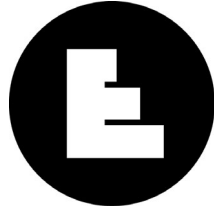


E U R
P A O
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FR



E18 - Re-sourcer

DEMBENI

BETWEEN MANGROVE AND SPONTANEOUS HOUSING : AN ARCHITECTURE OF ECOLOGY?

Site Report

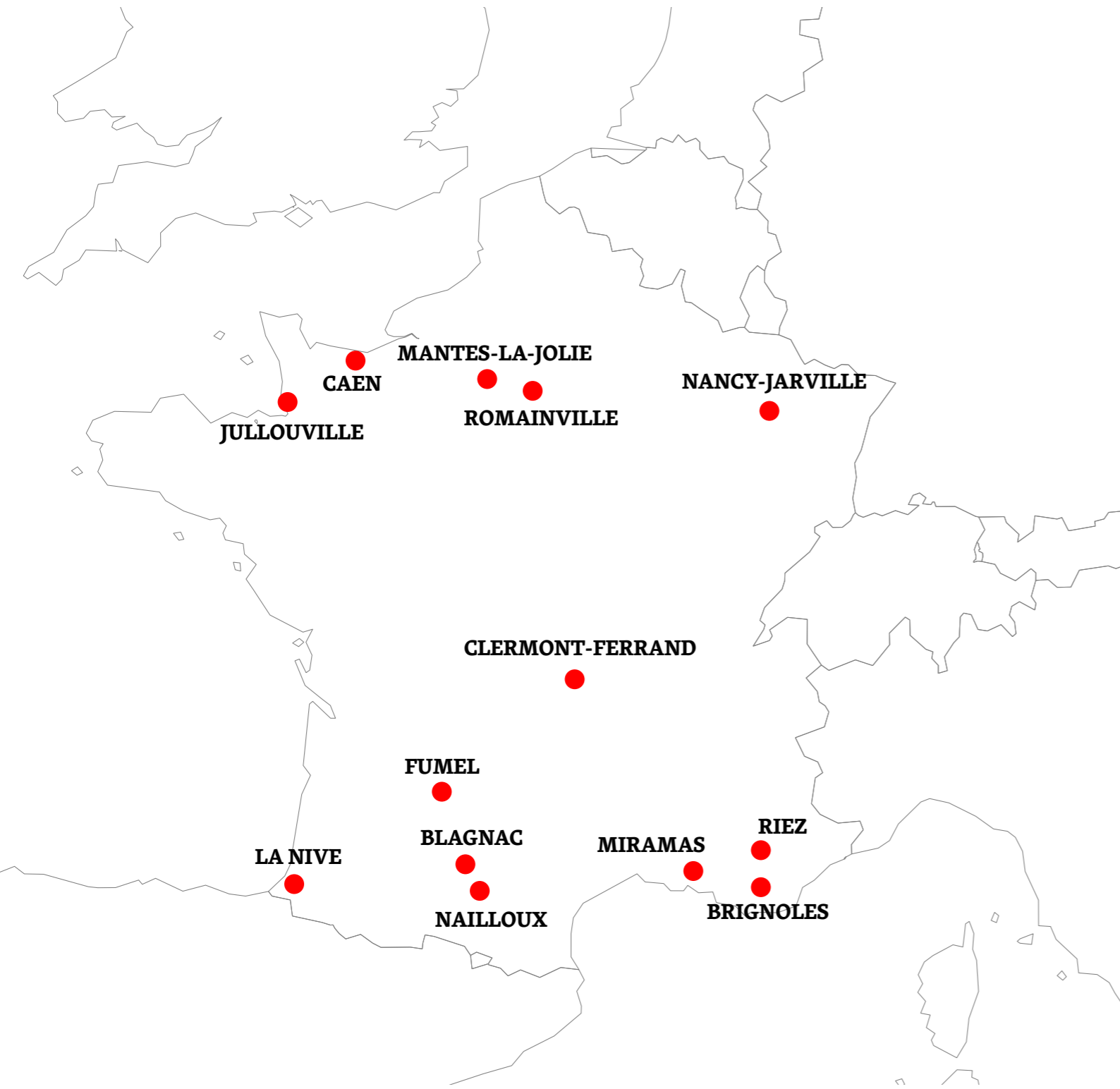
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FOREWORD

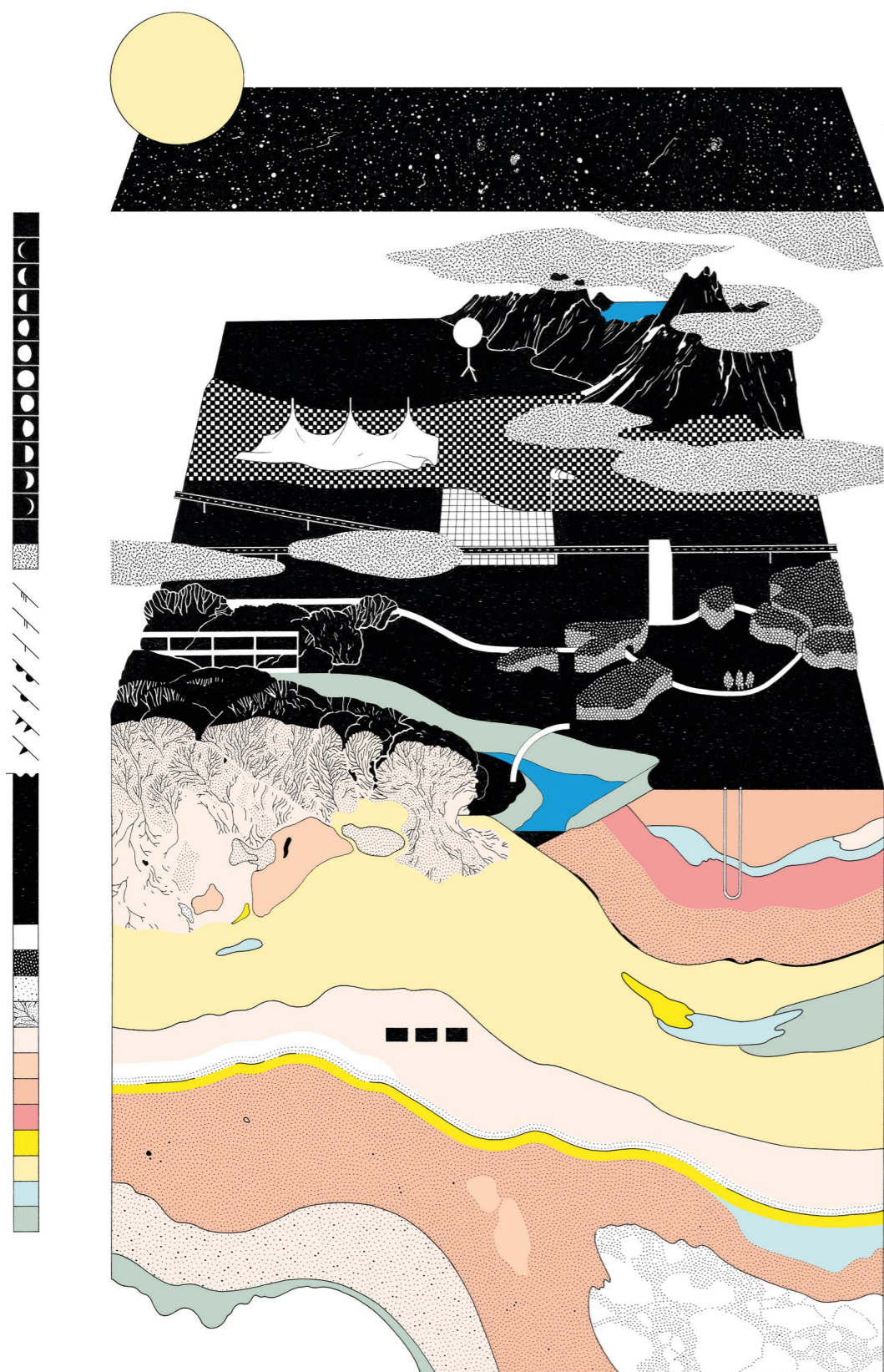
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EUROPAN FRANCE



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LE THÈME : RE-SOURCER

Re-sourcer

La fragilité de l'écosystème Terre et les crises sociales amènent à cultiver des pratiques alternatives aux extractions nocives des ressources, à la surconsommation et à la pollution des milieux vivants. Des projets régénérateurs naturo-culturels sont à imaginer. Il s'agit de tisser des liens synergiques revivifiants entre données biogéophysiques, justice sociospatiale et santé.

Trois lignes de résilience ressourçante permettent de réactiver d'autres formes de dynamiques et de narrations autour des écologies de l'habiter et du prendre soin.

1 Les ressourcements en termes d'éléments

Afin de permettre une alliance avec les milieux habités, il est temps de repenser les puissances vitales combinées entre elles que sont l'eau, l'air, la terre et le feu. Les éléments qui sont des sources précieuses d'énergie et de fertilité, chargés de potentialités symboliques et poétiques s'avèrent aussi liés à des dérèglements, risques et catastrophes qui affectent les lieux et tout l'écosystème terrestre à partir du moment où se trouvent enclenchés des cataclysmes consécutifs à des aménagements délétères.

2 Les ressourcements en termes de modes de vie

La reconsidération des conditions d'habitabilité passe également par une attention soutenue aux évolutions des modes de vie dans un monde numérique hyper connecté. Des agencements à même de préserver tout à la fois, l'intimité, le commun et les solidarités sont en jeu corrélés à des stratégies bioclimatiques et permaculturelles dans lesquelles humains et non-humains puissent coopérer.

3 Les ressourcements en termes de matières

Le déjà construit constituant désormais un gisement phénoménal de matières, il importe de concevoir des dispositifs de transformation des édifices existants animés par la stratégie des des 3 R (Réduire, Réutiliser, Recycler) : Réduire les constructions neuves. Réutiliser au sens du réemploi des espaces déjà construits et des matériaux. Recycler en faisant appel à des matériaux biogéosourcés (terre, pierre, fibre), en anticipant la déconstruction et en redevenant local (mobilisation des savoirs-faire et des matériaux présents sur les sites d'implantation). Et ce afin de favoriser la préservation des ressources naturelles.

La sélection des sites se fera en fonction de leur potentialité d'y trouver ces trois types de ressourcements – « éléments naturels, usages, matérialité ».

Chaque site sera présenté à deux échelles :

- L'échelle territoriale du « site de réflexion » qui fera apparaître les éléments géographiques et écologiques (topographie, géologie, les éléments naturels..) , les logiques de mobilité et de modes de vie de grande échelle - en utilisant au maximum la cartographie - et qui ont un impact sur le site de projet aujourd'hui et, potentiellement, dans le futur.

- L'échelle de proximité, celle du « site de projet », où seront présentés de manière claire et précise l'existant (espace physique, nature, modes de vie) et les intentions de la ville pour son évolution dans le futur.

Le défi pour les concurrents, dans leurs projets-processus, sera de faire converger les trois types de ressourcements car c'est leur croisement qui générera un spectre prometteur de projets résilients face à la rareté des ressources et à la vulnérabilité des sites. Et ils devront les articuler à ces deux échelles.

EUROPAN EUROPE

GENERAL INFORMATION

SITE REPRESENTATIVE(S) :

ÉTABLISSEMENT PUBLIC FONCIER ET D'AMÉNAGEMENT DE MAYOTTE (EPFAM)
(MAYOTTE PUBLIC LAND AND SPATIAL PLANNING ESTABLISHMENT)

ACTOR(S) INVOLVED :

MUNICIPALITY OF DEMBENI, DEMBENI MAMOUDZOU COM. D'AGGLO (CADEMA)

TEAM REPRESENTATIVE : ARCHITECT, TOWN PLANNER

SKILLS NEEDED FOR THE SITE'S REQUIREMENTS AND

CHARACTERISTICS : ARCHITECT, LANDSCAPE ARCHITECT, URBAN PLANNER,
GEOGRAPHER, ENVIRONMENTALIST, SOCIOLOGIST, BASIC KNOWLEDGE OF LAND LAW

COMMUNICATION : POST-COMPOSITION PROJECT PROMOTION

JURY – 1ST EVALUATION : WITH THE PARTICIPATION OF SITE
REPRESENTATIVES

JURY – PRIZE SELECTION : SELECTION OF THREE PROJECTS PER SITE WITH
THE PARTICIPATION OF SITE REPRESENTATIVES

PRIZES : PRIZES ARE AWARDED BY THE JURY INDEPENDENTLY OF THE SITES :
WINNER (€12,000) / RUNNER-UP (€6,000) / SPECIAL MENTION (NO PRIZE)

INTERMEDIATE POSTCOMPETITION PROCEDURE :

- MEETING OF THE MUNICIPALITIES AND TEAMS ORGANISED BY THE EUROPAN FRANCE
SECRETARIAT IN PARIS AT THE BEGINNING OF 2026

- IN SITU MEETING OF THE MUNICIPALITIES AND TEAMS ORGANISED BY THE LOCAL
AUTHORITIES AND THEIR PARTNERS FROM JANUARY 2026

- SUPPORT AND ADVICE GIVEN BY EUROPAN FRANCE TO THE LOCAL AUTHORITIES AND
THEIR PARTNERS IN SETTING UP THE POSTCOMPETITION PHASES

ASSIGNMENT THAT MAY BE GIVEN TO THE TEAM(S) SELECTED

FOR THE PROJECT : STUDY AND PROJECT MANAGEMENT ASSIGNMENTS TO
DEVELOP THE STRATEGIC PROPOSALS ARISING FROM THE COMPETITION.

SUPPORT FOR OPERATIONAL AND/OR ARCHITECTURAL PROJECT MANAGEMENT WITH
ASSOCIATED PROJECT OWNERS

MAPPING OF CADEMA – FROM MAMOUDZOU TO DEMBENI
FR_DEMBENI-C-AP1



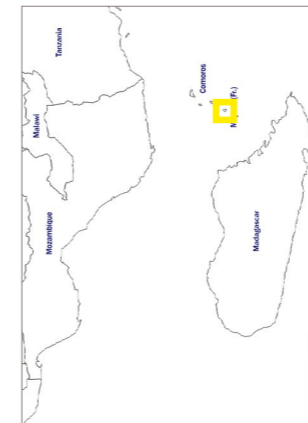
RELATION TO THE THEME

SITE ISSUES RELATING TO THE THEME



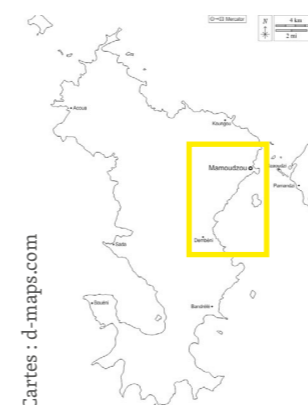
Located in the commune of Dembéli, a central town on the east coast of Mayotte, the proposed site stretches along the RN3. The area is characterised by informal urbanisation that has developed in response to the housing needs of the local population and consists of a mosaic of self-built dwellings. These flimsy structures, which range from simple tin “banga” to imposing two-storey concrete houses, often located in high-risk areas and close to protected natural environments such as mangrove forests, are evidence of the sometimes spontaneous local dynamic arising from the challenges of urban development. The build quality of these structures deteriorates as you move from the roadside in the direction of the mangroves.

A site at the interface between key regional projects



The area, located between Dembéli and Iloni, covers around 25 hectares, forming a strategic intersection between development hubs such as the University of Mayotte and the Tsararano-Dembéli ZAC (urban development zone) – which is being developed by EPFAM and includes plans to build 2600 homes – and extensive mangrove ecosystems. Within this area, there are a number of neighbourhoods with their own socio-historical and community characteristics. On the Dembéli side, there are the Irashi and Mouhokoni neighbourhoods (the latter meaning “mangrove” in Shimaoré), while on the Iloni side, the Manyasini and Minadzini neighbourhoods possess the same informal housing dynamic. Mapping of the area reveals a marked dichotomy: an urbanised historic core conceals a significant expanse of natural spaces, mainly mangrove forests, which are home to a high level of substandard housing – as illustrated by the Manyasini district, where in 2017 there were 310 dwellings, 249 of them located in high-risk zones.

Re-examining the district’s integration with respect to climate risks



The arrival of cyclone Chido on 14 December added a new dimension to our understanding of this area’s resilience. Despite the intensity of this storm, its impact on the site was relatively limited for several reasons. First, the eye of the cyclone passed over the island two hours after low tide, which significantly reduced the effects of marine submersion. Second, the mangrove forests played their protective role by acting as a natural barrier, shielding the buildings on the shoreline. In addition, the flimsy buildings – characteristic not only of Dembéli but of the island as a whole – demonstrated the remarkable resilience of the local inhabitants, who had rebuilt almost all of them within a few weeks of the cyclone’s

SEMI-AERIAL PHOTOS OF THE SITE
FR_DEMBENI-PS-AP1 et FR_DEMBENI-PS-AP2



passage. For their part, the concrete buildings are typically flat roofed and not very tall, two conditions that helped to minimise the damage to homes. However, some buildings, notably schools, suffered more extensive damage, with roofs partially torn off, rendering them partly unusable.

This climate event highlights the importance of incorporating appropriate resilience strategies to tackle natural hazards into the design of urban and architectural projects. The Dembeni site, which stands midway between development and ecological preservation, is a testing ground for innovative approaches. The challenge facing the European teams will be to rethink how the area is occupied, reconciling urban development, protection of sensitive ecosystems and the reinforcement of preventive measures against climatic risks.

Proposing a lifestyle that respects the environment and is suited to local conditions

Living in Mayotte is not like living in other French territories. An awareness of local characteristics is a key factor in understanding urbanisation in Mayotte's urban areas. Buildings fall into 2 main categories:

- family homes, often self-built cinderblock structures built without planning permission on land where customary land ownership is not regulated. Residents start by building a ground floor and then gradually add further storeys as they go along, as they earn enough money to buy building materials, sometimes referred to as "cinderblock savings".

- bangas, tin huts often rented out to the most vulnerable households, which are built on natural and agricultural land, in areas particularly exposed to risks.

Rental tenancies remain marginal, but are gradually increasing as a result of the activities of public landlords (SIM, Al'Ma) or households renting out the floors of family homes.

The publication *Une architecture mahoraise*, available online, summarises the dynamics of the territory's built environment.

Considering appropriate materials

Since the island's entry into the global economy, many buildings have been erected using breezeblock and sheet metal. However, traditionally and still today, the island has been a frontrunner in the use of raw earth, thanks in particular to the CEB (compressed earth brick) sector, a material which was approved in a 2022 regulation.

The judicious use of local materials such as bamboo and compressed earth bricks will help to reduce the environmental footprint of new housing and ensure its harmonious integration into the existing urban fabric. The formation of these sectors, which has already begun, should also boost local employment and know-how transfer within the community.

Being an island means that limited access to resources has to be factored into our thinking.

MAPPING OF CADEMA – PRIMARY ROAD NETWORK
FR_DEMBENI-C-M1



SPECIFIC EXPECTATIONS OF EPFAM AND ITS PARTNERS

General context

Mayotte, a French island in the Indian Ocean, is facing rapid and unprecedented demographic growth. With an estimated population of 321,000 in 2024, rising to 761,000 by 2050, the pressure to meet housing needs is immense. The Schéma d'Aménagement Régional (SAR - regional spatial plan) currently being drawn up predicts that 100,000 new homes will need to be built to meet this demand. This urgency is compounded by the prevalence of informal and unhealthy housing, particularly in the town of Dembeni, where 37% of dwellings are classified as "makeshift" according to INSEE (2017).

The area proposed for the European competition is a strategic one, encompassing the northern fringe of the Dembeni-Iloni commune, contiguous with the mangrove forest. The dynamics of this remarkable complex, a mix of rapid urbanisation, precarious housing and sensitive mangrove ecosystems.

Themes and principles of intervention

Intervention in these areas requires a holistic approach, incorporating the three guiding threads of resourcing proposed by European: the elements, lifestyles and materials.

Vital elements

The aim is to create synergies between natural and man-made dynamics, restoring ecological balance while meeting human needs and preserving biodiversity and local resources. The project is suited to an approach that entails reclaiming and enhancing the vital elements of water, air, earth and fire, and which takes into account the specific features of the mangrove ecosystems and the heights of Dembeni.

The northern fringe of Dembeni-Iloni is where concentrations of urban development meet mangrove ecosystems. The Irashi, Manyasini and Minadzini districts, located in high-hazard zones, illustrate the fragility of housing in sensitive environments. Mangroves, with their ecological value, also present health and natural risks to residents.

It is crucial to put in place ecological restoration projects that both provide residents with decent alternative housing and enhance and protect these sensitive ecosystems. Awareness-raising and training schemes will be introduced to involve local people in the management and preservation of these areas. By integrating natural filtration systems, retention basins and nature trails, the projects can transform these areas and turn them into community assets, offering protection

MAPPING OF CADEMA – TOPOGRAPHY
FR_DEMBENI-C-M5



from natural risks, areas for relaxation and economic resources.

On the south-western edge, located in the hills above Dembeni and not included in the study site, planned development projects include the introduction of sustainable management systems for water and soil resources. Because of the steep relief of the land and the proximity of gullies, innovative and sustainable interventions are required, such as the reprofiling and rewilding of watercourses and the stabilisation of riverbanks. These actions aim to limit erosion, encourage rainwater infiltration and preserve soil quality. Measures to recycle organic waste and produce renewable energy will also be developed, with the aim of increasing self-sufficiency and resilience in local communities.

Lifestyles

Lifestyles need to be reconsidered, incorporating bioclimatic and permaculture strategies that can be adapted to the practices of the Mahoran garden, promoting harmonious coexistence between humans and non-humans. The northern and south-western margins of Dembeni offer a unique opportunity to develop neighbourhoods that embody these principles. Initiatives could involve upgrading existing housing and creating new dwellings that reconcile modern aspirations for quality of use with the preservation of family and cultural ties. The aim will be to offer a functional mix that is in harmony with existing spatial practices, which are essentially centred on social proximity and communal outdoor living.

Projects will also be able to develop housing solutions that are adapted to environmental constraints and natural risks. These solutions will include flood, landslide and fire prevention systems, as well as local food production and waste management systems. Planned, environmentally-friendly densification will make it possible to meet housing needs while containing urban sprawl.

LA BTC À MAYOTTE

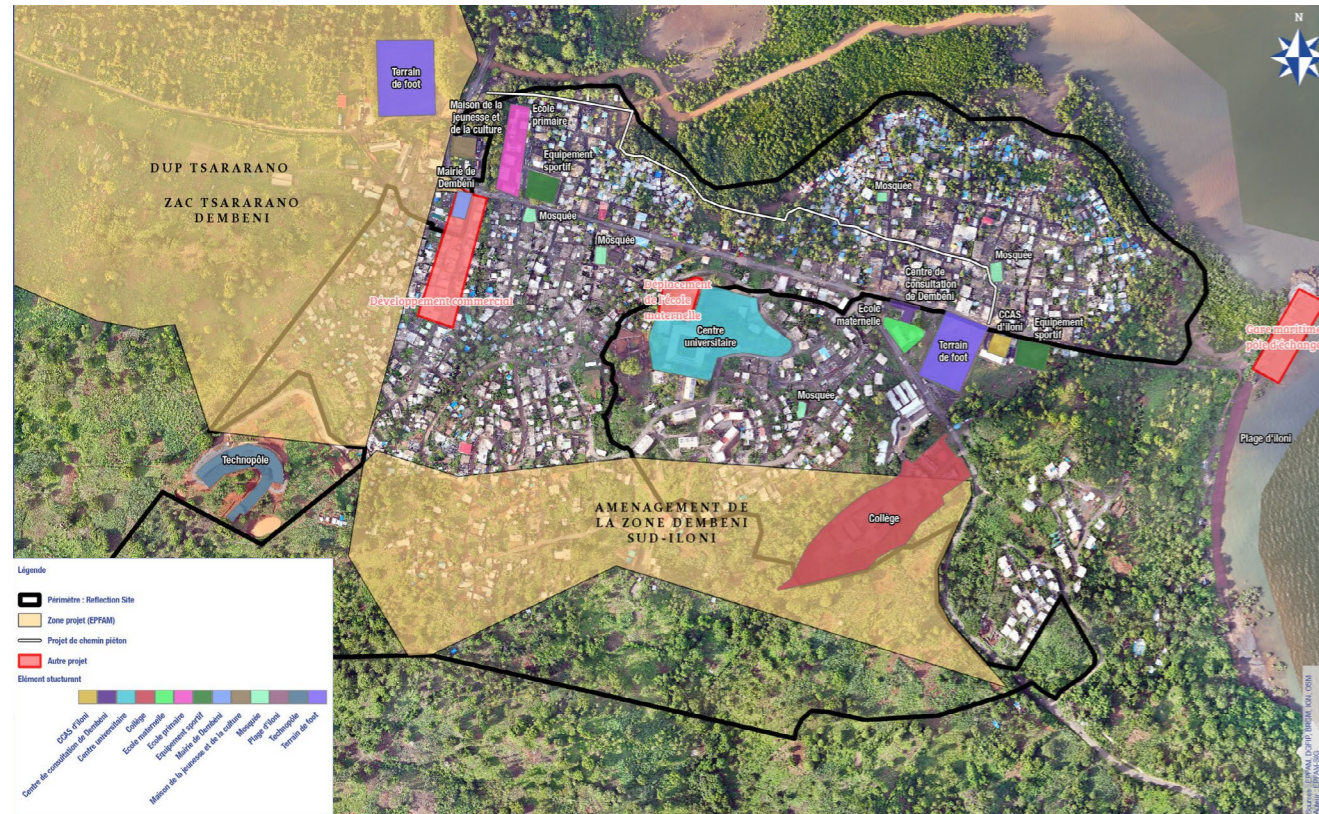
Materials



Materials are a major source of resources. The conversion of existing buildings, the use of biosourced or geosourced materials, and the implementation of the 3R principles (Reduce, Reuse, Recycle) are essential strategies reflected in the EPFAM's spatial planning criteria. The aim is to limit the environmental impact of construction and development, while encouraging the emergence of a circular and inclusive economy.

The judicious use of local materials such as bamboo and compressed earth bricks will help to reduce the environmental footprint of new housing and ensure its harmonious integration into the existing urban fabric. The formation of these sectors, which has already begun, should also encourage local employment and know-how transfer within the community.

MAPPING OF THE STRUCTURAL ELEMENTS OF THE URBAN AREA
FR-DEMBENI-SS-M12



The project may therefore include the introduction of systems for collecting, sorting and recovering the waste generated on the site, in order to reduce the volume of waste buried or burnt and to encourage its reuse or recycling. These systems will be based on existing initiatives and the implication of local actors, with a view to co-construction and co-responsibility.

Benefits of European for the Municipality and the Owner

Mayotte's participation in the European competition is an exceptional opportunity to address the complex challenges of rapid urbanisation and substandard housing. In proposing the Dombeni-Iloni sectors, EPFAM is positioning the municipality as a laboratory for urban and ecological innovation. The projects that result from this competition will benefit from national and European visibility, boosting the attractiveness of the area and attracting talent and resources. This initiative will also strengthen cross-sector collaboration between the various stakeholders in the area, facilitating the implementation of integrated and coherent urban projects.

Participation in European will position Mayotte among the leaders in sustainable urban change, increasing the region's visibility and attractiveness. The projects selected and developed through this competition will provide innovative solutions to the problems of substandard housing, environmental risk management and urban sustainability. In this sense, European offers Mayotte the opportunity to turn its challenges into opportunities, to rethink and restructure its urban development in a sustainable and resilient way, while developing an exemplary model for the future.

PROGRAMME GUIDELINES AND QUESTIONS ASKED : DEVISING METHODS OF INTERVENTION SUITED TO THE CHALLENGES AND TO THE REGION

In order to achieve the long-term eradication of shantytowns, it is essential to adopt a comprehensive approach that looks beyond simple “clearance” and to develop an effective and replicable methodology, suited to the specific social and urban conditions on the ground. Within the framework of the OIN (national interest operation) that includes this project, a Programme Prévisionnel d’Aménagement (PPA - forward planning programme) will be drawn up to provide a framework for a long-term urban planning vision. The methodology already outlined aims to establish a strategy for reclaiming shantytown areas through sustainable projects linked to the renaturing of the milieux concerned.

In line with the primary objective of the OIN, , therefore, the elimination of substandard housing should provide an opportunity to adopt an overarching urban planning vision for the competition site. It will be important for the teams not to limit their thinking about housing to quantitative criteria, but to consider a policy for the town as a whole, including the social, ecological, economic and urban renewal dimensions. This quest for a balanced urban plan will have to encompass the role of utilities and services, public spaces and the amenities that accompany housing development.

Overall approach and development choices

Faced with the pressing challenges of the housing shortage and the shortcomings of transitional rehousing, it would appear necessary to develop cross-functional approaches, which entail deliberation at multiple levels. The diagnosis set out in the context section highlights major deficiencies, such as the insufficiency of managed land, the lack of clarity over ownership status, limited access to social housing, the absence of rehousing solutions specific to the spatial planners, etc.

The proposals must take these observations on board and propose a global strategy based on the segmentation of the areas of action in order to offer effective rehousing solutions. At the Plenary Meeting of the Comité Départemental de l’Habitat et de l’Hébergement (CDHH) on 12 October 2023, Thierry Suquet, Prefect of Mayotte, stressed the importance of making the transition “from shantytowns to urban fabric”, by rebuilding the city on itself, restructuring informal settlements and creating sustainable neighbourhoods offering safe and healthy living conditions.

These considerations must be complemented by a clear commitment to preserving and restoring milieux that have been damaged by unregulated urban development.

The proposals should be divided into tranches. For example, by first rehousing the households in phase 1 on a transitional basis, in order to free up the space needed to start the work; then by bringing them back into the project zone or rehousing them permanently elsewhere, depending on the permanent solutions available. This iterative model will then be applied to the households in the subsequent tranches.

This set of measures is part of a comprehensive, adaptive approach designed to compensate for the lack of rehousing solutions, and establishes operational responsiveness as the driving principle for organising released spaces and meeting urgent rehousing needs in Mayotte.

Innovative strategies for transitional housing

The estimated proportion of households eligible for rehousing is based on figures from MOUS (urban and social project management) surveys carried out as part of previous RHI projects. The figures will have to be consolidated during the preliminary studies (building diagnosis, MOUS, etc.).

Approximately 33% of households living in substandard housing areas that fall within the proposed perimeters, who are in an irregular situation and subject to eviction proceedings, will be handled by the prefecture and directed towards emergency accommodation structures for the implementation of the obligation to leave French territory (OQTF) procedure. The remaining 67% of households are included in the financial forecast, initially in the temporary rehousing phase prior to obtaining permanent housing solutions. Some of the households will be brought into the traditional residential pathway; for most of them, specific solutions will have to be devised.

Affected populations	Estimated proportion	Sub-proportion	Estimated no. houses	Rehousing		Location
				Temporary (if necessary)	Permanent	
Legally resident French and foreign	33%		3168	Sublet, private rental/Emergency and transitional housing/Temporary housing (OIN)	Social housing (rental and first-time buy, intermediate rental, free, private)	Outside and inside OIN sector
	- With sufficient resources to afford social and/or private ownership	16.5%	1584	Emergency accommodation/ Temporary housing (OIN)	Solution to be defined	Outside and inside OIN sector
	- With insufficient resources to afford social and/or private ownership	16.5%	1584	Emergency accommodation		

Legally resident French and foreign	66%		6336			
	- Neither possible to regularise nor to expel	33%	3168	Emergency accommodation/ Temporary housing (OIN)	Solution to be defined	Outside and inside OIN sector
	- Subject to an expulsion procedure	33%	3168	Emergency accommodation		Outside OIN sector

THE VILLAGE-RELAY ÉTAPE FULERA: ASSEMBLY OF METAL STRUCTURES (TOP) AND COMPLETION OF THE SITE (BOTTOM)
EPFAM, 2022



Taking account of local examples

In order to complete the project successfully, it is essential to build up a stock of temporary housing in order to free up the occupied land. With this in mind, EPFAM is proposing to explore a solution involving the creation of a stock of modular dwellings to make up for the lack of temporary rehousing solutions during implementation of the first phases of the project.

Various models have been studied, such as the “Étape Fulera” relay village in Tsoundzou 2, which provides single-storey housing units with a total floor area of 60 m². Each level corresponds to a dwelling measuring 6 x 4 metres, with a main room used as a sleeping area and a separate bedroom. The kitchens and washrooms are separate and shared between the two dwellings. Prefabrication, in particular using metal frames, is an effective method of speeding up the construction of appropriate housing for the transitional stock. This project saw the construction of 31 temporary accommodation buildings and shared facilities as part of a social integration project, enabling 50 young people to acquire training in the building trades.

These modular structures provide decent housing for people from precarious housing situations. The fact that they can be built quickly and adapted to the specific requirements of each development project encourages a circular system of rehousing. Moreover, they enable the project sites to be occupied quickly, so as to restrict further informal occupancy and allow the project to emerge gradually in the urban fabric. To take this approach further, the inclusion of self-build schemes under professional supervision could be explored in order to reduce production costs and ensure compliance with housing standards¹. This kind of participatory approach helps to strengthen a sense of ownership of the homes, develop local skills and promote professional integration. Long-term support will be provided to ensure that the homes are safe and healthy.

The management of these temporary housing units could be assigned to integration project owners (MOI) led by local actors, based on the Tsoundzou 2 model, where an association manager was selected to provide social support for the families entering this accommodation. The intention is to integrate teachers into these temporary facilities in order to minimise any reluctance to relocate and to encourage educational continuity. Eventually, the temporary housing stock could be converted into permanent housing, by ensuring that it is refurbished and blends harmoniously into the existing urban fabric. The use of recycled, local, bio-sourced or geo-sourced materials, such as compressed earth bricks (CEB), will be encouraged to reduce the projects’ environmental footprint and promote the re-use of excavated soil during development work.

¹ “Opération d’intérêt national en Guyane”, Report n°008034-03 prepared by Schmit, P. 2016.

DENSIFICATION THROUGH THE VERTICAL EXTENSION OF FAMILY HOMES
FR_DEMBENI-SS-P5 - C. HANAPPE



Densification and integration into the existing urban fabric

A meticulous approach is needed in integrating the proposals into the existing urban fabric in order to combat further urban sprawl and limit land consumption. With this in mind, density is seen as an essential factor in ensuring sustainable and controlled urban development. According to the report by the Cour des Comptes (2022), densification is an appropriate strategy for improving access to drinking water, sewerage, electricity and telecommunications networks, while minimising losses and associated costs and promoting proximity to healthcare and emergency services². In addition, such a strategy helps to optimise mobility and connectivity, by encouraging the development of strategic roads and improving inter-neighbourhood links.

The current density of shantytowns in Mayotte is between 40 and 70 dwellings per hectare. If the plan is to densify by rebuilding 55 to 85 dwellings per hectare, urban ZAC projects could be conducted on site – where possible – by reusing vacant spaces and peripheral areas. The structure of the villages and the RHI (slum clearance) projects currently underway suggests that there is potential for densification by filling empty spaces, which needs to be assessed. Such densification is essential to meet the growing demand for housing, while fitting harmoniously into the existing urban fabric and preserving natural areas. Proposals by the European teams could include innovative approaches to operational urban planning.

However, given that the population is expected to double, a parallel effort of construction is needed to meet the growing demand for housing. Without the creation of new housing matched to the population's resources, the effort to eliminate shanty towns could lead new shanty towns springing up nearby.

An average density of 85 to 120 dwellings per hectare is envisaged, which is two to three times higher than the density of the existing informal fabric and takes into account the key amenities in the development zone. This density is designed to reduce the rate of artificial development while at the same time making it possible to accommodate the rapidly growing population, thereby helping to preserve agricultural and natural areas in line with the objectives for frugal land use – such as zero net artificialisation – set by the Ministry for Ecological Transition and Territorial Cohesion, both in metropolitan France and in Mayotte. However, apartment block living is far removed from residential habits on the island. New types of housing therefore need to be devised that take a different approach to collective and communal living and take account of the lifestyles specific to the region.

In short, the teams' proposals should provide a major opportunity for sustainable development on the island and for improvements on the living conditions experienced in informal settlements. The key elements of this approach encompass reduced exposure to risks, planned densification, integration into the existing

² Cour des Comptes (2022). WHAT KIND OF DEVELOPMENT FOR MAYOTTE? A better response to the challenges of demography, departmentalisation and the expectations of the Mahorais. Thematic public report.

THE DEMBENI COASTLINE – A SPACE OF INTERFACE BETWEEN A NATURAL ENVIRONMENT AND HABITED USES
FR-DEMBENI-PS-P10 / FR-DEMBENI-PS-P11 / FR-DEMBENI-PS-P12 - C. HANAPPE



urban fabric, and consideration of societal criteria. The aim is to create safe and pleasant neighbourhoods, offering good quality landscaped and public spaces, community facilities and infrastructure tailored to the needs of the population, while promoting social mix – which is anyway generally the rule in Mayotte – and a functional mix, with flourishing local shops, services and small businesses. In other words, the need for housing needs to be tackled through an approach that supports family life aspirations rather than simply focusing on programmed housing developments.

Summary of intervention issues

Dembéni municipality and the Etablissement Public d'Aménagement (public planning establishment) are inviting competition participants to reflect on the issues of coexistence at the interface between unhealthy habitats and sensitive natural ecosystems at the boundary of the established town of Dembéni. How can existing neighbourhoods be restructured while preserving mangrove forests and minimising natural risks?

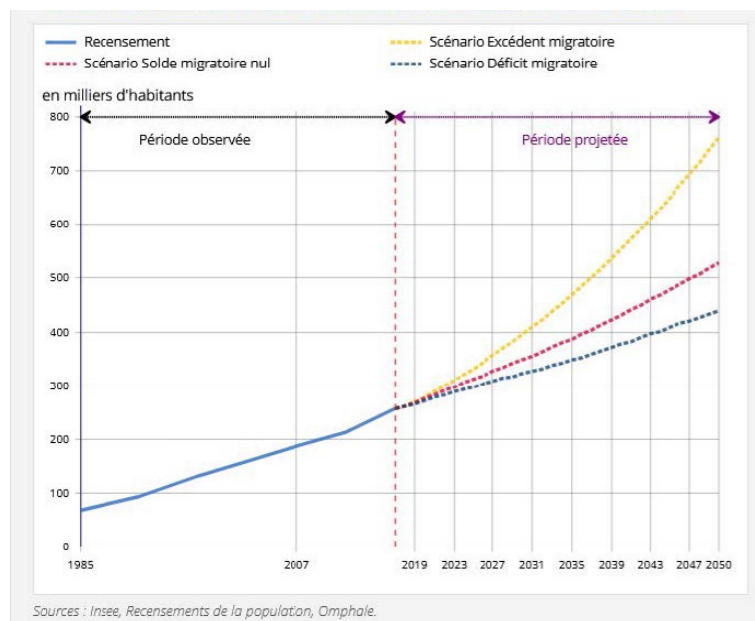
At the level of the study site: How can the interfaces between inhabited and natural areas be rearranged to encourage resilient urban development that is consonant with local socio-cultural dynamics? What rehabilitation strategies can be adopted in neighbourhoods located in natural hazard zones?

At the scale of the project site: How can mangrove forests be reintegrated into the urban fabric in a sustainable way, promoting an inclusive approach for local residents? How can innovative solutions be devised to rehouse people in a dignified way, while enhancing the area's natural heritage?

This site invites participants to redefine the way in which we intervene in precarious housing by combining architectural innovation, bioclimatic solutions and the restoration of fragile ecosystems. The teams will need to propose solutions that reflect an approach founded on urban resilience and co-construction with local communities.

The mangrove forest is a place that is highly integrated into local spiritual cultures. It needs to be treated with regard to all its poetic and sensory potential and the coexistence between the human world and the mangrove must be conceived from the perspective of ways of life that respect its natural milieu and take account of the specific socio-economic challenges that it presents.

MOUHOKONI NEIGHBORHOOD (MANGROVE), DEMBENI
FR-DEMBENI-PS-P8



POPULATION GROWTH IN MAYOTTE BY 2050
ACCORDING TO THE 3 PROJECTION SCENARIOS
FR_DEMBENI

THE SITUATION IN MAYOTTE: A HOUSING CRISIS AND DISRUPTED ECOSYSTEMS

A POPULATION MARKED BY HIGH GROWTH AND HIGH POVERTY RATES

The predominant development of substandard housing in Mayotte is primarily linked to the strong demographic growth that has characterised the island since the 1990s. The population of Mayotte, estimated by INSEE to be 321,000 at the start of 2024, grew by an exceptional 64,500 between 2017 and 2024, representing an annual increase of 3.6%³. This growth far outstrips the national rates or those of the other overseas territories, which stand at just 0.5% in metropolitan France and 2.4% in French Guiana, and are negative in Guadeloupe (-0.1%) and Martinique (-0.6%). Demographic projections to 2050, based on INSEE's OMPHALE model, reveal a range of population scenarios, with forecasts ranging from 439,000 to 761,000 inhabitants⁴.

Cette dynamique démographique est principalement portée par un indice de fécondité élevé, évalué à 4,6 enfants par femme en 2021, en lien également avec une intensification des flux migratoires depuis 2012 (+32 500 natifs étrangers entre 2012 et 2017). Dans le même temps, de nombreux natifs de Mayotte quittent l'île (-25 900).

Within this fast-growing population, 77% of people live below the poverty line, and more than one in four working people are affected by unemployment⁵. Foreign-born people - who account for almost half of the population - are particularly affected by limited economic resources⁶. They experience an alarming unemployment rate of 51%, and lives largely in precarious and/or unhealthy accommodation. Mass household poverty, illegal residence and its corollary, illegal work, have encouraged the spread of substandard housing, a major feature of urban evolution in Mayotte for almost three decades.

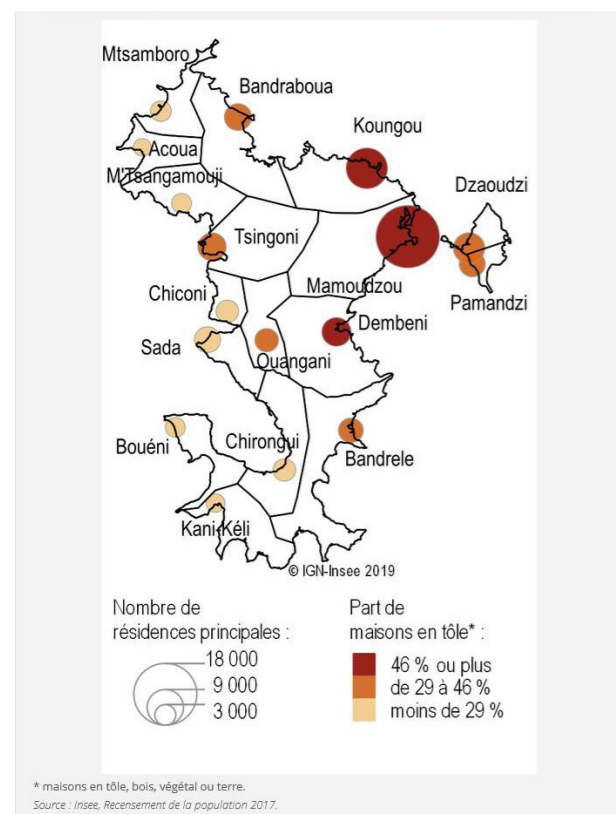
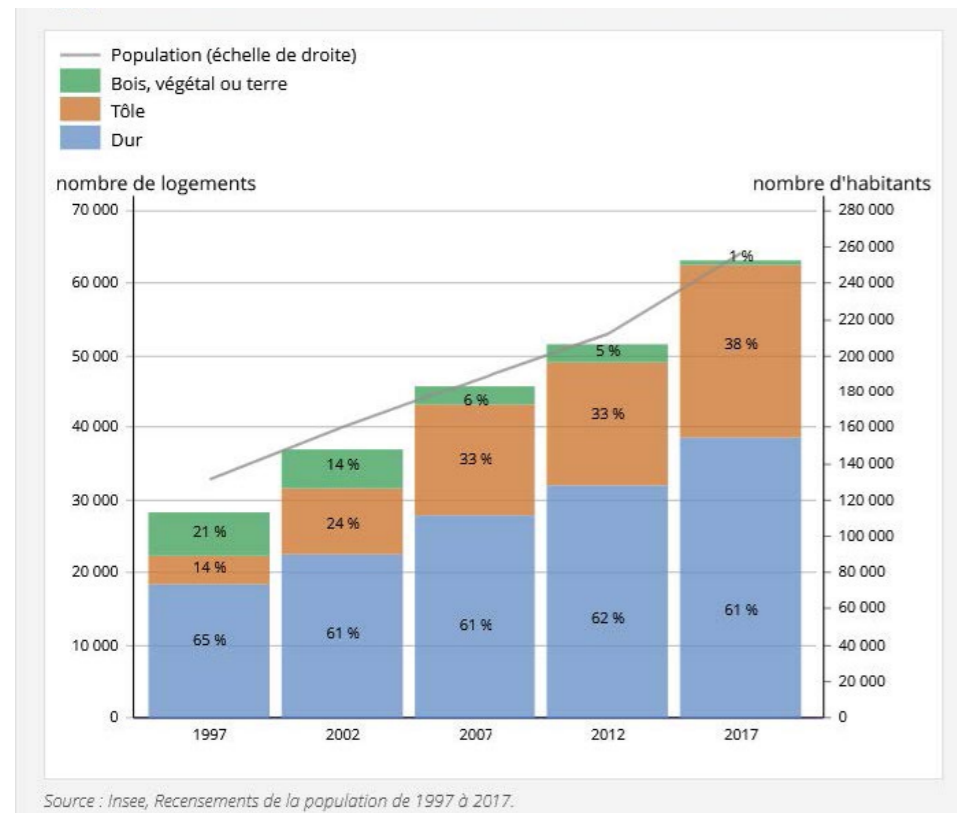
³ Insee. (2023). L'essentiel sur... Mayotte. URL: <https://www.insee.fr/fr/statistiques/4632225>

⁴ Insee. (2020). Between 440,000 and 760,000 inhabitants depending on migration trends. URL: <https://www.insee.fr/fr/statistiques/4628193>

⁵ Insee Flash (2023), n°151 : Mayotte Employment Survey 2022

⁶ Insee. (2019). In Mayotte, nearly one inhabitant in two is of foreign nationality. URL: <https://www.insee.fr/fr/statistiques/3713016>

POPULATION GROWTH AND THE NUMBER OF MAIN RESIDENCES ACCORDING TO BUILDING TYPE FROM 1997 TO 2017
FR-DEMBENI-EX-3



NUMBER OF MAIN RESIDENCES AND PROPORTION OF TIN HOUSES BY MUNICIPALITY IN MAYOTTE IN 2017
FR-DEMBENI-EX-4

PROLIFERATION OF SUBSTANDARD HOUSING: MAJOR HEALTH, SAFETY AND ENVIRONMENTAL RISKS

Rapid expansion of poor quality urbanisation

Urbanisation on the island of Mayotte is driven by demographic, economic, development and planning constraints. Demographic growth demands the production of significant volumes of housing, which has not yet been achieved sufficiently to meet needs. In 2022, according to INSEE, Mayotte had a population of 300,000, with 70,300 primary residences. Of these, 68% (47,931 units) were permanent structures, and 28% of the latter (around 20,000 units) did not meet comfort and health standards. In addition, 32% of main residences – 22,369 dwellings – consisted of tin huts.

In the 1990s, the villages of Mayotte were relatively harmonious, with roads leading to schools, mosques and SIM huts⁷. However, three decades later, the situation has deteriorated substantially. The village centres are in an advanced state of disrepair: the roads have deteriorated, there are no pavements and the verges are marked by improvised fences made of metal sheets, sacking and used tarpaulins.

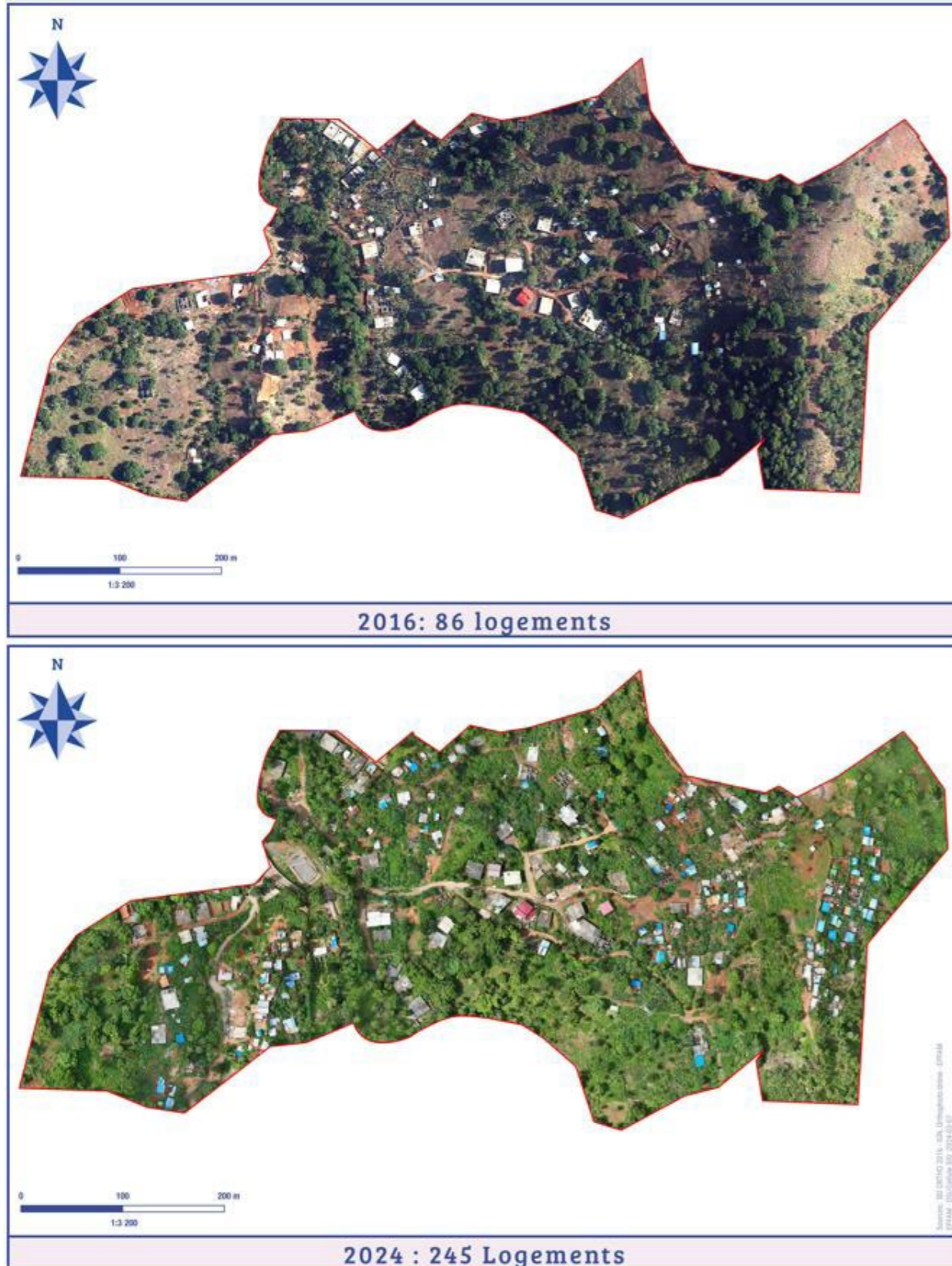
Wrecked vehicles and abandoned household appliances litter the roads or are jammed into nooks and crannies. Virtually no new SIM huts are being built, and the rare remains bear witness to makeshift housing. The outlying areas are largely occupied by shanty towns that spread out over the slopes, with no access roads or urban amenities.

Every one of Mayotte’s 17 communes now has a significant proportion of housing built from makeshift materials (see map on the left).

Mainly located on the outskirts of villages, the most densely populated urban areas (Koungou, Mamoudzou and Dombéni), which are home to most of the island’s economic, commercial and administrative activities, also have the highest proportions of substandard housing. These three municipalities account for 57% of Mayotte’s substandard housing stock, or 12,961 of the 22,369 makeshift dwellings surveyed in 2022.

⁷ The Société Immobilière de Mayotte (SIM), set up in 1978, played a central role in providing social housing, known as “SIM huts”. Nearly 18,000 homes were built between 1978 and 2005, housing 17,000 families.

EXAMPLE OF BUILDING EVOLUTION BETWEEN 2016 AND 2024: LONGONI AREA
FR-DEMBENI-EX-5



According to INSEE data (RIL, Dec. 2022), these are home to:

Commune	Number of homes	Number of makeshift homes	Percentage of makeshift homes
Koungou	8607	3760	44%
Mamoudzou	19,402	7589	39%
Dembéni	3622	1612	44.5%

The proliferation of substandard housing in Mayotte is mainly the outcome of spontaneous self-building, exacerbated by a lack of access to services and deficient urban services, creating worryingly unhealthy living conditions. Initially built from makeshift materials such as sheet metal, wood and rammed earth, these structures have gradually improved in terms of structural characteristics: slabs have been poured, walls have been built from breeze blocks, concrete slab roofs make it possible to create additional storeys, and so on. However, these improvements are not enough to make these dwellings healthy, particularly as most of them are still not connected to the official utility networks or use informal and precarious connections.

The map opposite compares orthophotographs from 2016 and 2024: it highlights the rapid proliferation of makeshift buildings, easily identifiable by their blue roofs in the high-risk sectors and at high altitude in Longoni.

Widespread use of self-build methods, with no regard for the rules

Alongside the shantification taking place on the outskirts, another type of housing is developing thanks to the financial resources of a section of the population of Mauritania, particularly those who have salaried jobs or are self-employed. Every year, around 500 informal dwellings, dependent on the know-how and the initiative of the inhabitants, are built by the ingenious recycling of used materials, making the structures easily replicable and transportable, and minimising the need for site machinery.

The housing crisis in Mayotte, though linked to financial resources and the unsuitability of social housing products for vulnerable households, is also influenced by other factors, such as the mismatch between high demand and the scarcity of available land with attached utilities. As a result, many privately-owned plots of land, though located in no-build zones, come onto the market at high prices, leading to rapid and unregulated urbanisation. These plots, despite their no-build status and the absence of road access, fluctuate in price between €80 and €100 per square metre, which corresponds to approximately €10,000 to €15,000 for a 150 m² building plot.

The purchasers of these plots, often sold with imprecise land profiles, tend to carry out the first stages of construction (foundations, base, perimeter walls, wall ties and floor slabs) in the space of a few weeks, transforming a plot of land on which no development is permitted into a site occupied by permanent buildings, thus presenting local authorities and government departments with a fait accompli.

BARAKANI NEIGHBORHOOD, MAMOUDZOU – HOW THE CITY OF MAYOTTE BUILDS UPON ITSELF
EPPAM - E. RIS - 15/04/2024



Most of these buildings occupy almost the entirety of the plot, with minimum lateral gaps in order to maximise land-use. The lack of prior authorisation, construction feasibility studies and layout plans that allow for the necessary reserves compromises the provision of sanitary, public and parking facilities, roads, utility networks (water supply, drainage, rainwater, etc.), etc. A cross-check of data from the census of principal residences and the Sitadel statistical tool reveals a substantial deficit in compliance with regulatory standards. Between 2017 and 2022, 67.2% of new homes – in other words 4836 of the 7200 new homes recorded – were built without planning permission. Moreover, only 43 new homes (0.59%) received a Declaration of Completion and Conformity of Works (DAACT) and met all the regulatory standards.

The construction of concrete block huts, though contrary to official procedures and criticised for its often unofficial production methods (unregistered companies, self-build without precautions, excessive excavation and dubious structural underpinnings), does have some positive aspects. Breeze-block and concrete buildings are generally well built and solidly reinforced, forming a seismic-resistant whole. The plans for these houses are often drawn up by designers and project managers trained by government architects. These houses meet the aspirations of families in the island of Mayotte, who often want to provide housing solutions for members of their extended family. They incorporate architectural features suitable for family ceremonies and include moulded elements such as balustrades, capitals and spiral posts, giving character to the balconies and verandas on the street.

However, the main challenge remains the management of roads and parking, utilities, rainwater run-off, the development of public spaces, etc., all factors that contribute to the unhealthy state of residential areas in Mayotte.

Health and environmental impacts and the development of risk conditions

Although this type of self-build meets an urgent need for housing in response to the complexity of producing formal housing and nearly 20 years of inadequate social housing policies, it gives rise to flimsy housing that is often dangerous and unhealthy and lacking basic amenities and contributes to the degradation of the immediate environment through accumulated waste.

Health problems can be caused by poor connections to the various utilities (particularly sewerage and drinking water), construction faults (poor insulation, leakage), overcrowding, as well as inadequate hygiene practices and local customs that are not taken into account in current housing production (kitchens designed for metropolitan France rather than local practices, small living spaces where Mayotte society has extended families, etc.).

According to INSEE (2019), a significant percentage of the population has no access to running water (29%) or indoor toilets (60%)⁸. The glaring lack of sanitation infrastructure has alarming health repercussions for the population, with epidemics such as cholera, typhoid, hepatitis A and poliomyelitis suspected or confirmed.

⁸ Insee. (2019). Four out of ten dwellings were made of sheet metal in 2017. URL: <https://www.insee.fr/fr/statistiques/42028648>

MANYASINI NEIGHBORHOOD, DEMBENI
FR-DEMBENI-PS-P1



According to the ARS (regional health agency), the health consequences of this situation are dramatic for the population, with around 10% of the interventions of the A&E department at the Centre Hospitalier de Mayotte (CHM) linked directly or indirectly to water-related sanitary conditions, such as lack of access to drinking water and efficient sanitation.

As a result, an alarming proportion of the population is exposed to serious health and safety risks due to living conditions in shanty towns. The island's topography, with 60% of the land sloping at an angle of more than 15%, increases the risk of devastating geological events, directly threatening the integrity of informal settlements. The ARS also states that 90% of Mayotte's housing is located in zones exposed to risk, half of them classified as high-risk. Makeshift buildings, often erected without foundations, in steeply sloping areas, after crude excavations and using light materials, are particularly vulnerable to natural hazards: landslides, seismic activity, submersion, flooding, coastal erosion, etc. The "toughening" of the original building by means of concrete blocks and additional storeys further increases the risks when occupants are affected by natural hazards (landslides, seismic activity, etc.).

The lack of sanitation is also causing environmental damage to river ecosystems and the lagoon, with polluted water entering via run-off, spillage or percolation, undermining water quality and exacerbating the island's vulnerability to water-borne diseases and pollution spread, particularly in sensitive natural areas such as mangrove forests and coral reefs.

The consequences for the community are serious, with uncontrolled urbanisation in no-build areas, protected spaces and public and private property, compromising the safety of residents, the preservation of sites and the coherence of regional planning. The challenge is to limit unmanaged urban sprawl and its negative impacts, such as encroachment on agricultural and natural land, danger to people, etc.⁹

⁹ Gontard, G., Jacques, M. & Lurel, V. (2021). Politique du logement dans outre-mer. Tome 1. Rapport d'information soumis au Sénat [Housing policy in overseas France. Tome 1. Information report submitted to the Senate], n°728. 225p.

THE DEVELOPMENT OF THE SLUM ON THE MANGROVE FRINGE, A FRAGILE NATURAL ENVIRONMENT
FR-DEMBENI-SS-P6 (haut) / FR-DEMBENI-PS-P7 (bas) . C. HANAPPE



THE DEVELOPMENT OF FORMAL HOUSING HAMPERED BY THE COMPLEXITY OF LAND OWNERSHIP STRUCTURES

In the case of the majority of substandard housing, the informal nature of ownership means that the land on which these dwellings are built does not necessarily belong to their occupants or to the people who built them. In other words, substandard housing often goes hand-in-hand with a lack of formal property rights. Dealing with informal housing therefore demands a clarification of land status, which is a necessary step before any planning can be done to subdivide and provide services on the areas concerned. However, in Mayotte, this task is made particularly complex for two reasons: the difficulty of identifying legitimate landowners and, once identified, the significant financial considerations that constitute an additional obstacle to land acquisition and control.

Incomplete land clarification

All in all, land management in Mayotte faces a constellation of obstacles to rationalisation, which is essential for territorial development and the effort to mitigate substandard housing. The legal complexity resulting from the incomplete transition between customary law and French law lies at the heart of the operational and structural obstacles encountered.

Major land reforms, notably Ordinance No. 92-1069 of 1 October 1992 and the Decree of 9 September 1993 establishing a land register, as well as the Ordinance of 28 July 2005 requiring the registration of buildings, have marked major attempts to move from customary land tenure to the common law system. However, land tenure in Mayotte remains largely unregulated and unstable.

The Departmental Council, as the main landowner, has to manage a substantial legacy of regularisation case files, marked by voluminous and time-consuming administrative processes: land audit and inventory, verification and regularisation of property rights, updating of the land register, resolution of disputes through judicial enquiries or mediation, etc. At the same time, as the land register is perceived as a prerequisite for taxation, a multitude of undeclared transactions and informal joint ownership inheritance arrangements persist, exacerbating the legal insecurity attached to property rights.

Identifying rightful owners is thus hampered by complex inheritance arrangements and informal occupancies. Act no. 2011-725 of 23 June 2011 containing special provisions relating to informal housing districts and the campaign against substandard housing in the overseas departments and regions, known as the "Letchimy Act", provide a framework for addressing public planning in such

A FRAGMENTED PARCELING, WHEN CUSTOMARY LAW CONFLICTS WITH CIVIL LAW
FR-DEMBENI-SS-M₃(haut) / FR-DEMBENI-SS-AP₃ (bas)



situations. Nevertheless, a multitude of undeclared transactions and unofficial inheritance arrangements persist, exacerbating legal uncertainty and hampering the transfer of ownership.

A number of initiatives have been implemented to speed up and simplify land clarification. In 2017, the State set up a Commission d'urgence foncière (CUF – emergency land committee) made up of representatives of the state and local authorities, with the following objectives :

- To collect and analyse all the information needed to compile an inventory of untitled land and property assets, as well as untitled occupants (known as the “inventory” mission);
- And to establish a link between a property and a person in order to constitute or reconstitute these property titles (known as the “titling” mission)¹⁰.

Individuals can therefore apply to the CUF to obtain a deed of notoriety of possession, if the conditions of the Civil Code relating to usucapion are met. Regulatory simplification measures have also been taken, such as the application of the accelerated procedure on the merits for recognition of ownership, via decree no. 2023-94 of 14 February 2023 concerning titling procedures.

However, despite these advances, the application of these measures and tools remains limited, and the land situation continues to hamper structured development on the island.

Informal transactions encouraged by land prices

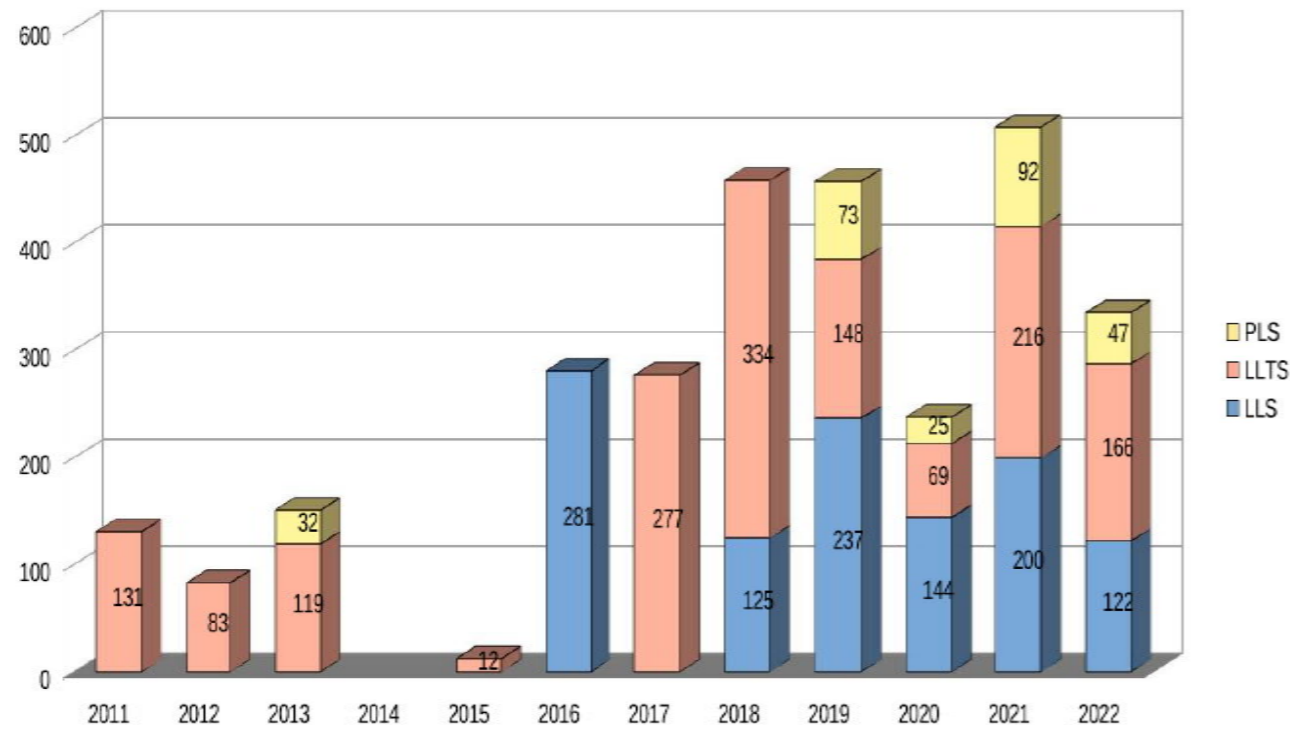
Furthermore, the cost of land in Mayotte illustrates an economic reality that is exacerbated by intense speculation and a scarcity of plots available for development. Whereas in metropolitan France, a plot of land on which construction is prohibited sells for an average of twenty times less than a plot where building is allowed, in Mayotte this logic of value does not apply. The average cost of agricultural land can be as high as 150 euros per square metre, or around 250 times the average national price in 2022, demonstrating the clear disproportion in costs.

Similarly, the price of land in urban areas, particularly in Mamoudzou, varies between 300 and 600 euros per square metre, reflecting not only a speculative market but also the difficulties inherent in providing services to the land, with the result that costs can come close to those of building plots with installed utilities and services in metropolitan France. The situation is further complicated by the comparative valuations produced by France's national real estate directorate; hampered by a lack of local references, these valuations result in an increase in reference values that discourages formal transactions and delays land development initiatives.

The problem of land ownership in Mayotte is therefore reflected in two dysfunctions. The first is linked to the illegal occupation of public land, and the second to existing problems with private property. The disorderly expansion of urban centres driven

¹⁰ GIP-CUF, Our missions, url : <https://www.gip-cuf.fr/nos-missions-et-outils>

PRODUCTION OF HOUSING FUNDED BY THE LBU (LIGNE BUDGÉTAIRE UNIQUE)
CDHH - OCT. 2023

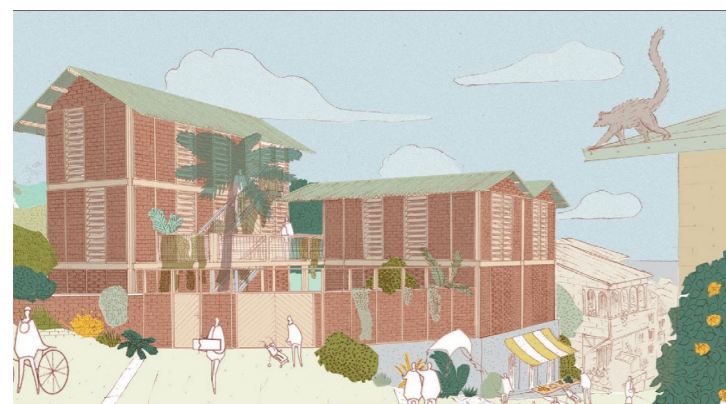


TOTEM – THE 3 WINNING PROPOSALS
PUCA / Action Logement



MANDATE AGENCIES
Extracts from the Proposal Catalogue, available online, all rights reserved

1. Julien Beller Architecte
2. TECTONE / GRZ
3. AIR Architecture



by headlong informal urbanisation, is proving to be one of the crucial contributory factors in the increasing complexity of land ownership.

Dealing with informal housing therefore entails tackling these land issues in depth, a task that requires specific skills and resources (human, financial and even regulatory), in addition to slum clearance competences. This situation calls for a structured, long-term response that goes beyond one-off emergency measures and aims for far-reaching change over the medium to long term.

Increasing housing production to meet current and future needs

The urgent need for a coordinated interdepartmental housing policy is underlined by demographic projections and growing housing needs. This requires the coordinated implementation over time of a housing production system that is adapted to the scale of the needs, the constraints to be met and cost effectiveness. The scale of the need for housing depends on the hypothesis considered :

- Demographic projections, based on the median OMPHALE simulation, indicate that, by 2050, Mayotte’s population could reach more than 550,000, requiring housing for an additional 250,000 people.

Assuming an average of 4.26 people per household, this means an overall need for 59,000 homes by 2050, including 14,700 social housing units, compared with a current housing stock of 70,300, of which only 1251 are social housing units.

- For the 310,000 inhabitants counted by INSEE in 2022, the number of principal residences stood at 70,300. Of these, 68% (47,931) are permanent structures, 28% (20,000) of which do not meet comfort and health standards. In addition, 32% (22,369) of principal homes are tin huts.

- Given the general level of poverty – 77% of households live below the poverty line – the need for social housing is well in excess of the 25% set by France’s “Urban Solidarity and Renewal” law.

A partial response to these needs was initiated with the diversification of real estate products and an attempt to make up for lost ground in the rental stock. A change in the balance of funding, started at the end of the 2000s, is beginning to alter the supply of social rental housing, though this is still very limited.

The period 2012-2017 revealed an annual requirement for new housing of between 3100 and 4100 units, including a minimum of 1000 subsidised homes. However, actual production of subsidised housing during the same period was considerably lower, with only 804 units produced.

Despite a significant revival in 2015, the provision of social rental housing remains inadequate, with only 2000 homes delivered between 2018 and 2022, a result well below the performance of the social housing programmes of the 1980s and 2000s. SIM’s current social housing production capacity has averaged 400 homes per year over the last five years, whereas annual production of more than 1500 homes would be needed over a decade to make up the existing shortfall.

SIM HUTS, A HOMEOWNERSHIP MODEL FROM THE 80S: A HERITAGE TO REEVALUATE

AIR - R. NOULIN - 08/02/2024



Despite its efforts to produce social housing, Société Immobilière de Mayotte (SIM), the incumbent operator, focuses mainly on homes for rent, with a stock of 2480 units, including 1251 social housing units. Since 2019, SIM has developed an annual production capacity of 500 homes, through both VEFA (Vente en l'Etat Futur d'Achèvement - construction land sold off-plan or with partial construction for future completion) acquisitions and direct project management. SIM plans to have a stock of 6500 homes by 2025, 90% of which will be social housing. In addition, Al'Ma, a property subsidiary of the Action Logement group, arrived on the social landlord scene on 30 March 2022. Al'Ma's ambition is to produce 5000 homes over ten years to meet some of the region's growing needs.

The three sites of the New National Urban Renewal Programme (NPNRU) - Kawéni (Mamoudzou), Majicavo (Koungou) and La Vigie (Petite-Terre) - have a potential capacity of 2000 to 4000 homes per site. However, a number of major obstacles stand in the way of these projects. The complexity of land management, combined with the limited availability of vacant land, limits construction possibilities. In addition, the lack of engineering resources, despite the support of the Agence du Renouveau Urbain (Urban Renewal Agency), is hampering the progress of projects at both the design and implementation stages. As a result, these projects are struggling to get off the ground and are running behind schedule, which is slowing down the pace of housing production to meet existing needs.

At the same time, a number of experiments have been set up by public departments and local construction players, such as the TOTEM call for proposals, which led to the design of several architectural solutions for housing the most vulnerable members of the population. Once again, the complexities of the local land tenure situation have slowed the spread of this type of response.

Short-term action on rehousing is necessary, but it must be part of an overall strategy to meet the massive need for building and rebuilding in structured, sustainable areas. In this context, the European teams' proposals must be presented not only as a response to an alarming situation, but above all as a long-term commitment, which takes into account all the problems described here.

A PRESERVED MANGROVE: ICONI, GRANDE COMORE
R. NOULIN, 09/06/2022



LANDSCAPE: MANGROVE FORESTS, A SENSITIVE ECOSYSTEM TO BE PRESERVED

An essential habitat for biodiversity

The mangrove forests of Mayotte consist mainly of mangrove trees, whose exposed root systems provide a refuge and nursery for numerous marine species. Fish, crustaceans, molluscs and birds find an ideal habitat for their development. This ecosystem is a crucial breeding ground for certain species of fish and contributes to the balance of marine biodiversity.

A natural bulwark against erosion and storms

Mangrove roots stabilise the soil and reduce coastal erosion, a major issue for an island that is exposed to tides and tropical storms. They also act as a natural filter, trapping sediment and pollutants before these reach the lagoon.

A key role in the fight against climate change

Mangrove forests have an exceptional capacity to store carbon far more efficiently than terrestrial forests. By capturing CO₂, they help to limit global warming and mitigate its effects.

Preservation under threat

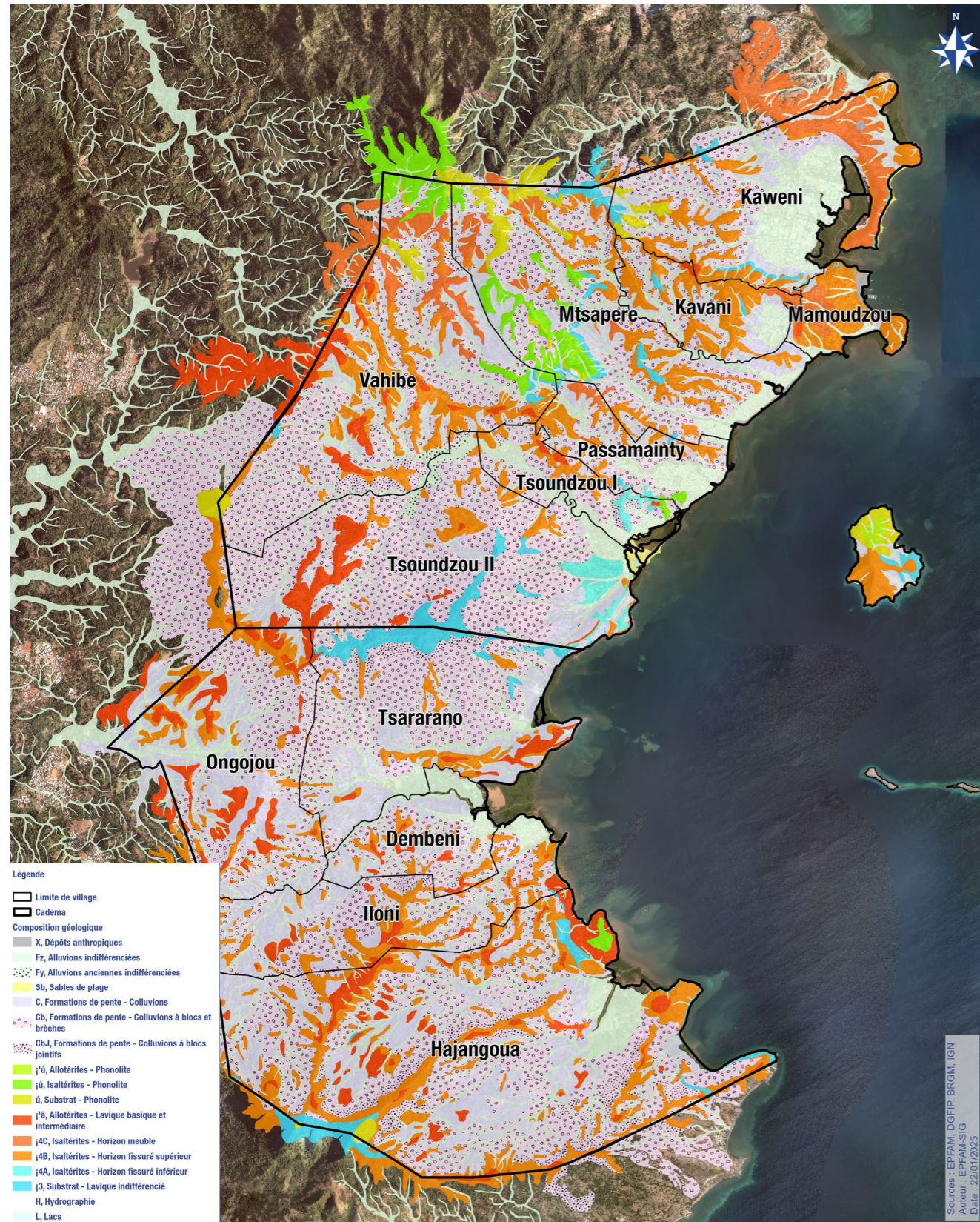
Despite their importance, Mayotte's mangrove forests are under threat from urbanisation, pollution and the development of certain human activities. The destruction of these forests weakens the ecosystems and further exposes the coasts to erosion. Awareness-raising efforts and protective measures are therefore essential to preserve these unique areas.

The passage of cyclone Chido in December 2024 had devastating consequences for Mayotte's mangrove forests. These coastal ecosystems, already weakened by human pressures, were partially destroyed by the violent winds and flooding caused by the cyclone.

Towards sustainable conservation

Various local and international initiatives have been put in place to preserve the island's mangroves, in particular through reforestation programmes and awareness-raising among local communities. The establishment of protected areas and stronger regulation are also essential instruments for ensuring their long-term survival.

MAPPING OF CADEMA – GEOLOGICAL COMPOSITION
FR-Dembeni-C-M4



MAPPING OF CADEMA – STRUCTURING NATURAL ELEMENTS
FR-Dembeni-C-M7



BOUNDARIES OF THE REFLECTION SITE AREA
FR-DEMBENI-SS-AP2 (haut) / FR-DEMBENI-SS-M2 (bas)



REFLEXION SITE

The site proposed for study is part of an OIN (national interest operation) that is currently being established. The OIN is a strategic initiative designed to meet the major challenges of urban development and regional planning on the island. Faced with rapid population growth, strong pressure on land and inadequate infrastructure, the state has taken control of certain priority areas to speed up housebuilding, modernise public facilities and improve sewerage and transport systems. By centralising project planning and implementation, the OIN aims to provide a sustainable framework for Mayotte’s urban development, while reconciling economic development with environmental protection.

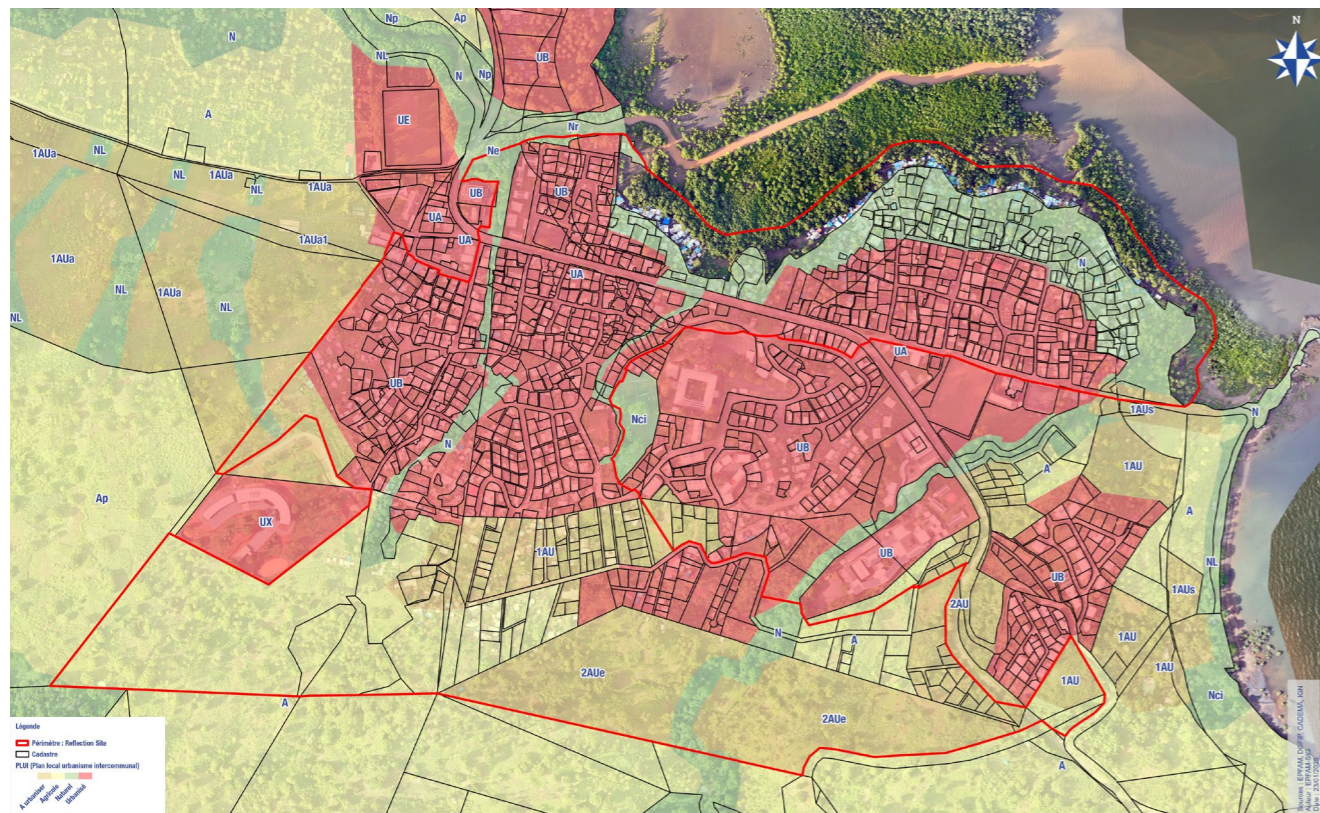
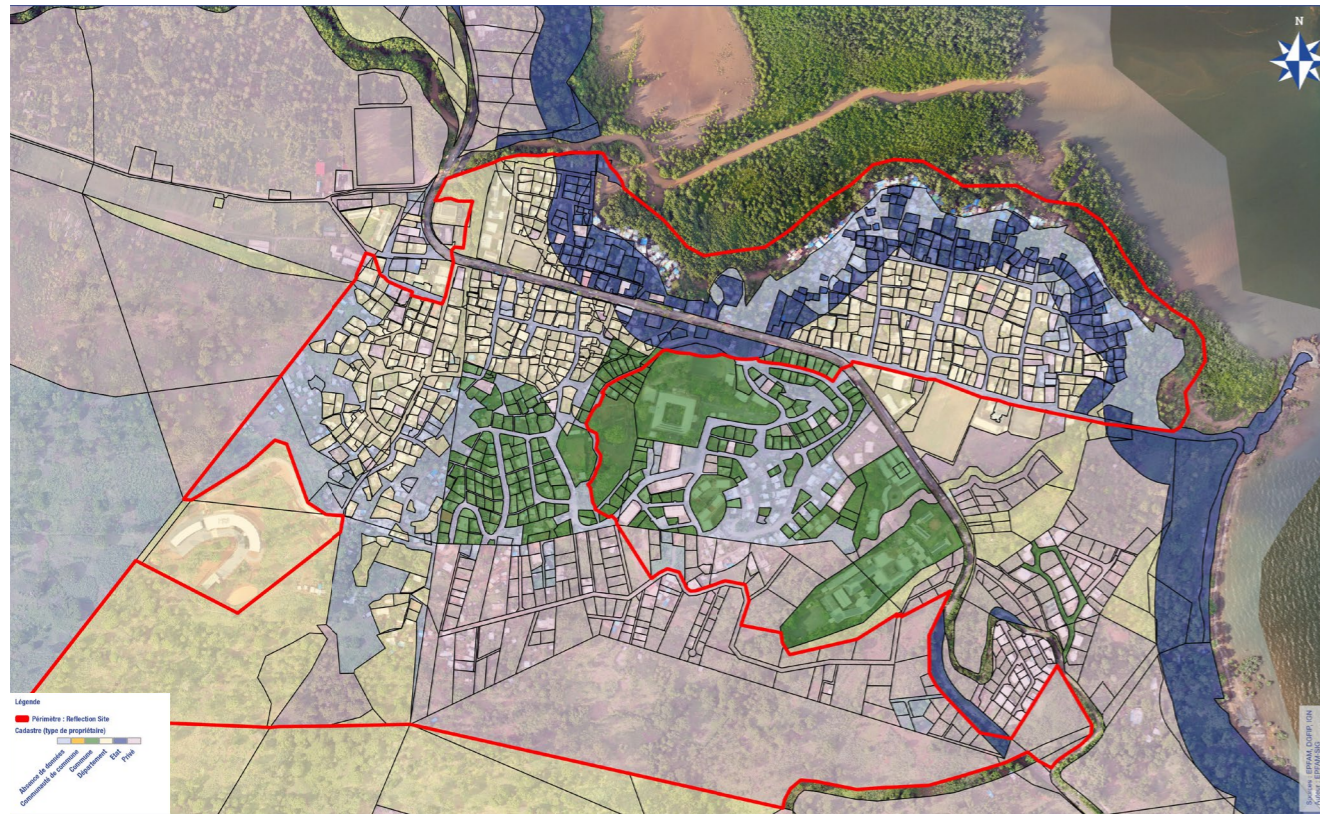
SITE DESCRIPTION

The commune of Dombéni, where 37% of buildings are classified as “makeshift dwellings” by INSEE (2017), is a prime example of the problem of substandard housing. Five sectors have been identified, covering a total area of 148.9 hectares, 38.5 hectares of which are identified in the PILHI (intermunicipal substandard housing plan). The villages concerned are Tsararano, Dombéni, Iloni and Hajangua. In 2017, CADEMA’s PILHI estimated the number of substandard dwellings in these areas at around 850; for the year 2024, the working group’s estimates are in the region of 1200 substandard dwellings.

The main “slum belts” are located to the north-east and south-west of the villages of Dombéni and Iloni, in the hills and south-west of Tsararano, and in the south of the village of Hajangua. The areas of substandard housing in the villages of Dombéni and Iloni - among the largest in the commune - are generally poorly served (mainly networks of paths connected to secondary roads). This means that they are not very visible when crossing the villages.

OIN-RHI - Estimatif des logements										
* Les valeurs en rouge correspondent à des estimations basées sur la photo-interprétation des cartes du PILHI CADEMA/PCLHI Koungou										
Données issues des diagnostics PCLHI de 2021*										
Commune	Secteur OIN	Quartier	Superficie (ha)/sect.	Emprise RHI (ha)/sect.	Opération	Superficie (ha)	Nbre total lgts répertoriés	Dont lgts précaires	Dont lgts précaires en aléa fort	Total lgts précaires secteur
DEMBENI	N°8	Tsararano	49,5	17,8	Mavingoni	3,2	120	60	11	256
					Fourahani Mvezi	6,7	62	45	3	
					Ravines Songoro et Stade	2,8	190	80	65	
					Mcoba	5,1	171	71	34	
	N°9	Iloni	24,6	6,4	Manyasini	4,9	310	268	249	268
					Mouhokani	1,5	106	99	86	
	N°10	Dombéni	57,8	4,9	Msakouani	2,1	136	107	50	270
					Mnarajou	1,6	108	97	42	
					Ravines (mairie et CLUFR)	1,2	74	66	59	
	N°11 et 12	Hajangua	22,6	9,4	Hajangua Nord	7,2	35	23	0	58
Mouhajaoui					2,2	41	35	0		
Sous-total			154,5	38,5						852
Total			898,5	195,8						6975

LAND DATA OF THE REFLECTION SITE: OWNERSHIP AND ZONING (PLU)
FR-DEMBENI-SS-M4 (haut) / FR-DEMBENI-SS-M8 (bas)



A fringe of sector N°9, proposed as a study site, borders the RN3 and is located directly in the mangrove forest - “Iloni mangrove”, known as “Manyasini” - creating a continuous urban fabric in an area that should constitute a natural break. This area is characterised by an extreme concentration of makeshift buildings and limited access and demands urgent intervention due to the deterioration of housing conditions, which compromises public health and environmental safety. The inclusion of the perimeters outside the plots, i.e. the mangrove areas near Iloni, meets the need to include the occupied areas located in the undeveloped maritime zone. This will free up the occupied land so that it can be restored to its original purpose and so that any re-occupation of this natural area can be prevented by rehousing people away from the site and securing the sector.

LOCAL LEVEL ISSUES

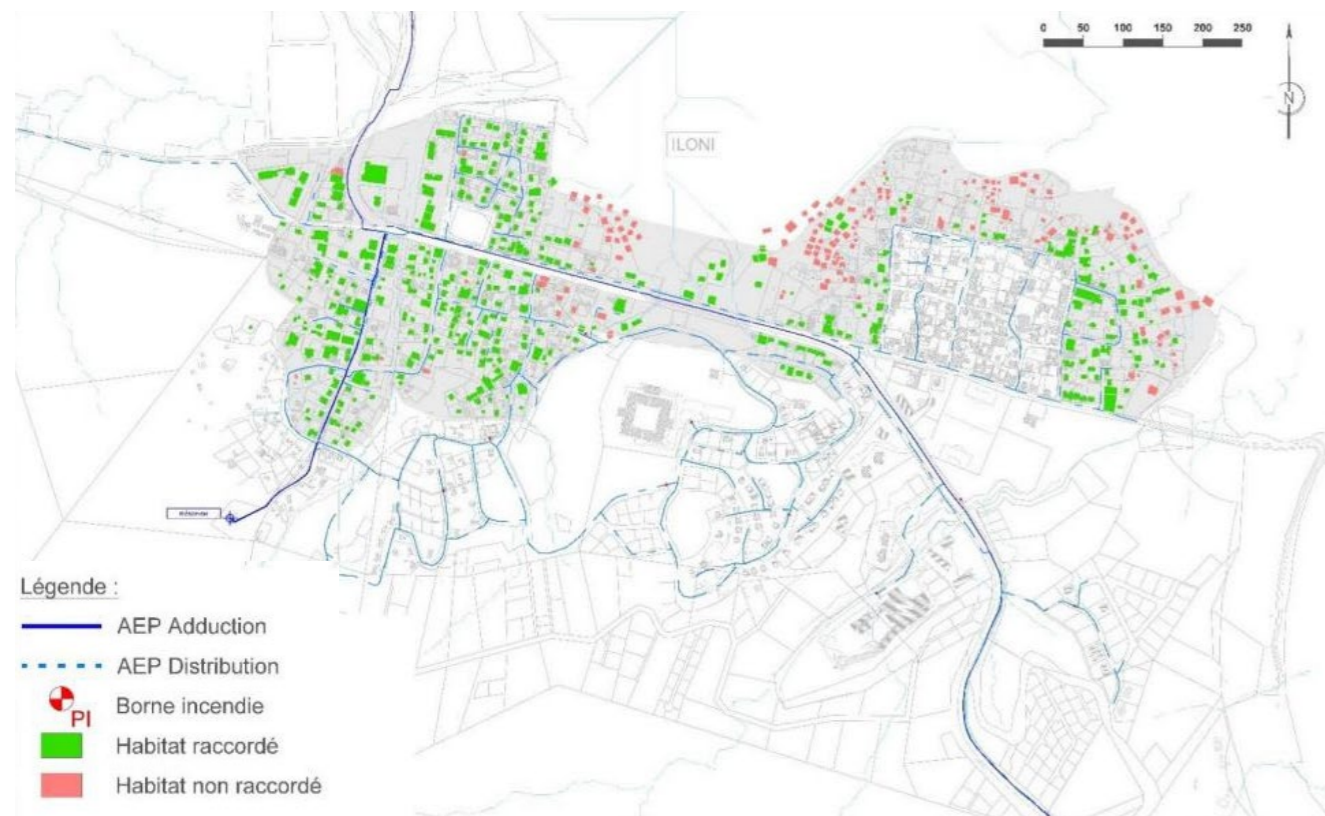
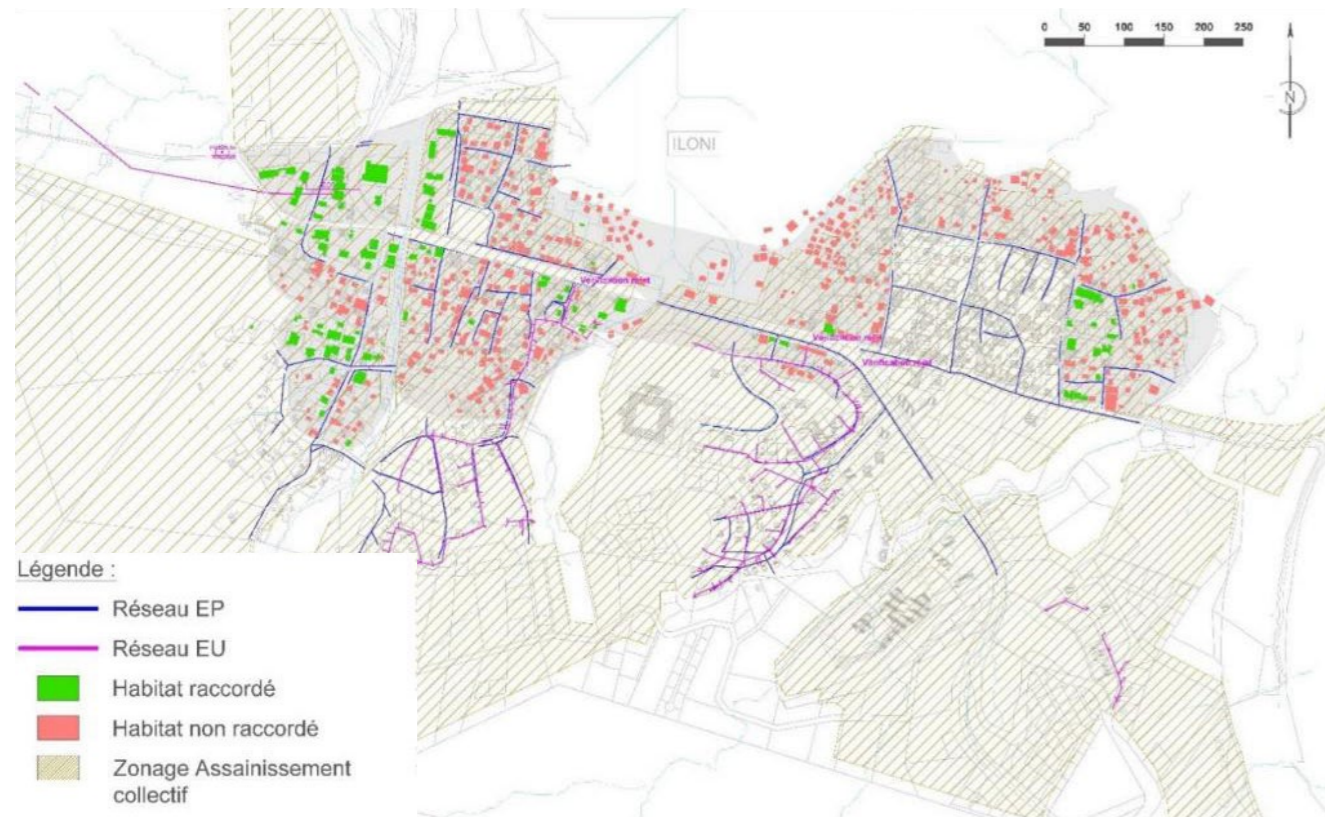
The main priorities for Dembéni are to work on the south-western edge (sector N°10), the planned focus of development and a space characterised by complex topographical conditions, and to initiate discussions concerning the rehousing of the residents of sector N°9. The aim of developing the OIN perimeters in Dembéni is to create urban coherence by means of densification initiatives, the upgrading of existing buildings and regularisation of land tenure. The specific interventions in each sector will aim to make the most of underused spaces, harmonise the interaction between agriculture and urban expansion, and significantly improve housing conditions. In particular, sectors 8 (Tsararano) and 10 (south-west of the RN3 in Dembéni) will require a variety of housing projects to meet the diverse needs of the population, while initiatives in sectors 9 (RN3 central axis) and 11 (Hajangoua Nord) will focus on rehousing and ecological restoration.

The commune of Dembéni has a relatively balanced distribution of surface area between currently urbanised, future urbanised, agricultural and natural zones. The distribution of OIN areas in Dembéni is as follows :

Urban Plan (PLUi) land area	Total for Dembéni	Total share of OIN land area
- Urbanised	76 ha	51.1%
- For urbanisation	25 ha	16.8%
- Agricultural	26 ha	17.6%
- Natural	22 ha	14.5%

TABLE OF OIN AREAS BY THE INTENDED LAND USE AS PER THE ZONING IN THE CADEMA URBAN PLAN

MAPPING OF THE WASTEWATER AND WATER SUPPLY NETWORKS
Diagnostic Action Coeur de ville, 2018



STRUCTURING NETWORKS¹¹

The utility networks are structured to ensure accessibility, equity and housing quality. However, they exclude populations that are outside their coverage, reinforcing economic, health and social disparities. In addition, the ARS (regional health agency) points out that access to certain essential services is a determining factor in the healthiness of housing, influencing decisions to keep or demolish dwellings.

The commune’s historic districts are relatively well served by utility networks.

Water supply network

However, access to drinking water remains a challenge, particularly in mangrove areas. In 2017, the Action Cœur de Ville programme drew attention to the limited drinking water provision in these areas. Residents mainly rely on the standpipes installed by the local authority and the ARS, which can be accessed using an electronic card supplied by the CCAS, at a cost of €45 for 10,000 litres.

Drinking water does not represent a major expense for households, as it is reserved for drinking. For other uses (laundry, cleaning), many households use brackish water from small boreholes drilled in the yards. Its quality varies depending on residential location: it is saltier near the mangrove forests and fresher further away. While this practice saves drinking water, it is more a matter of necessity than choice, and raises questions about the health impacts of using such systems.

At the same time, the increasing scarcity of water resources means that systems need to be rethought with a view to more economical solutions tailored to specific local needs and characteristics.

Wastewater system

There is a public sewage network throughout the island, but many homes are not connected to it and rely on individual systems for discharging wastewater. In shantytowns, wastewater is mainly discharged through overhead pipes into the mangrove forests.

¹¹ Data summarised from : LAUX, A. (2024). Adapter l’intervention publique aux dynamiques territoriales : repenser la gestion des risques d’inondation dans les quartiers vulnérables de Dombéni à Mayotte [Adapting public intervention to territorial dynamics: rethinking flood risk management in the vulnerable neighbourhoods of Dombéni in Mayotte] [Unpublished dissertation].

COHABITATION OF RAINWATER NETWORK, INFORMAL WATER SUPPLY, PATHWAYS, AND PRECARIOUS CONSTRUCTIONS
FR-DEMBENI-SS-P7



Electricity grid

In Dembéli and Iloni, access to electricity is widespread, with fewer than 13% of households without an electricity supply, according to PILHI.

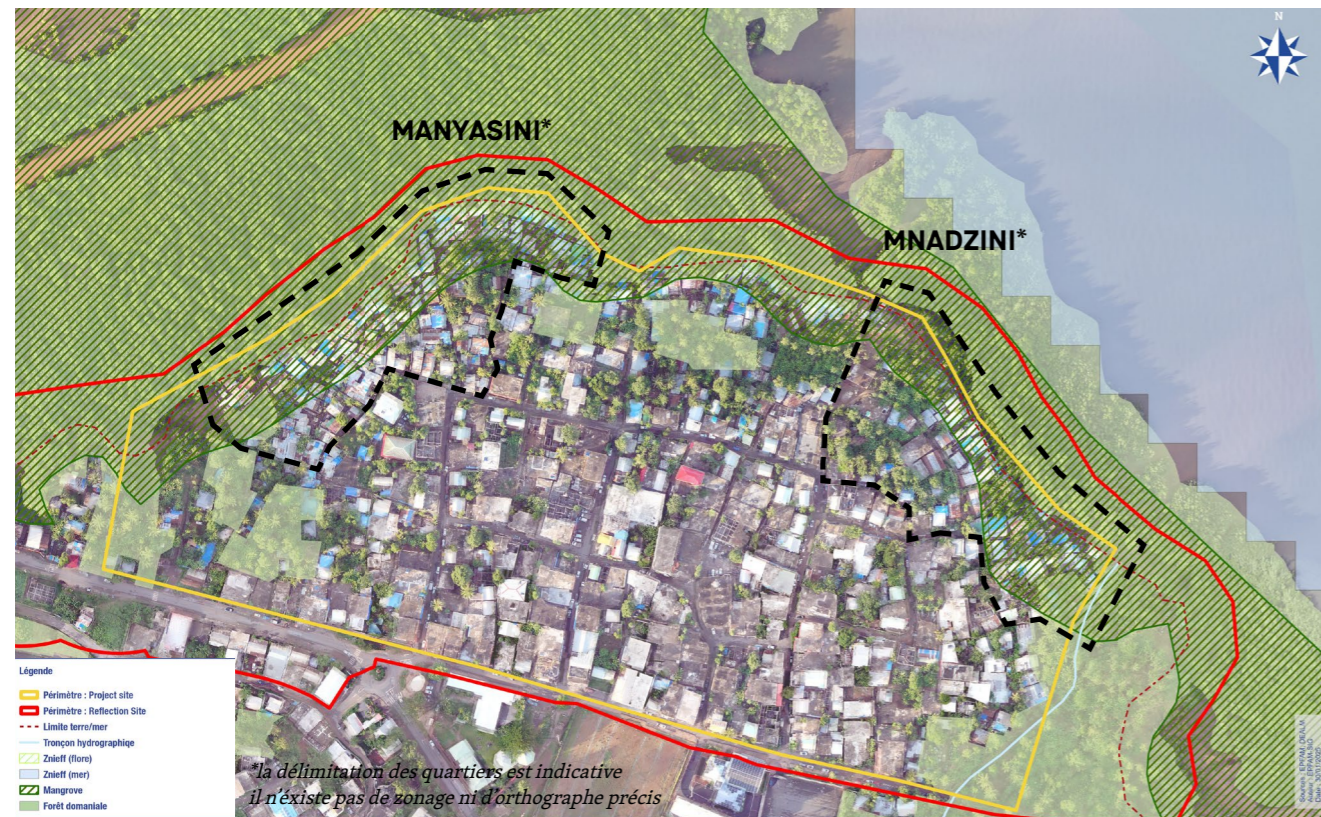
In the two precarious neighbourhoods, electricity networks are partially available, with makeshift electrical connections. Although there is no formal coverage, many households in the mangrove forests have access to electricity via unofficial connections. A single EDM meter can supply several homes, with occupants sharing the costs informally. This situation facilitates the use of household appliances, but increases the risk of fire and power cuts, compromising the quality of the electricity supply. The distribution cables, which are often laid on the ground, sometimes cross mangrove forests or flooded areas, increasing the risk of outages. As a result, access to electricity is more a question of an informal on-lending system than a truly structured service.

OFFICIAL ELECTRICAL NETWORK MAPPING
FR-DEMBENI-SS-M7



PROJECT SITE : NOTABLE NATURAL DATA

FR-DEMBENI-PS-M6 / FR-DEMBENI-PS-P5 / FR-DEMBENI-PS-P6



PROJECT SITE

CENTRAL ROAD (RN3) BETWEEN DEMBÉNI AND ILONI

Location

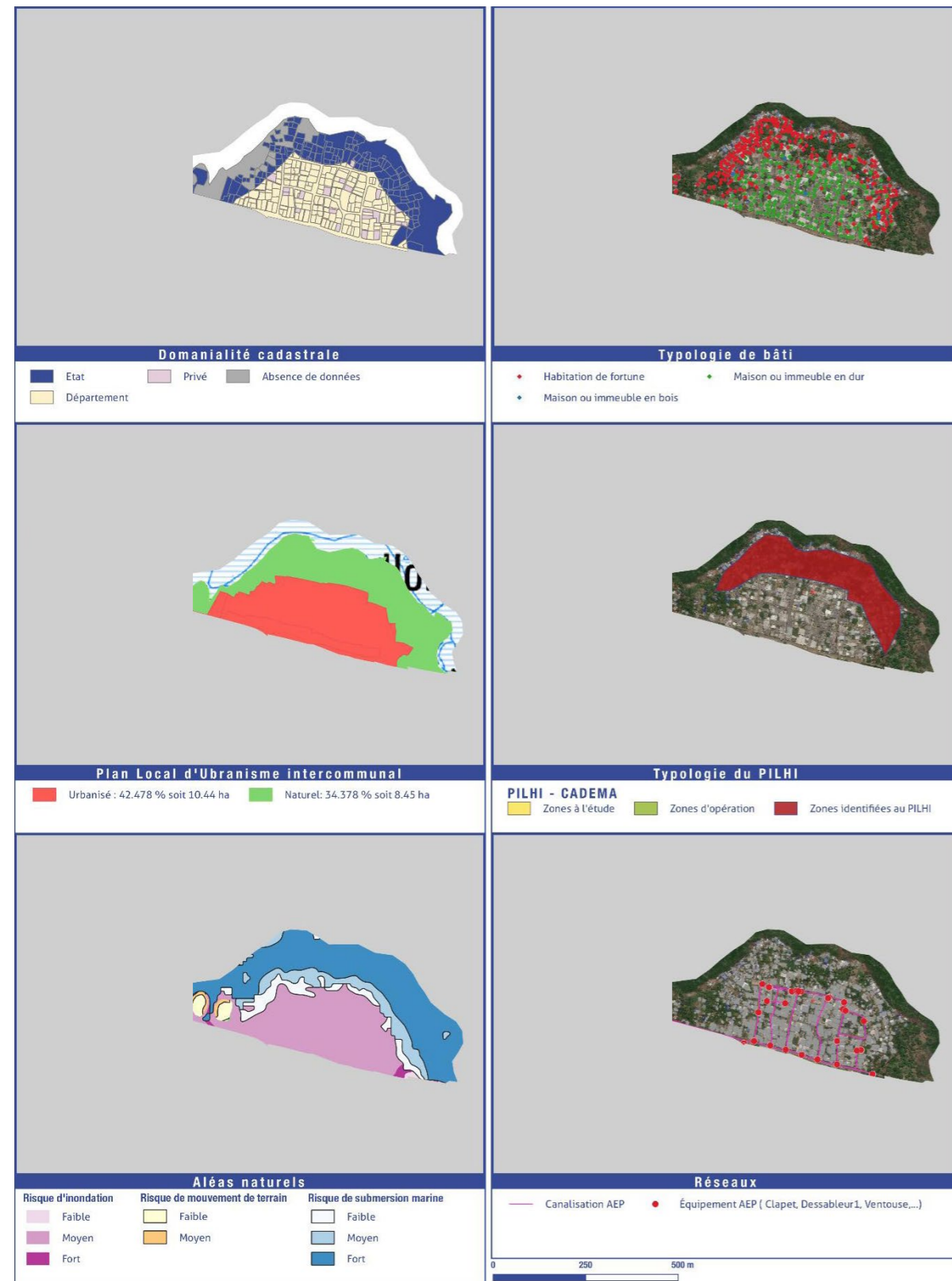
Located in the commune of Dembeni, the proposed site stretches along the RN3, in the north-east of Mayotte, a French département in the Indian Ocean. Marked by informal urbanisation along the coastline, the area features a variety of self-built dwellings. These precarious housing zones have developed in high-risk environments and protected natural areas, such as mangrove forests. This fast-growing sector is also close to strategic areas such as the University of Mayotte and the Tsararano-Dembéni mixed development zone, where the construction of 2600 homes is planned.

The specificity of the site lies in the interaction between spontaneous urbanisation and natural, biodiversity-rich ecosystems. This juxtaposition of working-class housing and tropical environment provides a unique framework for rethinking the relationship between urban and natural milieux. It provides an opportunity to address issues of resilience, community use and sustainable development. The area thus offers exceptional potential for urban redevelopment, with a mix of ecological preservation and sustainable territorial development.

The site under consideration covers an area of around 25 hectares along the RN3. It forms an interface between development centres and mangrove ecosystems, revealing a critical crossover between urban growth and ecological priorities. Within the sector, distinctions can be made between different neighbourhoods containing substandard housing, with very disparate socio-historical, community and environmental characteristics. Located on the Iloni side, it includes the Manyasini and Minadzini neighbourhoods, both situated in mangrove zones. This sector contains the majority of substandard housing in the commune of Dembeni.

High unemployment rates, especially among young people, and poor education, with more than 70% of the population aged 15 and above lacking a qualification, exacerbate the social challenges. Housing, made mostly of sheet metal, wood or flimsy materials, and very often without basic sanitary facilities, reflects the scale of the socio-sanitary risks. Neighbourhoods such as Manyasini and Irashi, although distinct in their development, share common problems of limited access to basic services and exposure to environmental hazards.

PROJECT SITE : DATA SYNTHESIS
FR-DEMBENI-PS-Mo



Source: Cadastre millésime 2023 (DGFIP), Données bâties (Cadema, DGFIP), PILHI, PLU (Cadema), PL 2020 (NSRF), Aléas naturels (DEAL), Réseau de canalisation - équipement (SIEAM, SMAE Données 2018), BD ORTHO 2020 et SCAN 25 (IGN), image pléiade (Cadema), Orthophoto drone EPFAM - DS/Cellule SIG /2024-02-22

Urban dynamics

The area between Dembéni and Iloni is characterised by a young and rapidly growing population, which increased by more than 3000 between 2012 and 2017. This demographic dynamic places significant pressure on infrastructure and housing. Urban expansion in this sector has been marked by spontaneous growth, often without adequate planning, particularly in mangrove areas. Mapping of the area reveals a spatial dichotomy: a historically urbanised core conceals a significant expanse of natural areas, mainly mangrove forests. On the other hand, the Irashi district, although located on the edge of the mangrove forests, displays more structured development, with almost orthogonal streets and better integration of urban services.

Built fabric¹²

The study area consists of a heterogeneous urban fabric characterised by pockets of shanty town development on the fringes of the mangrove forest and an area of permanent housing.

It includes two informal settlements:

Manyasini, located in the village of Iloni, near Dembéni. Its name, given by local residents and the planning authorities, comes from a street that runs through the district. Densely populated and structured, it is one of the areas targeted by the PILHI, although the operation has not yet entered its active phase because of the challenges posed by this high density. The district stretches between the heart of the village of Iloni and the mangrove forest.

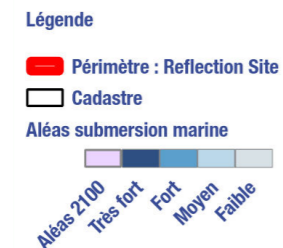
There were 310 homes in the Manyasini district in 2017, 249 of which were substandard and located in high-hazard areas. This situation highlights the complex land issues involved, with land belonging mainly to the state (Bande des 50 pas géométriques - "Strip of 50 geometric paces") and the Department, but also occupied informally. Overall, the lack of essential services such as sanitation and access to drinking water remains a major challenge.

Mnadzini, also part of Iloni, runs along a street in the village of the same name. Less dense and less homogeneous than Manyasini, this district has a wide variety of habitats, ranging from solid houses to tin dwellings and grazing areas. Some of the dwellings, particularly those made of tin, are particularly vulnerable to flooding.

These two districts, like most of the island's informal settlements, have developed in parallel with the locality's demographic growth. They are mainly self-build homes made of sheet metal, with no public authority planning.

¹² Data summarised from : LAUX, A. (2024). Adapter l'intervention publique aux dynamiques territoriales : repenser la gestion des risques d'inondation dans les quartiers vulnérables de Dembéni à Mayotte [Adapting public intervention to territorial dynamics: rethinking flood risk management in the vulnerable neighbourhoods of Dembéni in Mayotte] [Unpublished dissertation].

PROJECT SITE : RISK SYNTHESIS
FR-DEMBENI-SS-M9 (haut) / M13 à M15 (bas)



SPECIFIC RELATIONSHIP WITH THE LAND AND LANDSCAPE

Zoning and hazards

The mangrove forest, an ecosystem that is both ecologically valuable and a source of health and natural risks for the site’s occupants, contains a significant number of unhealthy housing developments. The neighbourhoods on the study site have a direct impact on these sensitive ecosystems, with makeshift housing built on flood-prone land and in areas subject to marine submersion. High tides regularly overrun neighbourhoods, increasing the vulnerability of residents and further undermining health conditions in their homes.

The risk management strategy needs to be tailored to the kinds of conditions found in Mayotte, where the issues are different but vulnerability remains high.

Allowing for the vulnerabilities of insecure neighbourhoods in the mitigation strategy is proving to be particularly complex due to the lack of qualitative data on these areas, which results in a gap between national strategies and local realities. In the absence of appropriate solutions, public authorities often prefer to relocate exposed populations rather than developing existing neighbourhoods.

The implementation of housing improvement programmes is frequently hampered by operational difficulties, leaving residents trapped in vulnerable circumstances. As a result, they develop their own strategies to cope with the risk of flooding.

Under these conditions, it is important to undertake a concrete analysis of the experience of local residents with regard to risk: what resilience strategies do they develop in response to recurrent flooding? What paradoxes and tensions emerge from the interaction between risk management policies and local realities?

These questions highlight the need to rethink the relationship between the regulatory framework and local dynamics. By drawing on a standardised approach, public risk management policies need to emphasise the need to take into account systems of local action and the mechanisms of adaptation deployed by vulnerable populations¹³.

¹³ Reflexions synthétisées de : LAUX, A. (2024). Adapter l’intervention publique aux dynamiques territoriales : repenser la gestion des risques d’inondation dans les quartiers vulnérables de Dombéni à Mayotte [Adapting public intervention to territorial dynamics: rethinking flood risk management in the vulnerable neighbourhoods of Dombéni in Mayotte] [Unpublished dissertation].

A RELATIONSHIP TO USES AND THE LANDSCAPE
FR-DEMBENI-SS-P1



Overview of projects affecting the study site

Several RHI (shanty town clearance) projects have been undertaken to improve living conditions in these areas. At present, the Dembéni Mangrove RHI operation is in its operational phase, supported by CADEMA. Earlier projects are also worthy of note. The checkerboard layout of the Irashi neighbourhood and the preservation of a public space as a festival venue seem to be the signature of an earlier RHI operation. Initial relocation operations from Manyasini and Minadzini to the Iloni “rehousing estates”, aimed at restoring the mangrove forest, have also been carried out. Other projects, such as the Tsararano/Dembéni Urban Development Zone (ZAC), plan to develop 1530 homes, offering opportunities for rehousing and urban regeneration. Despite these efforts, the persistence of substandard housing, particularly in mangrove areas, requires more targeted and coordinated action.

Despite the absence of any concrete projects to date, the public stakeholders are committed to an approach that rules out the possibility of maintaining housing in the mangrove zone. The aim is to restore the ecosystem and reduce risks. These neighbourhoods, at present part of the urban landscape, are set to disappear.

A specific mangrove forest

The Dembéni mangrove forest, one of the largest and best preserved in Mayotte, plays a fundamental role in the ecological balance and restricts the town’s urban development. Located close to a rapidly expanding area, it is both a biodiversity-rich ecosystem and an area exposed to increasing pressure from human activities that are spreading towards this ecosystem.

It borders a developing urban area, marking a transition between the terrestrial and marine environments. It acts as a natural barrier against erosion and flooding, absorbing floodwaters and stabilising the ground. It also plays an essential filtering role, limiting the flow of pollutants and sediments into the lagoon. This mangrove forest, which is in direct contact with the neighbouring urban areas, performs a number of essential functions, but is facing increasing pressure from encroachment into its habitat.

Its distinctive feature is the absence of a mangrove forest behind the village, which has been erased by the gradual urbanisation of the village.

In short, the Dembeni mangrove forest is much more than just a natural area: it is a bridge between man and nature, a reminder of our dependence on the ecosystems that surround us. Preserving it is a community priority, essential to maintaining the balance between urban development and environmental protection.

RAISED PATHS USING TIRES : CRAFT-BASED ADAPTATION SYSTEMS
FR-DEMBENI-PS-P13



SUMMARY OF SITE ISSUES¹⁴

Natural hazards and poor housing: two intertwined issues

In Mayotte, the informal settlements of Manyasini and Minadzini, located in the mangrove forests of Dembéni, illustrate the complex interplay between poor housing and natural hazards, particularly flooding. These districts, characterised by unplanned urbanisation and makeshift tin huts, are home to around 2300 people living in unhealthy conditions. Despite public clearance initiatives such as the Résorption de l'Habitat Insalubre (RHI) and the Opération d'Intérêt National (OIN-RHI), operations have struggled to succeed due to difficulties with land, rehousing and incomplete risk management tools. Residents have developed their own strategies for dealing with recurrent flooding, revealing the need to adapt approaches to local situations.

The urbanisation of Dembéni and Iloni, places marked by strong demographic growth and migratory pressure, has gradually spread towards the mangrove forests and higher ground. The housing typology in the neighbourhoods studied is varied shanza (outdoor courtyards) to terraced and street-front (modular) housing. Self-build practices based on limited resources are gradually evolving towards breeze-block construction, but homes remain vulnerable to flooding. Access to utilities (water, electricity) is uneven, with informal connections and pay-to-use standpipes exacerbating the already precarious living conditions. The mangrove forests, although perceived as a refuge due to the shortage of land for building, are also areas that are affected by mud in the rainy season and by frequent flooding.

Flooding caused by tides, heavy rain and waterlogged soil has a devastating impact on these areas. Residents are exposed to marine submersion, run-off and water stagnation, which cause significant material and financial damage. Sheet-metal dwellings deteriorate rapidly, and furniture is often damaged, despite mitigation strategies such as elevating the land or building makeshift flood barriers. There are significant inequalities when it comes to flooding, with homes on the edge of mangrove forests being the worst affected. This vulnerability entrenches socio-economic inequalities, exposing the inhabitants of precarious neighbourhoods – who are often viewed negatively by the rest of the population – to further stigma.

The implementation of Natural Risk Prevention Plans (PPRN) and Flood Protection Action Programmes (PAPI) is hampered by operational delays and a lack of resources. Local residents, although aware of the risks, lack the means to deal with them and develop empirical knowledge based on observation and word-of-mouth transmission. However, this local expertise is still insufficient for genuine prevention. Mitigation strategies, such as elevating furniture or building alleyways out of tyres and pallets, are evidence of local resilience, but they are no substitute for coordinated public management.

¹⁴ See : LAUX, A. (2024). Adapter l'intervention publique aux dynamiques territoriales : repenser la gestion des risques d'inondation dans les quartiers vulnérables de Dembéni à Mayotte [Adapting public intervention to territorial dynamics: rethinking flood risk management in the vulnerable neighbourhoods of Dembéni in Mayotte] [Unpublished dissertation].

BUILT CITY – SLUM – MANGROVE – LAGOON – LANDSCAPE : THE INTEGRATION OF THE SITE INTO THE TERRITORY'S CHALLENGES
FR-DEMBENI-PS-AP₃ / FR-DEMBENI-PS-AP₄



Dembéné's informal settlements, though vulnerable and precarious, reflect a process of autonomous and adaptive urbanisation in response to a growing need for land. Despite the difficulties, local residents develop strong bonds of solidarity and ingenious strategies for coping with flooding. However, these local solutions alone are not enough to guarantee lasting protection. Appropriate public intervention, based on detailed knowledge of local realities and people's needs, is essential to reduce risks and enhance living conditions. This will entail considering risk management tools, improving coordination between stakeholders and incorporating local knowledge into public policies. Finally, it is essential to rethink the role of precarious neighbourhoods in the city, by encouraging gradual integration rather than relocation, in order to build an urban fabric that is more inclusive and resilient in the face of natural hazards.

Striking a balance between urban development, risks and natural environments

Flood risk management in France is based on two principles: risk avoidance and risk reduction. Structured by the Flood Directive (2007) and the LENE Act (2010), it combines prevention, adaptation and crisis response. However, Mayotte is still in the process of transposing these tools. Although the island adopted a strategic framework with the PGRI flood risk management plan (2015-2027) and the SLGRI local flood risk management strategy (2018), their implementation is hampered by the absence of approved Flood Protection Action Programmes (PAPI), a lack of coordination between local stakeholders, and crisis plans that are often obsolete. Local authorities, faced with other priorities (housing, education, safety), struggle to apportion the necessary funding, and risk awareness remains underdeveloped. Uncontrolled urbanisation, with a high proportion of illegal construction, is hampering the application of the Natural Risk Prevention Plans (PPRN), making people even more vulnerable.

Mangrove forests, once seen as a land reserve, are now recognised as a key ecosystem in flood risk management. Protected by regulations such as the Mayotte National Marine Park (2010), they play an essential role in limiting coastal erosion and mitigating marine submersion. Since the PGRI 2015-2021, mangrove forests have been included in prevention strategies as a nature-based solution. However, little is known about their condition, and their expansion is limited by urbanisation. Spontaneous settlements in mangrove forests are blamed for mangrove decline, although the real impact is difficult to measure. Plastic pollution and waste water discharge are problems, but these issues are not confined to these districts, and while clean-up operations have been organised, restoration projects – such as the one in the neighbouring village of Tsoundzou – have shown mixed results.

Risk management, which is often legalistic and hygiene-driven, disregards these precarious populations on grounds of environmental protection and safety, hindering any gradual improvement in their living environment.

Mangrove forests and flood risks are used as levers for territorial restructuring, but this approach must also take account of local realities and the needs of local residents, in order to avoid exacerbating social, safety and environmental inequalities.

Taking a fresh look: building on what already exists to meet spatial challenges

In Mayotte, flood risk management is based on a “hazard-centred” approach, focusing on the physical and spatial aspects of the risks. It would be valuable to incorporate the social and cultural dimensions in order to take into account the vulnerability of the populations. Residents of precarious neighbourhoods, like those on the project site, live in self-built dwellings that are exposed to recurrent flooding. Although they are aware of the risks, many simply see them as a daily reality, for want of the means to deal with them. Natural Risk Prevention Plans, as technical management tools, are not good at taking into account local knowledge and the adaptation practices of local residents, widening the gap between regulatory risks and those experienced by local people. More inclusive approaches, inspired by projects such as PING GIRI¹⁵ in Dakar, could involve local residents in identifying risks and implementing appropriate solutions, thereby strengthening local resilience.

Mangrove preservation, often tackled by relocating precarious communities, also poses problems. Restoration projects, such as the one in Tsoundzou, have shown mixed results, partly because of human pressure and the difficulty of effective monitoring. Rather than separating nature and housing, an integrated approach could reconcile ecosystem protection with improving the living conditions of local residents. Reinforcing waste collection services, supporting wastewater management and involving local people in mangrove preservation would help to reduce the negative impact of urbanisation while meeting local needs.

To take effective action, it is essential to start from existing realities and adopt an incremental approach. Spatial planning projects must prioritise the areas most at risk from flooding, while gradually incorporating informal neighbourhoods into the formal urban fabric. Micro-projects could improve living conditions while minimising the social and financial impact of interventions. Supervised self-construction and the adaptation of metropolitan standards to local realities offer promising pathways to meeting the needs of low-income families. Finally, action on mangrove forests must take account of existing uses, such as leisure activities and fishing, and encourage practices that are more respectful of the environment.

Resilience, often perceived as the ability to absorb and recover from crises, needs to be thought about differently, in order to avoid placing excessive responsibility on individuals. In Mayotte, initiatives such as the Futurisk¹⁶ programme and the seminar organised by the AFPCNT in 2023 aim to strengthen coordination between local stakeholders and raise awareness of the island’s specific risks. In this sense, a participatory approach, actively involving local people in designing solutions, is essential in the quest to build resilience while avoiding social inequalities.

In order to reinforce a risk culture, risk management in Mayotte need to be founded in local realities and the practices of local people. Public policies must move beyond

technical and legalistic approaches and adopt pragmatic and inclusive solutions. By involving local populations and preserving ecosystems such as mangrove forests, it is possible to reduce the vulnerability of precarious neighbourhoods while improving living conditions. Architects, urban planners and landscape architects have a key role to play in this transformation, by acting to reduce risks and simultaneously improve the living environment, in order to build a more inclusive and resilient city.

¹⁵ <https://gret.org/projet/gestion-integree-du-risque-inondation-a-dakar-pikine-irregulier-nord-guediawaye-ping-giri/>

¹⁶ <https://oceansconnectes.org/futurisks-oultre-mer/>

EXPECTED FOLLOW-UP TO THE COMPETITION

TASKS LIKELY TO BE ASSIGNED TO EUROPAN TEAMS

At the end of the competition, EPFAM may entrust the teams selected by the European France jury with one or more assignments to further develop the urban and architectural feasibility of their proposals. Depending on the competition results and the conditions of implementation of the selected project, these assignments may include :

- Drawing up an agreed master plan and/or heading an urban and landscape project management assignment

The EUROSPAN teams' proposals will reinforce the technical and thematic studies carried out by EPFAM at the scale of the study site and/or the project site. The selected teams may be called upon to develop and implement an urban and landscape strategy in both the spatial and temporal dimensions. The three winning teams may be called upon to work in different ways.

- Architectural feasibility studies with a view to forward modelling and experimentation

In more operational areas, the teams may be asked to carry out architectural feasibility studies. This will involve setting up an experimental programme for one or more buildings with an identified project leader. These feasibility studies will serve as demonstrators to test proposed interventions or model future changes to the site.

- Participation in drawing up specifications for potential projects

Prior to the insertion of future projects, European teams will be able to participate in drawing up the project specifications. This will involve setting the rules for integration, alignments, heights, site identity, and so on. They will be the starting point for the urban development programme supported by several economic actors.

- One-off architectural or landscape design and project management assignments

Lastly, the local authority or its representative may, after further consultation, entrust European teams with project management assignments on architectural projects (refurbishment or new construction) or landscape operations (public spaces, urban or landscape development, rewilding, etc.). European teams may reinforce their initial structures by incorporating members with specific skills in fields such as engineering, project economics, programming, etc.

LISTES DES DOCUMENTS EN TÉLÉCHARGEMENT

INTERMUNICIPAL AREA – TERRITORIAL SCALE

FR-DEMBENI-C-AP1

FR-DEMBENI-C-M1 to FR-Dembeni-C-M7

REFLEXION SITE – URBAN SCALE

FR-DEMBENI-SS-AP1 to FR-DEMBENI-SS-AP3

FR-DEMBENI-SS-P1 to FR-DEMBENI-SS-P6

FR-DEMBENI-SS-M1 to FR-DEMBENI-SS-M15

PROJECT SITE – ARCHITECTURAL SCALE

FR-DEMBENI-PS-AP1 to FR-DEMBENI-PS-AP4

FR-DEMBENI-PS-P1 to FR-DEMBENI-PS-P13

FR-DEMBENI-PS-M0 to FR-DEMBENI-PS-M6

TEXTS

FR-DEMBENI-T1 to FR-DEMBENI-T4

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2025 01 26 - Drone

Exemples et références

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