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maîtrise d'œuvre urbaine

International Urban Planning Workshop of San-Pedro - 2021

DINIYO IN SAN-PÉDRO From port city to coastal metropolis

How can the future of a burgeoning coastal metropolis be envisaged in which economic and social development is balanced with the responsible management of natural assets?



Topic Document



Les Ateliers de Cergy is a non-profit association created in 1982 at the initiative of the original town planners of the New Town of Cergy-Pontoise. Today, it is an international network of professionals, academics and decision-makers. Focused on the practice of urban planning and project management, the association organizes workshops conceived as spaces for collective design and creativity.

In France and abroad, these workshops provide project managers with an international perspective and illustrated proposals for their territorial strategies and urban development projects. Through the confrontation of diverse professions and cultures, they also offer an opportunity to question traditional forms of exchange and learning at the highest levels.

Per the request of the **City Ministry of Ivory Coast** and the **City Hall of San-Pédro**, **Les Ateliers Internationaux de Maitrise d'Œuvre Urbaine de Cergy-Pontoise**, with the support of the **French Development Agency**, is organizing an international urban planning workshop entitled:

DINHIO IN SAN-PÉDRO From port city to coastal metropolis

This document presents the topic of the workshop to be held in San-Pédro, Ivory Coast. Intended for the workshop's partners and the entire international network of Les Ateliers, it will serve as an introduction to the territory and its challenges as well as a call for professional interested in participating.

It is the culmination of a series of collaborations with national and local stakeholders during various preparatory missions and events:

- Meeting between Mr. François Albert AMICHIA, City Minister of Ivory Coast, and Mr. Pierre André PERISSOL, President of Les Ateliers, in Paris in February 2019.
- Participation by the City Minister of Ivory Coast in the jury of the Ouagadougou Workshop in March 2019.
- Participation and intervention by the President of Les Ateliers at the International Seminar for the Formulation of the National City Policy in Ivory Coast in June 2019.
- Field visit to San-Pédro and meeting between the President of Les Ateliers and Mr. Félix ANOBLE, Mayor of the City of San-Pédro.
- Participation by the City Minister of Ivory Coast and the Deputy Mayor of San-Pédro in the jury of the Kampala Workshop
- Exploratory mission to San-Pédro from 12 to 17 January 2020: City Ministry of Ivory Coast, AFD, French Embassy, BNETD, Order of Urban Planners, team of experts from Les Ateliers de Cergy.
- Participation by Les Ateliers at the Abidjan Meetings for Sustainable Cities in February 2020

We would like to thank all the people we met during these various missions and events.

Following the unique methodology of Les Ateliers de Cergy, this workshop will bring together twenty local and international professionals to volunteer their time and expertise on-site in San-Pédro in march 2021.

After a few days of site visits and meetings with stakeholders to discovery the territory, the participants will be divided into multidisciplinary teams to begin brainstorming potential strategies and projects for the territory. The participants will be accompanied by a local committee of partners who will provide their insights and thoughts on the work being produced during various moments of exchange.

At the conclusion of the workshop, a jury of international and local experts, chaired by local and national authorities, will spotlight and expand on the best elements of each teams' proposals.

Due to the global health crisis brought on by COVID-19, Les Ateliers has adapted its methodology to the constraints of health and security measures (such as social distancing) introduced by countries across the globe, as well as to the drastic reduction in national, regional and international travel.

As such, the usual intervening missions, such as the Partners' Committee, will not be able to be held on-site, and the field research missions typically conducted by assistants in the months leading up to the workshop have been postponed.

The final dates for the workshop will be communicated once there is a clearer picture of the evolution of the international situation and the local political calendar.

Les Ateliers, utilizing the power of new technologies, will hold a series of round-table discussions and metropolitan evenings by videoconference.

Requests for information and/or documentation

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San-Pedro Workshop Team

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Rencontres de l'atelier de San Pedro :

Tables rondes préparatoires et Soirées métropolitaines de débat

И	Table Ronde 2 : Vivre avec le risque
•	et construire la résilience
	– Juillet
	Table Dande 2 - Lines of controllation and Kaussia
	Table Ronde 3 : Liens et centralités pour l'avenir. Ville existante et la ville nouvelle
	– Septembre
	Soirée métropolitaine 1 – Octobre
	Soirée métropolitaine 2 – OCT-NOV

Séminaire de travail plusieurs tables rondes avec les acteurs du
territoire. Expertise, témoignage et débatSoirées métropolitaines: Eclairages transversaux,
croisées, internationaux et locaux

Le document contexte se construit autour du programme du séminaire et des soirées

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1. San-Pédro: A contrasting geography and recent history

1.1. A strategic cross-border port city for the development of southwestern lvory Coast



Located in West Africa, Ivory Coast shares its borders with 5 countries (Liberia and Guinea to the west, Mali and Burkina Faso to the north, and Ghana to the east). Its southern border consists of a coastline that stretches 550 kilometres along the Atlantic to the Gulf of Guinea. The climate in the south is humid equatorial, whereas the north is dry tropical.

In 2017, Ivory Coast's population was estimated at 26,594,750 inhabitants. The population is characterized by its diversity and significant ethnic mix. There are nearly 60 ethnic groups that can be divided into 4 main groups: the Mandes in the northwest, the Krou in the western central areas and southwest, the Gour in the northeast and the Akan in the centre, southeast and east. There are, therefore, some 70 different languages spoken in the country, although French is the official language. Dioula, the most widely spoken language in West Africa, also occupies an important place in the daily lives of Ivorians, especially in commercial exchanges.



The City of San-Pédro has one of the highest urban growth rates in the country. Economically, it is the second most important city after Abidjan (the economic capital) with Yamoussoukro being the country's political and administrative capital.

The capital of the region and department that bear its name as well as of the district of Bas-Sassandra, the City of San-Pédro sits along Ivory Coast's southwestern coastline. The landscape consists of multitudes of bas-reliefs — small hills naturally formed by the area's waterways. The city, itself, is located in a vast area of marshlands, hills and a lagoon. Two important geographical elements form the estuarine zone: the Digboué Lagoon and the San-Pédro River. As such, the city naturally developed between the two.

The City of San-Pédro is 368 km from Abidjan (the country's economic capital) and 482 km from Yamoussoukro (the political and administrative capital). The two main Ivorian ports (Abidjan and San-Pédro) are connected by the "côtière", an asphalt road constructed in the 1990s, which is now in very poor condition. On the scale of the Gulf of Guinea and West Africa, the location of the port of San-Pédro offers great potential for the economic development of the country. In addition, the succession of ports along West Africa's coastline (Lagos – Cotonou – Lomé – Accra – Abidjan – San-Pédro) forms an economic corridor in which the complementarities of each port would allow for the development of strategies for global competitiveness.

The San-Pédro Region together with the regions of Nawa (Soubré) and Gbôklè (Sassandra) form the Bas-Sassandra District. The City of San-Pédro is the capital of the region and department that bear its name. The San-Pédro Region is made up of two (02) departments (San-Pédro and Tabou) and includes eleven (11) sub-prefectures.

Established as a commune forty-two (42) years ago, notably in 1978, San-Pédro is the second economic lung of the country and the capital of the region. To date, San-Pédro has a population of 257,172 inhabitants (RGPH 2014), sixteen (16) neighbourhoods, thirty-two (32) villages and several settlements attached to it.

From 1980 to today, the commune has been run by six (06) municipal teams, which are currently led by Minister-Mayor Miézan Félix ANOBLE, Head of the Promotion of Small and Medium Enterprises (SMEs).

Source: San-Pédro City Hall

1.2. Beginnings: From fishing encampment to the building of a town

The story goes that the region of San-Pédro was discovered by the Portuguese Soeiro Da Costa, who named the territory, at that time very sparsely populated, after the patron saint of the day in Portuguese. The territory would later alternate between the possession of French and English companies before being ceded in 1959 to the fledgling Republic of Ivory Coast for the sum of 160,000,000 CFA francs. The territory, isolated and landlocked, experienced a tremendous developmental set-back in the early years of Ivory Coast's sovereignty. With an estimated density of 3 inhabitants per km2, the population was also very small. In addition to these spatial characteristics, there was the extreme poverty of the indigenous population, the Kroumens, whose economy relied more on maritime activities than on agriculture. In 1969, the average per capita income was less than 23 Euros.

To correct this underdevelopment, the then Ivorian authorities created, in December 1969, a development authority called Aménagement de la Région du Sud-Ouest (ARSO). This vast project aimed not only to correct the region's development lag but also to establish connections between it and the rest of the country. ARSO's urban agenda focused on the construction of a port and the establishment of the City of San-Pédro. The site was chosen to take advantage of the natural harbour setting which facilitated the creation of a port. The latter was seen as the key to the development of the entire western region of Ivory Coast, which suffered from its remoteness from the port of Abidjan. The aim of this considerable project was to increase development through the creation of wealth, particularly through the export of wood and cocoa. Before the start of construction, there was only a modest fishing village. The urban arm of ARSO therefore aimed to create a town of 6,000 inhabitants. The first stone of the port was laid on 12 August 1968. From then on, San-Pédro became a huge and noisy construction site for several years until May 1971, when the port began to operate. In parallel to the port services, agro-industrial programmes were planned.

With the creation of this new economic pole in the western region of the Ivory Coast came an influx of migrant populations seeking work in the construction of San-Pédro's port. As time went by, more permanent settlements were established and the city's urban fabric began to

form. The original settlements were created spontaneously and, therefore, were more like a cluster of camps than a planned city.

«"San-Pédro is for us hope — by giving life to a region, by providing new jobs in large numbers and also land to all those who have the desire to develop it, by eventually creating a pole of development that will contribute to the balance of our economy". Félix HOUPHOUET-BOIGNY, first President of the Republic of Ivory Coast, 6 August 1969.

A "ville-bis" (ancillary city) quickly developed on the edges of the construction area and was inhabited by construction workers and an ensuing population of tradesmen, craftsmen and immigrants seeking employment. By the end of 1969, the number of inhabitants of San-Pédrobis was close to 8,000, which was extremely high for a camp. By 1972, it grew to 25,000, 100,000 in 1985, 300,000 in 2002. The site, chosen for its strategic location for the establishment of a port, was however not very conducive to the establishment of a city. The geographical layout of alternating hilly and marsh areas made it difficult to develop the site.



ource: HAERINGER, Philippe. (1972). L'URBANISATION DE MASSE EN QUESTION QUATRE VILLES D'AFRIQUE NOIRE : LA CROISSANCE URBAINE EN AFRIQUE NOIRE ET A MADAGASGARE, No. 539. CNRS International Colloquium.

Originally, the constitution of the City of San-Pédro was represented by a duel reality. On one side, there was the city created by ARSO (Authority for the Development of the Southwest Region), with its port zone, residential area as well as mid- and high-standard housing estates. On the other hand, there was the "ville-bis", which essentially consisted of construction workers. It was built spontaneously by the populations living there and was the result of a serious underestimation by the town planners of the time of the area's attractiveness for immigrant populations. Eventually, through restructuring programmes carried out by public authorities, these spontaneously built neighbourhoods in San-Pédro were transformed from dwellings made from lightweight and perishable materials to more durable constructions using cinder blocks, sheet metal and cement. One of these neighbourhoods, the Bardot, was considered the largest shantytown in West Africa until its integration into the municipality in 2011. Today, the city covers an area of 6,120 hectares, an expanse that extends beyond the original administrative and municipal boundaries, with further expansions clearly developing towards the northern periphery of the territory.



Informal neighbourhoods in San-Pédro, January 2020

1.3. Opportunities from migration: Valorizing diverse, cosmopolitan cultures

The establishment and growth of the city of San-Pedro has been achieved through a series of successive waves of immigration; an attractiveness resulting from the exploitation of natural resources. It is worth remembering that in 1969, the city had 4,040 inhabitants¹, half of whom were foreigners to the Ivory Coast. Of them, 19% were Voltaics, 11.5% Malians, 10% Guineans, 3% Senegalese, 1% Nigerians, 1% Dahoméans and Togolese. This diversity of nationalities and ethnic backgrounds reveals the multicultural and cosmopolitan potential of

¹ HAERINGER, Philippe. (1972). L'URBANISATION DE MASSE EN QUESTION QUATRE VILLES D'AFRIQUE NOIRE : LA CROISSANCE URBAINE EN AFRIQUE NOIRE ET A MADAGASGARE, No. 539. CNRS International Colloquium.

this burgeoning metropolis. The range of ethnicities and nationalities is about as diverse in San-Pédro as it is in Abidjan.



Composition de la population de San Pedro début 1970

Indeed, San-Pédro is essentially the story of a new port city created by the populations who immigrated to the area to construct its port. From the self-organization and cohabitation of these populations was born a cultural multiplicity. This nascent city, alive with youth, has always been in search of its character, of an identity in which each and every inhabitant of San-Pédro is able to see themselves.

Workshop questions

How can the City of San-Pédro's history be drawn upon to develop a strong identity?

What collective visions, what shared histories (of past, present and future inhabitants) can be integrated?

How does cultural diversity serve as an impetus for urbanity?

2. Economic drivers

Since its founding, the City of San-Pédro's economic development has mainly been achieved through port and agro-industrial activities with the exploitation of the forest hinterland. Today, 9 main economic drivers have been identified as levers for the future development of the city, its hinterland and even the country at large. However, these numerous industrial activities raise — here more than elsewhere — the question of waste management and the development of its corresponding sector.

Main economic drivers

Autonomous Port and its projected expansion

Processing companies and actors of the tertiary sector (shops, markets, etc.)

New infrastructure for CAN 2023 (African Cup of Nations), including the large stadium currently under construction and the host village

Future University: expected opening in September 2020

Tourism and festivals with national and international perspectives New city district project

New airport

Three S (3S) Corridor (slaughterhouse, parking, etc.)

Export agriculture from the hinterlands (cocoa, coffee, rubber, palm oil, etc.)

2.1. The Autonomous Port and its expansion project: What does it offer and what is its relationship to the city and its environment?

The Autonomous Port is at the origin of the City of San-Pédro's growth and has been the main driver of its development in recent decades. Today, it is the second largest lvorian port in terms of tonnage, behind the Autonomous Port of Abidjan. In 2011, the port handled 1.8 million tons of cargo. In 2012, about 3.5 million tons of goods transited through San-Pédro. It is the world's leading port for cocoa exports and the country's top port for coffee exports. The Region of San-Pédro is also one of the main producers of rubber, palm oil and coconut as well as the lvory Coast's leading producer of kola nuts.

The location of the port, with its natural harbour setting, offers an ideal shelter for boats; and its proximity to Liberia, Mali and Guinea allows for cross-border connections, although the country's political instability these last decades has led to a stagnation in traffic since 1980. The significant amount of truck traffic to the port is the source of a number of drawbacks: accidents, noise, pollution, congestion and the degradation of a poorly serviced and insufficiently regulated road network.

For the municipality, the slogan: "From the success of Ivory Coast through agriculture to its emergence by competitive SMEs", could well be realized in the Commune of San-Pédro. (San-Pédro City Hall)



The port of San-Pédro, the fishing port, port expansion project, heavy truck traffic

The expansion project of the Autonomous Port of San-Pédro foresees an additional 2,000 hectares of exclusive port estate. Many projects are envisaged such as the reconstruction of the existing semi-industrial fishing port (with the integration of industrial robots) and a new man-made fishing port located along the San-Pédro River, which raises the question of the development of the river mouth. New petroleum logistics terminals are also planned as well as a 14-hectare petroleum storage area, a 510-hectare logistics and industrial area, and road and railroad lines connecting the different facilities of San-Pédro's port. The question of the integration of this new port area in the broader development strategy of Greater San-Pédro is therefore worth consideration.

2.2. Processing companies and the tertiary sector: What spinoffs could support the coexistence of formal and informal activities and serve as a nurturing foundation?



Local businesses and services, January 2020

In parallel with the development of the port site and agro-forestry activities has been the establishment of companies processing raw materials — e.g., cocoa, coffee, rubber, wood, etc. They represent a strong potential for economic development in the years to come. As such, companies such as Ecobadsarl (construction), Cimaf (public works) and Sip Catala (plywood and particleboard) should be encouraged to continue developing in order to offer prospects for reinforcing the supply of jobs and activities for inhabitants.



Grand central market

There are also actors in the tertiary sector to support and accompany. From the outset, the city's local shops and services have served as the primary drivers of urban development. The majority of these actors come from the informal sector. In the heart of the city, informal sector activities and services abound and generate much vitality, forming a network of shopkeepers and craftsmen that is essential for daily life. It should be noted that the grand central market, which is an important part of neighbourhood life, is under-equipped and saturated by substantial motor vehicle traffic despite recent reorganization efforts undertaken

by local authorities. Moreover, the lack of distinction between public and private spaces greatly disrupts how it operates. How could urban planning systems be designed to take into account the initiatives of residents in the tertiary sector?

2.3. The territory's major projects: What is the global vision for a city built around multiple projects?

2.3.1. Planned infrastructure for CAN 2023, a large stadium in the works: What does the future hold for this infrastructure once the event is over?

In 2023, Ivory Coast will host the African Cup of Nations (CAN). As such, facilities and infrastructure are being built throughout the country, including in San-Pédro in its role as a host city for the event. The municipality is planning for the construction of a large stadium, ancillary facilities, training grounds and villas. A **project for the Cité CAN**, on more than 5 hectares, is also being carried out in the Pont Djigboué neighbourhood, 10 kilometres from the city centre. How can the long-term future of these new constructions be ensured? How do these facilities and housing complexes fit in with the city's economic and urban development strategy?

2.3.2. The arrival of the university in San-Pédro: What form or model will this university of the future take?

The construction and opening of the University of San-Pédro, scheduled for September 2020, represents a strong potential for the city's economic development.

The four-phase construction process will enable the University to accommodate 3,000, then 7,000, 15,000 and eventually 20,000 students across an area of over three hundred hectares (300 ha). To be called the Cité Universitaire et Scolaire (University and School City), the complex will include buildings for educational activities but also a residence for teachers and accommodations for up to 3,000 students initially. This project represents a huge change in the daily and economic life of San-Pédro, a source of attractiveness that will contribute to the profound transformations coming to the territory.

Ivory Coast currently has 7 public universities:

- Université Félix Houphouët-Boigny (Abidjan–Cocody)
- Université Nangui Abrogoua, (Abidjan–Abobo–Adjamé)
- Université Alassane Ouattara (Bouaké)
- Université Jean-Lorougnon-Guédé (Daloa)
- Université Péléforo-Gbon-Coulibaly (Korhogo)
- Université de Man; Ivory Coast online university (Abidjan)

How will the University of San-Pédro position itself strategically in relation to this already established network of universities? Should the "digital opportunity" be seized in order to rethink traditional university campus models?

2.3.3 The new international airport: Strengthening the national and international attractiveness of the territory

At present, the Ivory Coast has three international airports (Abidjan, Yamoussoukro and Bouaké) and four regional airports (San-Pédro, Man, Odiénné, Kohogo), along with a handful of small airfields. In the case of San-Pédro, the runway only stretches 2.5 kilometres long and therefore cannot receive international carriers. There are, therefore, plans to replace the current airport of San-Pédro with a facility more appropriate to the requirements of international traffic.

In the city development plan, the proposal places the new airport to the west of the territory, near the new city district. However, it is important to remember that airports depend on essential transportation connections to a city for their commercial, tertiary and touristic attractiveness, both on the national and international scale. How will this new facility interact with San-Pédro's mobility elements (port, train, Atlantic motorway)?





Local authorities are planning for the construction of a new model district to accompany the expansion of the city. The juxtaposition of the new district with the older districts, the new university and the port demonstrates the efforts of local authorities and their ambition to strengthen the attractiveness and competitiveness of this emerging African metropolis. This project aims to enhance the urban mix by diversifying housing types, services, infrastructure and facilities. It is based on the enhancement of natural assets (lagoon and seaside) to complement existing urbanized areas. How can this new expansion be designed in social and economic balance with the older districts? How can this new district project be a pretext for the emergence of new practices for the development of a viable metropolis?

2.4 Tourism and festivals with national and international perspectives: Revealing the natural and cultural potential of the city



Beach near the fishing village of Taki, January 2020

Its seaside location combined with the territory's forest cover provides San-Pédro with an exceptional natural setting and landscape. With the addition of climatic and geological conditions favourable to the region's economic development, these natural features reveal a strong tourism potential. Landscape elements such as the lagoon, the hilly terrain, the expanses of beachfront and the surrounding forests make the area attractive to not only domestic tourists but also those from abroad. For many Ivorians, San-Pédro already represents a place of holiday, vacation and rest. As such, a small number of facilities, hotels and shops catering to tourists already exist.

Moreover, initiatives led by local authorities are blossoming and thereby reinforcing this tourism potential through the development of cultural or folklore events such as the Saint Pierre Festival, a cultural event which has been taking place for the past two years. It is part of a movement to promote the area's natural, touristic, cultural and economic richness while also fostering a harmonious and sustainable development of the region. The city is also developing a programme of cooperation around tourism with its sister city of Saly Portudal in Senegal. How can this touristic capital be strengthened? What is the specificity of this tourist destination compared to other places in Ivory Coast and West Africa?

Workshop questions

What role and balance can be found between the different economic activities of the city?

What economic spinoffs can be imagined for the different actors of the territory?

What social impacts will there be on the individual inhabitants of San-Pédro?

How can the development of mobility networks — within the city or on the national and international scale — accompany the urban and economic development of San-Pédro?



Map of neighbourhood and expansion zones for the City of San-Pédro, including the major planned project areas3. La gestion des ressources naturelles à l'épreuve de l'expansion urbaine et face aux contraintes climatiques

3. Natural resource management in the face of urban expansion and climatic constraints



The site of San-Pédro offers many natural assets. Among them are the lagoon and seaside, the forest zones around the city and, in the region's hinterland, an impressive geography of hilly terrain designed by a unique hydrographic network. However, these natural assets also raise important questions about conservation and environmental threats in certain situations. In 2017, the UN Environment Study listed several environmental issues threatening the territory: deforestation and the degradation of vegetation cover, the high risk of flooding and coastal erosion.



3.1. Vegetation cover and the Rapides Grah Classified Forest: A responsible management of resources



Integrated Strategic Environmental Assessment in Ivory Coast, PRACTICAL GUIDE: San-Pédro CASE STUDYSAN-PÉDRO

Ivory Coast is one of the countries most affected by deforestation in West Africa. As a consequence, 50% of the forest cover has disappeared since the 1900s (UN–Redd) and 79% of what remains has been seriously degraded over the past 56 years (SODEFOR 2017). The urbanization of San-Pédro has been accomplished mainly through the occupation of forest and lagoon areas. Today vegetation covers only 13% of the city's urban area. This vegetation is characterized by remnants of the pre-existing dense forest, which was considerably degraded by urbanization as well as through the over-exploitation of timber.

Covering 265,000 hectares (UN–Environment), the classified forest of Rapides Grah is the largest of the country's 231 protected zones. Its protection status allows for both the preservation of plant cover and the responsible management of industrial timber production. Nevertheless, the rate of degradation is still quite high and the different productions of cocoa, coffee and rubber within the classified forest are likely part of the reason for this.

In addition, the combination of natural resource exploitation and processing industries in the region reveals serious risks tied to the industrial sector: air and water pollution as well as industrial and household waste treatment. How can a balance be found between the need for industrial development and the vulnerability of natural ecosystems? How can the issues of sustainability and reversibility for existing industries be addressed in order to envisage more environmentally friendly territories? Is a "green industry" tied to the responsible management of the territory possible and, if so, in what form?

3.2. Water management and flood risks: Building better with environmental constraints



Integrated Strategic Environmental Assessment in Ivory Coast, PRACTICAL GUIDE: San-Pédro CASE STUDY

The climatic and geographical situation of San-Pédro requires significant investment in soil and water management. There is an important hydrographic network that flows through the hilly territory. In addition, the humid equatorial climate is characterized by abundant rainfall, which causes water stagnation in many neighbourhoods built on former swampland. Marshy areas represent 80% of the urban area of San-Pédro (UN–Environment, 2017). As such, two-thirds of the urban space can be classified as high flood risk areas, threatening 80% of the residential population (Gobge, T. et al., 2015). The frequent use of embankments for construction contributes to pollution, soil impermeability, etc. and can disrupt the functioning of the hydrographic system. **How can populations be protected from frequent flooding?**



View of the Digboué Lagoon from the northwest, January 2020

3.2. Water management and flood risks: Building better with environmental constraints

The climatic and geographical situation of San-Pédro requires significant investment in soil and water management. There is an important hydrographic network that flows through the hilly territory. In addition, the humid equatorial climate is characterized by abundant rainfall, which causes water stagnation in many neighbourhoods built on former swampland. Marshy areas represent 80% of the urban area of San-Pédro (UN–Environment, 2017). As such, two-thirds of the urban space can be classified as high flood risk areas, threatening 80% of the residential population (Gobge, T. et al., 2015). The frequent use of embankments for construction contributes to pollution, soil impermeability, etc. and can disrupt the functioning of the hydrographic system. **How can populations be protected from frequent flooding?**

3.3. Land erosion: Resilient coastal and shoreline development

Coastal erosion is a phenomenon that affects two thirds of the Ivorian coastline (Fall, M. and Coulibaly, S., 2016). San-Pédro is considered to be one of the coastal areas most affected by coastline regression dynamics, already demonstrating retreat rates of up to -5 meters per year. There are several reasons for this that are both natural and anthropogenic. However, locally, it is above all the construction of the deep water port that has modified the natural coastal dynamics by restructuring the coastline, as well as the intensive extraction of beach sand at the mouth of the Digboué Lagoon. How can the coastline be developed in a way that considers and anticipates climate change?

Workshop questions

By what means can biodiversity and vulnerable zones be valorized and preserved?

How does the lagoon and its unique geographical nature lead us to think differently about planning?

How can urban development projects be reconciled with the risk of environmental disasters in the territory of San-Pédro?

How can new forms of green industry be put into action? Could they serve as models for the Ivory Coast and West Africa?

4. Workshop Topic



DINHIO IN SAN-PÉDRO From port city to coastal metropolis

How can the future of a burgeoning coastal metropolis be envisaged in which economic and social development is balanced with the responsible management of natural assets?

The workshop invites participants to reflect on the ways in which the territory of San-Pédro can be transformed through the development of both short-term and long-term strategies that respond to the challenges of sustainable development.

From a methodological perspective, this requires not only examining various territorial and temporal scales, but also considering the multiple relationships — between the city, its hinterland and the various municipalities — integral to the consolidation of a metropolitan area, from complementary urban polarities to interferences as well as the territory's different actors and stakeholders.

Territories of interest

The future extensions of the City of San-Pédro raise questions of coexistence and the overand inter-lapping of old and new. Looking ahead, the city will continue to grow considerably, particularly with the expansion of the port to the east and the project for the new city district to the west. To the north, there will also be the development of the 3S Corridor, the university project and the CAN2023 site. It is therefore necessary to think of this urbanization as integrated — consolidating the various elements — in order to avoid the splintering of spaces.

These future territories will have to be anchored to the already existing histories of the territory: those of a multicultural identity, of life on the shores of the lagoon and its unique geographical dynamics, but also that of the everyday history of the territory's populations. Moreover, near the Digboué Lagoon, the integration and urban restructuring of the former informal districts (Bardot, Seweké and Belleville) must be addressed. The challenge of metropolitan development lies in the adaptability and mutability of spaces. What new spatialities are needed for the metropolis of tomorrow? What more resilient forms of planning are possible?

In San-Pédro, the consolidation of a metropolitan area in relation to coastal activities requires reflection on a broad scale. The city is strongly anchored by its history of dynamics and connections at different scales, from local to global. How can strategies proposing the emergence of active partnerships be created? What shared identities, synergies and forms of vitality provide the right conditions for a connected metropolis — from its inhabitants and other metropolises to the world at large?

The approach focuses on issues at different scales :

Vivre avec les logiques géographiques de la lagune Living with the geographical nature of the lagoon

It is important to consider the natural attributes of San-Pédro as a site:

How can the management of the territory be developed while taking into account the geographical nature of the lagoon and the littoral?

By taking into consideration the physical territory as the starting block of the project, thanks to ecological mindsets or actions, enables the valorization and protection of natural ecosystems as well as plant and animal biodiversity in this exceptional natural site.

How can the development of the city be reconciled with the risks of environmental disasters in the territory of San-Pédro?

A connected metropolis

The importance of the port area and the attractiveness potential of San-Pédro questions the different connections, both potential and existing, at different scales.

How will the metropolis position itself in terms of international, national and regional competitiveness? This raises the question of the prospects of access to infrastructure and mobility resources as they relate to the different territorial scales: from connections to airports, ports, rail and road networks to sufficient means of everyday mobility for local populations.

The connected metropolis also represents the potential of the "digital city" paradigm. With the arrival of the University and a younger generation, there will be more users of digital tools.

How can San-Pédro fit into this global dynamic of technological development?

From networks on a global scale to micro-networks at the heart of urban spaces, how does a digitally and physically connected metropolis reveal itself?

To create territorial development strategies and actions, two axes are proposed as tools and means of intervention :

Active partnerships

Active partners are essentially the people who drive the economic sectors of the territory — from port and industrial activities to the tertiary sector (markets) and, more generally, the people who live in San-Pédro.

How can each of these actors feel involved? How can a process of collective interest and participation be established? Such a desire to move towards active partnerships that emphasize the common interest requires the construction of horizontal relationships between actors.

How can win-win relationships be fostered for the co-construction of a solidarity-based metropolis in the making?

Reinforcing what already exists: Building the city upon the city

What new typologies are possible that also respect lifestyles and desires? In other words, how can existing neighbourhoods be densified while also prioritizing access to basic infrastructure and facilities (water supply, sanitation, electricity, education, health and local services)?

How can soft interventions or shifts (relocation or pointed measures) be developed, imagined?

How can the new extensions of the city be envisaged in a way that encourages a social and economic balance with older neighbourhoods?