# Thiès local scale, towards a balanced metropolis «Crossroad city»

contextual study



## Presentation & Credits

## Writing

Ellina Le Moigne, El Hadji Dème Daffé and Thérèse Ndew Wade, leaders' assistants, under the supervision of the Thies 2012 workshop's leaders, Delphine Baldé and Luc Raimbault With the help of the Thies 2012 Scientific Committee members

## Proofreading

Ibrahima Bakhoum, Oumou Mbaye Sy, Delphine Baldé, Luc Raimbault, Antoine Plane

## **Editing**

**Emmanuel Kormann** 

### **Photos**

Delphine Baldé, Luc Raimbault, Antoine Plane, El Hadji Dème Daffé, Ellina Le Moigne

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## **Our Partners**

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### We wish to thank:

### Mr. Ibou Sene

Director of Thies' Regional Cultural Center

## Mrs. Fatoumata Bintou Kane

In charge of the Thies' regional cadastre

### Mr. Mapathé Bousso

Deputy directof of Thies' Technical Services

### Mr. Amadou Sall

Project manager at Dakar's CSE (Environment management)

## Mrs. Dienaba Seck

Specialist in Geographical Information System for the CSE

## Mr. Fall

Director of Setic Africa

### Mrs Diallo

Urban Planning Service's Manager for the city of Thies

## Mr. El Hadji Mounirou Ndiaye

Professor in Economics at the University of Thies, author of «L'économie

Sénégalaise, enjeux et problématiques»

## Mr. le Colonel Baïdy Bâ

Thies' Water and Forests regional inspector

## Mr. le Commandant Abdou Touré

Thies' Water and Forests Deputy Inspector

## Mr. Abdoul Aziz Gueye

Actor

## Mr. Djigo

Executive director of ANAT

## Mr. Fay

General Secreteary of ANAT

## Mr. El Hadji Niang

Specialist in religions

## Mr. Mbaye Gana Kébé

Professor of History and Geography, writer

## Mr. Abdoulaye Kane

Consultant, specialist in NGO

### Mr. Abdoulaye Mbodi

Director of the Learning Centre at Manufactures Sénégalaises des Arts Décoratifs de Thiès, spécialist in culture and lifestyles

## Mr. Ndong

Director of DTGC

## Mr. Ibrahima Ndiaye

Cartographer at DTGC

## Mr. Ibrahima Thiam

Professor of Economics at University of Thies

### Mr. le Colonel Abdourahmane Samoura

Deputy mayor of Thiès, delegated to the Environment

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## Introduction

Dakar's booming and uncontrolled urbanization led to an almost permanent saturation of the capital city and is severely hindering its economic growth. Consequently, the living conditions of the three million inhabitants have been affected. The city is now looking for new territories to transfer its activities, to develop new ones, and to welcome new inhabitants in order to contain its demographic growth.

Because Thies is very close to Dakar, its demographic growth is fast and strong. The city became very attractive for many Dakar executives who wished to settle there with their families or retire there, drawn by the city's quality of life.

Within this context of fast-paced urbanization and evolution, Thies' deputy mayor, Mr Yankhoba Diattara, asked Les Ateliers to organize an International professional workshop to come up with solutions for a sustainable and balanced urban development of Thies for the years to come, all the while preserving its identity and peculiarities.

The workshop will focus on five main topics, tackling the city's main issues:

- · Environment
- · Land management
- · The territory's economic development
- Local governance and consultation
- · The development of Culture and Tourism,

in order to come up with a genuine territorial project for Thies and its area.

This "contextual study", handed to the participants shortly before the workshop, gathers maps and thematic index forms detailing the study site and its major stakes, as well as the sources of the documentation. It feeds, with the introductory visits, the basic knowledge of the participants, and establishes the starting point of the teamworks. Enjoy your reading!

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Senegal a Geographic lo Bioclimatic co

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# Thies' major challenges

Becoming a part of a global metropolitan dynamic

Ending the degradation of the major environmental assets and starting to engage their regeneration

Building a production, services and knowledge economy for everyone, respectful of Greater Thies' population and its lifestyle

Creating a balanced territorial project in collaboration with the neighbour communes in order to fight the land shortage issue

Developing an efficient territorial, economic and cultural marketing strategy to create Greater Thies' new image and improve its influence

Articulating the interventions' scales of the urban planning actors, improving the citizens' participation as well as the action tools















## 

Geographic location

**Bioclimatic conditions** 

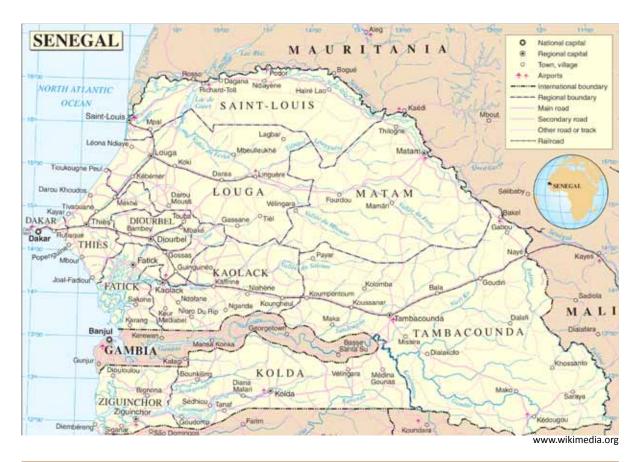
Demographic and Social data

International and national economy

Comparative figures for Thies

Main Development poles

Administrative organization



	Senegal	Mali	Mauritania	France
Surface (km²)	197 000	1 240 000	1 030 700	675 000
Population	12 472 141 <sup>1</sup>	14 500 000	3 360 000	65 500 000
Density (hab/km²)	59.26	8.87	1.95	97

## Geographic and Demographic situation

The Republic of Senegal is located in Western Africa, in the Sub-Saharan area. Its Atlantic coast is 530 km long and the Senegal River is the border with Mauritania up north and Mali in the East.

Guinea and Guinea-Bissau are located in the South. Gambia is secluded inside Senegal, spreading on both sides of the river that bears the same name, on a 300 kilometres long area.

Compared to its neighbours, Senegal is rather small but its population density is very important. Moreover, its rate of natural increase remains relatively high: 2,6% compared to 0,4% in France.

## A diverse country

43,3% of the population are Wolofs, 23,8% are Fula people, 14,7% are Serer, 3,7% are Jola, 3% are Soninke, 2% are Manjaks. There are also other ethnic categories.

## Foreign communities

Lebanese, Europeans, Chinese live in urban areas.

## Administrative organization and Urban situation

The country is divided in 14 regions and 45 departments. There are 7 cities of 100 000 people or more. Senegal has 123 urban communes, but half the urban population is gathered in the five communes of Dakar's agglomeration, which is 1% of the national territory (Dakar, Pikine, Guediawaye, Rufisque and Sébikotane represent 2 649 367 inhabitants). Today, half of Senegal's population is living in urban areas and this rate should reach 57% by 2025.

Dakar (city)	1 169 635 hab¹		
Touba (rural community)	654 253 hab¹		
Thiès	283 131 hab¹		
Kaolack	195 873 hab¹		
Mbour	205 519 hab <sup>1</sup>		
Saint Louis	184 233 hab¹		

1. Population estimations - 31/12/2011 - ANSD - 2006

## Contemporary Political History of Senegal

After centuries of colonial regime, Senegal acquired its independence in 1960. Its political regime is still very much influenced by the French model and the president is elected through universal suffrage. The first president of Senegal was Leopold Sedar Senghor until 1981, when Abdou Diouf won the presidential election. In 2000, the Democratic Party of Senegal came into office with the election of Abdoulaye Wade, who was sworn in again in 2007.

In March 2012, Macky Sall won the Presidential Election against Abdoulaye Wade.

The country faced some incidents recently: In 1989, a conflict arose against Mauritania and in Casamance where separatist forces often fight against the government. However, Senegal is one of Africa's most stable countries and has never faced any coup d'état. Senegal is a member of the African Union and of the

## **Bioclimatic conditions**

Community of Sahel-Saharan states.

The climate is arid in the North and tropical in the South:

- $\cdot$  A wet season from June to October with a peak in August, September varies according to the latitude. It is the Monsoon period. Casamance is the only region where it is actually raining and where there are real forests:
- $\cdot$  A dry season from November to June with continental trade winds, temperatures from 22 degrees to 30 degrees, and important variations between the coast and the hinderland.

Temperatures vary according to the seasons:
• In the Summer, temperatures peak. It is the wet season, also called the "overwintering season" since the Colonial era;

· They drop down to a minimum in Winter in January-

February. Yet, There are important precipitations from South to North .

Along the coast, the ocean brings cool air and average temperatures go from 16 to 30 degrees. In the Centre and the East of Senegal, temperatures can rise up to 46 degrees.

## Demographic and Social data

Senegal's demography is defined by the youth of its population and its fast rate of natural increase. The SES Senegal report that came out in 2008 established that the current rate of natural increase means that the population will double every 25 years.

Several factors help us to understand this demographic situation: a high fertility rate with an average above 4,5 children per women and a relatively high mortality rate.

Demographic evolution				
4 960 000 hab				
6 880 000 hab				
9 858 000 hab				
11 841 000 hab				
13 710 000				



## National and international economy

For 15 years, Senegal's economy has been one of the fastest-growing economies of Africa's Sub-Saharan region. The country's economy is driven by a few strategic sectors: peanut, chemicals, fishing and services.

The GDP's actual growth was about 4% in 2011 and is estimated to be about 4,4% in 2012.

## **Recent crisis**

- · Senegal's economy has been suffering from a series of crises between 2006 and 2007:
- · The country imports the totality of its oil and importations have increased importantly
- $\cdot$  Food prices have dramatically increased; 80 to 100% of the consummed wheat was imported.
- $\cdot$  A very dry wet season, resulting in a 15% drop of the harvest in 2006/2007 and has led to an inflation of the bare necessities 'prices.
- · The country's leading industry in exportation, ICS, has

encountered financial difficulties.

## **Foreign Trade**

Importations represent 47% of the country's GDP, mainly coming from France, Nigeria, Thailand, China and the United-Kingdom.

Exportations of goods and services contribute to 25% of the GDP, the main clients being Mali, India, France, Gambia and Guinea.

## **Poverty**

The RNB per inabitant is still low, 1071 dollars in 2011. Still, Poverty has been decreasing from 68% to 51% of the population in 2005. Discrepancies between rural and urban areas are increasing.

## Comparative figures for Thies

	Country	Surface (km²)	Population (inh)	Density (inh/km²)
Thies	Senegal	68,3	283 131	4 145
Dakar (region)	Senegal	550	2 800 501	5 091
St Louis	Senegal	45,8	184 233	4 022
Accra	Ghana	173	2 291 350	13 245
Bamako	Mali	245	1 809 110	7 385
Banjul	Gambia	93	34 830	375
Conakry	Guinea	310	2 160 000	6 970
Abidjan	Ivory Coast	422	6 783 906	16 075
Nouakchott	Mauritania	1000	800 000	800
Porto Novo	Benin	110	230 000	2 090
Lagos	Nigeria	1 000	15 230 000	15 230

## Fishermen in Mbour



## Principaux pôles de développement

	<b>DAKAR</b> Capital of Senegal	SAINT LOUIS Former capital of French-West Africa and Senegal	THIES City of the two stations	MBOUR Tourism pole
Economy	Headquarters, tourism, fishing (The country's leading port)	Fishing, craftsmanship, farming and fishing	Industry, administration, farming	Mining extraction, fishing (Senegal's second port), tourism
Geography	West, next to the Atlantic Ocean	North-West, next to the Atlantic Ocean on the Grande-Cote	70 km East of Dakar	West, next to the Atlantic Ocean, 80km south of Dakar on the Petite-Cote
History	Capital of the French- West Africa and of Senegal since 1902	Capital of Senegal and of the French- West Africa until 1902, registered in the UNESCO World Heritage List in 2000	Former military base, former railway capital	Former military base since the end of the nineteenth century
Transports	Dakar airport, linked to Thies by road and railway	Saint-Louis airport, Linked to Dakar and te region by the road to Thies	Future Diass airport; Dakar-Niger Railway, main roads of the country	Linked to Dakar by road

Saint Louis



## Administrative organization

## Senegal's Government

Senegal's territorial and local administrative reorganization was decided by the 10th September 2008 decreet, organizing the jurisdiction and the departments' administrative centres. Thus, the territory is made of:

- · Administrative Electoral Districts (545 departments and 11 arrondissements);
- · Local authorities (14 regions, 123 communes and 375 rural communities).

## The President

The President is the Head of State, and is elected through a two-round system for a seven years mandate, which can be renewed once. He chooses the Prime minister, who himself choses the members of his Office and proposes their nominations to the President.

## The Parliament

Senegal's parliament houses are named National Assembly and Senate. Members of the National Assembly are called Deputies and members of the Senate are Senators.

## · The National Assembly

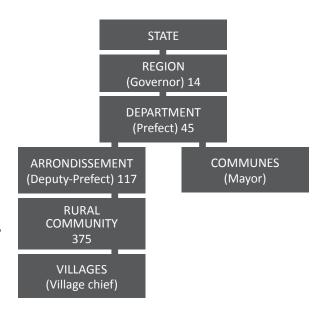
It was created on the 20th August 1960. 150 members are elected through direct suffrage for a 5 years mandate. It is a one-round system election for 90 deputies and the other 60 deputies are elected through a proportional representation system. The Assembly has been led by Moustapha Niasse since 31st July 2012. The Assembly is made of a vast majority of members of the Presidential coallition Benoo Bokk Yakar.

## · The Senate

There are 100 senators. 35 have been elected through indirect suffrage in the departments, 65 others will be nominated by the Head of State. The Senate's president is Pape Diop, former mayor of Dakar. The Senate was dismantled in 2001 after a referendum but was reestablished in May 2007. However, President Macky Sall has announced its future disassembling.

## The Government

The government is composed of 25 members, and establishes and organizes the Nation's policies under the direction of the Prime Minsiter, Abdoul Mbaye. He answers to the President and the Parliament following the regulations established by articles 85 and 86 of the Constitution.



## **Decentralized Structures**

## The Region

The Governor is the President's representative in the region. The Region's jurisdiction entails the promotion of economic, social, education, health, cultural, scientific development, the creation of Regional Development Plans and the organization of the territory's planning all the while respecting the integrity, autonomy and jurisdiction of the communes and rural communities. The region makes proposition to the local authorities in order to promote the coordination of local investments and development actions.

## The Department

The department is an administrative entity managed by the Prefect. He has a decisive role in allocating or removing lots of the national domain to rural councils.

## The Arrondissement

Former colonial "Canton", the arrondissement is an administrative entity made of many rural communities.

The Deputy Prefect organizes the activity of the civil services within the arrondissement and answers to the Prefect. Every year, he organizes a population census and supervises the actions of the rural councils' presidents.

Within the rural communities, the Deputy Prefect has permanent control over the Villages Leaders, especially regarding the rural tax collection.

## Decentralized structures in Thiès

## The City

The Mayor is the executive organ of the commune. He assigns some of his functions to his deputy mayors and supervises them. He is responsible for the implementation of the economic and social policies of the government within the city. He is also responsible for planning and programming the local development and he ensures that the orientations are the same than the regional and national ones. In addition to these missions, the City Council takes decision in the following sectors:

- · Environment and management of the natural resources;
- · Health, Population and Social work;
- · Youth and Sport;
- · Culture;
- · Education, literacy programs and national dialects;
- · Planification;
- · Territorial planning;
- · Urban planning and housing.

### Communes of arrondissement

The communes of arrondissement have the same moral responsibility and financial autonomy than the other communes. The arrondissement mayor prepares and executes the arrondissement's council decisions. He has his own prerogatives regarding civil affairs, education, elections(voters lists, registration supervision), urban planning and communal heritage (authorizations regarding soils use within the arrondissement, authorization regarding the occupation of public domain in the commune)

## The Districts

The District supervisor is one of the Mayor's deputies. His mission is to supervise the respect of laws and regulations and the applications of health and public sanitation measures decided by the administrative and Municipal authorities.

He raise awareness within the population in order to fight serious threats and participate in the investments the public authorities and the population have voted. He also helps organizing the population census.

His is a privileged and multi-function actor. He is a true population's "ambassador". He informs the municipality of his districts' everyday life and the main preoccupations (roads, security, sanitation, environment, animation, etc...) He also acts as a link between municipality and the district's population. He keeps them informed on the municipality's on-going projects and their impact on the district, public consultations, traffic plans, etc. In addition to searching for the most efficient answer to their problems, the representatives have the responsibility to organize district's meetings (one a year usually) and, flat meetings.

## The Regional Agency for Development

The agency has an urban planning role, supporting the local communities and providing with technical assistance: survey, decisions, launching and follow-up.

The agency creates the Local Development Plan and/ or the Urban Development Plan, and other surveys for the rural communities. These plans and surveys are made either by private companies or the agents. There is a similar process for urban communities.

Some major cities, like Saint-Louis, have their own agency: The Communal Development Agency . Thies is the Regional Development Agency's headquarters.

## The Intercommunal Governance

The IMAP (Instrument of Models for a Participative Development) was created in 1998 following the wish of the actors for the local development of Thies and that of Fandene's rural communities to tackle the land and environmental problems caused by the urban growth and to have a sustainable, collaborative and consensual development project.

All the actors have to take part in the fair and transparent process, especially concerning each and everyone's roles, the decision making process, the objectives, the work methods, the funding, the human resources and the logistics.

The IMAP ended in 2003 and was first and foremost a project created by local partners and was meant to be followed and led by local actors. ENDA and EDPFL have taken on a facilitating, counselling and educational role.

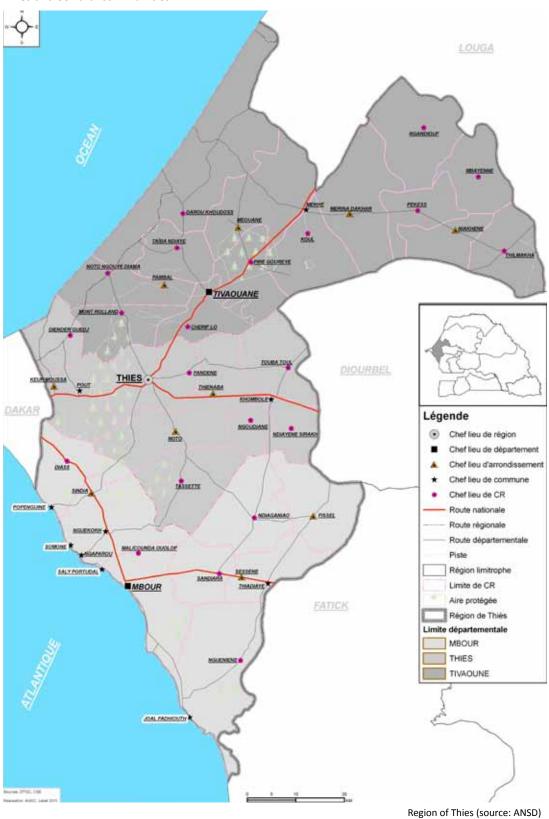


## Geographic elements of the area of Thiès

The region
Relief and geology
Climate and pluviometry
Hydrographic network
The greater landscape
Global warming in Thies

## The region

This is one of Senegal's 14 administrative regions and is 6 601 km large, covering 3,4% of the country's territory. The estimated population on the 31/12/2011 was 1 563 074 (source: ANSD), corresponding to 13,3% of the national population. The region is divided in three departments (Mbour, Thies and Tivaouane), with 15 communes, including Thies and 35 rural communities.

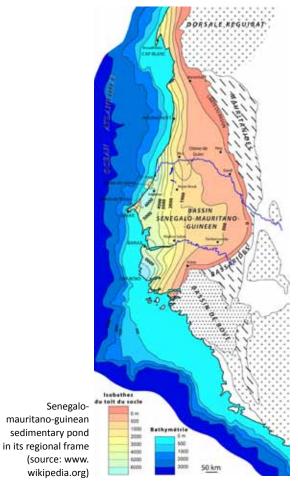


## Relief and geology

Thies' region is included in the Senegal-Mauritania sedimentary basin. Numerous geological formations, formed over the Mesozoic, Tertiary and Quaternary eras are found in this area. The shape is very varied, made of plateaus, depressions and hill: Thies' plateau peaks at 137m. The city of Thies is within a basin that is slightly oriented towards the East, the major slopes vary from South-West to North-East between +100m IGN and +60m IGN. Thus, the city is a catchment basin for rain water. Its morphology draws most water towards a downhill location near the railway, at the borders of Escale, Keur Mame El Hadji and Ballabey districts.

The types of soils found in the city are generally the same than the ones in the region:

- · Diors soils: sandy soils with low organic matter.
- · Deck and deck-diors soils: sandy clay soils.
- $\cdot$  Hydromorphic soils: good for market-gardening and fruit tree farming.



Relief of Thiès and its surroundings



## **Climate and pluviometry**

The region's climate is influenced by the Soudan-Sahelian area. The nearness of the ocean, constantly blown by trade winds coming from the Azores' anticyclone, creates a relatively warm climate, often called sub-canarian with a continental influence.

Temperatures vary from 20,3°C to 35°C with an annual average of about 26°C. The lowest recorded temperatures occur during January and February, with a minimum of 16°C; the strongest temperatures occur during March to October. The average insolation time is 8 to 9 hours per day.

The nearness of the ocean creates an average relative humidity of 62%. There are three types of winds that blow in the area:

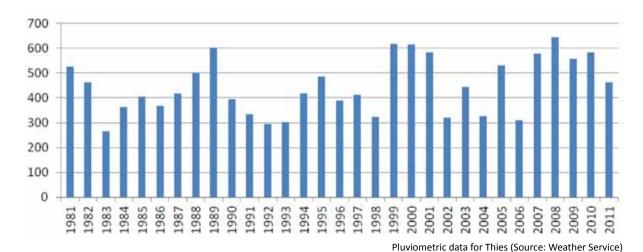
- · Trade winds, especially the maritime one coming from the North (North-North-West sector) which cools temperature down;
- · Monsoon coming from the South and determines the pluviometry;
- · The Harmattan, a hot, dry and dusty Eastern wind,

which blows between April and July.

Two types of season alternate in the city: The 9 months dry season and the wet season which doesn't last longer than 3 months (July to October).

Precipitations in Thies occur from mid-July to mid-October. They vary between 260 and 500 mm/year, showing a certain irregularity throughout the years.

The average recorded pluviometry in Thies is about 446mm/year for 34 days. Its evolution follows a seesaw trend, but over the last few years, the recorded data was pretty good (an average above 500mm, peaking at 645mm in 2008). Yet, it is important to say that a high pluviometry level doesn't go without arousing the population's fear of floods in the vulnerable districts.





Rain in Thies





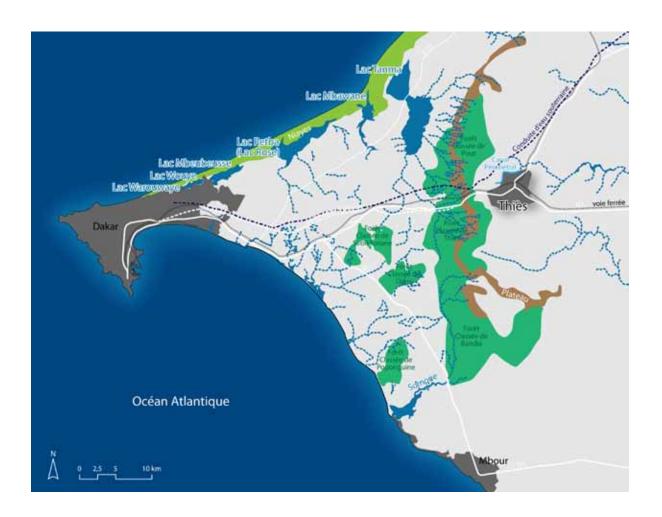
## Hydrographic network

Thies' hydrographic network is organized by a plateau from which a series of courses originate and supply the region's territory. These courses are fuelled by the important rain during the overwintering season and they dry up during the dry season. They are almost exclusively located on the Western side of the plateau and supply the Lakes of Grande-Cote, especially Lake Tanma, and the Petite-Cote lakes as well.

On the Eastern side, the hydrographic network is less developed: the rain water doesn't go deep in the basin's ground and simply runs erratically down the plateau's slopes to Thies, which is further down. This is why the city has built a canal from West to North whose aim is to collect this water before it reaches the city, and to divert it towards Fandene to supply the suburban and rural faming lands. Nonetheless, Floods remain a frequent problem in Thies.

The important expansion of the city, a direct consequence of the demographic boom and rural depopulation creates an additional pressure on the water resources. The urbanization increases this rain water problem because of:

- · a decrease of the infiltration rate;
- · a modification of the water rain course;
- $\cdot$  a deforestation and a depopulation of the nearby natural habitats;
- · pollution of the ground water.



## The Greater landscape

## Thies Plateau and its drainage basins

The Thies plateau is a hill chain located on the three rural communities surrounding Thies (Keur Moussa, Mont Rolland and Notto), but also in the classified forests of Thies et Pout. The plateau peaks at 133m with the Daral Peul cliff. The plateau is part of both Thies and Dakar administrative regions, with four departments and at least twenty-one local collectivities.

The Thies plateau is an ecosystem that is composed and defined by the plateau itself, the Diass massif and their own areas. However, when talking about the Thies plateau, one often refers to its crest that spreads from North to South. Its influence spreads on all the surrounding area and also on some of the country's highly strategic areas.

The plateau is located near Dakar and is an economic strategic area and a crossroad linking the rest of the country.

Thies plateau's area directly influences three economic and geographic areas:

- · The Niayes area, in the West, the main farming and economic region where urbanization grows swiftly and where market gardening and fruit tree gardening is developing.
- $\cdot$  The Petite-Cote, in the South, main tourism area and income generator.
- · The peanut area, in the East.

Thiès plateau (source: www.graim.sn)





## The Plateau's drainage basins

The rainwater flowing down the plateau's crest supplies the main three basins: :

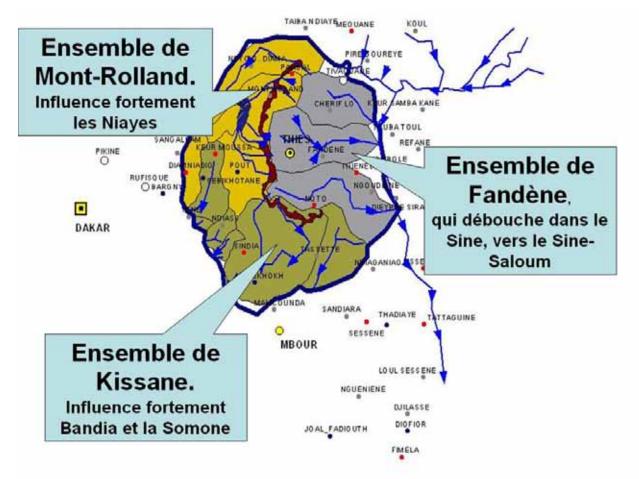
- · The Mont-Rolland's drainage basin, located West and North-West of the crest, receives the plateau's water that fuels the Lakes Wangal, Tanma and the Niayes.
- · The Fandene basin, enclosing Thies and Fandene, receives the water flowing towards the Peanut basin. It is located in the Eastern and Notheastern part.
- · The Somone Basin, enclosing the Diobass valley is located in the South and Southwestern area. It has a rich ecosystem and a diverse fauna and flora. The Somone basin draws the rainwater flowing towards the Petite-Cote.

The Thies Plateau is a genuine water tank and played a major part in preserving the ecosystem all the while supporting the development of farming and animal husbandry.

Nowadays, the Plateau doesn't have the same beneficial impact because of the many anthropic degradations (deforestation, Ndiass Airport, land shortage) and natural ones (drought, impoverishment of the farming lands, extinction of rone palms) These degradations have important consequences on the Plateau and the basins.

### The Plateau's influence over Thies

Thies is located in one of the Plateau's basins. Because Thies is located downhill of the Plateau, many floods occur. It is important to contain this problem, whit a reforestation program and the creation of rain water dams uphill, and planning the territory and the waterways downhill.



Thies Plateau's drainage basins (source: www.graim.sn)

## Classified forests

There are 13 classified forests in Thies' region covering a 98 926 ha surface, meaning that 15% of the forests are classified. The area's size has decreased over the years due to declassifications, mining, and housing (especially in the south of Thies). In Thies' classified forest, the Savannah's flora is mainly constituted of trees and bushes. Acacia seyal and Acacia ataxacantha are the main species. There are also some natural specimens of Combretum micranthum, Boscia senegalensis, Aacacia nilolica var adansonii, Celtis integrifolia, etc... and articficial specimens amongst which Casuarina equisetifolia, Eucalyptus sp and Prosopis juliflora are the main species.

Nonetheless, a substantial decrease of the forest's resources has been observed for quite a few years now. Reduction of the area's size, of the flora's resources, of the density, structural modifications of some wood population. Classified forests are endangered, the green cover is already massively suffering from the ongoing degradation and some areas look more like deserts than the lush forests they once were at the time of the classification.

This degradation is the result of a variety of pressures and constraints, of anthropic, natural and institutional origins.

## **Anthropic constraints**

This situation is due to the people's need for food, medicine, energy. It is also due to fires, the overexploitation of the trees resources and animal husbandry. Other negative impacts are caused by the industrial exploitations of mines and quarries (Thies forest, Pout forest and Bandia forest), resulting in pollution, disturbance of the photosynthesis, destruction of flora and fauna.

Indeed, industrial exploitations of mines and quarries lead to the destruction of the species' natural habitats. Therefore, there is only a small residual fauna left. The main wild fauna has found refuge in protected areas, in reserves and national parks.

Other classified forests are entirely serving the farming industry (Diack Sao, Ndémène...) resulting in the destruction of the forest's resources.

The extension of the farming areas and the intensive animal husbandry are factors that both worsen the

drought issue.

## **Natural constraints**

Global warming has several consequences:

- · Drought leads to a decrease of soil's water resources and jeopardizes the flora's regeneration process. Thus, the rain water flows more rapidly and causes erosion of the soil.
- $\cdot$  Wind and water erosion lead to a decrease in the soil's fertility.
- · Water and soils contain more salt...

As a result, soils are degraded and forests and farming are less productive.

Many species are extinct or endangered due to the permanent drought.

## Institutional and political constraints

The management of the ecosystems suffers from the lack of means to preserve them, the lack of ecological, social and economic surveys to ensure a rational management of the forest's resources, the poor knowledge of the flora and fauna's potential, the poor implementation and control of the regulations in the forest area, the lack of coordination/consultation to efficiently manage the resources...

Situation ancienne: couvert végétal abondant Situation actuelle: couvert végétal affaibli Moins de Précipitations Précipitations Ruissellement ruissellement faibles importantes important Vitesse de l'eau de Ensablement ruissellement Vitesse de diminuée l'eau de Erosion et ruissellement Infiltration plus affleurement Ruissellement élevée importante

et ravinement

Source: Réseau Enda Graf sahel / GRAIM

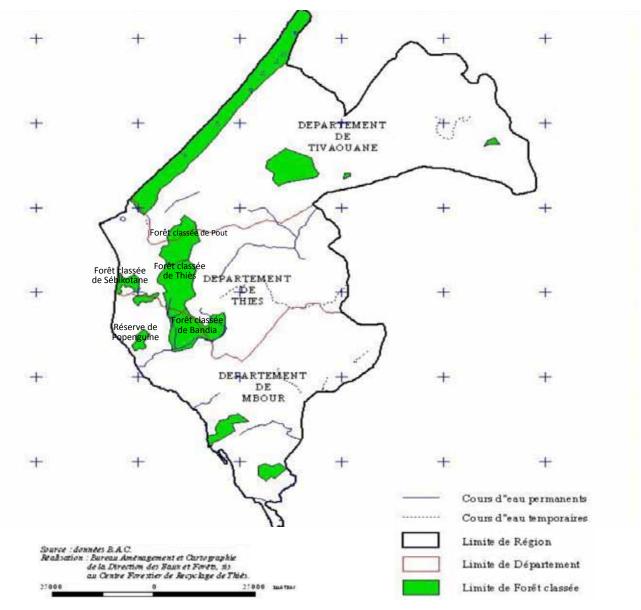




People collecting resources

Industrial exploitation in a classified forest





Classified forests in the region of Thies

## The Niayes

The Niayes is a 10 to 15 km long area by the North coast between Dakar and the Senegal's delta. It is a 2 759 Km² area, and is characterized by the presence of "Niayes", a series of depressions located between dunes. The Niayes are genuine market-gardening oasis. The area has a specific warm and wet climate with relatively strong and constant winds that differs from the rest of country. It belongs to the "Canary islands" climate area.

The Natural conditions are good for flower farming and it attracted many people. The main market-gardening productions are cabbages, potatoes, tomatoes, carrots, onions, green beans, salads, etc... Women play a substantial part in the region's economy.

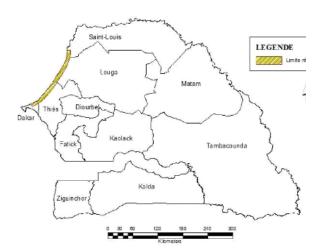
80% of Senegal's flower farming industry is located in the Niayes and the area is the main supplier of Dakar's agglomeration for fresh products. There are intensive animal husbandry for milk and poultry products.

Thies is the country's second region for fruit production after Casamance and also 2nd in market-gardening.

Niayes face a triple threat: drought, anthropic pressure and the dunes frontal shifting towards the hinterland. There is a risk for the market-gardening areas to be buried.



Market gardening cultivations in The Niayes

















## Global warming in Thiès

According to current data, a 3° to 5° warming is forecasted in the Sahel regions by 2010, with an increase or decrease of the rain precipitations depending on the regions. Several communities are already facing more rain, drought and other extreme meteorological events. In the Sahel region, Precipitations are 20 to 30% less important than they were a hundred years ago. In Senegal, pluviometry has decreased of 35% in quantity, with a shorter wet season and a lower frequency of rain days between 1950-1965 and 1970-1995 periods. Yet, in 2005, the country has experienced an important pluviometry which provoked a degradation of the land, an erosion of the soils, and flooded the lower areas. Hundreds of family were moved.

Given this environmental context, Senegalese farmers struggle to produce enough resources and face nutritive problems, as well as economic poverty, leading to survival strategies that shatters the social and economic system's organization.

The InfoClim project, a collaborative platform aims to inform the population of the global warming consequences. The project listed the effects that were witnessed over the years on the farming areas near Thies.

## Climate change and resources' accessibility

In the farming sector, the climate change is seen through extreme phenomenons that have been recorded: drought, floods, strong winds, rise in temperatures, pluviometry changes. Farmers have lived two periods: one before the 1970's where some natural drainage basin known as" khour or pool" were present, and a second period after the 1970's, where climate irregularities have been recorded.

The presence of these water spots allowed farmers to develop farming activities, fishing, and animal husbandry. The food security level increased, as well as the profits made by farmers selling their production.

Weather perturbations have started in the 1970s. The Sahel region suffered from drought. It is the turning point for the farming industry, when farming's profitability started to decrease.

These extreme events have caused an impoverishment of the soils, dug the water tanks, dried up the water spots (sand banks, wells, valleys) and prevented the farming activities outside farming seasons.

Since 1968, the drainage basin only fills up temporarily. Over the last forty years, difficulties arose because of the lack of water. The climate change was not only responsible for the decrease of the production, it also destroyed harvests. The supply does not satisfy the households' demand anymore. Within this environmental context, nutrition problems

and economic poverty have had a major impact on the rural population's living condition, especially the women's (poor alimentation, they face more chores with the departure of men for urban areas, strenuous farming work...).

Climatic stress has an impact on existence and social structures, and men have noted that resources were altered. The drying-up of the fields have rendered their activities even more strenuous because they need more workforce. In fact, many farmers have been disheartened by this situation.

Farming activities influenced by pluviometry have dropped. This decrease was recorded when farmers begun to focus only on rain-based farming. Indeed, this type of very short-term farming is utterly dependant of the pluviometry and doesn't allow a secure food production for rural households. Therefore, rural areas were impoverished. Farming data have shown a decrease of all the productions, from peanut farming to cereal farming, from marketgardening to tree farming. This vulnerability has increased social problems.

## The population's initiative towards global warming

The increase of human vulnerability towards global warming and climate change have forced people to come up with solutions.

## **Digging wells**

In Thies' region, farming is massively dependant of the rain. After the water spots were depleted, people have tried to access water differently. They created "céanes" and wells to bring water to the farming areas. This initiative allowed farmers to continue their market-gardening activities, gave a boost to the fruit tree farming industry, etc...

## Varying the cultures

Traditional farming (mil, corn, sorgho, peanut, etc...) were important for farmers. With the long-lasting changes in the weather, these types of farming were no longer adequate. Thus, they identified a few short-cycle varieties and tried to vary the production as a strategy to ensure a certain level of food security: Roselle, mango tree, ron palm, cashew tree, etc...

Two to three cultivation types can be associated: millet, peanut or black-eyed pea, manioc.

This habit is a way to balance the water needs between the species.

## Trade, services and migration as alternatives

Women who do not work in fields take care of the informal sector and generate income: in front of every house in the village, a table is set up by women to sell the fruit and vegetables produced in the farms.

Those who do not trade provide services. For instance, young women provide a washing-up service. With the changes that occurred, parents cannot provide as much as before for their children because food comes first. Young women have to find a way to generate

income in order to have access to education and contribute to the household's expenses.

Because of the climate change, young rural communities have become more mobile regarding income generating activities. Some farmers migrate in order to find temporary jobs in urban areas; others choose to move permanently to other countries or continents, thus becoming "climatic refugees".

Well feeding market gardening cultivations in Keur Saïb Ndoye



## 

Railway network

Diass Airport

Road network

Ports

Diamniadio's Special Economic Zone

Regional economy

Local Economy

## Rail network

## **Dakar-Niger railway and Transrail**

The Dakar-Bamako train (Koulikoro) is legendary. It was built by the French administration during the Colonial era at the end of the nineteenth century and beginning of the twentieth century. The project was created by the Commander of French Soudan, Galieni, and its original aim was to transport troops swiftly and export the country's natural resources towards Dakar's port.

In 1885, the railway from Dakar to Saint-Louis (DSL) became the first West-African railway.

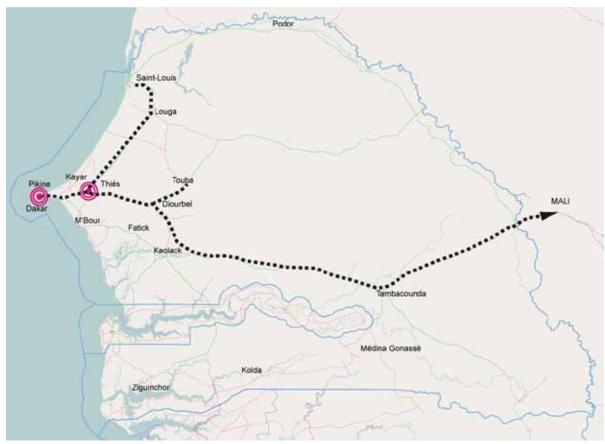
The work began in 1881. The Dakar-Bamako railway was built in two sections, using a metre track gauge. It is 1 287 kilometres long, with a 641 km section located in Mali. The Malian section between Kayes and Bamako was opened on the 19th May 1904. The Dakar-Bamako train embarked on its maiden voyage on the 1st January 1924.

From October 1947 to March 1948, in Thies, also known as the Rail City, rail workers started a tough strike which was ruthlessly suppressed by the authorities. Eventually though, workers won the battle and Thies' name was henceforth associated with the idea of emancipation from Colonial rule. Sembene Ousmane, writer and filmmaker chronicled these events in his famous novel:"God's bits of Wood".

In October 2003, the governments of Senegal and Mali handed over the management of the railway to Transrail, a company first owned by a French-Canadian company (Canac-Getma), then by the Belgian society Vecturis SA since 2007. Governments imposed to keep the railway open to travellers. There is one weekly return journey between Dakar and Bamako. The train leaves Dakar at about 1:50 pm on Saturday and arrives in Bamako on Monday night or Tuesday morning. The maximum speed is 65km/h. The train leaves for Dakar on Wednesday. The average fee for a first class ticket is 35 000 CFA Francs and 25 000 for a second-class one.

The PTB (Small Suburban Train) is a regular train service that was created in 1987 between Dakar and Rufisque. Until 2003, the train was called the "Little Blue Train". The PTB operates a railway service between Dakar and Rufisque and one daily return railbus journey between Dakar and Thies. Fees: 200 CFA Francs for a journey from Dakar to Rufisque and 750 CFA Francs for a second-class ticket from Dakar to Thies.

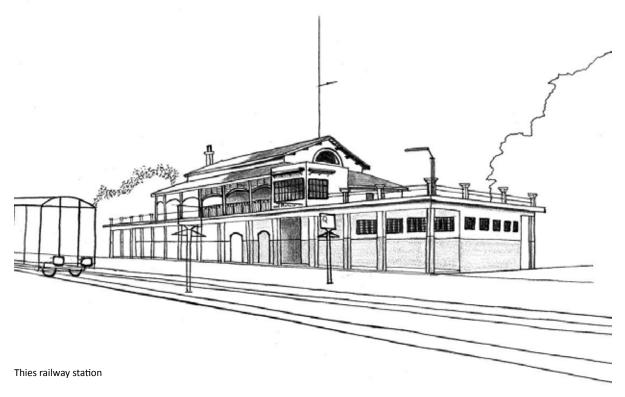
In 2011, the Transrail company faced financial difficulties, because Senegal and Malian governments had not repaid their debts. The company is now waiting for a decision from Bamako's Commercial Court that should be rendered in January 2013. Senegal and Mali have agreed on the creation of a Bi-national Heritage Company, which would become the contractor for the infrastructures investments that were originally decided by Transrail.



Dakar-Niger railway and Transrail









## **Diass airport**

President Abdoulaye Wade laid the first stone of the new Blaise Diagne international airport in 2007. It is located in Diass, 47 kilometres southwest of Dakar. It is meant to replace the Leopold Sedhar Senghor Airport in the future, which is located on the peninsula, next to Dakar.

Here are the following objectives:

- · Reducing Dakar's saturation. The 800 hectares location of the airport will welcome an international business park for global headquarters;
- · Promoting the creation of an economic pole outside of Dakar;
- $\cdot$  Creating one of Africa's major hub, for the region and the continent;
- · Creating the proper conditions to welcome 1,5 millions of tourists per year;
- · Increasing the exportations flow and attracting foreign investors.

For President Wade, this project is part of a global strategy that will help Senegal become an emerging market, able to compete with other growing areas in the world.

The new airport will be built on a 4 000 hectares area and will be able to welcome 3 million passengers per year (versus 1.7 for the current airport). The first 3 500 metres runway will allow large passenger airliners, like the A380, to land. The main terminal will be 42 000 m² and the Mecca terminal will be 1 300 m² and will be able to welcome two 747 passengers.

Capacities: 25 000 plane movements per year; 50 000 tons of freight; 44 plane parking spots; 6 jetway positions; 7 connections between taxiway and runway.

The site's capacity allows the development of complementary infrastructures that will help the airport achieving its goal of 10 million passengers per year. The airport is expected to create 3 000 direct jobs and 12000 indirect jobs.

The Saudi company, Saudi Bin Laden undertook the construction and it is mainly financed by the African Development Bank, the Islamic Development Bank, BNP Paribas and the AFD (French NGO).

**Current status:** The end of the construction, initially planned for early 2011, has been postponed for 2013, even 2014.



Runway side view



City side view



Airport entrance view



General view of the airport

## The road network

Thies is a crossroads city, which is well served by the regional road network that connects it to the main neighbouring cities. Thies is an obligatory passage for most of interurban trips and thus experiences an important traffic.

The National Road number 2, which entirely goes through the city, allows thus to get to Dakar by the Southwest, and to Tivaouane, Louga, St. Louis by the North-East exit. As regards to the National Road number 3, it allows to go towards Diourbel and Touba direction from downtown Thies.

The toll highway newly created between Diamniadio and Dakar, improves the travelling conditions between Thies and capital city while reducing travelling time.

Trips towards the Small Coast are more basic, access roads are less developed and more winding. Nevertheless, this destination remains well-served by transportation means.



Regional road network

## The Dakar-Thies highway

A project of toll highway between Dakar and Diamniadio (34km) is currently in progress and the final objective is to serve the Diass International Airport which is located 42 kilometres away from Dakar. It would allow a direct and fast connection between Dakar and Thies.

**Global Coast**: 200 billion CFA Francs (US\$400 millions) **Current status**: Patte d'Oies-Pikine and Mbao-Diamniadio sections are operational, work is still in progress between the two sections.



## **Ports**

## Dakar's port

The exceptional geographic location of Dakar's port, on the furthest part of the African West-Coast, makes it a genuine crossroad for many maritime roads between Europe, North America, South America and the African continent.

Dakar's port is located on a 177 hectares area with a water depth between 10 and 13 m. The area is vast enough for the ships to manoeuvre without the help of tugboats. There are different specific areas: containers, cereals, Mali(railway), loading/unloading of varied goods, petroleum, phosphate transport and fishing area.

A regeneration plan for the petroleum wharf is under consideration in order to improve the quality of the service and the ships' security. The goal is to increase transshipment traffic.

## The Next-generation port

The infrastructures of Dakar's port should be extended and modernized in order to increase its capacity and vary the functions. The goal is to boost its role as a driving force within the regional and national economies.

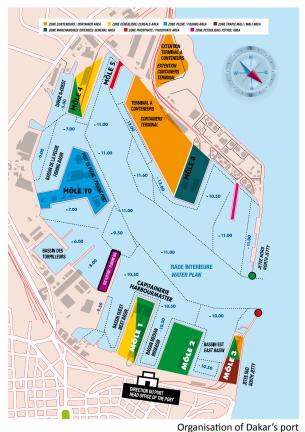
Current status: The current port, as well as the development projects are being surveyed. Currently looking for the best investors and port managers.

## Bargny's port for mineral export

A port for mineral export will be built outside the pier of Dakar's port which will be dedicated to current mining exchanges (Matam phosphate, sulphur, silver and gold from Eastern Senegal...) and petroleum products (SAR, PAD petroleum Wharf). It will free a considerable area within Dakar's port for storage purposes and exploitation (container terminal...). Bargny's port will help to reduce traffic congestion on the national road between Dakar and Bargny by suppressing the circulation of the 250 trucks that serve Dakar's port on a daily basis. The port is designed to welcome ships carrying 350 000 tons of goods.

**Current status**: We do not have the necessary information to know how far the project is advanced or if the project is still on-going.







#### Diamniadio's Special Economic Zone

The project for an integrated economic platform in Diamniadio has been supported by the USA within the fame of the Millennium Challenge Account. Indeed, the US government offered financing to African countries considered to be democratic. The site is at the crossroad of the Thies-Dakar highway (under construction) and the N1 road, and is next to the Diass Airport, which makes it a perfect site for planning a special economic zone.

The project was originally called "Diamniadio's Millennium Platform" and was a 2 500 ha area planned just like a new city. The area was designed to welcome new industrial and commercial activities or existing activities wishing to relocate, and to create favourable circumstances to produce business equipment with support from the private sector, as well as with financial support to help the companies settle in. The USA were supposed to invest 400 billion CFA Francs (800 Million Dollars) in the project.

In January 2008, the Senegalese government cancelled the project in favour of another one supported by Dubai's emirate. A convention was signed with Jebel Ali Free Zone Authority (JAFZA), a branch of Dubai Ports Word (DP Word), for the development of a Special Economic Zone with a 800 million dollars investment (400 billion CFA Francs), only six months after DP World had won the port's concession over French company Bolloré.

The Jebel Ali Freezone project's aim is to offer an "attractive geographical, judicial and fiscal frame, as well as modern, top-quality infrastructures capable of transforming the area into West Africa's main business centre; a logistic, commercial and industrial hub that will draw investments."

The government allocated 650 ha within a 10 000 ha area. Infrastructures and main amenities (industrial and administrative buildings) will cost 200 million Dollars. The objective is to encourage 1 000 companies to settle in the next 20 years and to create 40 000 direct jobs and 100 000 indirect jobs.

Location of Diamniadio's Special Economic Zone, between Dakar and Thies, next to the highway



A freezone developed in Dubai in less than 10 years





Diamniadio's Special Economic Zone site

#### Regional economy

#### Fishing in Thies' region

The fishing sector is one of Senegal's main economic sector since its independence. The 2005 survey " Economic and social contribution of traditional fishing in Senegal" estimated the wealth of traditional fishing and auxiliary activities to 163,66 billion CFA Francs, equivalent to 4,08% of the GDP.

Because of its economic importance and the fact that it provides jobs and food in substantial amount, the traditional fishing sector is an important part of Senegal's development policy.

The important production and the estimated 500 000 jobs that derives from the fishing sector makes it one of Senegal's main driving economic forces and creates numerous auxiliary activities, like transformation, trade and exportation.

Thies'region is the country's leader in traditional fishing. Fishermen bring back about 200 000 tons every year, equivalent to 70% of the country's catch. Mbour's department provides 90% of the region's catch. In 2006, the commercial value of the catch in Thies's region was about 44 billion CFA Francs.

These achievements are possible due to an almost permanent fishing activity and thanks to the region's natural assets:

· 200 kilometres of coastline with two maritime coasts: A 120 kilometres long northern coast, spreading

from Kayar to Diogo with two fishing seasons, and a Southern coast, also known as Petite-Cote, which is 75 kilometres long, with all year round fishing activities;

- · An overabundant presence of fish and a large variety of pelagic species due to the size of its continental plateau;
- · Good hydrologic conditions with the upwelling (an oceanographic phenomenon that involves wind-driven motion of dense, cooler, and usually nutrient-rich water towards the ocean surface, replacing the warmer, usually nutrient-depleted surface water) good for the development of phytoplankton and zooplankton.

Yet, the development of the fishing industry is facing many issues:

- $\cdot$  Overfishing leads to a decrease in the number of fishes and conflicts between fishermen.
- · Oil price changes
- $\cdot$  Women who work in transformation are not properly equipped.

Thies' region has three of the most dynamic traditional fishing harbours in the country: Joal Fadiout, Mbour on the Petite Cote and Kayar on the Grande Cote. Nonetheless, these harbours are under equipped. Fishermen's pirogues land on the beach before unloading the fish where it is sold to clients or transported to the markets.



Pêche artisanale à Mbour





### Senegal's Chemical Industries (ICS)

ICS were created thanks to a South-South cooperation: India's needs for phosphoric acid in order to produce fertilizer met Senegal's resources in high-quality phosphate. ICS were bought by the Indian firm IFFCO in March 2008.

It is the biggest industrial plant in Senegal and produces:

- · Phosphorus, extracted from TAIBA mine, located about 100 kilometres from Dakar;
- · Phosphoric acid (P205) in two factories located in Darou, near the mine:
- · Fertilizers (DAP, NPK, SSP/TPS) in a factory located in MBAO, 18 kilometers from Dakar.

The Railway Operating Company of ICS (SEFICS) is the umbilical link from DAROU to DAKAR: the SEFICS is a subsidiary company of ICS. It is in charge of materials and products transportation between industrial sites (TAÏBA DAROU, MBAO and the Dakar Port Terminal).

Because the production sites are quite far away from one another, railway transport of raw material is vital for the company which is fully equipped in order to remain autonomous.

SEFICS uses its own railway and Transrail's network as well for a toll fee. 2 000 000 tons are transported each year on a fleet of 8 locomotives, 8 tractor locomotives, 293 trucks, hopper cars and tank cars.

The activity of the ICS terminal in Dakar's port is essentially focused on unloading importing raw material (sulfur, borazine, potash) and loading the products exported by ICS (phosphorus and fertilizers).

It is important to say that ammonium importations and P205 phosphoric acid are exported using sea-lines from the Mbao site.

**Note**: The construction of a private port for mineral exportation in Mboro, located next to Darou is under consideration.





#### Local economy

#### Animal husbandry

In the districts of Tionakh and Thiapong, traditional husbandry is still very much in place.

It is a semi-intensive livestock farming of cattle, sheep and goats. Households who raise livestock benefit from the by-products of animal husbandry, industrial products, free forage from the trees and the nearness of Thies' classified forest.

There is an intensification of livestock farming in private farms in the suburban area. Poultry, cattle, sheep, pig (A Serere None tradition in Thialy, Som, Fandene and Mont Rolland).

Nonetheless, Thies' growing urbanization hinders the development of livestock farming due to pasture and forage shortage. Conflicts between livestock farmers and other farmers are now constant.

#### Farming

The farming activities in Thies' suburban area mostly revolve around market-gardening, fruit tree farming and rainfed agriculture. Nonetheless, the city's fast growth has engulfed some villages (Diassap, Keur Issa, Poniene, Thionakh...). These new urban districts have kept their rural traditions and face farming land shortage.

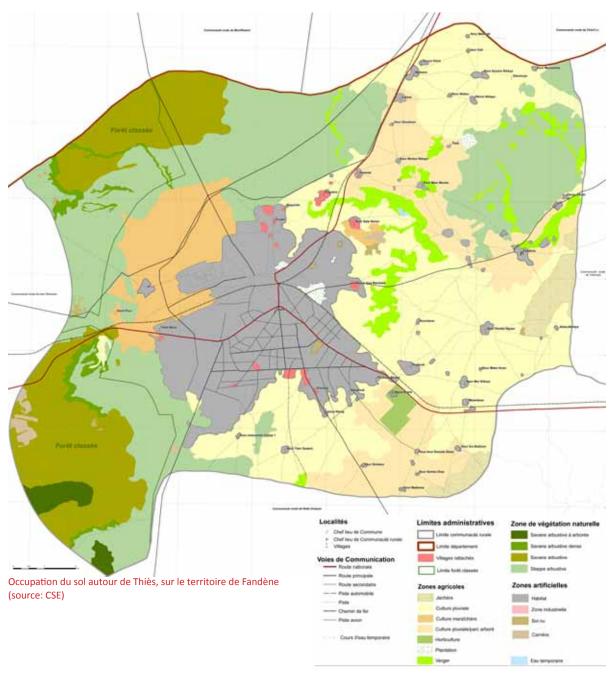
**Rainfed agriculture** is a rural tradition. Main cultivations are millet, sorghum, black-eyed peas, peanut and watermelon.

Market gardening is mainly located in the North of the city (Keur Saïb Ndoye), on the Fandene drainage basin where farmers find good hydric and paedological conditions. Market gardeners also use the recycled water from the sewage treatment plant (ONAS) to increase their production. They mainly produce vegetables like salad and mint entirely sold in Thies, creating substantial income for the households.

There is also a lot of market-gardening in Keur-Moussa, Notto, Fandene, and Mont Rolland (a part of Mont Rolland is located in the Niayes area). In Fandene and Notto Dibass, there are some traditional market-gardening farms along the valley.

There are also modern farms with intensive exploitation systems in Thies' suburbs (Senfruits...) In order to face the farming land shortage and fight poverty and malnutrition, the FAO has helped the implementation of a micro-gardens program in the city, with an objective of 1 000 units of flower productions, 340 families and 415 farmers. This program trains the population and helps them find resources (wood, substrates, drains etc...) and farming input to promote a balanced yet intensive urban farming.







Market gardening in Keur Saïb Ndoye

#### Industries, mines and quarries

Thies' major industrial actor is Senbus, a bus factory that was created in 2002 and which began its production in 2003. The factory assembles kits sent by the Indian company TATA.

Its production capacity is 1 000 bus/year and 150 to 160 workers are employed by the company. The latter used to be rural workers or former SNCS employees (Senegalese Railway Company)

99% of Senbus' current production is meant to replace Dakar's car population and Senbus wishes to expand to the region.

Transrail SA, the name of the Railway company ever since it was privatized, manages the railway transport in Thies. SOSETRAF specializes in railway maintenance.

The 14 hectares of Thies' industrial zone is destined to welcome any small business, but also large industries that wish to settle in Thies. 100% of the area has been allocated but it only creates 80% of its total value capacity.

The industrial zone is occupied by offices, warehouses, cement or gas storage facilities, an ice-cream factory etc...

Mines and quarries are located in the classified forest of Thies and in its sphere of influence.

Inside this zone, there are Mining extractions plants (SSTP), chemical plants (SIGELEC), quarries, and a cement factory (Dangote).

Some companies have run out of business, like NTS, which closed in 2000, despite its important diversifying role within the region's industrial landscape. Seniran Auto, an Iranian car factory that was located in Thies' business park also closed. Seniran originally ambitioned to provide the Senegalese market with 10 000 cars a year. Hundreds of taxis have therefore contributed to renew the Senegalese car population. Following a diplomatic incident between Senegal and Iran, the factory closed. Today, SenIran Auto Thies is dormant.





#### Commerce

Thies became the country's second commercial centre after Dakar. Most of the merchants are wholesalers. retailers, micro-retailers and supply themselves in Dakar. There is a spectacular development of microretail because of the population's low income.

The main commercial activity is:

- · The wholesale or retail food business;
- · Rice, Sugar and other basic food products;
- · Fruits and vegetables: supply/distribution of Tabacounda bananas, Pout citrus and mangos, Casamance market-gardening products;
- · Mali and Ivory Coast products (colas, petit colas);
- · Cattle: animals being transported to Dakar, important Mauritanian colony;
- · Fabric;
- · Industrial by-products of the region's industries;
- · Asian products (mainly China);
- · Craftsmanship (production, art, services).

#### The Regional Fish market project

Thies' regional fish market ambitioned to provide for the current demand in fishing products. This fish market project evolved into a general market project. Several facts explains this shift:

- · Promotion a varied diet;
- · Promotion of substitution over importation;
- · Training of small business managers in order to increase their income and create jobs.

The prime objective of the project is to improve the value of Senegal's fishing resources, the Niayes' market-gardening and livestock farming to stimulate the country's economic growth.

The new market is located on the RN2, in Thies' citycenter. Its main features are:

- · fish, fruit, meat and vegetables stock exchange hall;
- · Retail units and shops;
- · A large car park;
- · An ice-cram factory and a storage facility.

#### **Tourism**

Thies has many tourism assets. Its cultural and historical heritage is important. Hotel infrastructures, the nearness of the Petite-Cote beach resorts and of the country's main religious cities are important assets for the development of tourism.

Currently, business tourism is the main kind of tourism in the city, with business meetings, the planning workshops and seminars.

The NGO IDD (Sustainable Development Initiatives) is currently working on how to improve the Dakar-Niger railway from a tourism perspective.

Rue de Verdun, in the commercial area of Thies





# development

The city of Thies

Social and economic data

Thies' history

Thies' urban expansion in 60 years

Road network

Urban vegetation and green spaces

Urban structure

Thies' districts

Land management

The on-going urban planning tools and policies



#### The city of Thies

Located 70 km from Dakar and 50 km from Mbour, Thies, which is the chief town of the region and the department, covers an area of 6,882 km<sup>2</sup>.

It is bordered by the rural community of

Fandène on the Northwest and the South, and by the rural community of Keur Moussa on the Southwest.

Thies' areas of influence encompass the rural communities of Fandène Rural, Keur Moussa, Noto and Mont Rolland, bordering local authorities of the city of Thies.

This influence is related to the hydrographic system and to Thies and its neighbours belong to different catchment basins forming the plateau; in addition, to the different existing economic, social and cultural exchanges between these communities.

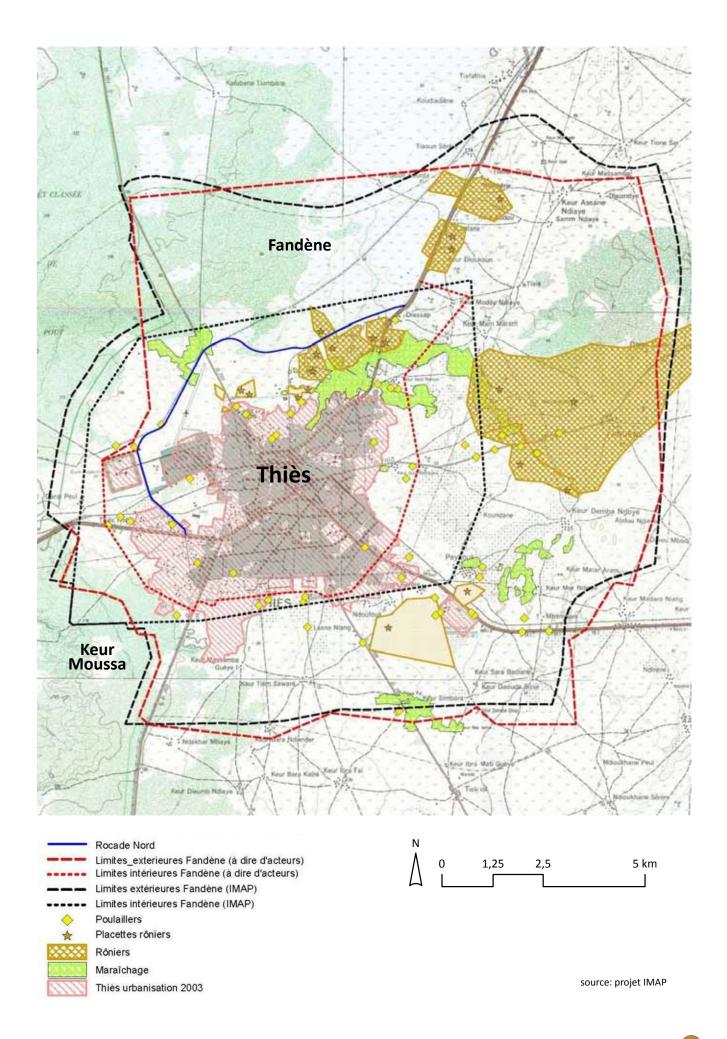
#### Socio-economic data

- · Area: 6.882 ha.
- · Population: 283,131 inhabitants (39% of Senegalese population), estimate as of 31/12/2011<sup>1</sup>.
- · Population density: 4,145 inhab / km²
- · 45% of neighbourhoods are not divided into plots<sup>2</sup>.
- · Proportion of population under 15 years old (Thies)<sup>3</sup>: 42.8%
- · Literacy rate (Thies)3: 41.6%
- · Schooling rate (Thies)3: 69.5%
- $\cdot$  Connection to piped water rate: 62.5% of Thies urban dwellers have an internal water supply³.
- · Electricity coverage rate of population: 67.2% of urban residents in the region of Thies.
- The city has a 75 km sanitation network and a 3000 m³ wastewater treatment plant.
- The covered urban road network went from 53km in 1981 to 62.1 km in 2003, a very low annual average increase of 0.7%. Currently, 17.2% of roads are paved, among which 10.7 km are in poor condition.

<sup>1</sup> Senegal population estimate from 2005 to 2015 - ANSD - (National Agency for Statistics and Demography) - January 2006

<sup>2</sup> Thies town planning scheme 2025 - Analysis and synthesis of Urban Data - February 2005

<sup>3</sup> RGPH 3 - National Report of results presentation - ANSD -December 2006



### **Thies History**

#### Historical landmarks

1804	Establishment of Thies by a Serere None family		
1860	Construction of the Dakar-St Louis link and three colonial posts (Mbidjène, Mboro and Lampoul) by Pinet Laprade. The same year, Pinet Laprade occupies Thies		
1864	Foundation of Thies' colonial post		
1880	Opening of tracks connecting Thiès Tivaouane, Taïba on the North, Pout and Sangalkam on the South		
1881	Arrival of tax collectors exchanging drink for millet		
1885	Opening of the Dakar-St Louis railway		
1886	Arrival of the first catholic missionaries (Northen Escale neighborhood)		
	27 octobre 1886: Mort de Lat Dior, Damel du Cayor, héro national		
1891	Shipment of 20,000 tonnes of peanuts by railway from Thies		
1893	Construction of the new colonial administrator's residence (current governor's mansion)		
1894	Extension of the Military Camp		
1896	Construction of the Thies prison		
1905	Arrival of the First Lebanese and Syrian settlers		

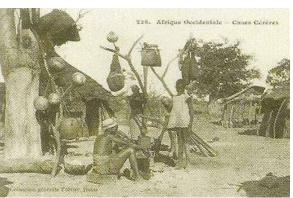






Damel Lat Dior Ngoné Latyr Diop

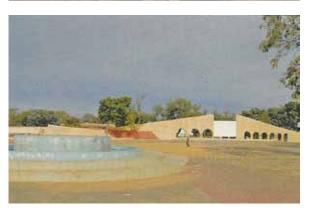




1914	Extension and development of the military camp
1923	Establishment of railroad repair shops and city electrical network
1924	Starting of the Dakar-Bamako railway service – Construction of Balabey housing estate
1934	Merger of the two railway companies and transfer of services from Dakar to Thies
1947	Extension of the air base
1948	Construction of the Dakar-Thies road (completed in 1952)
1951	Doubling of railway between Rufisque and Thies
1952	Inauguration of «Place de France»
1960	Senegal's Independence: closure of french military bases, and decrease in railway activities with the suspension of traffic to Mali
1965	Creation of the EL Hadji Malick Sy High School
1973	Opening of Thies Polytechnic School
1978	Thies incorporates six villages: Silmang, Diassap, Thies-None, Keur Saïb Ndoye, Thiona and Keur Issa
1979	Celebration of Thies independence: construction of roads, the regional stadium, the regional hospital and the North Drainage Channel
2004	Independence Day: construction of large roads, modernization of street lighting, creation of new facilities, and renovation of major facilities









Inherited Lifestyles - Extracts from interviews with Mbaye Gana Kebe, professor of history and geography, writer.

Thies' population is composed of various ethnic groups, some are long-established like the Serer, while others arrived with the development of the railway, like the Mandinues. Each ethnic group maintains a specific lifestyle, sometimes influenced by cohabitation with other ethnicities.

#### Serer lifestyle

"The lifestyle of a community is derived from the history of its constituent communities." Originally, there was the Serere village called Thies-None. Serere is an ethnic group strongly immersed in agriculture; mainly cereals (millet, et al.), mango, etc...; and cattle breeding. Hence, the origin of the terms lamane, a master of the earth, and diarga, a master of the herd.

The Serere ethnic group was the last to be defeated by the french colonizer. Serere' ardor, Their refusal resulting from the passion for their land and property, their determination to preserve their dignity and freedom on their own lands have made of them resistants with defining characters such as: distrust, obstinacy, abnegation, but also solidarity within the ethnic group, the community and the land.

The Serere people resisted the invader, which made them strong in character.

The Serere eventually encroached on other groups' land, their space was extended thanks to nomadic occupation. They were among the first to be Christianized, which made them people of faith, of their word, of their convictions and also the ones who consolidated community ties.

Ultimately, they went to French school and acquired a new openness that allowed them to expand their environment of mistrust in order to meet other ethnic groups. This meeting could be termed the clash of ethnic groups, it led to the clash of cultures. The Serere who used to be ethnocentric became open while sticking to their traditional professions: agriculture, cattle breeding, and hunting. They became interested in what was going on elsewhere. Thus, with khâgne whom the "thieves ravine" is named after, Serere people were introduced to the practice of taxation.

The Serere lifestyle is a communal one, a mode governed by individual or collective work. Serere people practice what the French writer Erneste Renan defined as "a common desire to live together," and they show that "work is the supreme law of the democratic city and human morality must be work ethic."

Serer community is a community of solidarity, with work and fair share as a guiding line. For example, the community ploughs collective fields whose crops are set aside for helping those unable to work or those in need; sharing and solidarity are at the center of this community.

With "modernism," the Serere have become railway-workers and they have experienced the benefits of wage-earning employment, yet they have not lost their sense of communal work. They have become educated through the French school system, but they have never gotten far from, or abandoned, their communal spirit. Despite being civil servants, they still remain Sunday farmers. Wherever they are, Serere people always remain attached to their culture and their traditional values that they have never traded.



Village Sérère, avant 1928

They live according to their means, they are afraid of debt but mostly of justice because each one must be their own judge. Accordingly, they act with respect to their conscience, not to dishonor oneself.

They are people of progress, but not progress related to breaking the values and the norms of their society. Even today, Serere women grind millet with pestle and mortar, and children pick jujube or lead cattle.

In the same family, there might be Muslims, Catholics, and Protestants, but the ties persist because there is real cohesion.

Serere people have stepped over community boundaries to marry other ethnic groups but this has not changed the Serere lifestyle, because the principle belief is that their ancestors are watching them and ready to react if the Serere are betrayed. Their concept, of the link between the living and the dead, is summed up through the words of the French writer Leon Deries: "It is the dead who speak and no force can silence them".

The lifestyle, the respect of the various achievements, the preservation of traditions and openness to progress do not disorientate them, neither make them individualistic nor selfish. Serere people like to share."

#### Wolof lifestyle

"The name Wolof comes from Diolof, an ancient kingdom. Wolof is the dominant ethnic group and language, and has the most important geographic scattering history. Wolof people are everywhere in Senegal. They were the first conquerors of the land to settle, having occupied Walo, Gandiol, Cayor, Dioumbour, Diolof and part of Saloum.

Like the Serere, they were cattle-breeders, farmers and fishermen, especially those who migrated. They created the Republic of Cape Verde (Dakar and vicinity).

More open because more conquering, they married other ethnic groups and their cultures became complementary; as well as, their customs and lifestyles, which respectively gave priority to the family, then to the community, and lastly to the villages with distinct concessions.

Their spirit of community and religious coexistence, in addition to their working methods, are derived from the ties that have united them within structured and governed kingdoms.

Wolof have a dominating spirit, which inspired French colonizers to send them into old French West African territories to assist in the administration.

With a sharp wit and a convincing attitude, they imposed their language, Wolof, making it the dominant language characterized by many nuances. Intelligent, enterprising, expansive and possessive, the language fit easily. It is not individualistic even if it has a strong sense of Interest. Wolof do not single themselves out from a geographical occupation point of view, they blend easily with other ethnic groups. They share and assume a common destiny and a common will. They have their own labels, their own touch and methods which do not move them away from others.

Like Serere, they have assumed political responsibilities very early. Blaise Diagne and Abbas Gueye were Wolof MP's in the French parliament, Galandou Diouf and Leopold Senghor were Serere.

Similar to Serere, their life is communal in neighborhoods, cities and villages. In rural areas, they like practicing commerce through pre-established rules







Therefore, their habitation style is grouped and their food lifestyle based on local production (later imported products were added).

The French and Koranic schools consolidated their communal and sharing spirit. Like the Serere, their confessional style is religious coexistence that is why there might be in the same family Christians, Muslims and Animists.

This communal lifestyle is seated in cultural and civil values that everyone should safeguard, perpetuate and enrich. To all regards, this communion clearly defines the communal lifestyle. Together, lifestyles are a rebel base against any social incision, division or erosion."

#### Fulani lifestyle

"The nomadic Fulani have a lifestyle modeled on roaming, which makes their diet essentially based on milk, meat, cereals they trade or purchase, and fruit picking.

Fulani have a more incisive character with spontaneous reactions when they feel offended.

Their mode of living is not grouped because "they move with their huts," meaning they can periodically settle from one place to another. They are more circumspect, more combative and as we must repeat, they are more resolute and more enduring.

Regarding the religious way of life, they are usually Islamized. Poular people introduced Islam especially in Senegal, and brought it to Nigeria. Their nomadic nature is also religious.

They are more sober in term of diet and clothing but always carry their swords or knives."

#### Mandingues lifestyle

"Mandingue people occupy the Small Coast. They are the last witnesses of the late Mali Empire, which consisted of Senegal, current Mali, Guinea, etc...
They are descendants of very expansive travelling conquerors.

These people are great workers that descend from mystically great armed warriors, the Kankourang in Mbour and Casamance. Their lifestyle is grouped based on dialogue because they are very open people.

They sometimes have instincts of superiority that they inherit from their ancestors, the great Mali emperor warriors; namely, Sundiata Keita, Kanka Moussa, etc ...

They predominate eastern Senegal where they live side by side with their Malian relatives."

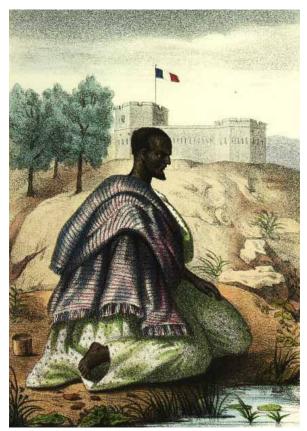
#### **Detailed lifestyles**

"In the case of detailed lifestyles the confessions are temporarily suspended and not withdrawn; the Muslim, Christian, Animist, and pagan will find solidarity in particular behaviours, special well-structured common processions, traditional prayers. They dances and sing together in order to ask God to start the rain. It is what the Wolof call "Baw-Nane" (God we do drink).

It is a way of life that does not affect faith. This is an



Photos: Claude Gourlay



Mandingue Marabout sketch of Priest Boilat

aspect of negritude and mystique. We talk about black Christians and Muslims, next to revealed religion are preserved practices.

In the professional field, the mode of living held important responsibilities including that of Dr. veterinary, medical and Africa, from the 19th century, a teacher, which assured him a certain awakening."

#### The Cousinship

Commonly called «Kal» in Senegal, joking cousinship is a patronymic symbol between people of different ethnic or social classes, which allows the use of humor between «cousins.» It allows «cousins» to launch jokes and sometimes bitter truths. Much more than entertainment, it serves as a tool for peace between families and between populations according to accurate rules and rituals.

In Senegal, this is practiced between the Serere and the Toucouleur, each treats the other jokingly as a slave. If a Toucouleur goes to a Serere, then the former must treat the latter, in all respects, as the master. It is the same for a Serere who goes to a Toucouleur or migrates to the same area of the river.

Even beyond ethnicity, joking is practiced between names. Thus, between the Diop and the Ndiaye there is teasing when one greets another, and the obligation to invite him in and serve him nice gourmet treats during a meal. The philosophy sought is shared between people of different origins called to live together and share daily.

This traditional method is a «system of diversity management that goes beyond clan, ethnicity, caste and age. It guarantees the dignity of others in all circumstances because the golden rule is never harm.»

As diplomacy, joking cousinship is covered by the principle of immunity. It can use teasing to break the ice, it can heckle a cousin surname to put him in his place, it offers moments detents that allow conflicting parties to take a step back, it can even be used to mediate with humor and derision.

The humor here is not an end in itself, it is a tool of service in respect of each other. This method has also been used to assist in the reconciliation of Independence of Casamance and Senegalese authorities.





# The city of Thies' expansion over 60 years

#### The city's spatial development

In 1940, the size of Thies was estimated at 450 hectare. It grew to 1350 hectares in 1956 with the integration of a few traditional villages such as Thialy, Wango and Nguinth.

In 1978, the territory of the city expanded even further with the incorporation of eight villages that belonged to the Fandène rural community. This community consisted of Diassap, Poniène, Thionakh, Keur Issa, Keur Modou Ndiaye, Keur Saïb Ndoye, and Thiapong Silmang.

Since this time, no other decree has been made to expand the territory of the city which is now at 6822 hectares.

#### **Urban Sprawl**

The first subdivision of Thies, found in the vicinity of the railway station, was established in 1885. At this point the city consisted of a commercial district, a residential area and an administrative center and a military camp.

Thies' colonial city status was reinforced with the construction of system of Governance and the installation of the First Civil Administrator in 1893, the extension of the Military Camp in 1894 and the Prison in 1896. The displaced villages thus formed the neighborhoods of Diakhao and Nguinth.

In 1904, Thies was established as a mixed district and continued to grow with the installation of railway repair warehouses in 1923 and the construction in 1924 of the City Ballabey. This led to an influx of people and the birth of the suburbs of Takhikao, Medina Fall, Mbambara and Randoulène.

The development of the city to the Northeast and Southeast continued until 1940, but the creation of the Military Base and the Airport in 1940 redirected expansion into the Northwest.

In 1949, the urban character of the city established itself with the creation of residential areas to the North and West, opening vast avenues through the suburbs Diakhao, Takhikao, and Mbambara. The city became more modernized with the replacement of straw or mud huts by permanent structures.

The construction of the Dakar-Thies road in 1952 also made the city more attractive. Thus, bringing about the spread of the Medina Fall neighborhood to the East, and the creation of Greater Thies.

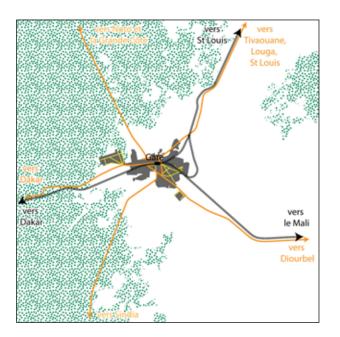
In 1960, the date of Senegal's accession to independence, Thies became the capital of the region that bears its name. A shift of the city limit to the South and Southwest was noted with the subdivisions of Parcelles Assainies, Fahu, Sud Stade, Grand Standing, etc..

The city of Thies has benefited from major programs of equipment and infrastructure, particularly during the independence celebrations of 1979 and 2004. The Independence Special Program in 2004 allowed the city to enjoy many infrastructural investments in areas like roads, sports, culture, etc., and the implementation of a concerted development zone of 100 hectares in Nguinth that lead to its expansion to the North.

The city of Thies has now almost exhausted its land reserves and any further extension is only possible through neighboring rural communities. To counteract this trend and secure their own territory, adjacent local communities are erecting a series of subdivisions. A situation that raises a need for the development of an intercommunity policy.

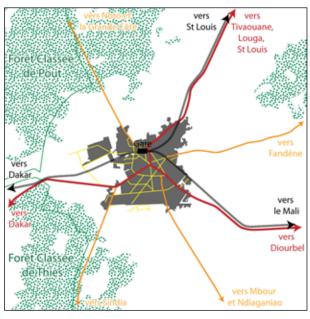






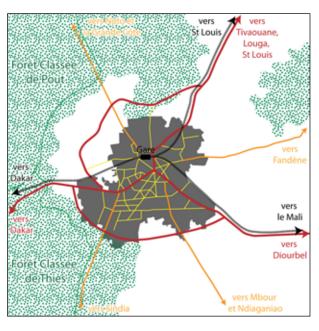
#### 1949

The city is almost exclusively dedicated to railway and military activities: local roads primarily serve military camps and city railway system. Forests closely surround Thies.



#### 1991

The city is spreading, but the forests have declined significantly. Main access roads exist.



#### 2012

The expansion of the city has reached the limits of the forests in the North and Southwest. North and South bypasses were created





#### The road network

Because of its location as a crossroads, the city of Thies has a fairly large road network that is accessible from the country's major cities. Its strategic position between several regions with interdependent economies explains the importance of Thies' traffic and the need to organize and prioritize public roads. The roadway system is organized in a spider's web and there are three types of routes:

- Major structural avenues: they converge at the Place de France (city centre). They are mainly formed by the RN2 (avenue de Caen, Avenue Léopold S Senghor, going towards Dakar to the west and Saint Louis to the north ) and RN3 (Avenues Ousmane Ngom which connects Dakar to Diourbel), the avenues Ainina Fall, Houphouet Boigny, El Hadji Malick Sy. The avenues Baol Djibril Diaw, Jean Collin, connect both national roads and create a more integrated framework in the South. Only the RN2 can be found in the northern part of the city;
- The equipped secondary roads: they connect the major avenues and structure some neighbourhoods. This type of route used by public transportation is very limited and does not serve outlying neighbourhoods;
- The equipped tertiary roads: they are mainly concentrated in the city center (Escale neighborhood) that form a dense framework.

Urban roads were improved during the Independence

Special in 2004 when the city was enhanced with new roads including: the VCN (Northern bypass route) serving the ZAC of Thies, the Boulevard of Nguinth, la route City Ballabey-Keur Issa and the reparation of the city center's streets and avenues.

The VCS (Southern bypass route), created more recently, bypasses the city by connecting the West and East neighborhoods, but also goes to Dakar via Diourbel without crossing downtown Thies.

These two routes, built to relieve traffic on the RN3, are ultimately only very rarely used by carriers who prefer the central route, which according to them is shorter and uses less fuel.

Citywide, the VCN and the VCS, today located at the edge of urbanization, are the access roads for neighborhoods of urban expansion.

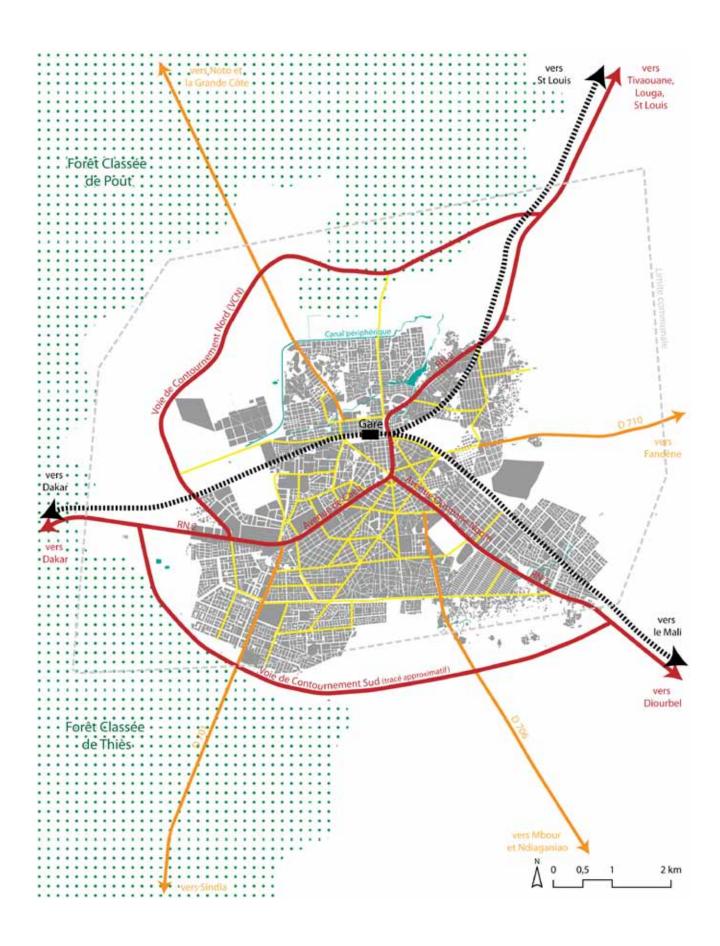
The achievement of the roads Thies-Notto-Tassette and Thies-Sindia has also facilitated a connection between the city and the Department of Mbour. All these investments have facilitated relatively easy access and movement through the main arteries of the city. However, in several districts of the city, the network is almost nonexistent.

Boulevard Mgr François Xavier Ndione Northern Bypass Route (VCN) and Avenue Leopold Sedar Senghor









# Urban vegetation and greenery

The city of Thies is relatively green, the major roads of the city having been aligned with caïcedrats (khaya senegalensis) and nîmes during the colonial period, the inhabitants have shaded public spaces to move in and out of the city center. However, these trees are aging and, without a regular and rigorous maintenance, collapse on surroundings buildings, allowing light to gradually fall back on the "shaded streets."

It is therefore necessary to replace these trees over time to maintain the quality of life that Thies is known for.

The rows of nîmes are also victims of an improper pruning due to herds of cattle that invade the city in the month of December in search of something to graze.

The green spaces of the city are also made-up of parks and public gardens, including the Place de France (garden where access is closed to the public), the public gardens of La Residence, the Place Sousse, Casino (Bunt depot) which now houses the Thies- East Town Hall. These parks and gardens exist only in name because of their state of degradation. This situation reflects a total lack of conservation mechanisms, maintenance and monitoring of green spaces. All of this despite a proactive policy vis-à-vis conservation of green spaces (PDU of Thies 2025, 2005).

Moving away from the city centre, the vegetation is diversified:

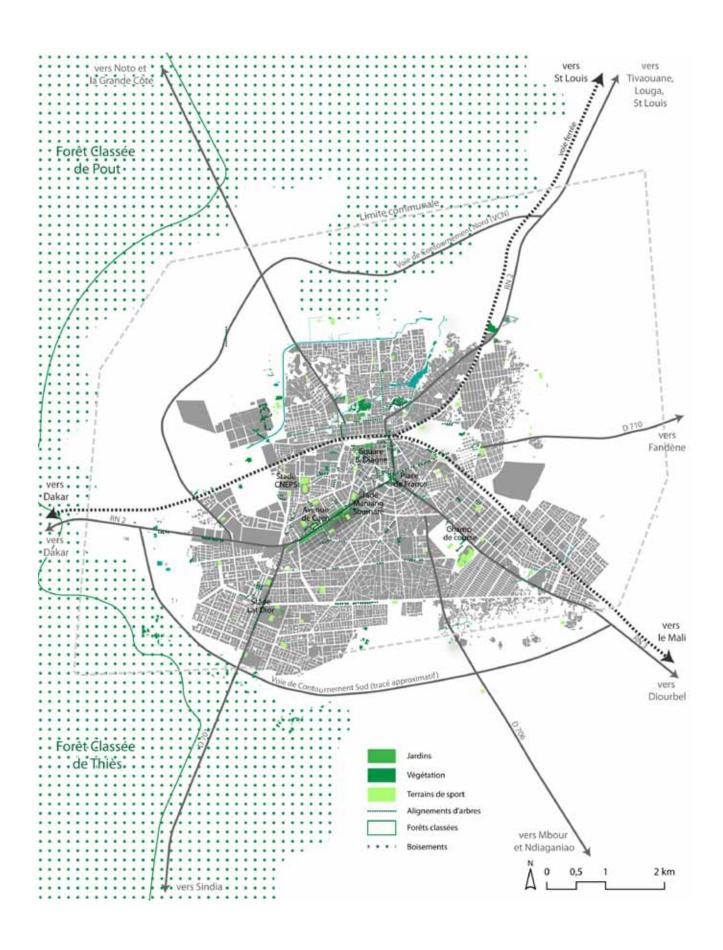
- · Permanently bare areas (urban and rural, inhabited or not), green spaces and gardens sometimes present. A Thies, the vegetation consists essentially of plants that were brought in and planted. There is a decline of vegetation in the city, mainly due to increased urbanization.
- · Orchard and garden zones: improvements limited by urbanization, for example along the bank of Fandène;
- · Sizeable vegetation zones , permanent and more or less artificial: planted and protected woods surrounding the EPT, around the military camps, the ENSA and the village of Thialé among others;
- · Soil zones: Sudano-Sahelian savannah type seasonal vegetation with Sahelian training characterized by thorny bushes and pseudo-equatorial forest relics of which some representatives are Tamarindus indica (Tamarind), Acacia albida (Kad), Ficus iteophylla (Loro), Adansonia digitata (Baobab), Borassus aethiopum (Rônier), etc .... are still preserved in the soil zone.

This vegetation plays a very important role in providing food for people and cattle and has medicinal properties. This is the case of the rôneraies who were once well developed in the area of Fandene. Today, most of them are receding as victims of urbanization, drought and human activities.









#### **Urban structure**

Following decree n° 2008-1344 of 20 November 2008 the city of Thies was divided into 3 districts: North Thies, East Thies and West Thies , that also produced some new neighbourhoods.

The city of Thies currently has 59 neighbourhoods distributed among the three districts: North Thies, East Thies and West East .

Like most cities in Senegal, the city of Thies has a rather monotonous urban morphology. There are two types of neighbourhoods: the old communities dating from the colonial era and newer neighbourhoods on the outskirts of the city.

**The old neighborhoods** are located in the center of the city: Escale Nord, Escale Sud, Randoulène Sud, Randoulène Nord, D.V.F, Mbambara.

- · The neighborhoods Escale Nord and Sud, located in the heart of the city, are a fairly regular network. They are the site of essential urban activities: administrative, financial, industrial, cultural, etc..
- · The Randoulène North and South neighborhoods

(Grand Thies) are characterized by old indigenous subdivisions. They are located south of the Escale

• The DVF (Behind the Railroad) neighborhoods and Mbambara, respectively located in the Northeast and East of the Escale, are inhabited by employees the former Régie Railway, including executives, salaried

workers, factory workers, laborers and temporary daily

#### Peri-urban areas include:

workers.

- · The recent extended neighborhoods of the city that are mostly spontaneous, anarchic and an answer to the population boom experienced by Thies (Thialy, Medina Fall, Cité Lamy, Thies None, Darou Salam ...);
- · The villages attached, old traditional villages, attached to the city to meet the growing areas, they still preserve a way of live semi-rural (Silmang, Diassap, Ndoufack, Thies- None, Keur Saïb Ndoye, Thionakh, Keur Issa, Poniène, Keur and Modou Ndiaye). Only the villages of Silmang and Ndoufack have been affected by urbanization, the others are still separated from urban zones.

Escale Sud, old central neighbourhood



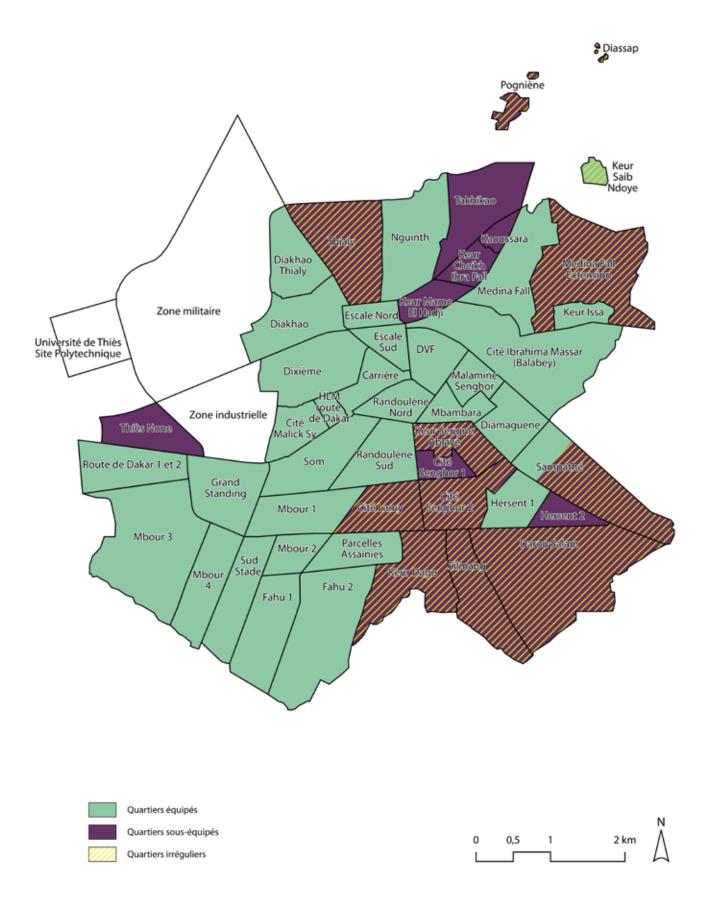
Cité Lamy, peri-urban area of recent extension of the city



District	Number of neighbourhoods	Neighbourhoods
North Thies	21	Université de Thiès (site Polytechnique), la zone militaire, les quartiers de Diakhao, Diakhao-Thialy, Thialy, Nguinth, Escale Nord, Keur Mame el hadji, Keur Cheikh Ibra, Takhikao, Kawsara, Médina Fall, Médina Fall extension, Keur Issa, Diassap, Keur Modou Ndiaye, Keur Saïb Ndoye, Poniéne, Thionakh, Thiapong et la ZAC de Nguinth
East Thies	20	Ballabey, DVF, Malamine Senghor, Mbambara, Ablaye yakhine, Cité Senghor, Cité Senghor 2, Diamaguéne, Sampathé, Hersent, Hersent 2, Cité Lamy, Parcelles Assainies 1, Parcelles assainies 2, Parcelles assainies 3, Parcelles assainies 4, Silmang, Darou Salam, Fahu 1, Fahu 2
West Thies	18	Escale Sud, 10éme ex RIAOM, Carrières, HLM route de Dakar, Cité Malick SY, Thiès None, Zone industrielle, Randoulène Nord et Randoulène Sud, Som, Mbour 1, Mbour 2, Mbour 3, Mbour 4, Sud Stade, Grand Standing, Route de Dakar 1 et Route de Dakar 2







#### **Thies Neighbourhoods**

#### **Equipped Neighbourhoods**

Most of the equipped neighbourhoods are:

- · In the centre of the city, represented by old structured neighbourhoods: Escale Carière, Dixième,Randoulène the northern part of Mbambara, Nguinth, Randoulène South (or Grand Thies) Malamine Senghor, Diakhao, and Diakhao Thialy,Thialy;
- · Planned neighbourhoods: HLM route de Dakar, Cité El Hadji Malick Sy, Balabey;
- · On the outskirts of the city, represented by the residential chic or off neighbourhoods: Hersent, Mbour 3, Grand Standing, Parcelles Assainies and Sud Stade.

#### Habitat

The habitat is usually dominated by Traditional type Built with bricks, the roof is made of concrete especially rich neighbourhoods or in tiles for the downtown habitations inherited from the colonial era.

The residential housings are located mainly in Grand Standing, Mbour 3, Sud Stade neighbourhoods.

#### **Networks**

The main roads to access neighbourhoods are Usually of good, paved and lit. Out of the city center, if the secondary roads are in laterite, they are large and practicable, most often equipped with spaced-out lights

The central neighbourhoods are equipped with a drainage system, however, peripherical neighbourhoods such as Gand Standing are located outside the transport service area.

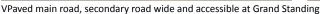


**Grand Standing Housing** 



Housing inherited from the colonial era in Dixiéme









Gutter dug by the inhabitants in Medina Fall extension



## Irregular and under equipped neighborhoods

The city of Thies like many other Senegalese cities, is in a full mutation. The constant dwelling areas' demand has resulted in a proliferation of informal settlements and bad land speculation. Thus, 45% of Thies neighbourhood are not divided into plots.

In response to the unprecedented urbanization of the city, entire irregularly neighbourhoods are then constituted, without respecting the parcelling norms. Under-equipped neighbourhoods nearly constitute a ring around equipped neighbourhoods.

Takhikao, Fall Cité Lamy, Abdoulaye Yakhine a Part of Diakhao, Eastern Medina Fall (extension), Thialy, Nguinth, Cité-Senghor and Hersent 2 can be taken as good illustrations.

As regards to Kawsara, Darou Salam, Keur Mame El Hadji Keur Cheikh Ibra, they are parceled out but under-equipped.

The spontaneous nature of these neighbourhoods reveals how they are formed. Some of them are the result of ethnic mode of living such as Serer who live in them in community (Dioug and Wango).

#### Habitat

If houses are made of bricks in these neighbourhoods, they have most of the time roofs made by zinc or fibrocement and usually consist of a main flat and a very basic flat.

#### Networks

Unpaved streets are not well designed in these neighbourhoods, sometimes very narrow preventing car traffic and emergency vehicles in case of fire or emergency. It is sometimes very difficult to navigate in them due to the labyrinthic organization, the sinuosity and lack of hierarchical organization of the roads.

These undeveloped areas are not able to receive water conveyance or sewage disposal system projects, or even electricity and telephone connections because the of disorganization of constructions and narrow access roads. Waste collection is also difficult.

Therefore, most of these neighbourhoods appear under-equipped and have become insalubrious because of the absence of sewage system. Due to the absence of channels reprofiling, floodings are also frequent, water stagnates because it cannot flow out naturally.



#### The flooded neighbourhoods

Since 2005, the phenomenon of flooding in Thies has become a major concern for populations of the city.

Each year, neighbourhoods like Hersent, Sampathé, Darou Salam, Nguinth, Keur Mame El Hadji, Aiglon, Cité-Lamy are invaded by large amounts of water from the plateau. Several reasons are at the origin of the flooding in these neighbourhoods. Human causes combined to natural ones accentuate this situation.

The city of Thies forms a basin at the foot of the Fandène basin and constitutes therefore the receptacle of water from the Plateau. The later pours out such important amounts of water in the city of Thies that for several hours after the rain, the water continues to stream towards these areas. On its way, the water picks up bacteria and other particles collected from random dumps it crosses which are the cause of many health problems in neighbourhoods suffering from recurrent floods (dermatosis, diarrhoea...).

These floods affect both central neighbourhoods such as Aiglon, Nguinth and peripherical ones such as Sampathé and Cité Lamy.

In addition, the water table shows on surface in some areas of the city, like Nguinth which is actually a non-aedificandi area. Some houses in this neighbourhood are built on the natural way of the water flow and blog its passage.

Cité-Lamy, Sampathé, Keur Mame El Hadji, South Escale, Aiglon neighbourhoods are also clear evidence of the Human causes of Floods in Thies. In these areas, some Settlement plans become the natural way of rain water Causing then many floodings during the rainy season.

The case of Sampathé is complex, not only is it a low area of the city, but also the rail track constitute an obstacle to the water flow. The constructions made under the rails to allow the flow of water being blocked with garbage, an important water backflow occurs towards the neighbourhood's houses.

However, it should be noted that the area from DVF (Aiglon) passing by Keur Mame ElHadji, Nguinth, Poniène to Medina Fall is a large loop where flooding problems are noted. These are areas that require large scale policy to curb the large development and water management issues.



Mbour 4, a random dump crossed by waters of flow from the plateau





At Nguinth the source outcrops throughout the lower part of the district





#### **Testimony**

In 1992, Thies experienced a severe drought, the sources and swampy areas were dry It is at this time that Souleymane bought his improved land which was to be parcelled and built his house. Until 2003, they had no problem but from 2004/2005, the mango tree which was in his back yard died because of the water table which surfaced while the pluviometry was coming back to normal.

Since then, Souleymane and his family permanently live in the flood. "Sometimes I don't sleep from midnight to 5am I evacuate water. " The water infiltrates into cement works and corrodes metal structures. the walls are full of cracks, Souleymane does not know how long his house will be able to stand up risks of collapse worry him ...

As often in Thies, the neighbourhood does not have a sewage system at all, wastewater from septic tanks come back up with the water table that surfaces, causing dermatosis, recurrent infections and diseases to all the family members.

In addition to these direct problems, water causes permanent foul smell attracts mosquitoes, frogs, snakes, etc ... Houses of neighbourhood were abandoned because people could no longer live under these conditions. Despite this, new buildings are still being erected ...

"Children who were born in misfortune, grew up in misfortune, are from unhappy families..."





#### Land management

#### Customary land rights

Possession of the land arose from the first occupation following the demarcation of an area by fire (fire right) or by clearing (ax right) accordingly with the Serere, Wolof, Makagnes customs etc.. The "right" of the first occupants was recognized and respected by all and land management was assured by the "lamane" or "the land master" the older man's of the lineage and chief at the same time. Access to land was free in general, however, a "fee" or gift, could be paid if the operator was a temporary resident. The customary system allowed each individual or group to have access to the land for their livelihood.

The presence of the colonizers profoundly altered the organisation of traditional land system with the introduction of individual property rights.

#### Colonial land rights

The colonial legislator had planned several land management modes including transactions between individuals under the Civil Code, the Concession in full property of state-owned lands the sale by public auction temporary occupation permit through habitation or occupancy permit.

To these different modes of land management corresponded an organization of urban space a marked by the separation of the European habitat type and habitation reserved for 'natives'.

Along with land management methods described above, the colonial legislature had established three advertising schemes:

- $\cdot$  Land rights, the regime of the Civil Code based on the transcription of legal documents
- · The system of land registration
- · The system of customary rights observation.

On the eve of the Senegal's accession to independence the land tenure system was characterized by a diversity of land rights: customary law, property proclaimed by the Civil Code and property laws based on land registration, creating a definitive and unassailable right.

## The Senegalese current land system

On Senegal's accession to independence, law makers sought to invent new rules and practices for the land issue and its use.

#### The great land and state propety reform of 1964

Almost all the land, about 95%, were declared Stateowned by the 64-46 law of June 17, 1964 which defines the national domain by elimination.

Thus, by rights, registered lands are not part of the national domain, that is to say, lands that have title deeds, public domain dependencies, land owned under the Civil Code clauses, lands being registrated in

the name of a private person.

The administration of the national domain's lands is under the authority of the State in accordance with the category in which they are classified.

Allocation or decommissioning are the main management methods of the national domain's lands.

· The state property reform of 1964:

The 64-46 law of June 17, 1964 established a national domain distinct from the State's real estate and individual real estate. This law has contributed to the simplification of land tenure by purging all customery law.

· The land reform of 1964:

The 64-46 law of June 17, 1964 related to the national domain has given Senegal dualistic land system based on property rights and on exclusive property rights.

Today there are two major categories of lands:

- · lands where is exercised the right to property and its divisions based on matriculation and registry to the land record and national;
- · domain lands not liable to private ownership.

#### The land system and the laws on skills transfer to local authorities

The 96-07 law of March 22, 1996 on the transfer of skills to the regions, the communes and rural communities has transferred some State competences in terms of land management to local authorities

In some cases it is more of a co-management, particularly in the case of matriculation and distribution of the national domain's lands forming the basis of a parcelling in the communal perimeter.

In this case it is the city hall which presides over the commission for the allocation of plots of land from the parcelling of the the national domain's lands previously registered on the name of the State.

With regard to rural communities the matriculation of the parcels is not planned, because the rural council is not yet authorized to allocate a registered land.

Steps	Features
Before colonial occupation Occupation	land management and occupancy principles: - Discovery principle - Conquest principle - Arrangement principle (fire and ax right) «Lamanat» System
Colonial era	Two regimes inspired from the French Civil Code made applicable by ordinance:  1. Code regime: Registration System  2. Matriculation regime (1906): System of matriculation in the land record (Privatization of the property)  Customary system in accordance with the lamanat system still continues
Post-independence era	Constitution of March 07, 1963, ordinance 12 - Property right 64-46 Law of 06/17/1964 on the national domain 72-25 law of 04/25/1972 creation of rural communities 76-66 Law of 07/02/1976 domain of the State Code 76-67 Law of 07/02/1976 expropriation for usefulness cause. P 96-06 Law of 08/22/1996 local authorities code 96-07 Law of 03/22/1996 skills transfer

#### Landownership in Thies

Among land titles In the city of Thies, we distinguish:

- The land titles of the Army: they cover a surface of 1250 ha or 38.91% of the total surface. They form the quasi totality of lands formerly occupied by the French army which returned to the State of Senegal. These lands host military base, the CNEPS (National Athletic Education Centre), Michel Legrand camp, the university, part of the industrial zone....
- The State Land Titles: They form 782 ha or 24.32% of the total surface area. We find them mainly in Escale and Som neighbourhoods;
- · Individual land titles and business companies' titles: they represent 5.36% or 172 ha of the total surface area. They are found in almost all neighborhoods and more particularly in Randoulène South Takhikao, Mbambara, Nguinth, Escale etc.
- The land titles of the railway company: they spread over 138 ha or 4.28% of the total surface area. They occupy the entire railway intallation facilities: railway station, offices and administrative residences of Ballabey, Maurice Pillot and the eastern extension of Ballabey towards the village of Keur Issa;
- · Unregistered land: These lands are subject to private appropriation. They are formed by lands of the public domain, the roads and lands of the national domain which represent 26.71% of the total surface area. They are found in the neighborhoods like Wango, Thialy, City Lamy ...
- · Land titles of the City: they occupy 12.3 ha representing 0.38% of the total surface area. We find them in Escale Diakhao, Nguinth, Sampathé, Medina Fall, Mbambara etc.

The part of the city occupied by the Army and the University (The polytechnique School's site) is quite important. It is a constraint to the westward expansion of the city. However, it can be an opportunity to strengthen the garrison role of the city and host future military projects.

The weakness of the communal area hinders the development ambitions of the city and the improvement of people's living environment. This constraint justifies today, the need for a cooperation between the city of Thies and neighbouring rural communities Their land situation formed by national domain's lands and classified forests (of Thies and Pout), can be an opportunity for the city of Thies.

Thies Cityhall



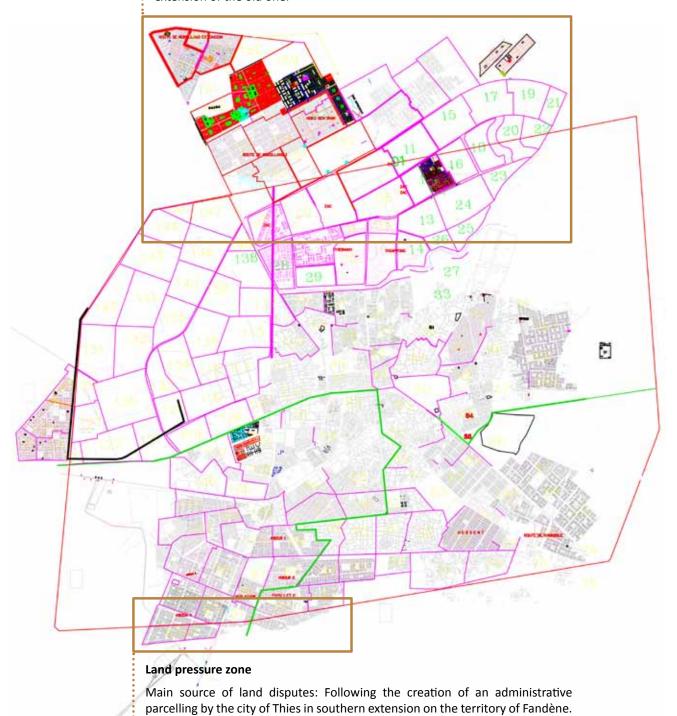






#### **Extension zone of the city of Thies**

The city of Thies now streches mainly to the north with the creation, since 2004, of the urban development zone which represents a real new city in extension of the old one.



In concertation with the rural community, the city has reallocated lands creating

source: Cadastre

then double attributions.

# Tools and ongoing management policies

The city does not have a valid master town planning scheme. However, the processus of creating one master scheme has been engaged and the white book, which is the first step in the process, was published in 2005. This white book which did the city's inventory of fixtures, is now outdated hence the need to update it before continuing the developing process of the master town planning scheme.

A urban development zone (UDZ) of about 4500 plots (3500 reserved for housing cooperatives and 1000 for private individual) has been developed around the area of Nguinth in the framework of the 2004 Independence Program. A planned unit development, frames the space organization in the Nguinth extension area.

There are local land use plans in Fandène, Notto, Mont Rolland, Keur Moussa. Priority investment action programs which allow to plan investments in rural communities are attached to the local urbanism plan.

Land development actions do not arise from clear visions and are not planned with a view to anticipating already known phenomena in the Dakar metropolis.

The existing parcellings are not always articulated around an urban planning scheme and their implementations are often problematic because of the divergent interests of the different actors or claimants around the process.

The city now suffers from a lack of space and districts have difficulties to meet the needs of infrastructure and basic social facilities whose demand increases at the same time as demography and urbanization increase.

The city and the districts do not have common investment plans. Nevertheless, in 2003 the city had a priority action matrix following a participatory approach. This document served as a road map for the succeeding municipal teams since that time. Most of the investments in the city through programs such as the District Support Program (PAC I and II) and the Program for the strengthening and equipment of local authorities (PRECOL), all controlled by the Municipal Development Agency (ADM) were inspired by the matrix.

Therefore, urban planning, as transferred competence should be more effective and better enhanced so that the communal perimeter does not keep stretching without neither harmony nor being aware of sustainable urban development issues .

The territory delimitation processes are not mastered and the cohabitation with rural areas raises division attitudes of local communities. This can lead to conflicts between the city and some neighbouring local authorities.



# ····· The urban life and the polarities of **Thies**

Equipments

Mobilities

The people's daily life

The living environment

The cultural life: Religions and faiths,

The cultural life: Art and Craftsmanship

Local organizations

Markets

Informal trade

#### **Facilities**

The urban structure is decentralized, with several hubs of activity away from the city-center (Escale district):

- Administrative quarter: with several administrative facilities, it covers the Escale, North Randoulène, DVF, HLM Route de Dakar and Dixième districts. The regional department services are in the city center, and so are city hall, the chamber of commerce, and the regional bureau.
- · Commercial hubs: the central market, fish market and surrounding shopping streets make for a highly active exchange hub. Other, smaller markets dot the surrounding neighborhoods. The Moussanté market is the only one to act as a secondary center for commercial activity.
- Transportation hubs: the two main platforms are the bus station and the train station. Rail infrastructure is part and parcel of urban life, and the bus station is a mandatory stop for traffic to Dakar and the Northern regions. Since the Saint-Louis route was cut in 1989, the train station draws smaller crowds, but keeps acting as a link with Dakar and Mali.
- Education hubs: the main facilities are the two high schools and the centers for higher education. The latter are both East and West of the city. Around the Ecole Supérieure Polytechnique (Polytechnical Institute) and the Ecole Supérieure d'Agronomie (Institute for Agronomy), activity develops quite far from housing areas, near the North- and South-Bypasses. As for the University, it is spread out through

town, with a view on re-grouping its activities.

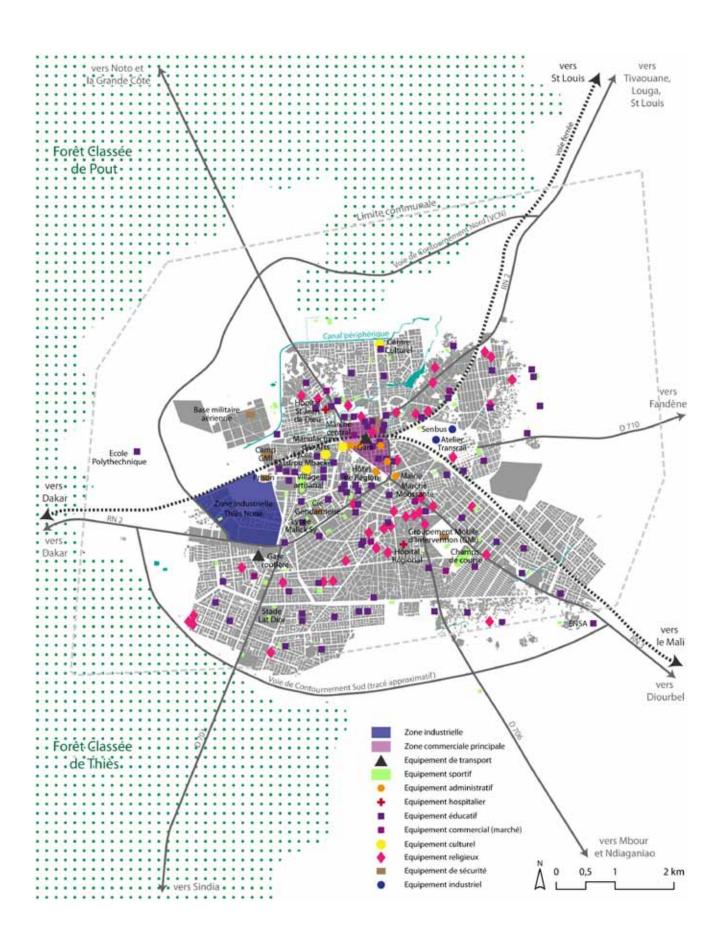
- **Medical hubs**: are polarized around the two hospitals (the regional hospital and the university medical institute Saint-Jean-de-Dieu). Those establishments treat patients from the whole region.
- · Industry and Craftsmanship hubs: these have gathered West of the city and include:
- · the industrial park
- the workshops of the Railroad Company and the SENBUS factory, which together represent the first industrial employer in the city-
- · and, also dynamic, the crafts center and the Senegal Manufacture for Decorative Arts.
- **Security hubs**: security hubs are polarized by the garrison and military schools on the air force base, by the police stations and the constabulary force, the Mobile Intervention Group (GMI)...

Larger facilities (military grounds, railroad infrastucture...) lower the urban density in the North. The South city is more compact, despite being crossed by major throughways.









#### **Mobility**

#### The bus terminal

The urban transportation network has grown from the bus terminal, which acts as a hub for intercity traffic. Thiès occupies a strategic localization and traffic is heavy to Dakar, Tivaouane, Mbour, Diourbel and Saint Louis. It is also the end station for coaches that run through the city's main arteries. The actual axis are: bus terminal—central market, and bus terminal—Hersent district

Thiès bus terminal has been managed by the city since its creation in 1980. It handles different types of vehicles for transport:

- · 35- to 42-seater coaches
- · 14- to 19-seater minibuses
- · 7- to 9-seater intercity taxis
- · City taxis
- · City coaches

Those vehicles take passengers on a first-come, first-serve basis, assisted by coxeurs who direct the travelers and fill the vehicles. Prices vary with destination and transport mode:

- $\cdot$  Thies-Dakar is 1.500CFA for a 7-seater / 1.000CFA coach
- · Thies-Diourbel 1.500CFA/1.000CFA
- · Thies-Kaolack 3.000CFA / 2.000CFA
- · Thier-Mbour 1.300CFA/2.000CFA
- · Thies-Saint Louis 3.000CFA/2.000CFA

Despite police surveillance, the bus terminal is prime hunting zone for pickpockets.

The Central and Moussanté markets also have significant weight in the transport system.

Note that unofficial garages offer links to close or further rural areas (such as Sanghé, Fandène, Touba Toul, Tassette, Mont Rolland, Keur Mor Ndiaye, Sindia...). They also act as a terminal for periodical bus and coach traffic to the weekly market of Diaobé.

This also includes international traffic to Mali.

#### Other means of transportation

You can find both official and "clandos" (clandestine) cabs. Official taxicabs do not follow specific routes, but "clandos" have six (from the city-center): to Hersent, Médina Fall, Sofraco, the regional hospital, and Mbour.

One trip with an official cabs costs 500CFA; each passenger pays 100CFA in a "clando" (the cab will only leave when full). In an advanced state of dilapidation, they raise real issues of gridlock and security.

Horse-carts are an old tradition and complete the existing transport network.

There is such a disparity between the demand for mobility, and the lack in transportation choices in such a large city, that scooter-cabs have started to appear (like in Jakarta). Those scooter-cabs handle all routes, day and night, for the price of 300CFA. Nevertheless, they are a major source of conflict with drivers and pollution in the city.













#### Daily life in Thiès

#### Thiès: in high spirits

Carefree and laid-back in the classic Senegal way, the inhabitants of Thies will put strangers at ease. The city is good to walkers, with lively streets full of life, activity, colors and scents. Contact is usually direct and amicable. Time is perceived differently than in western countries — in Thies, life is made to be enjoyed. A characteristic trait of African cultures is dialog: there is constant exchange, at length and with patience.

#### Family life

Family is at the core of society in Senegal, and is first and foremost the soil from which life sprouts, grows and blossoms. It nurtures physical, moral, intellectual and spiritual growth. Family life has common traits worldwide, but in Senegal, families have further peculiarities.

#### The Senegalese family: customs and etiquette

Above the law, principles reign supreme in Senegalese society, and tie every citizen to a role in the family sphere. The golden rule of African society is: prevent isolation. Everything is organized in strict hierarchical order. The first node is the extended family, which regroups the dwellers of a concession - a collection of small constructions linked by the yard and including a kitchen, a water closet, granaries, family sanctuaries, and cover for the livestock. The Senegalese family is the first source of education, and members return on a regular basis to replenish themselves or replenish the family by contributing to relationships, economic and spiritual health. For all its specificities, it – like families worldwide – remains the core source from which to learn life and love.

From an organisational standpoint, the father holds the most responsibilities. He acts as a moral authority of great influence; he must be respected, heard, and obeyed. The mother has a major supporting role in managing the family. If the father is away or dad, the oldest son usually steps in and takes charge of the family, with the help of uncles on both sides.

The African family functions in a very smooth way: every member has a role and plays it proudly, with near-religious devotion, to secure the stability of the whole house.

#### The Senegalese family: further peculiarities

Beyond the father/mother/child triptych, it often happens that many members of a family live together, or at least in neighboring houses. The family circle usually comprises nephews, nieces, cousins, uncles, grandparents.

However, certain places witness a progressive loss of traditional family interactions, for young women grow reticent to stay with their step-family.

The classical, over-extended family is slowly falling apart and into nuclear nodes. But the cultural family spirit is still going strong.

### The Senegalese family: growth and transmission of humanist values

The family sphere is a place for growth, and acts as the first circle to transmit essential values.

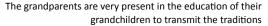
In Senegal, those values are: Kersa (temperance and humility), Diom (courage, work ethic and responsibility), Mùn (perseverance and tolerance). The next one is especially valued in every sphere: it's Téranga (hospitality and welcome spirits). Every parent works to pass those down, and to nurture talents and abilities as they emerge.

Grandparents are very present in their grandchildren's education, and are the keepers of tradition.

### The Senegalese family: unity and the teachings of solidarity

Family is sacred for the Senegalese, and all the members work ceaselessly to instate and maintain cohesion within the group. When chronic crisis follows galloping poverty, the family circle sometimes "holds on" only through sharing and solidarity. Sharing is a value that goes beyond duty or moral obligation and is taught to children from a very young age. In a concession, every worker puts a hand to maintaining the house, even the migrants. Cooperation is not simply a word but the clear picture of your own duties and responsibilities.

Poverty or precarious situations leave no dent in the charm and high spirits of Senegalese circles. Out of whatever lemon life gives them, they make lemonade with a smile and share it with joy. Society and family both foster simplicity, respect and conviviality in everyday interactions.





#### Senegalese housing

The typical house is organized around a tree-planted yard, in the shade of which families like to gather to talk, eat, have tea, or work on everyday tasks. Life is lived outdoors whenever possible.

Housing facilities are usually spread round the central common space of the yard. Water closets are built further away, for privacy.

Although the kitchen has its own building, it is open to the outdoors. Women usually sit in the shade of the tree to prepare the meals, and sometimes bring the gas cooker out with them.

Under the covered patio, the dwellers can stay outdoors despite bad weather, and bring the television out of the living room to watch it, as a family, in the fragrant night air.

Many houses in Thies include a sheep- or goat-pen. One man in the family is in charge of feeding and tending to them daily. The livestock usually spends the day out of the concession, in the street, feeding off the neighborhood grass and low branches from the trees. The animals are used only for food, and the family sacrifices one for Tabaski (sheep celebration) or other religious holidays.

Plan of a classic house from Thies Maison WC Douche Chambre Salon Chambre Puisard Débar-Chambre Chambre Terrasse couverte Cour Maison Maison Cuisine Terrasse Arbre à palabre Enclos Chambre Lignes pour sécher le linge Robinet Rue

## Koranic school: the teachings of spirituality

For every family in Senegal, human growth has to start with the teachings of religious and spiritual values.

For the Senegalese, God is the source, the core, and the limit of the world, and it is important that children from a very young age be taught to develop a certain closeness to God.

The Koranic schools act as first provider of religious education for children, and sometimes for adults. They are found in every district in Thies, and led by a Koranic teacher in charge of the students. For Muslim parents, children should start school at the age of three.

During regular school holidays, children live according to the Koranic school rhythm, for they attend every day except Thursdays, Fridays and religious holidays, morning and evening, and study the Holy Quran. During the regular school year, some children still attend Koranic teachings on the week-end and on state holidays.

#### At the Market: a daily ritual

Women go to market daily to get foodstuff for the family meals. They usually go early in the morning, when the concession is swept and the children sent off. The trip can be fairly long, but is even made even more important by the news they will trade there with friends and neighbours.

The women either walk of take some means of transportation to market; very often, they will walk there and catch a vehicle for the way back, loaded with provisions for the day's meals.

## Family meals: a symbol of Téranga<sup>1</sup>

Common meals are a peculiarity of Thies and Senegal in general. They represent a time for conviviality and sharing, during which the whole family gathers around a bowl or a dish.

In large families, men and women will eat separately. Kids are taught how to handle themselves at the table – they are not allowed to eat from the center of the bowl or to participate in adult conversations. Only the right hand is used to eat; the left one is for other actions, though it can hold a spoon. Before digging in, members wait for the head of the house to give the "Bismilahi"<sup>2</sup>. You generally drink only once the main dish is done. If invited by a Senegalese family, you will generally be offered the common dish in a very convivial way. Meals are often taken sitting down on a mat.

When a guest arrives at meal-time, they will always be asked to join in. It is duty in Téranga to share with the visitor who walks in when food is served. This is even true in the street, where people eating on the



Daara or koranic school (source: http://www.afriscoop.net)



Women from Thiès during their market in Moussanté



The meal in family, a sharing moment

<sup>1</sup> Téranga: wolof for "hospitality and a tradition of welcome")

<sup>2 &</sup>quot;in the name of god"

sidewalks think nothing of extending an invite.

Once the meal is over, everyone rinses their fingers in a clear water basin and throws in the used spoons.

#### Teatime (Ataya): an ethos

Ataya, the tea ceremony, is a major part of daily life in Senegal, and a symbol of hospitality. Tea is what you serve to friends, for it fuels conversation. Mint tea is served thrice, "the normal three" – if you accept a cup of the first bitter and un-sugared brew, you will have to drink until the third and sweetest. As the saying goes: "The first tea is bitter, like death is; the second tea is mild, like life is; the third tea is sweet, like love is."

Usually, the man of the house will pay for tea, but between friends everybody involved pays for the ingredients: Saddam tea (tea of choice), charcoal for the heater, sugar and mint ("nana").

Everyone, regardless of gender or age, enjoys their tea. The oldest and the head of houses are brought their tea by younger participants. If you find yourself a guest for Ataya, you will probably be served second, right after the head of the house, level with his brothers; sometimes, one glass of tea is shared between several friends. The tea ceremony visually and strictly re-enacts familial organization: tea is always prepared by the lowest in rank, and the youngest members only get a sip at the very end.



The meal in family, together aroud the plate







## The unofficial trade: how women bypass scarcity

These days, in Senegal, the unofficial trade led by women is an answer to growing unemployment and poverty for the families. The women drive familial economy and it is quite common, in Thies, to see on every street corner little mix-and-match stores handled by housewives to make money right on their doorstep.

They offer a variety of services ranging from street kitchens (breakfast, fatayer, meal...) to piles of fruits (oranges, mangoes...) and vegetables or peanuts, etc. Their trade of street food is found in every district. Tradition dictates that the woman's primary role be to raise the children, but galloping poverty has inspired them new means to provide for the family.

Women can make good income from these activities, and complement their husband for the daily income. Sometimes, women rise through this trade to head-of-house status and handle the whole family budget, especially if their men are dead or unemployed.

The Navétanes in Thies: a cult, a craze, a challenge

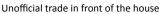
In Senegal, soccer is a religion. Everyone loves it, and as a sport, it mobilizes the greatest numbers of people. Soccer fuels every argument on the street, and this extends to large European clubs, which all number fans in Senegal. Sports news has wide impact, and if streets are empty, it is usually because a major game is going on (like the League of Champions).

One of the highlights of soccer season in Senegal is the national championship everybody calls "Navétanes", held in the rainy season. Informal soccer games are organized to keep the youth busy during this long holiday when the rain falls for four months between

July and October. With the years, the Navétanes have spread through the whole country and, fueled by the growing enthusiasm for soccer, have become the most popular sports event in Senegal. In Thies, the Sports and Culture Associations (ASC) like Cité-Lamy, Wally Dann, and Diakhao, rouse whole districts and not only the young. Paradoxically, Navétanes games are the only ones to fill up the arenas.

Beyond the sports challenge, in Navétanes the honor of whole districts or families is at stake. Every district has a collective memory of past Navétanes events. It is as though dreams could come true on the field, feeding on the surrounding craze. This is the time of the year when the Senegalese dramatize their soccer culture: there is real folklore along the games, with tam-tams, songs and dancing in the terraces... The Navétanes are the soul of Senegalese soccer and a symbol of what the passion for soccer represents in Africa.

Soccer and fetishism are closely entwined: in West Africa, mystical pre-game preparations are part of the psychological team work.





#### Tontine: money-bank and African-style social security

The Tontine practice is a good symbol of solidarity in Senegal – it consists in a savings bank put in common between friends, and is widely spread in Thies. In the past, farmers would join forces to weed out one man's field after another, and the owner offered palm wine.

Today, members of a tontine each contribute a certain amount of money, and at the end of every month, a different member gets the whole sum. This is usually put to use launching or reviving a business. There is no contract but a pact based on faith. Members are familiar with each other: they belong to the same family, or to the same district.

Tonti was an Italian banker from the 17th century, who unknowingly lent his name, and never thought his invention would one day spread out on such a scale in Africa.

Beyond a mandatory savings practice, tontine is a state of mind and an occasion to gather and support one another. It can be used to shoulder the cost of social events, like weddings or burials. It also acts as social security, since no member is left stranded in case of illness or accident.

#### The Talibé phenomenon in Senegal

Talibé is the name for the student or disciple of Koranic schooling, taught by a marabout. The children are usually between 3 and 14 and have been sent by their parents away out of the poorer regions, to benefit from the Koranic education. The marabouts receive material benefits or are services by the Talibés they supervise.

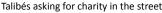
It is a national phenomenon. In Thies, like everywhere in Senegal, you can run into Talibés at any time. Public space, markets and terminals are over-run by the children, begging for their marabout.

The children grow up in terrible conditions. Even though there may be over fifty in one school, they all live in the same house where they share rooms with little hygiene and often no water.

Talibés are also called "the barefoot kids", for few have any shoes. In their dirty tattered clothes, they are the poster children of poverty; this is sometimes overdone to provoke charity.

Note that thankfully, these practices are decried by some of the marabouts in Senegal.

The children are given a specific sum to gather and bring back every night to their host, and are often mistreated when they fall short of their goal. They spend the day cruising from district to district with their money pot, gathering small change, sugar or biscuits.





#### Living conditions

#### Sanitation

Thies is very vulnerable to water issues, related both to the evacuation of rainwater (a source of recurring inundations) and to the handling of waste-water (most houses use individual septic tanks).

The location of the city accentuates those issues, especially when it comes to dealing with large quantities of runoff waters from the Thies plateau.

The urban sanitation uses a separating system running on two different networks.

#### Handling the rainwater

Thies is part of the Fandène watershed and reacts to climatic changes on the Thies plateau. The natural stream of runoff waters causes major damage in the city. The climatic uncertainties have spurred calls for action on the plateau, and brought many authorities and technical partners to rethink the way they participated in local or regional deals.

On a regional scale, led by the Conseil Regional board, the Regional Agenda for the Environment (PAER) is setting up innovative norms for ground planning and to protect the plateau from further dilapidation. In some of the farmland villages on the plateau, NGOs lead local actions to limit erosion.

Downstream, the city has funded the creation and rehabilitation of 53km of equipment for water evacuation, to cut off the impact of the downpour in the daily life of the inhabitants. However, issues still arise on how to maintain drainage and sanitation facilities – the sewers, often broken or blocked, can also turn into garbage dumps are become useless for ferrying rainwater in the downpour season.

Inundations are most frequent in neighborhoods with no structural planning, which can be found North and South of the city.

#### Handling the wastewater

Sewage treatment is one of the major environmental issues in Thies.

Today, the city functions with a sanitation network running a total of 75km, which is driven by a water treatment plant in Keur Said Ndoye.

Only 5.000 houses now have access to the network: 2.200 in the North and 2.800 in the South, for a total of around 50.000 people based on ten inhabitants per house (DIALO, 2010) and a 16,7% connection rate. The latter is kept low by the cost of connecting structures, which can reach 200.000CFA per house.

The water treatment plant can handle 3.000 m3 of water per day. However, low connection to the STEP network means that waste-water only comes in at a rate of 300 to 500 m3 daily. In the rainy season, input can reach 900m3 per day, and the water then flows directly into the lagoons.

As of today, the water treatment plant functions at 15% of capacity. This means that functioning costs are



Flood of streets during the rainy season



Pipes broken and filled with filth

very high per cubic meter of water actually handled. To cover those costs, the STEP would need to function at least at 80% of maximum capacity. The current priority, therefore, consists in connecting more plots to the network, with financing from social programs. In the long run, it will be possible to expand the plant to a maximum capacity of 9.000 cubic meters per day, which covers the needs of the whole city.

Right now, most houses keep on functioning with individual septic tank. Few houses use their own wells.

#### Household waste

Thiès produces around 260 tons of household waste daily.

The process to handle waste involves: in-house conditioning, collection, and transportation to uncontrolled dumps awash in dangerous materials such as batteries, solvents, phyto-sanitary waste...

In most districts, concessions pay between 1.000 and 1.500CFA per month for the services of a donkey- or horse-driven garbage cart. This is problematic, as garbage keeps falling off along the way.

Another issue is that of criminal garbage dumps within the districts bordering the city, and in the surrounding countryside. Those dumps usually appear as a result of inexistent or insufficient transportation means, irregular waste collection, or the absence of collection bins.

To better the situation, spontaneous corps have tried to tackle the waste issue. Women's associations prowl the dumps to collect plastic and resell it to treatment plants like Proplast, which turns it into granules.

In the works, also, a projected landfill facility under the rural community of Mont Rolland. Work has stalled for years due to disagreements.



Garbage dump by carts in uncontrolled dump sites



Heap of garbage in the bus station



Uncontrolled dump sites in districts





## Cultural life: Religion and beliefs

In Thiès like in the whole country, religious life draws both from Islam and from Christianity. These two concern around 99% of the urban population, who interact in perfect harmony. Senegal is a laic state in which the Constitution. There is some atheism in Thies but, more concerning, the phenomenon of Protestant sects that has spread through Africa is drawing more adepts every day.

#### Islam

Mulims are the majority group in Senegal, and make up 95% of the population in Thiès. They are fragmented in different brotherhoods, with different sets of practices:

- · Tidjanism: this brotherhood is led in Senegal by El Hadji Malick Sy, from Tiyaouane, Tidjan capital in the country; Tidjanism accounts for a fair number of Senegalese muslims.
- · Mouridism: After Cheikh Ahmadou Bamba, who founded the city of Touba, pilar of Mouridism. In Thiès, the districts of Médina Fall and Keur Abdoulaye Yakhine host the two mourid mosques and are mostly settled by Mourids.
- · Kahdres: Mostly a brotherhood of Moors. They hold a limited number of brothers in Thiès. The annual pilgrimage is in Nimzat, Mauritania.
- · Layenes : there are few Layenes disciples in Thies; most live in Yoff and Camdérenne, near Dakar.

#### Christianity

Christians account for 3% of the Thies population, and are Sereres in majority, with a few Mandlakes and Diolla. The Sereres were the original inhabitants of Thies, and established first contact with the catholic missionaries – thus their large representation in the Christian population. The other Christian ethnicities have come on waves of immigration, Thies being a stop for many migrants to Dakar.

However Islam, as the first religion in Senegal, has the most influence in the city and draws in migrants from the Center-West (wolofs) and North of the country (Toucouleurs).

To keep their traditions and religion alive, the Sereres of Thies have gathered in communities and work in isolates, on the borders of the city. Today, the majority of Christians in Thies live in peripheral villages, even though some remain in Catholic groupings within the city.

## Muslim/Christian cohabitation in Thies

There is strong religious harmony in Thies, that is upheld as part of the culture. Communities with varying beliefs can live together and interact daily; on religious holidays of both dogmas, Christians and Muslims celebrate together.

This religious dialog cements the communities and is a basis for social stability in Senegal. Between 1950 and 1981, the country was led by President Léopold Sédar Senghor, a Christian, elected by a 90% muslim population.

#### Customs and tradition in Thies

Religion in Senegal, like in the rest of Africa, is fraught with traditional practices specific to each ethnicity. Both Muslims and Christians practice animism. Therefore, it is common for for families of both religions to keep worshiping a guardian totem. Traditional practices are especially common in the more conservative segments of the population.

## Cultural life: Arts and Crafts

Thies radiates as a cultural hub, both through its history and its ethnic diversity. Thies can be seen as the sum of all cultural identities that were drawn to this crossroads town, and the cultural wealth of the city translates in the arts, through theater, music, dance, crafts...

#### Heritage

More than a few historic buildings make up the architectural heritage of Thies such as the Fort, today host of the city museum; the Governance building, previously lived in by the Colonial Administrator; the Sainte-Anne Cathedral, the Chamber for Commerce, the railroad structures (train station, workshops, workers' quarters, Three Clocks...), the Sainte-Anne school...

If we step back, colonial heritage represents a large part of the history and culture of Thiès, quite visibly in the Dixième ("Tenth") District that was settled very early by the French; visible also through the Préfecture building, and the Senegalese Manufacture for Decorative Arts, which now holds the double prestige of rehabilitated colonial architecture and artistic hub on a national scale. The Ballabey District, today called Ibrahima Sarr, offered industrial housing for railroad workers in 1924 and now stands as witness to an exceptional part of Thies history.

Thies also boasts a significant natural heritage, still in dire need of valorization in order to benefit from protection and possible tourist revenues. The forests are listed, and one should also mention the plateau, the archeological value of the Diack quarries...

How to value the strong cultural and artistic heritage of the city? There are current plans for a Rail Museum that would shine light on the specific culture Thies has developed around rail.

#### **Know-how**

Thies is afloat in talent of all sorts that drive the city's specific identity.

"Palm wood civilization" is a craftsmanship oriented towards furniture making, basketwork, mat braiding, rafter building and paper-making from palm. Most craftsmen have settled in the northernmost part of Thies, on the Thies-Tivaouane axis, and in the villages of Lalane and Ndiobène (in the Fandène region).

Lam-Lam pottery further north is a typical produce of local know-how. Local craftsmanship stays strong through expertise in a certain technique, and by fostering local creativity.

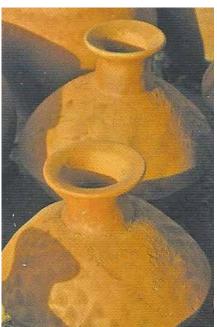
Tapestry work from the Senegalese Manufacture for Decorative Arts is an emblem of Thies, for their expertise is unmatched in Africa. Such prestigious works are then exported worldwide.

Thies is also home to major artists and creators such as painters, sculptors, musicians, writers, moviemakers, actors and publishers. However, the city lacks in infrastructures and support systems for the artists, which often drives them away and to larger cities like Dakar or even abroad, in order to live from their art.









## Cultural infrastructures and facilities

Thies hosts very different cultural facilities:

- $\cdot$  the cultural center, which also functions as a library, stage and soon as a show room, is unfortunately far from the center and hard to access for a large part of the population
- the Senegalese Manufacture for Decorative Arts teaches the craft of tapestry and weaving, and displays the works
- $\cdot$  the arts village is a project hosted within the Manufacture and will figure a number of workshops on loan to sculptors
- · the regional museum, suffering from a poor image
- $\cdot$  the Palace for the Arts, a private concert hall
- · the Thies promenade Agora, a screening room running under capacity that could host representations and shows in the heart of the city
- the crafts village, where many craftsmen work, display and sell their trade: leather work, jewelry... it also attracts significant tourist activity
- · 4 centers for cultural readings and activity (CLAC) spread out in surrounding rural communities, which offer library services, adult schooling, film projection...

Remember there is no movie theater in Thies, like in most of Senegal. The 4 historic theaters have shut down at the beginning of the twenty-first century. Projects for a new one have been hinted out by the Mayor.

Also absent are art galleries, audio-visual producing, or any recording studio in the city.

#### **Festivals**

A few events highlight the cultural year of Thies. These are prganized by the Regional Center for Culture, or by private promoters, or by associations. Witness:

· "Mbilim" regional day, celebrated by the Sereres



The Senegalese Manufacture for Decorative Arts

- · an International Festival for Sacred Dance was organized in 2004 and could be re-programmed in years to come
- the Thies Book Fair, managed by Fame Publishers, will echo the Toulouse Book Fair starting 2013
- · the city works towards a regional festival that would have an impact on the national cultural scene.

#### Associations for arts and culture

Thies' strong potential for arts and culture shines out in the number of associations dedicated to that cause: the Dynamic Association of Sculptors (ADAPT), the Association for Actors of Senegalese Theater (ARCOTS), the Association of Musical Professions (AMS), the Association of Cultural Journalists in Thies (AJCT), the Association of Rappers and Street-Artists (ART'THIES), the Association of Thies Seamstresses... Despite all this varied potential, it is unfortunate that

Despite all this varied potential, it is unfortunate that the municipality barely fosters cultural activities, that the tourist attraction is widely overlooked, and that training be lacking all around.



The Agora



The Craft village

#### **Local Associations**

Thies is a leader in associative gatherings, as it has been in many domains of initiative. This movement can be found throughout the city, and in every cultural sphere.

Since droughts hit in the 70s and 80s, associations have sprung up in a variety of fields: for human rights defense and civic education, for support to social and economic development, for the promotion of women rights and wealth, to represent the youth, the unions, the owners, the farmers; organizations in the sphere of college research, others working for cultural promotion of the arts, and media organizations, associations for the rights of the children and the disabled, religious groupings... etc.

With time, these organizations have created a context for discussion and built a network to get their voices heard, their actions felt. Some of these networks are consortia, consultation practices, or federations such as:

- The NGO Council for Development (CONGAD) in which small actors group who work for development;
- · The Federation of Feminine Associations in Senegal (FAFS) and the Federation of women GIE, working for the rights and wealth of women;
- $\cdot$  The National Council for Youth (CNJ), a gathering of the numerous sports, culture and GIE organizations
- · Non-Stately Stakeholders platform (ANE).

Since President Wade came into office, many social movements have grown and gathered in federations to have representatives at the legislative – and even presidential – elections (Fekke Ma Ci Bole movement led by Youssou Ndour, Minister for Culture, and the Bess Du Niak movement led by Serigne Mansour Sy Djami, parliamentary representative ).

When it comes to local actions and municipal politics, the Non-Stately Stakeholders play a role in roundtable discussions. In Thies, the Civic Forum selects associations to work with and support city hall decisions.

All these organisms are starting to show positive impact on economic and social development in Senegal, for they further and complement State policies. For example, think back to their helping the populations in need during the floods of the 2012 rain season (« Y'en a Marre » movement).

Faced with unemployment and the steady shrinking of arable land, some villages or districts survive only on solidarity circles and thanks to the Women Promotion Groups (GPF) that create small trade and some market gardening. This phenomenon is highly visible in Thies None, where women basically provide for the whole population. GPF are autonomous, and the major part of their funding comes from lenders. They sometime participate in city-hall initiatives, especially in the sphere of health and the environment. In 2003, they received a 12 million CFA subvention from the Municipal Council for insecticide-treated bed nets.

One of the associative actors in Thies is the Center for Listening and Supporting Sustainable Development (CEEDD) in which more than 180 women of the whole region work as complement to their activity to promote agriculture, crafts and education. Picture: a socio-educative workshop day. Picture: the CEEDD shop in Mbour, and the planting of micro-gardens.







# Example of a women' association: the REFABEC network

- Interview with Awa Thaindown, head of the network (awanthiandoum@yahoo.fr) -

Motto: «weét gore, wetëliku gore» ("Strong with or without men")

REFACEB stands for the Women Network in Biological Agriculture and Fair Trade. It builds bridges between producers, shopkeepers, industrials and experts with a vision to:

- $\boldsymbol{\cdot}$  promote biological agriculture through the sale and processing of produce
- · develop fair trade through city/country partnerships
- · integrate REFABEC members in a network of profitable production to fight poverty.

REFABEC is made up of 11 GIEs called "bio clubs" who deal with the leading NGO Agrecol Afrique. There are 15 women for each GIE:

- · Book Nass for the processing of manioc and Niébé
- · Traceb for the processing of cereal
- · Gëstu Cosaan for ecological tints and the commercialization of seafood
- · Deggu for the natural sector
- · Novis for ecological forestry
- · CBDR for the processing of fruits and vegetables, and for confectionery
- $\cdot$  Sell Tey Sellal for the commercialization of biological vegetables and the processing of cereal and oilseeds
- $\cdot$  Defar Jikko for the processing of cereal and vegetables
- · Le Guelewaar for the processing of corn and sorgho mil
- $\cdot$  Dax Niak, Heuth Koom Koom for ecological tints and the commercialization of forestry
- · Progrès de la femme ("Woman's progress") for seafood, and for the collecting and reuse of plastic bags

REFABEC receives support from 5 economic units:

- $\cdot$  Tikaara biological restaurant in the heart of the city, where the produce of partner farmers is cooked and sold once processes
- · The store handling processed biological produce
- · The plucker (service contract)
- · The bio market open every Friday evening and on Saturdays in the Dixième district
- · The cereal processing unit, equipped with a mill and a grill, that produces dough, nut oil, grains of mil, mil flour, couscous, regular flour, Niebé coffee, grains of corn and corn flour. This processing unit can also churn out fruit juice (ginger, tamarind, monkey-fruit, orange, lemon...), vegetable preserves (tomatoes, carrots), sauce (chili) and processed honey.

#### Organization

All members are part of the general assembly. The heads of each club decide as a board of directors. There are commissions for every economic unit, and the head of the network is in charge of coordination. That way, every woman has a role in the structure and a say in its evolution.

#### **Funding**

REFABEC receive funds from close partnership with:

- $\cdot$  Agrecole Afrique, which offers financial and training support
- · AutoTerre, a Belgian program for sustainable economy
- · PAFA, a State program to support agriculture

In Thies, REFABEC is shouldered by city-hall, which provided the location for Tikaara restaurant and authorized the biological market.

#### Goals

REFABEC elaborated a commercial strategy based on better produce processing and answering the client's needs. Its main goals today are to improve market facilities to make it more attractive, and work towards mobilizing and informing the people.



Biological market in Dixième





# Example of an association for the arts: Fesseul Events

- Interview with Momar Talla Mdobj, head of communication; Omar Soundiata Ndiaye, treasurer; and Pape Mactar Diop, in charge of logistics for Fesseul Events (fesseulevents5@gmail.com) -

Before he went into audiovisual, Talla was a programmer. Omar acted and directed plays, while Pape Mactar was a photographer. Seydou Diop was the only one working in the field. They met during a 3-month multimedia training program organized by the Cergy-Thies cooperation office at the end of 2010, and decided to work together on common projects. Fesseul Events was born in January 2011 with a vision to:

- · Promote Information and Communication Technologies (TIC) and close the digital gap
- · Inform the population, through documentaries, about issues of environment, health, culture...
- · Train the youth in audiovisual arts and, more generally, for working with the arts (still in project)

  The four profiles complement each other within the association. Pape Mactar and Seydou are cameramen,

Omar directs and writes, while Talla edits. They have realized some movies together already:

- · "Laughing with parentality", a fiction realized in cooperation with Royoukaay theater group in Thies
- $\cdot$  "N'dékéto-yo"("If I knew"), a documentary about the limited outcomes of a soccer career
- · A non-fiction reel about Fireman without Borders
- · 30 sketches for national television
- · 2 music videos for groups Wa Flash and Dam sène
- $\cdot$  2 nonfiction reels, realized in cooperation with youth from Cergy, on the environment and the cultural stakeholders in Thies
- $\cdot$  An investigation into local representatives' training in Salv.

With time, they have built bridges with the association for Senegalese Thater Performers (ARCOTS), who sets up theater troupes and calls on Fesseul Events if they wish to film. Fesseul is also taking steps to partner with the Senegalese Manufacture for Decorative Arts in Thies, for whom they should produce a 5-minute reel and perhaps work on further projects.

Today, Fesseul Events receives constant support from the Technical Support Office of Thies-Cergy cooperation, in the shape of material loans (movie cameras, filming locations...). They are still looking for more partners to expand their projects. With this goal in mind, they are thinking of turning Fesseul Events into a GIE so it can answer bids and win markets, to which associations have no access.

In shooting on the Thiès Plateau and on "Laughing with parentality"









#### **Markets**

There are nine marketplaces in Thies, strewn amongst the city districts. This stands witness to important trade activity. However, none of them is as important as the central market and the Moussanté one, both larger and with more people and types of goods.



Nom du marché	Quartier	Nombre de cantines	Observations
Central Market	Escale Nord	780 (4 blocks)	Heart of the Thies trade. Rehabilitated and expanded in 2002, then 2004. Most structured market in town, it is crossed by heavy throughways. The market is currently saturated.
Moussanté Market	Randoulène Nord	292	A trading hub for districts Diamaguène, Keur Abaye Yakhine, Sampathé, Balabey
Bus terminal Market	Cité Ousmane Ngom	307	Open day and night
Grand Thiès Market	Randoulène Sud	227	Catchment area in districts Hersant, Darou Salam and part of Cité Lamy
Cité Senghor Market	Cité Senghor	160	Its sphere of influence interests districts as Hersant, Darou Salam and a part of Cité Lamy
Mbour II Market	Mbour II	111	Equipped marketplace, drawing clients from districts Mbour 1 and 2, from Fahu and Sud Stade
Ngelaw Market	Médina Fall	113	Grocery source for dwellers of Médina Fall district, of Keur Cheikh and part of Takhikao.
Thialy Market	Thialy	66	In good shape, draws little crowds
HLM Route Mbour Market	Hlm Sofraco	120	HLM Sofraco 120. In good shape, draws from districts Sofraco, Grand Standing, Mbour 2, 3, 4 and 5



Today, the fish market is open close to the central marketplace, but raises real issues: issues of access since its aisles are so narrow and the surrounding areas so saturated, and issues of public health.

This is why the wholesalers are currently asking for relocation. The city spoke of moving it to Nguinth, but the project was dropped after public outcry.

The municipality has since disengaged from this issue. The wholesalers are still pushing for it and demand a new place to trade.



Last but not least, a marketplace for biological vegetables opens ever Saturday in the Dixième district, and the market on Maya Doucouré avenue is a Sunday trading place for second-hand clothing.

#### Informal trade

The informal sector is highly active in Thies and offers employment in many spheres of economic life. It is part of the daily workings of the city.

The informal sector first and foremost includes activities of trade and crafts. It drives a number of small businesses and the activity of fields such as fishing, farming, cattle raising, tourism and industry. It benefits from the energy of rail transit for all produce from or to the Mali, through the trade of cola, small cola, corn, calabashes, incense (Thiouraye), indigo cloth (thioub), mangoes, etc.

The informal sector is further driven by a growing number of services such as hair-dressing salons, butchers, grocers, and livestock traders to name a few. It has become the way to go for all categories of people currently in search of profitable work.





# ····· Appendices

The city's projects

Map resources

#### The projects of the city

#### The Sampathé culvert

As part of its clean-up operations and fight against flood events due to rainwater streaming, the city of Thies has sponsored a study on a project to retain and drain rainwater at Sampathé, a district located southeast of the city.

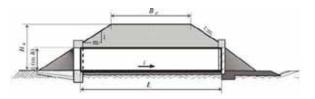
The aim is to develop an efficient drainage system to conduct rainwater into an outlet equipped with a culvert, the latter being now obsolete. The area does not have any system for rainwater drainage. There is only a drainage channel that releases water in the middle of a densely populated area, which consequently causes erosion of roads, gully erosion and flooding, leading to recurring public health issues (water-related diseases).

The project for retaining and draining rainwater at Sampathé plans to enlarge the culvert so that I can effectively drain 25 m3/s of water flow for an estimated 120 ha watershed. This will be accompanied by both upstream and downstream improvement of the structure on the basis of ground study (topography, geophysics, hydrologic, hydraulic, etc).

Environmental and social impacts have also been studied to take into account the constraints for this type of project according to national and international legislation.



Existing culvert



Planned culvert



Status and delimitation of watershed

## Clean-up of the Moussanté market

The Moussanté market is one of the largest areas of commercial activities in the city, apart from the big central market. In recent years, it has been growing very quickly and it is now an unhealthy place due to:

- · no efficient rainwater drainage system, which causes flooding during rainy season,
- $\cdot$  the very old kiosk in the "various foodstuffs" part of the market, in addition to no water collection in the "fish" part.

Implementing targeted work will have a positive impact on:

- · the health and safety of the market,
- · the quality of the food sold,
- · the attractiveness of the market.

## Extension of south-west sewer network

Only 6% of the population of Thiès benefit from a collective clean-up system. That is why ONAS, looking for appropriate solutions given the socio-economic context, had developed, thanks to Nordic funding, a secondary sewer network and a water treatment plant with waste stabilization ponds for part of the city. The success of this experiment now encourages its extension to all areas not yet connected to the network (Sofraco, Mbour3, Grand Standing, etc).

Completing this project will thus not only solve the problem of wastewater evacuation and treatment, as the network will be connected to the plant, but it will also enable to reuse wastewater by offering it to greengrocers for soil fertilization. The project will also create jobs, especially for system maintenance.

#### Garbage 2011 project

This project aims at better preserving the living environment by implementing an appropriate strategy for garbage collection and elimination.

Several studies have shown that most diseases (malaria, diarrheal, dermatological, respiratory diseases, etc) occurring at sanitary district level and registered by health offices are strongly correlated with unhealthiness in the city.

Numerous garbage heaps give a very negative image of the city, reducing tourist attraction and economic activity, while a policy encouraging investment is being implemented. This problem is exacerbated by the emergence of non-biodegradable plastic waste.

Improving the waste management system of Thiès will mainly focus on:

- · determining the means of waste collection, depending on territorial organization,
- · having appropriate institutional agreements to manage the chosen system.

The city of Thiès is currently working on these measures.

## Renovation of the Grand Canal of

The Grand Canal of Thiès is a drainage structure for rainwater going through the sub-district of Grand Thiès Randouléne. Its watershed is very vast.

Built after independence, this stone-made canal (laterite rough-stone) is very damaged and do not work properly any more, which regularly causes flooding in the area concerned.

In addition to the desire to preserve the environment of these neighborhoods, this work will particularly reduce social and sanitary risks linked to dysfunction of the Grand Canal.

Work to be done include:

- · cleaning and disposal of bulky constructions,
- · demolition of roof slabs,
- · rebuilding the structure identically with an extension to the Madoki cemetery,
- · stabilization of existing bank between the structure and the road,
- · construction and renovation of 10 drainage grids located in the middle of the roadway.

#### The forest park

The city of Thiès is considering the possibility of creating a forest park in the forest of Thiès, which is registered as a protected area, in order to give people greater access to nature.

The objective of the project is:

- · to enhance environmental protection efforts in the fight against desertification and improve and preserve biodiversity,
- · to create recreation areas for educational activities for school pupils and young people.

Two aspects of the forest park are being studied, each of which can be developed following 4 options.

#### **Biodiversity conservation:**

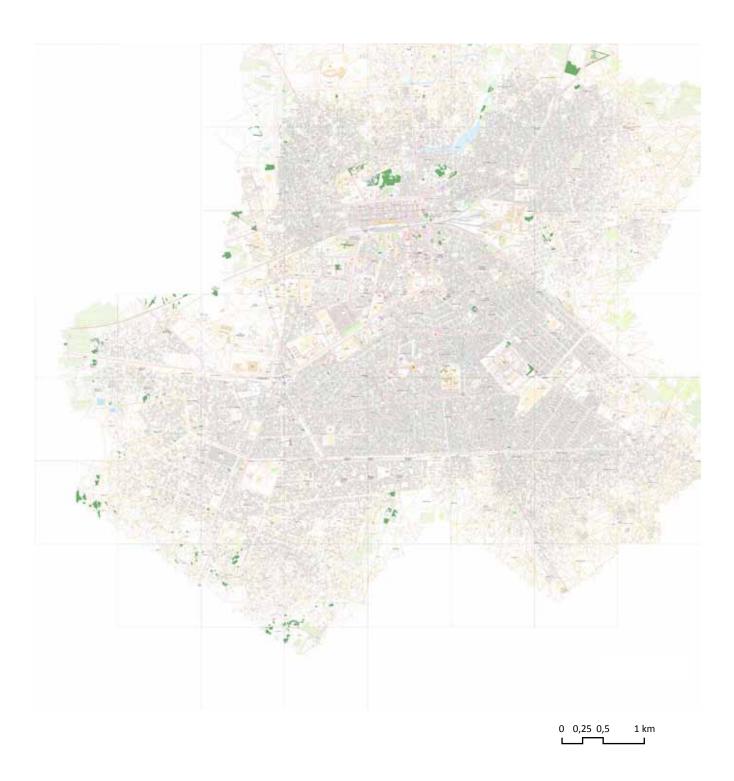
- · Arboretum: covering an area of 25 ha, it would be arranged for information, education and training of the population about plants and nature conservation.
- · Botanical garden: it would group plants by family and sort on an area of 15 ha to initiate people into botany and plants. It would enable to grow rare endemic species and would be an essential tool for the training of students in plant biology and botany.
- · Ecological footpath: it would link the arboretum and botanical garden together and include several stops with information related to botany.
- · Documentation and environmental education center: a center for research and exchange, it would focus on the collection, management and transmission of information on the flora and fauna.

#### Relaxation and recreation:

- · Sport course: hilly track on stabilized ground, 2m wide and 6,5km long.
- · Picnic area: it would be located in an area with a network of rivers or ponds for rainwater which would enable people to take a walk there, use pedal boat or dugout canoe or go fishing.
- · Outdoor play area: consisting of 2 successive grassy platforms designed as a space of expression for
- · Sports center: grounds for soccer, basketball and handball.

However, because the forest of Thiès is registered as a protected area, agreements will have to be negociated long before the implementation of this project.

### Maps



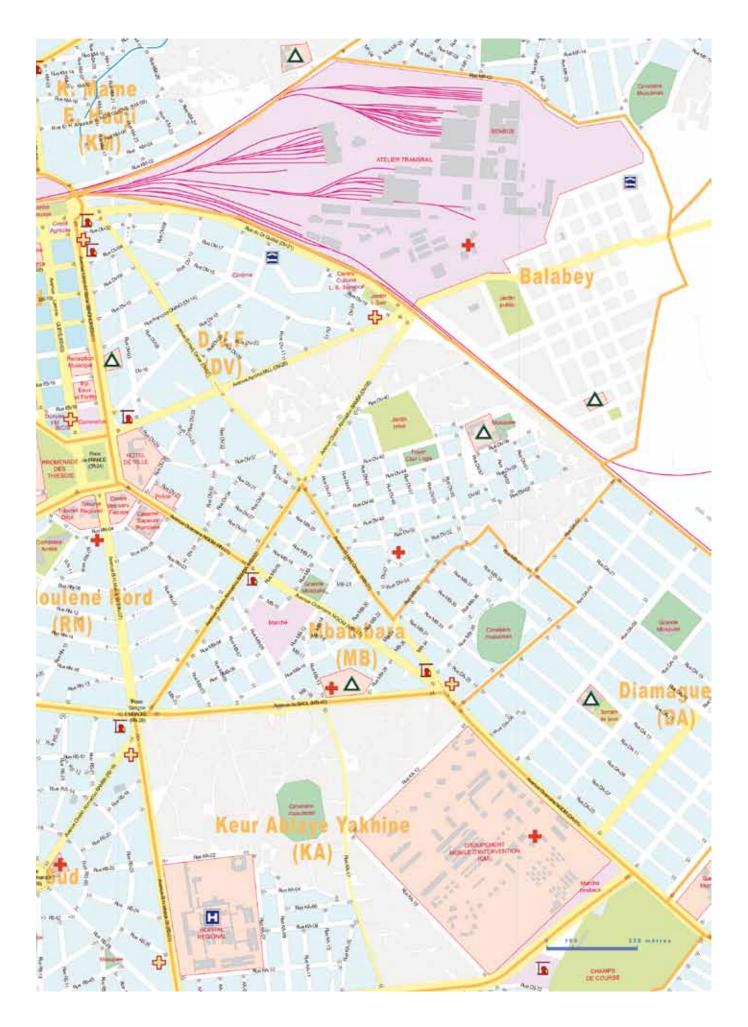
Topographic map of Thiès - IGN 2012



Cadastre of Thiès - 2012



City center map - 2003



#### **Abbreviations**

ADM Agence de Développement Municipal

ADT GERT Association pour le Développement des Technologies et la Gestion de l'Espace et des Ressources des Terroirs

AIBD Aéroport International Blaise Diagne

ANE Acteurs Non-Étatiques

ANSD Agence Nationale de la Statistique et de la Démographie

ARD Agence Régionale de Développement

CA Commune d'Arrondissement

CNEPS Centre National d'Éducation Physique et Sportive

CNJ Conseil National de la Jeunesse

CONGAD Conseil des Organisations Non-Gouvernementales pour le Développement

CR Communauté Rurale
CSE Centre de Suivi Écologique

DREF Direction Régionale des Eaux et Forêts

ENDA Environnement et Développement du Tiers-Monde (ONG Internationale)

EPFL École Polytechnique Fédérale de Lausanne

FAFS Fédération des Associations Féminines du Sénégal

GIC Groupement d'Intérêt Communautaire
GIE Groupement d'Intérêt Économique
GPF Groupement de Promotion Féminine

GRAIM Groupe de Recherche et d'Appui aux Initiatives Mutualistes

IDD Initiatives pour le Développement Durable (ONG)

IFOAM International Federation of Organic Agriculture Movements

IMAP Instrument de Modèles pour un Aménagement Participatif

MSAD Manufacture Sénégalaise des Arts Décoratifs
ONAS Office National de l'Assainissement du Sénégal

ONG Organisation Non-Gouvernementale
PAC Programme d'Appui aux Communes
PAER Plan d'Action Environnement Régional

PAIP Programme d'Action d'Investissements Prioritaires

PCR Président de la Communauté Rurale

PDU Plan Directeur d'Urbanisme
PIC Plan d'Investissement Communal
PLD Plan Local de Développement

PNDL Programme National de Développement Local

PRECOL Programme de Renforcement et d'Équipement des Collectivités Locales

PUD Plan d'Urbanisme de Détail

RN Route Nationale
SDE Sénégalaise des Eaux

SENAC Sénégalaise d'Amiante-Ciment

SENBUS Sénégal Bus

SES Situation Économique et Sociale

SIGELEC Société Industrielle des Générateurs Électriques

SISMAR Industrielle Sénégalaise pour le Matériel Agricole et Rural

SSPT Société Sénégalaise des Phosphates de Thiès

STEP Station d'Épuration

VCN Voie de Contournement Nord (à Thiès)

VDN Voie de Dégagement Nord (à Dakar)

ZAC Zone d'Aménagement Concertée

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