

Migration and development: Case of Ambohibary Moramanga

RAMIALISON Zo Lalaina, ANDRIAMIADANOMENJANAHARY H. C. Camille

Abstract— with poverty being rife in developing countries, migration has become one of the development strategies adopted by population even though it was previously marginalized by development actors. Migration has led to the rise of urbanization, especially in African countries. In the 20th century, urbanization became particularly evident in Africa. In particular, Madagascar's urban population represents 30% of the total population. Based on this observation, it would be appropriate to conduct research on migration and on the management of development, hence the following problem: "How to manage migration and development in a situation of urban explosion? How does the presence of the Ambatovy project create opportunities for the Municipality of Ambohibary where it is located? ". The research methodology that was adopted was the method of data collection with qualitative surveys of the inhabitants of the study area and a quantitative survey based. The sampling focused on all the Fokontany composing the Municipality, which are 12 in total. A sample of 192 households in the Fokontany was used to carry out the survey. The results showed that in Madagascar, urban problems have their origins in territorial disorganization, institutional and financial planning. With no development, the land is becoming a major issue for both the administration and the population. Ambohibary Municipality is experiencing socio-economic problems, which constitute a brake on the development of the Municipality. These include the resurgence of land grabbing, an increase in the population and its unequal distribution, the expropriation of land by the Ambatovy project as well as the extraction of land that follows. According to this study, in order to alleviate all these scourges, land tenure security remains a measure that can be used to protect the population so that they can develop their land and have access to credit. Despite everything, the arrival of the project enabled the Municipality of Ambohibary to develop demographically, economically and spatially thanks to the direct and indirect job offers generated by the project and the establishment of the basic infrastructure useful to the population.

Index Terms— Ambohibary-Moramanga, Development, Migration, Urbanization.

I. INTRODUCTION

In Madagascar, migrations to mining areas are new type of migrations that the country is currently experiencing. This type of displacement was encouraged by a reform of Malagasy land law in 2008. This subject has been addressed by various authors like Randriamahafaly, Dupont, Le Roy et

RAMIALISON Zo Lalaina, Science Social Department, Catholic University of Madagascar, Madagascar, Mobile No: +261 34 37 355 69.

H. C. Camille ANDRIAMIADANOMENJANAHARY, PhD in Cognitive and Application Sciences, University of Antananarivo, Antananarivo, Madagascar, Mobile No: +261 34 14 001 33.

al., Mounet who have all highlighted the issue of land grabbing but also that of the integration of circular mobility in the analysis. However, their study did not take into account the impact of the implementation of mining projects on the harmonious development of the mining area. This awakened the interest toward the economic nature of the Ambatovy project which will generate direct and indirect jobs, contribute to the development of school health, roads and infrastructures, create new small businesses, and encourage displacement of populations that deserve special management so that they do not block development. As Richardson showed, "when one considers that many functions of small towns are linked to rural-oriented urban services (promoting agricultural productivity and agricultural trade, providing services to the rural population, generating employment agriculture for this population, serve location for agro-industries, etc.), the city's rapid demographic growth, a sign of strong immigration, may on the contrary be an indication of failure in relation to the urban functions intended to serve rural population." (Richardson, 1982)

It was necessary to address this problem in order to understand land tenure of Ambohibary Municipality and to identify development blockages so that migration plays a role in economic and social development. Following the context of this study, the main problem could be translated into the following question: "How to manage migration and development in a situation of urban explosion? How does the presence of the Ambatovy project create opportunities for the Municipality of Ambohibary? "

In order to understand the problem, a few secondary questions arose:

"What are the main socio-economic problems suffered by the Municipality of Ambohibary? What are their origins?"

"Faced with demographic growth, how to fight against the insufficiency of basic services in the Municipality?"

"How does land and real estate speculation appear in the Municipality?"

Thus, it seems that the presence of the Ambatovy project makes Ambohibary Municipality a place of arrival for the migrants. Moreover, the management of migration as well as urban explosion in the Commune must take into account the access to land and urbanization. As a result, this study aimed to reconcile migration and development.

II. MATERIALS AND METHODS

A. Bibliographic and cartographic study

Most of the work was based on bibliographic research allowing a permanent monitoring of sources (sites, journals,

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scientific blogs, press, etc.) by consulting bibliographic databases and open archives (World Bank Library in Anosy, University Library in Ankatso, CIDST in Tsimbazaza, Documentation of the General Planning Directorate in Anosy), and publishers' and journal sites (JSTOR, CAIRN, ERUDIT, PERSEE, SPRINGERLINK, Popline, the INED database, etc.), but also by creating alerts to capture new publications or information (Journal summaries, News citation, News, news on a site, calls for contributions...).

The works consulted were general works relating to a research theme but especially those about the region concerned. Master, DEA and Doctorate theses were also consulted.

In addition, maps were consulted and studied with FTM to support the research. Thus, these few maps were identified. This is the sketch showing the location of each Fokontany 1 / 200,000, the sketch of land use 1 / 200,000, the sketch of the population densities 1 / 200,000, the sketch of the land situation of the Rural Municipality of Ambohibary 1 / 200,000, and the sketch of the social and economic infrastructure of the Rural Municipality of Ambohibary 1 / 200,000..

B. Data collection tools

A qualitative method was adopted to conduct the research, first by highlighting the socio-economic and land aspects relating to development, urbanization and migration. For this, series of interviews were carried out in the Fokontany of Ambohibary Municipality (Analalava, Befotsy, Ampitambe, Sahafitahana, Ambohimanatrika, Ampahatra, Antsily, Ambodimanga, Ankarahara, Antsirinala, Ambohitrakanga, Soavinorona) with people distributed in the same Municipality. The sampling focused on the most populated Fokontany and those closest to the project to confirm whether there were indeed any perceived changes felt by its officials with the arrival of the project in the Municipality. The objective of this qualitative approach was to better specify and orient the initial problem, but also to see the general aspect of the study. Then, it was a question of carrying out a survey per household based on a questionnaire. Thus a stratification of the population according to its demographic, socio-cultural and economic characteristics was performed.

C. Sampling and model

The sampling method used was the cluster method, given the large area (970 km²) of the Municipality. In short, all the Fokontany were represented but the number of households surveyed differed from one Fokontany to another depending on the relevance of the information to be collected. The objective was to do a poll of ideas from a few people from each Fokontany.

Table I: Number of surveyed households and villages.

Fokontany	Surveyed Households	Number of surveyed villages
Analalava	11	4
Befotsy	20	5
Ampitabe	15	4

Sahafitahana	20	4
Ambohimanatrika	14	3
Ampahatra	22	5
Antsily	10	4
Ambodimanga	15	4
Ankarahara	15	4
Antsirinala	20	5
Ambohitrakanga	10	4
Soavinorona	20	4
TOTAL	192	50

III. RESULTS

The Rural Municipality of Ambohibary has drawn up a Communal Development Plan. This plan prioritizes a few social projects, particularly in the field of health (construction of two Basic Health Centers), education (extension of three EPP in the Communes of Sahafitana, Ambodimanga and Mangabe), rural development (strengthening of technical and professional capacities of the farmers and construction of a track in three Fokontany: Antsily, Ambodimanga and Ampahitra, without forgetting the drinking water supply for the Fokontany of Ambodimanga, Ampitambe and Analalava). These forecasts were based on the rebates granted by the Ambatovy project to the municipalities surrounding the project. Indeed, taxes by the project are paid exclusively to the surrounding municipalities and not to the State. Although the local authorities are concerned about the well-being of the population, some obstacles to development were identified.

A. Obstacles to the development of the Municipality

1) Most Resurgence of land grabbing by the rich

It was found that the lack of a Local Land Occupation Plan was the source of land disputes in the Municipality of Ambohibary. It can arrive that local authorities are not able to know the status of the lands of the Municipality. Thus some lands are registered without the Municipality knowing it. The distribution of the lands was made during the colonial period, thus 1/3 of the total area belongs to the Fanalamanga Company, and the rest belongs to the province of Toamasina, the State and private individuals. In addition, the government of that time had allocated portions of space to entrepreneurs in order to promote the emergence of rural entrepreneurs in various sectors such as tobacco (current OFMATA), rice, and cassava, and the establishment of the colonial company of the "Big Island". Most of these spaces are currently located in the Antsirinala and Ankarahara Fokontany. However, after independence, these production units perished and the land was taken over by workers and farmers from neighboring regions. Since the arrival of the Ambatovy mining company, land has become a rare item in the Commune. This is the result of the dissolution of the customary authority and the absence of an adequate state land management, but above all, the result of the demographic growth caused by population migrations. Consequently, competition between farmers who seek to appropriate land resources arises. Thus, the peasants who have developed these spaces are currently deprived of their land for the benefit of the companies or simple individuals having official titles. 10% of the population have

cadastres, and 4% hold land titled bounded while the 75% carry out de facto occupations and illegal occupations. In fact, 85% of the peasants' lands were granted by their ancestors and due to the lack of financial means and their ignorance, they were not able to administratively settle their paperwork. Nowadays, in the Ampahitra and Antsily Fokontany, some notables or "Olobe" monopolize state lands without a legal status or development, then sell them to migrants from Moramanga, Antananarivo and Toamasina. De facto or illegal occupations are mainly located in the Antsily, Ampahitra and Ambohitrakanga Fokontany. In Ampahitra, for example, the peasants who have partially developed state land oppose its sale to a migrant from Antsirabe for the simple reason that their cultures and the tombs of their ancestors are still there. This type of land dispute is a frequent case in progress at the Court of First Instance of Moramanga. Hence, it can be said that it is always the rich who hold the biggest part of the land, but the main problem lies in the fact that the peasants remain ignorant about administrative procedures which are costly and slow. In fact, the conquest for new spaces is done through the "tavy" or the clearing of the forest. For the peasants, one way of conquering new spaces is to clear part of the public domain.

2) *Poorly distributed population*

The population density in the Municipality of Ambohibary amounts to 20.89 inhabitants /km². A density lower than the average of the Moramanga district and that of the Alaotra Mangoro Region which are respectively 24 and 27 inhabitants / km². Spread over an area of 970 Km² Ambohibary is the largest Commune in the Moramanga District. The population is poorly distributed because of the inaccessibility to certain communication routes between the Fokontany in the Commune. There are for example Ambohimanatrika and Antsily. In these Fokontany, the population density is low, around an average of 5 inhabitants /m².

On the other hand, the Fokontany which are near National Road N°2 and National Road N°44, such as Antsirinala, Ampitabe and Ankarahara, register a higher number of population. Population overcrowding in this part is due to the presence of companies including Ambatovy mining operations which attract young people looking for work. Concerning Ampitabe, the population number is around 3220 inhabitants. The reason is that the various administrative, commercial and other services are installed there.

3) *Expropriation of land, extract from arable land*

Expropriation of land and resettlement of indigenous people are an inevitable phase in the construction of a mining industry. Thus in the case of Ambatovy, more than 1,350 households had to be relocated for the implementation of the project. The latter is responsible for resettlement, material and financial compensation. With approximately 1000 households, 70% are fathers who have supported their families by farming and who are currently in a land crisis. Others are made up of single mothers, widowers and widows, who represent 30% of the population concerned. The resettlement must meet certain criteria including distance (in

relation to their place of residence), area and yield (at least equal to that of the original land) which do not meet the expectations of population. During the interviews, the pain of the peasants was felt in relation to the destruction of fields, the environment degradation, in particular water pollution and landslides, but above all to the value of the compensation which is a derisory sum according to them. Their attachment to the land is a social fact that should not be overlooked given that most of the resettled population had occupied these lands for several years and that their activities were concentrated on these lands. Most of them do not own other lands or other sources of income, so an economic and financial loss is possible among these populations.

B. *Land tenure security: a measure to protect the poorest*

Agriculture is the main activity of the people of Ambohibary, yet agricultural productions remain low. The demographic pressure generated by the influx of migrants is making arable land cramped and fragmented. Indeed, the average surface area of a farm is less than 1 Ha and two thirds of households in the Municipality operate surfaces of 1 Ha and more. As a result, agriculture is no longer a source of income but just helps support the family. This situation favors the poverty of the local population. In addition, in the face of land tenure insecurity in the Commune, land development is necessary so as not to attract the attention of land seekers. As a result, the protection of land ownership is essential for the well-being of the poorest. Land tenure security is a condition in this case for agricultural productivity improvement and for preserving natural resources. The goal is to develop the land and access credit.

1) *Motive for encouraging land development*

The lack of a secure land tenure does not motivate the population to invest in their land, yet this promotes land conflicts. In the case of the Ambohibary Municipality, the protection of land ownership is non-existent, so the peasants do not make any investment. Consequently, agricultural productions decrease. And yet the race for land has become blatant and migrants, influenced by the presence of the Ambatovy project, tend to live in a peaceful and green place, where the price of land is satisfactory.

2) *Means of access of the poor to credit*

The presence of micro-finances in the Municipality is an opportunity for farmers to strengthen their capital and thus increase their agricultural production through loans. However, since only 10% of population has a land title, only 2% have been able to benefit from a bank loan. This situation is valid for all the Fokontany of the Municipality. Thus, the absence of a land title is a real obstacle to rural development.

C. *Evolution of the Municipality*

1) *Contribution of Ambatovy project*

Several infrastructures have been built by the project as part of its establishment in the Municipality of Ambohibary.

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Faced with the aging of the school building which dates from 1960 in the Municipality, the project proceeded to the construction of two new buildings with 2 rooms each in 2013. This infrastructure was operational in 2015. Among other things, a school canteen, sport infrastructure and housing for teachers have been built.

The Municipality of Ambohibary has a hospital center which is located 8 kilometers from the Fokontany. Its accessibility is so difficult despite the presence of bus and bush taxi. As a result, the population has some trouble getting there, which could increase the death rate. This is why the project took the initiative to build a basic health center in Ampitabe. The population had taken part in the work and as a contribution, it contributed to a quarter of the investments. This CSB has 10 rooms, each independent for ease of use: consultation room, storage room, delivery room, treatment room. All of them are also used by midwives, Doctors, guards and another serves as a pharmacy.

2) Massive arrival of migrants: acceleration of urbanization

Land acquisition forms in the extension areas of Moramanga are done either by purchase (62%), inheritance (27%), and donation (05%) or by other means (06%). The inhabitants of the Ambohibary Commune are made up of new migrants, around 30% of the total population. During the arrival of the Ambatovy project, labor market offered high flows of new migrants. In addition, all connections through the new infrastructures such as roads, railways, promoted the movement of goods and people. This connectivity also offers advantages such as ease of access to school, health services. Thus, urban connectivity was an opportunity for migrants to improve their lifestyle and standard of living. This movement also influenced the development of this area. These expansion areas were previously abandoned lands that were of no interest to the population due to their remoteness from the city center. But currently, due to spatial changes and the presence of the Ambatovy Project staff, land prices have increased significantly. The access mode to land in the Municipality is the purchase of an area of a desired plot according to the type of desired occupation. The average area is 300m², corresponding to the minimum threshold for obtaining a building permit from the Municipality. The proliferation of new constructions tends to reduce free spaces. In Ambohibary Commune, the village of Ampitambe in particular attracts migrants the most and has undergone a significant transformation. Thus, villas and large buildings with modern architecture line the National Road N°44 and modify its appearance. All of these residential houses are solid constructions made of fired bricks. As a result, the cultivation land turns into a construction zone. Suddenly, the control of urban expansion based on the building permit and property taxation proved to be necessary and alleviated the problem of anarchic constructions. The impact of this phenomenon needs a good management of the extension area and a better knowledge of land tenure in order to achieve rational development.

D. New trend in the socio-professional category

The Ambatovy project proceeded with an expropriation to complete its construction phase. As the majority of the

population were farmers, this gave them a great problem since almost all the population would lose their land which was their source of income. As a result, people could no longer feed their family and would lose their ancestral fortune which was none other than their piece of land. To meet their needs, a new activity other than agriculture was their only solution. Others would join industrial companies such as Ambatovy, SOGEA for the construction of the Rn° 44 connecting Moramanga to Ambatondrazaka to serve as unskilled labor, but also in industrial timber companies in Antsirinala to become loggers for loggers. Others will move towards artisanal brick and alcohol making in Ampahitra, direct sellers in Sahafitahana, and consumers may be in Moramanga. The majority of the women in the Commune would qualify in basketry (baskets, mats, hats, "sahafa" and brooms). In addition, small farming (goose, hen, duck ...) allowed women to have a little money for their needs.

During the field trip, with around hundreds of surveyed people, about 30% were farmers and the rest: officials, Ambatovy staff and others, represented 70%.

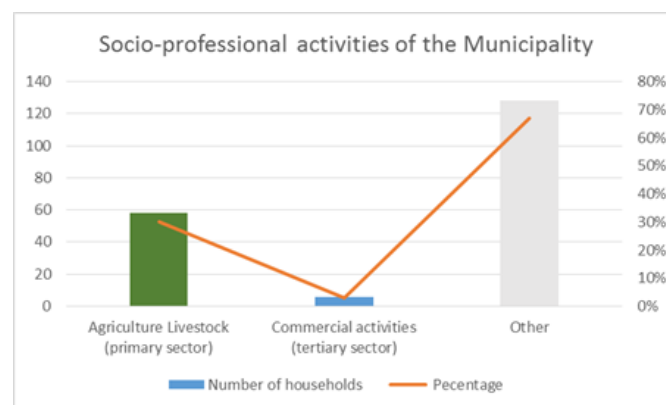


Figure 1.01: Socio-professional activities of the Municipality

In short, created project provides direct (technical operations, engineering, health and safety, environment, finance, administration, social affairs, maintenance and logistics) and indirect jobs (transport, food production, maintenance, renovation and waste management) to the local population, but these jobs are often fixed-term. This phenomenon will gradually make agriculture disappear as an activity.

These types of jobs will stimulate short term local economy during the construction phase or become long term during the production phase.

IV. DISCUSSION

Development obstructions for the Municipality of Ambohibary are based on an upsurge, grabbing by the rich, a poorly distributed population, land expropriation by the Ambatovy project, and the extraction of cultivable land. Thus, strong constraints are posed to the farmers as to the availability of cultivable land which limits their production and leads to income drop. This result is supported by Mounet, as he stated that "supply of arable land is decreasing while the demand for food is increasing" (Mounet, 2012). Suddenly, the peasants are faced with difficult, if not impossible, access to land. However, without land tenure security, Le Roy asserted that owners, tenants, sharecroppers, borrowers cannot

accomplish their task, collect their rights' fruits, invest labor or capital in the land. Data analysis revealed that the arrival of the Ambatovy project contributed to the development of land grabbing, and therefore to the difficult access to land for the population. (Le Roy, 1993), hence the need to take ownership of land tenure security, which is a measure to protect the poorest.

First of all, it's better to encourage the population, not only to develop the land but also to give them a means of access to credit. This confirms Randriamahafaly's hypothesis, "A secure land gives benefits to its owner. This land can be the subject of a market transaction and can be used for more profitable exploitation. It can also constitute a guarantee for obtaining credit and thus the owner can make a more or less long-term investment for his benefit. "(Randriamahafaly, 2017)".

In addition, the arrival of the project has allowed the Municipality of Ambohibary to develop through these contributions in terms of infrastructure. In addition, the massive arrival of migrants motivated by direct and indirect job opportunities, and access to basic services are relevant changes observed in the Municipality. Thus, Véronique Dupont considered that migration is recognized and used as a privileged analytical instrument of the urbanization process (Dupont, 1984). Migration is not only an essential component, but it is also an indicator of urban dynamics: population movements in and out of cities bear witness to the capacity of urban economies to attract and retain men.

This confirms the hypothesis that the presence of the Ambatovy project makes the Municipality of Ambohibary a place of arrival for migrants and that the management of migration and urban explosion must take into account the access to land and urbanization. The approach proposed by this study to assessing the socio-economic and land aspects relating to development, urbanization and migration has been effective as it allowed to trace the main problems of the local population and to obtain precise answers on the subject. The questionnaire was designed in a simple and clear manner in order to obtain high response rates. In addition, it helps to better appreciate the attraction effects of the Municipality of Ambohibary.

The qualitative observation phase at a micro level, in the form of an interview with local personalities, officials, workers and farmers is essential insofar as it makes it possible to identify socio-economic phenomena and identify the variables for which information should be collected.

V. CONCLUSION

B The interest of this study lies in the fact that the consequences of the presence of a large mining site on urbanization and the migration it creates in its area of establishment must be taken into account. Thus, deductive approaches were used while defining the hypotheses by documenting and analyzing these hypotheses by field trips for data collection. Subsequently, the identification and analysis of socio-economic constraints weighing on the local communities of the Municipality of Ambohibary were carried out. These were the flows of migrants, the scarcity of natural resources and productive space, land disputes, the right of

access to land...

Thus, for migration to become a development lever for the Municipality of Ambohibary, it would be necessary to create production infrastructures, roads, schools and health infrastructures, to promote land security, to train real farmers, capable of acting on the management of their territory through decentralization.

Nowadays, new opportunities arise in terms of employment, notably the creation of integrated growth poles or PICs, the development of employment in the tourism sector in some regions of Madagascar. These situations will surely lead to migrations of the population, the management of which should be anticipated. As this is an important issue in terms of regional planning policies, migration can be a driving force or even a brake on the development of all sectors of the economy in Madagascar.

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RAMIALISON Zo Lalaina, PhD candidate, pursuing my study in Social Science branch from Catholic University of Madagascar Madagascar.

Publications: Z.L RAMIALISON, “*Les migrations internes à Madagascar : que sait-on ?*”, in Bulletin d’information sur la population de Madagascar, Numéro 36, Mars 2008.

Phone: +261343735569.



Dr H.C.C. ANDRIAMIADANOMENJANAHARY, Assistant Professor, Applied Cognitive and Application Sciences Department, University of Antananarivo, Madagascar.

Actually Professor Candidates. Especially specialized in Cognitive Science, Computer Science and Telecommunications. He has more than 17 years of experience in the field of Computer Science engineering

Publications: Optimizing the Vehicle Routing for a complex waste collection with Classico Metaheuristic Algorithm, Case of Antananarivo city,

Optimizing the m-Vehicle Routing Problem with Classico-Metaheuristic Algorithm and coupled Geographic Information System-Multi Agent System,

Optimizing the m-Vehicle Routing Problem with Classico-Metaheuristic Algorithm and coupled Geographic Information System-Multi Agent System.

Territory planning and development case of Sahambavy and Ranomafana Approach Model Driven Engineering: Profiling Group Collaborative Learner in Mobile Learning.

Phone: +261341400133.