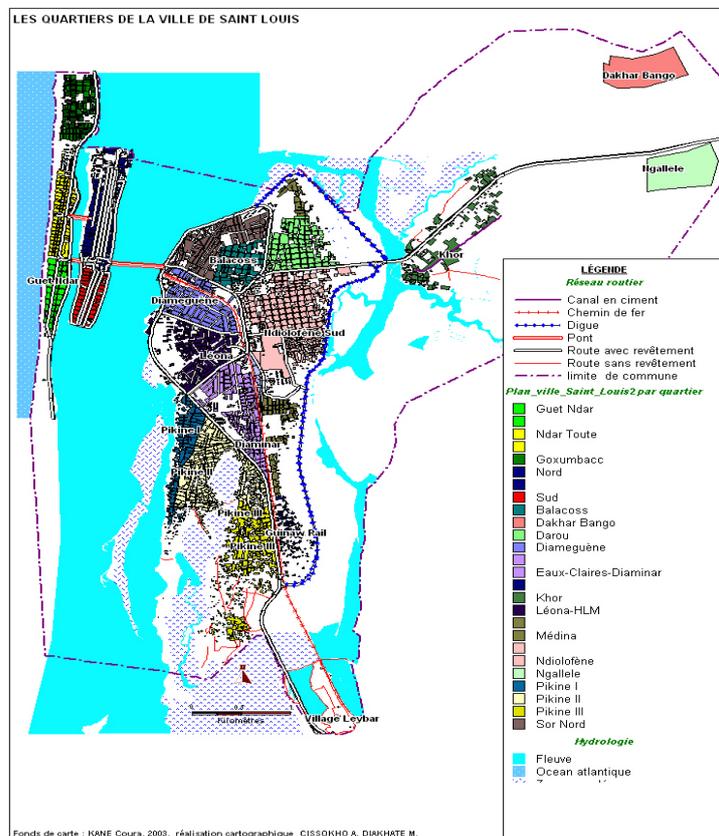


***Governance around flood crisis in
Saint Louis***

ENDA-Rup, Dakar

Governance around flood crisis in Saint Louis

Final Report (2005 – 2006)



CONTENT

CONTENT..... 3

II. Recall to various steps of the programme..... 4

A- Preparatory meetings..... 4

 1st Phase: The meeting in Nairobi 4

 2nd Phase: The meeting in Lusaka 4

 3rd Phase: The meeting in Cape Town 4

B- African urban context 4

 1. Observation..... 4

 2. Challenge 4

 3. Success..... 4

II- Governance around floods in Saint Louis..... 5

a) Generalities..... 5

b) The category of flood victims 5

c) Methodology 6

d) Activities 7

 d.1. Picture taking 7

 d.2. Logistics..... 8

 d.3. Interviews 8

 d.4. Animations..... 8

 d.5. Ideas exchange 10

 d.6. Capacity reinforcement of piloting committee members 12

 d.7. Public restoration 13

Conclusion 13

II. Recall to various steps of the programme

A- Preparatory meetings

1st Phase: *The meeting in Nairobi*

The main aim of this meeting was to discuss about certain concepts such as natural phenomena, risks, the population vulnerability, disasters, etc. Each country was required to write a programme and an action plan, which will be presented to the forthcoming meeting in Lusaka at the end of the above meeting.

2nd Phase: *The meeting in Lusaka*

This meeting was about the presentation and consolidation of proposals from various countries. Proposals presented were accepted.

3rd Phase: *The meeting in Cape Town*

Within a period of one year-activity, it was required to restore results of various programmes in various countries, discuss the next phase and the co-ordinating network.

B- African urban context

1. *Observation*

Whilst processing a diachronic analyses study in various countries, the following were noted:

- An increase in population in relation with previous infrastructures;
- An absence of efficacious measures in reducing risks;
- A weak purchasing power of the population;
- A large number of the population is poor, and living in spontaneous areas;
- A generalised and spontaneous habitation.

2. *Challenge*

- Inadequate data(institutional constrains);
- Policies are most often difficult to influence;
- Interventions in real and sustainable research domain are especially, for all researchers not sustainable;
- Lack of co-ordination between structures working in the same domain.

3. *Success*

- Dialogues between actors,
- Operationalisation in the results of researchers.

II- Governance around floods in Saint Louis

This part narrates the various actions carried out since the official launching of the programme in March 2005.

a) Generalities

The population rate in Saint Louis was estimated in 1998 to be about 115 000 inhabitants. This rate increased to 200 000 in 2002. On the north, the city is bordered with Mauritania and river Senegal, whilst on the West Coast by the Atlantic Ocean.

The floods of this island can be explained in the following way:

A levee was built to prevent the soiling river emerges in land and modifying, as well, its natural riverbed and the concentration of waters on its main stream. When the writing of the flood management plan was carried out, this city including its specificity was skipped over. The blend of essential soiling level of groundwater, the impermeable of the soil and certain practices linked to human behaviours worsen the situation. Sure enough, as an alternative to the rainy water stagnation, the populace living in swampy areas used home dirt to prevent thinking that they have found a solution to rainy waters.



b) The category of flood victims

Statistics have shown that almost the overall populations affected by the flood are very poor and their incomes are below the minimum salary rate (**SMIG**). Most of these inhabitants are not indigenous of the above city, but rather immigrants from rural areas. The 1972 drought has been at the origin of swamp farming by this category of poor people. The precipitating return over the decade has shown that these zones will never be inhabited. This situation is most especially severe due to the lack of an infrastructure to evacuate used waters or drainage for rainy water. These people are obliged to migrate to school campuses during the rainy season. Once settled at the schools, their chances in acquiring other homes are very slim. This explains the complexity of the phenomenon in Saint Louis.

c) Methodology

A couple of years ago **Enda TM** committed in local development activities aiming at improving the life framework of people living in poor urban areas. Since 1991, it carried out some organisational and technological approaches to environmental issues of the above areas through the management of used water proximity and home dirt, the reinforcement of ability of actors, the setting up of treatment infrastructures of solid and liquid waste products, etc.

In deed, hygiene issues are gradually becoming inevitable in the daily management of Saint Louis City. In 1999 an intervention programme geared to global management and integrated waste products have immensely contributed to the stabilisation of sedimentation phenomenon of small seabed of several runs of water from the valley. It is commonly known as PADE St. Louis (Improvement Process of Sustainable Environment) continues up to date. Actions carried out in the above city are in line with environmental development, economic and social policies followed by local and public authorities. From the above point of view, it has perfectly answered to concerns and community needs established in near-poverty zones.

The facilitating of dialogues and ideas exchange between local partners of PADE (Improvement Process of Sustainable Environment) are there to explore some solutions to issues, which have overcome the abilities and competence of a single local institution. In other words, if local actors do not dialogue more supporting issues, systematic and regular form, the sustainability of acquired processes will be endangered. Therefore, the governing programme on preventive measures against the detriment of the floor victims emerged in the management process of solid and liquid waste products of the above city.

The issue of used water must therefore be treated in an integrated and general manner whilst putting first the interrelation factor between various sectors of water. For this reason, a piloting committee set up the programme, in which its role is to evaluate activities and discuss issues at stake in the action plan. Thus, training programmes were recommended to some actors to enable them form strong messages, which will help change behaviours of flood victims and home dirt management.

The people's awareness to hygiene through sensitisation actions are primordial for waste products, especially solution waste products continue to be thrown in the streets and in running waters, thus increase the water level, despite the countless campaigns in favour of hygiene.

In terms of economic interest, in spite of issues that cause used waters, if they have gone through an adapted and quality treatment, they would have had an undeniable value.

African Urban Risk Analysis (AURAN)

Since the official launching of floods programme in Saint Louis and the two animations that have followed it, other activities that have taken place are:

d) Activities

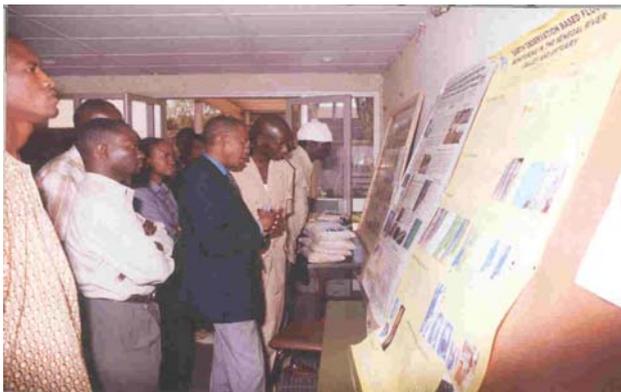
They varied and diverse:

d.1. Picture taking

This activity consists of taking photographs within the flooded zones. The operation that lasted for few days has enabled us learn constrains of the above people, encountered during the rainy season. Actually, floods are worsened through used waters and uncleaned home dirt hinder the natural flow of water. The above issue is only worsened in concerned areas, which do not have an adequate evacuating system.

Setting up a Geographical Information System (GIS) will anticipate and protect sensitive zones. However, several questions were asked as whether the real ability of this modern system can bring solutions to flood issues. In deed, GIS is enclosed with several functionalities such as:

- Requisition of data;
- Storage and information management;
- Analytic treatment;
- Restoring information in a map form, table form, graphic form, figures: for instance, establishing a vulnerability map to floods to identify sectors, which prove to have problems during floods;
- Support the decision making to plan some rescues, manage the use of land and some natural resources of the environment, etc.



Exposition

In spite the uses of geographical information in managing the hydrological risks, which is no longer strange, the people of the above city do not still have any awareness. Cognitively, on a daily basis, they experience it with the help of meteorological bulletin especially during the soiling period of waters in Senegal. Today, information can play a catalyst role in risk prevention.

d.2. Logistics

Some brochures and posters indicating main aims as well as the action plan activities were prepared. A CD-rom about the first activities is issued to the programme. A validating meeting about these tools was held with the piloting committee members.

d.3. Interviews

Pre-interviews, during, and after the rain were equally held with the population, which highlighted unhealthy issues as well as the inhabitants' continual fear toward these disasters. A number of them proposed solutions. Some interviews were also held during restoration programme sessions to benchmark the activities.



d.4. Animations

They are essentially of 2(two) ways: The main aim is to reach a change of behaviour of victims toward unhealthy issues.

▪ *Sensitisation*

Sensitisation sessions were held by the theatre in some areas such as: Diamaguene, Bango, Leona, diaminar, Euax Claires, Balacos, etc. This unhealthiness is, in deed, linked to home dirt thrown in the streets in a form of anarchy, which, however, hinder the flow of rainwater normally.



During these various animation and sensitisation meetings, the following are:

- Home dirt are the main materials fill used by flood victims and this has created an outbreak of several hydride diseases;
- The prevention of waterborne diseases for the people must constitute a short and long term – a primordial aim for public health;
- The frequent malaria and other diseases infections is generally due to rainwater stagnation;
- The occupation of the non aedificandi is the factor worsening floods in Saint Louis;
- Etc.

d5- Open air conference

On July 26 both **Enda TM** and the piloting committee of the programme organised an open-air conference, in which the assistant mayor and the regional hygiene department chief of Saint Louis were present.

The three items that were discussed are:

- Evaluating tools of vulnerability;
- Global data and perspectives of network;
- The riverbed.

These conferences were essentially based on the above points.

Some definitions were given to clarify certain concepts such as natural risks, catastrophes, poverty and development, climatic changes, etc.

This second intervention was aimed to informing participants about the Auran network and most especially future activities of Enda TM in the next phase. This was an opportunity to also precise preliminary aims of the programme, which was written, about the soft activities.

However, **Enda TM**, like other organisations in charge of building infrastructures works in strict collaboration, which they can altogether bring in their expertise.

African Urban Risk Analysis (AURAN)

In addition to the above organisations are the National Drainage Office of Senegal (NDOS) and the Hydraulic Department, which also work in strict collaboration to the riverbed level. Actually, during rainy seasons, the waters overflow, this causes floods in land. It's essential to note the three previous points: rains, the inland overflowing of the riverbed, and the groundwater.

Urgent and priority projects are set up due to the seriousness of the floods. Samples of such infrastructure projects are found in Diamagune and Leona. As a preventive measure against floods, NDOS is contemplating to create five (5)-pumping centres in strategic areas. A regular maintenance operation is always carried out to these infrastructures. At the eve of each passing rainy season, networks of cleansing are set up. The changes in climate are the cause of many factors such as floods and in addition to the above are the anthropoid factors: taming of trees, which increase the temperature and consequently, the melting of ice waters. Useful contributions were made at the end of the conference. Some participants were, in deed deplored to pumping of the river, but this negative action only confuses the situation. They also narrated some practices such as extraction of sand from Diaminar to Diamaguene, which has worsened the flood crisis in Diaminar. The area that is most affected is the one from Pikine, which due to these geomorphologic, and topographic situations, will not have any infrastructure before its renovation. The people are exposed to various chances, which has formed the "commission of prevention and fight against floods". The demand has been submitted to the piloting committee. Almost, all the actors long to be piloting committee members. For Saint Louis, the people's awareness is needed to extirpate behaviours that tend to pull down the installations allocated to prevent rainy waters and the throwing home dirt.

d.5. Ideas exchange

The main aim is to census flood crisis.

Activities:

1. Interview with the mayor of Sanankoroba
2. Field visitation(home and carnivals)

Since 1800 the **Sanankoroba** village existed and it was by then a single family. Nowadays, it has 6 000. This village has two issues at stake:

- Wood cutting
- Floods with dangers caused in 1997, 1998 and in 2000.

Undertook actions:

- Assistance requested from the Canadian embassy (fund...) to create 5(five)-drainage routes. Currently, 2(two) of the drainage routes with the length of 1.130 km have been realised and serving as pipeline to hold dirty water, since then, a decrease in soiling water stagnation has been observed;

African Urban Risk Analysis (AURAN)

- Partition whilst reducing crisis (using open air photographs) each community provided a number of 14 youth to make the 2 000 bricks.
- The village youth were asked to cleanse up the drainage routes and remove the dirt and used waters far from the village.

Observation:

Every realised action was a popular desire of the people with a full commitment of the village association commonly known as “**BINCADI**” (*It is good to have common understanding*).

The drainage route and some homes were visited.

Conclusion:

In natural calamity management, the solidarity and change of mentality play a major role. Many obstacles were overcome.

21st January:

Presentation to Social Polycentric Forum of Bamako (SPFB), about the regional process programme about social production of homes.

22nd January:

Presenting to SPFB, the thematic right to the city and the land consultation clinic.

23rd January 2006: Visit to the Civil Protection Office (CPO)

It is young organisation founded in 1999.

Aim: to identify the role the Civil Protection Office (CPO) plays in case of natural catastrophes.

The Civil Protection Office distributes food items, tents, and also proceeds in setting up of water pumping materials during natural catastrophes.

The types of calamities identified are as follow:

- Drought;
- Arcadians invasions;
- Earthquake(in Guinea, but felt in Mali);
- The release of underground gas;
- The destruction of the levee;
- Violent winds(100km/h);
- Floods.

Actions

- Training and sensitisation (decision makers, civil protection and the rural populations);

African Urban Risk Analysis (AURAN)

- Studying the impacts whilst preventing catastrophes on poverty;
- Training trainers for rescue;
- Draw up national and regional maps;
- Evaluating risks and catastrophes;
- Setting up a dialogue framework in managing catastrophes;
- Simulating exercises whilst evaluating the management
- Etc.

Meeting with the district mayor of Bamako

Enda TM presented its various programmes (observatories, PADE, natural catastrophes). The mayor's interest in these projects and he presented the mini-sewer, in return, which has participated in rendering the area clean and reduce diseases such as malaria, which they nick-named it "*Project against Malaria*". All the above developments experienced the commitment of the people. The participating development committee is now seeking measures to set up a communal co-ordination where it will be conveyed all living forces.

Field visitation on the mini-sewer programme in the Bassole area in Bamako.

24th January 2006

The mini-sewer system implantation sites in the VI community were visited. This system has dried up a large number of the community and evacuated home used waters before been thrown into the river.

d.6. Capacity reinforcement of piloting committee members

The main aim of this training was to share with one another no other knowledge other than factors that worsen the floods in Saint Louis by highlighting the frequently encountered problems and the recommended solutions.

Identified issues	Recommended solutions
River Salinisation	Build a levee and ...
Upload capillaries	Watertight hole
Contaminating pathogenic agents	Disinfecting waters
Displace population	Recasement
Dermatosis	Respect hygiene norms
Malaria	Sleep under a medicated mosquito-net
Diarrhoea	Respect hygiene rules
Etc.	

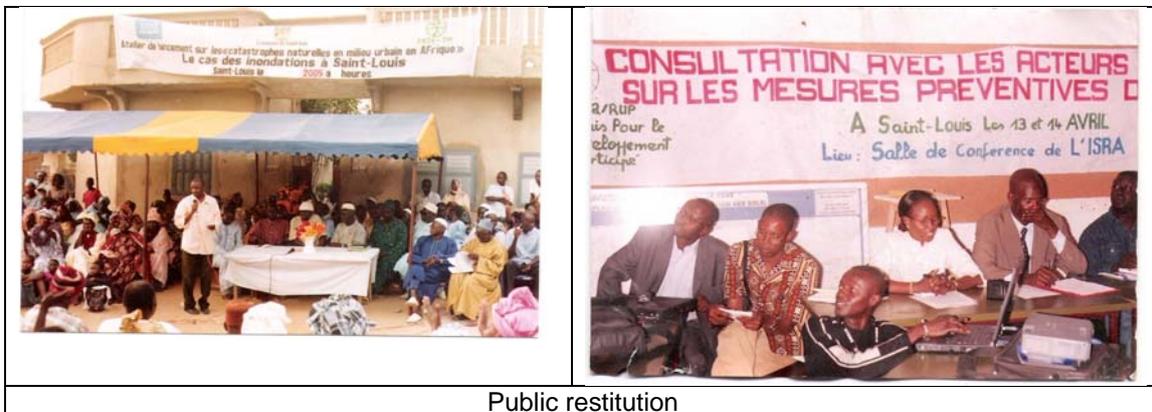
The piloting committee members visited various technical departments that run the above programme. The main aim was to enquire about the rainy elements for a rational dissemination of information to dynamise, collaboration and reinforce collaboration with potential partners.

d.7. Public restoration

The main aim of the above was to give an update of the programme's actions before several actors. This took place on the 29 July 2006. It was to show the overall programme since the Nairobi meeting in 2003 up to the last meeting in Cape Town and to make certain proposals for the next phase.

The piloting committee in charge of follow-up to the activities identified in the plan action also narrated various actions (which were narrated earlier).

The Koran instructors were fustigated with the unhealthy behaviour of the people, who are always throwing their dirt in the open during the rainy season and other unhealthy practices. They insisted on good behaviours of our forefathers in relation to education and the regards to life framework.



Conclusion

The programme on governance around floods crisis in Saint Louis reached its end just within a short period of 2 (two) years. However, this does not mean that the sensitisation activities in order to change behaviour are going to stop. Far from our move, the people of Saint Louis can continue to trust us and expect from various partners because it is certain that to realise a process required actors' commitment. This has been the methodology that **Enda TM** adopted since the beginning of the programme and has always been its creed