



Answering
tomorrow's
challenges
today

Saint-Martin

**Study on living conditions and
access to selected basic needs in
the EU outermost regions**

REQUEST FOR SERVICES 005 Under Framework contract
2020CE160AT013

1.0 Key economic and social structure of the region

- ▶ **Specificities of the region:** Situated within the Lesser Antilles, the island of Saint-Martin is divided into the French part 'Saint-Martin' – an outermost region- and a Dutch part 'Sint Maarten' - an Overseas Country and Territory of the Netherlands. Saint-Martin is the smallest French Outermost region (53 km²), and its political status has evolved over the years. It transitioned from being part of Guadeloupe to becoming a French *Overseas Collectivity* in 2007, obtaining the status of an outermost region of the EU in 2009. Nowadays, Saint-Martin has fiscal autonomy. The population amounts to 32,489 people¹, with 39.4% of them under the age of 25 years old in 2015², and a population density of 610.7 hab/km² (almost six times higher than the national average). Nonetheless, between 2013 and 2019, the population has been decreasing at a rate of 2.4% per year. The economy is characterised by a dominance of the tertiary sector, mainly focused on tourism³. The regional labour market is volatile with high levels of unemployment (32.9%)⁴, a high share of the population without tertiary education and a high poverty rate. Saint-Martin has a tropical climate with a dry period (February – April) and a rainy season (June – November), which corresponds to the hurricane season. In 2017, Saint-Martin was severely impacted by Hurricane Irma, the most powerful cyclone ever recorded in the Caribbean.



Figure 1. Saint-Martin map. Source: DG REGIO

Data availability in Saint-Martin

Saint-Martin is faced with a lack of statistical data. Data gaps have been particularly pronounced in the areas of housing affordability, habitability, and social housing. Regarding water and sanitation, data on water management, affordability, and water loss is limited. To address these challenges, in March 2023 the creation of a Territorial Institute of Statistics and Economic Studies of Saint-Martin was approved, aiming to collect and analyse data⁵.

- ▶ **Water and sanitation and adequate Housing** have been defined as the **key basic needs** to be analysed in Saint-Martin. **Key facts and figures** are summarised below:

- ▷ **Key Area 1: “Access to water and sanitation”:** Saint-Martin lacks exploitable fresh natural resources. Consequently, seawater represents the primary source of water, treated through desalination⁶. In Saint Martin the high temperature of desalinated water in the pipes leads to overheating and premature ageing of the pipes, increasing the frequency with which infrastructure needs to be replaced⁷. Moreover, around 3,912 dwellings have non-collective sanitation systems in 2022⁸, which can pose health risks.
- ▷ **Key Area 2: “Adequate Housing”:** Hurricane Irma, which struck the island in early September 2017, caused damage to 95% of the region’s buildings. Following reconstruction efforts, which are still ongoing, Saint-Martin housing is composed of 17,650 dwellings, of which approximately 10% are social housing. Housing challenges and constraints faced by the region include limitations in terms of available land, vulnerability to natural hazards, housing affordability, and local administrative and technical capacity needs.

2.0 Water and sanitation

2.1 Access to drinking water and sanitation in Saint-Martin

2.1.1 Conditions in place to meet the needs and main factors constraining access

Conditions in place

- ▶ With no natural freshwater resources - neither rivers nor springs -, the primary source of water in Saint-Martin is seawater, which is treated through the process of desalination. There is one desalination plant in the outskirts of the city of Marigot and six water storage facilities^{9 10}. When it comes to climate conditions, Saint-Martin is susceptible to hurricanes,

tsunamis, soil liquefaction and earthquakes, as well as heavy rains leading to floods and landslides¹¹. As a result, water infrastructure and access can be severely affected.

- ▶ **Water consumption** increased between 2011 and 2021. In 2011, water consumption stood at 873,448 m³ for 13,259 clients¹². While in 2017 13,668 clients consumed 1,005,433 m³ of water, the figures rose to 14,413 clients and 1,536,481 m³ in 2021¹³. Despite the limited availability of data to explain this increase, several factors may be considered such as the reparation and installation of meters in private housing¹⁴, the improved billing system¹⁵, and the increase of tourism since the 2000s - although deeply impacted by the Irma hurricane and the COVID-19 crisis¹⁶. Moreover, in 2020, just before the start of the COVID-19 crisis, there was an overconsumption peak, leading to water cuts¹⁷ in certain neighbourhoods to cope with the high demand.
- ▶ Concerning **affordability**, the price of water in Saint-Martin was 5.51 €/m³ in 2022^{18 19}. This indicator has not experienced any increase since 2019²⁰ and the water price is billed according to the volume of consumption per trimester. Despite the differences in calculating the price, the average price for drinking water in France was considerably lower (2.11 €/m³ in 2021). This is mainly due to the rise in raw material prices (needed for water-related materials, transport, among others) and as a result of the COVID-19 crisis²¹. Moreover, the rate of unpaid water bills was 31.6% in 2021²². This rate has been increasing since 2012²³.
- ▶ With regards to sanitation, the proportion of the population using improved **sanitation** facilities²⁴ increased over the past years. In 2010, it was reported that 99.47% of the population had access to improved sanitation facilities and by 2019, the coverage reached universal access²⁵. Nevertheless, hotels and private individuals sometimes produce their own water and thus have private sanitation systems, which could potentially pose health risks – if not adequately treated, by discharging their effluent into the networks²⁶. Since 2014, works on sanitation facilities were undertaken, although rehabilitation work remains to be completed and was worsened by Hurricane Irma in 2017²⁷. For instance, a project for a joint wastewater treatment plant between the two parts of the island is underway under the European Territorial Cooperation Programme Interreg for an estimated total of 27 million euro²⁸.
- ▶ According to Saint-Martin's water utility company (SAUR), around 3,912 dwellings have **non-collective sanitation systems** in 2022²⁹. There are several risks associated to individual sanitation systems³⁰. These can be linked to health (viral, bacterial and parasitic contamination) and/or the environment (soil and groundwater pollution, eutrophication of watercourses, limiting the volume of sludge)³¹.
- ▶ When it comes to **water loss**, the linear network loss index - indicating the volume lost per day and per kilometre through the network - increased from 2021 (12.9 m³/km/day) to 2022 (13.8 m³/km/day)³². Despite this increase, an improvement can be seen in the last years, as in 2019 the linear network loss index stood at 18.2 m³/km/day. Moreover, the efficiency rate remains limited at 70% in 2022³³, meaning that around 30% is lost through network leaks.
- ▶ From an **administrative** point of view, the EEASM (Établissement des Eaux et de l'Assainissement de Saint-Martin) is the responsible organisation for public water and sanitation services in Saint-Martin. EEASM owns the public water and sanitation infrastructure and delegated its operation to the company SAUR³⁴.
- ▶ As of 2016, the **Action Plan for Drinking Water and Wastewater services** (known as Plan Eau DOM) is the key **policy framework** for water action in the French outermost regions, as it supports local authorities in improving the drinking water and sanitation services, by strengthening their technical and financial capabilities. Additionally, as the key strategic framework for water management, the **Master Plan for Water Development and Management** (SDAGE) Guadeloupe-Saint-Martin was approved in 2022.
- ▶ Regarding **programmes and investments**, the European Regional Development Fund (ERDF) Programme for Saint-Martin in 2021-2027 includes a specific objective aimed at improving levels of access to water and sustainable water management, with a final amount of 10.15 million euro³⁵. Moreover, the French Recovery and Resilience Plan for 2021-2026 (RRP)³⁶ has earmarked 50 million euro for the French Outermost Regions and Overseas Countries and Territories (including Saint-Martin) to renovate water and wastewater networks and enhance drinking water production³⁷.
- ▶ At the **national level**, French regions have access to subsidies and loans from the French Development Agency and the Deposit and Consignment Fund) for drinking water production³⁸. The French government has also made funding available under the Plan Eau DOM and the Convergence and Transformation Contracts³⁹.

Constraining factors

The region faces challenges which partially constrain access to this basic need or are likely to constrain access in the future:

- ▶ Exposure to **natural hazards**⁴⁰, such as cyclones, represents a key constraint for Saint-Martin. A disaster like the hurricane Irma damaged the water infrastructure, and heavily affected access. It took several weeks to restore the drinking water production system and several months to restore the distribution system⁴¹. Furthermore, the risk generated by hurricanes also seems to have increased since the end of the 20th century, with a surge in category 5 hurricanes⁴².
- ▶ The **cost of producing drinking water is high**. The existing desalination plant employs a reverse osmosis filtration method⁴³, which requires a very high amount of electricity to push water through the osmosis membranes. It is also costly to treat the water to kill microbes and to replace the filters⁴⁴. There is an agreement between Saint-Martin and Sint Maarten's authorities for a company operating in Sint Maarten to supply the French part of Oyster Pond, if necessary, thanks to the connection of the two networks⁴⁵. However, this agreement has not entered into force yet.
- ▶ **Infrastructure tends to age faster** in Saint-Martin. The temperature of the water in the pipes is 27 degrees Celsius, which leads to overheating and premature ageing of the pipes, increasing the frequency with which they need to be replaced⁴⁶. The temperature of desalinated water, along with the high levels of chlorine in the water, contribute to the degradation of water infrastructure⁴⁷. Unlike mainland France, where infrastructure can be replaced in average every 50 years, some of Saint-Martin's water infrastructure requires replacement every 25 years, requiring additional investment⁴⁸.
- ▶ In 2022 almost 98.5 % of the distributed water samples taken for sanitary control with biological quality limits were compliant, and 100% of the samples for sanitary control with physicochemical quality limits were compliant⁴⁹. Nonetheless, **water quality** remains a matter to be closely monitored as Saint-Martin was confronted with a bromates crisis in 2019. Bromates can be formed during desalination processes and can affect water quality.

3.0 Adequate housing

3.1 Access to adequate housing in Saint-Martin

3.1.1 Conditions in place to meet the needs and main factors constraining access

Conditions in place

- ▶ In 2018, Saint-Martin's housing stock was composed of 17,650 dwellings, 75.5% of which served as principal residences, 9.8% were secondary residencies and 13.9% were vacant residences⁵⁰.
- ▶ In terms of **tenancy regime**, in 2020, the homeowner rate stood at 28.3%, significantly below the national average of 63.6%⁵¹. It is estimated that two out of three households in Saint-Martin are tenants (over 60%)⁵².
- ▶ Concerning **housing typology**, 96.78% of the housing stock was made up of houses or solid buildings, with only 2.61% wooden houses and almost no makeshift dwellings (0.26%) or traditional huts (0.35%) in 2020⁵³. However, public and private tenants often live in homes that are unsafe, in need of repair, or reveal unsanitary conditions⁵⁴.
- ▶ Regarding **housing facilities**, almost all households were equipped with **bath and WC** (98.75%) and with **electricity** (99.65%) in 2020. Nonetheless, with respect to **water**, only 41.55% of households had hot water in 2020, whereas, by contrast, this was the case for 100% of households in Sint Maarten. Finally, 59.32% of households were connected to the **sewerage network** and 40.3% to a septic tank in 2020⁵⁵.
- ▶ In terms of **social housing**, there were 1,847 housing units in 2018⁵⁶, which accounts for around 10% of Saint-Martin's housing stock, and a ratio of 5.2 housing units per 100 inhabitants, compared with 7.6 for France as a whole⁵⁷. The social housing stock has been rebuilt in full after hurricane Irma⁵⁸.
- ▶ In terms of **governance and management**, a few years after Saint-Martin became a French Overseas Collectivity, the region took over competencies in territorial and urban planning and development (in 2012). Nonetheless, the Interministerial Committee for the reconstruction of the islands of Saint-Barthélemy and Saint-Martin, put in place in September 2017, is responsible for defining, leading and coordinating the Government's policy for comprehensive and sustainable reconstruction⁵⁹. In this framework, the Guadeloupe Department of the Environment, Planning and Housing (DEAL) established a permanent office in Saint Martin in September 2018.
- ▶ In terms of relevant **policies and plans**, at national level, the second **Overseas Housing Plan 2019-2022** was extended until 2023. In parallel, in December 2022, the collectivity initiated the first territorial diagnostic phase for the development of a **Local Housing Programme (PLH)**, aimed at gaining deeper understanding of the current housing situation in the region, using a participatory approach⁶⁰. The PLH is a programming tool which will constitute the roadmap for the housing

strategy implemented by the local authority over the next 6 years. Recently, the region created a territorial cluster to combat substandard housing (PTLHI), which is responsible for organising and coordinating the action of all relevant public stakeholders⁶¹. A **Land Use and Development Plan (PADSM)** is also underway⁶². Moreover, a revised **Prevention Plan of Natural Risks (PPR)** has been elaborated⁶³. The RRP for 2021-2026⁶⁴ focuses on the protection of windows against solar radiation and on efficient air conditioning to replace existing air conditioning units⁶⁵.

- ▶ Following hurricane Irma, **programmes and funds** available to Saint-Martin have strongly focused on the post-disaster reconstruction. Under European Union Solidarity Fund (EUSF), on 11 July 2018 the European Commission granted financial assistance of 46 million euro for the reconstruction of Saint-Martin. The ERDF Programme for Saint-Martin 2021-2027 amounts to approximately 59 million euro and includes a specific objective to promote socio-economic integration measures. Another specific objective prioritises actions to promote climate change adaptation and disaster risk prevention and resilience, with 1.3 million euro⁶⁶.
- ▶ The State and the regional administration, through the convergence and transformation contract (CCT) 2019-2022, invested 79 million euro in projects to improve the conditions and quality of life of the population, including housing needs. Saint-Martin also benefits from the Voluntary Investment Plan created in 2022 to stimulate the development of dwellings in French outermost regions⁶⁷. The regional administration recently signed a collaboration agreement with Action Logement with a view to enlarging the region's housing stock⁶⁸. Semsamar and Sikoa (in cooperation with the Banque des Territoires), two of the main housing operators, contributed to the reparation of buildings and the relocation of residents whose houses were destroyed by hurricane Irma⁶⁹.

Constraining factors

The region faces challenges which partially constrain access to this basic need or are likely to constrain access in the future:

- ▶ **Extreme weather events such as hurricanes and cyclones** are prone to occur particularly between the months of December and May, resulting in substantial damages to dwellings. Given that the inhabitants primarily live near the lagoons and the beaches, their houses are exposed to high waves generated by the cyclones. Additionally, houses are exposed to erosion, flooding and marine submersion. According to recent projections, cyclonic activity is likely to increase towards the north of the Antilles Arc, directly impacting Saint-Martin^{70 71}.

Hurricane Irma, which struck the island in early September 2017, caused damage to 95% of the region's buildings⁷². Based on satellite observation, it was estimated that Irma caused 5,874 negligible damages on buildings (46.5% of buildings), 2,940 moderate damages (23.3% of buildings), 1,323 severe damage (10.5% of buildings) and destroyed 2,486 buildings (19.7%)⁷³. Similarly, in the aftermath of the disaster (between 2018 and 2019), there was a decrease of 3.3.% of the number of dwellings available⁷⁴. A report commissioned by the French Ministry states that 27% of residential buildings were irretrievably affected and/or had major structural disorders; 27% required roofing work, and 20% required roofing and carpentry work⁷⁵. The total cost of insured damage was estimated at almost 1.17 billion euro for Saint-Martin⁷⁶.

- ▶ **Geographical constraints**, including insularity, a difficult topography and the small size of the region, limit the availability of land for residential building development. Another geographical factor is the presence of **natural protected areas** and the need to balance nature protection and urban development⁷⁷.
- ▶ Regarding **socio-economic factors**, in Saint-Martin, the statistical information system does not allow economic accounts to be drawn up, making it difficult to calculate the level of real wealth per inhabitant⁷⁸. Based on estimations carried out by INSEE, Saint-Martin faces high unemployment rates, particularly among young people (33.3% of the population aged between 15 and 24 years old in 2020)⁷⁹. Moreover, 60% of the population is eligible for social financial assistance (CAF)⁸⁰. This contrasts with the situation observed in mainland France, where the share of eligible households is 47%.
- ▶ An upward trend in **housing prices** is observed⁸¹. This could be attributed, among other factors, to an **increasing demand** in the context of a constrained housing market and **high construction costs**. Saint-Martin needs to import certified construction materials from France and from Europe, as materials and products of neighboring countries are often not adapted to EU and national standards⁸². A sharp rise is also observed in the number of furnished apartments and second homes for **tourism** purposes⁸³, which can reduce the supply of long-term rentals. The upward trend in prices may also be attributable to the growing demand for **secondary residencies by international buyers and investors** (linked to the tax exemption law)⁸⁴; as well as the mentioned limited available land.

- ▶ Literature shows that **existing housing infrastructure in the region is not adequately adapted to the local climate**. Developing of tourism and the construction industry were guiding urban planning in Saint Martin rather than adaptation to the risk of hurricanes⁸⁵.
- ▶ The management of the reconstruction needed after the hurricane Irma can be used to improve the response in the future and enhance the **administrative and technical capacity** of the local authority.

4.0 Mitigating actions and recommendations

Need identified in Key Area 1: Access to water and sanitation

INCREASE WATER PRODUCTION THROUGH AFFORDABLE AND SUSTAINABLE DESALINATION

- ▶ Support the **expansion of desalination facilities** and construction of new installations to boost capacity by leveraging existing funding opportunities and identify and test **desalination methods** that are less expensive and/or energy consuming, for instance by exploring the use of **renewable energy** to desalinate water

IMPROVE AND EXPAND WATER INFRASTRUCTURE TO INCREASE DISTRIBUTION CAPACITY AND DURABILITY

- ▶ Test and/or develop **materials and/or processes that are more resistant** to the high temperature of water and to the presence of chlorine to increase the durability and longevity of infrastructure.
- ▶ Create and/or upgrade **water storage** facilities.
- ▶ Adapt existing water infrastructure to increase resilience to **future natural disasters**.

INCREASE COLLECTIVE SANITATION COVERAGE

- ▶ Support **households to connect to the public sanitation** system by promoting existing subsidies offered by, among others, the *Agence nationale de l'habitat* (ANAH), family allowance fund (CAF).
- ▶ Implement **rehabilitation operations for non-collective sanitation**, prioritising those posing health and environmental risks.

Needs identified in Key Area 2: Access to adequate housing

RESTORING THE HOUSING STOCK TO PRE-IRMA LEVELS

- ▶ Mobilise additional investments to **promote the construction of new residential buildings** and the **repairs** needed to address major structural damages, including required roofing and carpentry work for damaged buildings.
- ▶ Pool **engineering and technical expertise** at national and regional level to promote housing stock development in the context of limited land availability (e.g. densifying housing stock via the raising of buildings height).

ESTABLISH MEASURES TO IMPROVE HOUSING AFFORDABILITY

- ▶ **Reduce construction costs** by promoting local value-chains in construction materials, and the development of bio-based materials.
- ▶ Promote specific aid programs for vulnerable groups with a view to supporting access to **rented housing** and **renovation**.
- ▶ Further develop specific programs to help residents' **access to property** through down-payment assistance and affordable mortgage options.

PROMOTE CLIMATE ADAPTATION AND MITIGATION MEASURES TO REDUCE VULNERABILITY TO NATURAL HAZARDS

- ▶ Promote **sustainable and resilient building practices** and **green housing initiatives**, encouraging the use of resilient materials which improve waterproofing and reduce wind load.
- ▶ Promote the acquisition of **competencies and knowledge in terms of natural risk disaster prevention**, including offering regular training programs to build capacity and technical skills.

Annexes

Annex 1 - References

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- ¹³ Rapport annuel économique Saint-Martin 2021, IEDOM, 2021. https://www.iedom.fr/IMG/rapport_annuel_iedom_st-martin_2021/#page=1
- ¹⁴ Ibid.
- ¹⁵ Saint-Martin 2015, IEDOM, 2015. https://www.iedom.fr/IMG/pdf/ra2015_saint-martin.pdf
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- ¹⁸ The water price is calculated differently from other regions. It is calculated by 120m³ and every three months when there is a control of water consumption. If the consumption is more than 40m³ per trimester, the price is double.
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