

**les ateliers**  
maîtrise d'œuvre urbaine

International Workshop for Urban Planning and  
Development – Nouakchott, Mauritanie – from  
April 26th to May 11<sup>th</sup> 2014

*Call for application to select 21 participants in a group workshop for urban strategies and  
development projects.*

## **NOUAKCHOTT – OUR CHALLENGE IS OUR FUTURE**

### **THE ADAPTATION AND MUTATION OF A VULNERABLE CITY**



**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH



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## ACRONYMES

<b>ADU</b>	: Urban Development Agency
<b>AFD</b>	: French Development Agency
<b>ANAT</b>	: National Agency for Lot Planning
<b>CUN</b>	: UrbanCommunity of Nouakchott
<b>DBHU</b>	: Department of Buildings, Housing and Urbanism
<b>DDET</b>	: Department of plots and titles
<b>DEI</b>	: Department of Equipments and Infrastructures
<b>GIEC</b>	Deutsche Gesellschaft fur InternationaleZusammenarbeit – German Cooperation Agency
<b>GIZ</b>	: Groupment for Research and Technological Exchanges
<b>GRET</b>	: Ministry for Economics and Development
<b>MAED</b>	: Ministry for Equipment and Urban works
<b>MET</b>	: Ministry for Housing, Urbanism and Land-use planning
<b>MHUAT</b>	: Mauritanian Ouguiyas
<b>MRO</b>	: Supervising organ for Services and Urban heritage in Nouakchott
<b>OSPUN</b>	: UrbanGrowth Program
<b>PDU</b>	: Master-plan for Urban Growth
<b>SOCOGIM</b>	: Mauritanian Building and Property Management Society
<b>UM</b>	: Money Unit. Acronym used for local currency Ouguiya.

## PREAMBLE

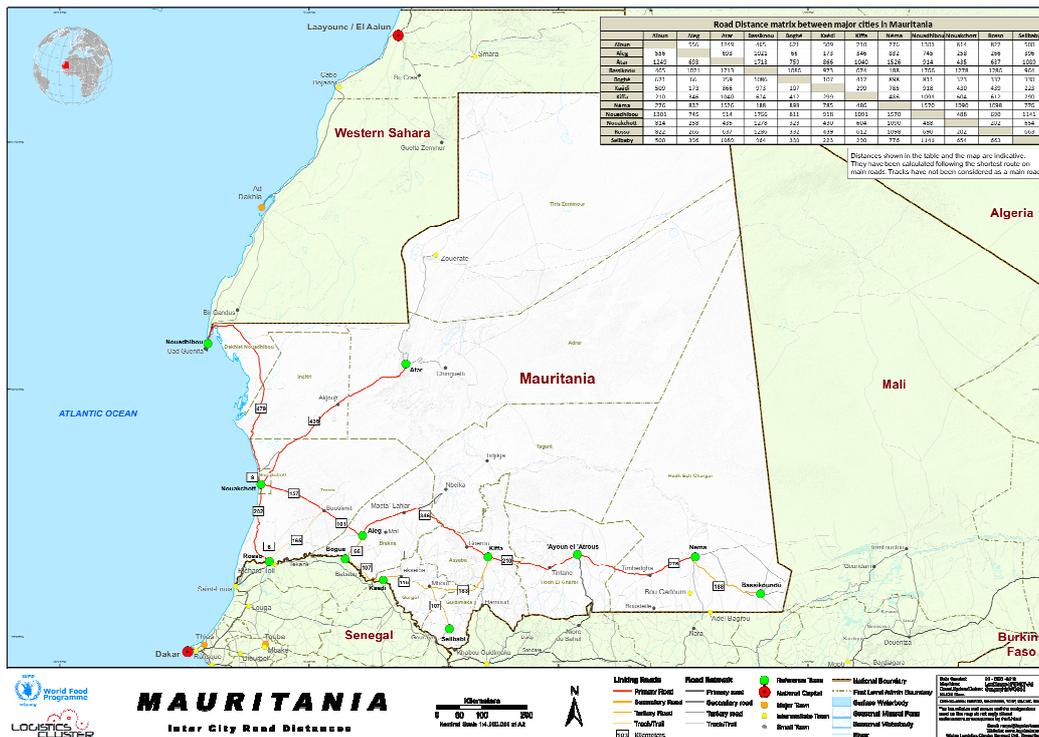
Nouakchott was created ex-nihilo in 1960 as the capital of Mauritania, and has since known an exponential growth, from an original count of 500 inhabitants (at the time of Independence) to numbers now over a million, encompassing around a third of the national population. This is partly due to the droughts of the 1970s, causing thousands of nomads to head towards the new capital city. Ever since, Nouakchott has acted as the major activity center for the country and has spread in an uncontrolled, anarchic way until its star-formation covers about 30km in diameter, and has defeated successive tries for urban planning schemes.

Fifty or so years after the creation of Nouakchott, urban authorities choose to look into the future of the Mauritanian capital. The Urban Community of Nouakchott is studying possible directions in which to pursue urban development in order to tackle the multiple environmental, social, and economic challenges facing the city, such as :

- An ever-increasing population growth
- An important urban sprawl fed by strong property speculation
- Threats to the environment: Flood risk and sand build-ups due to site specificities – highly vulnerable to human actions and climate change
- Insufficient infrastructure and engineering improvements (in terms of water purveyance, waste treatment, electricity networks and garbage handling) born from national and especially local urban poverty.
- A complex urban governance system, born of the competing nature of the central government and the municipal authorities, born also of overlapping competence domains, of incomplete decentralization processes and to insufficient training of experts and elected officials both.
- A young capital city with little urban identity, that is barely being appropriated by recently settled inhabitants that carry with them strong traces of their rural cultures.

The May 2004 session of Les Ateliers will brainstorm the future of Nouakchott, its possible adaptations and mutations to tackle the aforementioned multiple challenges. Les Ateliers will therefore consider Nouakchott as (i) an urban network capable of facing environmental challenges, (ii) a regional metropolis midway between the Maghreb and Sub-Saharan Africa, trying to balance future projections and current growth, and (iii) a capital city with its eyes on the future, focused on guaranteeing every citizen's well-being.

Figure 1 : General Map of Mauritania



# CONTEXTUAL BACKGROUND

## 1. HISTORICAL GROUNDS

### Creating Nouakchott : a political choice

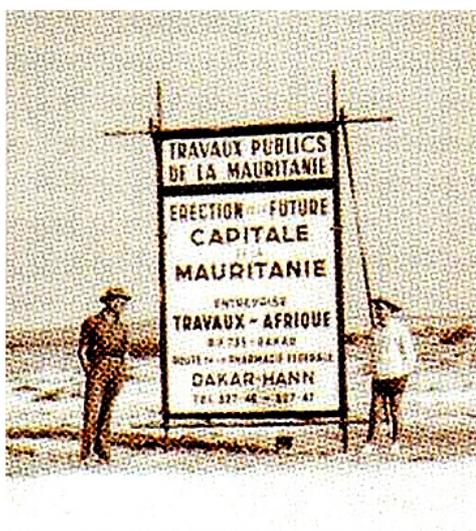
Nouakchott was created, first and foremost, for political reasons linked to the independence of the new state in 1960. Until then, the Mauritanian colony belonged to French Occidental Africa, and was controlled by Saint-Louis du Sénégal. After Independence, there was strong demand for a capital city within the new country borders. In 1957, Nouakchott – then a simple military fort surrounded by a handful of nomads – was chosen for its ease of access and location : not too far from Senegal, but sufficiently far from Morocco, which then had claims on Mauritanian territory. Its other strong suit had to do with sea access, and the seaport construction was immediately launched. Furthermore, Nouakchott turned out to be quite neutral as a space, able to host and regroup the various arabo-islamic populations such as the Northern and Eastern Moors, and the negro-African tribes from the South (Halpulaar, Soninké, Wolof).

Nouakchott became the symbolic touchstone of the newly created State. It inherited two key roles : first, a functional responsibility born of having to centralize the bureaucratic apparatus that would consolidate the modern political stage ; second, an ideological responsibility, born of having to ease the birth of a whole nation. Nouakchott was seen as the link between the Arab sphere and Sub-Saharan Africa, and would also turn out to be the crucible from which the Mauritanian nation could emerge, as was then underlined by the very first President, Mokhtar Ould Daddah :

*« This capital should help us define ourselves as a nation, to put forward our own Mauritanian personality that both belongs to Islam and to the West. (...) Nouakchott should be the cornerstone of this transitional body we are trying to build, through politics, between North Africa and Black Africa, this body we call Mauritania. » (OuldDaddah, op cit. in Pitte, 1977 ; 157)*

The context might be interesting, but the city site is less so, and presents a number of risks, amongst which : the shifting dunes surrounding the city, the fragile western coastal cordon in the midst of salt-water wells (*sebkahs*). The city is thus threatened by sand, salt, and water, all at once. Water is the foremost threat : recurring inundations and freshwater droughts are two major issues. Despite all these challenges, the cornerstone for Nouakchott was hammered down on March the 5th 1958.

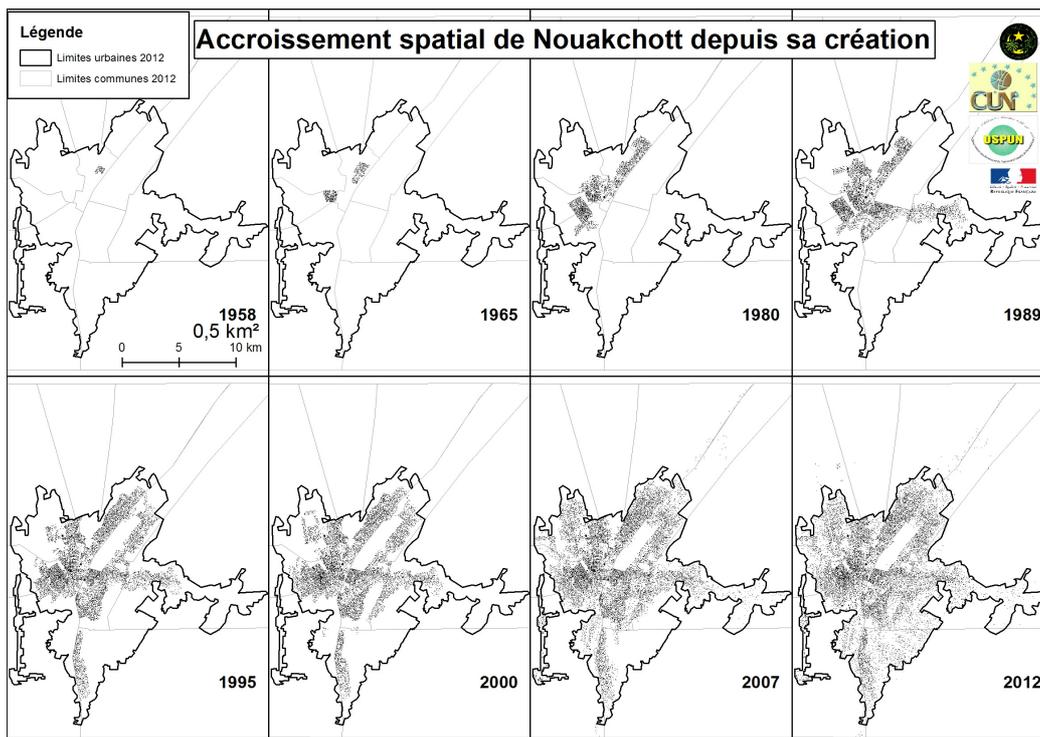
Figure 3 : 1958, Nouakchott, cornerstone hammered down



### An explosive growth

The city was initially planned to accommodate a few thousand inhabitants, but had to face very slow beginnings. No-one was rushing to emigrate to this little town newly emerged from the sands, and the first authorities in Nouakchott went so far as to offer free land to attract settlers. In 1970s, the context changed completely, and droughts in the country sent thousands of herd-less nomads to seek refuge in the capital. Where once 8.000 inhabitants were planned for 1970, 70.000 were actually living there. The public authorities had lost all control. Slums (kebbe) took over the city. Thus, the Nouakchott agglomeration has forever been characterized by a fast and regular population increase and, in parallel, by an even greater increase of built urban sprawl.

Figure 4 : Map of Urban Growth (1958-2012)



“Spatial growth of Nouakchott since founding” / Caption : City borders 2012 / Municipal borders 2012

### Numerous plans, scarce planification

In 1960, authorities agreed on a plan splitting the city into **two entities** :South-West, the new town, host only administrative buildings, would be referred to as « **The Capital** » while in the North-East, the original settlement would keep on being referred to as « **Ksar** ».Both poles are separated bu around one and a half miles, and linked by Abdel Nasser axis.

Figure 5 · First Master plan and functions location 1960

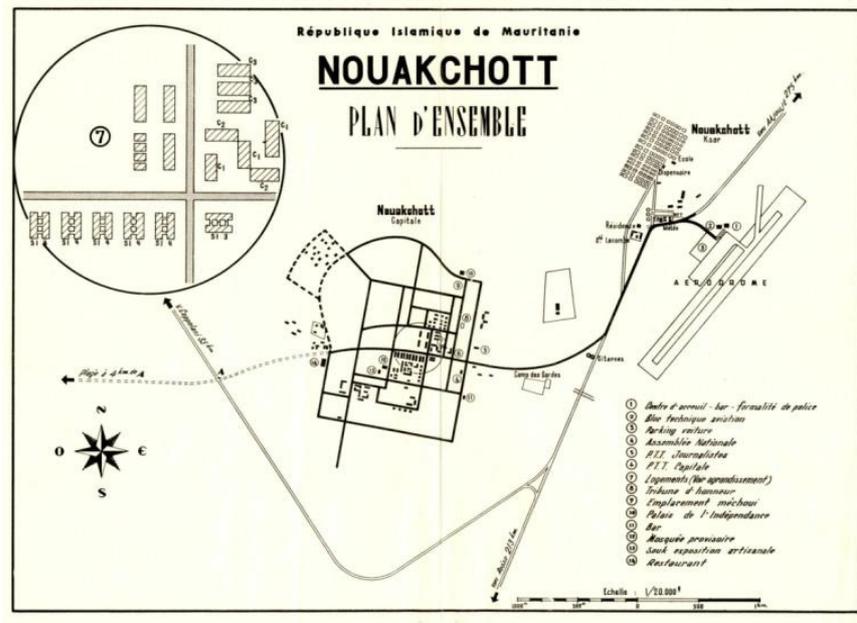


Figure 6 : Nouakchott, 1960

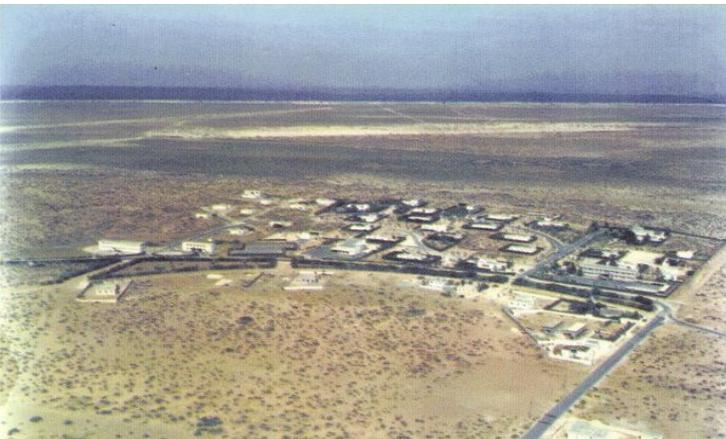


Figure 7 : Nouakchott, 1966

In 1974, authorities faced with a massive influx of immigrants start handing out plots for free. The 1970s Master plan is invalid before it is even approved. As soon as the plots are traded, the immigrants trade them and settle a bit further out, in an illegal spot. This launches the dynamic of **property speculation**.

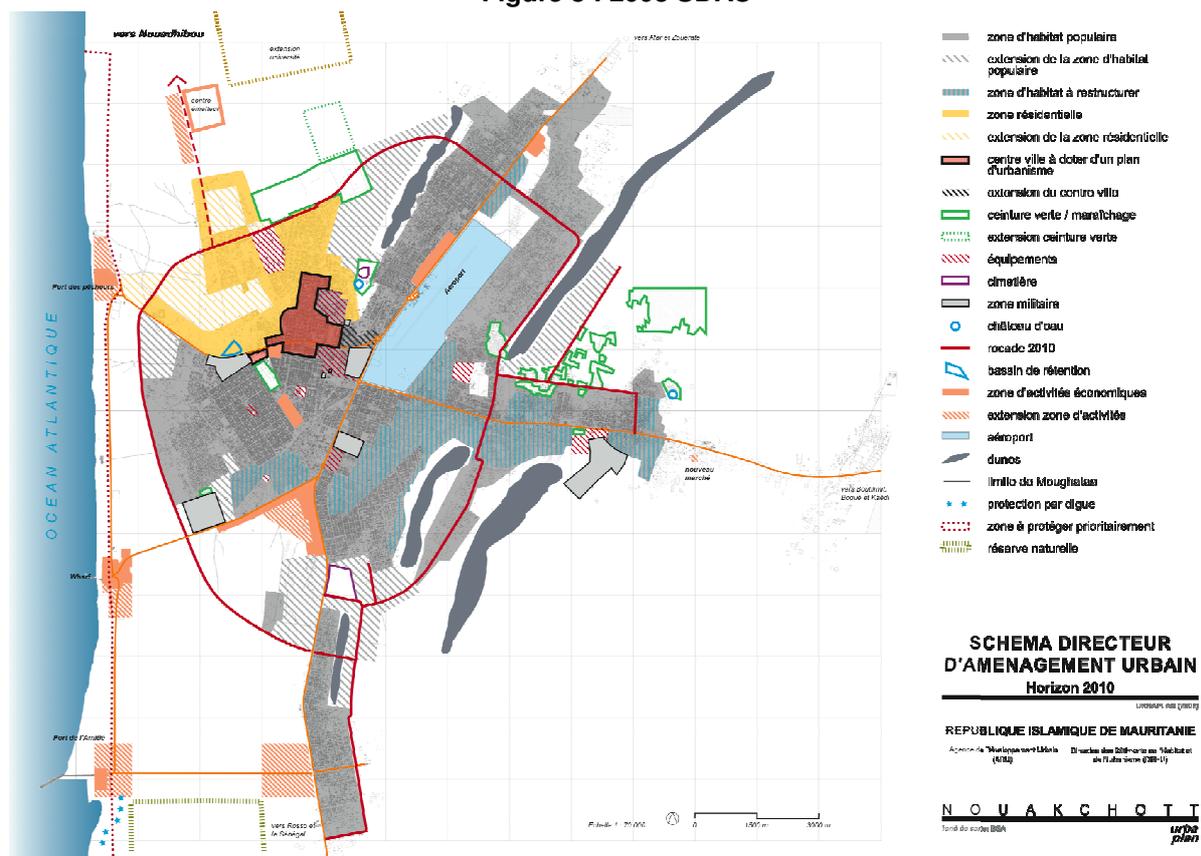
The city then spread **east**, along the link infrastructure, opposite to the western sprawl modeled in the urban schemes at the time.

In 2003, the **SDAU** tried to patch up the empty inner-urban plots and to dampen the urban sprawl. But when the North-South Tangier-to-Dakar road was inaugurated, the city spread along that **vertical axis**, thus reinforcing the major economic role of the coastal area.

There is currently a **revision** of the **administrative city limits** going on. Unmanaged effects of urban sprawl could further push back the aforementioned limits.

In another words, for the past 50 years, there have indeed been urban development plans for the city, but none of them has been either applied or stuck to by successive local powers.

Figure 8 : 2003 SDAU



Caption : Low-income housing / Low-income housing sprawl / Housing / Housing sprawl / Hyper center, in need of land-use planning / Hyper center growth / Green belt – Garden agriculture / Green belt growth / Equipments / Cemetery / Military area / Water tower / Ring, 2010 / Water reservoir / Economic activity zone / Economic activity zone growth / Airport / Dunes / Border for Moughataa / Dyke protection / Priority protection zone / Nature reserve

## 2. DAY-TO-DAY MANAGEMENT AND ADMINISTRATION FOR NOUAKCHOTT

### Complex governance and Shifting institutional context

Nouakchott Urban Community (CUN) was founded in 2001 to regroup the 9 municipalities in the agglomeration. Decentralization has been encouraged since the end of the 1980s but is not yet complete. The issue lies with resource scarcity on the part of the elected officials, and with the fact that fields of competencies frequently overlap. To the District of Nouakchott, also corresponds a region (*wilaya*) administered by a governor (Wali). The nine mayors and the president of the urban community are therefore limited in resources and in leeway, as was underlined by former CUN President M.Hamza in his end-of-term speech in 2013 :

« Furthermore, the urban management of Nouakchott is especially complex and does not follow the usual processes. Indeed, Nouakchott is made up of nine autonomous municipalities each headed by a Mayor, a Municipal Council, and each with its own budget. The CUN has no right to monitor the municipalities' administration, since they do not depend on the Urban Community. But the reverse is true : all nine municipalities sit on the Community Council for Nouakchott and are, therefore, actors of the CUN. The Mayors and Council members that sit on the Community Council are thereby accountable not only for their own mayoral initiatives, but also, as a group, for those of the CUN. Such complexity in management plays a large part in the many malfunctions that emerge, here and there. »

In order to compensate for the **lack of qualification** of local teams, the CUN has started a project for social cohesion and spatial coherence. Furthermore, the OSPUN (Supervising organ for Services and Urban heritage in Nouakchott) has been created with the support of the French Embassy services for cooperation and cultural promotion. OSPUN managed to gather large data sets and **produce geographical output** about each municipality, shouldered by the help and presence of French NGO GRET. In 2011, the Nouakchott Atlas was published; in 2012, a census of water-wells and a census of health-related services and infrastructures; also in 2012, OSPUN published a Directory of all organizations in local civil society.

### Land management practices reinforce speculation in the city

Land speculation is a classic phenomenon that, in Nouakchott, takes on exceptional force and amplitude brought on by state practices. Since the 1970s, successive governments have handed out plots of land, which led to huge speculation markets and an associated urban sprawl (helped by the absence of physical barriers). Land is one of the few **wealth sources** for the powers in place.

**The State** is entirely responsible for land attribution and still owns a large part of the land, including at the very heart of Nouakchott.

Nouakchott Urban Community and its nine member municipalities have no say over land distribution, while being accountable for land use planning and urban development. Mayors are left to witness land attributions on their own turf. This urban paradox is a major obstacle for effective urban planning.

Besides which, there are complex law issues surrounding land ownership, and actually acquiring land means going through a slow, labor-intensive, and expensive process. In theory, the buyer first receives an occupancy permit, which they will convert into a permanent property title after five years' occupancy and proof of land value. With no Land Registration Office, it often happens that a yet unbuilt plot of land might be sold to different buyers at once. The **law for urban land use** is either unknown or ignored in most of the cases, and therefore not applied. In the facts, every free plot of land is considered open for purchase. This explains while some individuals will **occupy a plot** (they are *gazra*) illegally in order to obtain some land in the next round of state distributions. Public space is often invaded, parceled out, or sold to the highest bidder. **All socio-economic classes** rub elbows in chasing the next plot to buy. It remains one of the easiest ways to create wealth.



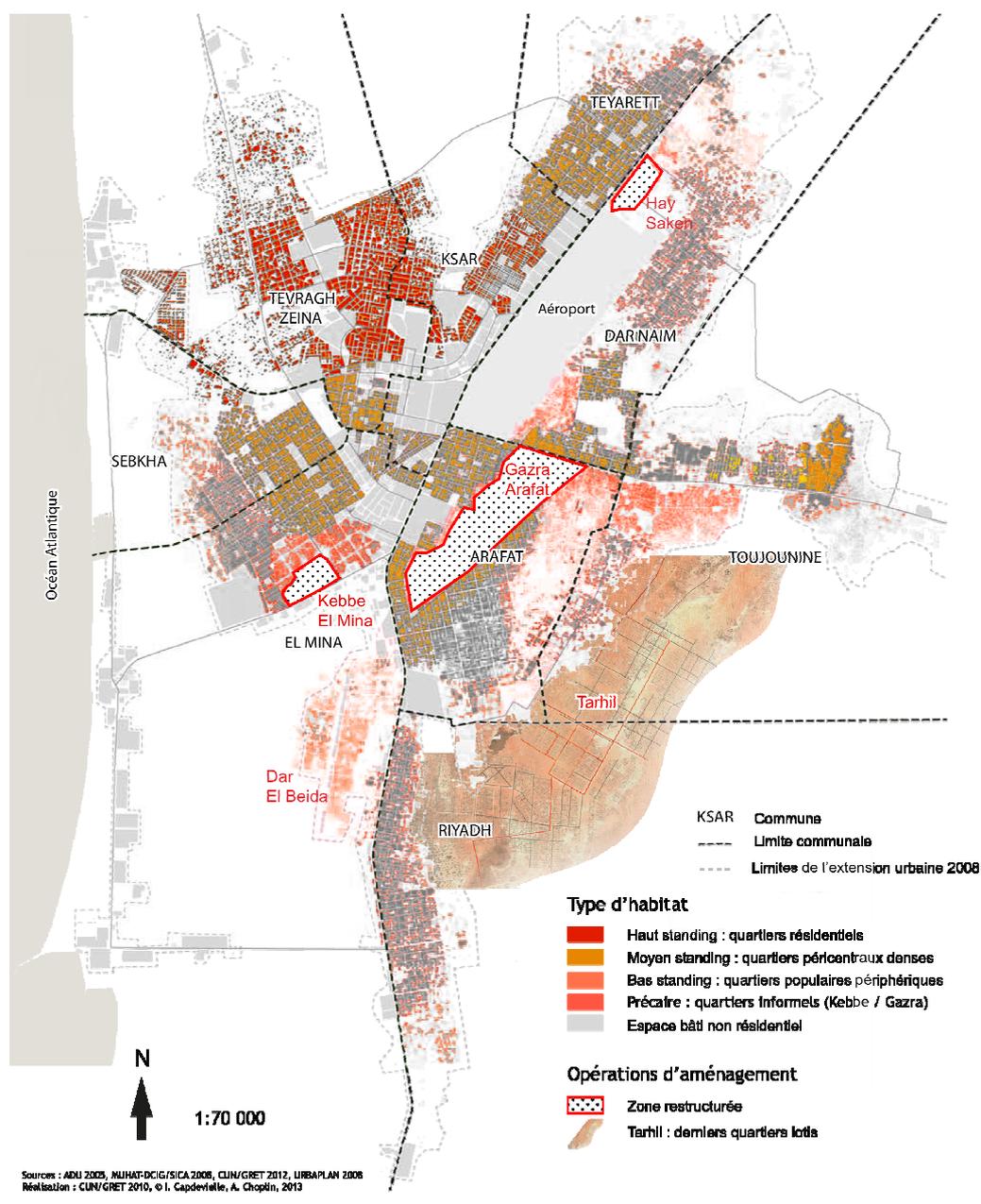
Figure 9 :  
La Gazra d'Arafat

© Groupe Huit, 2003

## Recent urban policies to tackle slum environments

Urban development actions are undertaken not only by the central and municipal authorities, but also by **NGOs** and **property investors**. The **World Bank** has been intervening in Nouakchott since 2001 via an Urban Development Program (PDU). Its main aim is to **eradicate slum environments**, with the support of an ad-hoc agency created just for the project: the ADU (Urban Development Agency). The first step consists in restructuring the city's largest slum (*kebbe El Mina*). Half the inhabitants were re-settled in the same area, the other half was given land plots in the South of the city. Slum resorbing has been supported by a program of **social habitat** (ProgrammeTwize). Solidarity-oriented microcredit has helped to build 800 dwellings (20sq.m rooms) between 2003 and 2008 (Choplin, 2009).

**Figure 9 : Map of urban restructuring (GazraetKebbe)**



© A. Choplin, 2014

Caption: Municipality / Municipal border / Extension of the urban sprawl, 2008  
 « Housing categories »: High standing – Residential districts / Medium standing – dense peripheral districts / Low standing – Low-income periphery / Slums – informal housing (Kebbe/Gazra) / Non-housing related built-up areas  
 « Land use projects » Area with restructuring / Trahil: latest plotted district

**Figure10 : Restructuring the slum environment of El Mina**



© GroupeHuit, 2003

**Figure 11 : Twize social housing program**

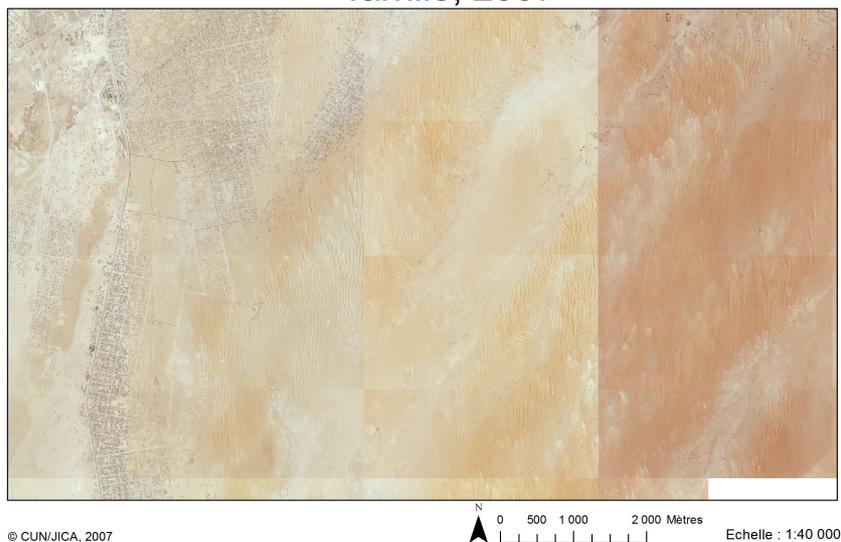


© GRET, 2003

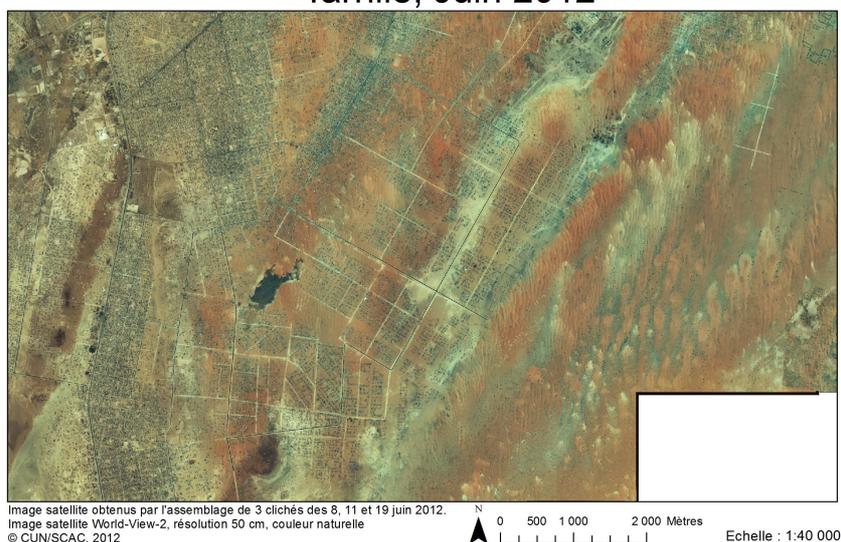
The **second step of the PDU** was launched in 2008 to handle **unlawful settlements** (*gazrad'Arafat*). The whole zone was divided into plots and those plots were handed out. The rightholders who could not be resettled in the zone were offered plots in another built area: *Tarhil* (literally: « the displaced »). 20.000 plots were reported sold and settled Southeast of the city. A **new neighborhood** – almost a new town – is growing in that outskirts area.

**Figure 12 : Tarhil in 2007 and 2012 : Creating a new built-up area**

### Tarhile, 2007



### Tarhile, Juin 2012



There is no current **housing** policy being followed, as the Ministry for Urbanism concentrates most of its effort on the secondary cities in Mauritania. There is a national land-use planning society (IKSAN) but it only concerns itself with plot management, not construction of dwellings (neither for ownership nor for rent).

Other investors have taken part in the urban development: the French Development Agency, for example, funded parts of road construction and helped with **address collection** (« addressing »). This last effort is neither updated nor exhaustive (only 2 out of 9 municipalities have addressing data), which is a major issue for tax collection.

### **Issues of under-equipment and undersized city infrastructures**

Although urban management has benefited from recent policies, Nouakchott is still lacking dearly in equipment and infrastructure. **Water provisioning** is a problem. Until 2010, the capital was provisioned by the fossil water table of Idini, 60km to the South. But Idini does not provide enough water for the city, and new freshwater sources were in dire need: since 2010, Nouakchott gets its water from the river Sénégal (AftoutEssaheli Project). The water flow has increased, but the **water collection** infrastructure is undersized, and less than half of the capital population has direct access to the water networks, especially on the outskirts. In other words, a majority of the

inhabitants get their water from **public standpipes** (at a different fee, depending on neighborhood). In the poorer districts, water pools were built to create a permanent stock, but their quality has deteriorated through lack of maintenance and non-conformity to health standards.

**Wastewater treatment** is the second biggest issue, since only those neighborhoods built after 1960 are connected to the sewage network. The majority of inhabitants use septic tanks that they then empty in the desert. Where no septic hole exists, there is a high risk of contaminating the water table.

The same observations apply to **electricity provision**: many neighborhoods are not hooked to the network. Inhabitants create illegal connexions or get their power from car batteries.

**Figure 13 : Public**



**standpipes**

© F. Vincent, October 2013

**Figure 14 : Illegal electricity network**



**connexion to the**

© A. Choplin, November 2008

The management of **solid waste** remains an issue, despite the recent efforts undertaken by the Urban Community, who delegated collection to a private society (Pizzorno) via the Urban Development Agency (contract holders for the CUN, which delegated this competency). Pizzorno, however, does not serve all neighborhoods as it should, and the private nature of the service is costly.

**Public transit** is insufficient. Most of the supply comes from minibuses and private taxis. In 2010, the city inaugurated some bus lines between peripheral neighborhoods and the city center, but success was compromised by the many service issues (frequent delays, poor location of the bus stops, poor vehicle maintenance). The **constant congestion** around the city center trap the buses in traffic (at the morning hours, when the few services run); and many districts on the outskirts are not linked to the bus network. Furthermore, some major axes are not yet tarred: sand roads are still in the majority.

**Figure 15 :**  
**Nasser, Capital**  
**2013**



**Congestion on Axe**  
**district, October**

**Figure 16 : Bus**



**launched in 2010**

© A.Choplin, November 2010

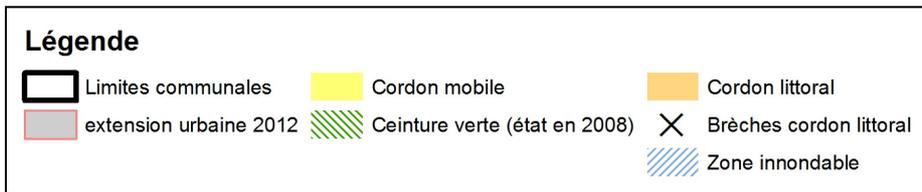
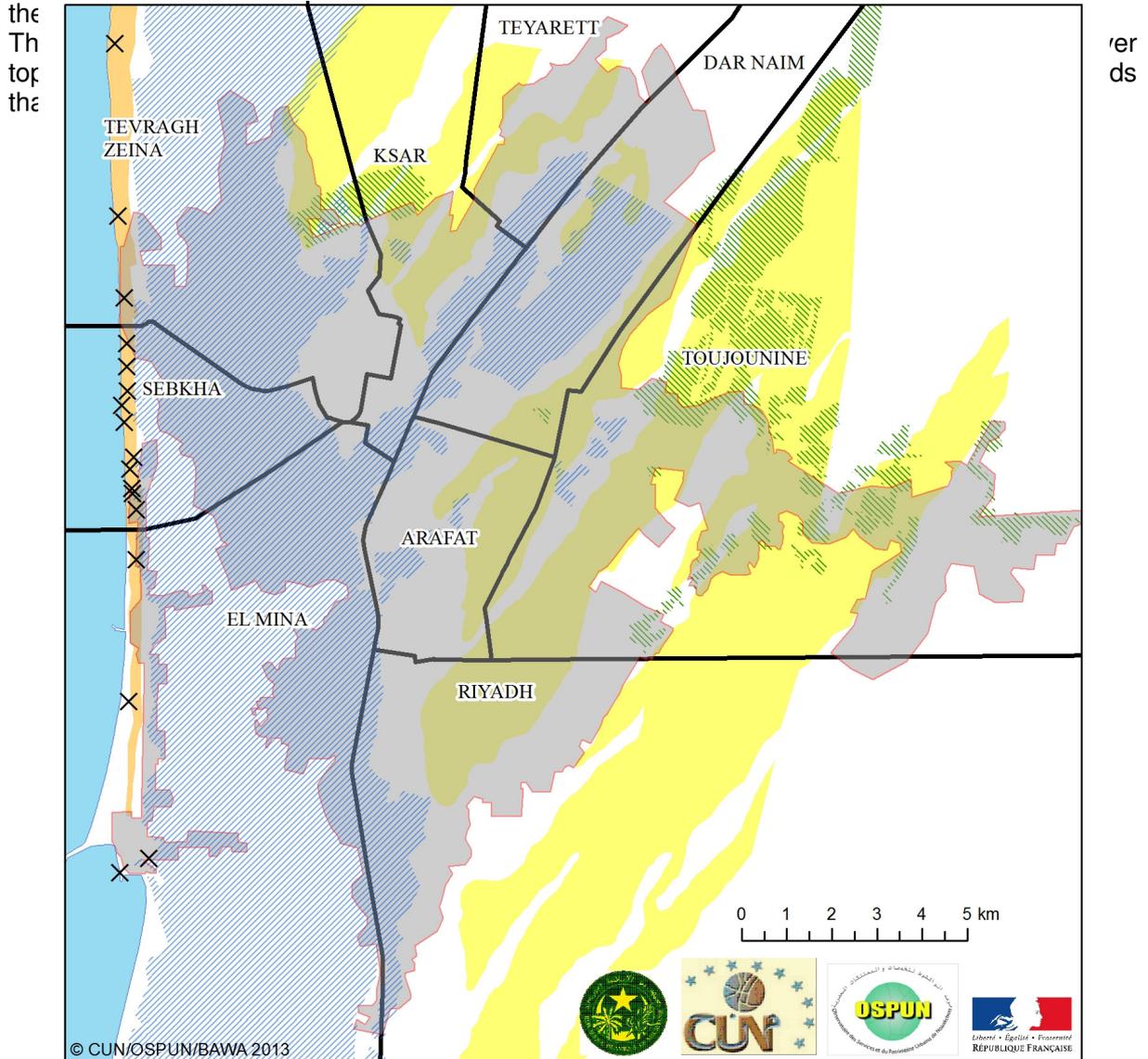
### **3. BETWEEN THE DUNES AND SEA, A VULNERABLE CITY UNDER THREAT**

#### **Geographic vulnerability**

Nouakchott lies in the middle of a coastal plain spreading on 400km between the Timiris Cape in the North, and the city of Saint-Louis-du-Sénégal in the South. It is a **sand corridor**, bordered on the East by the tail end of the Saharans bergs reaching into the Atlantic, and bordered in the west, on the coast, by a low cordon of dunes (5 to 10 meters high) and a flat sand beach. The coastal cordon stands between the sea and the **salty dune slacks** (sebkhas) that form the plain. The largest slack is North of the city: the N'Dramchasebkha, between -3 and +3m from sea level.

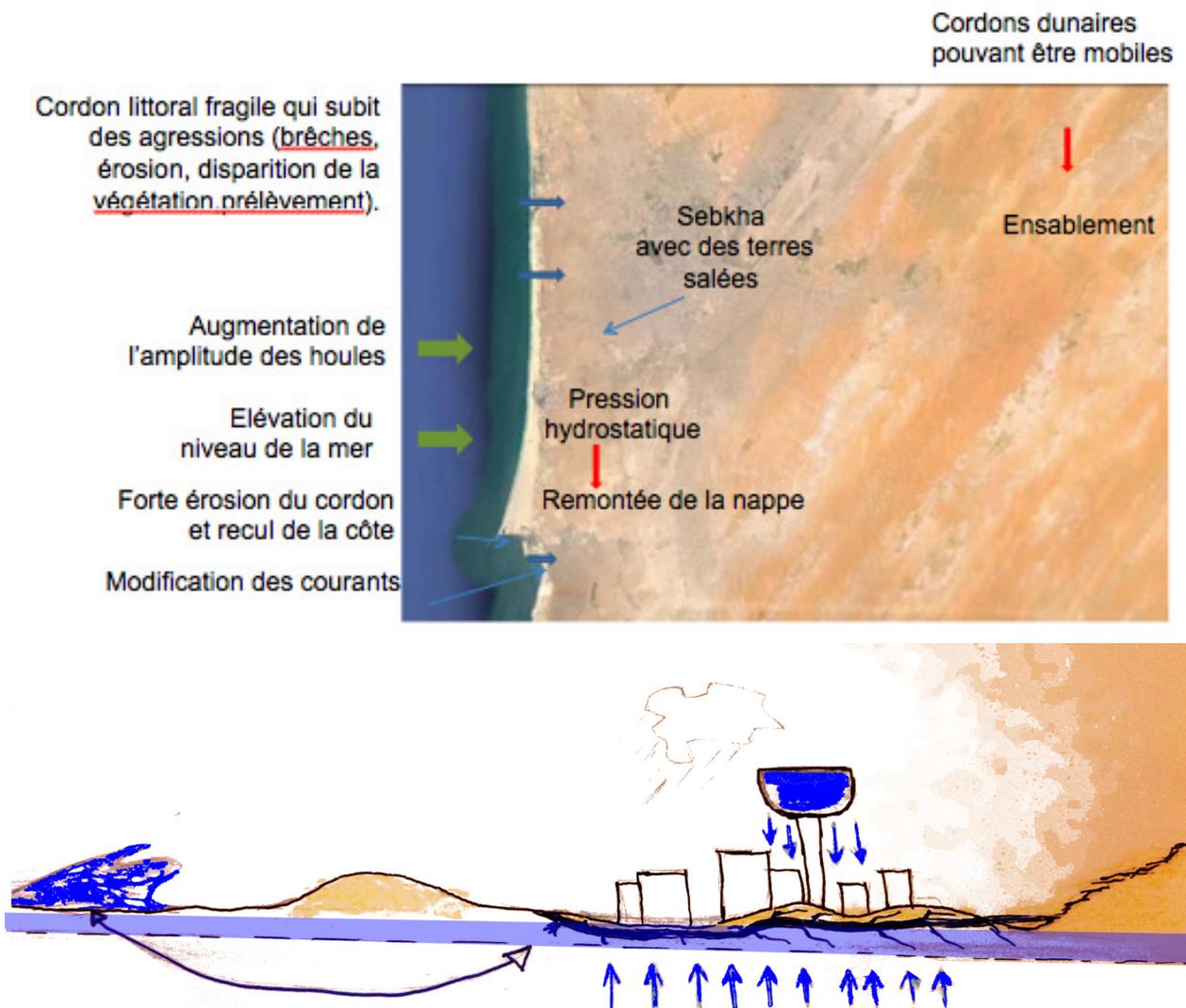
The longest and thinnest of these runs from Nouakchott 200km South until the mouth of the river Sénégal: the AftoutEsSahélisebkha, between -1 and +1m from sea level. Nouakchott was built between those salty slacks, in full conscience.

In consequence of which, the coast plain lies both **under the high water level** of the river Sénégal (dykes upriver of the Diama dam keep the coast at +2,25m over sea level), and under the average high tide level of 2,16m. The city is therefore **submersible** both by the river and by



Caption: Municipal borders / Extension of the urban sprawl, 2012 / Mobile cordon / Green belt (in 2008) / Coastal cordon / Breaches in the coastal cordon / Flood-risk area

Figure 18 : Carte des vulnérabilités



Caption: Vulnerable coastal cordon, impacted (breaches, erosion, disappearing vegetation, extraction) / Higher wave impact / Higher sea level / Important coastal erosion and sea encroachment / Sea currents modification // Dune cordons. Can be mobile. // Salt-water sebkha / Hydrostatic pressure -> Rise of the water table / Sand built-up.

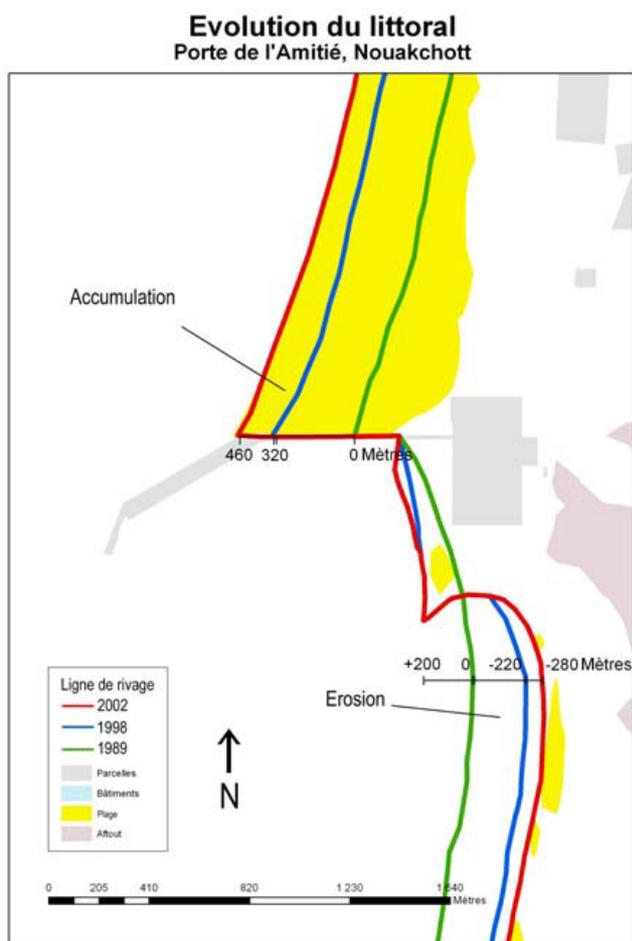
Figure 19 : Schémarecapitulatif

### Flood risk

In the absence of human intervention or climate change, the resilient nature of the area would keep the coastal plains intact, balanced between the sea winds of the NW and the sand winds of the NE that move enough sediment around to feed the coastal cordon.

Today, however, the future of Nouakchott is compromised. The **coastal cordon is eroding** and disappearing, little by little; because of the **many places it has been breached**, because of **sand extractions** for building material, and finally because the coastal flow was broken by the **harbor dyke**. Buildings on the cordon (fishing harbor infrastructures, hotels, shacks...), herding, and vehicle traffic also contribute to weaken the area.

In 1985, the Friendship Harbor was built South of Nouakchott, held by a dyke that lies across the normal paths of sediment movement. This created a sanding-in of the northern area, and **an important encroachment of the sea** in the South, the **coastline** moving in at the rhythm of several meters per year and eating up around ten kilometers of the cordon. This phenomenon is only getting worse, and creating more interactions between the sea and the coastal plain of Nouakchott.



**Figure 20 : Carte du recul du trait de côte au sud du port de l'Amitié**



Caption: « Coastline »  
2002 / 1998 / 1989 /  
Plots / Buildings /  
Beach / Aftout

© UICN, 2005

**Figure 21 : No dunal cordon South of the Nouakchott harbor**

Flat sands stand between the beach and the AftoutesSaheli. Photo towards the South, August the 3rd 2006 (Faye et al. 2008)

Because the city stands at a very low – sometimes negative – altitude, the salty water table fed by the ocean cordon tends to seep up. As sea level goes up, hydrostatic pressure brings the water table up. This means the highly the ground water table no leeway, and possibilities. Rainfalls and sea through the cordon (in storms) also push the water table



beneath the cordon tends to seep up. As sea level goes up, hydrostatic pressure brings the water table up. This means the highly the ground water table no leeway, and possibilities. Rainfalls and sea through the cordon (in storms) also push the water table

rains, the precipitation and the runoff feed directly into it, and the underground water seeps up through the soil.

This type of phenomenon has become more frequent in the past years. Indeed, 2010 marks the start of water provisioning for Nouakchott from a pipe on the river Sénégal. This water inflow meant great increase in the availability of fresh water, but because of network-related losses (around 40%) and with no wastewater treatment network to speak off, the water brought into Nouakchott then seeps into the ground and brings the water table up. **Floods** have multiplied in **frequency** and in strength, as witnessed in the last occurrence, in 2013. Another sign of the water table coming up are perennial ponds that have appeared in the last few years, home to new growths of Thypha.

**Figure 22 : Perennial pond in the SOGOCIM-PSdistrict, Nouakchott center**

Vincent,



© F.  
October 2013

**Figure 23 : Picture of the Floods of September 2013**

© En Haut !Kite aerial photography, September 2013

### **Health risks**

The city is almost **bereft of wastewater infrastructure**. Used water is almost always poured back onto the ground, to mix with the salty flows of the water table. When Nouakchott gets flooded, the population therefore has to deal with an especially unhealthy seeping water, as fecal mater carried by the waste flows mixes with, and contaminates, the freshwater used for cooking and drinking.

**Figure 24 : Health conditions**



© www.enhaut.org © NCCR-NS-

2004

**Sand build-up**

Sand is also a devastating and earthquake or a (Zandonella, Certain districts of sanding in by (barkhanes). The for example, is vulnerable. The regularly get advancing dunes. The inhabitants, background, sand build-up as a their own home is of the barkhanes as Chinguetti been relocalized build-ups).



**risks**

threat to the city of dunes are « as unstoppable as an tidal wave » (2003) are highly at risk mobile dunes old airport zone, especially roads also covered by the from a nomad mostly look upon fatality, even when directly in the path (former cities such have, actually, because of sand

**Figure 25 : road to university**

**the future**

© En Haut !Kite aerial photography, September 2003

The rarer the growth cover, the more important the **sanding-in** phenomena.

A « **green belt** » had been created around Nouakchott between 1975 and 1990, but successive waves of drought and the growing pressure for space linked to city expansion (and no regard for land use planning) have caused it major damage. The green belt almost disappeared since large parts of the site were sold to a property developer.

#### **Effetsof climate change**

According to the GIEC 2007 report, Mauritania is situated in one of the world regions most threatened by the effects of climate change – consistently, whatever the climate change model. Said region is in the part of the world which is scheduled to experience an increase in summer temperatures and a decrease in precipitations, leading to ever-greater **aridification**. The river Sénégal basin – today the main water source for Nouakchott – will see its average flow decrease. Furthermore, the region should witness higher frequencies of extreme weather phenomena (this has already started in the past few years), notably **sand storms** and heavy rains leading to **floods**.

Two clear impacts are scheduled on the coastline: a rise in sea level and an increase in storm frequency. The combined effect of both these phenomena will trigger more frequent high tides, eroding away at the coastal cordon.

The **salty water table level should also rise** in the sebkhas. One study showed that sea winds would grow stronger than inland winds, causing a decrease in the sand deposits that have been feeding the dune cordon for the past 4000 years. The shrinking, retreat, and breach of the dune cordon would enable the ocean to turn the sebkhas into lagoons, creating a link between the Aftout and N'Dramcha (O.Ruë, 2012).

The resilient nature of the coastal environment has kept it intact for 4000 years, but it now faces threats too large for the current geographical configuration to survive in the Nouakchott area. The ocean is predicted to rise back up to the « Nouakchottian » sea level that was in place 7000 years B.C.

## **4. FROM AN CRUCIBLE OF NATIONAL IDENTITY TO A FRAGMENTAL CAPITAL**

### **Tensions and Communautarism**

Nouakchott was created to become the **meeting point** for the diverse communities populating the country: it was thought of as the crucible of a national identity born of multiple sourced. But starting in the 1970s, the Moors leaders in power launched a policy of arabisation that would marginalize the negro-Mauritanian part of the population. That political choice created inter-ethnic tensions, that peaked in 1989. A conflict opposed Mauritania and Sénégal, creating local

confrontations between the Moors and the Negro-Mauritians. Those bloody events left the capital broken and deeply divided.

Initial groupings, that followed regional, ethnical or tribal affinities, have mostly grown stronger since. Furthermore, the communautarist fragmentation processes go hand in hand with flagrant social and economic **inequality**. Certain zones clearly stand out: the **Northern** municipalities (Tevragh-Zeina and Ksar), with low population density, host the cozy villas of the **better-off** (mostly from the Moore lite); the **Southwestern** municipalities (Sebkha and El Mina), with high population density, are home to mostly **low-income negro-Mauritians**; the **Eastern** and **Southeastern** municipalities (Dar-Naim, Tevarett, Arafat, Riyadh) concentrate the **lower-income or poor parts of the Moor population**. Those Moors refugees from Sénégal, and especially the **harratin** (descended from the old Moorish slave populations), have flooded to the slums spotting the districts. Even today, they still stand on the lowest rung of the social ladder, and are the poorest of all groups. Despite recent efforts to ease the tensions, traces of the confrontations remain vivid in Nouakchott.

### Figure 26 : Housing types :a fragmented city

Caption: « Urban Typology » // Built-up area / Municipal border / Blacktop road / Dunes // « Housing »: « Structured » High standing / Medium standing / Mixed housing / Low standing « Unstructured » Gazra / Kebbe // Urban sprawl // « Activities » Garage and industry / Retail / Trade axis / Administration / Greenery / Harbor / Military / Airport

### Nomad or sedentary : two ways of thinking the growth of the city space

As a converging platform for different ethnic groups, Nouakchott is imbued with a double culture, both nomad and sedentary. Many Nouakchott inhabitants, especially Moors and Peuls – though sedentary for decades – still follow **nomad practices and uses** of the space of the city: unruly movement, refusal to pay taxes, disdain of the environment, poor care of the built space, irregular occupation of plots... The unregulated sprawl of the city is often justified by nomad cultural practices. The Nouakchott inhabitants can be heard to say **they need the space** and cannot picture themselves living in above-ground dwellings or in apartments. The culture is used to cut short any projections: nomads live day to day and rely on reaction and anticipatory skills. This is



also linked to a **peculiar perception of space**, not as a surface (as seen by sedentary populations) but as a linear concept pulled along axes of movement.

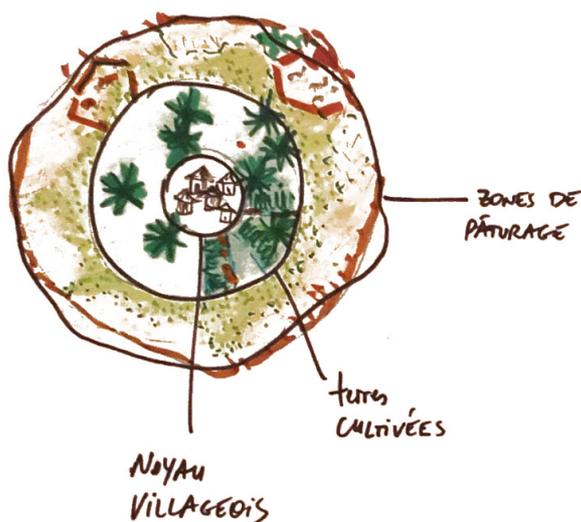
Nouakchott is therefore home to two cohabitating **representations** of space, the **linear** perception of former **nomads** (Moors) and the **static surface** perception of the **sedentary** populations coming from the towns and **villages** of the Sénégal river valley (Halpulaar, Soninké, Wolof). The radial growth of the capital along the axes of movement is due to the linear conception of space of the nomad people, as opposed to the concentric radial village growth of the sedentary people. Nomad culture also justifies the **persistence of such rural practices**, in the capital, as sheep herding on many plots, free-range animals and wandering herds through the city.

**Figure 27 : Spatial organization along the linear format of Moor territories**

Caption : Well / Palm grove / Ksar / Well / Tent camp



**Figure 28 : L'organisation spatiale des villages sédentaires halpulaar et soninké**



Caption : Pastures / Cultures / Village hub

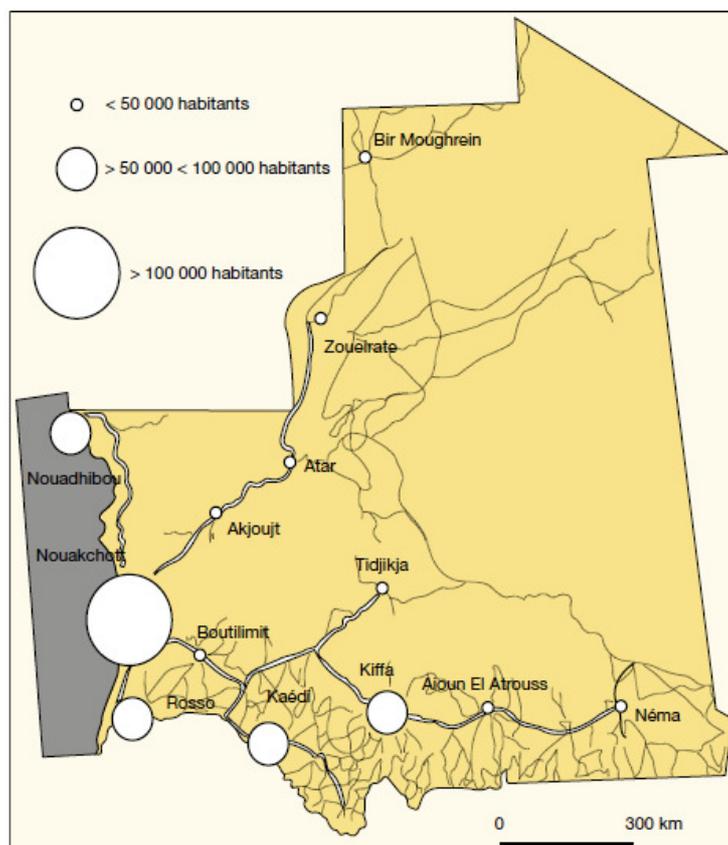
Urban traditions are still very young in Mauritania, and therefore less assertive than the nomad culture that remains strong in Nouakchott and actually gives the city some of its original character. However, Nouakchott cannot be simply thought of as a nomad capital. All Mauritians do not see themselves as part of this culture. The sedentary heritage of certain people also weighs into the developing urban identity. However, fifty years after the creation of the capital, it should be noted that most inhabitants still identify more to their region of origin than to the city they live in, as if they were only passing through.

## 5. AMÉTROPOLIS AT THE CROSSROADS OF REGIONAL TRADE ROUTES AND GLOBAL FLOWS

### « Nouakchott and the Mauritanian desert »

Nouakchott has become a **mandatory crossing point** from which start and end the four major axis of movement for Mauritania. Nouadhibou, second city in the country, former economic capital 470km from Nouakchott, is home to only 100.000 inhabitants. Other secondary cities cannot compete with the capital. This **prima-spatial effect** is extremely strong and reflects a strong **concentration not only of administrative power**, but also of **activities, services and amenities** for the whole country. Mauritians frequently have to journey over large distances in order to visit the capital and benefit from certain services: for **health** reasons (national hospital and clinics), to **study** (Nouakchott has the only university in Mauritania), for **administrative** dealings.

Figure 29 : Urban network in Mauritania

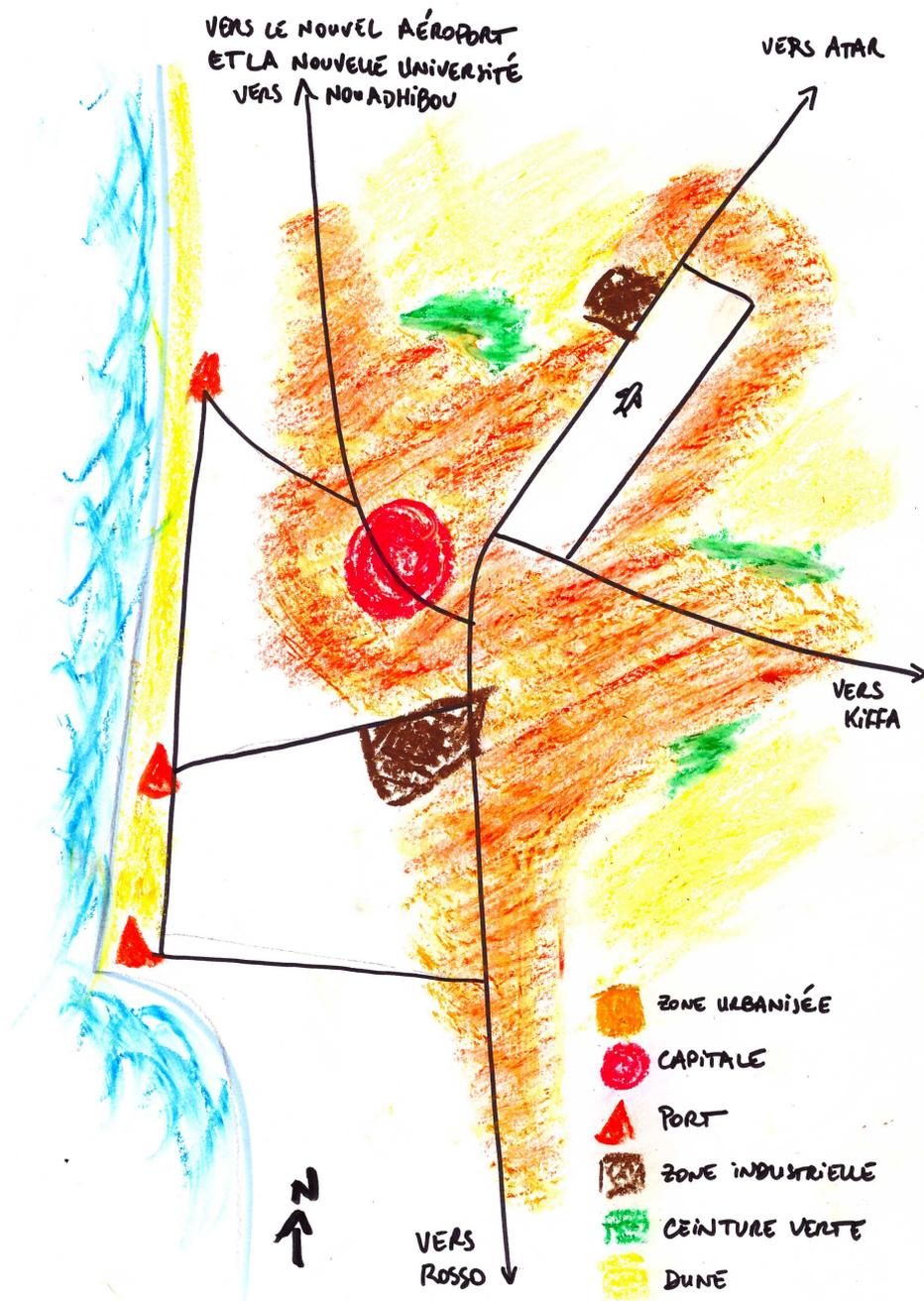


© Nouaceur, Drought, 2013

### Nouakchott, a space for transition rather than production

Although Nouakchott does concentrate administrative and public services, it features remarkably **few industries** for production. Most activities in the capital belong to the **tertiary** sector, and **informality** is clearly dominant (60% of GNP comes from retail, services, fishing and harbor activities). The majority of inhabitants get their revenue from **insecure and informal employment** (retail work, sowing work, driving), with no fixed source of income. **Retail** is the most frequent activity, and **markets** are a key focal point in the city.

Figure 30 : Graphical representation of activities and centralities



The « **Capital** » district, historic center of the city, retains strong commercial activity especially in its central market, but is **losing steam** under the competition of other commercial centers (5th and 6th Markets). The first blocks ever built in the city – « blocsmanivelles » - were recently torn down under guise of being « dilapidated » and « not modern enough ». High-rises are supposed to be built in the undefined future, but no clear plan has been shown or shared with the main urban stakeholders. The space is a gaping hole left right in the hyper center of the city. Another large, empty swath of land should soon come into play when the old airport is transferred from the city center out 25km North in the outskirts. Both those empty plots, combined, represent a huge land reserve that has – for now – been sold to a property developer. A large mosque is planned on part of the reserve.

Today, the « Capital » district is more of a **transition space** than a real city center in which inhabitants get involved. Thus, the historical center of Nouakchott and – by extension – the heart of the country are not up to the task of a capital city. They have **lost this role of national crucible** from which once emerged Mauritanian identity.

**Figure 31 : A gaping hole in the hyper center**



© En Haut !Kite  
photography, 2012

aerial

### **A secondary African city, growing into a future hub**

Nouakchott can now be considered on a **higher plane**, that of the West-African region and of Greater Maghreb, in which the capital is playing a more and more important role. The **blacktop road** that links Nouakchott to **Morocco and Sénégal** has become, in effect, a mandatory transit axis, and the main commercial route for the region. The North-South road is a new centrality for Mauritania, and cross-border trade is flourishing (fruit and vegetables from Morocco, hi-tech produced shipped in from Dubai through Nouakchott to Sénégal). Witness to this growth: the new town of Chaami, being built today between Nouakchott and Nouadhibou, should add to the increasingly **coastal orientation** of the country. The second main national harbor in Nouadhibou recently inaugurated a free-trade zone.

The seafront is still an important land reserve, along which a number of projects are being planned. Qatari and Koweitian **investors** envisioned the inauguration of a new touristic and residential hub, built around a marina, around 20km North of the capital.

The **Autonomous Port** of Nouakchott is an important gateway for the regional import trade. Part of the produce shipped in is then transferred to the hinterland and even towards Mali.

The inauguration of the **new airport**, moved from the city center to a spot 30 km North of the city, should help Nouakchott become a hub in the next few years.

Close to the airport, there should soon open a **university campus**.

All these development plans hint to the fact that Nouakchott is, slowly, giving itself the means to function at the scale of a major **regional metropolis** ; this also means that Mauritians no longer look solely inwards, towards the hinterland. The country now turns to the sea: far from ignoring the coast – as in the past – Nouakchott can use the resources of its territory (oil, gold, iron and copper mines, fishing) to evolve, thanks to **globalization**, from a marginal position to a strategic hub on the West-African coast.

## TOPIC : MUTATION, PLANIFICATION, COMMUNITY

The future of Nouakchott is paved with numerous challenges. First of all, climate change is a serious threat to the city, situated in a very vulnerable region. In the short-term, technical measures are needed to compensate for the first climate-related changes. In a slightly longer term, it would be useful to plan out a strategy to help the city confront the coming mutations. At the same time, other just as important issues include improving the city governance to help any and all future projects, promoting better management and planning at the agglomeration scale, and helping the city stay united.

Clearly, Les Ateliers do not have the necessary resources to fix the growing issues of social and political tensions, nor to tackle the structural problems of the city, such as the chronic poverty experienced daily by the population.

However, international teams are invited to draw up a global land-use planning strategy and to suggest innovating urban projects designed to handle the future with greater peace of mind. Participants, therefore, are invited to consider Nouakchott not as a space chosen by-default, but as a space with potential for the future, that could support the development of the whole country. The capital does have a number of strengths that should be valorized, such as: its coastal location, its strategic geographical situation at the intersection of multiple cultural spheres and at the crossroads of trade routes, its young, globally connected population characterized by flexibility and adaptation capacities, its flourishing informal sector, its remarkable landscapes of ocean and dunes... Participants' reflexion and proposals should take into account the peculiar strengths and original character of the growing capital, although it may seem ever-changing, uncertain, and irregular in its evolution. The international teams are expected to put forward proposals for the short and the medium term, following three main strategic orientations:

### 1. WHAT WILL CHANGE IN THE FACE OF RISK AND VULNERABILITIES ?

- **At-risk zone.** Areas should be suggested, that will support a new phase of Nouakchott urban development. Teams are invited to give special thought to the at-risk zones. How should they be managed? Should the land be developed? Should functions be moved? Should there be a reconversion process? What activities could be suggested, and where first ?

- **Nomad culture as a strength ?** Climate change has brought about challenges that can be envisioned as so many new urban opportunities. Nomad culture may hold some answers, characterized as it is by the adaptation capacities of the population, by the values of mobility and unpredictability as a way of life. Can this capacity for change and adaptation be mobilized and used to strengthen the urban resilience, instead of acting as an obstacle to rational urban growth ?

Figure 32 : Nomad tent and camels on the borders of the city



© ArmelleChoplin, November 2010

## 2. HOW CAN THE GROWING METROPOLIS BE PLANNED ?

- **Regional and international positioning.** What should be the role of Nouakchott, within Mauritania, within the region, and on the pan-African scale ? Should it continue to welcome an ever-increasing population, or should there be balancing processes with the other national towns ? This also raises the issue of the future of the harbor, and its interplay with the other main harbor in Nouadhibou. What is the coast fort ? How should it connect with the city ? Teams could also look into the consequences of relocalizing the airport. What will become of the gaping hole at the heart of the city ?

- **Tools and methods to plan development on the intra-urban scale.** Nouakchott, as a city, is characterized by constantly changing landscapes and inhabitants. The majority of them live hand-to-mouth, and there is no consideration of space as limited or finite. This generates an ephemeral, instable perspective on city development, which classic tools for planning may not fix. Is another perspective on planning better suited ? Can we invent a method to apprehend a metropolis that sprawls like a tented camp ? What tools could help to use the land reserves in a more efficient way ? Teams are also encouraged to think about the key role of effective governance for the success of all and any projects.

**Figure 33 : Unvalorized coastal ground with the Autonomous Port in the background**



© Frédérique Vincent, October 2013

## 3. TURNING NOUAKCHOTT INTO AN ATTRACTIVE CAPITAL ?

- **Imbue Nouakchott with greatness.** Inhabitants often admit not to feel proud of their capital city. How can this soulless urban sprawl become a capital that stands up to its status and to its future role on the African continent ? How can open space (city center, coastal grounds, urban agriculture, current airport and current university, old blocks « manivelles » on Nasser Avenue) be valorized ? How to create urban quality ?

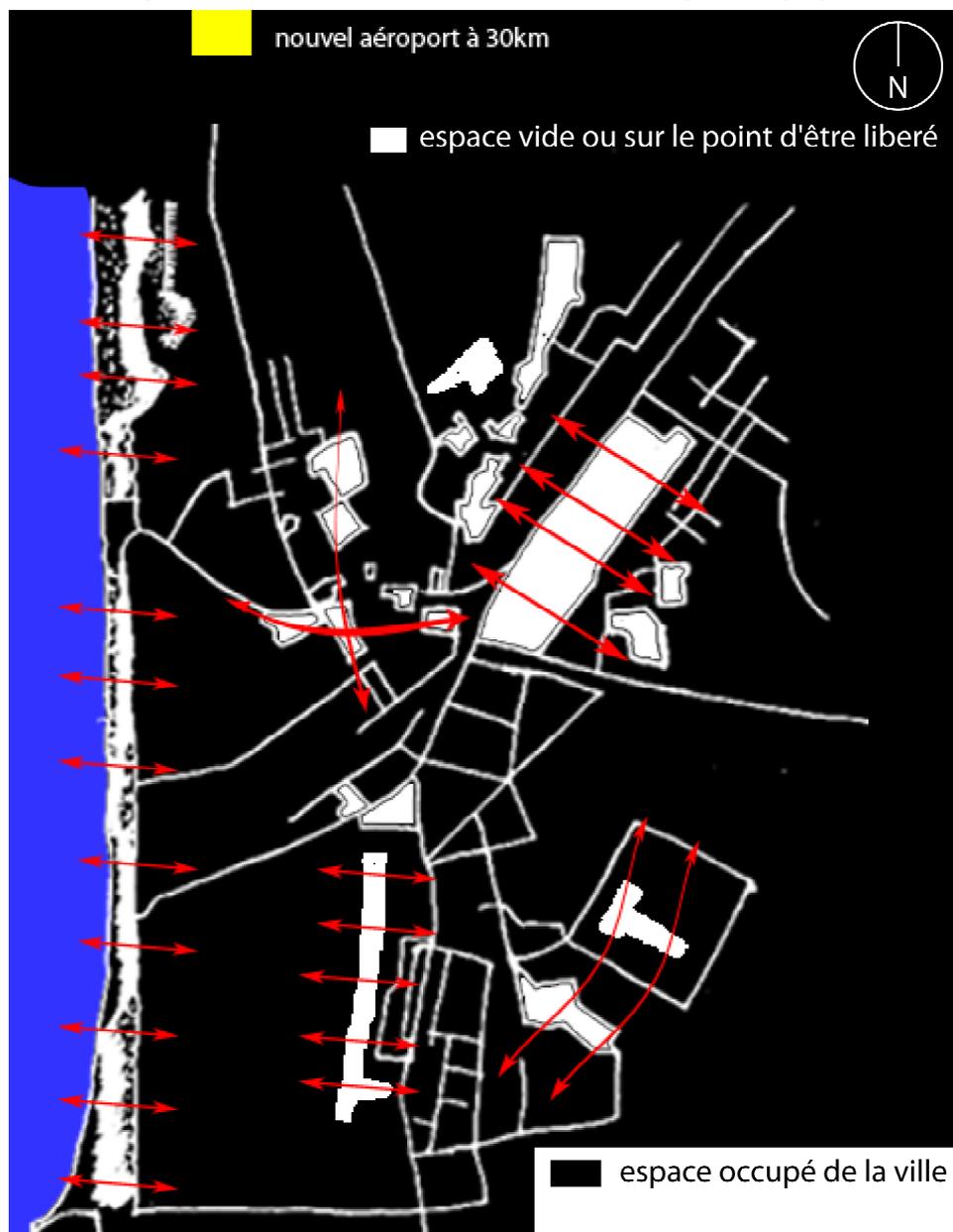
- **Public space, cohabitation, and shared urban identity.** There is a dire lack, in Nouakchott, of venues for social contact. Cultural and sports events (or equipments) are rare. There are, however, a few emerging social practices in the city (recent leisure time at the beach, on the terraces, at the stadium). How can the growth of a common urban identity be furthered by supporting inclusive spots and events ? What type of infrastructure and/or public space could be suggested to encourage cohabitation between the populations ? Ethical conflicts have left the Mauritanian city, and thereby the whole society, in need of new common threads. What type of space could knit communities together and bring inhabitants closer ? What new areas or infrastructures could we imagine as driving people's appropriation of the capital and, by extension, or Mauritanian identity ?

**Figure 34 :**  
**Play area for children in the park, jogging in the stadium : new venues for social contact**



© Frédérique Vincent, October 2013

**Figure 35 : Areas for reconversion, areas for patching up ?**



## PRESENTATION OF LES ATELIERS

Les Ateliers is a non-profit organisation that brings together universities, decision makers and professionals dedicated to urban planning, development and design since 1982. Focusing on urban development, Les Ateliers organise workshops and aim to provide a space for reflection on urban design and creativity. En France ou dans d'autres pays, ces ateliers apportent aux maîtres d'ouvrage un regard international et des propositions illustrées sur la stratégie territoriale et les projets d'aménagement urbain. Ils sont aussi, par la confrontation des métiers et des cultures, un lieu de remise en question des apprentissages et d'échange de haut niveau.

In France or in others countries, these workshops offer local authorities new and innovative urban development proposals, international experiences and innovative ideas on contemporary planning issues. First focused on urban planning issues for the Paris Ile de France Region (one workshop each summer since 1982), les Ateliers

Initialement centrés sur les thématiques d'aménagement pour l'Île-de-France (un atelier tous les étés depuis 1982), the Ateliers gained a strong experience in Asia (Tokyo, Doi Tung, Canton, Shanghai, Ho Chi Minh, An Giang, Can Gio, Phnom Penh, Bangkok, Cao Lanh, Changzhou), and recently diversified their fruitful work by combining workshops along the Mediterranean Sea (Casablanca, Marseille, Diyarbakir), ainsi qu'en Afrique (Bénin, Sénégal, Mali, Cameroon) and South America (Brazil, Colombia, Mexico).

## FRAMEWORK OF THE WORKSHOP

The classic Ateliers framework will be used for this workshop : a two-week session that will bring together 21 professionals from various countries and work backgrounds, and ask them to work in three teams of seven members, each including two local professionals of which one works in the technical department of the District or the municipalities.

Meetings and excursions will rhythm the first days. The local authorities present at the opening ceremonies will have the chance to communicate to participants directly, how they perceive our theme and what they expect from the workshop. Pilots will then make the teams, and participants will start to work in groups without using computers. Three days in, the first exchange forum - a key event – will offer participants the chance to present their analysis and initial ideas to the other teams and to a local committee, who will contribute freely.

During the second week, teams will finalize their project with the help of computers and prepare both a written and an oral presentation for the final international jury. All the members have been collectively chosen by Les Ateliers, Nouakchott Urban Community, and their partners. The jury will act as a "fourth team", inasmuch as it will not grade the teams but rather take their projects further, and identify in their projects the most strategic and useful tools and ideas for the local authorities. The Workshop, therefore, is not a contest, for there is no prize or market to be won. What matters will be to collectively - within teams and with the jury - produce good analysis, new perspectives, and plans of actions that will be easily applied for the sustainable development of Nouakchott.

## PROGRAMM OF THE WORKSHOP

This program will be adapted according to the local imperatives.

Friday, Avril 25 <sup>th</sup>	Arrival of the participants at the hotel
Saturday, Avril 26 <sup>th</sup>	Visite de la ville, présentation de la méthode de travail
Sunday, April 27 <sup>th</sup>	Tour of the city, introduction of the participants and of the methodology of the workshop
Monday, Avril 28 <sup>th</sup>	Visit by bus of the city and wider territory. Opening ceremony of the workshop.
Tuesday, 29 <sup>th</sup> Avril	Announcement of the composition of the teams and beginning of the group work
From Wednesday, April 30 <sup>th</sup> to Friday, May 2 <sup>nd</sup>	Work in teams
Saturday, May 3 <sup>rd</sup>	Exchange forum with local partners and local representatives.
Sunday, May 4 <sup>th</sup>	Restday, optional excursions
From Monday, May 5 <sup>th</sup> to Wednesday, May 7 <sup>th</sup>	Work in teams
Thursday, May 8 <sup>th</sup>	Work in teams. Arrival of the jury members and welcome dinner
Friday, May 9 <sup>th</sup>	Handing-in of the written proposals(8A4pages+ A0 panel). For the jury members: introduction conferences, tours of the city, lunch with the participants and work session
Saturday, May 10 <sup>th</sup>	Rehearsal of the oral presentations.
Sunday, May 11 <sup>th</sup>	Official ceremony of the jury: Presentation of the teams' projects and deliberation of the jury. Debriefing and departure

## APPLYING : FROM APRIL 26<sup>TH</sup> TO MAY 11<sup>TH</sup> 2014

This workshop is open to professionals of all ages and nationalities, working in or having experience

related to urban planning. All backgrounds are welcome : architecture, sociology, geography, landscape, enginery, economy, art.

It will be essential to work in English and/or French with ease. It is as well essential to specify to the young professionals and recently graduated students that it will be difficult to retain a candidate who would have less than three years of work experience.

Participants will be put up in Nouakchott and will work in a dedicated space. They will receive a document presenting the context and related projects, as well as the necessary maps and documents.

Participants get no remuneration, but the following expenses are paid for: travel (within reasonable

limits), housing in single rooms, food, translation, excursions, and work furniture. Local and international participants receive a daily allowance covering the meals that not supported by the organization and the minor expenses (approximately 12 euros a day).

21 participants will be selected by the pilot team of the workshop on the basis of their professional experience, their familiarity with the theme, their first outlook on the issue, their communication skills(both in language and drawing), and their interest and enthusiasm!

In order to apply, please send by email **by Sunday 23<sup>rd</sup>February, 2014 at the latest**to [nouakchott@ateliers.org](mailto:nouakchott@ateliers.org) with **one single PDF document** (file name: SURNAME\_firstname) containing the following elements :

- Filled application form (available for download on [www.ateliers.org](http://www.ateliers.org)).
- Resume (1 or 2 pages)
- 1- or 2-page note in which you will state your interest in the workshop, and the skills and/or experiences you will contribute, and above all your initial ideas on the topic (either in text form and/or using graphics)

Selected participants will be notified in the following two weeks.

## THANKS

Les Ateliers thank all the people who contribute to the organization of the workshop :the partners bringing support for the workshop, the interlocutors for their disponibility during the mission in October 2013, as well as the contributors and the proofreaders of this document.

This workshop is co-organized with the Urban Community of Nouakchott, with the, with the financial support of the GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), of the French Agency of Development (AFD) and the European Union.

**Editorial staff/pilots** :Armelle Choplin - Geographer, *Institut Français d'Urbanisme* Lecturer and Frédérique Vincent - Professor of Environmental Science and Director of *ISIGE (Institut Supérieur en Ingénierie et Gestion de l'Environnement)*

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**Photos credits** : En Haut !, A. Choplin, F. Vincent

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