	Mantasoa	Andavabato	F 3		Humus	Tring	
m	Man	Anda	)		Soil color	10YR 3/3	_
Plot No.	Zone	Name	Division		Layer	<b>*</b>	_
		2110		١.	<u> </u>		_
1.5	100	1		Si	445.	海軍計劃 计二十分的计算法	

None Slightly dry 5,72

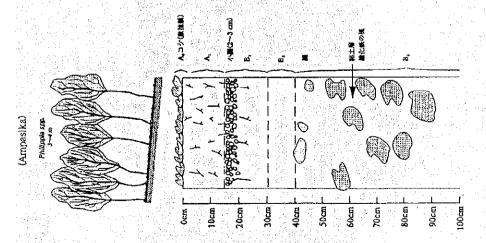
Pedological profile of the eucalyptus afforestation area

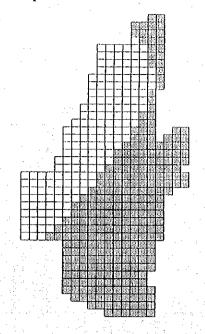


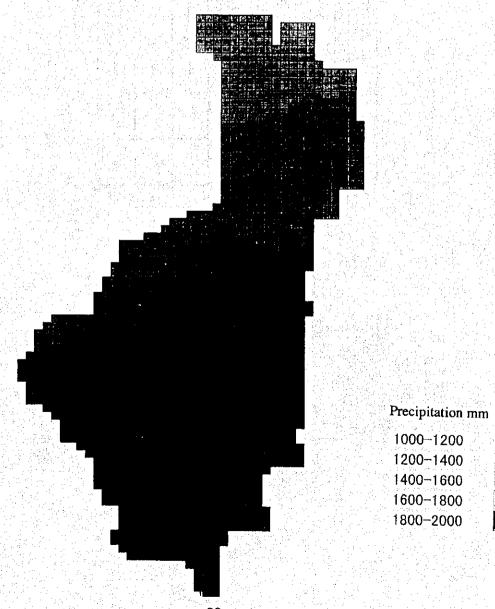
		T 5	
1999/6/29	1390 m	Relief/slope N-S 128ower part of the slope	Philippia ssp. only/dense summits at 3 m
Study date	Elevation	Relief/slope	Vegetation
50	Mantasoa	Ampasika	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Plot No.	Zone	Name	Division

g.										
Du.	Layer	Soil color	Humus	Humus Conglomerate Humidity	Humidity	μd	Soil	System of roots	Structure	Others
	<b>*</b>		Proliferation of moss	Much gravel Slightly dry	Slightly dry			Many fine roots		Many moss species covering the surface
4 Ç	<b>V</b>	7.5YR 2/3	Proliferation	Proliferation Much gravel Slightly dry 5.75	Slightly dry	5.75	Sable	Many fine roots	Dumpling form	
1300	В	7.5YR	None	Much Normal		6,01	Sandy/claye y soil, much sand	Sandy/clayc y soil, much Up to 20 cm Wall	Wall	
KV SV	<b>8</b>	7,5YR 7/8	None	Liule	Normal	5,97	Clay, including sand	None	Wall	Clay layer
18 TA 19	B,	2,5YR 5/8	None	Much iron Normal- oxide crystals, slightly dry	Normal~ slightly dry	90'9	6,06 Sandy clay, much sand	None	Wall	

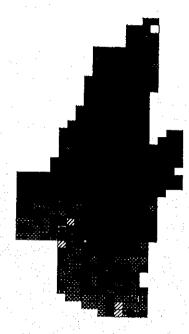
Pedological profile of the Philippia area

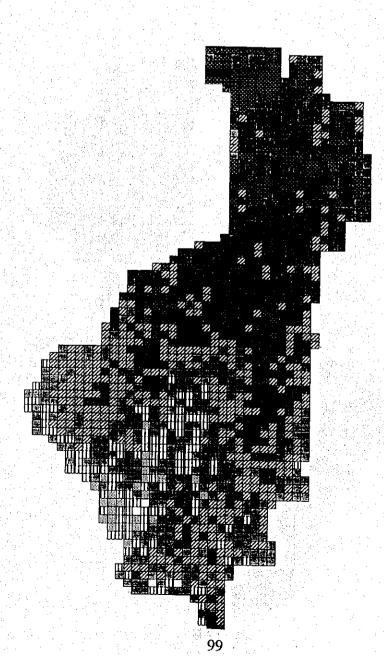






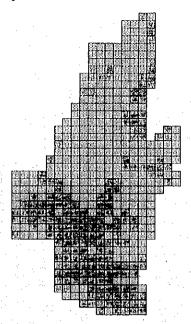
## (2) Elevation

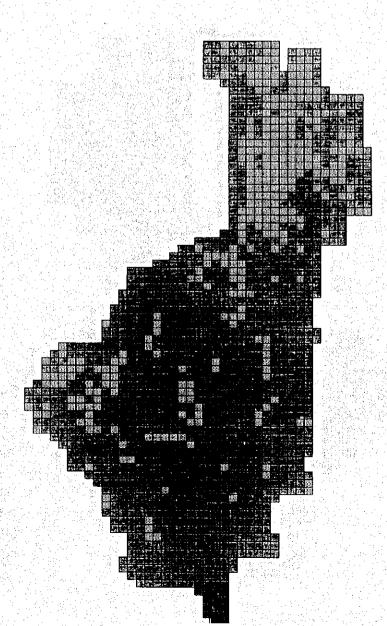




## Elevation m 1351-1400 1401-1450 1451-1500 1501-1550 1551-1600 1601-1650 1651-1700 1701-1750 1751-1800

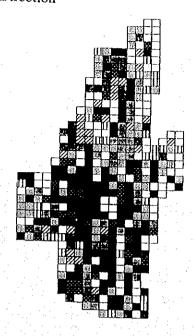


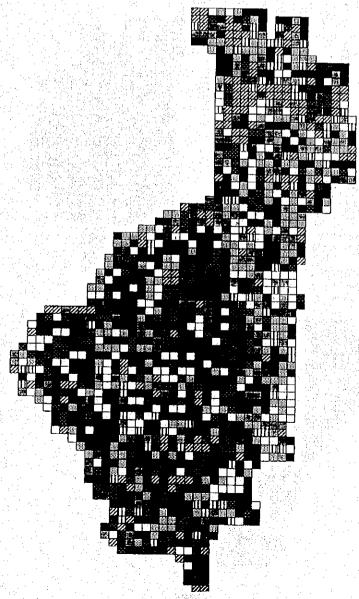






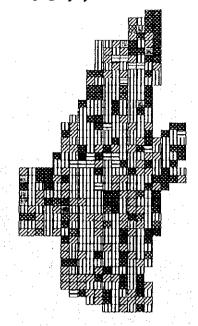
## (4) Direction

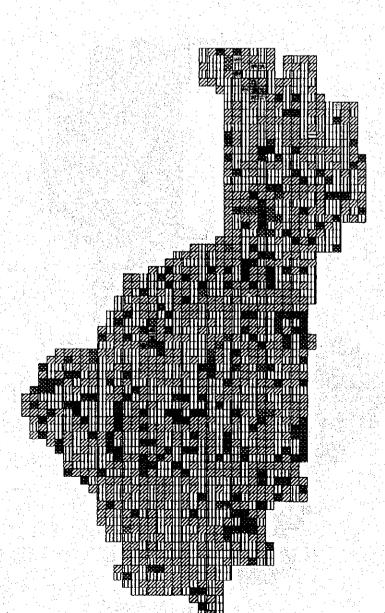






## (5) Microtopography

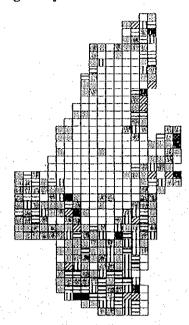


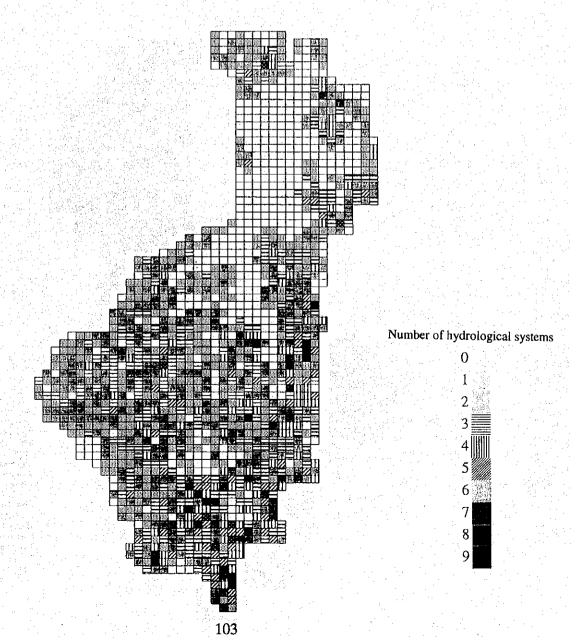


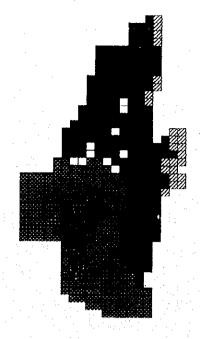
## Microtopography

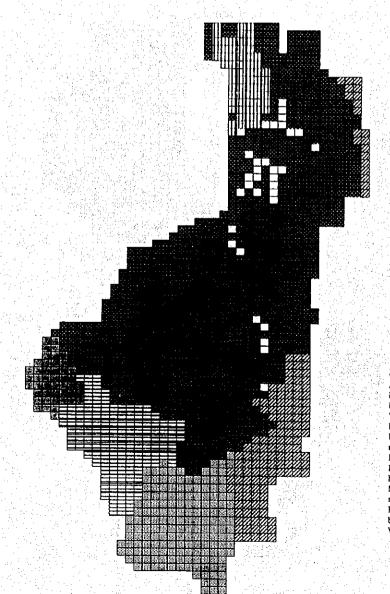
Summit surface
Plateau
Level hillside
Convex hillside
Concave hillside
Depositional surface
at the skirts of mountain
Water surface

## (6) Hydrological system



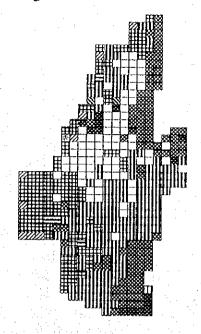


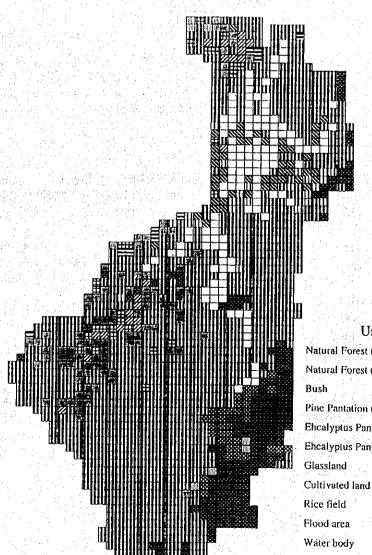




Soil
Alluvium
Medium desaturated ferrallitic
Medium desaturated ferrallitic in
"grunitoicle" migmatite
Lithosol
Highly desaturated ferrallitic in
migmatite
Low desaturated ferrallitic, beige
Highly desaturated ferrallitic and
handling
Medium desaturated ferrallitic in
migmatite
Highly desaturated ferrallitic,
brown-yellow
Water surface

## (8) Use of land/vegetation





## Use of land/vegetation

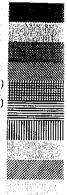
Natural Forest (Crown density >50%)

Natural Forest (Crown density <50%)

Pine Pantation (Crown density >40%)

Ehcalyptus Pantation (Crown density >40%)

Ehealyptus Pantation (Crown density <40%)



## Table of notes on natural environment elements

1						
Precipitation	n .					
			NT 5	NT - 4 -	D	Partial correlation
		and the second second	Number		Range	coefficient
		1000-1200	178	-1.6332	4.0599	0.2159
. :		1200-1400	277	100		
		1400-1600	176			
		1600-1800	428			
		1800-2000	938	1.6978		
Elevation						
			Number	Note	Range	Partial correlation coefficient
		1351-1400	107	-0.3858	2.5013	0.1252
		1401-1450	274		2.3013	0.1232
		1451-1500	187			
		1501-1550	611	0.6157		
		1551-1600	377	The second second		
		1601-1650	292	the state of the s		
		1651-1700	121			
		1701-1750	24	-1.2303		
Market y		1751-1800		age and the second		
		1/31-1800	4	-1.8856		
Clana						
Slope						Partial correlation
			Number	Note	Range	coefficient
		0°-10°	593	-1.8232	7.2384	0.1808
		11°-20°	1395	0.7401		
		21°-30°	9	5.4152		
Direction						
						Partial correlation
	하는 그리고 이 배우 하게 다시 다. 그리고 이 사는 이 기를 되었다.	die en gebeure bei Verstellt auch der bestellt der	Number	Note	Range	coefficient
	No		383	-0.7852	2.1148	0.1071
	NE (		266	-0.2714		
			200	100	and the second second	the second of th
	E	보이 있었다. 12 개인 : 10 12	173	35	and the second second	
	E SE		100	0.5250		
			173	0.5250 1.3296		
	<b>S</b> E		173 155	0.5250 1.3296 -0.1199		
	SE S SW W		173 155 165	0.5250 1.3296 -0.1199 0.3911		
	SE S SW		173 155 165 110	0.5250 1.3296 -0.1199 0.3911 0.3743		
	SE S SW W		173 155 165 110 160	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606		
	SE S SW W NW		173 155 165 110 160 262	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606		
Microtopog	SE S SW W NW NW		173 155 165 110 160 262	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606		
Microtopog	SE S SW W NW NW		173 155 165 110 160 262 323	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579		Partial correlation
Microtopog	SE S SW W NW NW None		173 155 165 110 160 262 323 Number	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579	Range	coefficient
Microtopog	SE S SW W NW NW None graphy Summit surface		173 155 165 110 160 262 323 Number 312	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579 Note 0.3426	Range 2.4123	coefficient
Microtopog	SE S SW W NW None graphy Summit surface Plateau		173 155 165 110 160 262 323 Number 312 18	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579 Note 0.3426 -0.0413	Range 2.4123	coefficient
Microtopoε	SE S SW W NW NOne  raphy  Summit surface Plateau Level hillside		173 155 165 110 160 262 323 Number 312 18	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579 Note 0.3426 -0.0413 -1.1930	Range 2.4123	coefficient
Microtopog	SE S SW W NW NONE Straphy Summit surface Plateau Level hillside Convex hillside		173 155 165 110 160 262 323 Number 312 18 38 716	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579 Note 0.3426 -0.0413 -1.1930 -0.5692	Range 2.4123	coefficient
Microtopog	SE S SW W NW NOne  raphy  Summit surface Plateau Level hillside		173 155 165 110 160 262 323 Number 312 18 38 716 882	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579 Note 0.3426 -0.0413 -1.1930 -0.5692 0.3506	Range 2.4123	coefficient
Microtopog	SE S SW W NW None sraphy Summit surface Plateau Level hillside Convex hillside Concave hillside	mountair	173 155 165 110 160 262 323 Number 312 18 38 716 882	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579 Note 0.3426 -0.0413 -1.1930 5 -0.5692 0.3506 1.2193	Range 2.4123	coefficient
Microtopog	SE S SW W NW NONE Straphy Summit surface Plateau Level hillside Convex hillside	mountair	173 155 165 110 160 262 323 Number 312 18 38 716 882	0.5250 1.3296 -0.1199 0.3911 0.3743 0.6606 -0.5579 Note 0.3426 -0.0413 -1.1930 5 -0.5692 0.3506 1.2193	Range 2.4123	coefficient

## Hydrological system

	Number	Note	Range	Partial correlation coefficient
0	593	-1.6594	9.4998	0.2467
1	426	-0.7275		
2	426	0.3020	1 .	
3	290	1.0630		
4	134	2.2709		
5	70	3.6265		
6	34	4.1073		
7	9	5.6734		
8	12	7.8404		
9	3	4.7021		
		4.4		and the same of th

## Soil

	Number	Note	Range	Partial correlation coefficient
Alluvium	18	0.6308	15.5417	0.4802
Medium desaturated ferrallitic	197	-1.0972		
migmatite	1108	0.1784		
Lithosol	38	-0.8294		
Highly desaturated ferrallitic in migma	tite 173	-4.3741		
Low desaturated ferrallitic, beige	65	-2.2182		
Highly desaturated ferrallitic and hand	ling 136	-3.0811		
Medium desaturated ferrallitic in migm	natite 46	-5.9844		
Highly desaturated ferrallitic, brown-ye	ellow 173	9.5574		
Water surface	43	-0.4566		

## Use of land/vegetation

	Number	Note	Range	Partial correlation coefficient
Natural Forest (Crown density >50%)	177	-3.5681	6.3902	0.3486
Natural Forest (Crown density <50%)	25	0.0045		0.5.00
Bush	125	0.7826		
Pine afforestation (Crown density >40%)	51	-2.5923		
Ehcalyptus Afforestation (Crown density >40%)	124	-3.3306		
Ehcalyptus afforestation (Crown density <40%)	14	-3.5249	医咽毒素	
Glassland	1122	1.7006		
Cultivated land	98	-4.4639		
Rice field	31	-4.6896		
Flood area	7	-3.5768		
Water body	223	-0.7712		
Constant	5.98898			
Multiple correlation coefficient	0.71153			
Fixed coefficient	0.50627			

Multiple correlation coefficient Fixed coefficient	0.71153 0.50627								
veen external	standards and the numbered articles	ne numbere	ed articles						
	See Your See 2	X(1)	X(2)	X(3)	X(4)	X(5)	(9)X	X(7)	X(8)
Y: Site de glissement(1)									
X(1): Precipitation	0.3591								
X(2): Elevation	-0.0853	-0.4427							
X(3): Slope	0.3587	0.3880	-0.1192						
X(4): Direction	0.1126	-0.0120	-0.0105	0.0397	-				
X(5): Microtopography	-0.0087	-0.0559	0.0234	-0.1309	-0.1326				
X(6): Hydrological system	0.3763	0.3360	-0.0663	0.3004	0.0069	0.0345			
X(7): Soil \$125.50 and \$100.00	0.5274	0.1476	-0.0783	0.1356	0.0961	-0.0512	0.1815		
X(8): Use of land/vegetation	0.3668	0.1159	-0.1407	0.1501	0.0046	-0.0566	0.0051	0.1704	

(1) Mantasoa zone

