

THE ESTABLISHMENT OF NEW CITIES IN ANTANANARIVO

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Abstract

Creating a new city and new poles is part of the government ambition, its partnership, and its investor attraction.

The purpose of this reflection is to study the strategy for urbanizing Antananarivo plains, as well as the method for designing development poles.

A new city and a new pole serve as an exchange platform among various private actors: who invest; people who seek employment.

Politically, it is a stable government, and good relationship with national and international stakeholders and a local authority endowed with adequate skills that can create a new city.

Keywords : Antananarivo, floodplains, Ikopa, new cities, ZAC.

1- INTRODUCTION

The concept of "new city" or "newly built town" is never mentioned in the Malagasy law. Moreover no experience of this kind has ever been carried out over the national territory. Now, with the rise of urbanization in the world over the past three decades, new cities grow everywhere around the world, in America, in Asia and especially in Africa.

Behind the creation of such new cities, there exists a legal, methodological, institutional, financial and organizational reflection work. Such projects would not have come to light without the existence of several technical and organizational tools that served as a legal framework useful to realizing the project.

Establishing a new city requires reflection on the institutional changes to be brought on the host territory, especially with the decentralization reforms in which communities are called upon to play an increasingly important role regarding changes of each territory.

The new city concept is absent in the Malagasy legal environment. The current legal tools are inadequate for its implementation. Indeed no experience of this kind has ever been carried out on the national territory.

2- METHODS

It is about Urbanizing Ikopa flooding valleys and plains that are subject to hydraulic conditions

Antananarivo city center is becoming increasingly saturated. To create new development poles and for new transactions generating new urban functions, the possible areas are the plains and the “Val d'Inondation Rive Gauche de l'Ikopa” (VIRG).

Pudi, 2004 areas of prospective actions are included in the VIRG.

Here are neighborhoods that are part of VIRG: the plains located to the left of the bypass, the plains located to the left of route Digue, Ambohimangakely, the neighborhoods of Anosipatrana, Digue Laniera, Ankadievo-Alasora, Tanjombato, Ambohibao, Talatamaty, Alakamisy Fenoarivo.

These Ikopa flooding valleys and these floodplains cannot be developed into cities if the hydraulic conditions are not met. Their urbanizing procedure, which consists in creating a sort of consulted development zones« Zones d'Aménagement Concerté (ZAC) », has to be investigated by a public institution and the commune involved and, then, approved by the Ministry in charge of Land Development.

Until the completion of the hydraulic conditions, flooding valleys (Figure 1) and plains are natural areas unsuitable for construction.

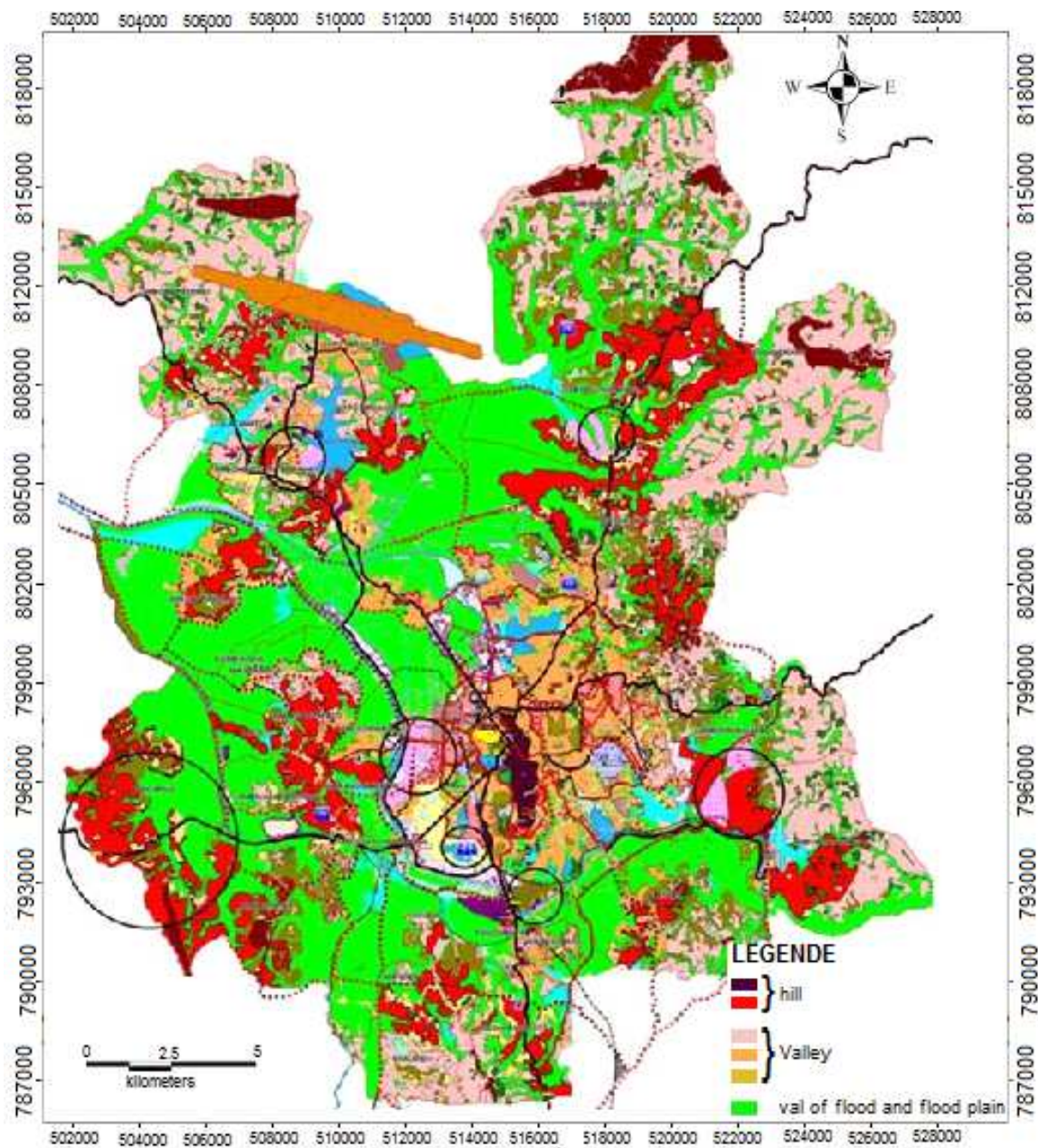


Figure 1 – The val of flood in Antananarivo

3.1 - Definition

The flooding valleys called “Vals d'inondations Rives Gauche de l'Ikopa” (VIRG) are unbuildable and risky areas, meant for laminating the great floods of Antananarivo in order to prevent the flooding of the city. During the dry period, the VIRG (Figure 2) is used as dry season rice fields. The VIRG includes about 1500ha dedicated to agriculture. [3]

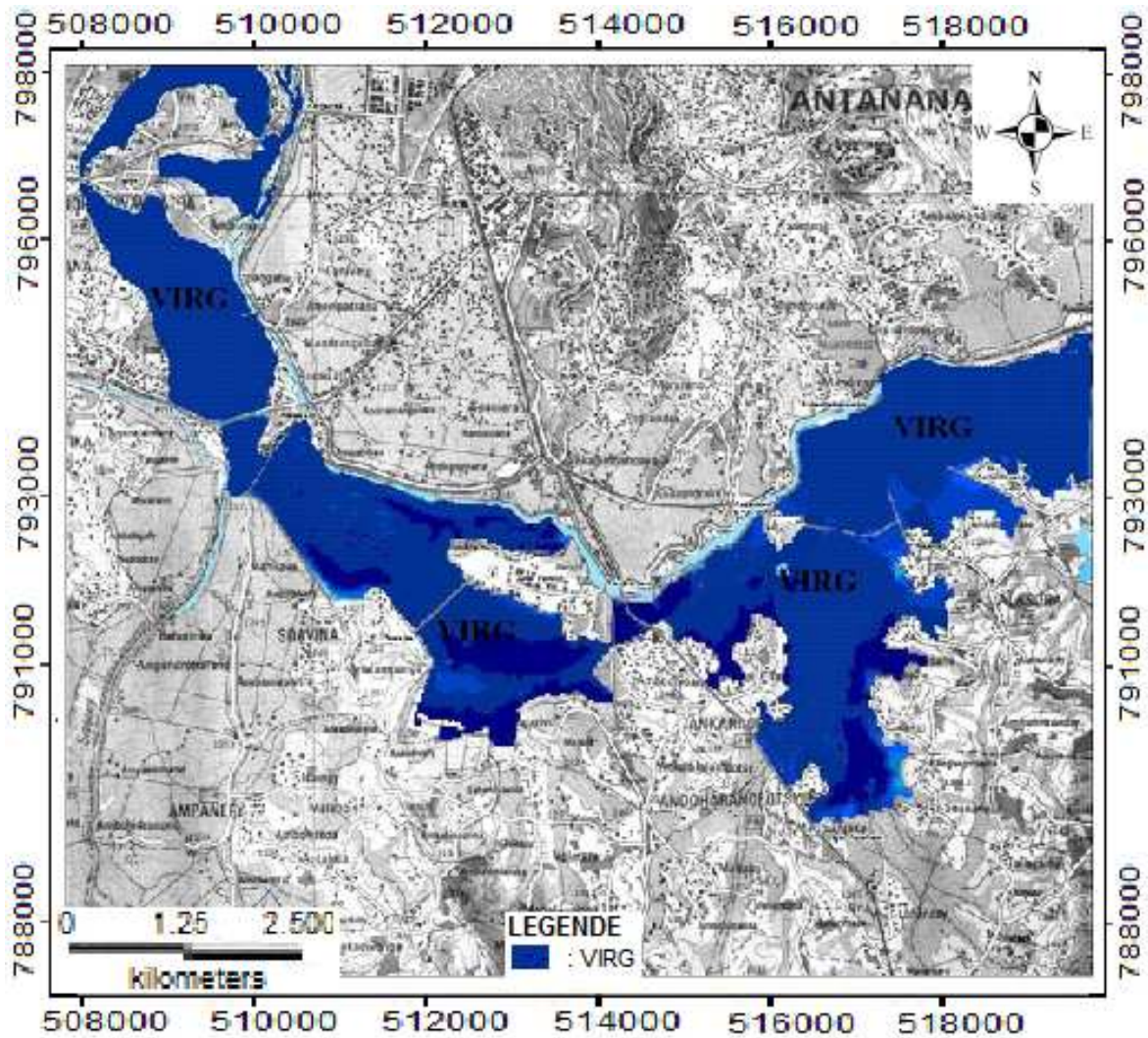


Figure 2 – VIRG (Val d'Inondation Rive Gauche de l'Ikopa)

With climate change, rainfall frequency decreases. On the other hand, extremes values, like extreme rainfall intensity, increase. This aggravates the danger and increases the number of victims and human casualties during high flood waters.

3.2- hydraulic conditions

The life of Antananarivo inhabitants and investments are becoming increasingly at risk with illegal backfills that aggravate flooding –hence, the need for immediately resolving Antananarivo water problems.

The best solutions and also the precondition for urbanizing Antananarivo and in particular VIRG plains rely on the following:

- Creating a flood control dam upstream Ikopa. Apart from protecting the Antananarivo agglomeration against floods, such dam will facilitate water management in terms of irrigation and water supply. The site is located about 6km from Ambohijanaka and is not accessible by car. At 20m

high such dam enables securing retention of 80 million cubic meter water. Such dam can be made of earth. [2]

- Rock breaking in shrinking parts of Ikopa bed in Farahantsana. This must be accompanied by a removable dam to maintain the current level of the water table of Antananarivo. Such solution can be made profitable by installing turbines that will provide hydro electric energy.

Note: the lives of thousands of people are at stake in such VIRG urbanization. If these hydraulic conditions are not met before urbanization, the LIFE of thousands of vulnerable people in slums will be IN DANGER.

3.3- Potential of the area and its urban functions

The current urban sprawl reached the VIRG. Moreover, such areas are viable (existence of water, electricity network,). The areas are serviced by main roads (Route digue, bypass ...), and commuting is optimal, traffic is fluid. The flooding valley of Rive Gauche Ikopa has advantages for the location of production, commercial, businesses ... VIRG has a strong urban appeal and high amenity capacity. [2]

3.4- Caution with the experience of By-Pass and Ramp

It is to be noted that the bypass is located in the flood left bank of the Val Ikopa.

During its design, studies allowed urbanizing an area comprised between the bank on the left of Ikopa and the by-pass (Figure 3).

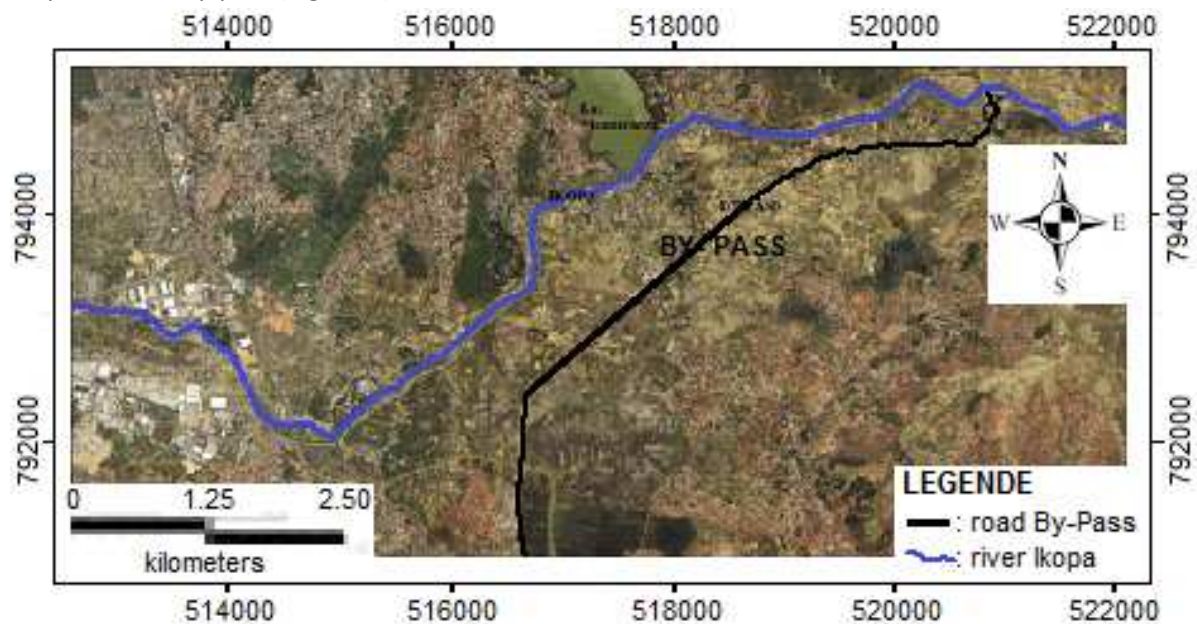


Figure 3 – The road By-Pass

When the by-pass was made, this rule was obeyed: Antananarivo inhabitants built only on urbanizable areas. However, in 2010, buildings were erected on the NON URBANIZABLE flooding valley (Figure 4). [1]

Buildings were set up, but no work of protection against flooding has been undertaken to date. And this worsens the situation of the victims when the great floods come.

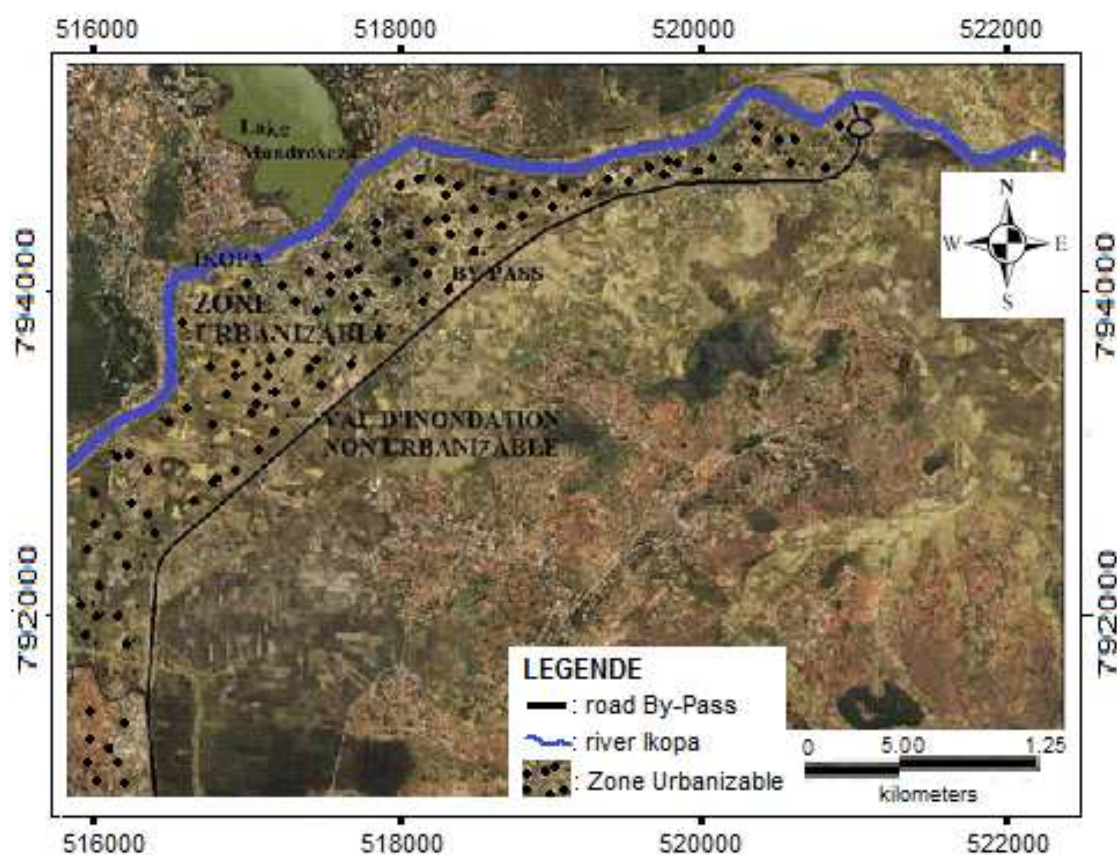


Figure 4 – The Urbanizable and Non urbanizable Areas in the road By-Pass

3.5- Urbanizing method and development concession–in-depth hydraulic study (flooding and irrigation) in each ZAC

To avoid the errors done in the by-pass and ramp experience, protection against flooding (dam creation upstream and rock breaking downstream) must be undertaken before starting urbanizing VIRG.

An economic study of the areas to be urbanized in the VIRG is mandatory before any urbanization. Urbanizing VIRG must be programmed via the study of several ZAC (Consulted development zone). The study of ZAC extends over an area, and must not exceed 10 ha.

Any kind of carelessness must be avoided in this new area that VIRG will constitute. Urbanizing VIRG should boost Antananarivo economy and should create employment for Antananarivo inhabitants.

Note: A fund for the implementation of the Protection of Antananarivo agglomeration against flood must be established before studying the ZACs.

3- FINDINGS

Case of new cities on the outskirts

We propose the following processes for the case of the City on the outskirts of Antananarivo agglomeration:

Step 1: Preparing the documents relating to the new town project

- The socioeconomic study
- The feasibility study and the business plan
- The Specifications of procedures
- The overall development plan
- The detailed urban planning

Step 2: Creating an inter-ministerial steering committee that must decide and validate the New Town project. Such committee has the following roles:

- To validate the overall development plan
- To validate the PUD
- To foster collaboration among the various stakeholders
- To merge stakeholders

Such committee will be established by ministerial order and members will be composed of:

- The ministry in charge of Land development
- The developer, which should be a public institution
- The ministry of Finance
- The ministry of Public works
- The hosting commune
- The hosting region
- The Donors and the technical and financial partners

Once approved by the Committee, a decree will pronounce the creation of the new city and its terms of implementation including the legal tools to be used (OIN, PUDe, ZAC, ..) and the procedures to be implemented. The project developer is responsible for :

- The implementation;
- Partnership prospecting.

Implementing the OIN will enable the developer using the land. Developing a PUDé will enable defining the destination of each square meter of the site.

4- DISCUSSION

In order to constantly go faster to perform unnecessary activities, the individual will harmonize commuting cost with commuting time. To its balance, if any change in the length, the individual will

notice loss of satisfaction that is produced, thus improving the price he is willing to pay to avoid such situation and maintain the same level of wellbeing, all things otherwise. Conversely, it is important to estimate the wellbeing gain linked to improved commuting conditions. Indeed, each entry road has four exit options. Therefore, for our case, the solution of several air bridges or overpasses at certain levels can practically not be envisioned for this type of development. If we consider first, its integration into the site and then the economic side involved in the project.

5- CONCLUSION

Although urban planning texts (Ordinance No. 60-167 of 3 October 1960 on Urban planning and Urban Planning Law) state about urban planning projects including other tools like PUDI and PUDé, it must be noted that such devices are inadequate to support and provide a framework to the establishment of a new city in Madagascar.

Strengthening existing devices and creating new devices prove to be needed.

Currently, the new Urban Planning Law that is under validation is improving the legal and institutional landscape of urban planning in Madagascar. It inserts indicative planning tools such as SNAT (National Land Development Scheme), SRAT (Regional Land Development Scheme), SAC (Commune Land Development), and operational planning tools such as urban planning (PUDé, PUDI), ZAC, ZAD further guide space and land planning management strategy.

Thus, the new town project must be included in these planning documents at their respective levels. And tools such as ZAC and ZADs can be used in the operational phases of the project.

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ACKNOWLEDGMENTS

In appreciation, this publication's authors want first to give thanks to the LORD, without whom nothing of the smallest details of our lives would have taken place. His grace has provided us with faith, strength, health needed for this research, and to reach the terms of this publication, which is the result of several years of research in the Polytechnic School Antananarivo that we express our deep gratitude and especially its director, Professor Yvon Andrianaharison.

We are also thankful to the Editorial Board of the Madarevues and Mada-Hary, as well as their team.

Special thanks then go to the location of the M2PATE team, the BPPAR and to the Antananarivo Urban Community for their cooperation during the development of this scientific publication.

We also need to thank all those who have directly or indirectly contributed to this publication's realization. Last but not the least we do not forget especially, our family who was always at our side during the development of our research.

The authors.