

who stayed in the same district have completed only high school. In contrast, nearly three-quarters of those who have never migrated completed at most the college level (Figure 8.1)

Two-thirds of those who have migrated are currently employed, which reinforces the idea that migration is related, in large part, to looking for work. In addition, one-fifth of our population is still studying. This proportion increases to 40% for those who moved to another province, consistent with the fact that the availability of higher education institutions requires these displacements (Figure 8.2)

We distinguish two types of work activity performed by those who migrate. On the one hand, services (trade, transport, etc.) predominantly concern those who have moved to another province. Agriculture is the primary concern for those who remain in their same district. A large majority of migrants (44%) work in family businesses (agricultural or service-related). Only a quarter of these migrants work in their own businesses, created by themselves. The remaining work is in private companies or in the public sector (Tables 8.2, 8.3, 8.4).

Tables

Table 8.1 Migration status, by gender

	Male		Female		Total	
	N	Percent	N	Percent	N	Percent
Within district	108	13.06	140	15.57	248	14.37
Within province. between districts	85	10.28	100	11.12	185	10.72
Between provinces	45	5.44	52	5.78	97	5.62
No information	5	0.60	6	0.67	11	0.64
Has not migrated	584	70.62	601	66.85	1185	68.66
Total	827	100.00	899	100.00	1726	100.00

Table 8.2 Industrial sector by category of migration

	<u>Agriculture / livestock</u>	<u>Manual labor / low Skill</u>	<u>Service</u>	<u>High skill</u>	<u>Total</u>
Within district	52.97	4.32	41.62	1.08	100.00
Between districts	25.69	4.59	61.47	8.26	100.00
Between provinces	19.15	4.26	70.21	6.38	100.00
No information	60.00	0.00	40.00	0.00	100.00
Total	39.88	4.34	51.73	4.05	100.00

Table 8.3 Main occupational categories among the employed

	Public / private Sector	Self-employed	Family enterprise / domestic work	Total
Within district	23.78	31.89	44.32	100.00
Between districts	36.70	17.43	45.87	100.00
Between provinces	21.28	40.43	38.30	100.00
Total	27.57	28.45	43.99	100.00

Table 8.4 Employment status by category of migration

	<u>Male</u>			<u>Female</u>			<u>All</u>			<u>All</u>
	Unempl'd	Working	Student	Unempl'd	Working	Student	Unempl'd	Working	Student	
Within district	4	85	19	20	100	17	24	185	36	245
Between districts	11	54	15	18	55	24	29	109	39	177
Between provinces	3	23	17	7	24	21	10	47	38	95
No information		3		2	2	2	2	5	2	9
Has not migrated	19	507	53	61	482	56	80	989	109	1178
Total	37	672	104	108	663	120	145	1335	224	1704

Table 8.5 Distribution of the cohort members in 2003 and 2012 at region level, by status of migration

	2003			2012	
	<u>Have not emigrated</u>	<u>Have emigrated</u>	<u>Total</u>	<u>Are immigrants</u>	<u>Total</u>
	(a)	(b)	(a)+(b)	(c)	(a)+(c)
ANALAMANGA	90	31	121	76	166
VAKINANKARATRA	92	50	142	44	136
ITASY	20	0	20	4	24
BONGOLAVA	94	22	116	8	102
MATSIATRA AMBONY	116	24	140	31	147
AMORON I MANIA	85	50	135	25	110
VATOVAVY FITOVINANY	67	29	96	23	90
IHOROMBE	0	0	0	5	5
ATSIMO ATSIANANA	25	20	45	16	41
ATSIANANA	69	39	108	61	130
ANALANJIROFO	25	15	40	1	26
ALAO TRA MANGORO	86	49	135	32	118
BOENY	46	14	60	25	71
SOFIA	36	4	40	3	39
BETSIBOKA	21	4	25	0	21
MELAKY	54	13	67	7	61
ATSIMO ANDREFANA	92	58	150	63	155
ANDROY	47	24	71	15	62
ANOSY	15	5	20	4	19
MENABE	0	0	0	6	6
DIANA	17	10	27	23	40
SAVA	100	47	147	36	136
Total	1197	508	1705	508	1705

Figures

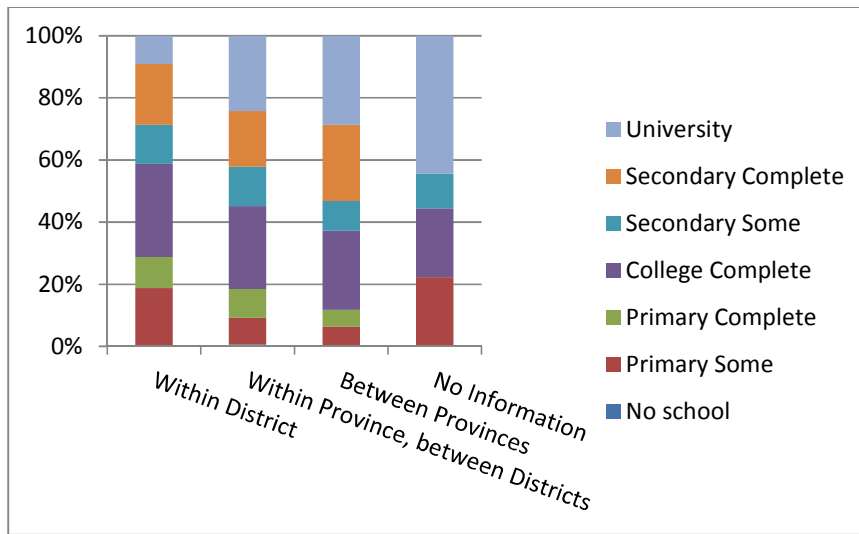


Fig. 8.1 Educational attainment by migration status

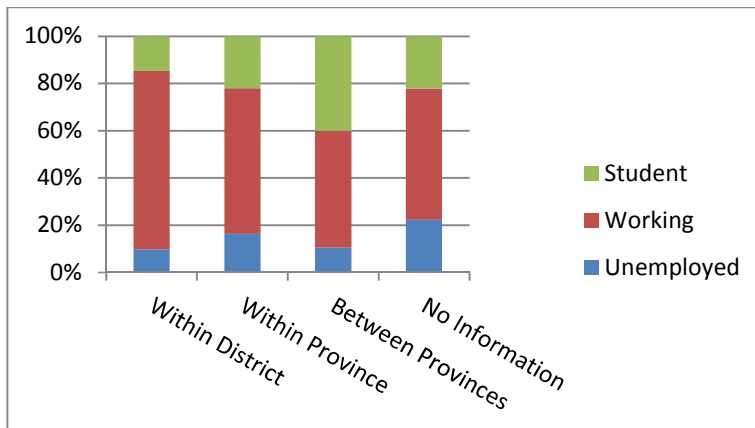


Fig. 8.2 Employment status by migration status

9. Personality Traits

Table 9.1 describes the distribution of standardized personality traits by gender in the sample. In all traits (conscientiousness, extroversion, openness to experience, and agreeableness) except neuroticism, males have significantly higher levels than females. However, males are significantly less neurotic than females.

Table 9.2 describes personality traits by school enrollment status. Individuals currently enrolled in school have significantly higher levels of conscientiousness, extroversion, openness to experience, and agreeableness. Table 9.3 and Figure 9.1 illustrates these same personality traits with respect to the last school an individual was enrolled (Figure 9.1 excludes kindergarten since only one individual falls in that category). Levels of conscientiousness, extroversion, and openness to experience all increase with the level of education, while neuroticism decreases with level of education. Agreeableness also increases with education from primary school to the university; however, it is also highest for those who were last enrolled in community school.

Table 9.4 and Figure 9.2 describe personality traits with respect to the main occupational category. High levels of conscientiousness, openness to experience, and extroversion are found among students and individuals working in the public and private sector. Neuroticism is low among individuals in these categories. The unemployed also have high levels of conscientiousness and extroversion but lower levels of openness to experience. Self-employed individuals have personality traits that are largely close to zero (or average levels of each personality trait). This is likely due to a great deal of occupational heterogeneity remaining in the self-employed category. Individuals working in family enterprises or doing domestic work in other households have negative levels of conscientiousness, extroversion, openness to experience, and agreeableness. It is also the only category to exhibit positive levels of neuroticism.

Tables

Table 9.1 Standardized personality trait factor scores by gender

	Male		Female		Total		Difference
	N	Mean	N	Mean	N	Mean	
Conscientiousness	811	0.061	881	-0.048	1692	0.005	0.109
Extroversion	811	0.103	881	-0.086	1692	0.005	0.189
Neuroticism	811	-0.083	881	0.070	1692	-0.003	-0.152
Openness to experience	811	0.117	881	-0.098	1692	0.005	0.215
Agreeableness	811	0.062	881	-0.048	1692	0.005	0.110

Table 9.2 Standardized personality trait factor by school enrollment status

	Currently in School		Currently Not in School		Total		Difference
	N	Mean	N	Mean	N	Mean	
Conscientiousness	366	0.194	1326	-0.053	1697	0.002	0.247
Extroversion	366	0.145	1326	-0.037	1697	0.004	0.182
Neuroticism	366	-0.025	1326	0.013	1697	0.007	-0.039
Openness to experience	366	0.334	1326	-0.084	1697	0.009	0.418
Agreeableness	366	0.104	1326	-0.033	1697	-0.001	0.136

Table 9.3 Standardized personality traits by last school enrolled

	<u>Kindergarten</u>		<u>Community</u>		<u>Primary</u>		<u>College/CEG</u>		<u>High School</u>		<u>University</u>	
	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Conscientiousness	1	-2.82	8	-0.09	614	-0.17	481	-0.05	432	0.19	153	0.35
Extroversion	1	-1.79	8	-0.41	614	-0.19	481	-0.02	432	0.21	153	0.33
Neuroticism	1	1.42	8	0.84	614	0.09	481	0.06	432	-0.12	153	-0.21
Openness to experience	1	-1.74	8	-0.37	614	-0.27	481	-0.02	432	0.25	153	0.51
Agreeableness	1	-1.78	8	0.40	614	-0.13	481	-0.01	432	0.14	153	0.15

Table 9.4 Standardized personality traits by occupational category

	<u>Public/Private Sector</u>			<u>Self-Employed</u>			<u>Famliy Enterprise/ Domestic Work</u>			<u>Student</u>			<u>Unemployed</u>		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation	N	Mean	Standard Deviation	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Conscientiousness	207	0.25	0.89	412	0.06	0.92	656	-0.18	1.04	257	0.18	0.92	105	0.17	1.18
Extroversion	207	0.19	0.87	412	0.02	0.94	656	-0.16	1.03	257	0.14	0.95	105	0.18	1.18
Neuroticism	207	-0.15	0.90	412	-0.01	0.97	656	0.04	1.01	257	-0.04	1.02	105	-0.02	1.09
Openness to experience	207	0.32	0.86	412	-0.06	0.95	656	-0.20	1.00	257	0.36	0.91	105	0.07	1.21
Agreeableness	207	0.14	0.97	412	0.03	0.96	656	-0.10	0.99	257	0.11	0.99	105	0.08	1.19

Figures—Personality Traits

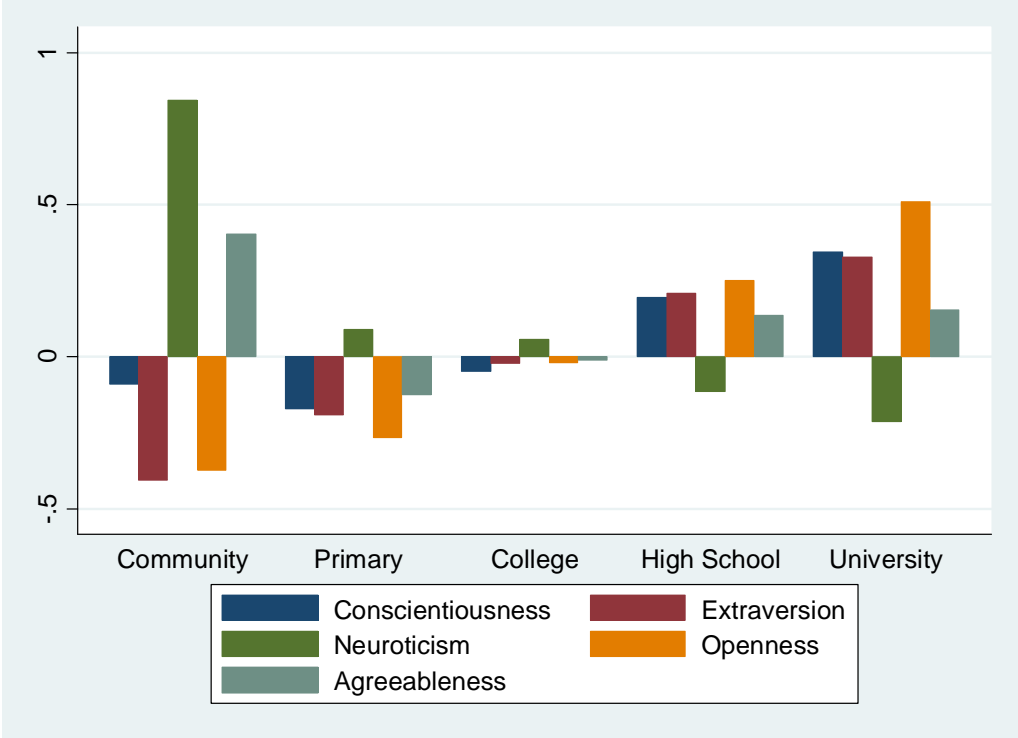


Fig. 9.1 Personality traits by last school enrolled

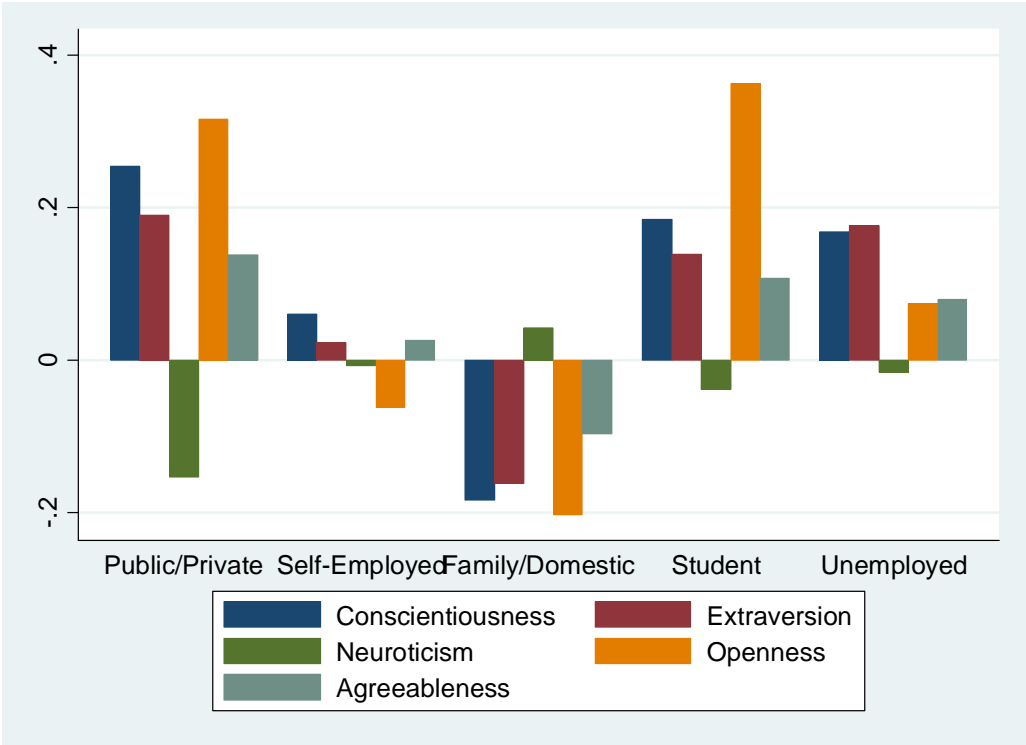


Fig. 9.2 Standardized personality traits by occupational category

10. Entrepreneurship

Three-quarters of entrepreneurial activities performed were created from many small enterprises, and do not represent the resumption of any existing activity from parents or family. The main motivation is to supplement the family income. With little access to credit from formal institutions such as banks or microcredit, start-up funds consists mainly of personal contributions and support from the family. Two types of activities are identified: agriculture and livestock, on the one hand, and trade on the other hand. These are small businesses not hiring a lot of capital, with low turnover, and a small size (two or three workers on average). These enterprises are associated with certain characteristics of informality, such as non-registration with the appropriate authorities. Only six out of 250 pay taxes, and five are registered at INSTAT. This informality relates also to the lack of access to loans from banks or microfinance institutions. The complexity of application procedures and fears of inability to pay are so pervasive that most prefer to rely on support from the family. Moreover, only a small part of the profits is re-invested in the business. This greatly reduces the potential for expansion of these activities.

Tables

Table 10.1 Main reasons to undertake an activity

	Percent
Family tradition	11.82
To supplement the family income	41.13
To have a higher income than from wage employment	6.16
To have a flexible work schedule and be one's own boss	5.17
Desire for independence	18.97
Loss of previous job	0.49
This is a good business opportunity	4.68
Could not find another job	11.58
	100.00

Table 10.2 Sources of funding at the activity start-up

	Percent
Borrowing from family members without interest	12.56
Borrowing from family members with interest	2.42
Borrowing from friends without interest	3.86
Transfers from abroad	0.48
Private lenders	3.86
Own savings	40.58
Bank loans	1.93
Loans from microcredit institutions	0.97
Sale of family goods	1.93
Credit from suppliers	0.97
Inheritance from a parent or other family member	6.28
Donations from parents, family members, or friends	14.98
Liquidation from previous job	0.48
Other	8.70
Total	100.00

Table 10.3 Distribution of businesses by use of profits

Use	<u>Re-invested in the business</u>	<u>For the use of one's household needs</u>	<u>For the use of one's own needs</u>
N	251	243	247
Part	Percent	Percent	Percent
All or almost all	3.29	26.72	3.78
More than half	19.75	29.96	4.62
Nearly half	13.58	17.41	5.04
Less than half	10.29	12.15	11.76
Quarter or less	13.17	8.50	30.25
No part	39.92	5.26	44.54
	100.00	100.00	100.00

Table 10.4 Main reasons not to ask for a loan from a bank or microfinance institution

Reason	Percent
I did not think that banks lend to people like me.	23.89
High interest rates	9.22
I have no collateral	10.48
I feel no need to borrow	22.43
I am suspicious about loans	8.39
Problems of eligibility other than collateral	5.24
Concerns about paying back loan	12.37
Other reasons	7.98
Total	100.00

11. Agriculture

Concerning more than 75% of labor force, agriculture issues are very important for Madagascar, and particularly for young people. Taking into account the cultural value of land and conditions of life in rural areas, the probability of intergenerational transfer of agricultural professions is relatively high and access to other activities is difficult. Most of young people are family workers, the access to independent status is late and difficult because of respect for parents, risk aversion, and non-availability of agricultural and rural insurance systems. Finally, the premature entry of children and teenagers into the agricultural labor market influences their schooling, and thus, their life course.

The survey allows us to analyze the conditions of activities on farms for young members of the cohort households: access to land and machinery, farm area, land and livestock acquisition mode, and capital value. We make the analysis for two different groups of households. The first group contains all the “original households” in which cohort members belonged and which did not change since the last survey in 2003. The second group is composed of “new households” in which cohort members belong now and which are different from their households in 2003. A large majority of these new household are created by the young cohort members themselves after separation with their original households (marriage, migration). By analysis of the situation in the two groups of households, we can determine the evolution of agricultural activities for young persons in terms of capital accumulation.

For the survey, farms were considered “possessed” whether on owned or rented lands, or given to the household by another entity (government, company, other households). Six categories of lands were considered: rice fields, lands for cash-culture, lands for fruit trees–forest-orchards, lands for root and tuber crops, and lands for other crops.

The results show that, among the households of young cohort members, more than 71.4% possess farms. Rice farming is the most practiced, which is engaged in by 62.7% of households in Madagascar. This is consistent with the fact that rice is the staple food for the Malagasy people in all

regions. Then, root and tuber crops account for the second largest production with about 54.7% occupied households. The cash crops and fruit trees planting are relatively rare.

According to the two different groups of households, the practice of the agriculture is less frequent for the “new households” of cohort members. Less than 61.2% of them farm lands, whereas the percentage is more than 81.4% for the “original households.” This result is valid for each category of lands. So, two interpretations are possible. On the one hand, the cohort of young people move more frequently to non-agricultural households, confirming the phenomenon of the rural exodus. Despite this phenomenon, the transfer of agricultural activities between generations remains important. On the other hand, the separation of the young people from their original household is earlier in non-agricultural households than in agricultural households. (Table 11.1).

In Madagascar, agriculture is still dominated by subsistence activities and small-scale farms. The average area is estimated about 94.1 hectares per household. With an average household size about 4.9 persons in rural areas, the large majority of agricultural households are suffering financial hardship and often fall into a poverty trap: low level of production capacity, low income, low rate of capital accumulation, low farm yields. Young people have to face these precarious living conditions for which they were not directly responsible.

The survey also revealed strong inequalities in land distribution between agricultural households. If the median area is only 13.0 ares per agricultural household, 10% among them farm, on average, more than two hectares. These figures are consistent with the findings of 2011–2012 household survey. There might be a number of reasons for this, e.g., the slow development of land market, differences in weather conditions and relief between regions, initial land endowments, and inefficiency of public lands reallocation policies.

Even if rice growing is the most practiced, it is less important in terms of planted area surface with only 37.6 ares per household. The average farm sizes for other crops are significantly larger: 62.8 ares per household for fruit tree forest–orchard lands, 53.4 ares per household for lands for cash crops, and 48.5 ares per household for lands for root and tuber crops. Traditional rice growing techniques, mainly adopted by agricultural households, are practiced only in small areas: on lowland, irrigated rice fields or the slopes of mountains. The upland rice farming, large scale irrigated surfaces, and mechanized rainfed farming are especially operated by big societies.

The removal of a young person from one household to another is often accompanied by a slight improvement in that young person’s situation, with respect to farm size. Indeed, the average area utilized by the “new households” is significantly more important compared with those of the “original households”: 99.4 ares vs. 88.9 ares. This finding is valid for all land categories except lands for fruit tree forest–orchards : 69.8 ares vs. 41.5 ares for lands for cash crops, 50.6 ares vs. 46.5 ares for lands for root and tuber crops, and 42.4 ares vs. 32.8 ares for rice fields. On the other hand, for fruit trees forest–orchards lands, the average area for “new households” is slightly less than for “original households”: 56.7 ares vs. 67.1 ares (Table 11.2).

In addition to access to land mentioned previously, the climate and watering system represent major constraints which reduce lands yields, lead to suboptimum use of lands, and limit productive capacity in agriculture. As Madagascar is a big island and little continent, various agro-climatic zones can be found: semi-desert plateau with hot and dry climate in the south, large plain with moderate continental climate in the west, mountainous areas with wet climate in the east, fertile uplands and lowlands with temperate climate in the center, and finally, plains with wet climate in the North. Because of water control problems and agricultural habits, monoculture prevails, and off-season crops (dry season) are practiced only in Madagascar’s central highlands.

According to the results of the survey, more than 52% of the lands farmed by the households are cultivable only during the rainy period. Obviously, it depends on the type of crops. The rice-production is feasible only during the rainy period for more than 38% of the available lands. For root and tuber crops, the case appears for 28.6% of lands. For other types of culture, the constraint is less important: the culture is possible even during dry period except for 7.7% of the cash-crops lands, 6.4% for fruit tree forest–orchard lands, and 2.2% for other types of crops.

For young cohort members who changed agricultural households between 2003–2011, the situation is substantially better: a larger part of the farmed lands were cultivable during dry period. For the “new households,” more than 54.3% of lands were cultivable during dry periods, whereas for the “original households,” this proportion is only 40% (Table 11.3).

The unequal and inefficient distribution of land is the most important cause of vulnerability for agricultural households. More than 82.3% of agricultural households are individually landowners. In 11.9% of the cases, lands do not belong to the farming household. Jointly-owned land is relatively rare: less than 6% of the total. These proportions vary according to the category of lands. More than 89.5% of lands for fruit tree forests–orchard crops and 87.9% of cash crop lands are individually owned by the households. This proportion decreases to 79.3% for rice fields. The “new households” of young cohort members are less frequently landowners: only 77.1% vs. more than 87.2% for “original households.” We find the same result for each category of lands (Table 11.4).

More than 72.7% of lands owned by households were acquired by inheritance. Purchased farms constitute only 17.6% of the land acquisitions. Other acquisition modes like clearing or donations (family or friend, local state, State) are relatively rare. Concerning cash crop lands, the inheritance is less frequently: only 67% of lands are transferred in this manner. The endowments of lands of the “new households” of young cohort members are much more likely to be transmitted by inheritance: 78.2% of the cases vs. only 68.2% for “original households” (Table 11.5).

The average value of the land endowments is estimated at 3,721,300 Ariary per household. According to the category of lands, the average values are different: 2,712,700 Ariary for rice fields, 1,422,600 Ariary of cash-crop lands, 1,178,800 Ariary of lands for fruit tree forest–orchards, 1,020,100 Ariary of lands for root and tuber crops. “New households” are less provided with less land value by more than half as compared to the “original households: 2,455,000 Ariary vs. 4,861,000 Ariary (Table 11.6).

The outcomes confirm strong support of Malagasy households for the social and cultural value of lands. The land transfers are rare and have an exceptional character to the households. Only 65 households, among 1,555 households, of young cohort members (or 4.2%) sold, gave, or abandoned the lands that they operated during the last 10 years. Especially for “new households,” the proportion is much lower: only 7 households, among 851 households. More than half of surrendered lands are rice fields and a third part are lands for root and tuber crops. The land market is still weakly developed in Madagascar. Less than 58.7% of surrendered lands were sold. The donations to families or friends accounted for more than 38% of the cases. Expropriation is nearly non-existent (Table 11.7).

The agricultural production remains technologically backward, which leads to slow progress in productivity, profitability improvement and rural welfare in Madagascar. The agricultural mechanization is still at the embryonic state, and access to machinery is limited. Just over two-thirds of agricultural households possess farm equipment. Furthermore, these materials are in most cases small equipment such as mowers and pestles: 56.4% and 50.9%, respectively, of households possess

these two pieces of equipment. On the other hand, even for the essential agricultural materials such as plow, harrow, and weeder, less than 16% of the households have access to these implements.

Concerning the big machines and more sophisticated equipment as tractors, watering systems, threshing machines, and peeling machines, most of the agricultural households are deprived. The situation is not the same between the “new households” and the “original households” of young cohort members: those in the latter category are much more supplied—more than 77% of households possess farm implements, and the difference is valid even for the small equipment.

The evaluation of farm equipment gives an estimation of physical capital amount: on average, about 119,700 Ariary per agricultural household. The disparity is very strong because half of them possess only approximately 30,000 Ariary (median). For the “new households,” the value is twice as low as compared with that of the “original households” (Table 11.8).

Concerning the farm animals, about 63% of households own livestock. The small farm animals, particularly, laying hens, are the most frequent. More than half the households (51%) of the young cohort members have these. Cattle and pig farming concern 17% and 16%, respectively, of households. On the other hand, only 2% of households are dairy cow farmers. “New households” of young cohort member are also have less livestock: 55% of them possess livestock. This percentage exceeds 77% for “original households.” This difference remains valid for any type of animal breeding (Table 11.9).

More than 63% of farmers acquired their livestock by purchases. About 30% of livestock are new animal offspring bred by the farmers from existing livestock. Transfers such as inheritance, gifts, and dowries account for only 10% of the acquisitions. These latter modes of livestock are employed more frequently by the “new households” of young cohort members, representing more than 14% of these households’ acquisitions. They are still at the beginning of the process of capital accumulation.

The average value of livestock is estimated to 2,503,000 Ariary per household: 1,928,000 Ariary for “new households” and more than 3,055,000 Ariary for “original households.” For the households possessing zebus or oxen, the average values per farmer are 2,655,000 Ariary and 4,397,000 Ariary, respectively; for the pork farmer, the values are more than 413,000 Ariary and less than 92,000 Ariary for chicken (laying hens) farmer.

Tables

Table 11.1 Proportion of agricultural households (%)

<u>Household type</u>	<u>All categories of land</u>	<u>Rice fields</u>	<u>Land for cash crop</u>	<u>Land for fruit trees, forest</u>	<u>Land for root and tuber crop</u>	<u>Land for other crops</u>
Original HH	81.49	69.87	17.79	17.07	62.98	3.73
New HH	63.17	56.99	10.61	9.44	48.02	2.80
Total	71.38	62.77	13.83	12.86	54.73	3.22

Table 11.2 Average area of operated lands (ares per household)

<u>Household type</u>	<u>All categories of land</u>	<u>Rice fields</u>	<u>Land for cash crop</u>	<u>Land for fruit trees, forest</u>	<u>Land for root and tuber crop</u>	<u>Land for other crops</u>
Original HH	89.0	32.8	41.5	67.1	46.5	47.2
New HH	99.4	42.4	69.8	56.7	50.6	61.0
Total	94.1	37.6	53.5	62.8	48.5	53.8

Table 11.3 Proportion of lands operated only during rainy period (%)

<u>Household type</u>	<u>All categories of land</u>	<u>Rice fields</u>	<u>Land for cash crop</u>	<u>Land for fruit trees, forest</u>	<u>Land for root and tuber crop</u>	<u>Land for other crops</u>
Original HH	60.11	43.04	8.90	8.61	31.28	2.44
New HH	45.69	34.15	6.76	4.66	26.46	2.10
Total	52.15	38.14	7.72	6.43	28.62	2.25

Table 11.4a Part of land for rice crop owned by operated household (%)

<u>Household type</u>	<u>Totality</u>	<u>Large parts</u>	<u>Just more than half</u>	<u>Less than half</u>	<u>Without part</u>	<u>Total</u>
Original HH	85.22	3.90	2.05	0.62	8.21	100.00
New HH	73.42	3.89	2.86	1.64	18.20	100.00
Total	79.30	3.89	2.46	1.13	13.22	100.00

Table 11.4b Part of land for cash crop owned by operated household (%)

<u>Household type</u>	<u>Totality</u>	<u>Large parts</u>	<u>Just more than half</u>	<u>Less than half</u>	<u>Without part</u>	<u>Total</u>
Original HH	91.94	4.03	0.00	0.00	4.03	100.00
New HH	82.42	3.30	1.10	0.00	13.19	100.00
Total	87.91	3.72	0.47	0.00	7.91	100.00

Table 11.4c Part of land for fruit trees, forest owned by operated household (%)

<u>Household type</u>	<u>Totality</u>	<u>Large parts</u>	<u>Just more than half</u>	<u>Less than half</u>	<u>Without part</u>	<u>Total</u>
Original HH	92.44	2.52	0.84	0.00	4.20	100.00
New HH	85.19	2.47	2.47	1.23	8.64	100.00
Total	89.50	2.50	1.50	0.50	6.00	100.00

Table 11.4d Part of land for root and tuber crop owned by operated household (%)

<u>Household type</u>	<u>Totality</u>	<u>Large parts</u>	<u>Just more than half</u>	<u>Less than half</u>	<u>Without part</u>	<u>Total</u>
Original HH	86.79	3.87	0.46	0.46	8.43	100.00
New HH	79.85	2.91	0.97	0.49	15.78	100.00
Total	83.43	3.41	0.71	0.47	11.99	100.00

Table 11.4e Part of land for other crop owned by operated household (%)

<u>Household type</u>	<u>Totality</u>	<u>Large parts</u>	<u>Just more than half</u>	<u>Less than half</u>	<u>Without part</u>	<u>Total</u>
Original HH	84.62	0.00	0.00	0.00	15.38	100.00
New HH	58.33	0.00	0.00	0.00	41.67	100.00
Total	72.00	0.00	0.00	0.00	28.00	100.00

Table 11.4 Part of land (all categories) owned by operated household (%)

<u>Household type</u>	<u>Totality</u>	<u>Large parts</u>	<u>Just more than half</u>	<u>Less than half</u>	<u>Without part</u>	<u>Total</u>
Original HH	87.22	3.68	1.09	0.42	7.60	100.00
New HH	77.12	3.28	1.91	1.00	16.68	100.00
Total	82.39	3.49	1.48	0.70	11.94	100.00

Table 11.5a Lands acquisition modes : land for rice crop (%)

<u>Household type</u>	<u>Inheritance</u>	<u>Clearing</u>	<u>Purchase</u>	<u>Donation from local authority</u>	<u>Donation from State</u>	<u>Friends, family</u>
Original HH	71.90	2.21	22.79	0.44	1.11	0.88
New HH	78.04	1.91	10.98	0.48	0.24	3.82
Total	74.86	2.07	17.11	0.46	0.69	2.30

Table 11.5b Lands acquisition modes : land for cash crop (%)

<u>Household type</u>	<u>Inheritance</u>	<u>Clearing</u>	<u>Purchase</u>	<u>Donation from local authority</u>	<u>Donation from State</u>	<u>Friends, family</u>
Original HH	61.67	7.50	25.00	2.50	0.83	0.83
New HH	73.75	5.00	16.25	2.50	0.00	1.25
Total	66.50	6.50	21.50	2.50	0.50	1.00

Table 11.5c Lands acquisition modes : land for fruit trees, forest (%)

<u>Household type</u>	<u>Inheritance</u>	<u>Clearing</u>	<u>Purchase</u>	<u>Donation from local authority</u>	<u>Donation from State</u>	<u>Friends, family</u>
Original HH	65.22	5.22	24.35	0.87	2.61	0.00
New HH	75.68	10.81	9.46	1.35	0.00	0.00
Total	69.31	7.41	18.52	1.06	1.59	0.00

Table 11.5d Lands acquisition modes : land for root and tuber crop (%)

<u>Household type</u>	<u>Inheritance</u>	<u>Clearing</u>	<u>Purchase</u>	<u>Donation from local authority</u>	<u>Donation from State</u>	<u>Friends, family</u>
Original HH	67.00	5.17	22.66	0.99	1.23	2.22
New HH	78.93	2.53	10.96	0.56	1.40	3.65
Total	72.57	3.94	17.19	0.79	1.31	2.89

Table 11.5e Lands acquisition modes : land for other crops (%)

<u>Household type</u>	<u>Inheritance</u>	<u>Clearing</u>	<u>Purchase</u>	<u>Donation from local authority</u>	<u>Donation from State</u>	<u>Friends, family</u>
Original HH	69.57	4.35	17.39	4.35	0.00	4.35
New HH	100.00	0.00	0.00	0.00	0.00	0.00
Total	81.58	2.63	10.53	2.63	0.00	2.63

Table 11.5 Lands acquisition modes : all categories of land (%)

<u>Household type</u>	<u>Inheritance</u>	<u>Clearing</u>	<u>Purchase</u>	<u>Donation from local authority</u>	<u>Donation from State</u>	<u>Friends, family</u>
Original HH	68.16	4.20	23.17	0.98	1.25	1.34
New HH	78.18	3.07	11.12	0.74	0.64	3.18
Total	72.74	3.69	17.65	0.87	0.97	2.18

Table 11.6 Average amount of operated lands (1,000 Ariary)

<u>Household type</u>	<u>All categories of land</u>	<u>Rice fields</u>	<u>Land for cash crop</u>	<u>Land for fruit trees, forest</u>	<u>Land for root and tuber crop</u>	<u>land for other crops</u>
Original HH	4,861.18	3,584.02	1,840.13	1,463.02	1,226.34	1,075.20
New HH	2,455.73	1,773.34	818.93	733.42	787.00	346.07
Total	3,721.25	2,712.75	1,422.60	1,178.86	1,020.13	801.77

Note: Earnings are reported in Ariary. 1,000 Ariary is 0.45 US\$ (7 November 2013)

Table 11.7 Proportion of agricultural households having given up lands (%)

<u>Household type</u>	<u>Not given up land</u>	<u>Given up land</u>	<u>Total</u>
Original HH	639	58	697
New HH	851	7	858
Total	1,490	65	1,555

Table 11.7a Category of land transferred (%)

<u>Household type</u>	<u>All categories of land</u>	<u>Rice fields</u>	<u>Land for cash crop</u>	<u>land for fruit trees, forest</u>	<u>Land for root and tuber crop</u>	<u>Land for other crops</u>
Original HH	55.38	7.69	0.00	29.23	7.69	100.00
New HH	37.50	0.00	0.00	50.00	12.50	100.00
Total	53.42	6.85	0.00	31.51	8.22	100.00

Table 11.7b Proportion of landowners' households of land transferred (%)

<u>Household type</u>	<u>landowners</u>	<u>Not landowners</u>	<u>Total</u>
Original HH	90.77	9.23	100.00
New HH	50.00	50.00	100.00
Total	86.30	13.70	100.00

Table 11.7c Given up mode (%)

<u>Household type</u>	<u>Given to family or friends</u>	<u>Sold</u>	<u>Expropriation by local authority</u>	<u>Flooding</u>	<u>Total</u>
Original HH	37.29	59.32	1.69	1.69	100.00
New HH	50.00	50.00	0.00	0.00	100.00
Total	38.10	58.73	1.59	1.59	100.00

Table 11.7d Given up motivation (%)

<u>Household type</u>	<u>Need money</u>	<u>Household problems</u>	<u>Already have enough parcels</u>	<u>To help the beneficiary household</u>	<u>Other motivations</u>	<u>Total</u>
Original HH	63.16	5.26	0.00	24.56	7.02	100.00
New HH	75.00	0.00	25.00	0.00	0.00	100.00
Total	63.93	4.92	1.64	22.95	6.56	100.00

Table 11.8 Proportion of households possessing agricultural equipments (%)

<u>Household type</u>	<u>All types</u>	<u>Tractor</u>	<u>Plow</u>	<u>Harrow</u>	<u>Other traction materials</u>	<u>Cart</u>	<u>Vaporizer</u>	<u>Rake</u>	<u>Watering system</u>	<u>Threshing machine</u>	<u>Decortique</u>	<u>Pestle</u>	<u>Jerry can</u>	<u>Reaper</u>
Original HH	77.47	0.43	23.39	20.66	7.32	12.77	2.01	14.92	4.59	1.00	0.57	63.13	29.99	64.28
New HH	59.21	0.00	11.31	12.35	5.59	5.48	0.82	6.41	2.45	0.35	0.12	41.03	21.68	50.00
Total	67.40	0.19	16.72	16.08	6.37	8.75	1.35	10.23	3.41	0.64	0.32	50.93	25.40	56.40

Table 11.8a Average amount of agricultural equipments (1,000 Ariary)

<u>Household type</u>	<u>Mean</u>	<u>Median</u>
Original HH	150.50	37.00
New HH	87.21	25.00
Total	119.76	30.00

Note: Earnings are reported in Ariary. 1,000 Ariary is 0.45 US\$ (7 November 2013)

Table 11.9 Proportion of households possessing livestock (%)

<u>Household type</u>	<u>All categories</u>	<u>Zebu</u>	<u>Oxen</u>	<u>Cow</u>	<u>Pig</u>	<u>Sheep</u>	<u>Goat</u>	<u>Chickens</u>	<u>Duck</u>	<u>Other</u>
Original HH	71.88	23.82	24.25	3.44	19.37	3.01	4.16	59.25	22.24	1.43
New HH	55.94	11.77	15.73	0.93	14.10	2.45	4.20	45.10	15.38	0.58
Total	63.09	17.17	19.55	2.06	16.46	2.70	4.18	51.45	18.46	0.96

Table 11.9a Average amount of livestock (1,000 Ariary)

<u>Household type</u>	<u>All categories</u>	<u>Zebu</u>	<u>Oxen</u>	<u>Cow</u>	<u>Pig</u>	<u>Sheep</u>	<u>Goat</u>	<u>Chickens</u>	<u>Duck</u>	<u>Other</u>
Original HH	3,055.12	2,455.48	5,029.85	1,657.50	457.72	535.24	2,926.34	109.44	165.22	447.30
New HH	1,928.15	2,982.87	3,604.74	937.50	364.33	426.67	699.89	74.42	173.35	36.00
Total	2,503.70	2,654.98	4,396.99	1,477.50	413.58	480.95	1,693.23	92.50	168.96	310.20

Note: Earnings are reported in Ariary. 1,000 Ariary is 0.45 US\$ (7 November 2013)

Table 11.9b Acquisition mode of livestock (%)

<u>Household type</u>	<u>Inheritance</u>	<u>Gift</u>	<u>Dowry</u>	<u>Purchase</u>	<u>Farming</u>	<u>Other</u>	<u>Total</u>
Original HH	5.16	1.34	0.53	58.86	33.84	0.27	100.00
New HH	9.20	4.02	1.16	62.37	23.04	0.21	100.00
Total	7.01	2.56	0.82	60.46	28.90	0.24	100.00