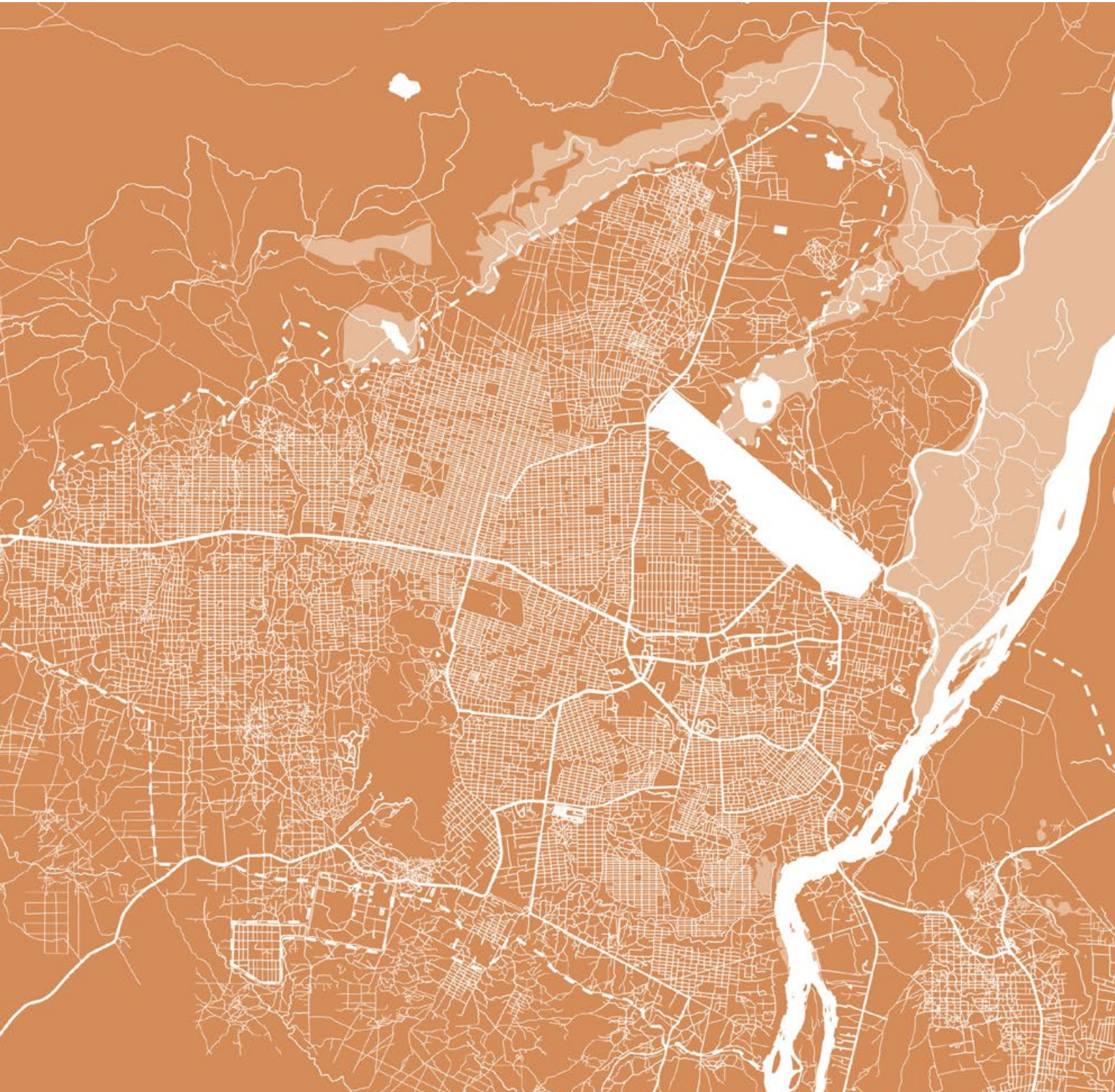


# JUBA

## Strategic Plan





Juba Strategic Plan

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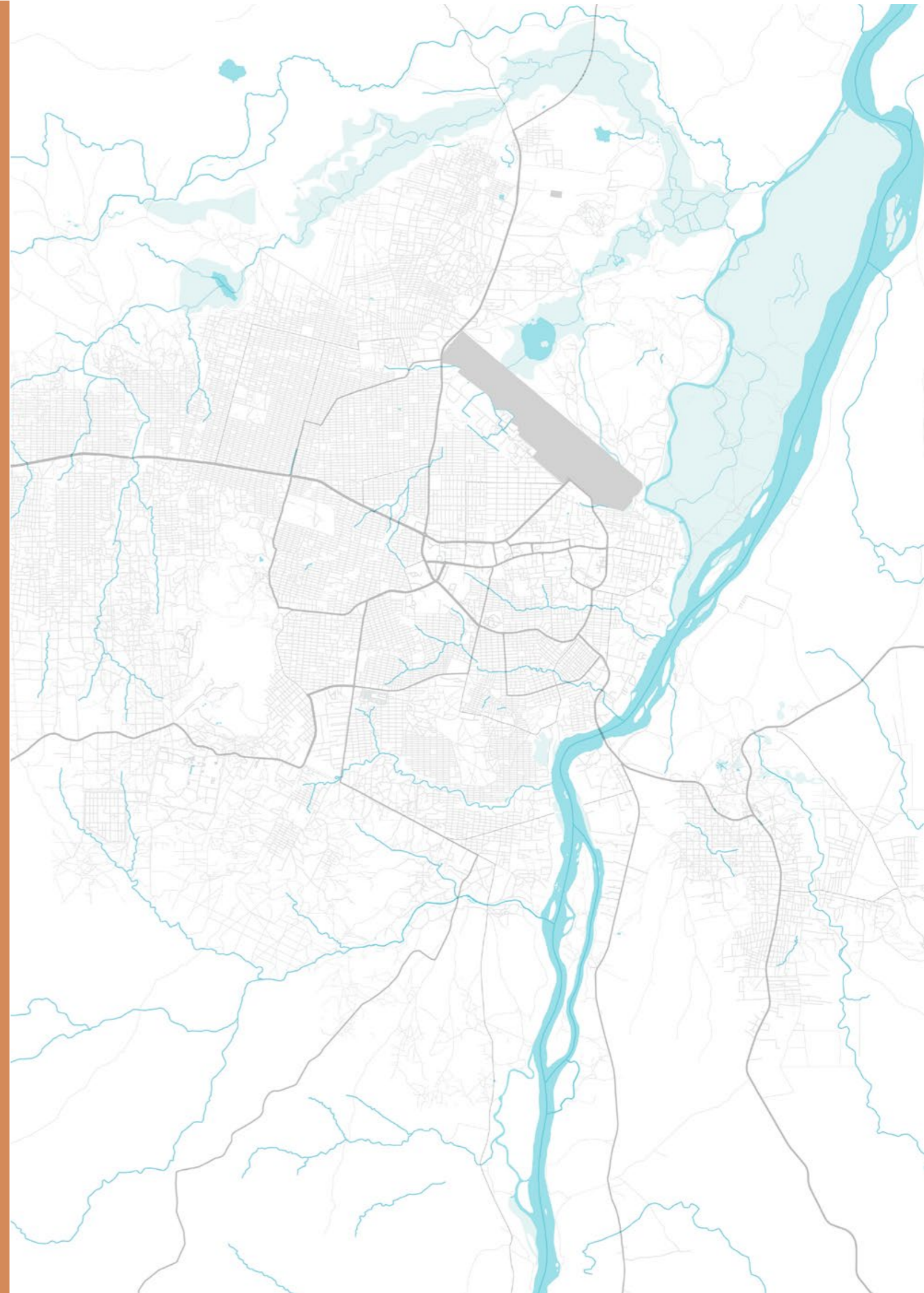
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## List of acronyms

<b>ASIS</b>	Agriculture Stress Index System
<b>SSNDS</b>	South Sudan National Development Strategy
<b>R-NDS</b>	Revised National Development Strategy
<b>R-ARCSS</b>	Revitalised Agreement on the Resolution of the Conflict in South Sudan
<b>CES</b>	Central Equatoria State
<b>CPA</b>	Comprehensive Peace Agreement
<b>EITI</b>	Extractive Industries Transparency Initiative
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FY</b>	Fiscal year
<b>GDP</b>	Gross Domestic Product
<b>GIS</b>	Geographic Information System
<b>GoSS</b>	Government of South Sudan
<b>IBA</b>	Important Bird Area
<b>IDP</b>	Internally displaced person
<b>IDPs</b>	Internally displaced people
<b>IOM</b>	International Organization for Migration
<b>JICA</b>	Japan International Cooperation Agency
<b>JMDI</b>	Service delivery system
<b>LAPSSET</b>	Lamu Port-South Sudan-Ethiopia Transport Corridor
<b>MHADDM</b>	Ministry of Humanitarian Affairs and Disaster Management
<b>MLHUD</b>	Ministry of Lands Housing and Urban Development
<b>MoFEP</b>	Ministry of Finance and Economic Planning
<b>MoPI</b>	Ministry of Physical Infrastructure
<b>MTC</b>	Multi Service Training Center
<b>NAPA</b>	National Adaptation Plan of Action
<b>NGO</b>	Non-Governmental Organization
<b>NUP</b>	National Urbanization Policy
<b>OCHA</b>	Office for the Coordination of Humanitarian Affairs
<b>POC</b>	Protection of Civilian
<b>RAMSAR</b>	Wetland Site Designated to be of International Importance
<b>SANU</b>	Sudan African National Union
<b>SMoAF</b>	State Ministry of Agriculture and Forestry
<b>SMoE</b>	State Ministry of Education
<b>SMoH</b>	State Ministry of Health
<b>SPLM</b>	Sudan People's Liberation Movement
<b>SPLM-DC</b>	Sudan People's Liberation Movement–Democratic Change
<b>SSDF</b>	South Sudan Democratic Forum

<b>SSRRC</b>	South Sudan Relief and Rehabilitation Commission
<b>UDSF</b>	United Democratic Salvation Front
<b>UKAID</b>	United Kingdom Agency for International Development
<b>UN</b>	United Nation
<b>UN WOMEN</b>	United Nations Entity for Gender Equality
<b>UNDP</b>	United Nations Development Programme
<b>UNEP</b>	United Nations Environmental Programme
<b>UN-Habitat</b>	United Nations Human Settlements Programme
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>UNICEF</b>	United Nations Children's Fund
<b>UNMISS</b>	United Nations Mission in South Sudan
<b>USAID</b>	United States Agency for International Development
<b>USAP</b>	Union of Sudan African Parties
<b>USD</b>	United States Dollar
<b>WASH</b>	Water, Sanitation and Hygiene
<b>WFP</b>	World Food Programme of the United Nations
<b>WHO</b>	World Health Organization of the United Nations



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# 01

## INTRODUCTION



Figure 1: Aerial image of South Sudan. Source: Copernicus Open Access Hub (Sentinel-2)



# 01

## Introduction

*“Despite the political and social challenges, South Sudan has many opportunities. The urban sector is a key driver of sustainable development and catalyst of change due to its high potential to boost the economy and stimulate the secondary and tertiary sectors.”*

### 1.1 Introduction

12,400,  
000  
Inhabitants

75%  
Urban Pop.

25%  
Rural Pop.

On July 2011, after a long civil war, South Sudan gained its independence from Sudan, and Juba became one of the newest capitals in the world. After the self-determination referendum, when 98.83% of the people voted for autonomy, freedom was achieved, but different complex ethnopolitical conflicts raised over the control of power and resources, which undoubtedly have affected the rural and urban dynamics in the territory. The independence of South Sudan implied to pass through several transitions: a transition into a globally competitive economy, into a political democracy, and most importantly, the ongoing process of shifting from rural to an urban nation.

Therefore, urban development is a significant challenge for South Sudan and it is paramount to understand the current status of South Sudanese cities, with particular attention towards the situation of Juba to identify the critical urgent problems, to further provide innovative solutions through evidence-based urban planning.

Since 2016, aligned with the Humanitarian Response Plan and The United Nations

Interim Cooperation Framework, UN-Habitat has successfully supported the country’s peace process. In coordination with the South Sudan Ministry of Lands, Housing and Urban Development, it has elaborated and implemented several projects related to:

- **Re-settlement, reintegration of IDPs and returnees, and building their resilience.**
- **Land mediation, land governance and land administration.**
- **Housing and basic services through public works.**
- **Livelihoods, local economy development, and youth empowerment.**

UN-Habitat interventions form part of more extensive strategies at the national and regional level from other UN Agencies, such as; UNMISS, UNDP, FAO, IOM, UNHCR, WFP, UNICEF, UN WOMEN, ACTED, as well as other international NGO’s that provide humanitarian response. During the last years, these organizations have been making relevant efforts and investments in the implementation of different projects addressing structural conflicts that aim at contributing to building peace, stimulating economic growth,



Figure 2: Playing in the open sewage in an IDP camp in Wau Town, South Sudan © Caritas Internationals (Ilyv Njiokiktjien), 2017



**“Since 2016, aligned with the Humanitarian Response Plan and The United Nations Interim Cooperation Framework, UN-Habitat has successfully supported the country’s peace process.”**

improving the status of women, children’s and youth and enhancing the quality of life in rural areas and in the cities. Despite the political and social challenges, South Sudan also faces many opportunities. The urban sector is a key driver of sustainable development, and a catalyst for change due to its high potential to improve the economy and stimulate the secondary and tertiary sectors such as infrastructure, housing, industry, information and communication, tourism, hospitality, and financial services.

Of course, the magnitude of urban growth poses opportunities and constraints resulting from decades of war and marginalization. It is urgent to start elaborating long term strategies and implementing projects to strength the capacity of local governments, to initiate the implementation of the NUP (National Urbanization Policy).

The broad intention of this report aims to support these processes, providing a comprehensive overview of the current Juba situation. It was essential to map out the city’s social, political, and economic conditions to understand the territorial context. It was necessary to grasp the complex dynamics of migration from refugees, returnees and IDPs that arrive in the city, and quantify the population accessibility to public facilities and basic infrastructure.

The outcome is a Strategic Plan for Juba that defines a clear direction and provides a holistic vision of sustainable urban growth for the upcoming years. Presenting several recommendations and critical responses to the main identified problems. Furthermore, defined demonstration projects with development scenarios are proposed to prioritize the urgent interventions. The demo



Figure 3: UN IDP Camp in Wau Town, South Sudan. © Caritas International (Ilvy Njikiktjen) 2017

projects are a test of potential solutions before concluding on normative and policy frameworks, which could possibly be elaborated in a later stage.

## 1.2 Objectives of the Strategic Plan and Scope of Work

The main objective of a Strategic Plan is to support the local governments to clearly understand the main constraints and strengths of their city’s context. Establish a prioritization of these challenges and opportunities to facilitate the decision-making process regarding potential urban development interventions and capital investments. To support this task, a set of multi-scalar and multi-dimensional maps are elaborated to build the narrative and establish a comprehensive vision of the city’s current situation in a larger frame. The process

is rooted in an evidence-based approach, building upon both, primary and secondary data collection and analysis. The evidence is then combined with reviews of existing planning documents at national and regional levels, international reports, as well as socio-economic, and GIS data. The report provides a framework for crucial strategic scenarios and recommendations in line with the regional and national priorities. Furthermore, the document serves as an entry point also for other relevant actors, such as the humanitarian-development agencies, International NGO’s, local and national governments, as well as other stakeholders. This ensures that the scenarios and recommendations for Juba do not operate in isolation from other ongoing projects and interventions. On the contrary, the document aims to sum up and orient the different efforts and strategies in the same direction.

**“The Strategic Plan will serve as an entry point for other relevant development actors, such as International Cooperation Offices, NGOs, and other UN Agencies.”**



Figure 4: A young woman carrying water near the border with Uganda. © HRW (Frederic Noy), 2017



### 1.3 The Strategic Plan Methodology

***“The Outcome is a Strategic Plan for Juba that defines clear goals and objectives with an holistic vision for sustainable urban growth in the upcoming years.”***

The evidence-based planning approach creates a deeper understanding of the spatial dynamics of the urban area, by combining and comparing urban datasets such as demographics, density, land use, natural features, and accessibility analysis. The evidence (spatial/non spatial data) is reflected in the form of indicators that can be compared with best practices standards and benchmarks for sustainable urban development. Not only does this provide a clear perspective on the main developmental issues, but it also quantifies the projected effect of future development proposals on the indicators applied in the analysis.

For this purpose, different methods were

integrated to first provide the necessary body of evidence on which to build an understanding, and full assessment of issues before making recommendations. By analyzing how the structures of spatial, socio-environmental, and economic issues interact at different scales of influence, the diagnostic methodology moves from the national to the neighborhood scale, tracking the interdependencies within the city’s physical development patterns, and seeking to decrypt the reasons behind them.

Several reviews of existing policy documents, local media news, international reports, and previous urban plans were undertaken with the purpose of extracting information useful



Figure 5: Participatory workshop for the Juba Strategic Plan ©United Nations Human Settlements Programme (UN-Habitat), 2022

to the understanding of the context, and the city itself, as well as assessing their contents based on three criteria: content relevance, process integration, and effectiveness. The reviews focused on assessing the:

- South Sudan National Development Strategy 2018-2021
- South Sudan Country Report for the Fifth United Nations Conference on the Least Developed Countries, GoSS 2019
- Central Equatoria State Strategic Plan 2012-2013/2014-2015
- South Sudan UN Country Report 2019
- Habitat Country Programme for South Sudan, UN-Habitat 2016-2020
- Planning Urban Settlements in South Sudan - Basic Concepts, UN-Habitat 2020
- JICA Master Plan and Infrastructure Sector Plans 2011-2020
- Juba Settlement and Facilities Distribution Profile Mapping Report, UN-Habitat 2021
- City Limits: Urbanization and Vulnerability in Sudan, Juba Case Study, UKAID 2011
- Juba Town Planning and Administration Assessment Report, USAID 2005

The primary and secondary data gathering, was later supported by detailed GIS spatial analysis at national, district and settlement scale to synthesize and distil information into graphics and maps. The information was finally reviewed and validated by specialist and experts from different fields in the UN-Habitat team. The main objective was to quantify and spatialize the main issues at national, regional, and urban scale in order to establish a coherence to elaborate the analysis conclusions that would serve as the basis to elaborate a strategic proposal for Juba. The findings were always validated with the local government and key stakeholders.



Figure 6: Existing reports on South Sudan, Central Equatoria State, and Juba. ©United Nations, UKAID (UN-Habitat), 2022



***“The urban sector should be regarded as a social economic entity with many sub-systems that are interlinked and work together to consolidate peace and stimulate economic growth that result in inclusive, resilient and livable cities and towns.”***

#### 1.4 Key Urban Challenges for South Sudan & UN-Habitat Country Programme

The young nation is facing a multitude of challenges in need of a variety of responses utilizing the skills of development partners and agencies. In this regard, UN-Habitat’s mandate is to ‘promote socially and environmentally sustainable towns and cities’ as the ‘focal point for all urbanization and human settlement matters within the UN’. Urban development is a major challenge in South Sudan due to the pace of urban growth in the face of destroyed infrastructure and services from decades of war and marginalization of the South.

Development of infrastructure and amenities to support livelihoods in South Sudan has not been proportionate to the rise in urban population. At the same time, sustainable peace could foster economic growth and increased international development assistance and investment, and a chance to visualize a new development strategy founded on peaceful relations within the country and also with its neighbours.

The key urban challenges in South Sudan are:

- Displacement of people and collapse of infrastructure and basic services caused by recent armed conflict
- Inadequate policies, legal and institutional frameworks for land mediation, governance and administration
- Lack of proper data and indicators on the state of cities as well as a sustainable urban development plan
- Housing and basic services shortage in major cities
- Lack of enabling conditions for sustainable livelihoods and urban economic development.

To address the above the UN-Habitat Country

Office for South Sudan proposes five priority areas of intervention with the overall objective to build peace and stimulate economic growth through sustainable urban development in postconflict South Sudan. The five priority areas and their intended results are:

1. Re-settlement, reintegration of IDPs and returnees, and building their resilience: The anticipated outcome is IDPs, returnees and the host communities living peacefully together and accessing basic services. Enhancing the resilience of communities and strengthening social services for the most vulnerable.
2. Land mediation, land governance and land administration: The anticipated outcome is to have land mediation and secure land tenure supporting peaceful co-existence and development in line with strengthening peace and governance.
3. National urban policy and physical planning for equitable development: This is to result in planned and sustainable urbanization to transform the lives of people in South Sudan.
4. Housing and basic services through public works: The anticipated outcome is that basic services are meeting the needs of urban communities, and secondly that livelihoods are enhanced through employment in public works projects; in line with i.e. strengthening social services for the most vulnerable and reinvigoration of the economy.
5. Livelihoods, local economic development, and youth empowerment: This component aims to result in the creation of conditions for sustainable livelihoods and urban economic development with a particular focus on improving the status of women and youth.



Figure 7: UN peacekeepers battalion patrolling the perimeter of the UN House and IDP camp in Juba. ©United Nations, (UNMISS), 2016



***“The nexus has the potential to make aid more effective and efficient. It also provides a good opportunity to work with all stakeholders towards a common goal. Efforts to put people’s experience at the centre, build local capacities and ensure a holistic response.”***

### 1.5 The Humanitarian-Development & Peacebuilding Nexus Approach for South Sudan

The nature of humanitarian crises is changing, with man-made shocks in urban areas against civilian populations, armed conflicts and natural disasters affecting rural areas and vulnerable communities. Crises are frequently protracted, and humanitarian, and development actors are dealing with the current approach’s inefficiency. Responding to the humanitarian needs of people affected by conflict and disaster is not a short-term endeavour. In this regard, the World Humanitarian Summit in 2016 tried to rethink the link between humanitarian action, development and peace, with the aim being to bridge what has been described by the UN Office for the Coordination of Humanitarian Affairs (OCHA) as the “humanitarian-development divide.” (Debarre,2018)

Building a humanitarian-development nexus means responding to humanitarian needs with a long-term perspective, towards the construction of community resilience, in line with the collective outcomes, in a joint effort and dialogue among all the actors on the ground, with the involvement of emerging donors and the different humanitarian agencies. In this direction, the various stakeholders and international agencies working in South Sudan must work together towards “strategic, clear, quantifiable and measurable” collective outcomes.

A collective outcome is a concrete and measurable result that the humanitarian and development sector actors try to achieve jointly. Focusing on collective outcomes allows individual stakeholders to use their comparative advantage to work more effectively towards a common objective. According to OCHA, the time frame is usually a period of 3-5 years to help a country to address the needs, risks, and vulnerabilities of its population.

In the case of South Sudan, considered one of the most fragile countries in the world due to the humanitarian complexity, several civilian conflicts and constant political instability, this time frame can take longer than 3-5 years. According to the 2022 Fragile States Index, the worst humanitarian crises in the world are in Yemen, Somalia, South Sudan and Syria. Fragility comprises political, social, economic, environmental and security elements, and all of these dimensions must be reconstructed after a crisis event. Moreover, the multidimensional aspect of the fragility framework needs a comprehensive and flexible approach.

A meaningful way to include the nexus perspective for South Sudan in the humanitarian assistance among different actors and donors is to increase resilience in these five dimensions, reducing vulnerabilities in targeted communities and giving them tools for strengthening their resilience capacity to address future natural and man-made shocks. Urban Planning can become an important tool to trigger the humanitarian development and peacebuilding nexus in the different urban and peri-urban areas in South Sudan, where several environmental and social events affect much of the country’s population.

The Juba Strategic Plan is a cross-scalar document that diagnoses the potential environmental and social challenges that could affect the capital city while defining the long-term development goals and supports the prioritization of investments, interventions and projects. The document’s strategic recommendations can make aid more effective and efficient while giving direction to different stakeholders towards a common objective, which is ultimately to consolidate sustainable territorial development in South Sudan.



Figure 8: Mangalia road construction by UNMISS. ©United Nations, (UNMISS), 2014



## 1.6 South Sudan Vision 2040

*“Due to the increasing incidence of natural and other disasters, the vision recognizes disaster preparedness and management as a critical security component. Furthermore, by 2040, the relevant institutions and procedures will be in place to anticipate, prevent and manage the consequences of natural and manmade disasters”*

To address the different country’s key challenges such as peace, security and stability, in January 2010, the Government of Southern Sudan (GOSS) through the then ministry of Presidential Affairs, developed a “Vision 2040” document to harness the resources and efforts of the government to transform Southern Sudan into a modern nation. Titled “South Sudan Vision 2040: Towards freedom, equality, justice, peace and prosperity for all”, the vision was adopted by the GOSS Council of Ministers on January 15, 2010.

The vision was founded on seven pillars:

- **Educated and Informed Nation**
- **Prosperous, Productive and Innovative Nation**
- **Free, Just, and Peaceful Nation**
- **Democratic and Accountable Nation**
- **Safe and Secure Nation**
- **United and Proud Nation**
- **Compassionate and Tolerant Nation**

**Educated and Informed Nation:** The government recognizes that the education system crumbled during the liberation conflict and that Southern Sudanese have never had a favourable education system. The government understands that human capital is critical for the development of any nation. The vision is that by 2040, Southern Sudan will have a quality education system that prepares its youth to cope effectively with the emerging challenges of the dynamic global environment. Its relevance, quality and accessibility will characterize this education system; it will apply the latest information

technology to expand and enrich the learning experience.

**Prosperous, Productive and Innovative Nation:** The vision aims to transform the country into a promising and dynamic economic country in which all members of society play a vital role in developing a prosperous nation. This vision will be achieved by creating a diversified economy driven by agriculture, industry, mining, manufacturing, tourism and services. The vision recognizes the role of all population segments, including women, youth and communities, synergized through appropriate partnerships. The vision is to generate sizable GDP and achieve a complete employment scenario in which the number of jobs available in the formal and informal sectors equals the number of citizens seeking employment. It is also envisaged that by 2040, all Southern Sudanese will have access to good quality basic shelter in rural or urban areas.

**Free, Just, and Peaceful Nation:** The vision recognizes that the lack of freedom, equality and justice are some factors that drove Southern Sudan’s people to war. The people fought with determination to liberate the nation from deliberately depriving these rights and a just and peaceful society. These rights and aspirations will be reinforced by the Interim Constitution of Southern Sudan, which seeks to guarantee the rights of all citizens. This vision will seek to entrench and perpetuate a tranquil environment where freedom, equality, justice and peace thrive.

**Democratic and Accountable Nation:** A vital element of the Comprehensive Peace Agreement (CPA) and the vision of the New Sudan is the democratic transformation of the country. This will entail mainstreaming democratic practices and processes which

enjoin the active participation of the citizens in determining their destiny. The vision identifies some of the hallmarks of democracy as decentralization of institutions; regular, free and fair multiparty elections; and widening of the democratic space in which all citizens can enjoy their civic rights. The vision is to consolidate a Southern Sudan which will have developed a morally, ethically upright and educated society matched by exceptional leadership that provides a role model for the younger generation.

**Safe and Secure Nation:** The vision asserts that true freedom can only be realized if the country is protected from internal and external aggression. By 2040, it is envisioned that Southern Sudan will have established a crime-free society where all forms of crime and illegal possession of firearms will be eliminated. It is also envisaged that the law enforcement forces will be trained, strengthened and professionalized appropriately to win the sufficient confidence of the citizens. Due to the increasing incidence of natural and other disasters, the vision recognizes disaster preparedness and management as a critical security component. Furthermore, by 2040, the relevant institutions and procedures will be in place to anticipate, prevent and manage the consequences of natural and manmade disasters.

**United and Proud Nation:** The vision recognizes that the people of Southern Sudan played a role in the liberation conflict regardless of their ethnicity and domicile, with the conviction that common freedom could not be achieved otherwise. The vision seeks to facilitate further integration so that by 2040 the country will have a united citizenry who, though they may be from diverse cultural or religious backgrounds, are patriotic and proud to share a common heritage, national pride

and desire for peaceful coexistence. This will be demonstrated by mutual respect and widespread use of the flag and other symbols that signify national harmony and a shared future. The vision also recognizes the family’s place and will seek to strengthen the family unit and maximize its benefits in transmitting social and moral values from generation to generation.

**Compassionate and Tolerant Nation:** Southern Sudan’s people have been through economic hardship and extreme poverty for a long time. The future vision is to have a compassionate and caring nation that offers support and opportunity to the poor and vulnerable and guarantees an equitable share of the benefits of economic growth. It is envisioned that by 2040 all the people of Southern Sudan will have access to productive resources as a means to eradicate poverty to the extent that no one will live below the poverty line; Southern Sudan will be a tolerant nation that cherishes free expression of ideas, free practice of religion and association with other people in the pursuit of legitimate goals; and that no Southern Sudanese will be disadvantaged by gender, age, religion, creed, colour, ethnicity, language or political ideology. Significantly, the new Southern Sudan will have law-abiding citizens with strong moral values and high ethical standards.

*“The vision recognizes that the people of Southern Sudan played a role in the liberation conflict regardless of their ethnicity with the conviction that common freedom could not be achieved otherwise. The vision seeks to facilitate further integration so that by 2040 the country will have a united citizenry.”*



*“The Revised National Development Strategy (R-NDS) 2021- 2024 expresses national aspirations to transition from dependence on humanitarian aid to a development path using the humanitarian, development and peace nexus approach and has adopted a comprehensive implementation framework anchored on collaboration with development partners.”*

## 1.7 The Revised National Development Strategy (2021-2024)

Development planning in South Sudan dates back about eleven years to when the South Sudan Vision 2040 and The National Development Plan (SSNDP) 2011–2013 was first published. The SSNDP was extended to 2016, and eventually succeeded by the South Sudan National Development Strategy (SSNDS) 2018– 2021, which has now been revised as required by the Revitalized Agreement on the Resolution of Conflict in South Sudan (R-ARCSS).

Under the overarching theme of “Consolidate Peace, Stabilize the Economy,” the Revised National Development Strategy (R-NDS) 2021- 2024 expresses national aspirations to transition from dependence on humanitarian aid to a development path using the humanitarian, development and peace nexus approach and has adopted a comprehensive implementation framework anchored on collaboration with development partners. The R-NDS draws lessons from experiences in the implementation of the country’s past development plans and strategies and expounds on prevailing opportunities to ensure effective implementation of the plan.

It is a tool to continue the implementation of the R-ARCSS; it embodies national aspirations to slowly move from dependence on humanitarian aid to a development trajectory. It includes initial steps to shift from reliance on oil to a diversification of our economy; and has adopted a comprehensive implementation framework in close collaboration with our development partners. The Revised NDS (R-NDS) reinforces South Sudan’s Vision 2040: towards freedom, equality, justice, peace and prosperity for all, which remains the national vision towards which all national development strategies should contribute. In pursuit of that vision, the goal of the R-NDS is to consolidate peace, stabilize the economy and return to sustainable development by achieving the

following core objectives:

- **Establish and/or strengthen institutions for transparent, accountable and inclusive governance.**
- **Foster macroeconomic stability and lay the foundations for the diversification of the economy.**
- **Build critical infrastructure for sustainable development, including roads, energy, public buildings and broadband capability.**
- **Increase support to the social sector for human capital development and protect the vulnerable population, to leave no one behind.**
- **Mainstream gender in all development policies and programmes and empower women and youth as drivers of growth and nation-building.**

**Clusters of the R-NDS:** The priorities that the R-NDS address are organized in clusters to reflect the clusters in the R-ARCSS. The five clusters are (i) governance, (ii) economic, (iii) services (social development), (iv) infrastructure, (v) gender and youth (cross-cutting). The goals and strategic objectives of the clusters are summarized below.

**Governance Cluster:** Several analyses of the crisis in South Sudan have referenced challenges with governance in the country. The limited political, institutional and cultural governance capacity, manifested since 2005, has been acknowledged by both government and partners and is widely considered a major contributing factor to the persistent conflict, political polarization and humanitarian crises the country has endured. We also recognize that democratic governance creates the

essential enabling environment for peace (a prerequisite for all other reforms), political maturity and stability, economic and social development, capacity development and equitable service delivery. As a result, the government has agreed on this cluster’s following goals and objectives.

- 1. Political and legitimate governance:** Consolidation of peace, preparation of the permanent Constitution, the rule of law and security (National Elections Commission), and decentralization and local governance/devolution.
- 2. Economic governance:** Increase the pace of implementing the public financial management (PFM) reform agenda, intensify anti-corruption measures and improve natural resource management.
- 3. Public sector reforms:** Radical civil service reform, develop systems and undertake manpower planning and implementation.
- 4. Information and communications technology (ICT) and e-governance:** Procure broadband equipment and institute e-governance.

**Economic Cluster:** Economic development is a key cluster that underpins all facets of national development. Despite South Sudan’s enormous potential, the country has regressed since its independence because of continued internal conflicts. With the implementation of the Peace Agreement and the relative peace the country enjoys, the government will focus on growing the economy and ensuring that the country’s resources benefit current and future generations. This is reflected in the R-NDS, which proposes addressing urgent economic development challenges and developing the policies and strategies that will drive the economy in the medium to long term. Therefore, for the economic cluster, the government will focus on the following goal

and objectives:

- 1. Finalize legal and institutional frameworks for economic growth.**
- 2. Meet the East African Community Basel Core Principles and international requirements.**
- 3. Enhance revenue mobilization and strengthen PFM.**
- 4. Develop the basic economic infrastructure.**

**Services Cluster:** The provision of services is critical in building and strengthening the relationship between the government and the people and the social contract, and equally important for building much-needed human capital for sustained economic development. In South Sudan, however, investment in social development remains low due mainly to the distraction of conflict and a declining economy. This poses a risk to the hard-won relative peace and trust in the government’s ability to meet the needs of its people. With a large population of refugees, internally displaced persons and returnees (together with host communities), and more than half of the country’s population in need of humanitarian assistance, the provision of social safety nets are at the heart of the livelihoods of many South Sudanese. This is why the government has committed to focusing on the following goal and objectives.

- 1. Develop a comprehensive plan for human capital formation;** which entails undertaking a national capacity assessment.
- 2. Provide affordable health care;** by establishing a health provision hierarchy from primary health to critical care, investing in infrastructure and developing the health workforce.
- 3. Expand on the provision of social safety nets;** to cover non-contributing

*“The provision of services is critical in building and strengthening the relationship between the government and the people and the social contract, and equally important for building much-needed human capital for sustained economic development. In South Sudan, however, investment in social development remains low due mainly to the distraction of conflict and a declining economy.”*



*“Infrastructure is seen as a catalyst for development and plays a pivotal role in the equitable development of the country. South Sudan has inadequate essential infrastructure services such as roads, sewer networks, electric power systems, Internet capacity and penetration, and many other infrastructural requirements. These needs have informed the selection of the goal and objectives for this cluster, which the government will prioritize in implementing the R-NDS.*”

to contributing options, ensuring a shift from providing temporary relief to a more sustainable response to vulnerabilities.

**4. Strengthen human and institutional capacity;** for efficient and effective social services.

**Infrastructure Cluster.** Infrastructure is seen as a catalyst for development and plays a pivotal role in the equitable development of the country. South Sudan has inadequate essential infrastructure services such as roads, sewer networks, electric power systems, Internet capacity and penetration, and many other infrastructural requirements. These needs have informed the selection of the goal and objectives for this cluster, which the government will prioritize in implementing the R-NDS.

1. **Expedite action for developing infrastructures;** such as roads and bridges.
2. **Support the private sector;** To increase accessibility and affordability of Internet services by providing broadband capacity with reach to all states.
3. **Create a legal and regulatory environment;** To incentivize private companies in infrastructure development.
4. **Secure public-private partnerships;** To expand transport infrastructure to include railways, river transport, airport development, and transmission networks.
5. **Train and retain qualified staff;** For efficient and effective delivery of the cluster goal.
6. **Initiate processes to operationalize the development of the Ramciel City plan.**
7. **Expedite action for developing oil refining capacities;** Through public-private partnerships.

**Gender, Youth and Cross-cutting Issues Cluster.** Cross-cutting issues, gender, youth, the environment and capacity development

need special attention to ensure that they are mainstreamed across the entire strategy, from planning to impact assessment. Any project, in whatever sector at whatever level, designed without taking gender and environmental implications into account is potentially a vehicle for gender marginalization and exacerbating risks to the environment. In the context of South Sudan, where youth are the majority and bear the brunt of the crisis as fighters, victims and the biggest losers from economic, educational and employment collapse, treating youth as a cross-cutting issue is vital and is a deliberate strategy to ensure that they are not marginalized.

This approach is applied to the environment and capacity development for the same reasons. Cognizant of the negative impact of gender inequality, youth marginalization, limited attention to the environment and inadequate capacity for development, the government, for this cluster, will focus on the following goal and objectives:

1. **Ensure that the permanent Constitution adequately reflects the protection and empowerment of women and youth in all spheres of influence;** Economic, political and cultural.
2. **Invest in vocational training facilities and resources;** For youth in all states to facilitate employment creation and opportunities.
3. **Roll out the results framework for the Nationally Determined Contributions;** To reverse environmental degradation and mitigate the impact of climate change with focus on reduction of the country’s carbon footprint and waste, as well as address pollution management and climate resilience.
4. **Undertake comprehensive national capacity assessment;** Of all public institutions to develop a national capacity-building strategy.



Figure 9: UN day celebration at UNMISS compound in Juba. ©United Nations, (UNMISS), 2015



***“We are at a pivotal moment. The choices we make now could put us on a path towards breakdown and a future of perpetual crisis; or breakthrough to a greener and safer world. The SDG advocates use their considerable spheres of influence to reach new constituencies to act now and keep the promise of the Sustainable Development Goals for the people and for the planet.”***

### 1.8 The Sustainable Development Goals in South Sudan

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

The SDGs build on decades of work by countries and the UN, including the UN Department of Economic and Social Affairs:

In June 1992, at the Earth Summit in Rio de Janeiro, Brazil, more than 178 countries adopted Agenda 21, a comprehensive plan of action to build a global partnership for sustainable development to improve human lives and protect the environment.

Member States unanimously adopted the Millennium Declaration at the Millennium Summit in September 2000 at UN Headquarters in New York.

The Johannesburg Declaration on Sustainable Development and the Plan of Implementation.

At the United Nations Conference on Sustainable Development (Rio+20) in Rio de Janeiro, Brazil, in June 2012, Member States adopted the outcome document “The Future We Want”

In 2013, the General Assembly set up a 30-member Open Working Group to develop a proposal on the SDGs.

In January 2015, the General Assembly began the negotiation process on the post-2015 development agenda. The process culminated in the subsequent adoption of the 2030 Agenda for Sustainable Development, with 17 SDGs at its core, at the UN Sustainable Development Summit in September 2015.

2015 was a landmark year for multilateralism and international policy shaping, with the adoption of several major agreements:

Sendai Framework for Disaster Risk Reduction (March 2015)

Addis Ababa Action Agenda on Financing for Development (July 2015)

Transforming our world: the 2030 Agenda for Sustainable Development with its 17 SDGs was adopted at the UN Sustainable Development Summit in New York in September 2015.

Paris Agreement on Climate Change (December 2015)

The Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA) provides substantive support and capacity-building for the SDGs and their related thematic issues, including water, energy, climate, oceans, urbanization, transport, science and technology, the Global Sustainable Development Report (GSDR), partnerships and Small Island Developing States.

In order to make the 2030 Agenda a reality, broad ownership of the SDGs must translate into a strong commitment by all stakeholders to implement the global goals. The SDGs aims to help facilitate this engagement.



Figure 10: The Sustainable Development Goals (SDGs). ©United Nations, (UN), 2015



# 02

## NATIONAL CONTEXT





# 02

## National Context

*“Population living in urban areas increased from 8.6% in 1972 to 20.2% in 2020. Urban growth reached 5% per year for the past decade, and Juba the capital of the country is considered one of the fastest growing cities in Africa.”*

3  
Administrative  
Areas

10  
States

79  
Counties

540  
Payams

2500  
Bomas

### 2.1 International and National Setting

On July 9, 2011, South Sudan declared independence from the Republic of Sudan, becoming the world’s newest country.

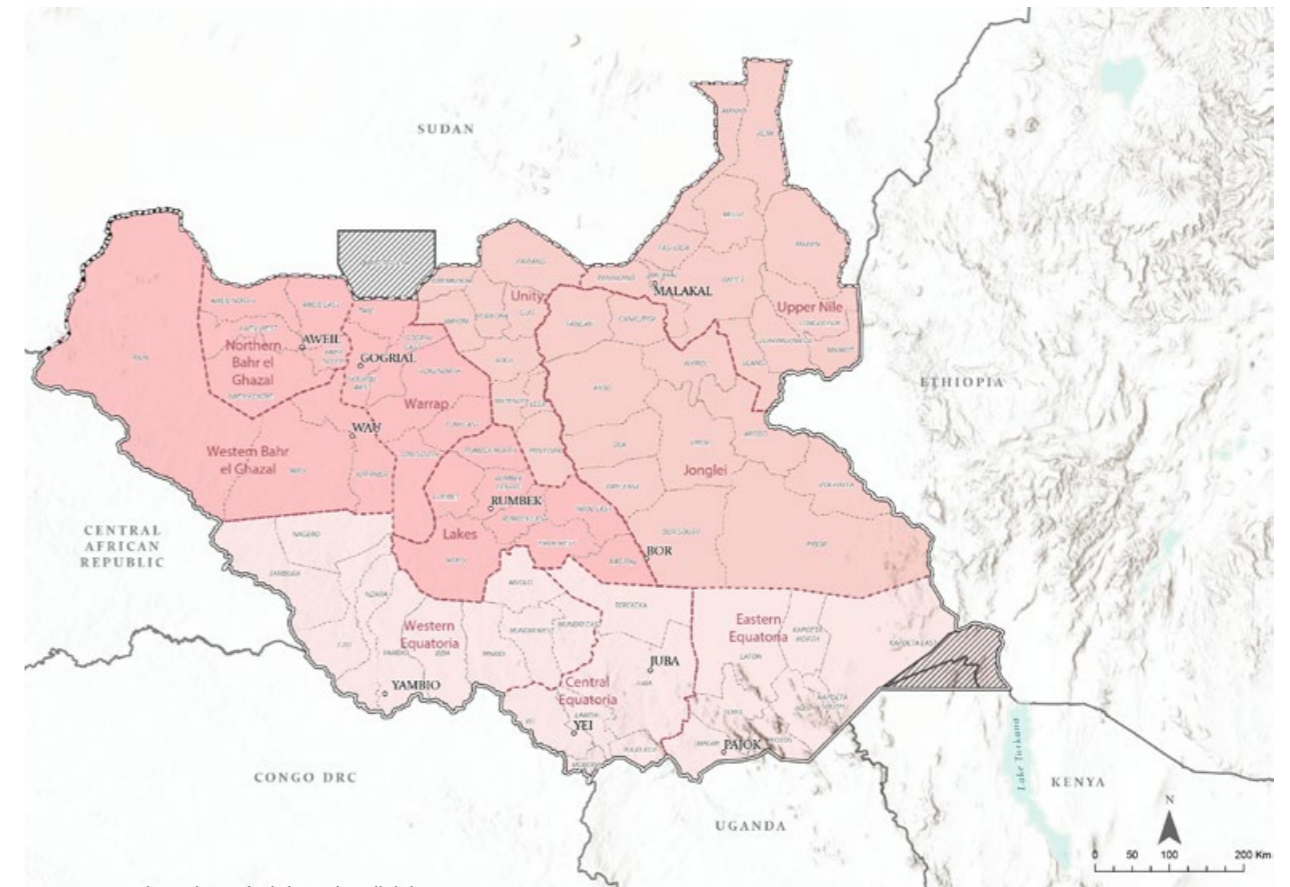
**Geography.** South Sudan locates in the North-East of Africa, South of the Sahara desert, between latitudes 3° and 13°N and longitudes 24° and 36°E. Tropical forests, swamps and grassland cover it. The White Nile crosses the country, passing through the current capital city, Juba, its largest city.

South Sudan borders Sudan on the north, Ethiopia on the east, Kenya on the southeast, Uganda on the south, the Democratic Republic of the Congo on the southwest, and the Central African Republic to the west. South Sudanese’s geographical properties allow the country to host a large wildlife population. Habitats include grasslands, high-altitude plateaus and escarpments, wooded and grassy savannas, floodplains and wetlands. Protected areas such as the Bandingilo, Boma, Sudd wetland, and Southern National Park provide habitat for the world’s second-largest wildlife migration.

South Sudan has a tropical climate, characterized by a dry season followed by a rainy season with high humidity and many rainfalls. The average temperature varies between 20 to 30°C during the coolest month in July, and 23 to 37°C during the warmest month in March.

**Administrative boundaires.** The 610,952 square kilometers of the South Sudanese territory are divided into three regions: Greater Upper Nile, Bahr El Ghaza, Equatoria. Central Equatoria State (CES) is in Equatoria State and is one of the country’s ten states. The administrative division in South Sudan follows two other levels: the states can be further divided into 79 counties composed of 540 payams.

**Demography.** According to UNPF report on 2022, South Sudan has a population of 11,600,104 pp. The country has a rich ethnic background, with more than 50 different indigenous languages, and the Dinka people being the largest group, followed by the Nuer, Azande and Bari.



Map 1: South Sudan administrative divisions

Most people live in rural areas and have livestock and agriculture as main occupation, whilst it is rich in petroleum and other natural resources. The population of SS is also young with half of the people (54%) under the age of 18 years old.

**Urbanization.** South Sudan’s rural population has gradually been moving to urban areas. The proportion of population living in urban areas increased from 8,6% in 1972 to 20,2% in 2020. Urban growth reached 5% per year for the past decade. The capital Juba is the fastest growing city in Africa and the ten state capitals are experiencing a similar physical and economic expansion. It is one of the most rapid urban expansions and growth of the region. In 2021 the country’s total urban population was 2.32 million, compared to 329,000pp in 1972. Urban growth is the result of several factors, being the main reasons, food Insecurity (37,8%), conflicts (34,4), and natural disasters (27,8%).

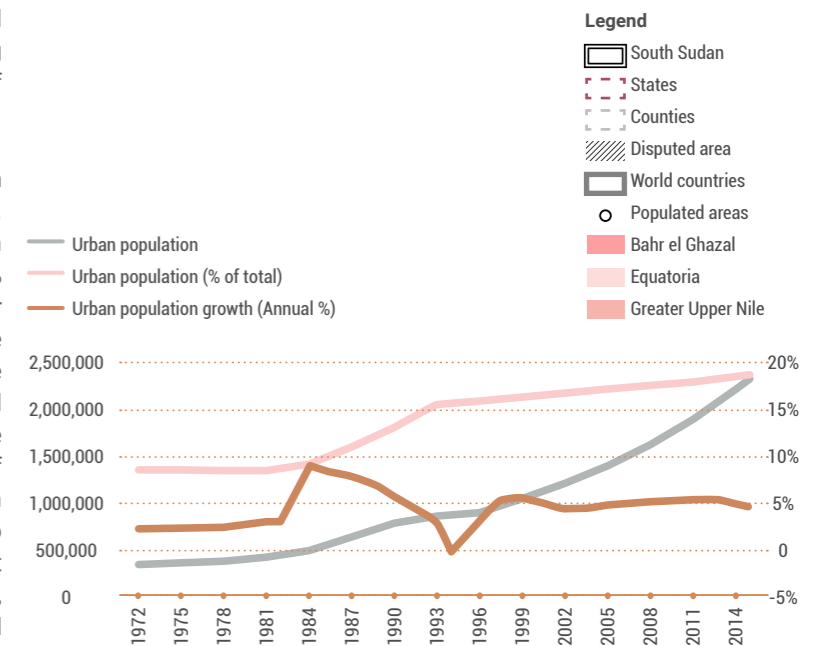


Figure 12: South Sudan urbanization trends. Source: UN- Habitat South Sudan 2016-2020







### 2.3 Governance & Administration System

The transitional constitution (signed on July 9th 2011) establishes a presidential system of government headed by a president who is head of state, head of government, and commander-in-chief of the armed forces. It also establishes the National Legislature comprising two houses: a directly elected assembly, the National Legislative Assembly, and a second chamber of representatives of the states, the Council of States.

In the "Part Eleven: The States, Local Government and Traditional Authority" the constitution establishes the different tiers of administration in South Sudan. The country is divided into States, that are made up of Counties, that are divided into Payams, which are, in turn, divided into Bomas. The subnational States, Counties, Payams (min. 2,500pp), and Bomas constitute the territorial units and scales of South Sudan's decentralisation model.

Each state is set to have legislative and executive organs and competences and may have their own constitution, in accordance with the national one. They are responsible for organizing, including and empowering the local government based on urban and rural councils for which the state shall provide structures, composition, finance and functions.

The State level institutions and authorities are in charge of policy and regulations implementation within the County; the Payam administrator is mandated to follow up public administration actions in the Bomas; and the Boma administrator manages public affairs at the village level. Traditional authorities and local chiefs are recognized in the law as important actors in the existing local overall administration and governance system.

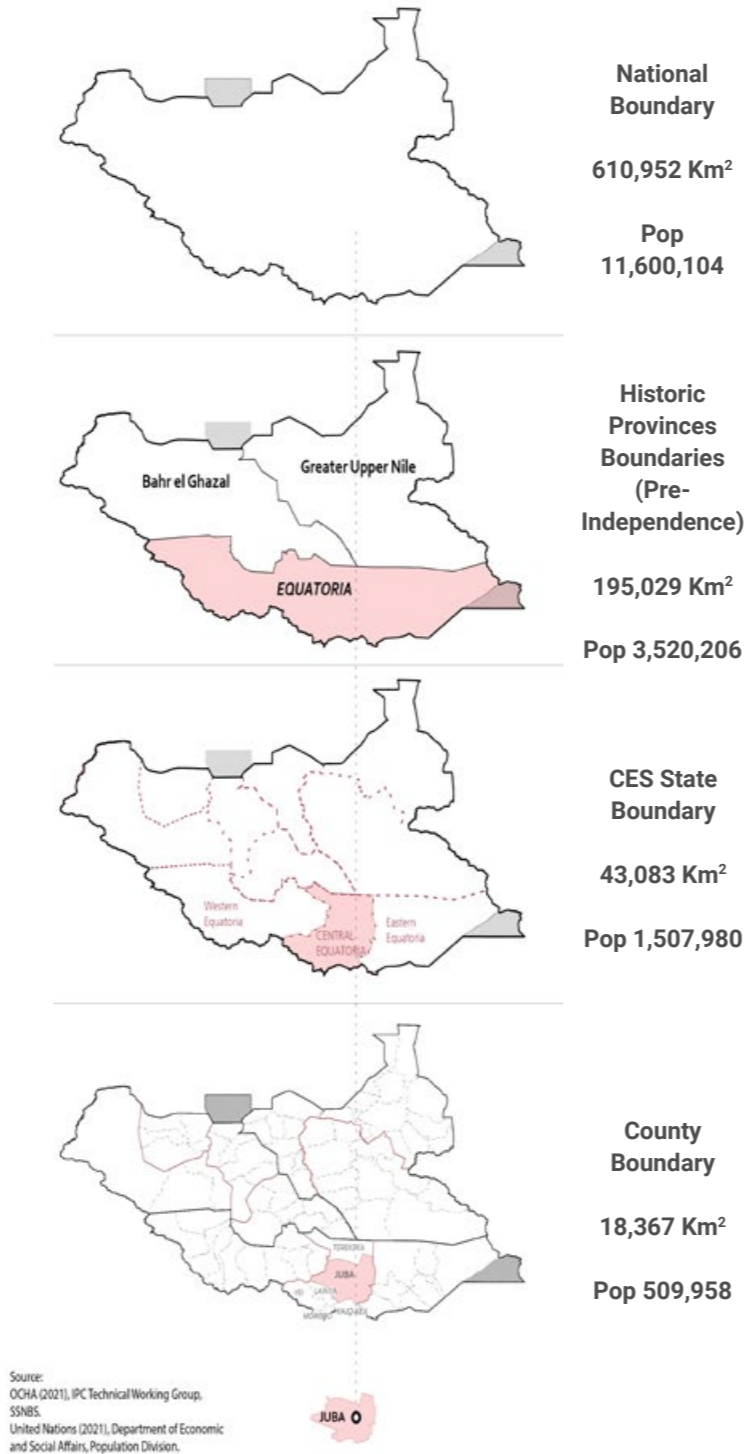


Figure 13: South Sudan administrative boundaries

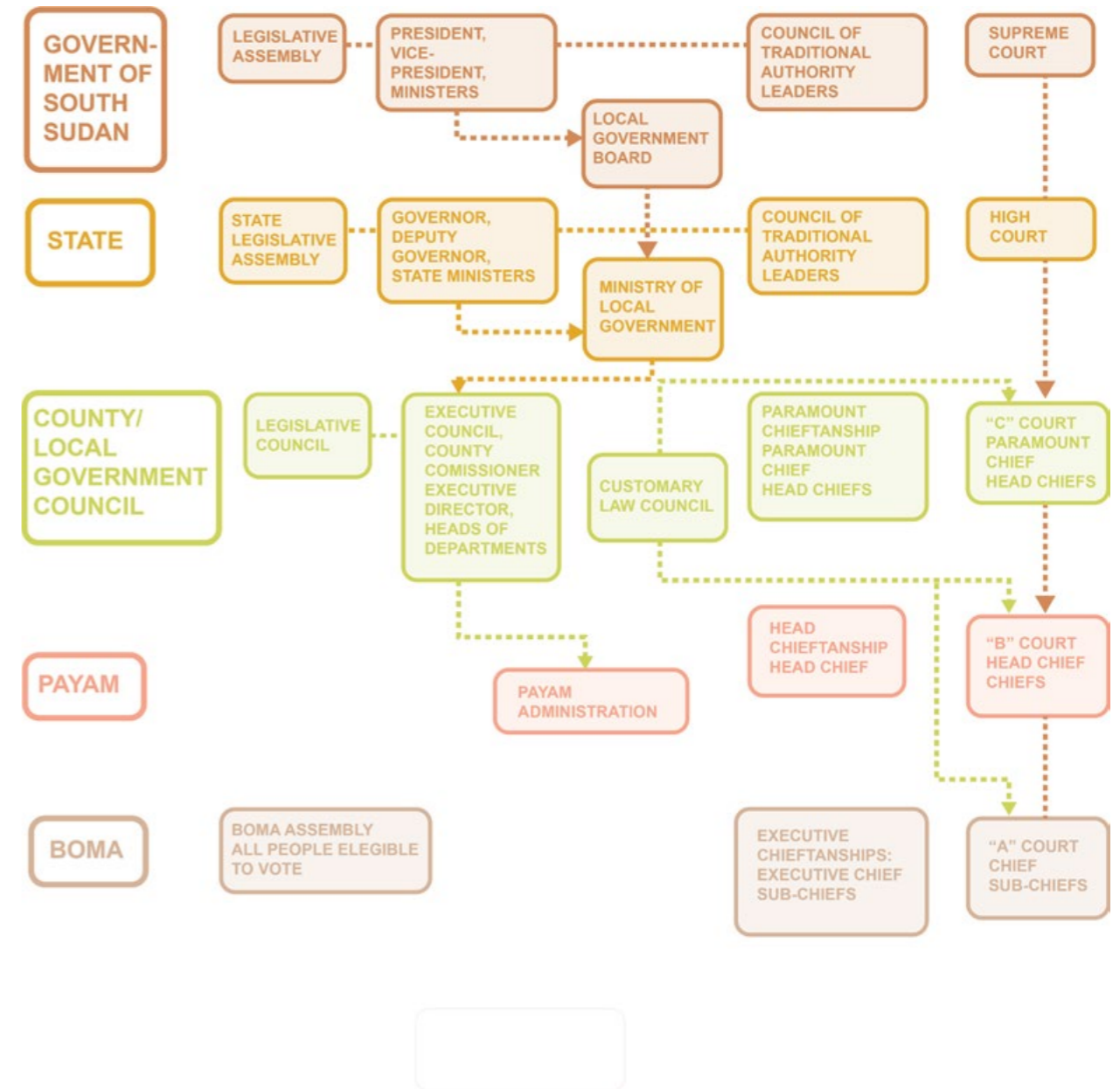


Figure 14: South Sudan Government Structure based on the Local Government Act (2009) (Source: Graduate Institute Publication, 2012)



**“Although urban development, planning and housing is a concurrent competence over which the state and national government exercise power, urban lands are managed primarily at the state level. This gives state governments and municipalities considerable power and influence in urban areas.”**

The local government on the county is ruled by the Legislative council, the Executive Council (which rules the Payam administrations on the Payam level), the Paramount Chieftainship, the Customary Law Council and the “C” Court Paramount chief (which rules the “B” and “A” court chief on the Payam and Boma scale, respectively).

On the payam level, the Boma assembly is constituted of all the people eligible to vote. Executive Chieftainship is composed of the Executive chief and sub-chief of the Boma.

Nevertheless, state governments do enjoy a level of independence within what is otherwise a centralized system. Concerning land, for example, state governments have been able to use the principles of decentralization and subsidiarity in the Transitional Constitution to assert their rights to control their land and natural resources. This has been particularly apparent concerning urban land issues.

Although urban development, planning and housing is a concurrent competence over which the state and national government exercise power, urban lands are managed primarily at the state level. This gives state governments and municipalities considerable power and influence in urban areas.

In rural areas, the situation is somewhat more ambiguous. The Transitional Constitution grants the national government power over land owned by the national government and the state government power over land owned by the states. In practice, however, there is a great deal of disagreement about which level of government owns a particular area of land and disputes among the levels of government are commonplace.

Ministries and Institutions related to Governance and Land Management:

- **Ministry of Lands Housing and Physical Planning (MLHPP)** - it seeks to ensure sustainable urbanization, basic infrastructure and services and housing that is environmentally friendly
- **Ministry of Finance and Economic Planning (MoFEP)** - The Ministry is tasked with maintaining control over public spending, setting the direction of fiscal policy and working to achieve strong equitable and sustainable economic growth
- **Ministry of Agriculture, Forestry, Tourism, Animal Resources, Fisheries, Cooperative and Rural Development** - The Ministry is a National level authority and formulates legislation, policies, standards and plans for agriculture, forestry and natural resources.
- **Ministry of Physical Infrastructure (MoPI)** - MoPI is spread across all the states and has responsibility for the coordination of lands, housing, and physical infrastructure and services including water and sanitation
- **State Secretariat** - Its goal is to secure land tenure and provides cognizance of the role of customary law in land administration
- **South Sudan Lands Commission** - Its an independent commission dealing with land claims coordinations, data collection and research for land policies
- **High Court** - Judicial functions and enforcements of land claims and compensations



**11,600,104**  
Total population



**19,2 hab/Km<sup>2</sup>**  
Density

Institutions (National, State & Local Government)	Type of Land	Responsibility / Mandate	Overlapping Mandate / Other Issues
<b>NATIONAL GOVERNMENT</b>			
Ministry of Lands, Housing, and Physical Planning	Government facilities	Town planning, land registration, & land use planning	Land policy calls for a new Deputy Minister of Lands. Roles and responsibilities overlap as they relate to a state level. Ministries of Physical Infrastructure are unclear and contested. The land registration is currently managed at state level
South Sudan Land Commission (SSLC)	None	Advise Government institutions on land law and policy development. Arbitrate land claims among willing parties	SSLC plays advisory role. Must work closely with other land governance institutions implementers at local level
Ministry of Agriculture, Forestry, Tourism, Animal Resources, Fisheries, Cooperative and Rural Development	Agricultural schemes, Agro-industrial complexes, forest plantations, forest reserves, wetlands management	Agricultural development, food security, conservation, land use mapping, manage parks and reserves, including the tourism sector	Relationship to State level institutions is unclear and contested. Also must coordinate with other national ministries on land issues, such as the Ministry of Environment & Ministry of Lands, Housing, & Physical Planning
<b>STATE GOVERNMENT</b>			
State Secretariat	None	Manages State Executive Institutions	Governors have a great deal of the factio power at the state level and have the ultimate decision regarding land issues and disputes
Ministry of Agriculture and Forestry	Agricultural schemes, Agro-industrial complexes, forest plantations, forest reserves	Agricultural development, food security, conservation, land use mapping	Ownership of public lands is often contested with national level institutions
Ministry of Physical Infrastructure	Government facilities, urban lands (managed through private leases)	Town planning, land registration, land use planning	Oversees urban land administration in conjunction with the High Court and according to The Land Act (2009)
High Court	None	Adjudicating land disputes over registered lands & Maintaining the registry of land leases	The Land Act states the land registry should not be under the High Court jurisdiction and distribute powers among executive institutions at each level of Government
<b>LOCAL GOVERNMENT</b>			
County Administration	Urban land for the County Headquarters	Manages the interaction with the local communities	County commissioners report to the State Governors but at the County level, they are often the ultimate decision-making authority
County Land Authority (CLA)	None	Manages interactions with communities regarding land issues	Preparation of local policy guidelines for land use rights and keeps date records on land registration, statistics and title deeds.
Payam Land Council (PLC)	None	Manages land disputes at payam level	There are not established PLCs yet on the ground.
Traditional Authorities	Communities in their collective capacity own most land in rural areas as (costumary land ownership)	Manage the community lands	The relationship between customary and statutory institutions, e.g. between traditional authorities and local government institutions is often unclear

Figure 15: Institutional map and land governance (Source: SS Country Report LGAF by David K.Deng, 2014)



**“Under the Transitional Constitution of the Republic of South Sudan 2011, the people of South Sudan own all of the country land”**

## 2.4 Policies and Laws Relevant to Land Governance in South Sudan

Under the Transitional Constitution of the Republic of South Sudan 2011, the people of South Sudan own all of the country land “the government regulates land and its usage per the Constitution and Law.” The applicable law, in this case, is the Land Act of 2009. The Constitution prescribes a three-category land tenure system, divided into; public, community, and private land. Public land means all land owned, held or otherwise acquired by any level of government. This classification includes land owned by Bomas, Counties, States and federal government or administration and all land that is not otherwise designated as community or private. Hence there is no such thing as noman’s land in South Sudan because land unclaimed by an individual or community belongs to the government by default.

Community land includes all lands traditionally and historically held or used by local communities or their members. This category could consist of communal grazing lands for animals, hunting grounds, or traditional sacrifices and

worship locations. Private land includes; registered land held by any person under leasehold tenure, investment land acquired under lease from the government, and any other land designated as private land per the law. The assumption implicit in this framework is that all investment land (Land for businesses) is acquired from the government through the leasehold tenure.

### The Transitional Constitution of The Republic of South Sudan (2011):

The Constitution has a chapter on land ownership, tenure and natural resources. Under Article 170, all land in South Sudan is owned by the people of South Sudan and the Government shall regulate its usage under the provisions of this Constitution and the law. It classifies the land tenure system in South Sudan shall consist of public land b. community land and private land. The rights in land and resources owned, held or otherwise acquired by the Government shall be exercised through the appropriate

POLICY & LEGAL TOOLS	FUNCTIONS
The Transitional Constitution (2011)	Enacts body of laws that define the different institutions in the state and organize their relationship. It also includes a charter of fundamental rights to land ownership.
The Land Act (2009)	Defines basic principles, priorities and institutional arrangements regarding land governance, administration, and management.
The Local Government Act (2009)	Prescribes provisions for transferring powers and resources to subnational institutions, bodies, and authorities.
The Investment Promotion Act (2009)	Defines procedures for certifying and licensing foreign investors, including land investors.
Land Policy (2013)	Defines the main objectives and results of land governance (including local institutional arrangements) and basic guidelines relating to land investments.
South Sudan Development Plan (vision 2040)	Prioritises urgent developmental needs to be accomplished by 2040. It is the equivalent to an economic and social development plan for the country.

Figure 16: Key policy and legal tools of land administration and governance (adapted from Hillorst and Porchet, 2012)

or designated level of Government, which shall recognize customary land rights under customary land law. Article 172 establishes the Land Commission as an independent commission composed of persons of proven competence, experience, integrity and impartiality.

### The Land Act (2009):

The Land Act prescribes that land may be acquired, held and transferred through Customary, Freehold and Leasehold tenure. All citizens hold freehold titles to their lands. Non-citizens may acquire leasehold for specific periods but may not possess land in freehold, according to Section 14 of the Land Act.

The Land Act prescribes that land may be acquired, held and transferred through Customary, Freehold and Leasehold tenure. All citizens hold freehold titles to their lands. Non-citizens may acquire leasehold for specific periods but may not possess the land in freehold, according to Section 14 of the Land Act. The Land Act provides for the registration of Land Rights. It states that land collectively or individually owned in Southern Sudan shall be registered and given a title under this Act, and land owned by different levels of government in

Southern Sudan shall be registered. The Act permits the expropriation of land for Public Interests. The Government of Southern Sudan, State Governments and any other Public Authority may expropriate land for public purposes subject to compensation and upon agreement as prescribed by this Act or any other law.

### The Local Government Act (2009):

The purpose of this Act is to provide for the establishment of local governments, their powers, functions and duties, structures, composition, finances, and any other matters related thereto. The provisions of this Act apply to all local government councils and institutions of local governance at all levels of government in SS.

Among the main responsibilities of this Act are to;

- Administer and regulate territorial land, which is demarcated and gazette by the Government of South Sudan.
- Administer land surveys and land master plans developed by the State authorities.
- Administer the procedure for

**“Although urban development, planning and housing is a concurrent competence over which power is to be exercised by both the state and national government, urban lands are managed primarily at the state level.”**

SUBNATIONAL INSTITUTIONS	AUTHORITIES	MODE OF DESIGNATION
State	Governor	Elected
County	Comissioner	Appointed by The State Governor
Payam	Administrator	Appointed by The County Comissioner
Boma	Administrator	Appointed by The Payam Administrator

Figure 17: Decentralization entities, authorities, and mandates (Land governance, local authorities & unrepresentative representation in rural South Sudan, 2015)



**“Furthermore, there is an absence of a legal framework and transparent procedures: For several land administration tasks, a legal framework, regulations and norms still need to be developed.”**

acquiring community land within a Local Government Council.

-Enact bye-laws to regulate land management on land use control and protection systems.

-Preparation of local policy guidelines for the development of Council physical and social infrastructure.

-Preparation of policy guidelines for land use rights and the maintenance of Council cadastral systems for keeping up to date records of land registration, allotment, title deeds and statistics.

-Preparation of housing, shelter, human settlement, urban renewal or slum upgrading plans and projects for Council land use.

**South Sudan Government System Challenges and Constraints:**

According to the World Bank SS Country Report, elaborated in 2014. South Sudan suffers from human resource gaps and chronic underfunding across all sectors and at every level of Government. As a result, a disproportionate amount of public funds go towards salaries for public sector personnel and little is left over to fund operational activities.

Government institutions are also sorely lacking in qualified staff. South Sudan has few land administration specialists, and the Government relies heavily on international support to provide the necessary expertise in land matters. Government institutions are also using antiquated land governance systems that cannot accommodate the complex land issues that have arisen in the postwar era. The state-level Ministries of Physical Infrastructure, for example, the institutions with primary responsibility

over land in urban areas, have not yet computerized their record-keeping systems and still maintain land information in handwritten records.

**South Sudan Policy and Legal Framework Constraints for Land Management:**

Although there is a Transitional Constitution, Land Act, and Government Act and legal recognition of these, there is a lack of clear implementing policies and regulations and judicial interpretation of provisions which has undermined the implementation of the Land Act and Constitution. According to the Land Governance Report in IGAD Region elaborated by the Swiss Agency for Development and Cooperation in 2015. There is a general lack of enforcement mechanisms at the community level (including awareness of the Constitution and the Land Act; People are unaware of their rights, courts do not apply the Land Act, community lands are not being registered, and changes that the Land Act calls for in the roles and responsibilities of institutions are not being adhered to.

Furthermore, there is an absence of a legal framework and transparent procedures: For several land administration tasks, a legal framework, regulations and norms still need to be developed. These include identifying town boundaries, acquiring land procedures, plot allocation, compensation, land taxes, and dealing with property claims. Existing procedures are a mixture of practice and precedent, which reflect what is generally understood to be how things are done rather than being based systematically on statutory regulations or responding to all the needs of Southern Sudan. In summary, the requirements and procedures to be followed are little known

by some government institutions and the population.

**IDPs, Returnees & Refugees Issues Accessing to Land Rights:**

Large-scale population movements as a consequence of war, hunger and natural disaster have been endemic issues of South Sudan for many years. According to the Land and Governance Assessment Framework elaborated by David K. Deng in 2014, displaced populations face a complex array of land issues.

Their survival depends on their ability to access land for residential and agricultural

purposes, but they often compete with host populations over access to land and natural resources. In the absence of viable options, displaced people have no choice but to settle in informal settlements in and around urban areas, where they are susceptible to repeated displacement due to land use changes and forced evictions. A proactive urban planning process could help to provide additional options for IDPs and returnees, but the failure to implement the Land Act and the delays in adopting the Land Policy have frustrated attempts to reform land governance institutions in urban areas.

**“South Sudan suffers from human resource gaps and chronic underfunding across all sectors and at every level of Government.”**



Figure 18: IDPs appealing for urgent humanitarian assistance and land allocation outside Juba ©UN Photo/Isaac Billy (UN Photo), 2016



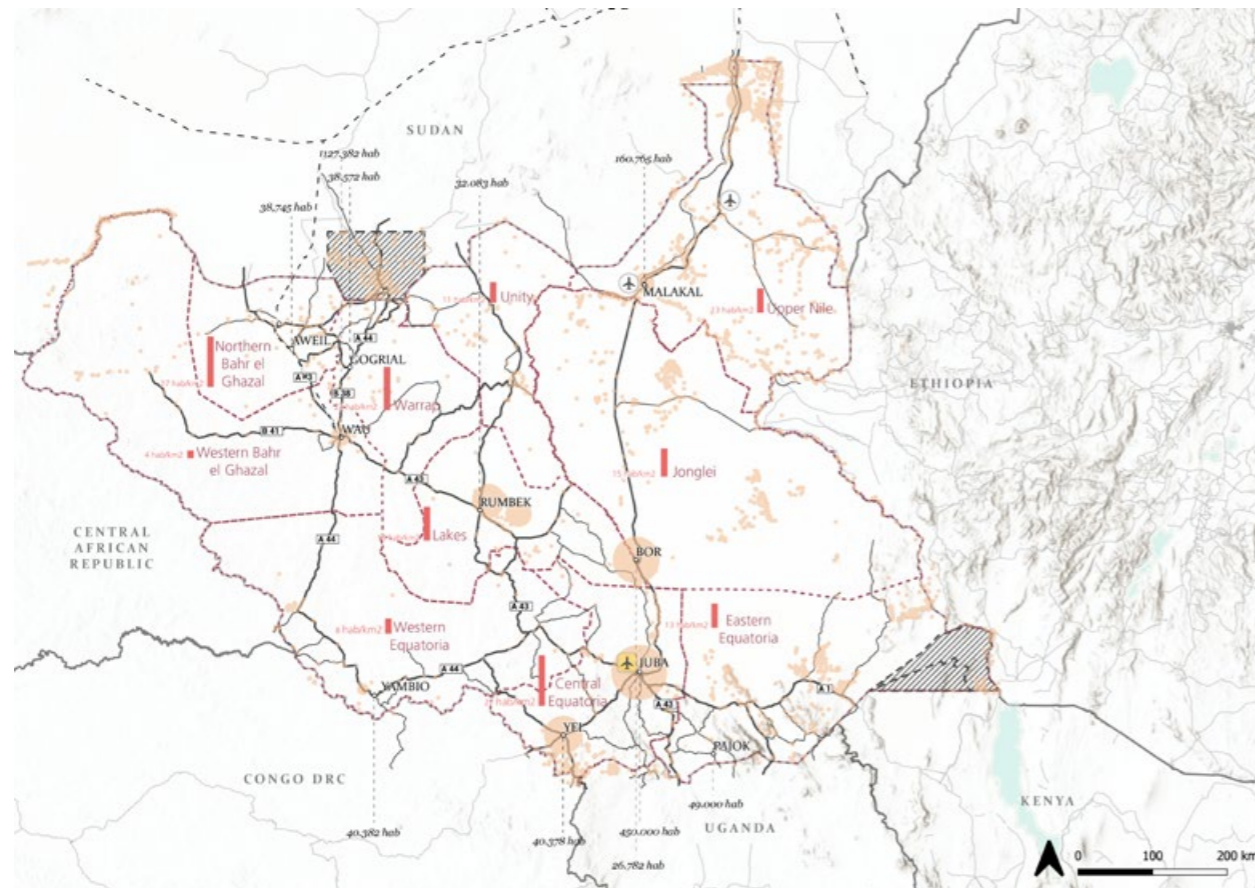
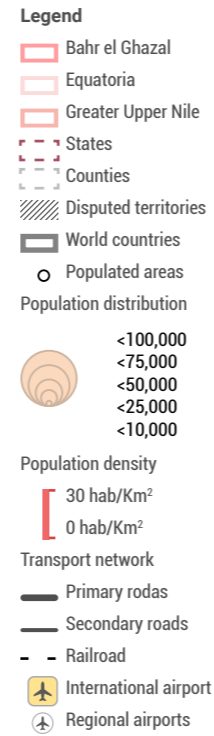
## 2.5 Population distribution and density

The last census from South Sudan is from 2008. Since then, several relevant events have happened, such as the independence, rapid urbanization and relevant migration due to conflicts, droughts and floods. This means that most figures from the population assessment are either (1) the official but not the most up-to-date data; or (2) projections up to date but possibly imprecise due to the long extrapolation of the time frame.

Population in 2022 is estimated to be 12,4 million people, with a country-level density of 19,2 inhabitants per km<sup>2</sup>, and 25% of them living in urban areas. The population estimation increased by 2.8%

from 2021, and its growth is primarily due to returnees, followed by births. 2.3 million South Sudanese refugees registered and verified by UNHCR are not considered in these figures. The country also hosts around 326,000 refugees - mainly from the Republic of Sudan - that are not included in the 12,4 million estimations.

In 2008, the population of the three regions - Equatoria, Bahr El Ghazal and Great Upper Nile was roughly the same. The most populated state was Jonglei, home to 16,4% of the South Sudanese population, or 1,358,602 inhabitants. Central Equatoria was the second most populous state by that time, with 13,4% of the people

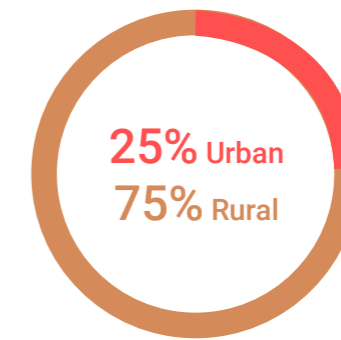


Map 2: Population distribution

or 1,103,592 inhabitants. Based on a projected growth rate of 3%, South Sudan's population in 2013 should have been 9.3 million people and increased to 11.3 million people in 2018. The 2013 conflict disrupted this growth trajectory, displacing at least 2.3 million people outside of the country as refugees and slowing South Sudan's growth by over 2%. OCHA estimates that the country's population could increase to 12.6 million people by 2030, 16.77 million by 2040, and 22.6 million by 2050.

The south Sudanese population is demographically among the youngest country in the world, with 54% of the population under 18 years old. The

average life expectancy of people in 2019 was 57,6 years. It was 55,3 years by the time of independence, and the oldest record - from 1960 - showed a life expectancy of 31,7 years.



Life expectancy

58,7 years

58,6%

Infant mortality

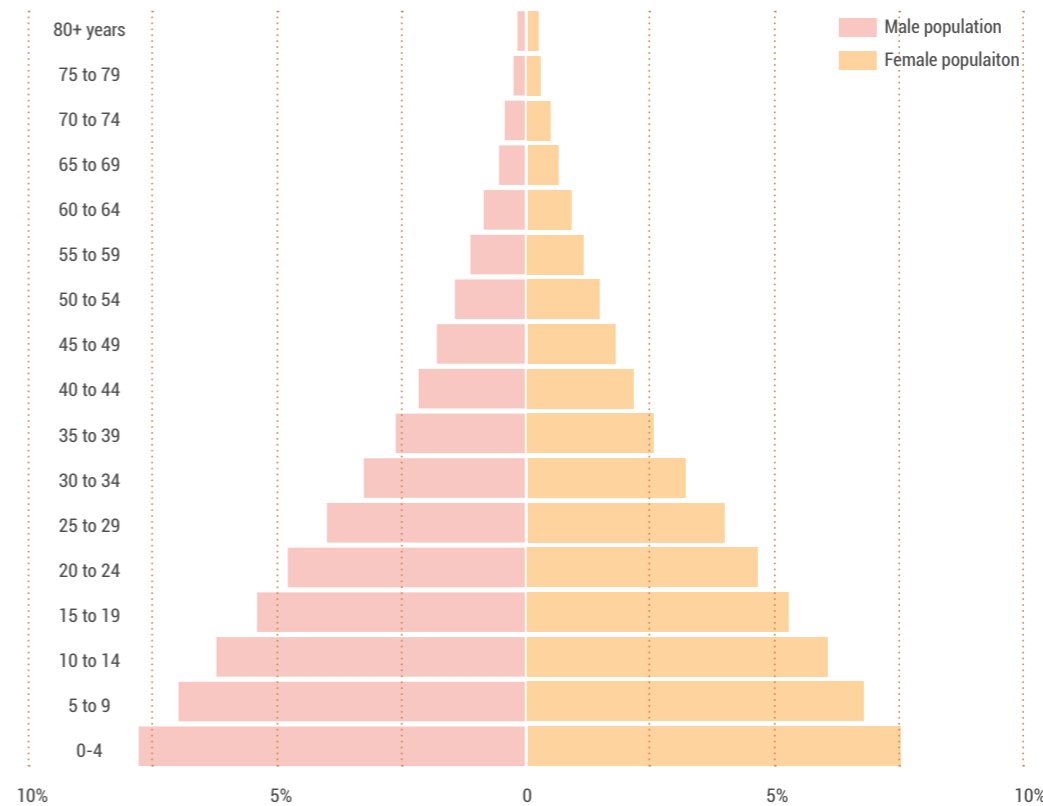


Figure 19: Demographic pyramid. Population in December 2019



## 2.6 Migration and Displacement Dynamics

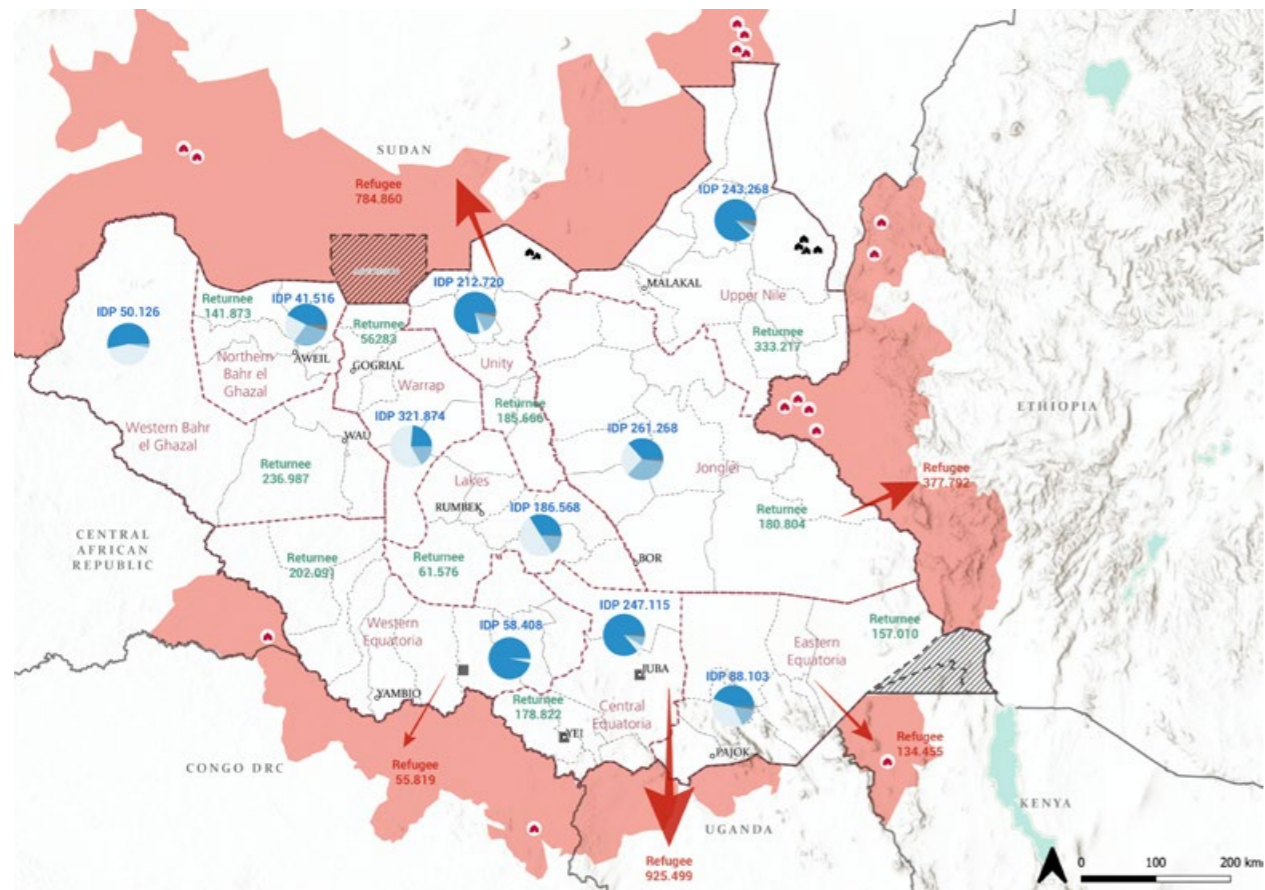
Since the Second Sudanese Civil War in 1983, conflicts, resources stress, climate shocks, and diseases drove significant levels of displacement in South Sudan. South Sudanese households or household members could escape or mitigate years of shocks thanks to population movement, but those deciding to move have often faced competing needs, physical risks, and constraints on movement.

Among displacement movement recorded, 85,5% were internal movements, while the other 14,5% of was crossing what is currently the border of South Sudan.

### Refugees, internal displaced people and

**returnees.** Thousands of people in South Sudan are forced to migrate every day due to several armed conflicts, violence, political instability, and climate change risks. The scope and importance of displacement situations in the country are determined by high state fragility, weak governance systems, corruption and misuse of natural resources.

It is essential to clarify the roots and causes of displacement to develop coordinated strategies and solutions to the different issues across a broader range of actors. More data across all phases of displacement and all situations is required. Combining comprehensive contextual analyses with



Map 3: Migration and displacement dynamics

robust data should allow us to identify ways to reduce displacement risk and reach sustainable solutions.

Micro-movements of shorter distance and duration were the most common form of movement in response to most common drivers. Severe or widespread shocks could also result in movement restrictions, in which the most vulnerable households could not migrate to alleviate resource stress or exposure to flooding, disease, or insecurity.

Returning movements are a minor form of dynamic in South Sudan. Among the 990 movements assessed by REACH Initiative, 94,3 were reported as caused by insecurity or resource stress, while 5,7 were return movements. Returns are often made by a single family member going back to the area of origin to cultivate or check for safety conditions.

Most of the movement are intra-state. Wau County was the site of relatively higher movements from Greater Baggari area. Displacement within Pibor county was reported due to armed conflicts. Movement from Malakal County to Fashoda county was the most prevalent inter-country route recorded and occurred in 2017. The lost prevalent cross-border movement from a single country was from Aboko county to Ethiopia, mainly driven by longstanding conflict.

Displacement is a frequent response to insecurity. Fact that implied “micro-displacement”, in nearby bush areas, was found to be a common response to bursts of conflicts that didn’t last long. On the other hand, “macro displacement” took place if the conflict was considered more severe, widespread, or anticipated to go for longer. Entire households’ tent to move to urban centers, displacement sites and other areas perceived as safer, offering food and resource for a long stay.

The lack of access to resources, or resource stress, in particular food insecurity is also noted as a major driver of distress migration. Food insecurity itself was often cause by climate shocks and conflicts. Most people migrated to areas with access to food such as towns, markets, bush areas, or displacement sites. The Lack of access to drinking water also triggers movement.

Displacement is far more than an humanitarian challenge. It also affects the cities and urban contexts that have to assimilate and include in a fast period of time large quantities of newcomers into the urban contexts. Juba has only been able to absorb migration through the expansion of informal settlements in the city. These settlements only perpetuate displacement by leaving IDPs in crowded and precarious conditions in slums.

**1.6M**  
Internally Displaced People

**1.8M**  
Returnees

**2.3M**  
SS Refugees in Neighbouring Countries

Source: IOM-DTM, UNHCR

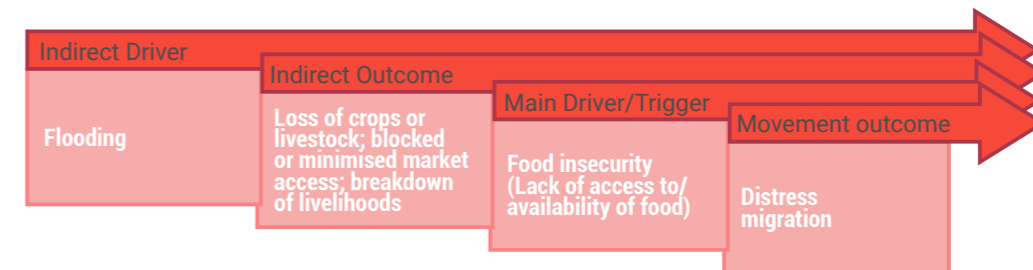


Figure 20: Intersecting Drivers of Population Movement (Flooding example).





Figure 21: A total number of 31,000 IDPs live in Wau Site Camp ©Caritas Internationale (Njikiktjen Cordaid), 2017

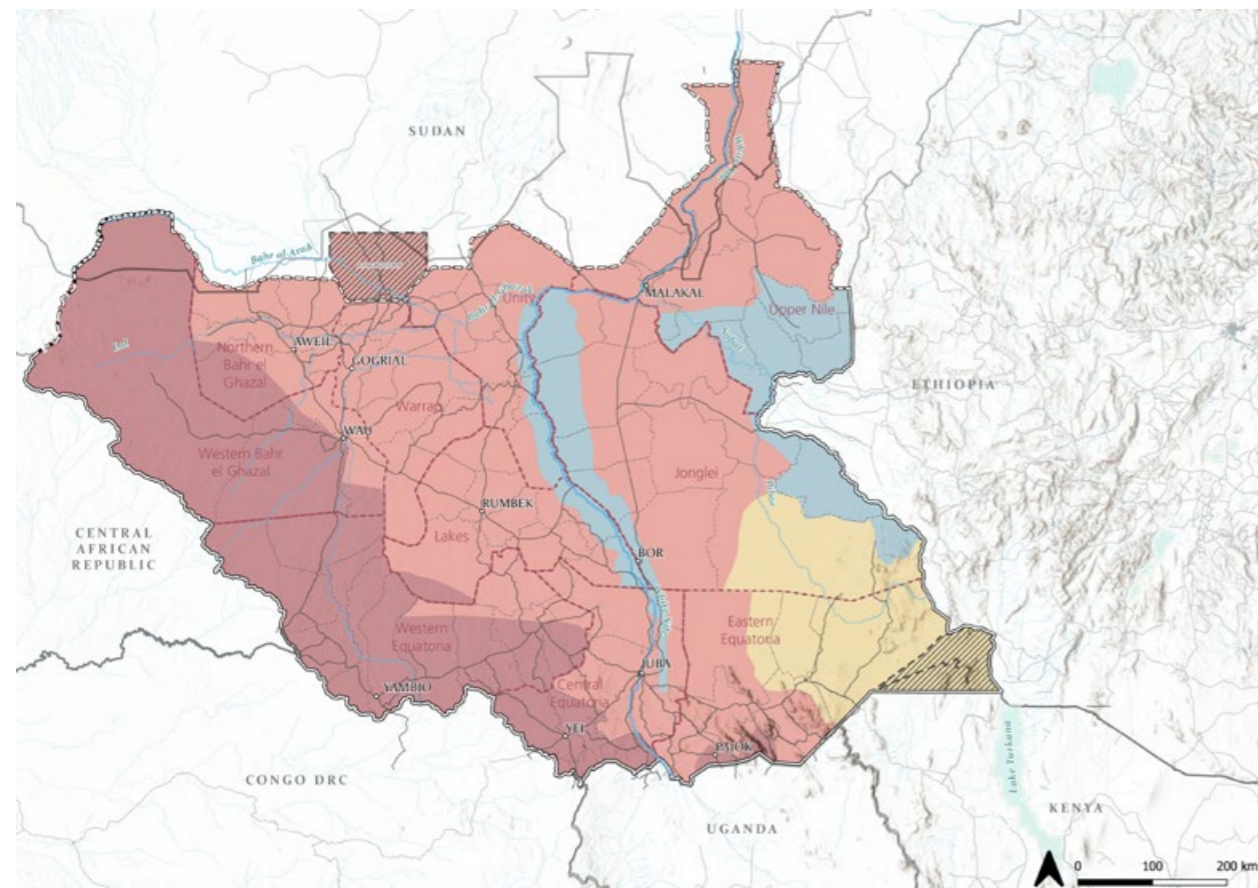


## 2.7 Main Economic and Development Sectors

South Sudan's economy is in recession worsened by insecurity, lower foreign exchange reserves, high inflation, and domestic currency depreciation. It is highly specialized and specially vulnerable to weather, oil prices and conflict related shocks. Nonetheless, before the pandemic had picked up strongly, with a GDP growth reaching 9.5% between in FY2019/2020. According to the World Bank Country Report of SS, the oil sector remains the key driver of economic growth for the country, accounting for over 70% of GDP in 2017, followed by agriculture (10%), manufacturing (7%) and services (6.1%). The country's overdependence on crude oil production and exports makes it highly vulnerable to external market shocks.

**Oil Sector and concessions.** World Bank available data indicate that oil accounts for 98% of the government budget and in the recent past, contributed between 60% and 80% to GDP. However, it is not a renewable resource and oil revenues started to decline markedly from 2014/15 onwards, the Government had to resort to increasingly larger spending cuts. Calculated in current USD terms, net revenues declined by almost 80% from 2013/2014 to 2015/2016, and there were further substantial reductions in the following years.

**Agriculture.** Even though South Sudan's economy is based mostly on oil extraction, small-scale agriculture and livestock-raising are the main sources of livelihood for three-



Map 4: Main economic sectors

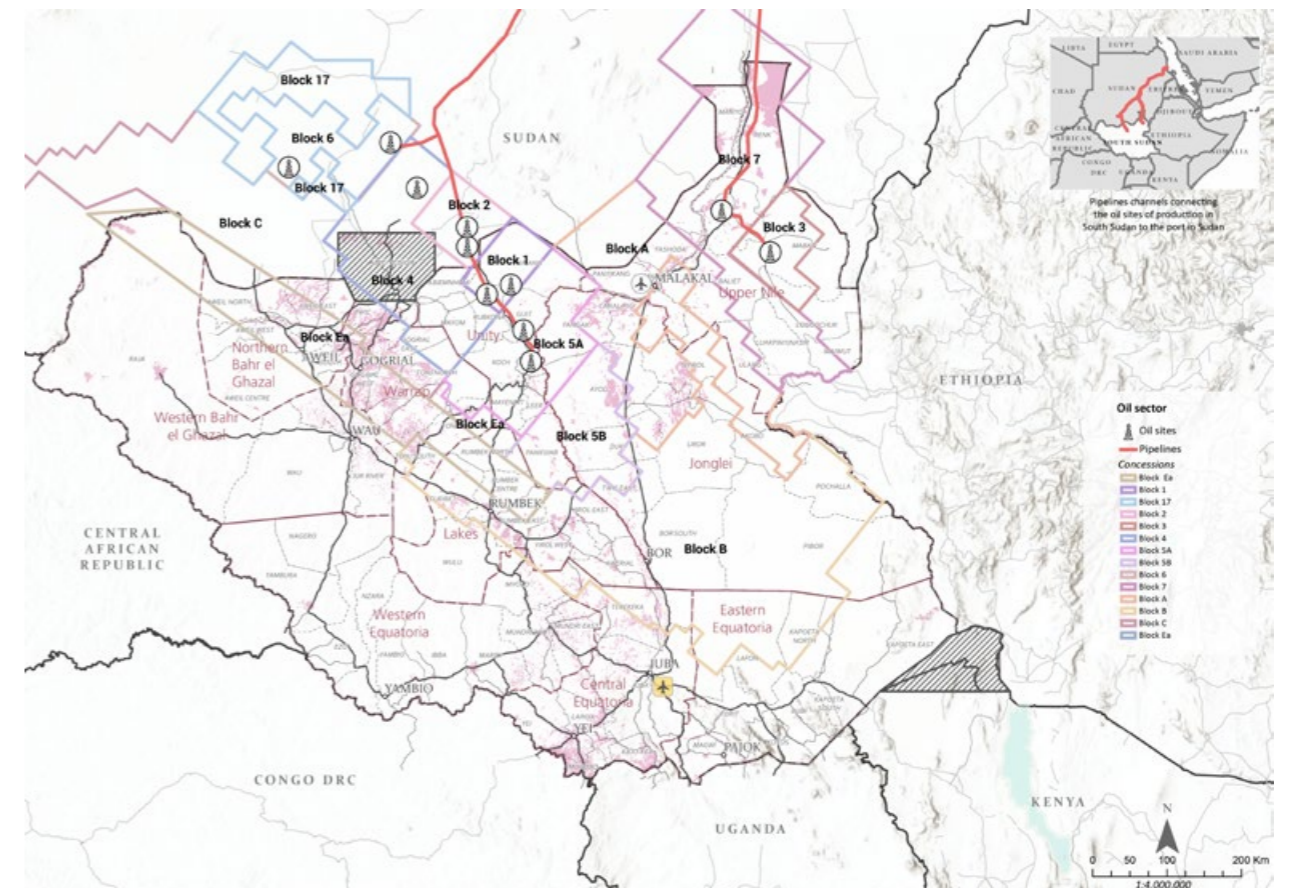
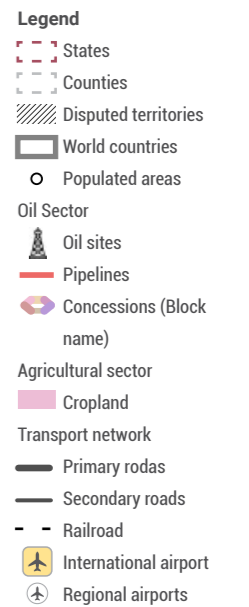
quarters of the families. These activities account for 36% of the non-oil GDP. The country is rich in suitable land for agriculture, but there is latent food insecurity due to its low productivity and constant floods and droughts. The main crop cultivated are sorghum and maize. Cassava, groundnuts, sesame, millets, beans, peas, sweet potatoes and rice are also cultivated but on a small scale. Through Vision 2040, government is promoting development of agribusiness and entrepreneurship in agriculture. It aims to encourage private-public partnerships and assess the benefits and potentials for developing the national and local economies.

The Government of South Sudan is supporting

climate change adaptation with different policy and initiatives at institutional and community levels. At the National level, adaptation goals are set out in the National Adaptation Plan of Action (NAPA) for South Sudan.

### Economic diversification opportunities

The objectives of the economic diversification strategy are to develop business linkages; export promotion; investment and finance; technology development; research and development; and entrepreneurship development in all sectors including agriculture. The government will explore possibilities for integrated oil-based industrialization with all its forward and backward linkages buttressed with its high potential for employment creation.



Map 5: South Sudan oil fields



## 2.8 LAPSSET Corridor

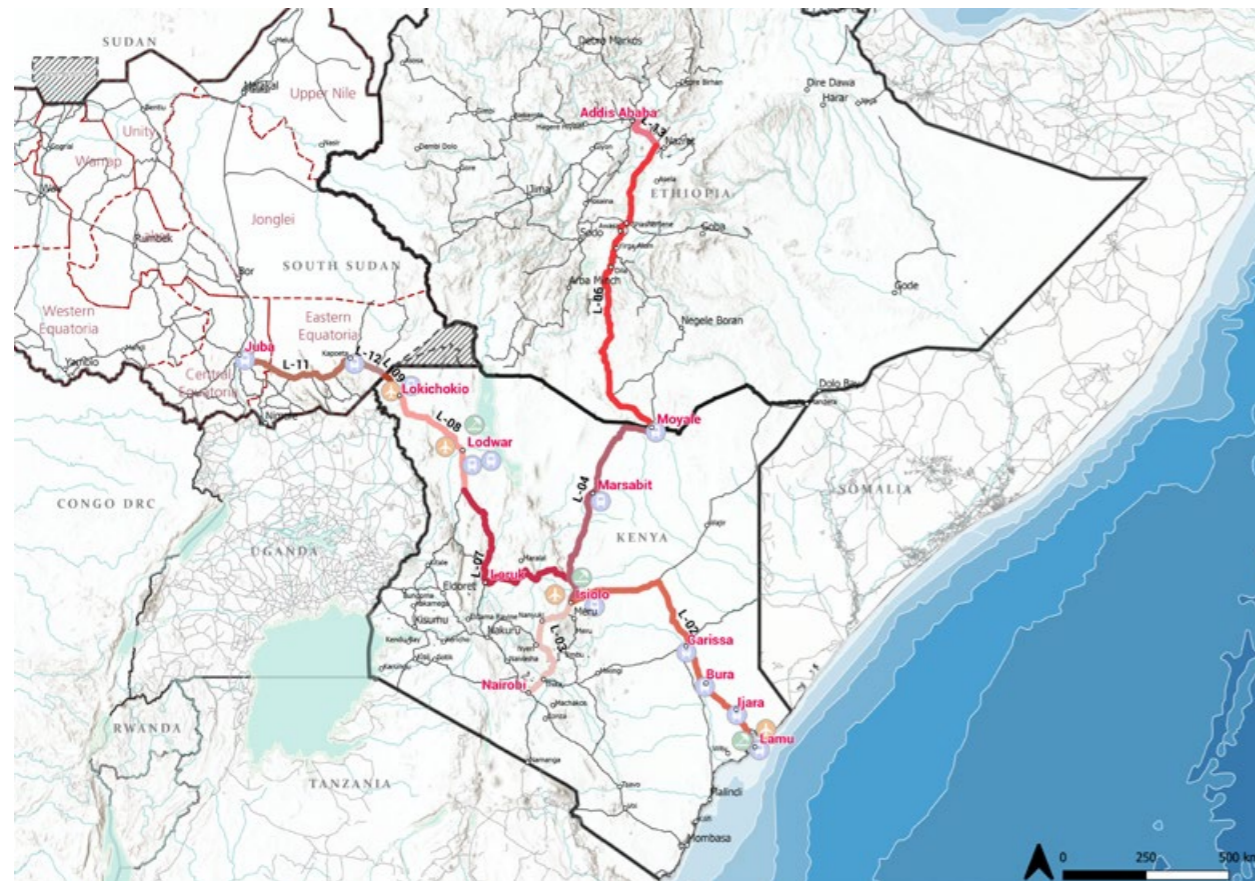
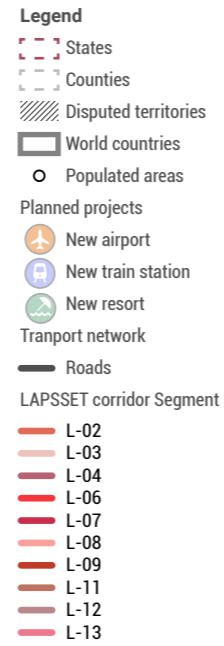
An important infrastructure programme is being developed in the region and will have a meaningful impact on the future of Juba and South Sudan. The LAPSSET (Lamu Port-South Sudan-Ethiopia) Transport Corridor is a transport infrastructure that will connect South Sudan and Ethiopia with the port of Lamu, Kenya. At national level, the connection will be from Eastern Equatoria up to Juba, and including the inter-regional highway, inter-regional standard gauge railway and a crude oil pipeline.

The following map shows the international settings of the LAPSSET Corridor. This project will allow SS crude oil production to be exported more easily to economic partners, such as China (responsible for 88.3% of its

exports) and India (responsible for 2.74%).

The Lamu port-South Sudan-Ethiopia Transport corridor program has three projects which include Juba:

- Interregional **Highways** from Juba-Lamu, to provide an initial offtake of cargo from Lamu Port
- Interregional Standard Gauge **Railway** from Juba-Lamu, to provide an efficient and cheap alternative for the offtake cargo from Lamu Port
- Crude **Oil Pipeline** from Jonglei-Juba-Lamu, to provide a delivery mode for the crude oil to a point of export



Map 6: LAPSSET Corridor international plan

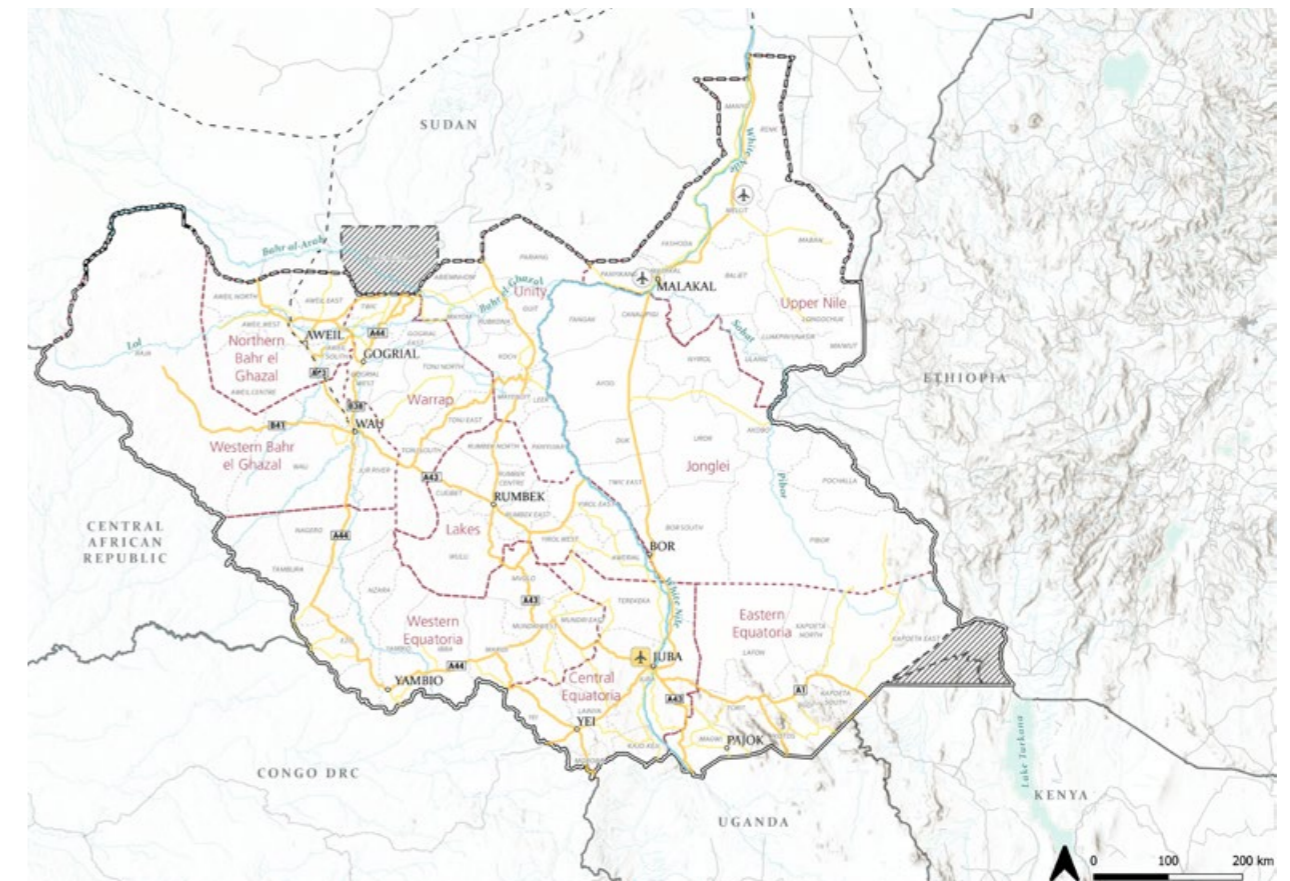
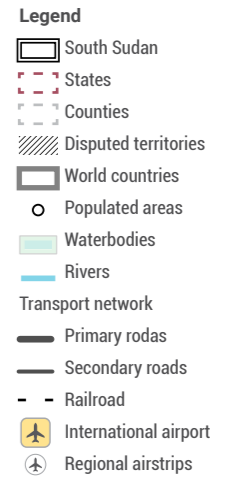
## 2.9 Transport Infrastructure

**Roads:** South Sudan is estimated to have a road network and highways of 12,642 km and only 2% of the existing road infrastructure is paved. The road infrastructure was largely destroyed or left in despair during the war, nowadays multiple project are set to restore and maintain basic links between major towns and regions.

**Railways:** South Sudan is connected only to the Babanusa-Aweil-Wau railway line, un-operational from 1991 to 2010 due to the war. It connect Wau to Babanusa, Khartoum and Port Sudan, but the service is irregular and limited. The total length of the railway in the country is 248 km from Wau to the border. There are proposal to connect the railway to Juba and then to Gulu in Uganda, allowing international traffic for South Sudan and Sudan

**Inland water transport:** Given the poor road infrastructures, river transport is practical and cost effective. The section of the white Nile is navigable from Juba to the border of Sudan, about 1300 km long. There are 7 main river ports, the most important of which are in Malakal and Juba and commercial river transports are fairly regular on the route known as the "Southern reach", going from Juba to Kosti (Sudan), for 1,436 km.

**Air transport:** The infrastructure is composed by the international airport of Juba, a domestic airport in each of the state capital (Malakal and Wau occasionally receive international flights) and around 300 airstrip, emerged during the war for military reasons and nowadays used mainly for humanitarian purposes.



Map 7: Existing transport Infrastructure



## 2.10 Natural Resources & Protected areas

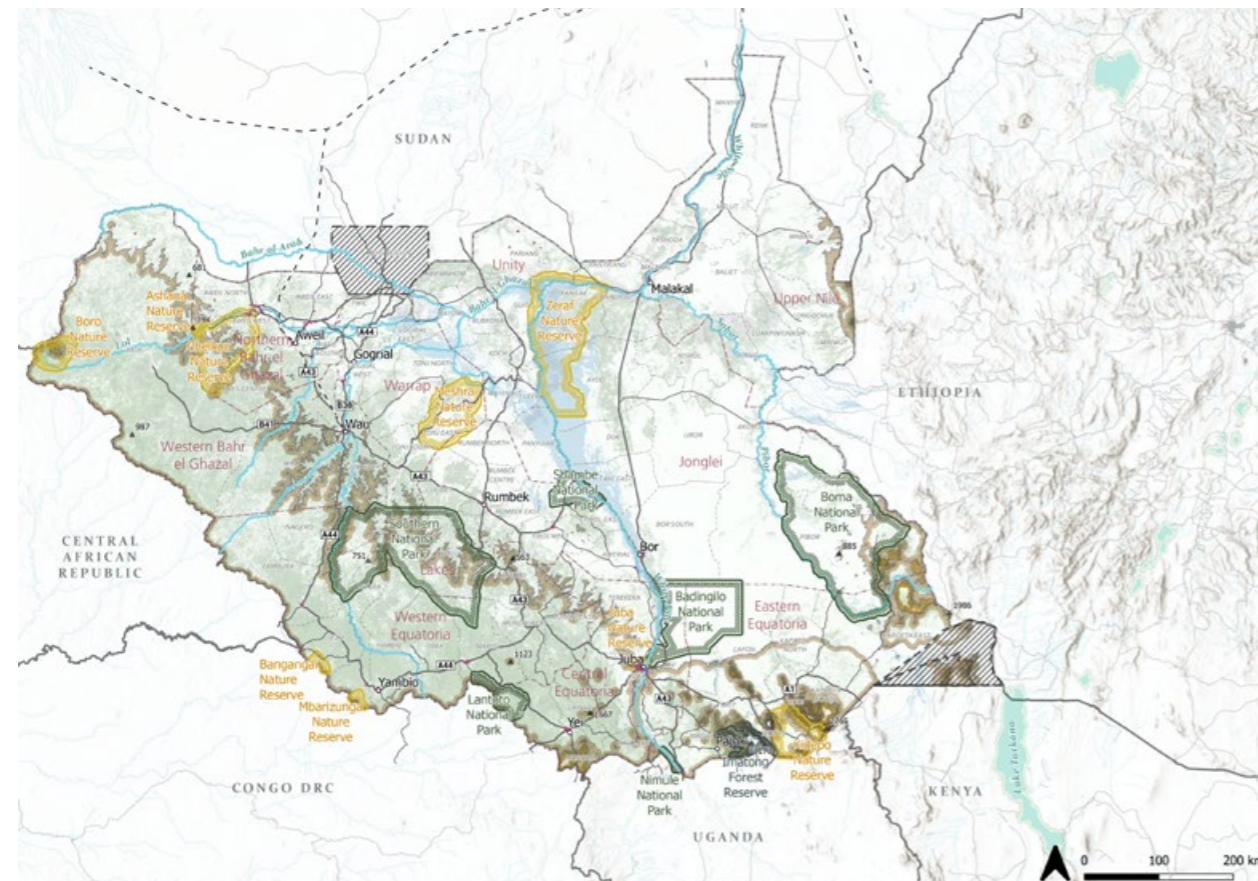
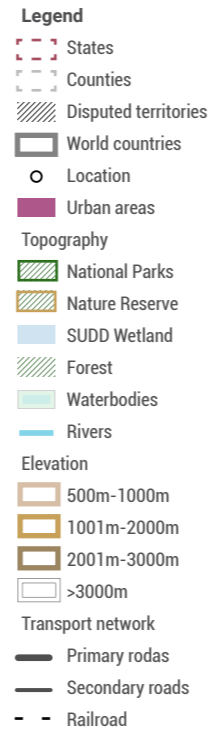
### WATER

The White Nile is the most important river in the country, accounting for more than 97% of its area within the Nile basin. The country is rich in water sources and in general has low quality risk, however, they are unevenly distributed. Climate change has posed a threat to its supply since inter-seasonal variability is high and rainfall is more irregular every year, while droughts are becoming more common and more severe in the recent past. This is putting pressure in existing infrastructure and creating conflicts regarding waterpoints more frequent. Groundwater is the main source of drinking water in rural areas and

in key cities like Juba. Nonetheless, water is not only important for drinking, but also for livelihood, being common its exploration for fishing, agriculture and livestock. Among its water resources there are rivers, wetlands, floodplains and temporary ponds, and streams.

### FAUNA AND FLORA

South Sudan has rich fauna and flora spread throughout its different biomes. At national level, there are lowland forest, montane forest, savannah woodland, grassland savannah, floodplain, sudd



Map 8: Natural resources and land cover

swamps and other wetlands, and semi-arid regions. Home to many species of wildlife, many of them endemic, supporting a large number of livestock. Unfortunately, South Sudan's biodiversity is threatened mostly by illegal poaching, invasive species and rapid deforestation. The country has been classified into seven agro-ecological zones, which have been determined by livelihood patterns, crop production, livestock rearing and market access. The Sudd wetland is the second biggest wetland in Africa and has been designated as Ramsar site (wetland of global importance) since 2006, ranging from the cities of Bor and Malakal. The

Sudd is also listed as an Important Bird Area (IBA) by Birdlife International. Over 5% of SS is covered by permanent wetlands and floodplains, the seasonal floods sustain vast grazing lands, which are essential to pastoral communities.

In total, there are 19 wildlife protected areas in South Sudan, being 6 national parks and 13 game reserves, plus the Sudd Wetland, which is a RAMSAR site. Protected areas are 13% of South Sudan's territory, while Africa's average is only 9%. Moreover, the country has the largest intact savanna ecosystem in East Africa.

*“There are 19 wildlife protected areas in South Sudan. This represent a 13% of the territory while Africa’s average is 9%.”*

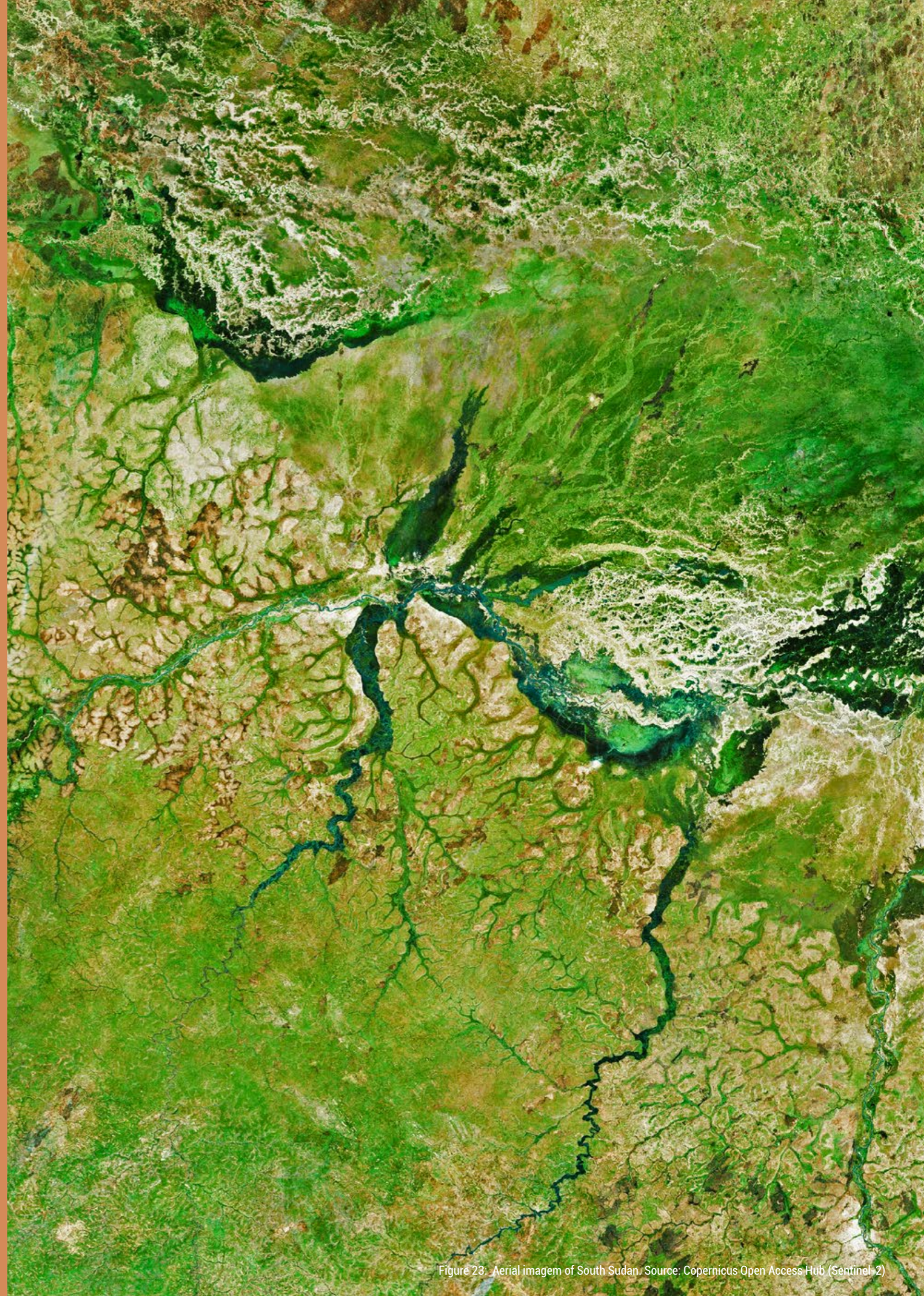


Figure 22: Wetlands around White Nile River, Central Equatoria State ©Eric Lafforgue (Eric Lafforgue), 2019



# 03

## REGIONAL CONTEXT





# 03

## Regional Context

*“Central Equatoria seceded from Sudan as part of the Republic of South Sudan on 9 July 2011. On October 2nd 2015, the state was split into three states: Jubek, Terekeka, and Yei River. The state of Central Equatoria was re-established by a peace agreement signed on 22 February 2020.”*

*“CES is the second most inhabited state in South Sudan and considered the most important because it is home to the national capital”*

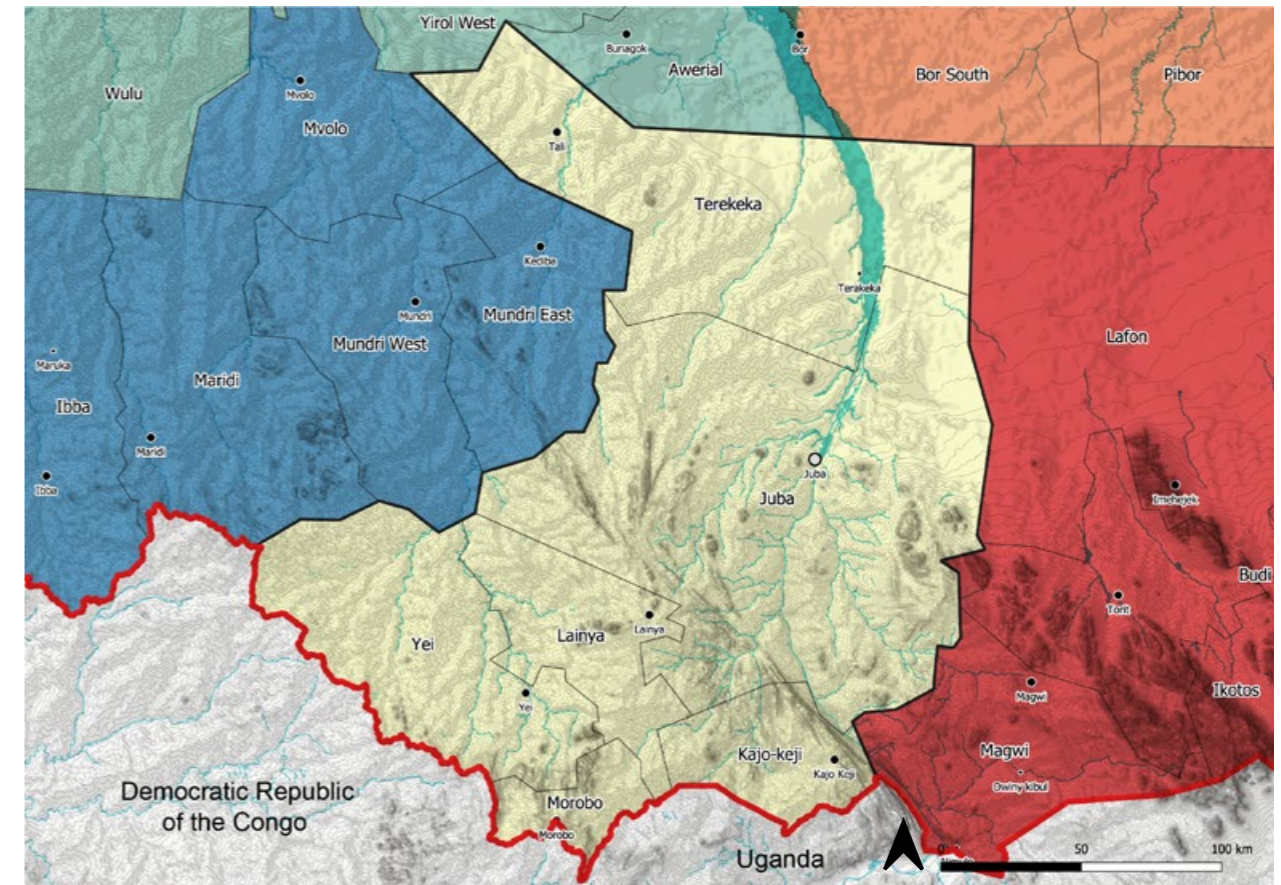
### 3.1 Central Equatoria State

Central Equatoria State has 45,025km<sup>2</sup> it borders with Eastern Equatoria State and Western Equatoria State. The three compose the Equatoria Region. It also borders with Jonglei State to the north-west, Rivers State, and the countries of Democratic Republic of Congo and Uganda at the south. Central Equatoria State is the second most inhabited state in South Sudan and is considered the most important because it is home to Juba, the national capital. Its indicators are better than the national average, such as per capita income, primary and secondary school attendance, number of universities, infrastructure, and poverty levels.

Central Equatoria was part of the conflict in recent years (2018) while other states of the country were in more peaceful terms. This fueled a humanitarian crisis in an already fragile environment, creating thousands of IDPs and refugees, which today are changing the demographics dynamics of CES since the peace was established and many are returning. The state has fully functioning branches of state government, which are based in the capital Juba.

The governor is directly elected by the population and is responsible appointing the deputy governor and the state minister. The administration is responsible for 6 counties: Terekeka, Juba, Lainya, Kajo-keji, Morobo and Yei. Those are divided into 46 Payams, and the Payams into 132 Bomas. Major cities and towns of Central Equatoria include Juba, Kajo Keji, Liria, Mongalla, Wonduruba, Rokon, Tali, Terekeka, Yei, Ji-Menze, Tombek, Tindilo, Kaya, Muni and Rijong. The major border crossing to the neighboring Democratic Republic of the Congo is at Dimo, a village in the state.

There are different ethnic tribes in CES. The Mundari settled in Terekeka County, the Pojulu of Lowinyet, Wonduruba and Tijor counties combined, and the Bari, which is the largest ethnic community. Then we have the Kuku from Kajok Keji County, Nyangwara from Rokon area, the Kakwa, from Yei County and Morobo, the Keliko from Morobo County, the Avokaya, Mundo and Baka from Tore Payam of Yei County. Additionally, there are the Pojulu-Tijor who are near Tali.



Map 9: Central Equatoria State (CES) administrative boundaries

### 3.2 Geography and Location

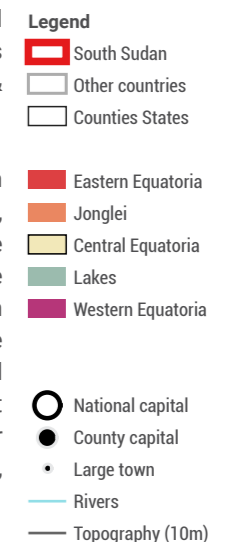
Central Equatoria State is in the southern part of South Sudan, in the border with the Democratic Republic of Congo and Uganda. CES lies on top of the Nile River catchment area, being Juba located in the margins of White Nile River. The water from Central Africa’s upland flows north towards the states of Jonglei and Lakes, filling the Sudd wetlands. There are two contrasting upland areas to the flood plains, those are the Imatong Mountains in Easter Equatoria (where lies the Mount Kinyeti, the highest point in the country) and the Ironstone Plateau (some parts of it present in the northern part of CES).

The geographical characteristics of different areas define the agro-ecological zones in the country, classifying the natural resources and hence livelihoods of the

people who live there (for more information on the agro-ecological zones of Central Equatoria, see “Main Economic Activities & Development Sectors” and “Land Cover & Vegetation”).

The rainy season (average 4mm/day) in the CES state goes from April to October, even though March and November have intermediate precipitation values. The South-western part of it has 1,400 mm of average rainfall, the highest in the country\*, while North-east has an annual precipitation of 800mm, being the driest part of the state, but still much better served than the driest parts of the country, which account for only 200mm annually.

\* It is where the “Green Belt” agro-ecological zone is located



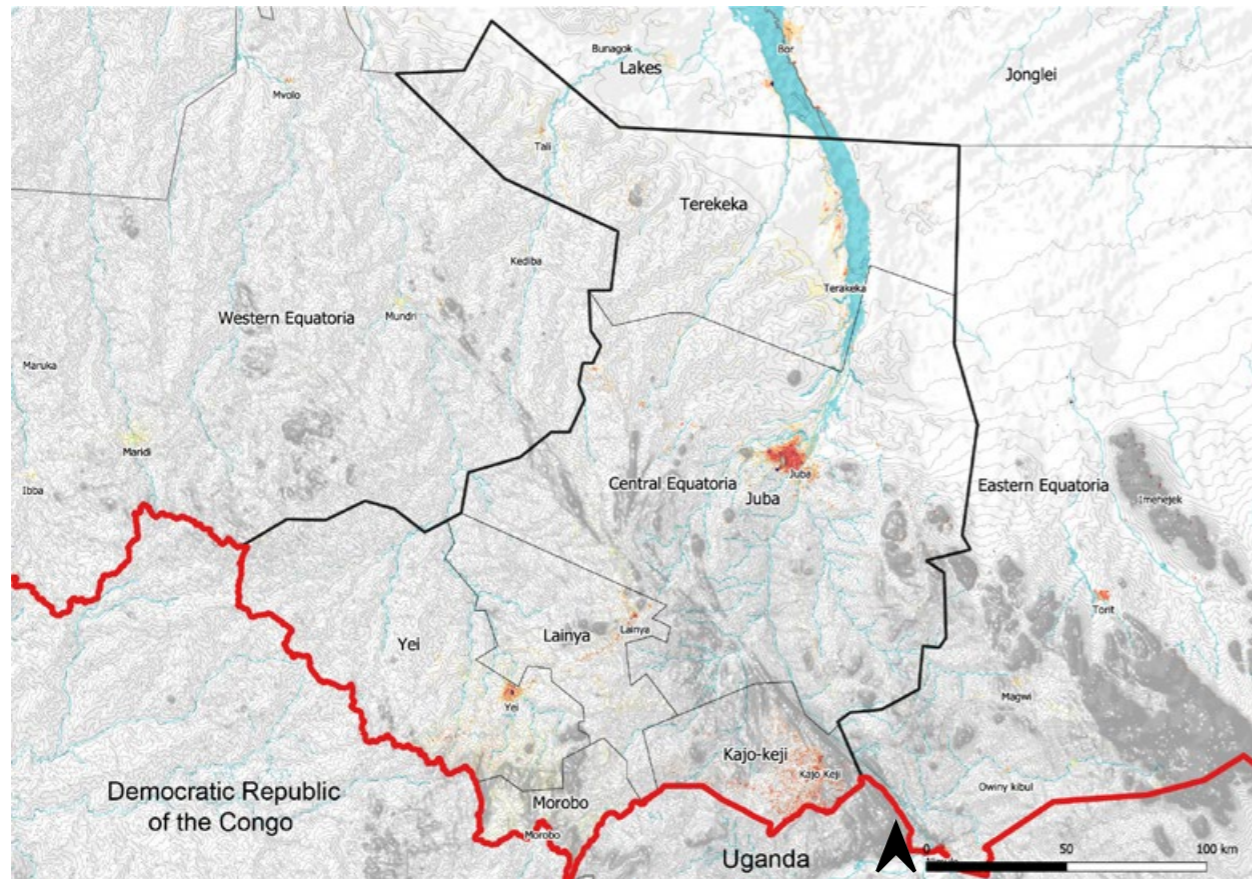
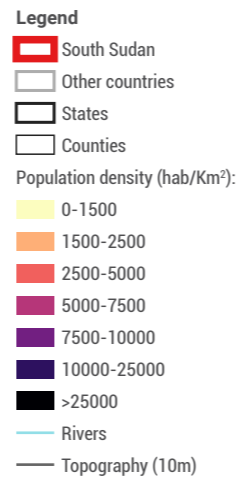


### 3.3 Demographic Background

South Sudan is a multi-ethnic country, with more than 50 indigenous languages, being the 10 biggest groups responsible for roughly 80% of the population. The biggest ethnic groups are the Dinka and Nuer (35.8% and 15.6% of the population, respectively), considering their sub-groups. In Central Equatoria State, the Bari people are considered the majority. The eight tribes speak one language, the Kutuk with some variations in each region, most of the tribes used to be pastoralist but nowadays they have switched to agricultural activities. The national capital and the biggest city of South Sudan is Juba. In 2008, Central Equatoria State was the second most populous state and the most densely populated - 1.2 million inhabitants and 26.65

persons per Km<sup>2</sup> at that time. Also, it was the second most urbanized state of the country, having 35% of its population living in cities. Besides Juba, the main urban settlements in the state are the counties headquarters: Yei, Lainya, Kajo-keji, Terereka.

The number of refugees and internally displaced people (IDPs) reached 4 million because of the civil war, and many are now returning home or moving to the urban centers after the end of conflicts. Estimations show that 344,000 IDPs and 17,000 refugees individuals were living in Central Equatorial State by 2021, while there were almost 210,000 returnees individuals by the time of the assessment.



Map 10: Central Equatoria State population distribution



Figure 24: Polio Vaccination Campaign in South Sudan ©United Nations Photo, 2014

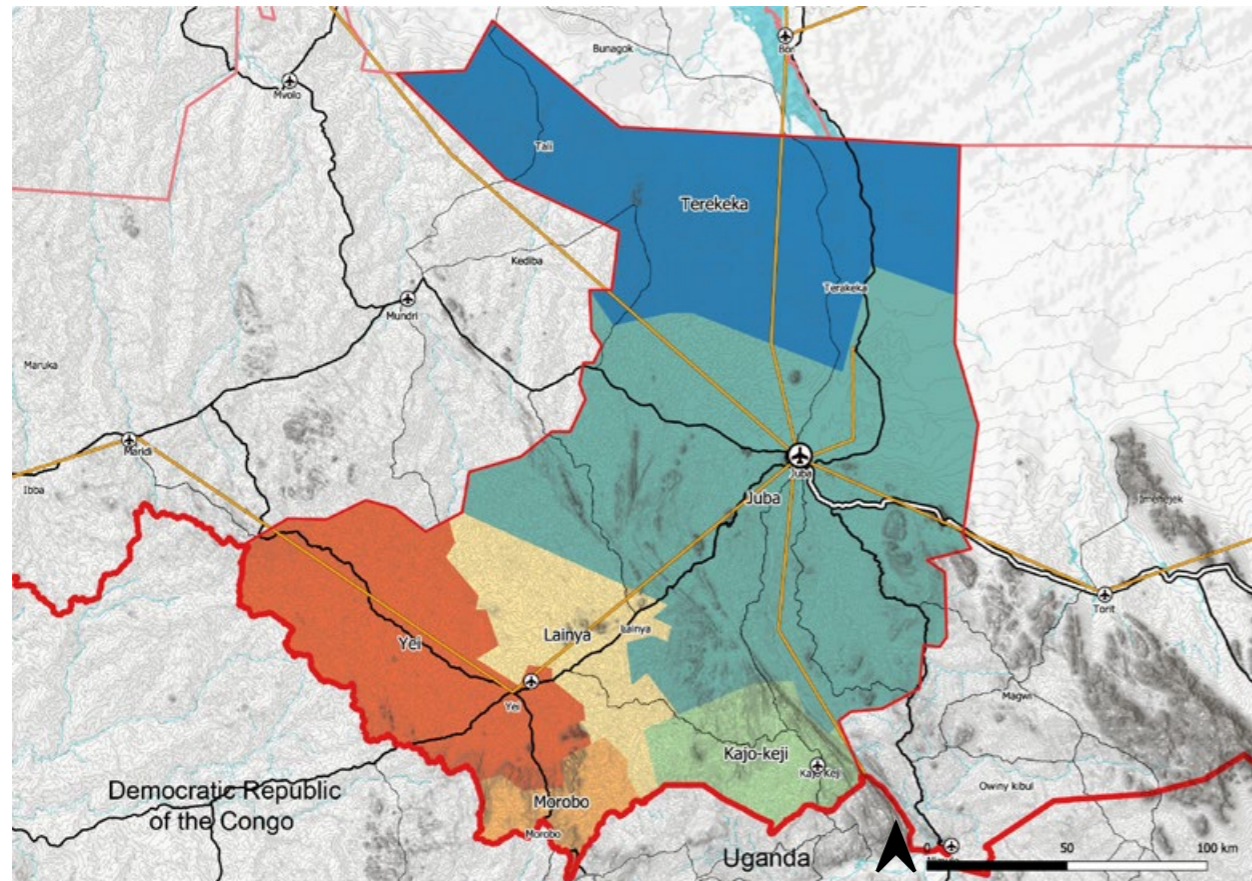


### 3.4 Transport Infrastructure & Connectivity

Central Equatoria is the most equipped region in terms of connectivity and transport infrastructure due to hosting Juba, the capital city that has links with almost all different regions of South Sudan. The main highways of South Sudan go through Juba, such as the ones that connect it to Wau or to other countries like Uganda, Kenya and the Democratic Republic of the Congo. Moreover, Juba International Airport is the main airport in the country, with several daily international flights, while Central Equatoria State also has airports in the counties of Kajo-keji and Yei. Other infrastructures, such as the power grid from other states of South Sudan, are centralized in the national capital, as the yellow lines show on the map. According to

the Statistical Yearbook for Southern Sudan, only 2.7% of households had access to electricity (2010) - 4% of the urban population had access at that time though almost 50% of all customer connections to electricity were in Juba. In 2018, 46.8% of the country's urban population had access to electricity, a huge increase in 8 years.

**The LAPSSET Corridor.** Will be a game changer for the country and therefore for Central Equatoria State. At the smaller scale, it is important to take into consideration the spatial impacts of this complex infrastructure, since the roads, railways and pipelines may cause significant changes in the spatial disposition of the city and region.



Map 11: Central Equatoria State infrastructure and connectivity



Figure 25: Repairing damaged roads for unhindered access to remote areas in South Sudan is a priority for UNMISS ©United Nations Mission in South Sudan (UNMISS), 2020



### 3.5 Main Economic Activities & Development Sectors

The State economy is based mostly on subsistence farming 39% approximately, livestock rearing 37% and fishing 6%, according to an assessment elaborated by IOM in 2016. The 75% of the households are dependent from crop farming or livestock-raising as their main source of livelihood. However, the conflicts and insecurity in the area have significantly impacted the food security and the economic stability, increasing the vulnerability of the population.

**39%**

of Central Equatoria State economy is based on subsistence farming

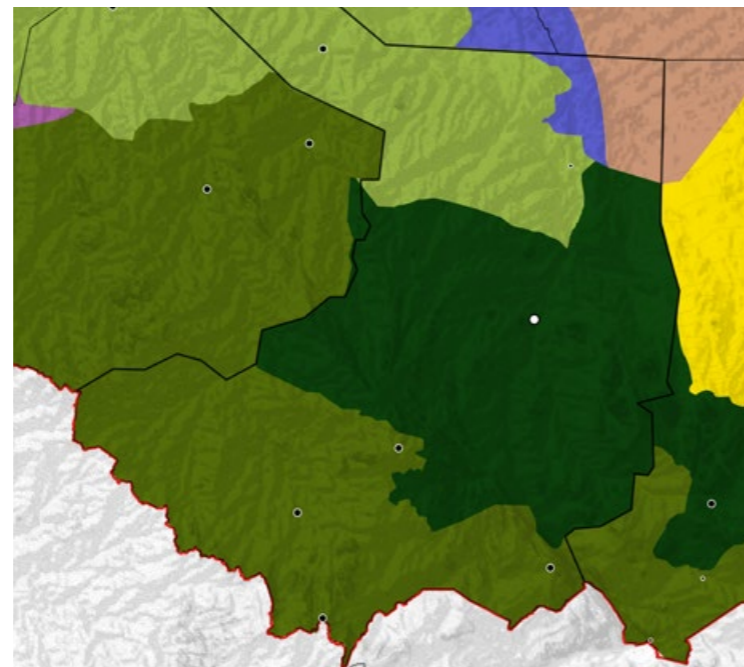
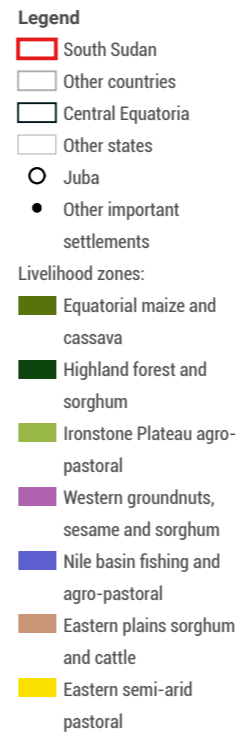
**LAND** In the southern part of Central Equatoria State, cassava, sorghum, groundnut and maize have a bigger role in the agricultural production. This region is called the green belt, due to the presence of forests, shrubs and vegetation. In the center of the state and around Juba, the hills and mountains are highland forest and sorghum is the main crop. Around the Nile river the fishing and agro-pastoral activities are dominant. On its western side of the Nile, the Ironstone Plateau houses agro-pastoralism and its east side, sorghum and cattle.

The presence of migrating cattle herds, particularly from Jonglei State, has led to tensions with the local population in recent years, with no apparent sign of resolution. Residents in Kajo-Keji (and Juba County) clashed with Dinka Bor cattle keepers and SPLA soldiers accompanying them in at least two incidences in early 2015 over the destruction of crops and competition for grazing land.

Even though there is plenty of access to water and agricultural land, Central Equatoria State has an annual production of crops of only 85 thousand tons. This is insufficient to supply the demand, and many agricultural products are imported mainly from Uganda .

Soil degradation due to natural resources exploration is also on the rise and pose as another possible threat in the near future

**MINERALS** In Central Equatoria State, there are artisanal gold mines, around the Luri river basin, although most reserves are in Eastern Equatoria State, especially in Kapoeta county. The government of South Sudan has joined Extractive Industries Transparency Initiative (EITI) and established a new mining license system based on international standards, but multiple sources point out that it is too little monitoring.



Map 12: Livelihood zones. Source: Sudan livelihood zones and description. (USAID, 2013)



Figure 26: Local market at Billing Payam in Yirol East, South Sudan ©Caritas Internationalis (Caritas), 2017



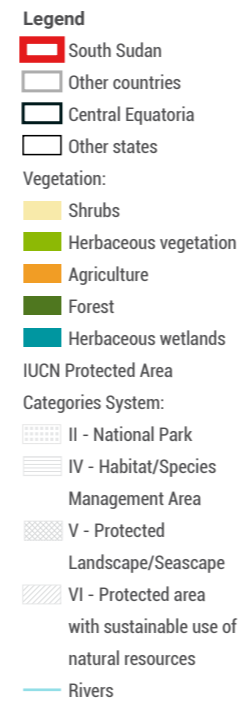
### 3.6 Land Cover & Vegetation

Central Equatoria States has a greenbelt on its south-west corner. Juba and its eastern part is mostly composed by shrubs, with mountains and hills. The North of CES is part of the Ironstone Plateau and its covered mostly by herbaceous vegetation.

The vegetation has an enormous importance in preserving biodiversity and environmental balance as well as providing goods (shelter, medicine, food, fuel, timber, etc). Due to its vulnerability and high importance to the food security and future development at national level, a sustainable management of these assets is necessary. South Sudan is losing its forests at a 1.5-2% rate every year. Poverty and unemployment strengths the dependence on natural resources exploration for livelihood

and puts pressure on the existing vegetation and wildlife. For instance, 96% of South Sudan population depends on fuelwood and charcoal as the only source of energy and it represents 80% of all wood used in the country annually. Most of the forest loss happen on the outskirts of urban center.

Measures have been taken by the national government to minimize forest loss. However, the lack of funding, technical capacity and clear frameworks on many issues related to vegetation protection have limited the response from the government and stakeholders. UNEP has different environmental projects in SS that will address issues regarding environmental governances, community management of natural forests and waste management.



Map 13: Vegetation and land cover. Source: UNEP-WCMC and IUCN (2021), Protected Planet: The World Database on Protected Areas (WDPA), [October 2021]



Figure 27: Dry river bed in South Sudan. Photography by Arsenie Coseac@Creative Commons 2.0



### 3.7 Natural Resources & Protected Areas

**WATER** CES does not have part of the Sudd Swamp but it is still one of the states which have abundant water resources thanks to the White Nile crossing it in half. The state is part of its watershed.

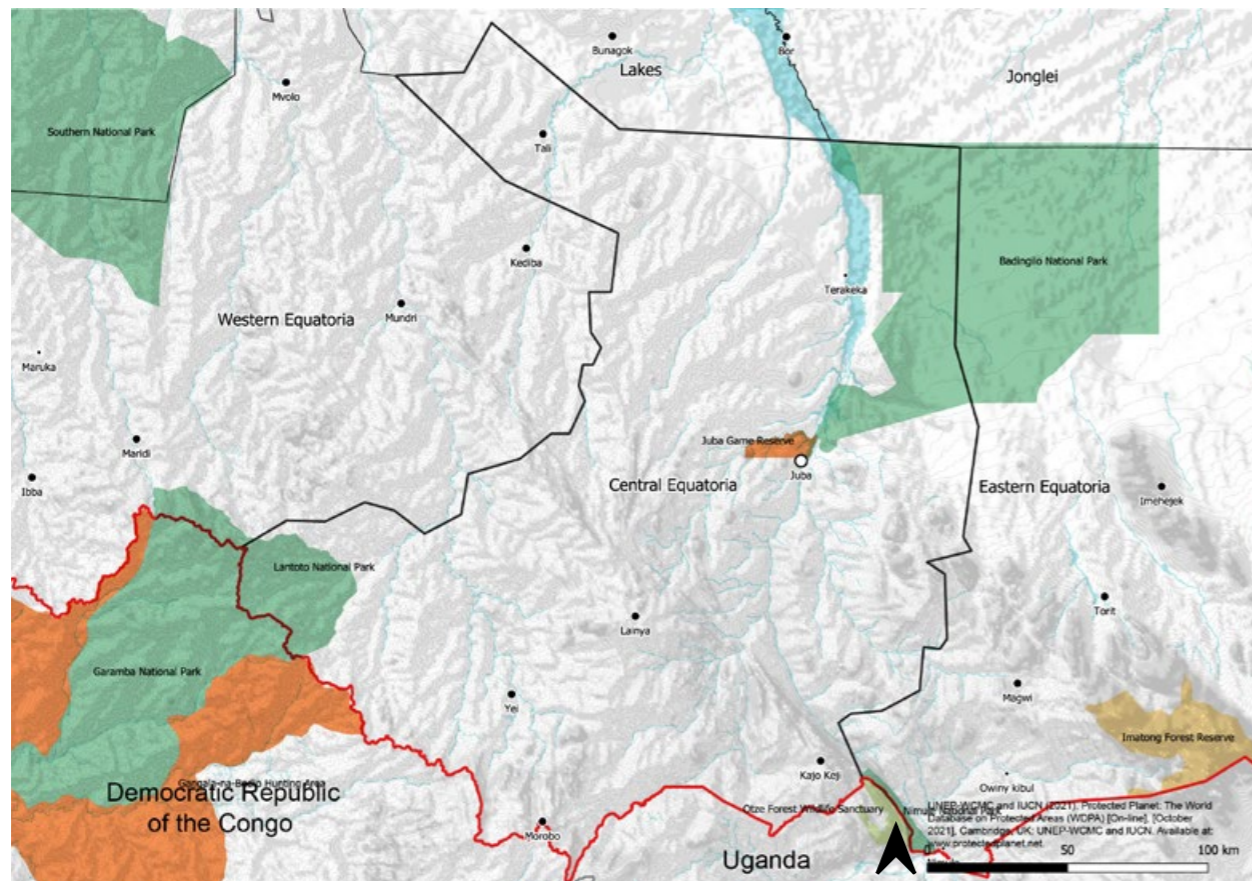
**FLORA** Central Equatoria and Western Equatoria have high quality timber attractive to the international market putting pressure on its existing vegetation in the fringe of the bigger towns. Most of CES is classified as subtropical savannah of low-density woodland, mixed scrub and grassland.

**PROTECTED AREAS.** Protected areas represent 10,7% of Central Equatoria State. Less than national average, but still higher

than Africa's average. The habitat in CES are predominantly comprised by grasslands, high altitude plateaus and escarpments, grassy savannas, floodplains and wetlands. According to the International Union for Conservation of Nature, there are three protected areas in Central Equatoria: Lantoto National Park, part of Bandingilo National Park, and Juba Game Reserve. Juba Game Reserve is located north of the national capital and it is an important constraint to the future development of the city. In order to preserve the biodiversity, communities living within the protected areas will be resettled by the government such as the ethnic tribes living at the Bandingilo Nation Park.

**Legend**

- South Sudan
- Other countries
- Central Equatoria
- Other states
- IUCN Protected Area
- Categories System:
- II - National Park
- IV - Habitat/Species Management Area
- V - Protected Landscape/Seascape
- VI - Protected area with sustainable use of natural resources
- Rivers
- Topography (10m)



Map 14: Protected areas



Figure 28: White Nile River in South Sudan. Photography by antheap@Creative Commons 2.0



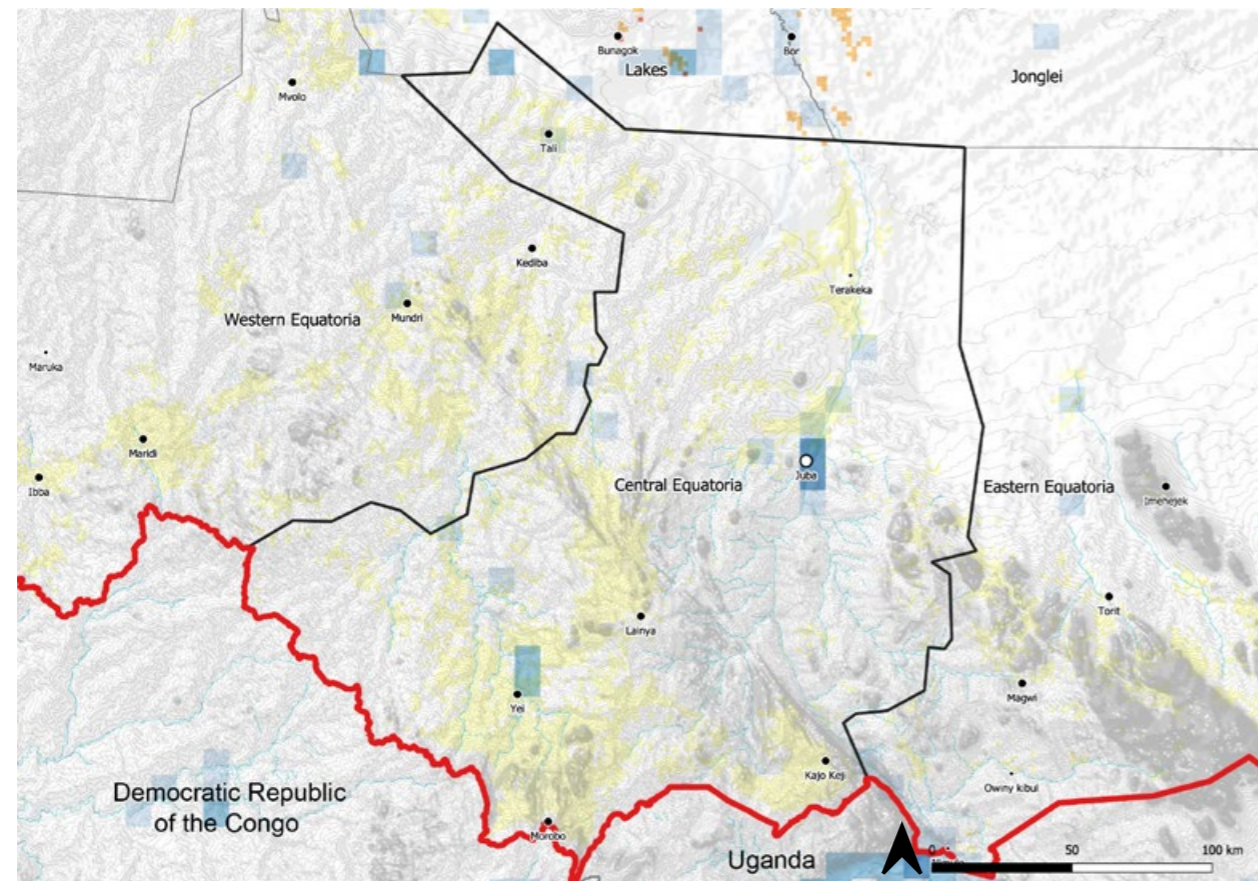
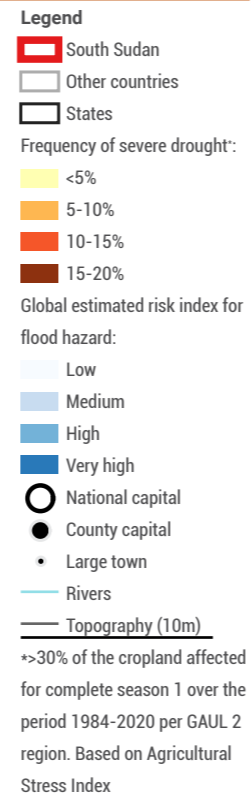
### 3.8 Natural Hazards & Climate Change Risks

South Sudan has been prone mainly to two hazards: droughts and floods. These events increase stress levels on the already fragile infrastructure, causing food insecurity and diarrhea cases, infections, malaria and other diseases, particularly the waterborne. As we can see in the map below, Juba city is under an area of very high risk of flooding, while the town of Yei is considered only high risk.

The Agriculture Stress Index System (ASIS) has been developed by FAO together with the Flemish Institute for Technological Research and the Joint Research Centre of the European Commission. It monitors vegetation indices on existing crops and provides quantitative information on risks of drought and impact on

food production. According to its database, some areas in Central Equatoria are under high level of agriculture stress, but the most affected states in the country are in the northern states of South Sudan.

Recent important natural hazards events took place during 2021 floods, the worst in 60 years, which hit over 800,000 citizens and caused the displacement of approximately 200,000 people, mostly on Jonglei, Upper Nile and Unity states and a some part of northern of Central Equatoria. In 2020, drought reached its most critical level, affecting 5.5 million people; This increasing intensity of droughts and floods is related to the climate change, according to UNHCR studies and environmental analysis.



Map 15: Drought and flood in South Sudan



Figure 29: Floods create catastrophe for South Sudan on its difficult journey from war to peace ©United Nations Mission in South Sudan (UNMISS), 2021



# 04

## JUBA CITY CONTEXT



Figure 30: Aerial imagem of Juba. Source: Copernicus Open Access Hub (Sentinel-2)



# 04

## Juba City Context

*“Juba, the capital of the Republic of South Sudan, has since 2005 recorded spectacular urban expansion: at upwards of 12.5% per annum, the city’s growth is among the fastest rates of urbanization in human history (Martin and Mosel, 2011).”*

### 4.1 City Overview

**403 000**  
Inhabitants

**4,2%**  
Growth Rate

**3990**  
pp/Km<sup>2</sup>  
Density

**69**  
Neighborhoods

Juba is one of the newest capital cities in the world and is still in the making of becoming an intermediate metropolis. Due to the high rate of population growth experienced during the last years, the city increased drastically, from 10,600 habitants in 1956, to around 250,000 by the end of the year 2000. In 2011, this number increased to over 400,000 people, making Juba one of the most fast-growing cities in the world (Martin and Mosel, 2011) Once the Comprehensive Peace Agreement (CPA) was signed in 2005, there were high expectations for the future of Juba, resulting in the conduction of multiple field research projects to guide the development of the city and the country.

Particularly concerning the urbanization of Juba, there was the creation of an Urban Plan commissioned by the Japanese cooperation agency (JICA), and there was also the drafting of a Land Regulation and Policy Act. However, South Sudan’s public institutions have not had the human or financial capacity to implement policies and projects; therefore, neither document has had any significant impact (Diaz, 2016). Despite the various urban challenges

that Juba faces, there are also relevant opportunities to address the main problems innovatively in terms of sustainable urban development and policymaking within the different sectors, stakeholders, and governments. This highlights the urgency to enable the drivers of urbanization and capitalizing on the opportunities that urbanization presents for economic and social development.



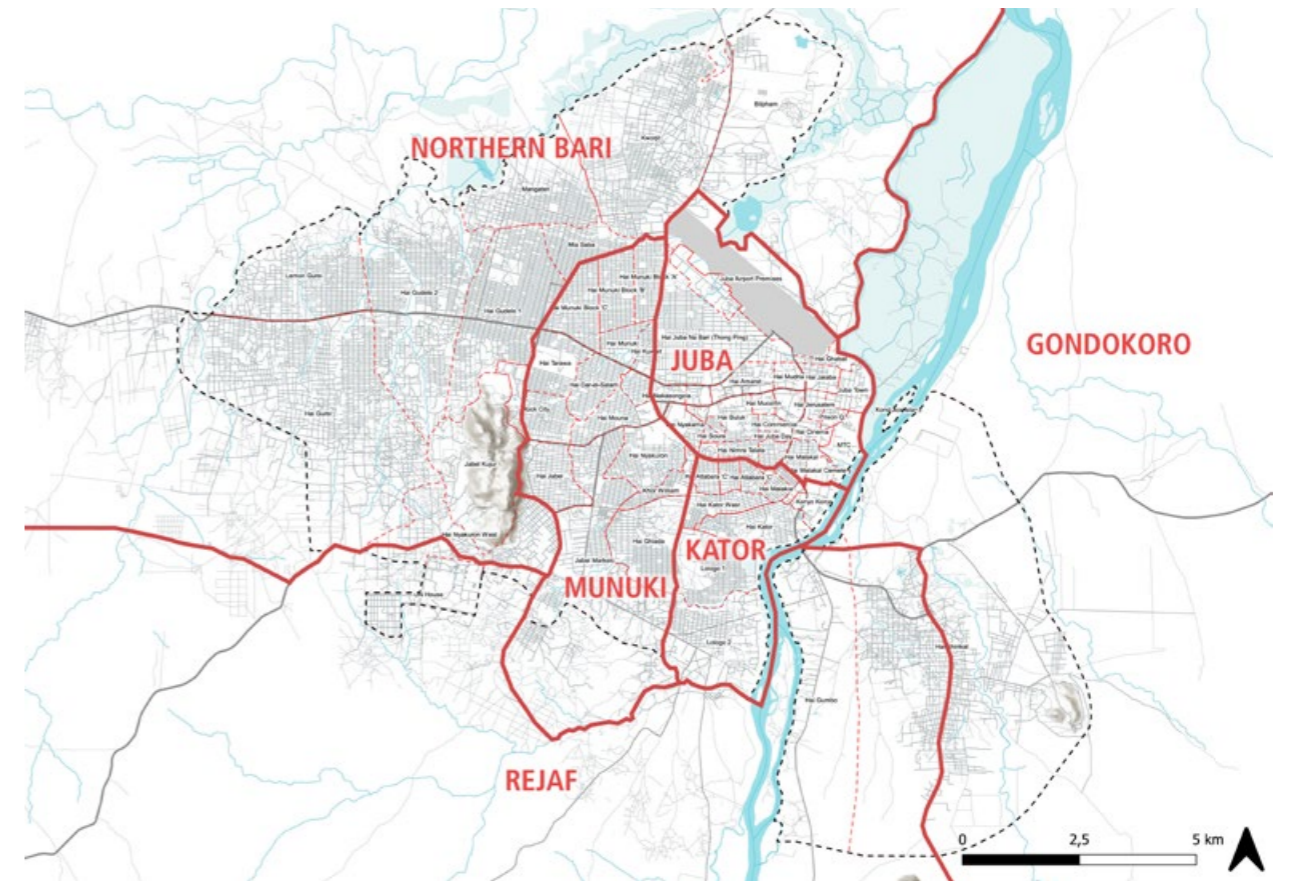
Population evolution <sup>2</sup>	
1990	106 000
2000	160 000
2014	310 000
2020	403 000



Built up evolution <sup>1</sup>	
1990	28.8 Km <sup>2</sup> (+21%)
2000	37.2 Km <sup>2</sup> (+29%)
2010	41.6 Km <sup>2</sup> (+12%)
2020	101 Km <sup>2</sup> (+143%)



Employment <sup>3**</sup>	
Female	87%
Male	89%



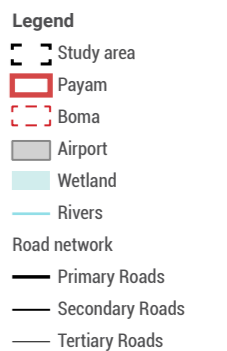
Map 16: Juba city administrative boundaries

### 4.2 Administrative Boundaries

Juba, South Sudan’s capital, is part of Central Equatoria State, in Juba County. Its boundary include 6 Payams. The border of the Municipality is, however, not clearly defined, and as the city has expanded, it has incorporated its surrounding rural payams, such as Northern Bari and Rajaf.

It is not easy to define precisely the border of Juba municipality, but it is estimated that the urbanized area covers approximately 168 Km<sup>2</sup>, and it is further subdivided in 69 Neighborhoods (Boma). Historically the city comprised three Payams called Juba, Munuki and Kator, where most of the population is located. However, the recent and rapid growth the city has experienced in the last decades had the consequences of expanding the city boundaries also in the adjacent

Payams of Northern Bari (North-West), Rejaf (South) and Gondokoro (North-East). While Juba, Munuki and Kator are entirely urbanized, inhabited and developed, Northern Bari, Gondokoro and Rejaf are primarily rural and have been urbanized only in recent years. Since 2005 Rejaf and Gondokoro split the recently developed areas of Juba on the other side of the Nile, while Northern Bari includes the most recent growing axis of the city towards the west. There is a land classification system, characterized by their location, (Central Juba, Munuki & Kator are class one and Rejaf, Gondokoro & Northern Bari are class two & three) and by their plot dimensions, land fees, and taxes. Usually higher classes live in the central area of the city and medium and lower classes at the periphery.





**“According to Grant and Thomson, the sudden and massive influx of development aid and investment drives local property and consumer markets, and is manifested in the spatial organization of the city by clearly demarcated and segmented urban spaces with high densification, upgrading and fortress architecture.”**

### 4.3 Juba Timeline

Human presence in the region where Juba lies today dates to approximately 5000 years ago. The city was established in 1922 by a group of Greek merchants when Sudan was still under the Anglo-Egyptian Mandate. However, there were already some settlements nearby in the previous century, such as a trading post (1852) and an Egyptian army post (1862).

Unfortunately, there is little information on human presence in the surroundings of Juba from before the first foreign settlements started. From the 20's up to the 40s, Juba never reached a high population, but the commerce led by the Greeks made the city an essential supply to locals and the forces of the Anglo-Egyptian Mandate. Notably, one of the most critical events in Sudan's and South Sudan's history happened in the city: the Conference of Juba.

In 1947, when the two were still colonies, leaders of both parties agreed to unify, what practically settled the two colonies as one nation. This unification was never entirely accepted by many on both sides, and the tensions between them triggered a civil war in 1955, one year before Sudan's independence, and lasted until 1972. The most significant relative growth of the city's population happened during the First Sudanese Civil War and some of the following years[2], possibly due to the distance from the northern neighbours and the violence in the rural areas.

After a decade of stability, the Second Sudanese Civil War erupted in 1983 and lasted until 2005. After the civil war ended and the country had gained political and economic stability, Juba acquired national and international relevance, becoming the host of many international cooperation and development organizations, including various UN Agencies, which still operate and have headquarters in the city.

Since 2005, Juba was declared the capital of the Republic of South Sudan, and since then, it has recorded an amazing urban growth at upwards 12.5% per annum, the city's growth was among the fastest rates of urbanization in human history according to Martin and Mosel. After 2005, various international organizations and UN Agencies settled their offices in the capital city in order to support the development of the newly formed government as it transitioned from an autonomous region to a new state.

After the Civil War, Juba was declared the capital of South Sudan by the rebels. In 2011, South Sudan declared independence and then the government officially set Juba as the capital of the newborn State. In 2013, Juba would again be a hotspot of tension when the South Sudanese Civil War occurred, and the national capital was the ground of many conflicts.

The civil war caused the biggest refugee crisis in Africa since the genocide in Rwanda, with many people fleeing to Uganda or being internally displaced. The South Sudanese Civil War ended in 2018, but the impacts on the city of Juba are still significant.

The peace is still fragile, but the government has taken steps to maintain it. In 2022, it was announced that the national army – which counts with forces which fought on the two sides of the civil war – will be united, an essential step for a peaceful election, which is set to happen in 2023.

Juba is a city which is constantly affected by conflict and post-conflict urban dynamics. Without political and economic stability, the city will not make the transition from humanitarian and emergency projects to development investments with a long term vision.





#### 4.4 Historic Urban Growth

Rapid urbanization in Juba has been a common trend since 1975 when the city had only 62,334 inhabitants in 23,74 km<sup>2</sup>. The density at that time was 2,612 pp/km<sup>2</sup>. During 1990, there was a relevant migration influx from the rural areas into the city, and Juba experimented with a high population growth rate, doubling its population numbers in only fourteen years. By 1990, there were 106,000 inhabitants approximately in an area of 28,74 km<sup>2</sup>. In the next ten years, the city expanded to an area of 37,80 km<sup>2</sup> and a population of 160,000 people approximately. The density at that time was 4,305 pp/km<sup>2</sup>. By 2005, an important influx of international organizations and UN Agencies settled their offices in Juba. According to Grant and Thomson, the sudden and massive influx of development aid and investment

drives local property and consumer markets, and is manifested in the spatial organization of the city by clearly demarcated and segmented urban spaces with high densification, upgrading and fortress architecture.

After South Sudan's independence in 2011, the political stability attracted people into the city with the promise of jobs and economic growth. By 2020, approximately 310,000 people were living in the city, and 16% were refugees, returnees, and IPDs. There has been a rapid urban growth in Juba city limits, and even though the estimates show a 30% increase in population from 2014 to 2020, the density dropped to values like the decade of 1990. The new occupation patterns are going from gridded to organic and spontaneous.

***“Influxes of international workers and agencies have pushed the rampant urban expansion and densification of the Juba’s urban area since the end of the civil war.”***



Figure 31: An overview of South Sudan's capital city, Juba ©The New York Times (Kassie Bracken), 2018

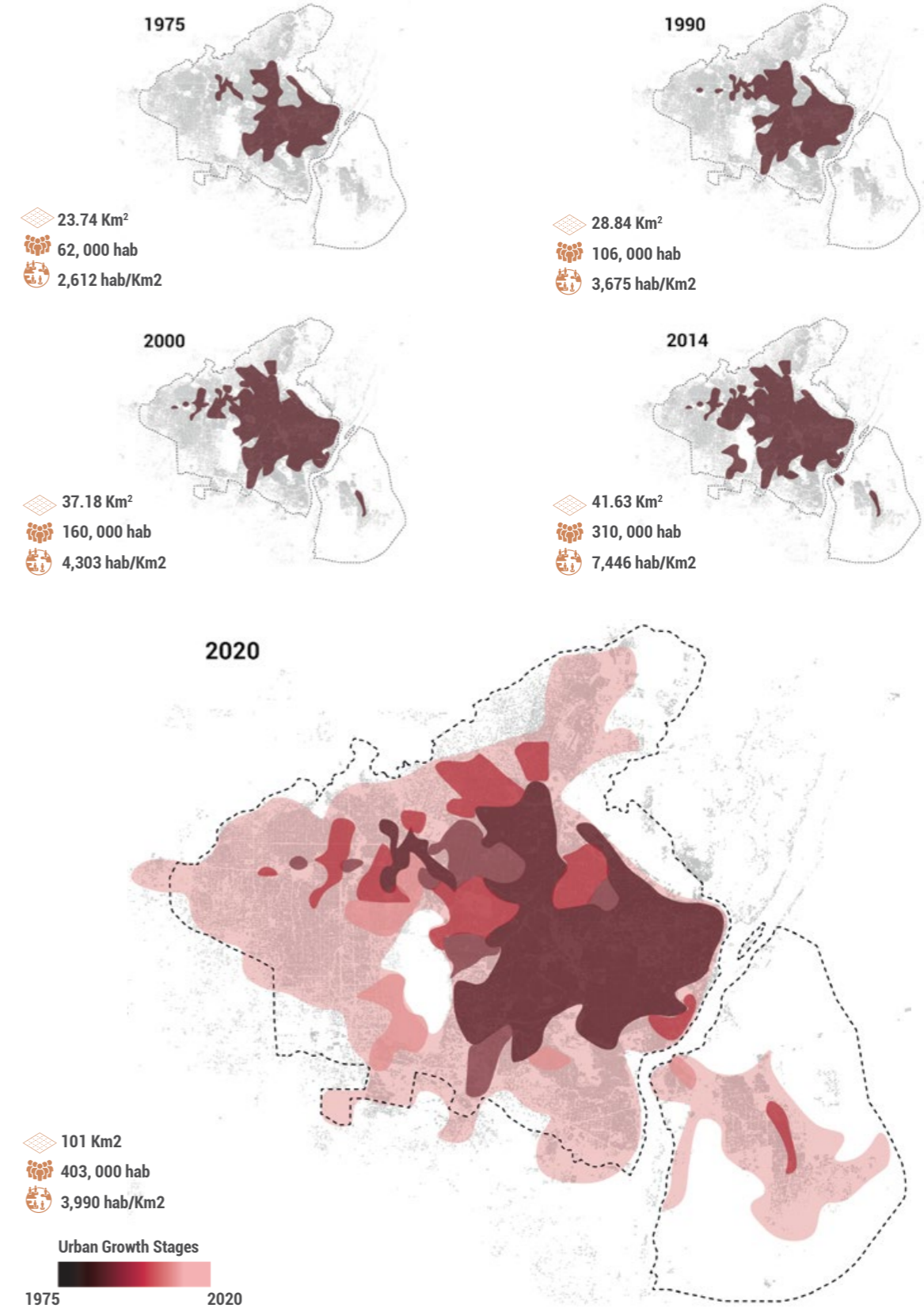


Figure 32: Juba city growth



## 4.5 Population Density & Distribution

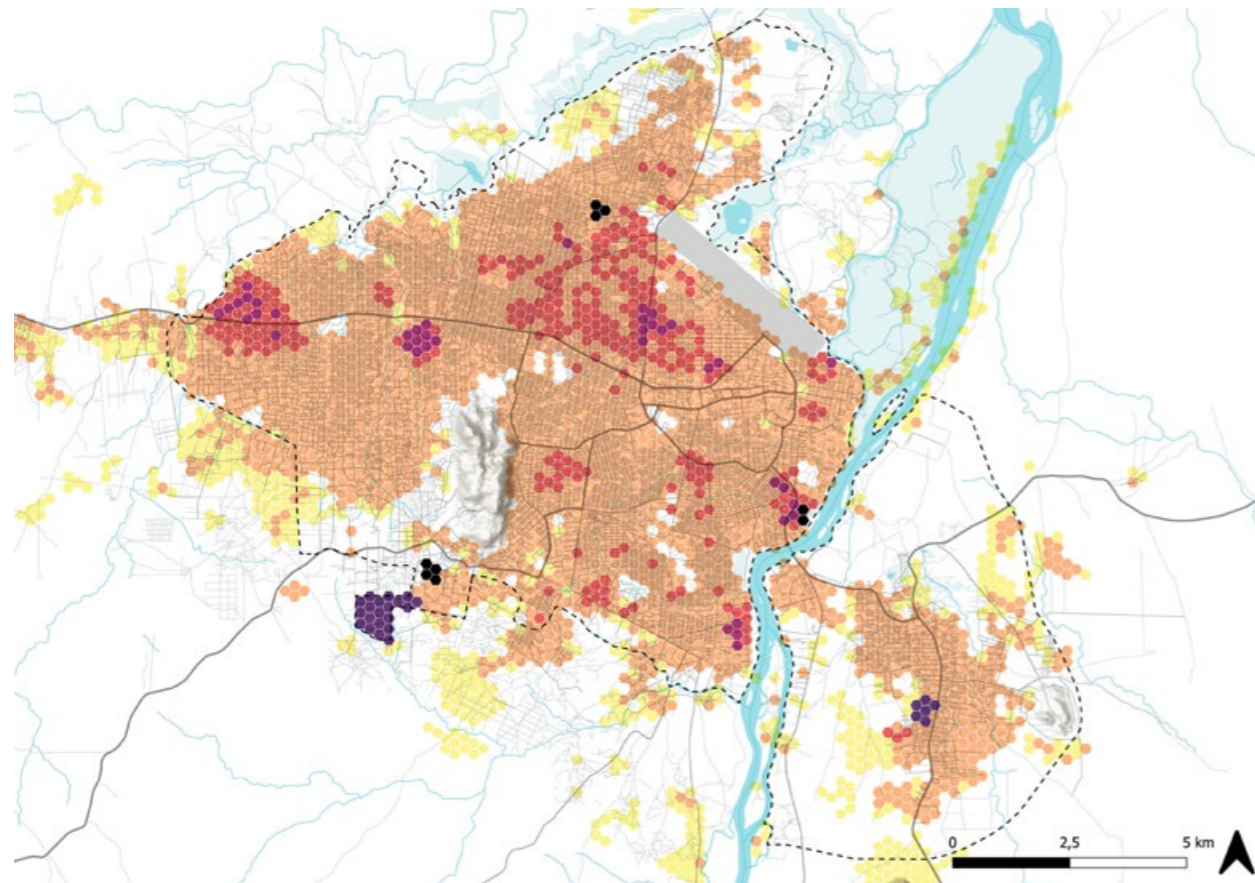
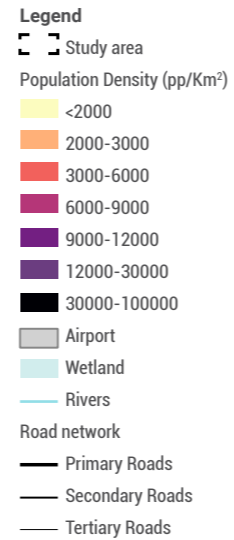
In 2020 Juba's population projection was approximately around 403,000 inhabitants, counting for almost 15% of the urban population in South Sudan, spread over more than 150 Km<sup>2</sup>, despite other estimations being around 500'000 and more. The average city density is relatively low, 2400 inhabitants per square kilometre, resulting from the rapid and uncontrolled growth of the last decades.

Higher densities, still within the range of 4000-7000 hab/Km<sup>2</sup>, are found in the city's central area (Juba Payam) and clusters scattered throughout the city, usually around the major transport hubs and junctions. In the city's peripheral areas, the concentration

of people is extremely low, and the presence of services. In correspondence with the IDP camps located in the city - particularly the UN House in the southwest and Mangateen, west of the airport - the concentrations of people exceed 15,000 hab/Km<sup>2</sup> due to the high presence of Internally Displaced People and Refugees.

# 300%

Was the increase of area of occupation that Juba had from 1975 until 2020. In that time period, population grew from 62,000 to 403,000



Map 17: Juba population distribution

## 4.6 Population Projection

Despite forced displacement, returnees, and internal migrations having been key characteristics and fluctuating data throughout the years, Juba has experienced steady growth in dimension and population since the 50s. At the time, Juba counted 6,000 people, and in the following two decades, during the first civil war (1955-1972), it grew at an annual rate of 9%, making it the largest settlement in South Sudan. Subsequently, the city continued expanding at a lower rate; most of the population's growth was due to the newcomers to the town after the war. During the second civil war (1983-2005), Juba experienced a continuous population fluctuation.

When the Comprehensive Peace Agreement was signed, Juba was estimated to be home to 200,000 and 250,000 inhabitants, 50,000-90,000 of whom were IDPs. Since the CPA, Juba is experiencing a constant growth ratio

of more than 4 %, resulting in a population increase of 2.5 times from 2000 to 2020. From 1975 to 2020, Juba's population has grown more than 700%, from 62,000 to 403,000 inhabitants, increasing the urban land by more than 300%.

Following the current urbanization trends, the population is expected to exceed 750,000pp by 2035. Most urban expansions occurred during the last six years, where although the population has grown by 30%, the urban area has increased by 110%. It has particularly affected the area beyond the Nile, where the former rural agglomeration of houses gives way to a fully urbanized neighbourhood of Juba and the extent to the east and south of Juba. Here the growth can continue uncontrolled, presenting no physical obstacles, unlike the area to the north, which, with the airport and the marshy area, limits its expansion.

**“UN Population projections reveal that by 2035 the population in Juba will almost double its current size to 761,000pp”**

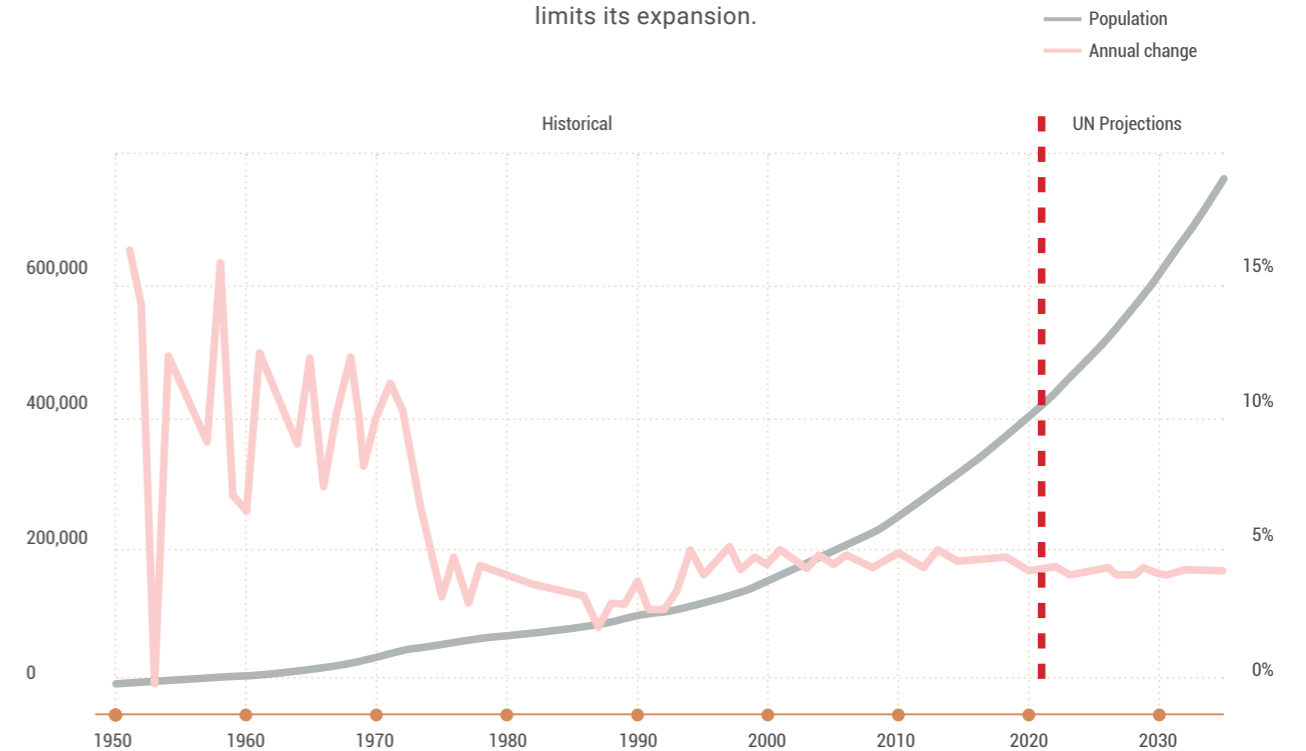
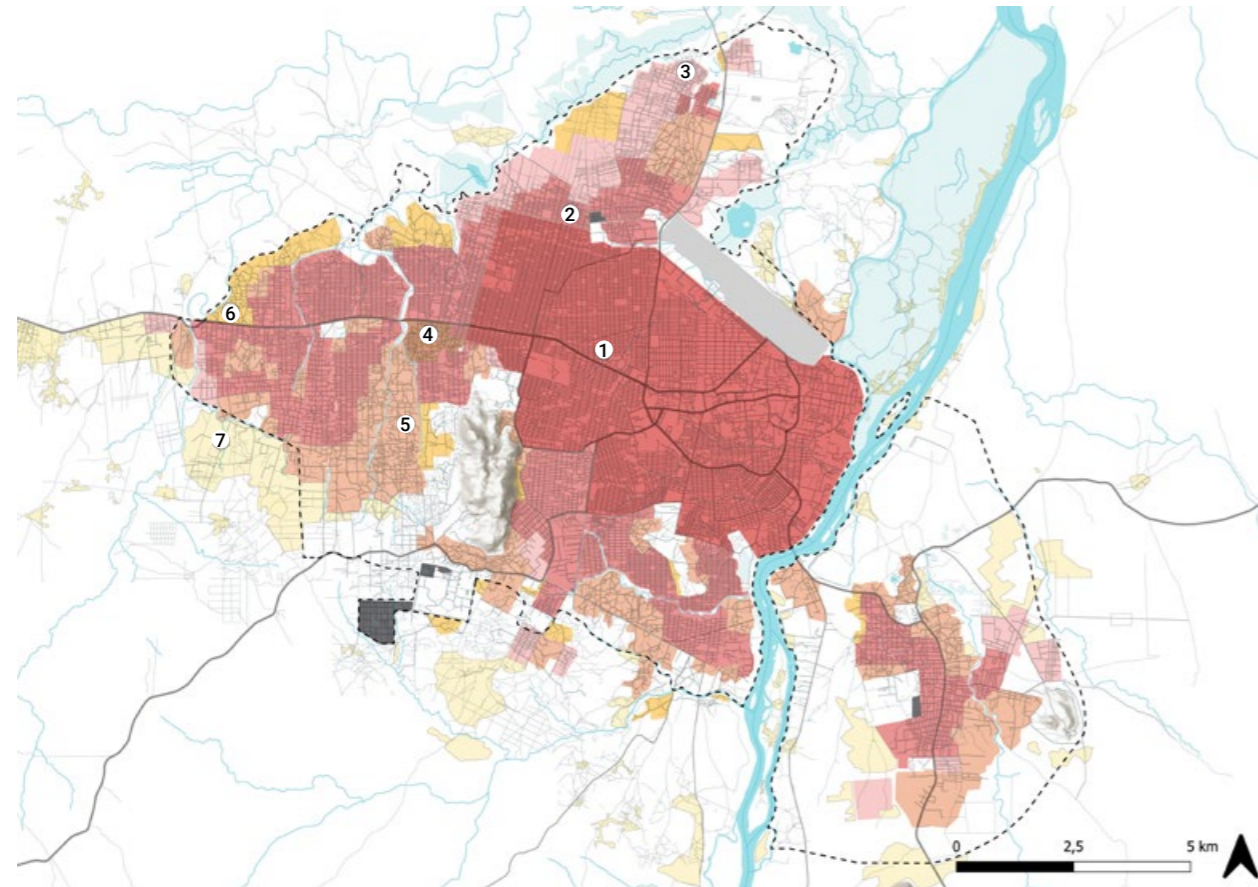
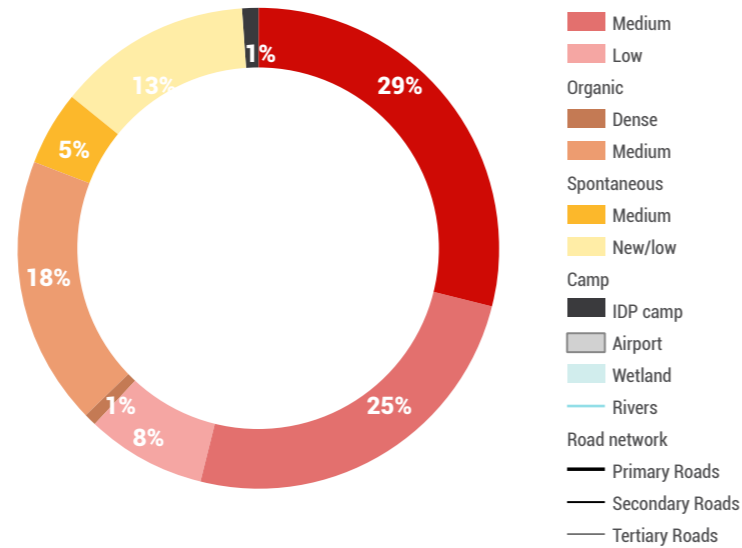


Figure 33: Population evolution chart. Source: World Population Prospects (United Nations, 2019. Retrieved from: <https://population.un.org/wpp/>)



## 4.7 Urbanization Patterns

Urban morphology can be classified into different dimensions. However, four aspects are considered in this report. Juba presents different typologies of urban structures considering the block typologies and area, constructions density, population density and accessibility to basic services. This report has categorized them into gridded, organic, and spontaneous forms. These dimensions are not independent from one another. The urban form becomes diffuse and less structured as it gradually goes further from the city centre into the city's periphery. Following the population distribution, Juba urban structure has dense built-up neighbourhoods in the city's centre, within Juba Payam limits.



Map 18: Juba urbanization patterns

Formal gridded urban form characterizing Juba center. Neighborhoods organized in rectangular blocks, relatively high built-up floor coverage and good accessibility to services and infrastructures



Gridded dense  
Tot. Surface 36.4 Km<sup>2</sup>  
Plot Area 90x50 m<sup>2</sup>

Gridded urban form surrounding the city center and the other side of the Nile. Similar structure with less services and infrastructures coverage and more urban void and vacant land



Gridded medium  
Tot. Surface 31.7 Km<sup>2</sup>  
Plot Area 110x45 m<sup>2</sup>

Recent developments, in particular in the north. It is characterized by a formal land subdivision in rectangular plots and an unmanaged expansion of the city with low accessibility to services



Gridded low  
Tot. Surface 10.2 Km<sup>2</sup>  
Plot Area 125x50 m<sup>2</sup>

Organic form with meandering streets and irregular blocks mostly common in newly developing areas, but present also within the gridded central parts of Juba and has no accessibility to services.



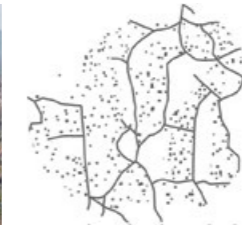
Organic dense  
Tot. Surface 0.8 Km<sup>2</sup>  
Plot Area 160x60 m<sup>2</sup>

Organic form with meandering streets and irregular blocks mostly common in newly developing areas, but present also within the gridded central parts of Juba, there is no accessibility to services



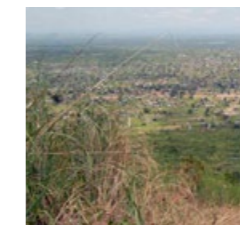
Organic medium  
Tot. Surface 22.6 Km<sup>2</sup>  
Plot Area 110x110 m<sup>2</sup>

Informal and recent settlement at the boundaries of the city with population density to Juba formal areas. Absence of road network, services and infrastructures



Spontaneous medium  
Tot. Surface 5.7 Km<sup>2</sup>  
Plot Area no defined plot subdivision

New settlements growing as a consequence of the fast urban growth of Juba. They are located in the outskirts, in particular along the Nile river and the main mobility axes. Extreme low density, no services and few connections with the city



Spontaneous/new settlements  
Tot. Surface 16.9 Km<sup>2</sup>  
Plot Area no defined plot subdivision



The gridded form, covering more than 60% of the urbanized area, is present in the urban centre and mainly along the central transportation axis. It is characterized by streets running parallels forming rectangular blocks on average of 100x50 m2. Increasing the distance to the city centre decreases the built-up density and the accessibility to services, often creating urban voids and vacant land. Only formal land subdivisions and basic urbanization infrastructures are highlighted in some peripheral regions. Despite the apparent organization of streets and blocks in most of Juba's urban areas, the development within each block is different from case to case. In some cases, the blocks are well organized in traditional buildings, while in other cases, it is created an inorganic development, with dense and informal neighbourhoods within the block.

In recently developed areas, the organic form is common (20% of the built-up areas), with meandering streets forming irregular blocks, growing from the standard urban form. These areas are relatively low density with less access to services and infrastructures. New settlements with extremely low population and built-up density are growing westwards, southwards, and along the Nile River, are growing due to the fast urbanization of Juba. The spontaneous settlements surrounding Juba lack a road network and any typology of services and infrastructures. In the city's northwest part, these settlements are denser and more structured and occupy the vacant land between the end of the "formal" city and the wetland areas.



**20%**

of city blocks follow an organic patterns. This morphology is used mostly in informal areas



**15%**

Of the urban populaion in South Sudan lives in Juba



Figure 34: Aerial image of Juba. Retrieved from South Sudan Investment Forum report, 2013.



## 4.8 Returnees, Refugees and IDPs Dynamics

During the second civil war, Juba was considered a relatively secure town within the Country, becoming a reference for displaced people within Southern Sudan and people from neighbouring countries. IDPs were allowed to settle temporarily in the land of people that had left the city, organizing different site camps. This included returning residents, newcomers and foreigners who have tried to settle in Juba several times but were forced to leave and return due to insecurity and political instability. Even after the CPA, many people have continued to arrive in Juba; given the fluctuation and the different typologies of migrations, the label IDPs, migrants, and returnees can be used as a reference but do not precisely explain the complicated dynamics of the people moving to Juba.

Some settled in the vacant land within the city or with friends and relatives, some in peripheral areas, and others in different IDP camps. In Juba, there are two major United Nations Compounds managed by the United Mission in the Republic of South Sudan (UNMISS), the Tongping site, located close to the airport and the UN House site, in the southeast peripheral area of the city. Since the beginning of the South Sudanese Civil War in December 2013, which ended in 2020, millions of people have been displaced around South Sudan, hundreds of thousands of whom have found shelter and protection at the bases of UNMISS in Juba and several other displacement sites spread in South Sudan. In 2014, 25,000 people lived at the Tongping Compound and 15,000 at the UN House. Following several showers of rain that resulted in flooding and overcrowding issues, in 2014, the Tongping IDPs site was closed. The people relocated to the UN House and other IDP camps spread within the city. In 2021, the UN House counted two camps: Juba IDP Camp 1, established in 2014, hosting over 7,000pp

### Refugee camps

Total IDPs	<b>62,350</b>
Total occupied land	<b>139 ha</b>
% of occupied land	<b>1.4%</b>
% of IDPs on Population	<b>15%</b>

Main reasons for Entry: **Safety, shelter and food**  
Main reason for leaving: **Education, returning home**

<b>UN House</b>	<b>31,412 [2021]</b>
IDP Camp 1	10ha 7,289 [2021]
IDP Camp 3	66ha 24,115 [2021]

<b>UNMISS</b>	<b>0[2021]</b>
Tongping	0 (25.500 in 2014)

<b>Collective sites</b>	<b>14,035[2021]</b>
Mangaten	6ha 5,640
Mahad	13ha 4,447
Don Bosco	20ha 3,948

<b>Other collective sites</b>	<b>16,903 [2021]</b>
Lemon Gaba	8,200
Gurei	1,950
Luri Joppa	1,674
Hai Vetari Center	2,880
Hai Referendum	495
Tongping	494
Hai Orselim	821
Atiabara	389

<b>Potential collective sites</b>	<b>15,620[2019]</b>
St. Thomas Parish	600
ADRA	5,000
Usratuna	2,500
St. J. Catholic Church	3,120
Gezira Island	500
St. T. Kator Church	2,800
All Saints Rejaf	800
Old UNHCT Way Station	300



**Biggest refugee crisis in the world and the biggest in Africa.**



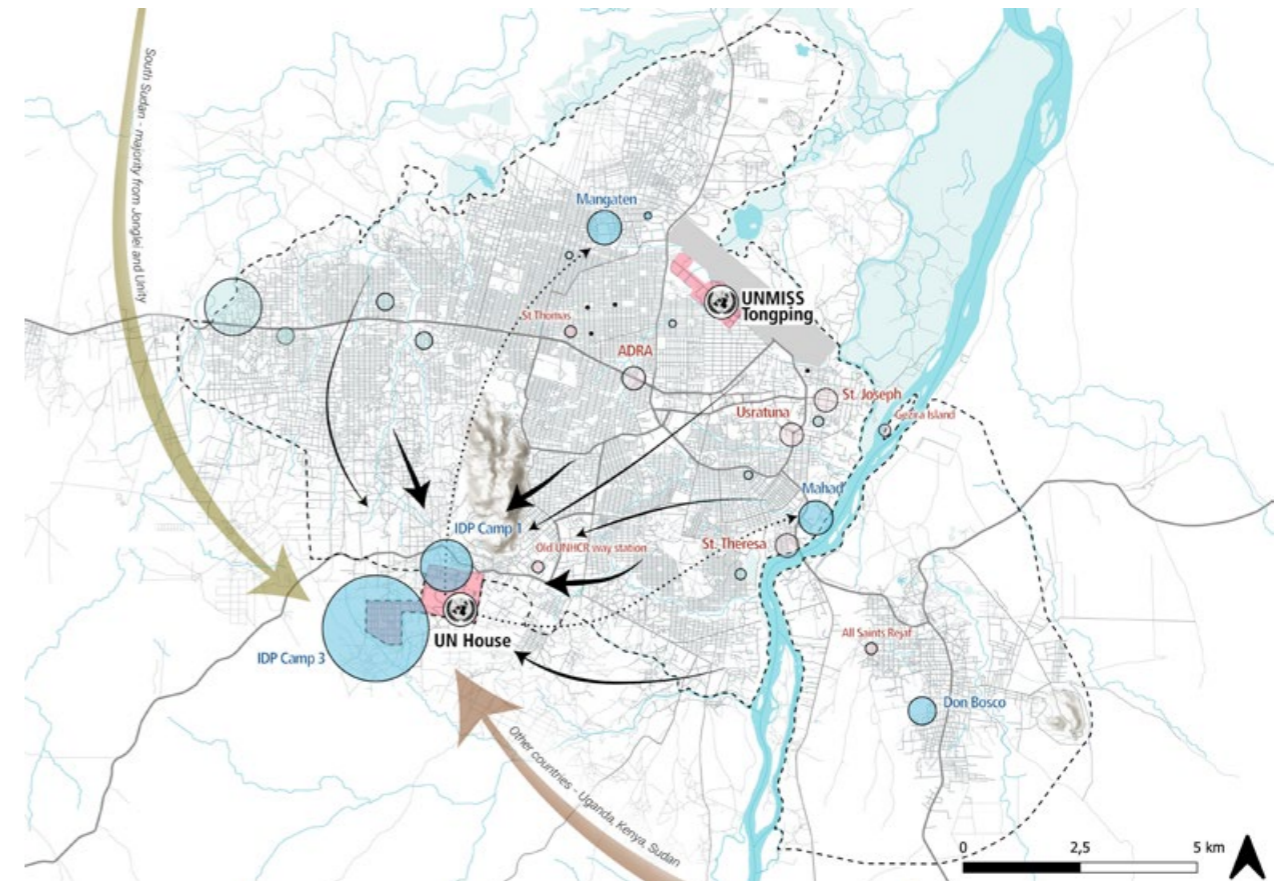
**Internally Displaced People, Refugees and Returnees** play an important role in the population dynamics of Juba

**“Most IDP camps in Juba have poor living conditions, overcrowding, and lack of access to basic services”**

People and Juba IDP Camp 3, established in 2013, hosts over 24,000 people. Apart from the UN official sites, the largest camp is the Mangateen IDP site, currently hosting around 5,000 people; it was a site that hosted a small number of people within the last decade, but after several ethnic tensions among residents, sub-groups, some have been relocated there. Another large camp is Mahad, close to the Nile riverfront.

Approximately 45,000-50,000 people live in the city's formal and informal camps, accounting for 12% of the population. Many other potential collective sites in Juba are being planned, hosting the growing IDP population arriving in the city.

Although the number varies throughout the years and according to each refugee camp, on average, 35% of the refugees come from Juba city or Juba County, 35% come from other areas of South Sudan, in particular from Jonglei and Unity and the remaining estimation of 30% from neighbouring countries, in particular Uganda, Kenya and Sudan. According to recent surveys, 57% of the registered population is below 18 years old, entering the camps mainly for safety reasons and finding shelter. After an average longer stay of more than a year, people leave the camps primarily to return home or for education.



Map 19: Population displacement and formal and informal IDPs Camps in Juba





Figure 35: UNMISS Protection of Civilian Site in Juba ©Jerome Starkey (Jerome Starkey), 2014



## 4.9 Mapping of Main Actors and International Humanitarian & Development Agencies

*“SDG 17 enhances the international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation”*

Since the Comprehensive Peace Agreement (CPA) was signed in 2005, South Sudan’s many international humanitarian agencies settled in the country, particularly in Juba, where most of them have their headquarters. In effect, most of the infrastructure in the city consists of several aid complexes built by the UN and other international agencies. Commonly, the different global agencies work in partnership among them for various implementation projects in SS and Juba. With these agencies and donor mapping, it is essential to understand where the proposed strategies for the Strategic Plan of Juba can fit and find partners or donors for the project’s implementation phase.

### Camps Coordination and Camp Management Strategy in Juba:

The objective of Camp Coordination and Camp Management (CCCM) is to ensure equitable access to assistance, protection, and services for internally displaced persons (IDPs) living in displacement sites, to improve their quality of life and dignity during displacement while seeking and advocating for durable solutions.

The Global CCCM Cluster Support Team is comprised of staff from both IOM and UNHCR, with ACTED as the INGO co-coordinator. A wide range of skills including Coordination, Information Management, Protection and Capacity Building. The role of the team is to support CCCM initiatives in South Sudan and Juba city, and to provide support and guidance to field-level CCCM Clusters.

### Japan International Cooperation Agency:

JICA has supported the development of South Sudan since before its independence. After opening its office in Juba, JICA has worked in partnerships with the Government of South

Sudan for the peace and development of the country. Currently, JICA is implementing its programs in four focus areas:

### Improvement of Basic Economy and Social Infrastructures:

- Construction of “Freedom Bridge” in Juba
- Improvement of water supply system of Juba
- Capacity development on solid waste management in Juba

### Development of Alternatives Industries:

- Comprehensive agricultural development master plan
- Irrigation development master plan
- Smallholder horticulture empowerment and promotion

### Improvement on Basic Living and Livelihood:

- Basic Skills & Vocational Training
- Strengthening education systems and facilities
- Knowledge co-creation program and ABE

### Strengthening Governance and Security:

- Capacity development of SSTV and radio
- Peace and unity through sports
- Support to different gender initiatives

### Norwegian Refugee Council (NRC):

NRC operates through mobile and static modes of responses. In South Sudan, NRC co-leads the protection, shelter/NFI and WASH clusters at the national level. Through the humanitarian conflict lens, NRC provides conflict and context analysis to all humanitarian actors, donors, and diplomatic missions in South Sudan and Juba to inform the humanitarian response. NRC is a Strategic Advisory Group (SAG) member of education and protection clusters. In addition, NRC has leadership in housing, land and property (HLP) rights and durable solutions related HLP thematic components that address opportunities for durable solutions in South Sudan. The NRC main focus areas are:

### Information, Counselling and legal assistance:

- Information and awareness on housing, land and property (HLP) rights, legal Identity (LID) entitlements and processes and employment laws and procedures (ELP) to communities
- Capacity building and systems strengthening to relevant stakeholders and institutions, to provide and improve services to communities on HLP, LID, ELP
- Help to resolve conflicts over land to promote peaceful coexistence in communities
- Support to displaced people to secure important legal documentation to access essential services and promote livelihoods
- Technical support to relevant government agencies responsible for HLP policy

### Livelihoods and Food Security:

- Support farmers and fishermen with livelihoods through trainings on agricultural production and fisheries, post-harvesting, business management skills and start-ups
- Community-led natural resource management, disaster risk reduction, and climate change adaptation

### Shelter and Settlements:

- Provide emergency shelter assistance and essential non-food items (NFI) in remote hard-to-reach areas
- Orient people on the use of the transitional shelter/ NFI kits received
- Construct temporary learning spaces (schools and classrooms) that are appropriate to the local context

### Water and Sanitation (WASH):

- Emergency WASH assistance in remote hard-to-reach areas
- Safe drinking water supply and sanitation facilities and sustainability of the systems at community level
- Safe disposal of human waste
- Prevention of water- and waste-related diseases through the adoption of safe and hygienic practices
- Clean water, latrines and handwashing stations at school

### USAID:

USAID integrates humanitarian and

*“The objective of Camp Coordination and Camp Management (CCCM) is to ensure equitable access to assistance, protection, and services for internally displaced persons (IDPs) living in displacement sites, to improve their quality of life and dignity during displacement while seeking and advocating for durable solutions”*



**“UNHCR has built partnerships with governmental, humanitarian, development and peacebuilding actors to provide multisectoral assistance. This includes protection, education and livelihood support to refugees, IDPs, returnees and their hosting communities in seven states in South Sudan.”**

development assistance to promote household and community resilience, putting communities at the center of the development process to address their own challenges and develop resilience to future shocks. Our strategy focuses on delivering multifaceted assistance to 13 of South Sudan’s most vulnerable and hard-to-reach counties in five of South Sudan’s ten states (Northern Bahr El Ghazal, Unity, Upper Nile, Jonglei, and Eastern Equatoria). USAID assistance to the people of South Sudan is delivered through non-governmental organizations, UN agencies, and private-sector partners that USAID selects through competitive, publicly advertised processes.

**USAID main focus areas and programmes are:**

- Agriculture and food security
- Economic growth and trade
- Education, youth, gender and women’s empowerment
- Global health
- Water and sanitation
- Crisis response

**UKAID:**

UKAID was funded by the former Department for International Development (DFID), now Foreign, Commonwealth & Development Office (FCDO), UK Aid Direct supports small and medium sized civil society organisations (CSOs), based in the UK and overseas, to achieve sustained poverty reduction and to achieve the United Nations’ Global Goals. In South Sudan UKAID has 13 active projects with different implementig partners.

**The main focus areas of projects and programmes are:**

- Humanitarian response and strengthening resilience, particularly in the area of food security
- Basic services in health and education, supporting the most vulnerable, especially women and girls
- Focused work on governance where we can support reconciliation and peacebuilding
- Underpin all programmes with a strong focus on conflict sensitivity

**The Swedish International Development Cooperation Agency:**

In South Sudan, Sida implements international cooperation projects to contribute to the country’s long-term development. Furthermore, it also provides humanitarian assistance to save lives and alleviate suffering in emergencies. In summary, Sida acts in two fields: development cooperation projects and humanitarian support. It currently has many active programmes playing a vital role as the leading donor with several implementing partners in the field.

**Development Cooperation Projects:**

- Peace and community cohesion project (PaCC) with UNDP as implementing partner
- Economic empowerment of women projects with UN Women as implementing partner
- Improving education quality, schools are renovated to provide water and sanitation

with Save the Children as implementing partner

**programmes are:**

- Shelter and basic services provision
- Water, sanitation and hygiene (WASH)
- Food security strenghten
- Health and nutrition
- Livelihoods and the environment

**Humanitarian Support Projects:**

- Clean water and legal assistance with NRC as implementing partner which provides shelter, improvement of access to clean water, sanitation and hygiene, also , improves food security and access to livelihoods, provides information, counselling and legal assistance.
- Regional support for refugees and IDPs, with UNHCR as implementing partner provides support to different projects related to returnees, refugees and IDPs.
- Water and Sanitation for Refugees, with Islamic Relief (IR) as implementing partner, works to improve assistance to conflict-affected and returning internally displaced persons and to enable host communities to recover. The assistance focuses on clean water, toilets and sanitation, food access, health and nutrition.

**IOM South Sudan:**

IOM works to help ensure the orderly and humane management of migration to promote international cooperation on migration issues, assist in the search for practical solutions to migration problems and provide humanitarian assistance to migrants in need, including refugees and internally displaced people. Particularly in SS, IOM leads intergovernmental organizations in the field of migration and works closely with governmental, intergovernmental and non-governmental partners. IOM activities that cut across these areas include promoting international migration law, policy debate and guidance, protection of migrants’ rights, migration health and the gender dimension of migration.

**UNHCR South Sudan:**

Under the Refugee Coordination Model, UNHCR has built partnerships with governmental, humanitarian, development and peacebuilding actors to provide multisectoral assistance. This includes protection, education and livelihood support to refugees, IDPs, returnees and their hosting communities in seven states in South Sudan. UNHCR is working towards development-focused solutions for refugees and returnees. South Sudan continues to be on the frontline of today’s climate crisis and has been heavily impacted by flooding and food insecurity.

**The main focus areas of projects and programmes are:**

- Improve protection; provide direct assistance and enable the assisted voluntary return of migrants stranded along the migration routes
- Support the reintegration process of returning migrants in an integrated approach which addresses economic, social, and psychosocial dimensions and fosters the inclusion of communities of

**“SDG 17.H Encourages and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships”**



**“The overarching aim of UNDP is to support the progress towards peace and reconciliation, early recovery and governance, and the new Sustainable Development Goals (SDGs). UNDP’s goal is to help creating more resilient communities and reinvigorated local economies; strengthening peace and governance; and empowering women and girls.”**

return

- Enable migrants and potential migrants to make informed decisions about their migratory journey and sensitize their communities on migration
- Strengthen migration data and communication on migratory movements as well as on needs and vulnerabilities of migrants in order to support evidence-based policies and programme design
- Strengthen capacities of state- and non-state actors in protection and migration governance
- Contribute to the stabilization of communities at risk by revitalizing the local economy, improving access to basic socio-economic infrastructures, and attempting to strengthen social cohesion

**UNDP South Sudan:**

Since the conclusion of the Agreement on the Resolution of Conflict in August 2015, UNDP aims to work in partnership with the Transitional Government of National Unity, non-governmental organizations, civil society organizations, community-based organizations, multilateral aid agencies, bilateral donors, academia, media and the private sector. The overarching aim of UNDP is to support the progress towards peace and reconciliation, early recovery and governance, and the new Sustainable Development Goals (SDGs). UNDP’s goal is to help creating more resilient communities and reinvigorated local economies; strengthening peace and governance; and empowering women and girls.

UNDP South Sudan aims to do this by supporting the Government to manage public

finances in an environment of respect for the rule of law, with an accountable government to deliver inclusive economic growth. It also partners with different UN Agencies and international cooperation agencies for project implementing in South Sudan and Juba.

**The main focus areas of projects and programmes are:**

- Human development and inclusive growth
- Democratic governance and stabilization
- Community resilience
- Youth and gender
- Different thematic funds

**UNEP South Sudan:**

UNEP has been active in South Sudan since 2009, engaged in creating and developing environmental awareness on a national scale to support the government and the people of South Sudan. UNEP has a well-established partnership with the Government of South Sudan, and works closely with the Ministry of Environment and the Ministry of Agriculture, Forestry, Cooperatives and Rural Development.

UNEP led the “Juba Clean and Green” campaign in 2010 which made major headlines in South Sudan and helped to put environmental issues on the agenda of the government, the UN community and the citizens of Juba, the capital and the largest city in the country. UNEP, in partnership with the Food and Agriculture Organization and in collaboration with the Ministry of Energy, Dams, Water Resources & Irrigation, and the Ministry of Environment, Government of South Sudan, has also recently released five

new publications, addressing issues of water harvesting and aiming to reduce conflicts between communities for water during the dry season. UNEP remains committed to working with the Government of South Sudan to help ensure the country’s sustainable development into the future. UNEP’s work in South Sudan is currently funded by the Norwegian Agency for Development Cooperation (Norad).

**The main focus areas of projects and programmes are:**

- Environmental governance
- Community management of natural forests
- Solid waste management

**FAO South Sudan:**

Within the global FAO structure, FAO in South Sudan falls under the Emergency Operations and Rehabilitations Division (OER). In South Sudan, FAO has a lead role in the coordination and monitoring of humanitarian interventions in South Sudan’s agriculture and livestock sectors in addition to collecting, analyzing and disseminating high quality up to date information on food security, nutrition and natural resources.

In addition, FAO is the designated lead of the emergency oriented Inter Agency Standing Committee (IASC) Food Security Cluster and is responsible for ensuring well-coordinated and effective livelihood interventions. FAO’s emergency and development interventions in South Sudan aim to support and build resilient agriculture-based livelihoods. Through the Emergency Livelihood Response Programme.

**The main focus areas of projects and programmes are:**

- Agricultural Markets, Value Addition and Trade Development Project (AMVAT)
- Enhancing Women’s Access to Land to Consolidate Peace in South Sudan
- Creation of Urban Food Markets in Juba
- Emergency Livelihood and Resilience Programme South Sudan
- Humanitarian Response and Resilience in South Sudan (HARRIS)
- Sustainable Agriculture for Economic Resiliency (SAFER)

**UNOPS South Sudan:**

UNOPS South Sudan in partnership with other international agencies is helping to drive sustainable development, enhance connectivity, provide critical and life-saving services and supplies, and improve peace and security for the nation. Furthermore, it helps to strengthen the capacity of local institutions and supports the provision of critical social services and community development initiatives helping to address deepening vulnerabilities and strengthen community capacity to lead in local development efforts.

**The main projects and programmes are:**

- Construction and rehabilitation of 500km of roads, as well as bridges, health centres, universities, primary schools, and education training facilities
- Feasibility study project to implement a water transport system in the White Nile River with the construction of different ports including Juba
- Basic services delivery such as clean water points, pit latrines, health cares

**“UNOPS South Sudan in partnership with other international agencies is helping to drive sustainable development, enhance connectivity, provide critical and life-saving services and supplies, and improve peace and security for the nation.”**



#### 4.10 Juba Previous Land Use & Sectoral Plans

Since 2008 the Japan International Cooperation Agency (JICA) has been working in partnership with the Government of South Sudan for the peace and development of the country. Moreover, to achieve this objective JICA implementing programs have focused in four areas:

- 1.-Improvement of basic economy and social infrastructure.
- 2.-Development of alternative industries.
- 3.-Improvement of basic living and livelihood.
- 4.-Strengthening governance and security.

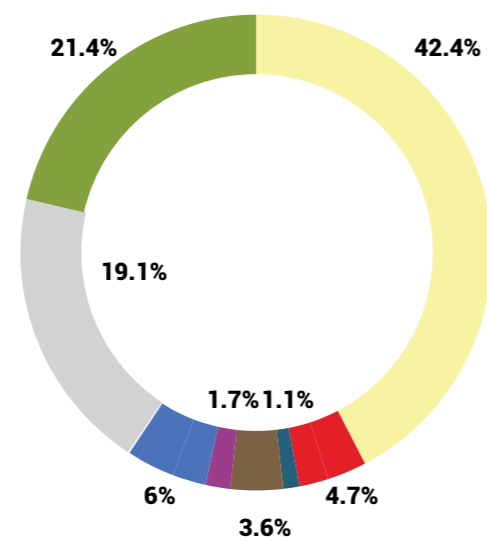
Within this program, JICA elaborated a Land Use Plan proposal for Juba in 2009, which was never officially approved, as well as different sectoral plans (water, sewerage, electricity, roads infrastructure & urban mobility) for the city. The proposed Land Use Map attempted to manage the future population growth providing enough land resources to allocate different functions and activities within the city. According to JICA's projections, by 2015 Juba's population would be 510,000 pp but in 2022 the current population is approximately 403,000 pp.

The Master Plan recommended directing the new city's urban development into the South (Kator area) and North-West (Munuki area) of Juba. As specified in the development strategy report, the North area of the city was recommended not to be developed due to the extensive wetlands and agricultural areas that could be prone to flooding. The Juba International Airport was also considered a physical obstacle preventing the urban continuity of the city into the Northern area. Furthermore, development to the West was considered highly costly due to the existing topography conditions and the difficulty of allocating basic services such as water

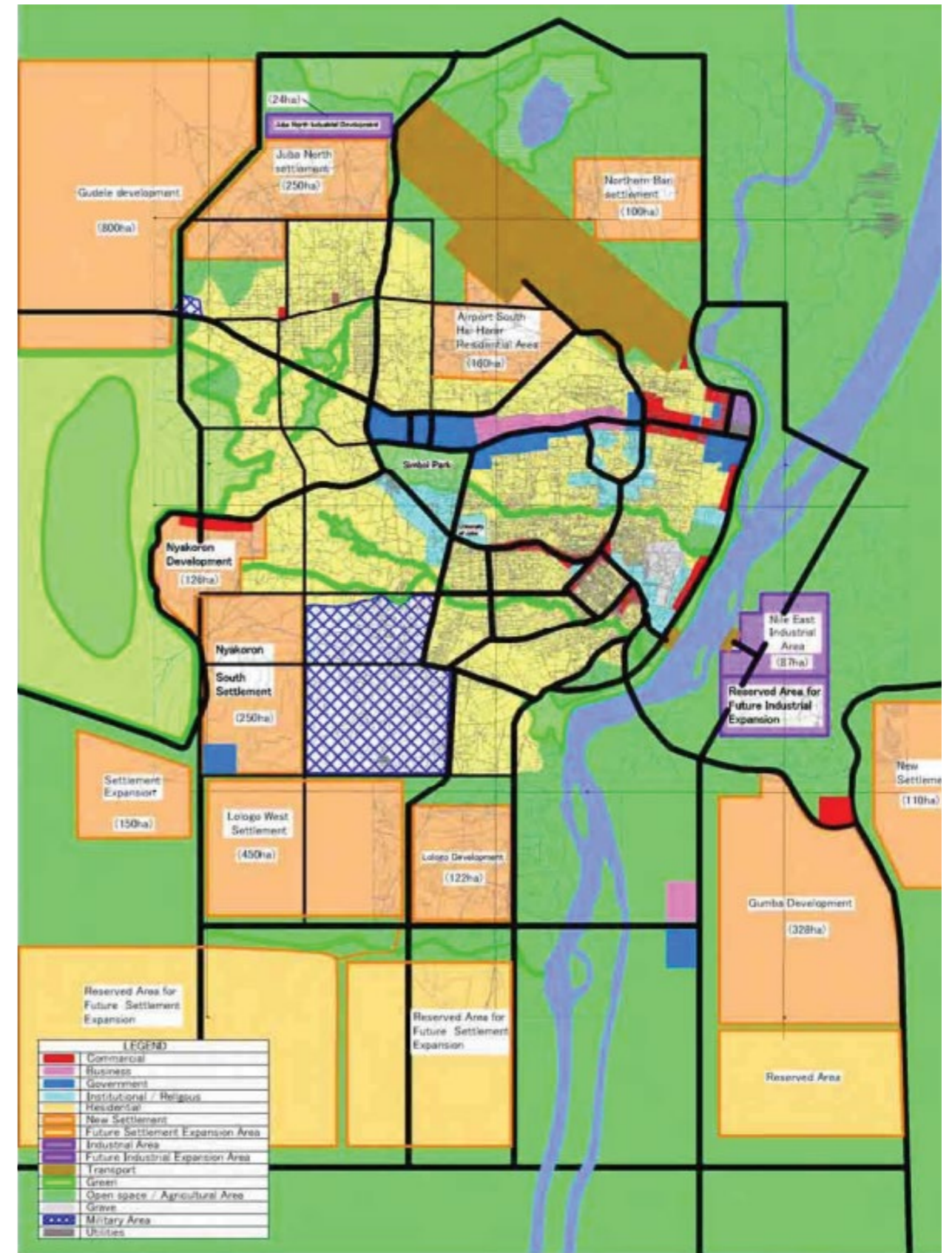
and sewage networks. In summary, the recommended directions for urbanization were those to the North-West, South and South-West of Juba. In addition to the above features, a new industrial area was proposed to be developed into the East, at the other edge of the White Nile River in Rajaf area. The International Juba Airport was also proposed to be relocated to countermeasure the noise issues, improve the passenger capacity and maximize the land potential.

Although the JICA Land Use Plan provided several reasonable measures and development ideas, the main element of consolidating a comprehensive and cross-scalar vision proposal for Juba's future sustainable development was missing. The proposed development model by JICA did not encourage the consolidation of a compact city. On the contrary, it proposed to increase the town's urban extension to almost double the existing urban area. Which in the long term would have provoked more urban sprawl and maintained low density in the existing and

*“The different proposed Master Plans in the past have failed to provide a strategic vision which addresses Juba’s urban and social complexities, endangered ecologies, and exponential urban growth”*



\*Land Use allocation percentages proposed by JICA's Plan for 2015.



Map 20: JICA proposed Land Use Plan for Juba (2015)



Furthermore, the plan did not consider the environmental dimension nor a management plan for the different water bodies, urban rivers, and seasonal streams, which are the main element to analyse regarding cholera and waterborne disease outbreaks that shock the city every raining season. This was not included in the final proposal. The potential for agriculture suitability and the management of the existing green areas as public spaces was also not contemplated.

**The Sectoral Plans for Juba:**

To complement the Land Use Plan proposal, JICA also elaborated a set of different sectoral plans that included power supply, water distribution, sewerage network, waste management system and transport infrastructure for the city. It is important to mention that the analysis elaborated was extensive, complete and comprehensive. The project proposals for the different sectors were well-grounded and developed. Unfortunately, the impact of these ambitious proposals to improve Juba’s social and physical infrastructure has been minimal.

Although the sectoral plan’s impact has been less than expected, several small achievements have been accomplished by effectively implementing various pilot projects in different city areas. For instance, the waste management pilot project in Munuki area, the roads infrastructure renovation and the freedom bridge construction, also several public facilities restoration, and the installation of water and sanitation networks.

**The Juba Master Plan elaborated by the Ministry of Lands, Housing and Public Utilities of Central Equatoria State (2021):**

Juba’s latest Master Plan was shared during the Stakeholder Workshops that UN-Habitat organized in 2022 in Juba. The plan has not been officially approved and is still not considered

a final version or proposal. Although the Land Use Plan provides clear zoning areas and a plot sub-division structure for the formal and informal areas of the city, it has different relevant elements missing on it, particularly in regards to water bodies management and flooding risk, environment, public space, density, compactness, spatial integration, and social and population dynamics.

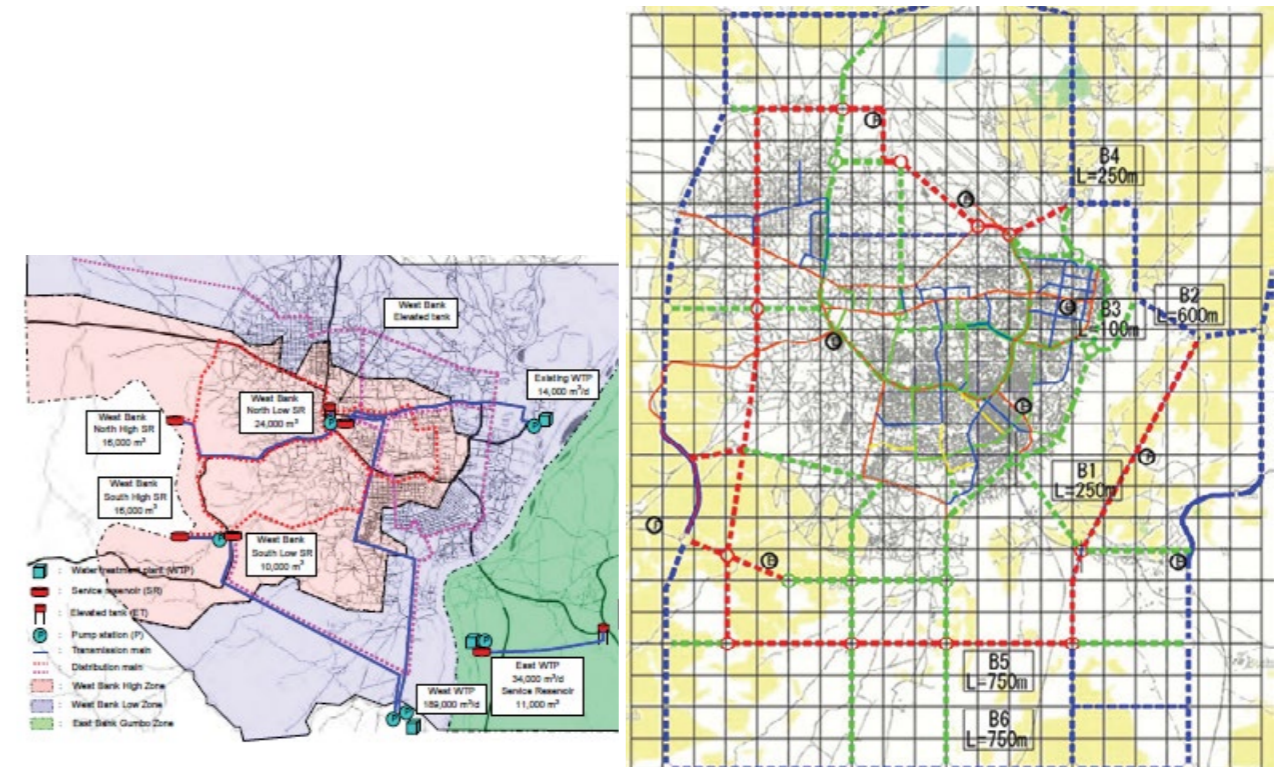
Moreover, the direction of urban growth is pointed towards the East of the city, encouraging development in a new metropolitan area more extensive than the current existing city footprint. Additionally, it increases the distances, promoting people’s commute around the city and incrementing the vehicle traffic. The problem with this expansive development model is that, in most cases, it is not very efficient regarding land management, population density and basic services provision.

The second main issue with this proposal is that when a city is conceived according to a master plan aimed at a single final result, which is the case, it limits the city’s capacity for change and adaptation, which creates non-resilient cities, diminishing the ability to adapt. Master plans like this are frequently obsolete before the county or municipality even approves them. A Land Use Plan should not be designed as a final image, but rather it should consolidate a spatial vision for the future and a solid framework that enables adaptation to several variables, including; demographic, economic, environmental, health and infrastructure.

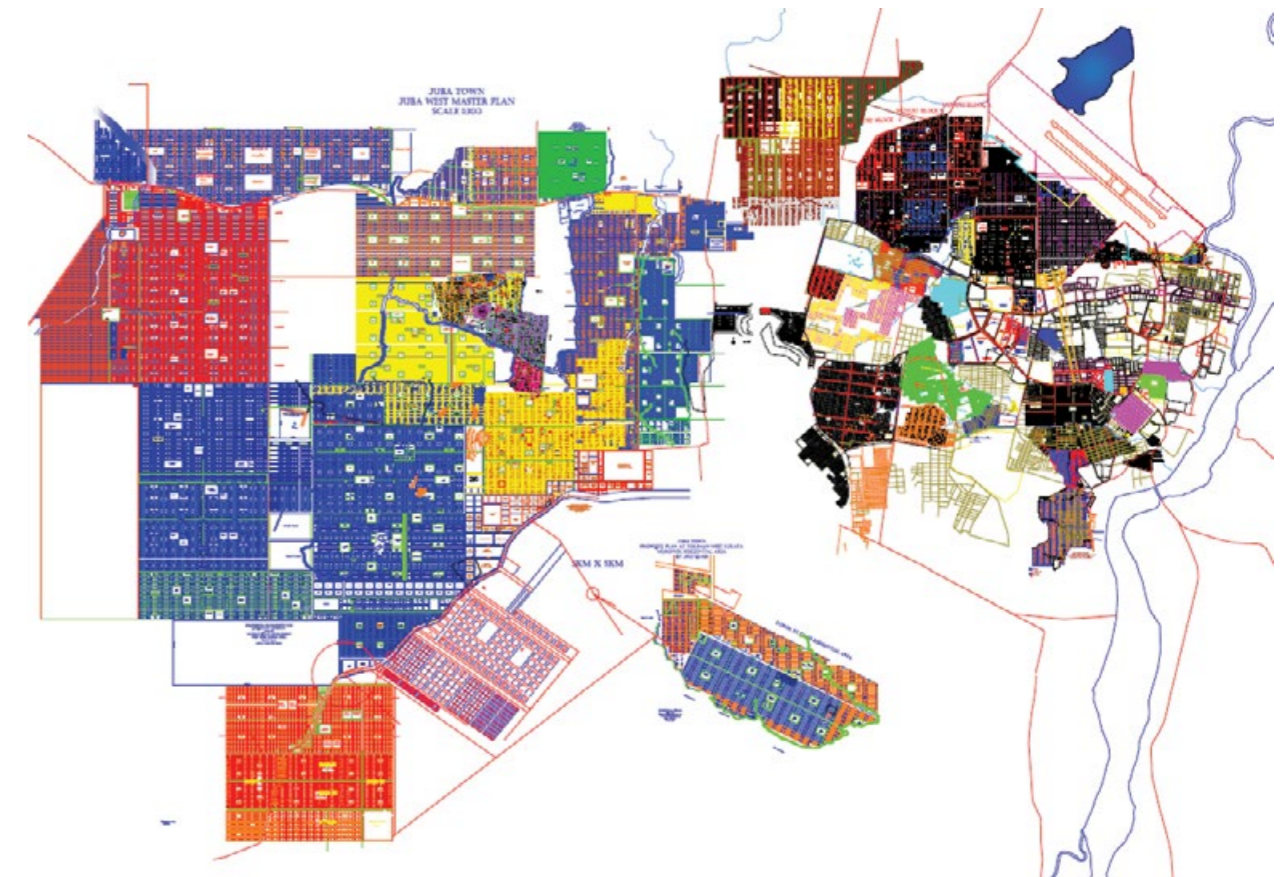
**Challenges on Land Use Plans Implementation:**

According to USAID Land-Links Report published in 2019, although South Sudan has made significant progress in establishing a comprehensive legal framework for land and natural resources. The government needs assistance in addressing chronic gaps and

*“A Land Use Plan should not be designed as a final image but rather it should consolidate a spatial vision for the future and a solid framework that enables adaptation to a number of variables, including; demographic, economic, environmental, health and infrastructure”*



Map 22: Sectoral Plan for water infrastructure and new roads elaborated by JICA , 2011



Map 21: Proposed Master Plan for Juba elaborated by the Ministry of Lands, Housing and Public Utilities of CES, 2021



pressure points, establishing necessary governance bodies at all levels, and developing mechanisms for control and enforcement of rights. Donors can assist the government by supporting the enactment of draft policies and bills; clarification of rights to land held by government at all levels, communities and individuals; capacity development of the South Sudan Land Commission to make informed decisions about coordinating natural resources, urbanisation, agricultural development and formal/informal settlements.

Once the Comprehensive Peace Agreement (CPA) was signed in 2005, there were a lot of high hopes for the future of Juba, resulting in the conduction of multiple field research projects to guide the development of the city and the country. Particularly concerning the urbanization of Juba, there was the creation of an Urban Plan commissioned by the Japanese agency JICA, and there was also the drafting of a Land Regulation and Policy Act. However, South Sudan's public institutions have not had the human nor financial capacity to implement policies and projects therefore, neither of these documents have had any significant impact. (Salgado, 2016)

#### 4.11 Land Governance at Local Level

On the local level, according to the Land Act (2009) the State Ministry of Lands and Physical Infrastructure sits above the County Land Authority and the Payam Land Council. The CLA is formed by the state governor per decree, and the PLC is formed by the county commissioner. The CLA and PLC existed in a selected few of the former 10 states prior further devolution, but according to Shelter NFI Cluster South Sudan Report, none of these has been formally established in any of the States. Hence, they are largely irrelevant to the day-to-day management of Land issues.

Key institutions on the local level are instead:

**County Authority:** Headed by government appointed Commissioner and Paramount Chief and supported by the administrative post of Chief Executive Officer. The Commissioner is among the most powerful actor regarding land administration and can make unilateral decisions regarding plot class IV. "Paramount Chiefs used to be elected, but now the Commissioners appoint anyone they want for the role.

**Payam Authority:** Overseen by a politically appointed Payam administrator and Head Chief.

**Boma Authority:** Overseen by politically appointed Boma administrator and Sub Chief.

**Village:** Headed by the community-elected Headman.

**Municipality/City Councils:** Headed by the Town/City Mayor (politically appointed) and Chief Executive Officer (administrative position). The role of Town Mayor (always a political appointee) is a new institution. Wau Municipality, Bor Municipality and Juba City Council have a dedicated position of Deputy Mayor of Land Affairs. In interviews, Bor and Wau Municipality officials maintained their joint authority over land registration and allocation within their jurisdiction, and sole authority over surveying and allocation of Plot Class IV. The 2009 Land Act however makes no mentioning of Municipality or City Council and their respective role with regards to land administration.

**Town Block Councils:** Forum to bring together all Town Block leaders regarding issues pertaining to urban service delivery, land demarcation initiatives etc.

**Town Blocks:** Town Block leaders are appointed directly by the Ministry of Local Government

*"On the local level, according to the Land Act (2009) the State Ministry of Lands and Physical Infrastructure sits above the County Land Authority and the Payam Land Council."*

#### 4.12 Land Classes & Tax Rates

The land class system divides greater Juba into three sub-area districts: Juba, Kator and Munuki. These districts operate under three separate administrations. Land Class areas are characterized by plot dimensions, land fees and taxes, and the quality and permanence of building materials. Although there were originally four distinct classes, Class 4 is being dated out to encourage land ownership and discourage temporary construction. The process of land registry is managed by the Court system. Juba has no Master Plan nor Land Use Plan. According to the USAID Juba Assessment Report, building permits are issued by a Review Board in the Juba Administrative Unit and is comprised of representatives from various municipal departments.

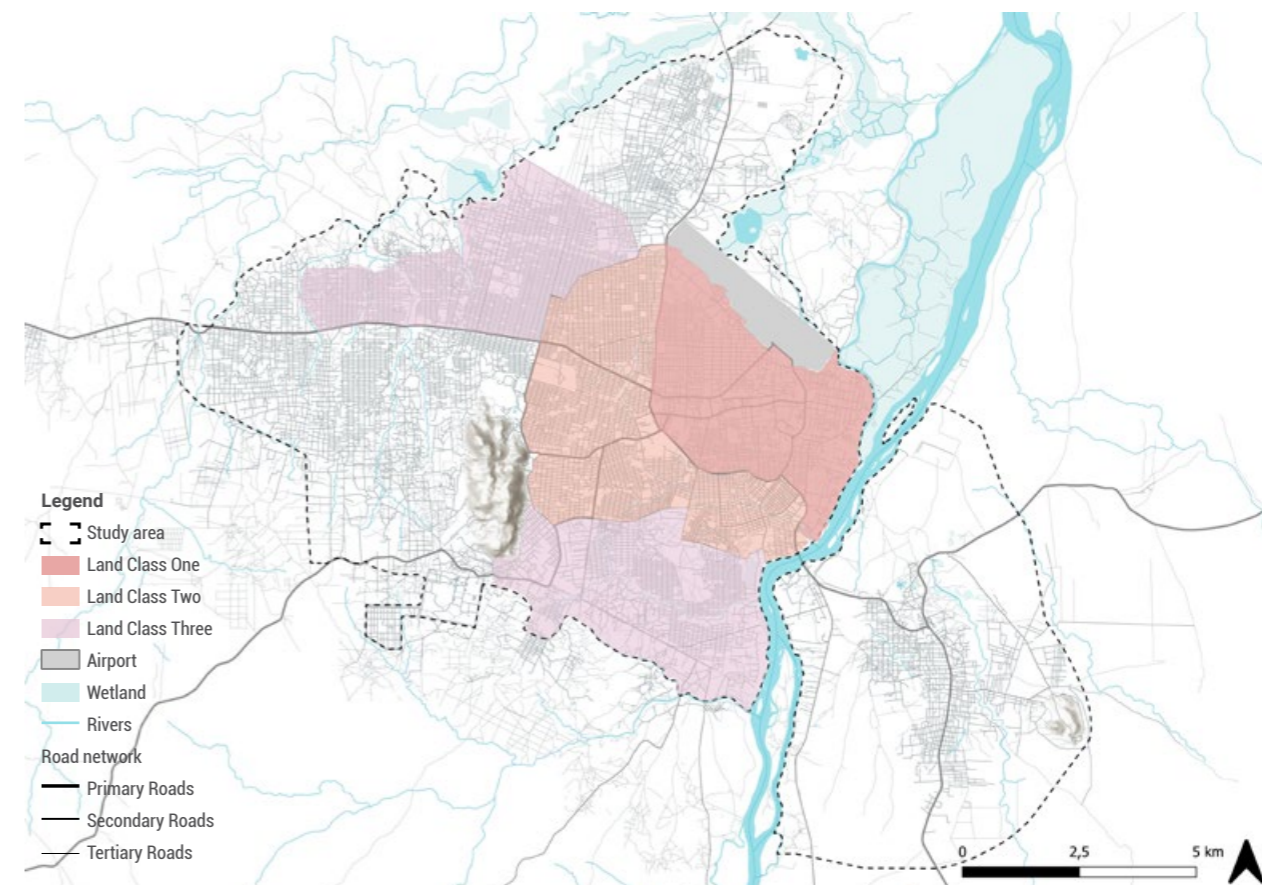
Land Class Characteristics:

**Land Class One:** Average population density 128 pp/ha. Usually built with permanent materials and has good accessibility to basic services and infrastructure. Typical parcel size is 25 x 25 meters. Has the highest taxation rate, hence the highest land value in the city.

**Land Class Two:** Average population density 200 pp/ha. Usually built basic construction materials and has accessibility to some basic services. Typical parcel size is 20 x 20 meters. Has a medium taxation rate, hence a medium land value.

**Land Class Three:** Average population density is 266 pp/ha. Usually built with temporary and low quality materials. Typical parcel size is 20 x 15 meters. Has the lowest taxation rate in the city, hence the lowest land value.

*"The land class system divides greater Juba into three sub-area districts: Juba, Kator and Munuki. These districts operate under three separate administrations."*



Map 23: Juba land classes system (Source: USAID Juba Assessment Report on Town Planning & Administration, 2005)



### 4.13 Juba Financial Analysis & Revenue System

There are serious overlaps and conflicts between the distinct levels of governments regarding tax collection and services fees. The local legislation does not provide enough clarity in conflicts between branches of governments. Furthermore, data and revenue transparency is poor apart from having an excessive complexity for such a fragile system. Complex tax systems are difficult and costly to manage, requiring a high-level of training for government officials, which is an extra expenditure for the local governments. In regards to that, complex tax system are often associated with high levels of evasion and corruption.

According to the World Bank, a number of international organizations operating in Southern Sudan and Juba City, are addressing a variety of issues related to fiscal decentralization. Bearing Point/USAID (now Deloitte) has been associated with the GoSS Revenue Directorate over the past three years and has assisted the government to formulate the recently passed Taxation Act of Southern Sudan. The African Development Bank, in association with GoSS and state and local governments in the south, recently completed a study of the administration and collection of non oil revenues at the GoSS, state and local level. In addition, UNDP is associated in the general area of strengthening administrative support for revenue mobilization because they provide training and ground level support to states and to local governments in the area of budgeting and planning.

#### The Local Government Act (2009):

Section 6 of the Act says that local government is the third level of government in Southern Sudan which consists of a number of autonomous local government Councils. The establishment of Local

Government Councils (LGCs) shall be based on the principles of decentralization and democratic local governance that demands the devolution of authority and power to the level of government closest to the people. [Section 6 (b)].

This legislation goes only part of the way toward laying a foundation for the progressive reform and professionalization of the revenue system, and does not yet ensure the vision of an effective, efficient and transparent revenue administration.

Section 12 adds to the generalized intentions of the law and the constitution when it delineates the objectives of local government in Southern Sudan. Among these objectives is the requirement to promote self-reliance amongst the people through mobilization of local resources to ensure the provision of services to communities in a sustainable manner. [Section 12 (6)] In Section 15 the local government bill indicates that one principle that shall guide the devolution of authority to local governments in Southern Sudan is the development of the political will in Southern Sudan for the assignment of local sources of revenue by law to local government authorities. [Section 15(2)(d)].

#### Local Taxes:

The legislation provides greater specificity when it enumerates sources of own-revenues for local governments in Southern Sudan in Section 110 of the bill. Specifically, the bill says that local revenues shall be generated through the imposition of levies on local taxes and local rates and through raising funds from community contributions, grants, loans and earnings from local businesses. These sources are explicitly listed to include:

*“Complex tax systems are difficult and costly to manage, requiring a high-level of training for government officials, which is an extra expenditure for the local governments.”*

- Property tax, social service (head) tax, land tax,, animal tax, gibana tax, sales tax, hut tax, capital gains tax, ushur tax, contract tax.

According to the World Bank, this schedule provides clear authority to include any of these local taxes in the revenue plans of any local authority, without obliging the authority to utilise all of them. It appears also to preclude a higher authority, such as a state or county from preventing a lower level such as a payam from utilizing any or all of the set of authorised revenue sources. It does not, however, prevent two or more levels of authority from utilising any of them simultaneously.

#### Land Valuation for Tax Purposes:

There is no system for land or property tax based on market values in Juba. Household taxes are probably the revenue source most closely related to a property tax. However, household tax rates are calculated according to the size, class and location of the plot in question and do not take into consideration the property value as would a land or property tax. Rates typically range from \$6 USD to \$18 USD per square meter, with larger plots and those located closer to urban centers typically taxed more heavily. Such taxes are generally considered to be regressive and limited in their ability to mobilize revenues at the local level.

*“There is no system for land or property tax based on market values in Juba. Household taxes are probably the revenue source most closely related to a property tax.”*



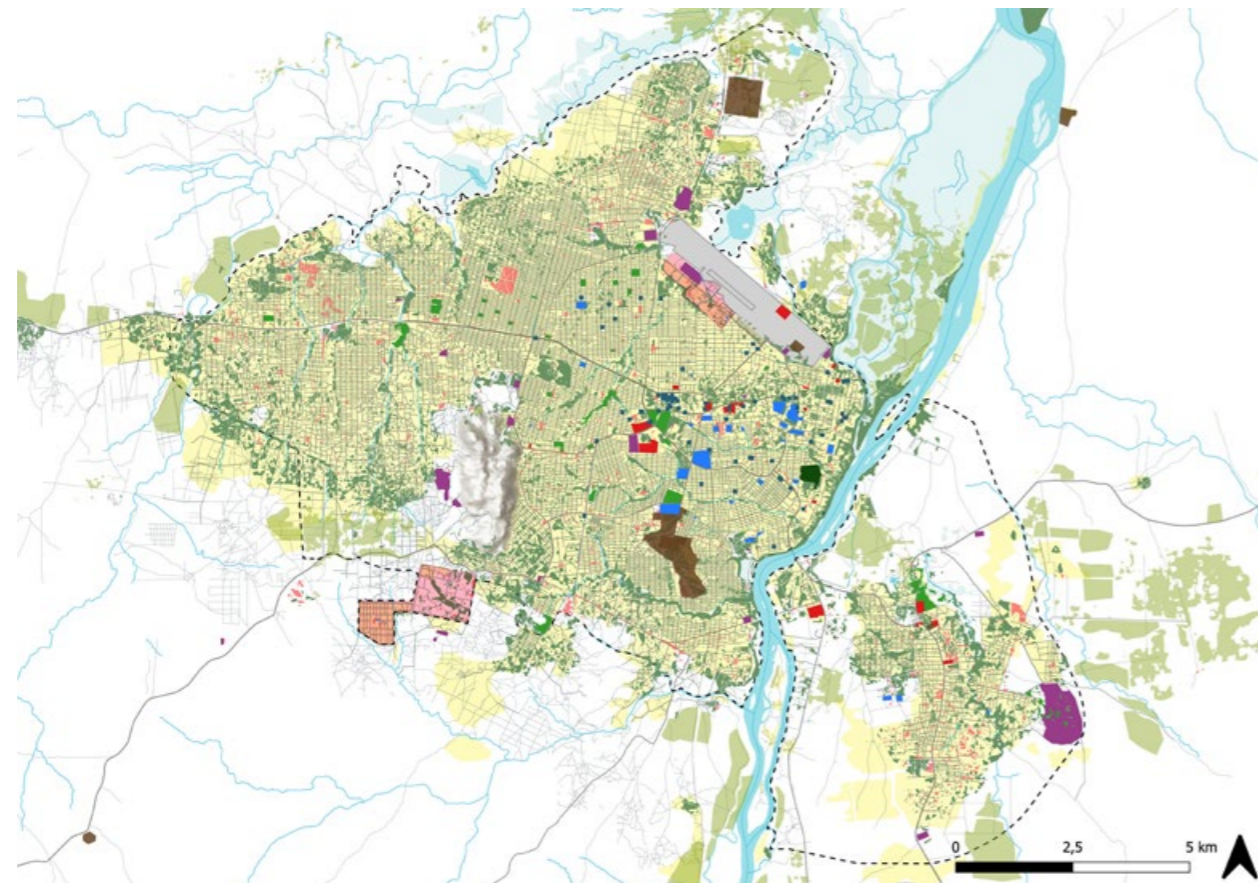
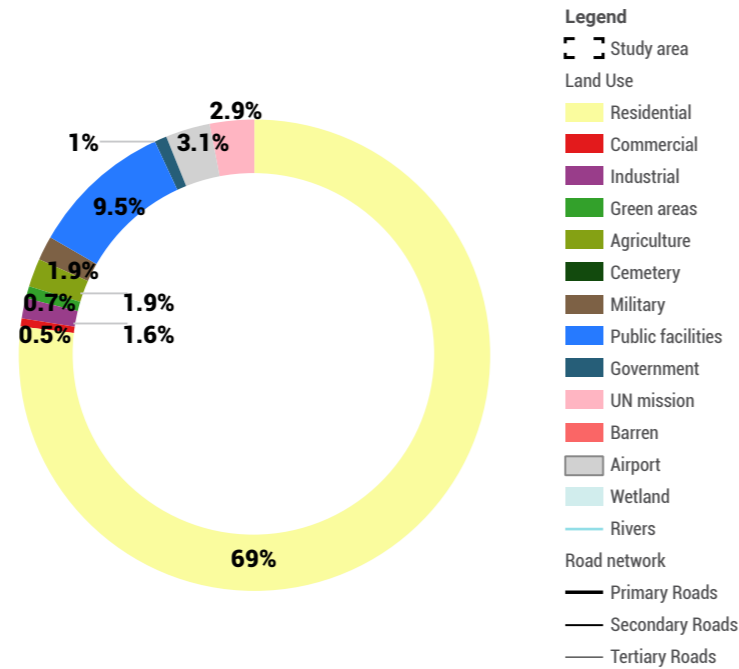
Figure 36: Land registry in Juba. UNMISS ©Isaac Billy/UNMISS, 2017



#### 4.14 Existing Land Use

The city currently operates without a proper land use plan. The last master plan was elaborated by JICA in 2005, with the effort to establish a proper land's management of system and the city's future expansion. However, this plan had very little impact due to the lack of a clear legal framework and the low planning capacity in the city.

Juba is mainly a residential city with 69% of the land allocated to that single-use, lacking proximate access to amenities and commercial facilities and jobs. However, there are some informal commercial zones and mixed land use located along the city's major arteries. Due to the lack of a land-use zoning system and legal regulations, most of these areas also have a low-density



Map 24: Juba current land use

population. Most of these residential areas can potentially increase the population density to re-distribute people's accessibility to services, jobs, and infrastructure. The land for proper commercial use represents only 0.5% of the total, and the industrial land a 0.7%, creating a functioning imbalance.

The limited interactions between different sectors provoke a negative impact on job creation and the economic dynamic of the city, as well as in the financial sector. Juba inherited the old colonial administration system of dividing residential areas into four classes according to the socio-economic status of the inhabitants. Classes 1 to 3 are for formal housing, while class 4 areas are for temporary shelters, although a class 4 area

can be upgraded. Currently, the urbanized area covers approximately 101 km<sup>2</sup>, with residential areas covering more than 75% of the land, making Juba a monofunctional city without a proper diversification of services and uses. Juba Payam is mainly composed of Class 1 plots, and most of the different land uses of the city are located in this area. At the same time, Kator and Muniki are mainly residential areas, except for some commercial and governmental areas. The remaining portion of the city in Rejaf, Gondokoro and Northern Bari are almost exclusively residential areas.

Without establishing a proper land use plan, the city will continue to develop into a monofunctional city with low density.

*“The residential land use represents more than 69% of the built-up area.”*



Figure 37: Aerial photo from Juba. Photography by Rigan123@Creative Commons 4.0



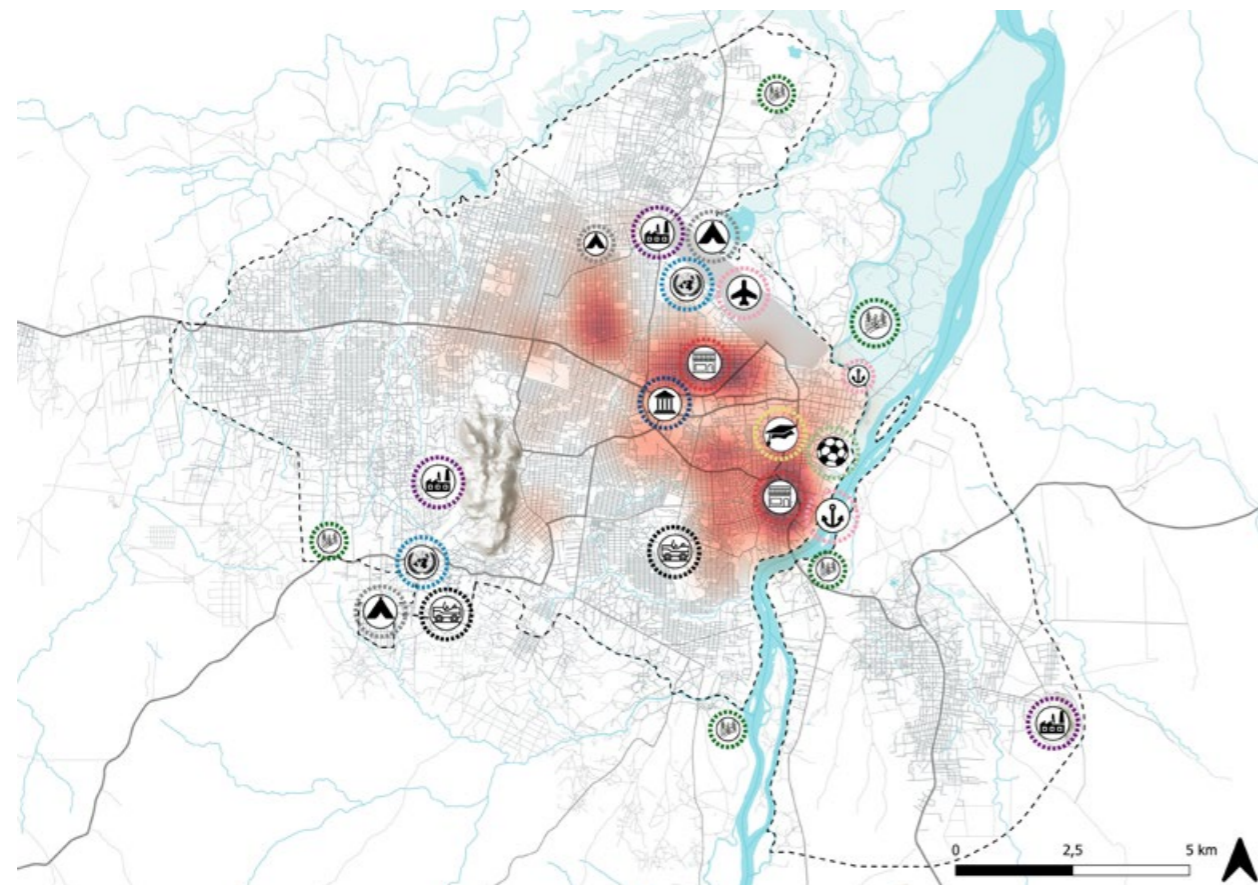
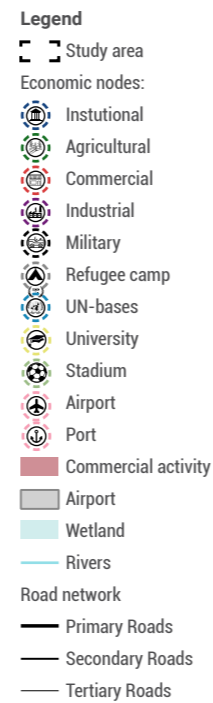
#### 4.15 Major Infrastructure & Economic Nodes

The mobility infrastructure in Juba comprises three modes: roads, water, and air transport. The principal road network consists of 6 radial roads connecting Juba centre to the suburbs and the surrounding cities and a single circumferential road in Juba centre. Around these roads are located most of the city's public transport stops and infrastructures. A small percentage of roads is currently paved, and an even lower amount is in proper condition. The majority of residents has no car, and the most common modes of mobility in the city are walking and cycling. It is imperative to strenght the pedestrian and bicycle linkages in the city.

Given the poor road infrastructures in South Sudan, river transport is practical and cost-effective. Currently, in Juba, there

is an old port not functioning due to river sedimentation, a small wharf for private boats and a new river port, 2 km south of the old port. Despite being the only international airport in South Sudan, Juba Airport has limited capacity and, given its proximity to the city centre, causes noise and urban development problems.

Juba city centre hosts most of the significant infrastructures and economic nodes of the city. Many institutional and local administration offices are along the airport road. At the same time, the main essential markets and economic activities are spread within the Juba city centre (Juba Payam), in the main road intersections. AtlaBara-C Neighborhood hosts the only public university in the city, the University of Juba, while in MTC, there is the Juba Football stadium.

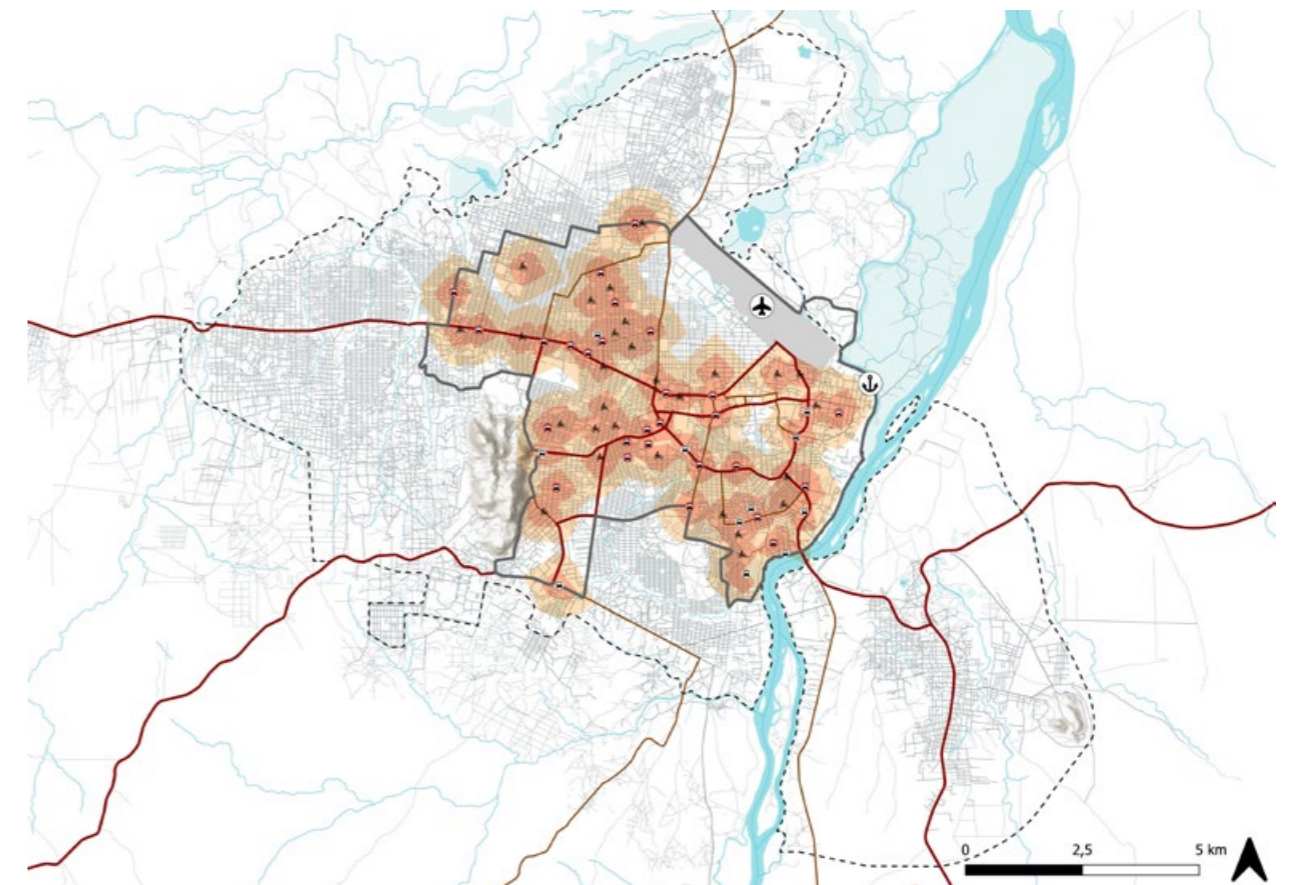
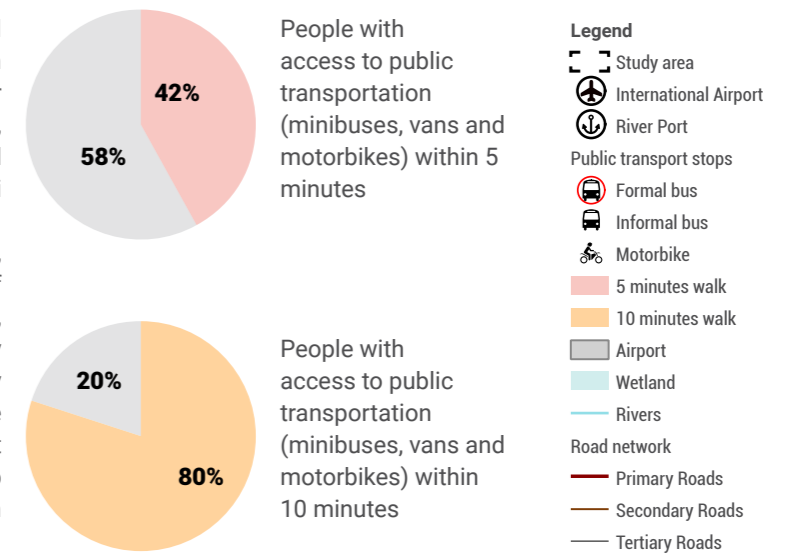


Map 25: Juba economy and major infrastructure

#### 4.16 Accessibility Analysis

##### PUBLIC TRANSPORT

Infrastructures and services due to the rapid urbanization of Juba are failing to keep pace with the expanding town. Still, the provision is better compared to the average in South Sudan. Also, the accessibility to water, sanitation, health and education is considerably better in Juba, Munuki and Kator Payam than in the more peripheral areas. From surveys conducted by UN-Habitat, it was established that the primary modality of public transportation is minibuses and vans, mainly along major roads. In contrast, secondary and unpaved roads are better accessed by motorbike taxis and Boda boda. Within the three central Payams, it has been estimated that 42% of the population can access a bus stop within 500 meters walk from their home, which drastically decreases in the peripheral areas.



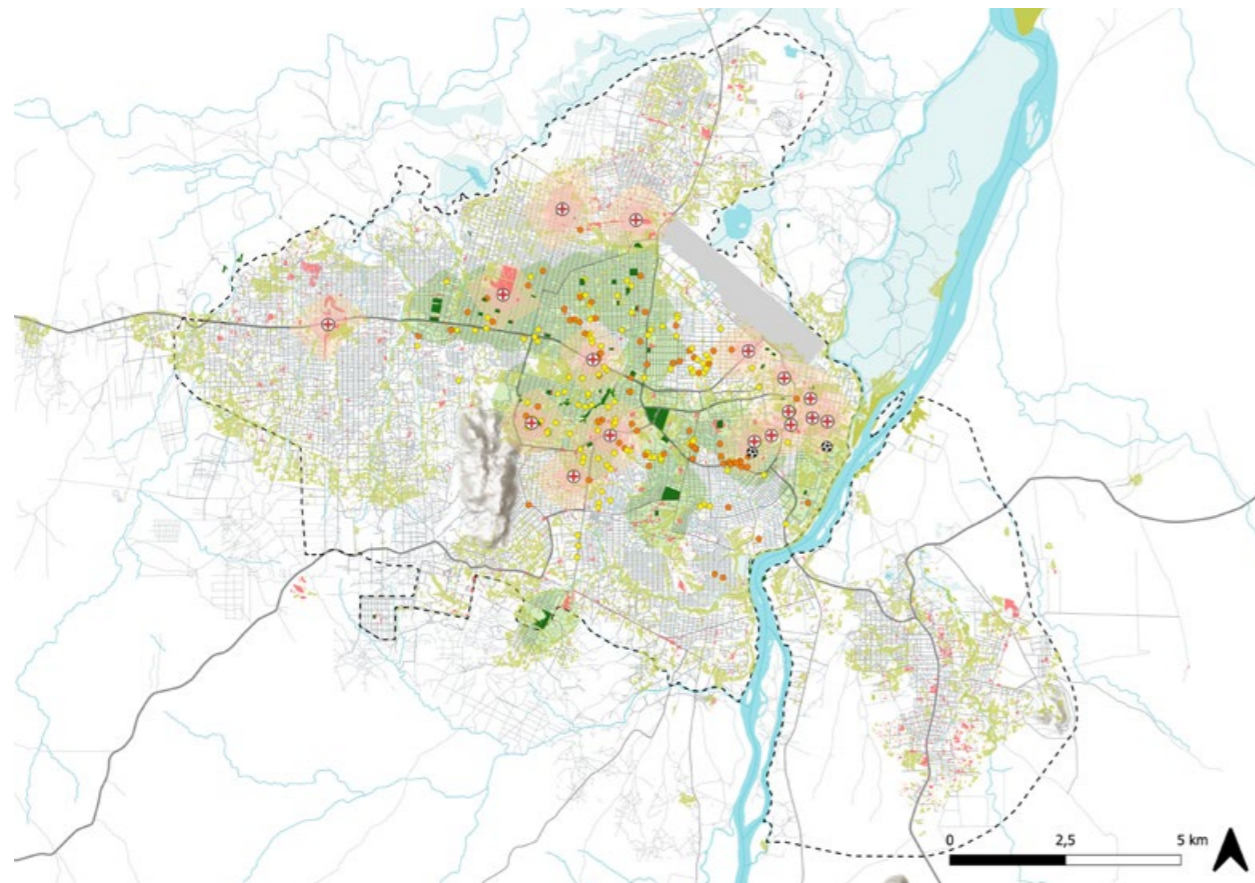
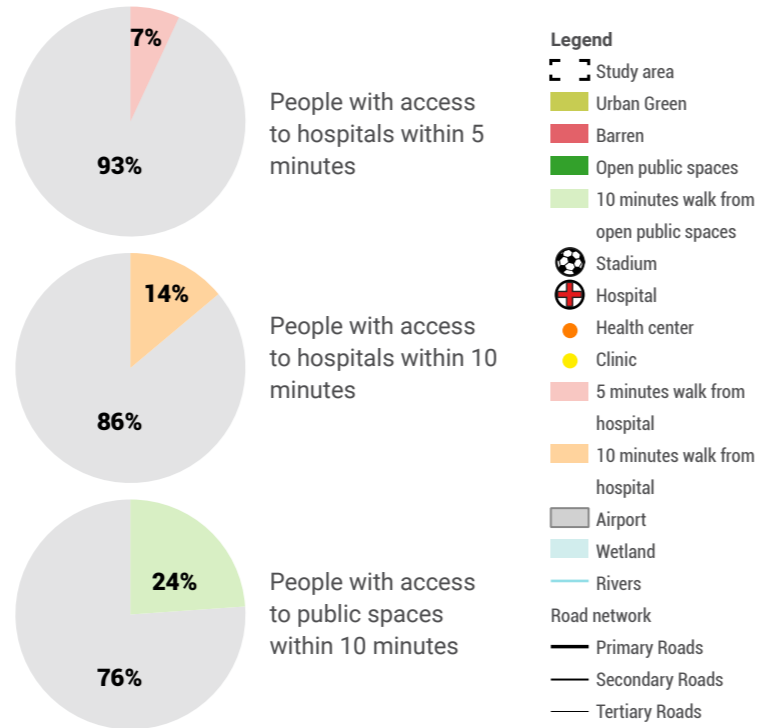
Map 26: Juba transport accessibility



### HEALTH CARE AND OPEN SPACES

Health facilities, such as hospitals, health centres and clinics, are overcrowded. Only 14% of the population has accessibility within a 10-minute walk to a hospital or a primary health centre. Despite efforts to rehabilitate health facilities throughout Juba, in peri-urban areas, this lack leads patients to be transported and rely upon the central hospital, particularly Juba Teaching Hospital.

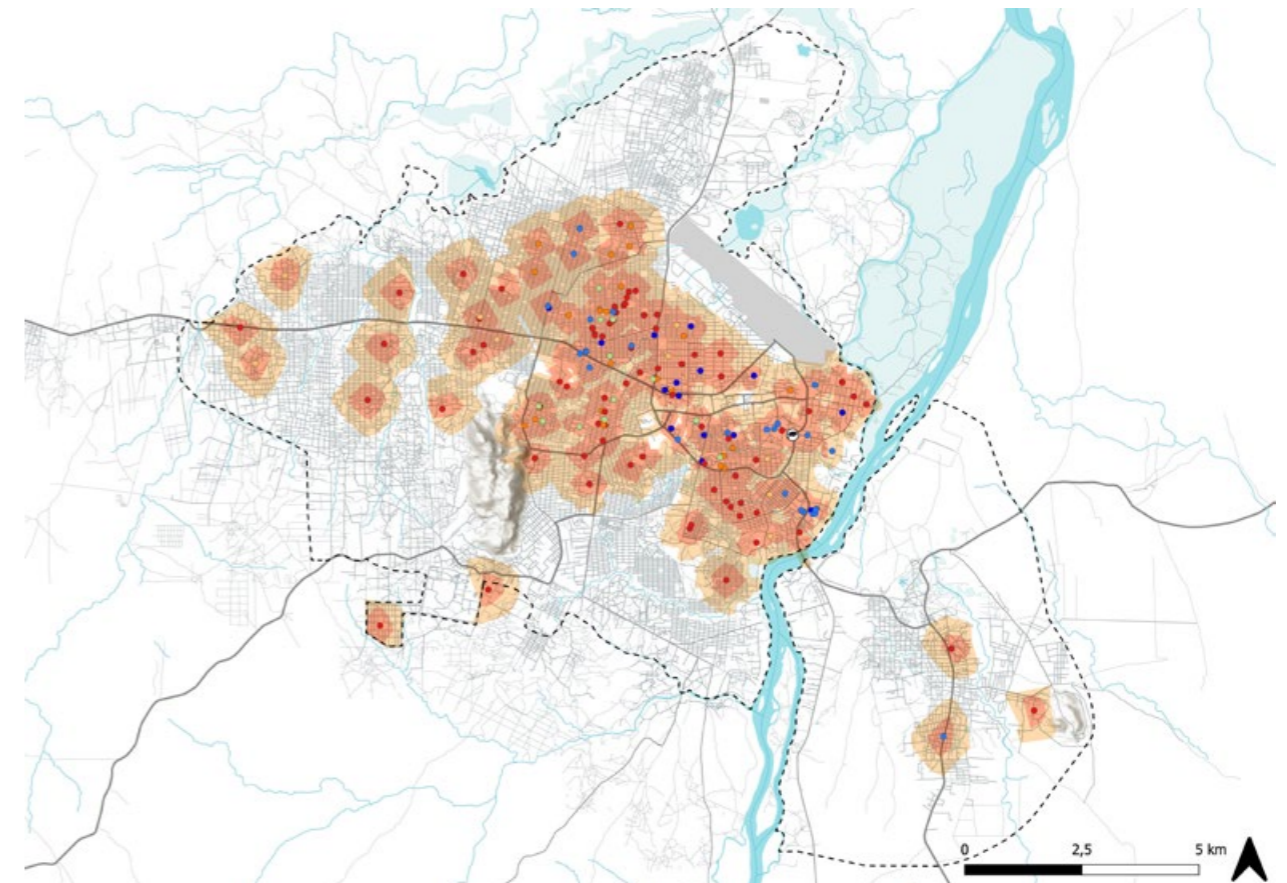
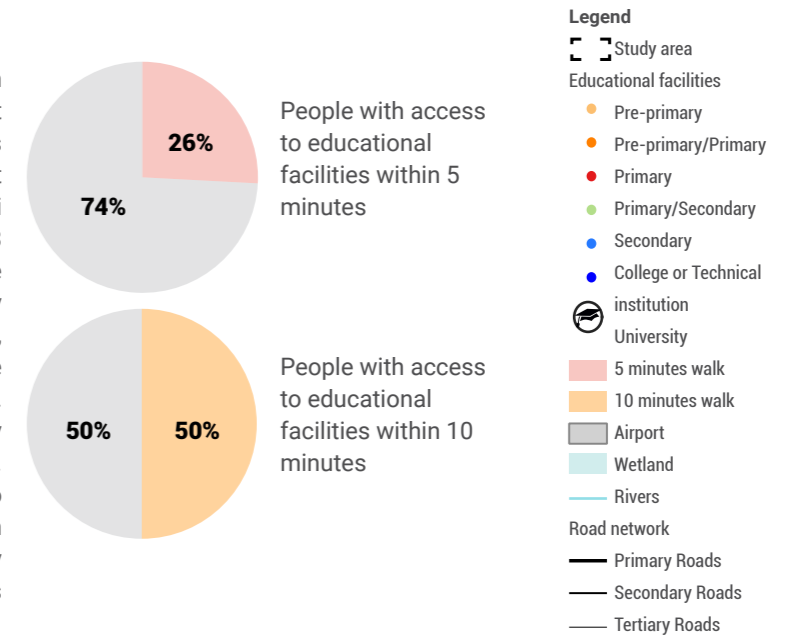
Most of the existing open spaces are open areas usable for sports and recreation but mostly unmaintained and unequipped with support infrastructures such as waste collection bins, benches, and facilities for children. It is estimated that 24% of the population has access within a 10-minute walk to public spaces.



Map 27: Juba health and public spaces accessibility

### EDUCATION

The impact of the educational system on developing nations is a key priority. Excellent accessibility to schools and universities has a solid social and economic impact on the population. Within Juba, Munuki and Kator Payam have been mapped 203 educational facilities, half of which are privately managed. 52% were primary schools, 20% were pre-primary schools, 18% were secondary schools, and 8% were tertiary institutions and only one University. Fewer educational facilities, mainly primary schools, are found in the adjacent Payams. Despite 50% of the population estimated to have access to an educational facility within a 10 minutes walk, pursuing secondary education is difficult due to transport costs and school fees.

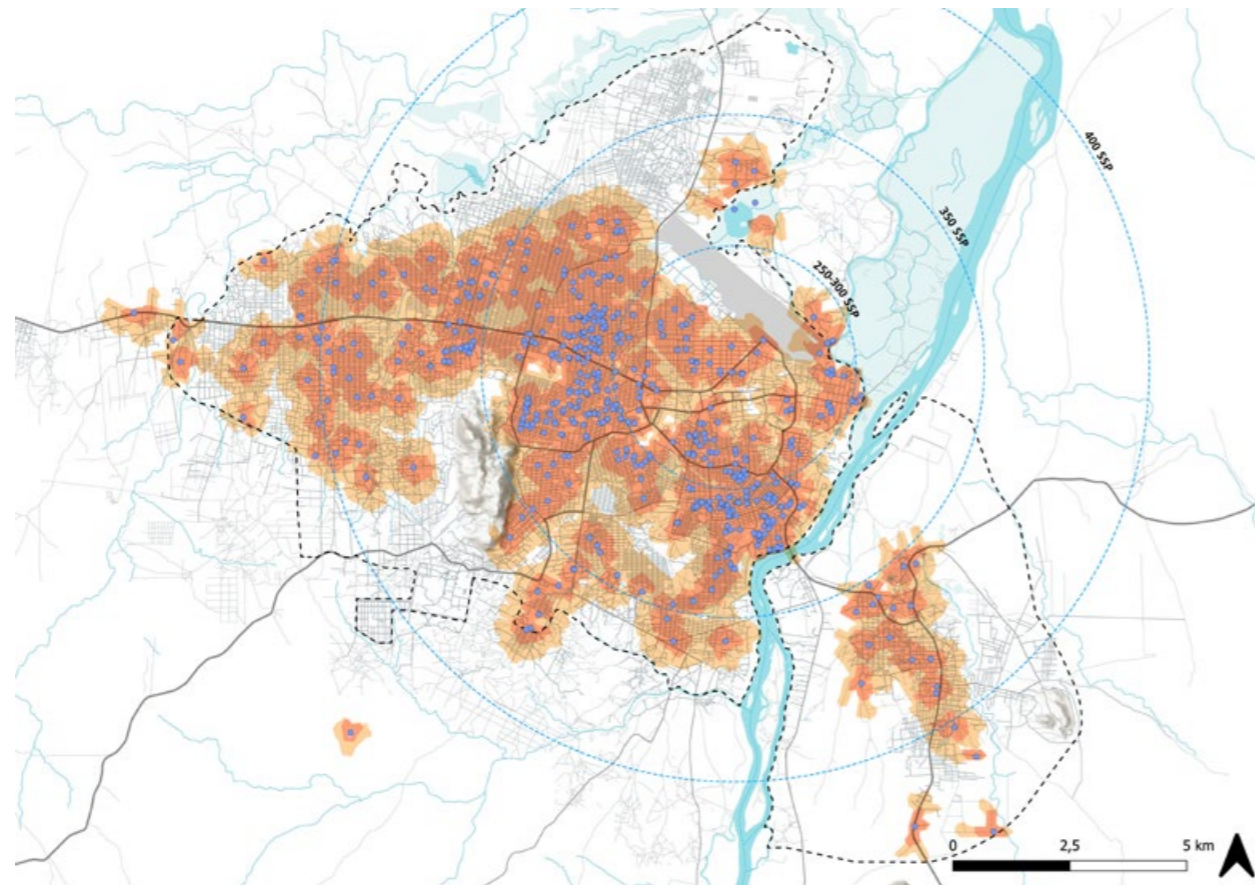
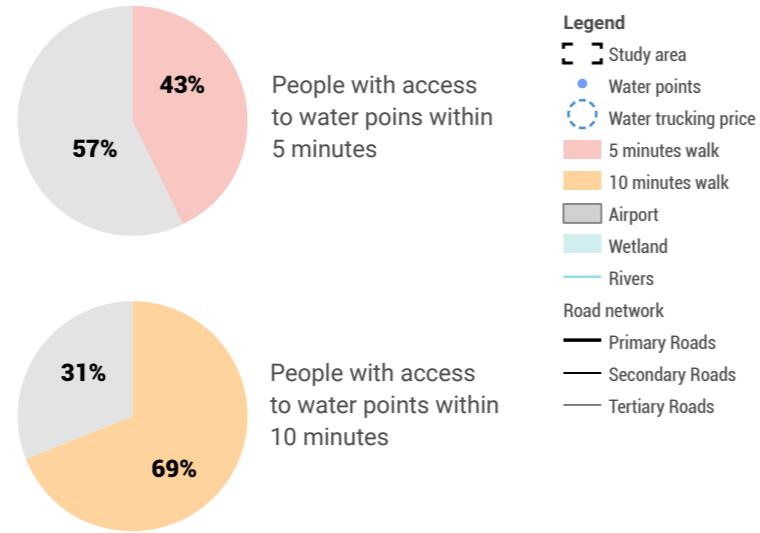


Map 28: Juba education accessibility

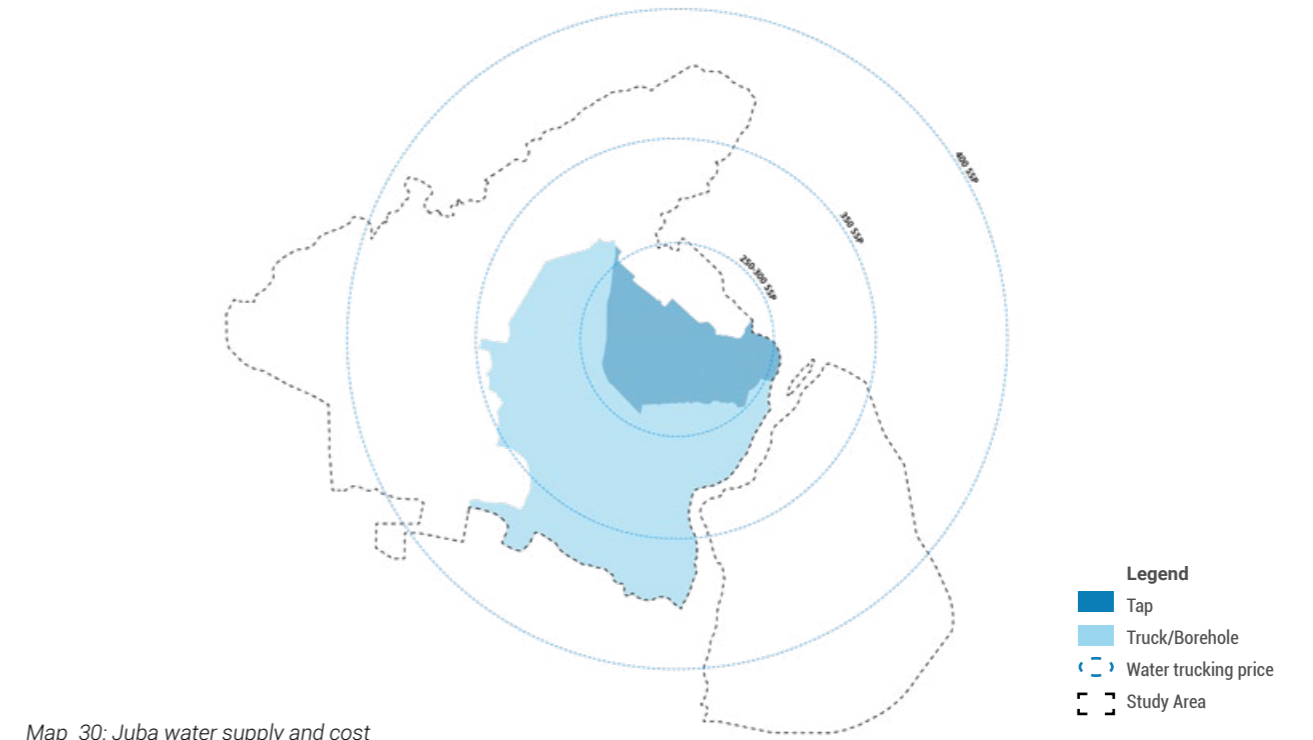


## WATER SUPPLY

Most Juba population rely on truck waters and boreholes, while the water pipe network covers only the city's centre and some adjacent areas. The community wells, boreholes, hand pumps and water filling stations are scattered throughout the city, 80% of which are managed by private companies or individual business owners. According to a UN survey in 2020, 44% of households rely on water trucks and supply vendors at a high cost. 69% of the population has access to water points, but it has been noted in the field survey that most of these points do not work correctly due to a lack of maintenance and contamination due to the vicinity of pit latrines and open-air dumpsites, which creates several urban health problems. The cost of water trucks increases at the city's periphery, where the most vulnerable populations live.



Map 29: Juba water accessibility



Map 30: Juba water supply and cost

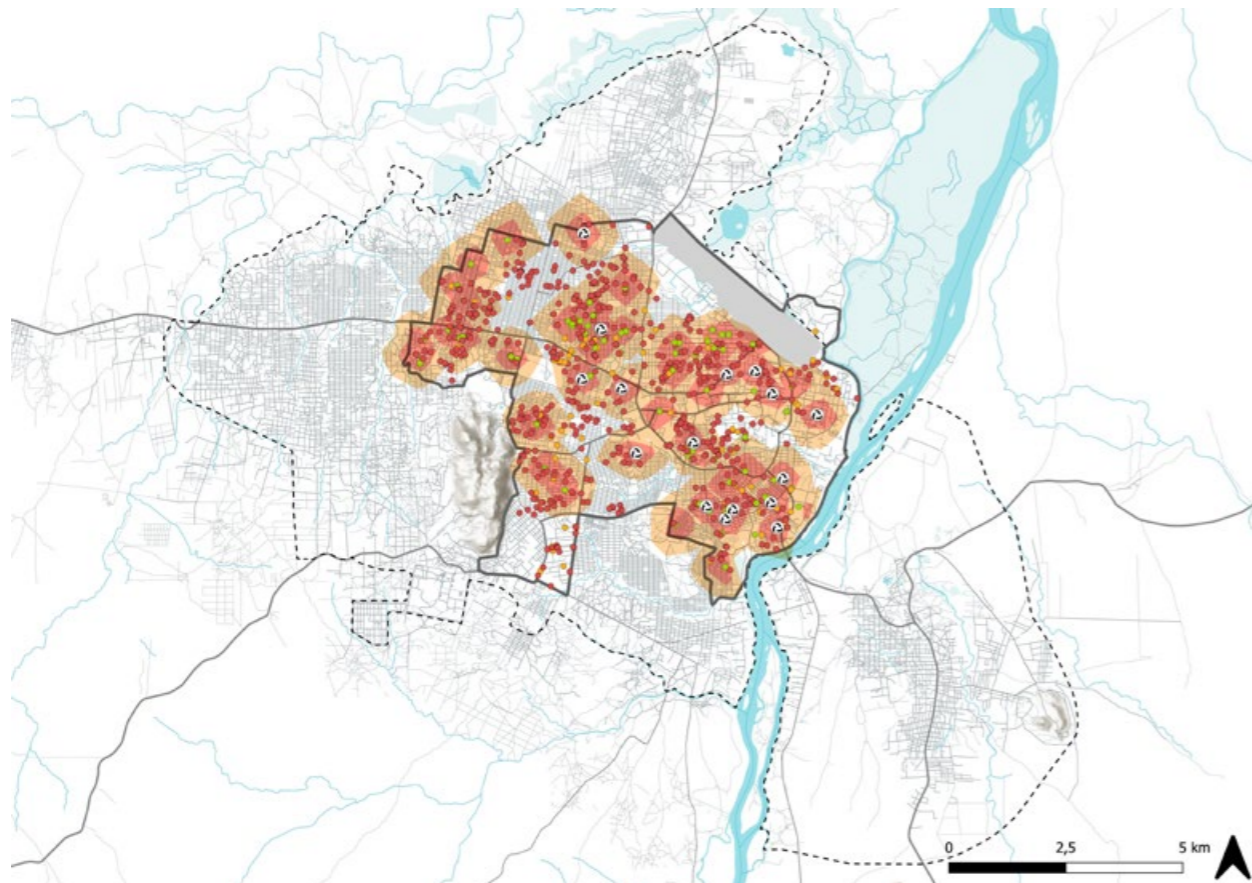
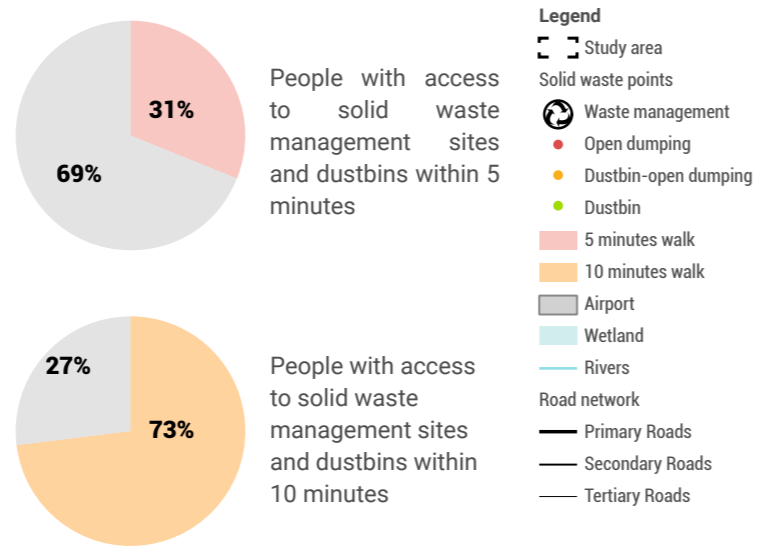


Figure 38: A kid carrying a clean water bucket in contaminated urban water streams ©World Health Organization (Gbemiga Olamikan), 2021



## SOLID WASTE

There is no proper waste management system in Juba, which makes thousands of tons disposed of illegally each month. The uncollected waste ends in open-air dumpsites, urban water streams, vacant land, informal landfills, and the White Nile River. Most of the Juba population has no access to waste management services, and waste is often collected in open dumping areas, buried or burned. Only 25% of the solid waste is estimated to be collected, while 50% is burnt after being left in open dumps. With poor waste management strategies, local authorities leave the private sector or individuals to manage solid waste (over 60% of it). The residents have to deal with persistent stench, respiratory problems and skin infections caused by smoke and gases.



Map 31: Juba waste management accessibility



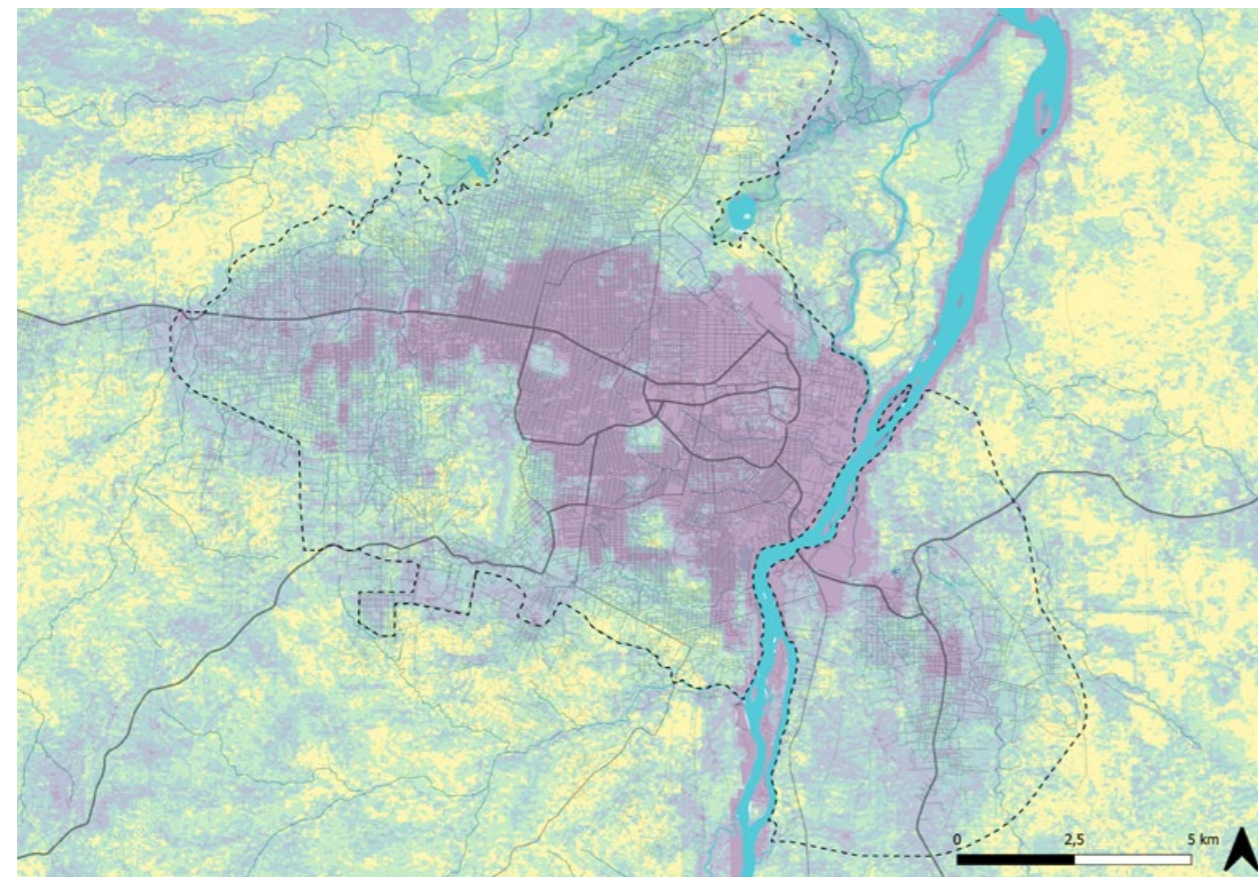
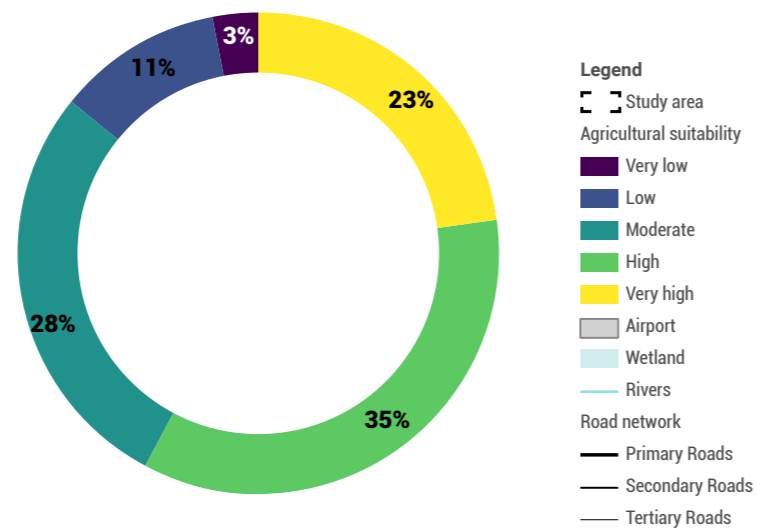
Figure 39: Recycling point in Juba ©UN Environment Programme (UNEP), 2012



#### 4.17 Agricultural suitability

Water and agricultural land are two critical natural features for Juba. These elements contribute to the blue and green network, which supports the ecosystem services and has a high potential to improve the economic development in the city. Due to the political instability, many people in Juba are under severe stress regarding food access and availability. Furthermore, the urban-rural linkage should be strengthened to support agricultural production and address the current food crisis, releasing the dependency on Uganda.

The current agricultural land in Juba represents only 3% of the total land cover, while soil quality and humidity have a high potential for crop production that has not



Map 32: Juba agricultural suitability

been explored yet. Around 35% of the entire land cover has high suitability for agriculture production. The UN-Habitat team performed a GIS suitability analysis for Juba city, using a multi-criteria decision analysis (MCDA) to weight the following selected causative factors; elevation, slope, aspect, nitrogen, pH, organic matter, bulk density, soil texture, soil depth, drainage capacity, distance from main roads, distance from main rivers, distance from minor rivers, land cover.

There are two critical objectives for assessing the suitability of land for agriculture. The first is to provide information that can be used to calculate potential agricultural production, while the second is to determine the likelihood of conversion of land to and from agriculture

or the possibility of intensification based on suitability and drivers of land-use change. The first will help evaluate trade-offs or synergies between biodiversity and ecosystem services values and agricultural production in scenarios where suitable but unused areas are converted to agriculture. The second, identify areas that may have a higher value for biodiversity and ecosystem services if restored from their current unsuitable use and identify local and regional yield gaps (the difference between actual yields and potential yields) that are essential indicators of the efficiency of agriculture. Such analyses can inform decision-making with the most efficient land use for agriculture and other land uses, providing ecosystem services and addressing food crises.

**“Around 35% of the total land cover in Juba has high suitability for Agriculture production.”**

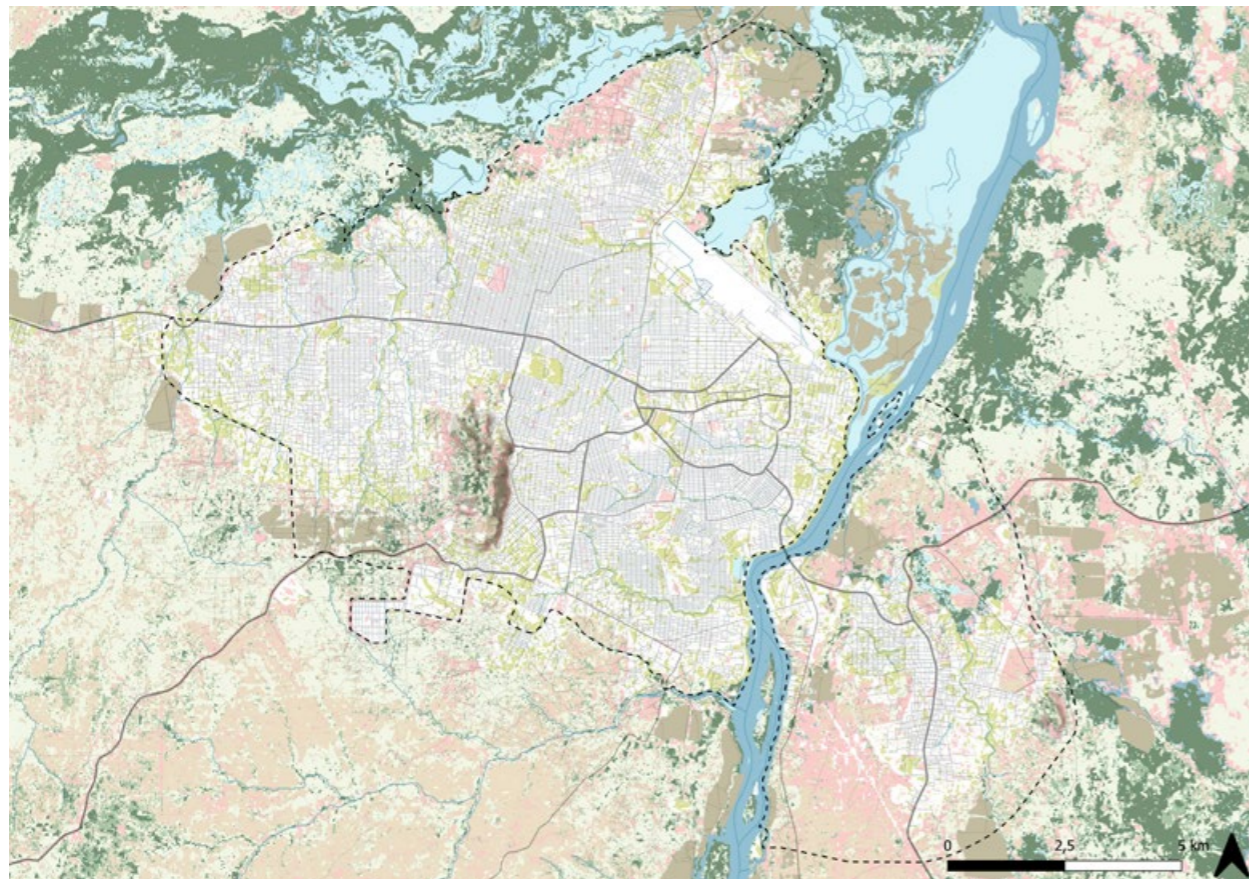
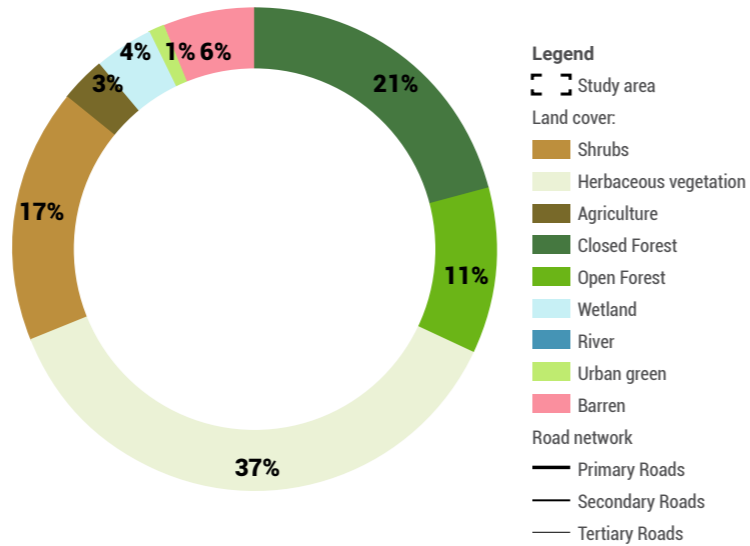


Figure 40: Community farming in Juba ©Food and Agriculture Organization (FAO), 2019



#### 4.18 Natural Resources & Climate Change

Juba is a rich city in natural resources, with different types of vegetation and soils. They are essential to the equilibrium of water control, erosion, and river flooding. The land cover consists of 37% herbaceous vegetation, 21% closed forest, 17% shrubs, 11% open forest, 6% barren, 4% wetlands, 3% agricultural land, and 1% urban green or public space. In the city's northwest, the wetlands area consists of permanent swamps during the dry season. Urban growth has not expanded in the north but in the south-west, where most of the new informal developments have settled. The forest area, represents 32% of the land cover, strongly impacts habitat mitigation, watershed management, carbon sequestration, and wildlife habitat management.



Map 33: Juba existing land cover

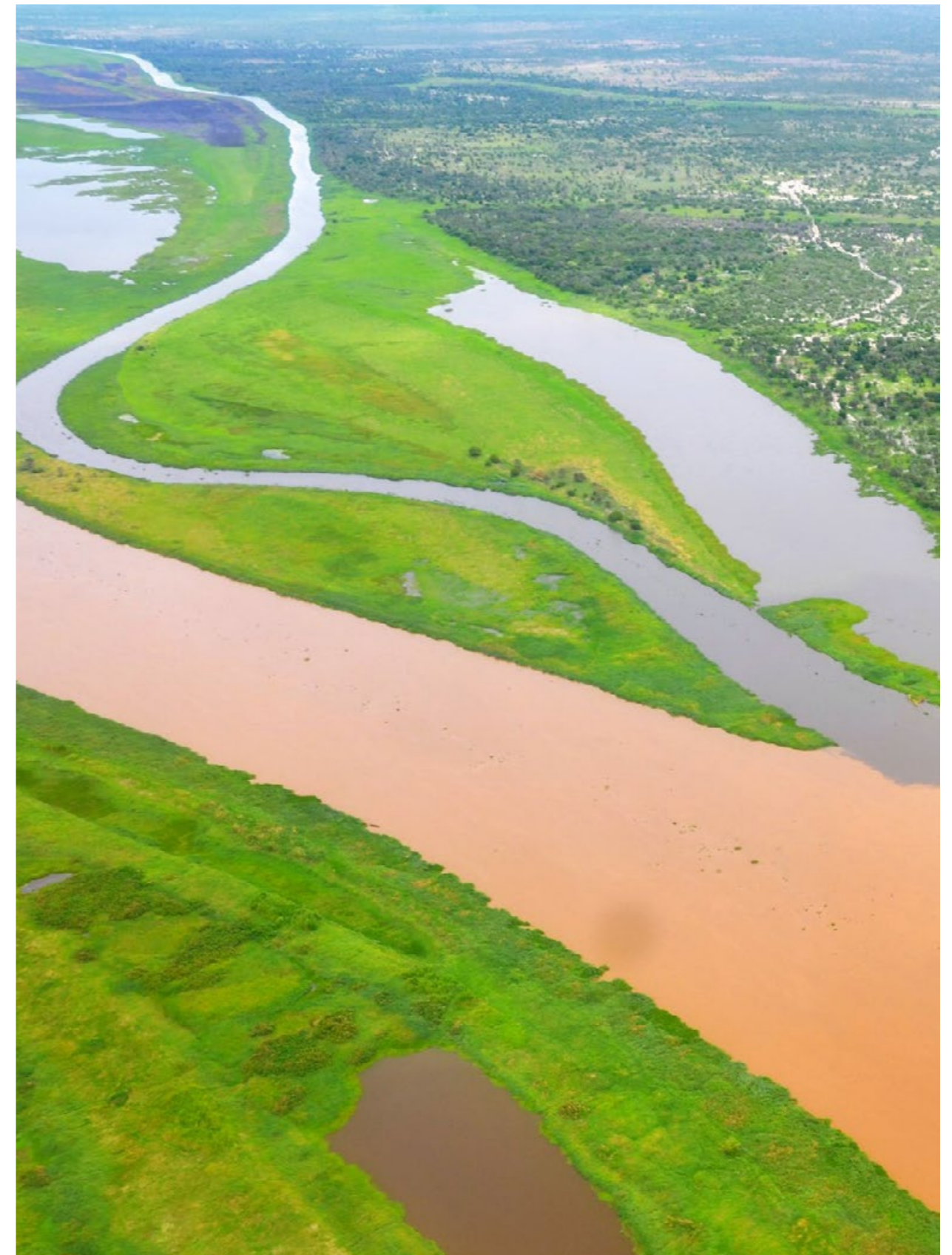


Figure 41: The White Nile River in Northern Juba ©Eva Pave (Eva Pave), 2018



# 05

## THE STRATEGIC DAGNOSIS

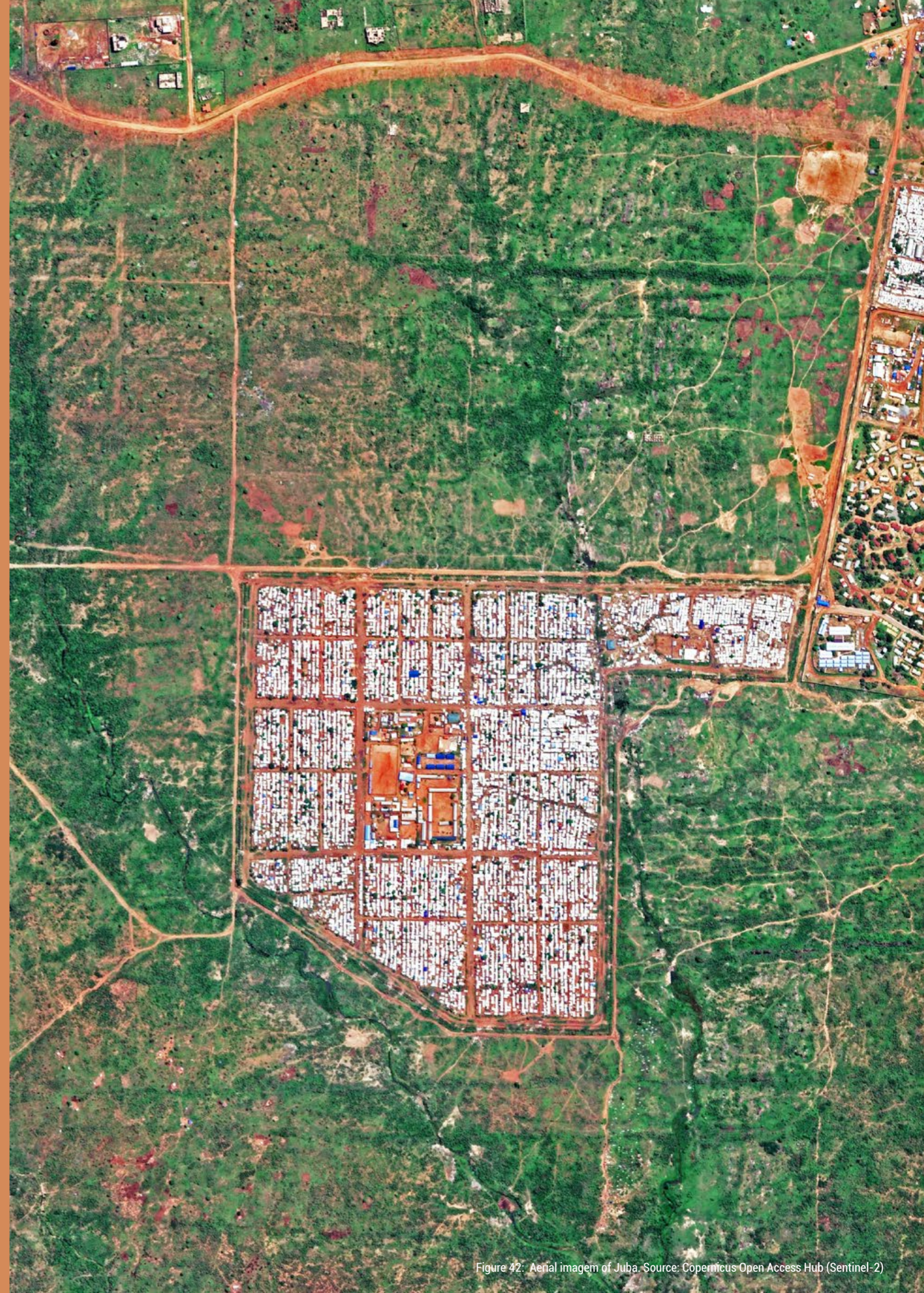


Figure 42: Aerial image of Juba. Source: Copernicus Open Access Hub (Sentinel-2)



# 05

## Strategic Diagnosis

*“The evidence-based analysis identified four main strategic and priority issues highlighting Juba’s performance in relation to the principles of sustainable urban development. These issues represent the strategic framing of a complex diagnosis, synthesised through four conceptual lenses. The lenses, once defined in their conceptual nature, were then contextualised with maps.”*

### 5.1 Identifying and Defining the Main Strategic Issues

**40pp/ha**  
Average population density in Juba

**15%**  
Juba total population are IDPs

**52%**  
of total population live at high-risk of contaminated water sources

An in-depth analysis of the existing conditions of Juba and its surroundings resulted in a set of strategic issues that were identified and analysed. These issues represent the strategic framing of a complex diagnosis, synthesised through different conceptual lenses. The data gathering process for the Juba Strategic plan used the following elements:

- Desk research** gathered with national and international stakeholders, which included plans, maps, surveys and reports at national, regional, state and city levels.
- Participatory workshop** with the participation of representatives of the municipality, citizens, workers associations and other relevant stakeholders
- Liaison with municipality technical team** which provided clarifications, recommendation, insights and data only the public administration could have
- **Georeferenced data modelling** using data from satellites and previous on the field survey, GIS models provided insights regarding the vegetation, natural hazards, population dynamics, infrastructure, city development

and many others. Moreover, the analysis and diagnosis of this plan followed the UN Habitat Strategic Plan 2020-2023, which sets the organization priorities which should be considered in its approaches, such as this plan. It is the social inclusion dimension (human rights; gender; children, youth and older persons; and persons with disabilities) plus two cross-cutting thematic areas: safety and resilience.

Safety, as a key part of the 2030 Agenda, is related to Juba both in the pursuit of peace and improving living conditions, such as inequality and urban exclusion patterns.

Urban resilience, as per UN-Habitat’s understanding, is the capacity of an urban system to maintain its continuity throughout shocks and stresses. The most examples showcased in the Strategic Plan have been part of Juba’s context: natural stresses caused by environmental hazards and climate change, and human-made, such as rapid population flows due to an armed conflict.



Figure 43: Participatory workshop for the Juba City Profile ©United Nations Human Settlements Programme (UN-Habitat), 2022





## 5.2 Unstable Population Dynamics (Returnees, Refugees & IDPs)

Juba expansion accelerated since the Peace agreements, reaching a peak of an estimated 403,000 inhabitants in 2020, doubling its population in 15 years. In 2035, it is expected that the national capital will reach 750,000 inhabitants. Since the agreements, there has been circular displacement around the outskirts of Juba, in the Payams of Northern Bari, Rajaf and Gondokoro. These areas are not only being occupied by the newcomers but also by longer-term habitants of Juba, who have lost access to land due primarily due to one of these three reasons: demolitions; return of the original owners of the land they were occupying; and the increasingly unaffordable rent and housing prices.

In parallel, Juba has continued to attract vast numbers of people, despite the land administration being unprepared to absorb large numbers of returnees, IDPs and newcomers. The refugees, returnees and IDPs are especially vulnerable in these urban dynamics and should be included in future participatory processes, workshops, housing associations and related committees. Empowerment of these and other vulnerable groups like women, youth and older adults is paramount

to the inclusive development of Juba. Currently, 62,350 IDPs live in refugee camps throughout the city. These settlements are already provided with basic housing and services whilst demanding urban qualities such as jobs, education, and integrating into the urban fabric the peripheral and unurbanized areas. As shown on the map next page, the resident population is primarily distributed, expanding from the city centre of Juba, but there are various clusters of high population density within the urban fabric. Most of them are placed in areas of refugee camps or other former POC sites.

These places have higher densities than the rest of occupations, which can either be a challenge, due to higher demands such as health, education, basic services and infrastructure, or an asset - due to the possibility to be catalytic nodes for urban development, since most of these areas (shown in blue) are far from overcrowding\*.

\*Although the figures vary from context to context, a density of at least 15000 inhabitants per square kilometer is considered good. Other UN Habitat's principles include adequate space for streets, mixed land-use, social mix, and limited land-use specialization



15%

of Juba's population are IDPs



31,000

people live today in UN IDP camps in the city of Juba. There are another 31,000 people living in other IDPs sites throughout the city



43%

of the population living in UN IDP camps are adult (over 18 yrs. old)



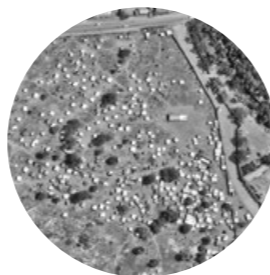
16,000

New IDPs are expected to arrive in the collective sites for the next years



### Mangateen IDP Camp

There are 5,640 IDPs living in this settlement.



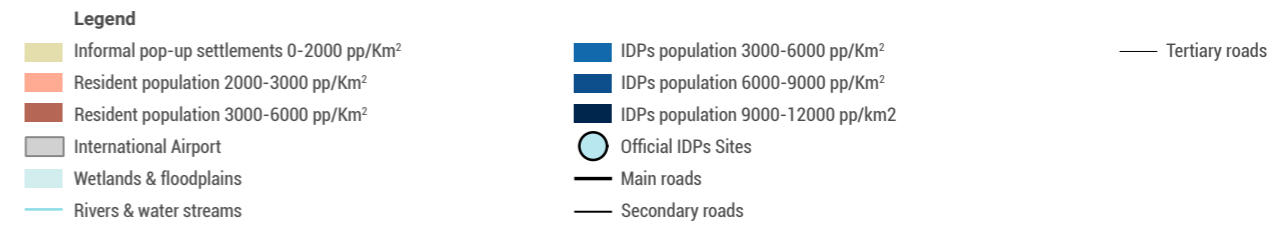
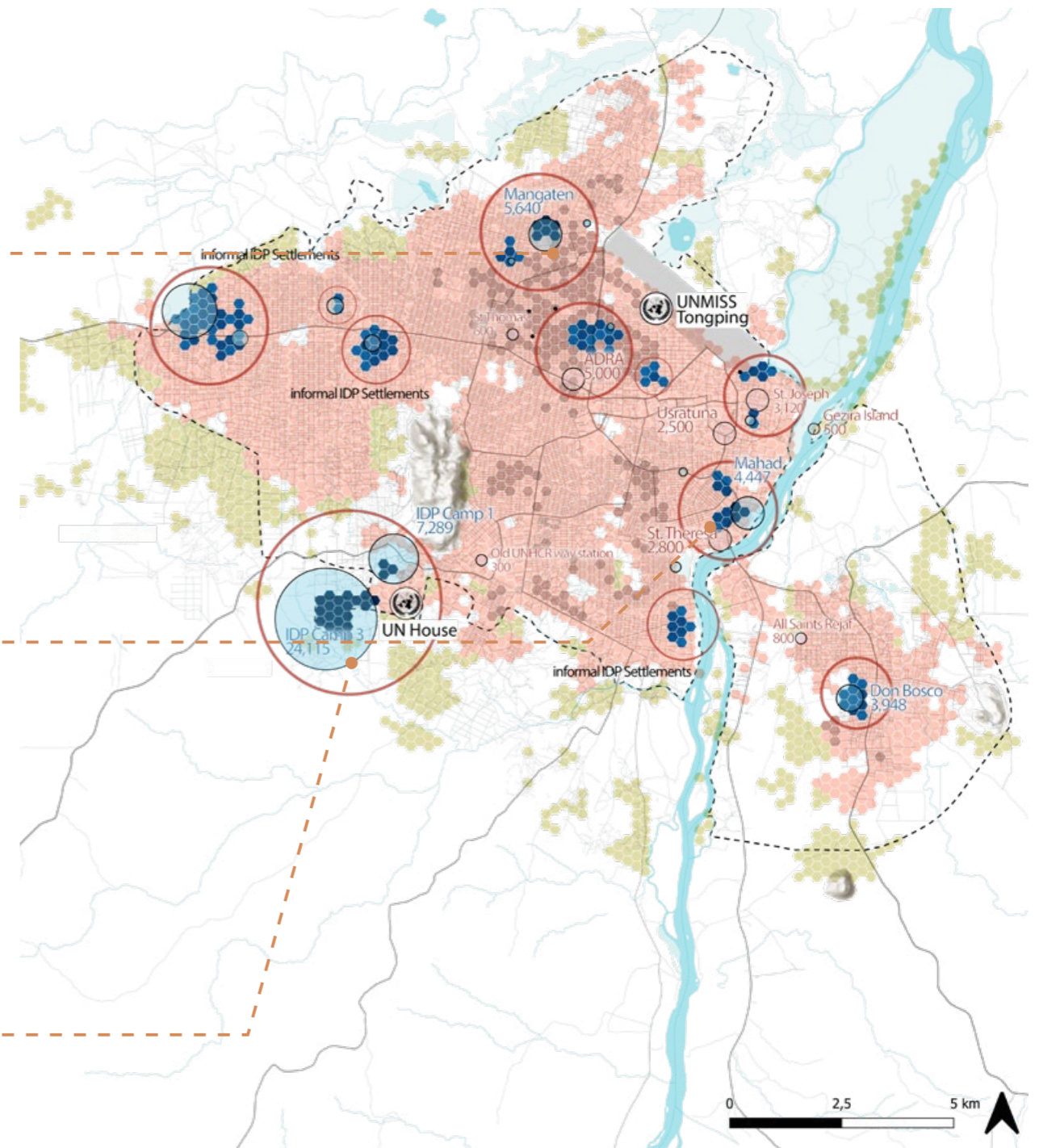
### Mahad IDP Camp

There are 4,021 IDPs living in this settlement.



### Juba IDP Camp 3

There are 24,126 IDPs living in this settlement.



Map 34: Strategic diagnosis: Unstable Population Dynamics (Returnees, Refugees & IDPs)



### 5.3 Uncontrolled Growth and Development Patterns (Land & Housing)

The city of Juba lacks a framework to order its growth, which is an important reason why the city's expansion is mainly unmanaged and unplanned. Low-density neighbourhoods, both in terms of population and built-up areas, characterize most of the city. Consequently, there is uncontrolled horizontal expansion toward the city's peripheral areas. The phenomenon of returnees/newcomers and the circular displacement from the city centres results in an expanding belt of informal development and sprawled settlements in the outskirts of Juba, which usually lack essential services access and social integration into the economic dynamics. The available unurbanized land in the west and south-west directs the major expansion, contributing to the rapid urbanization on the Westbank of the Nile river.

The secondary direction of expansions is northwards, less rapid due to the natural physical constraints. According to UN-Habitat estimations, Juba's

population is expected to double by 2035, reaching over 750,000 inhabitants nearly. According to a business as usual scenario, it would require Juba to almost double its built-up area in 15 years, from 101 Km<sup>2</sup> to 191 Km<sup>2</sup>. It would increase problems in terms of urban sprawls - from accessibility to essential services and infrastructures to jobs and education - whilst pushing the agricultural belt outwards.

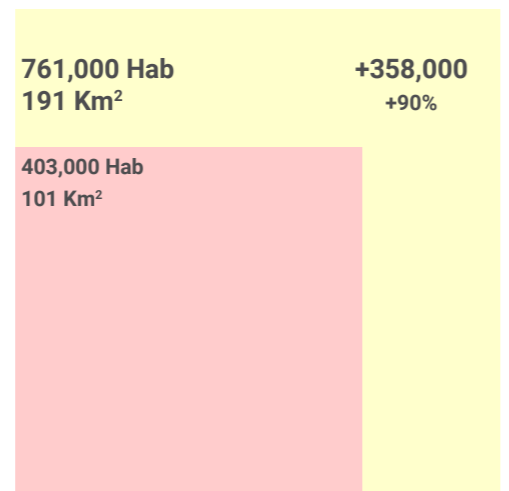
On the other hand, remote sensing assessments show that the city of Juba could house a much higher population within its fabric. Aerial images from different parts of the city indicate many empty plots within the central area and the peripheries, making it easy to have infill developments and increase its current density of only 4000 people per Km<sup>2</sup>. The following map shows the current and future trend directions of expansion, the morphology of the current occupation types and the estimation of future land demand if no significant actions are taken into consideration.



**40 pp/ha**  
is the population density of Juba. Higher densities can be achieved by increasing building heights, occupying empty plots and using smaller residential plots



**100%**  
Of the estimated population increment until 2035 could live within the existing boundaries of Juba and the population density would still be considered below the "ideal" figure for most contexts



Estimated growth from 2020 to 2035 (business as usual scenario)



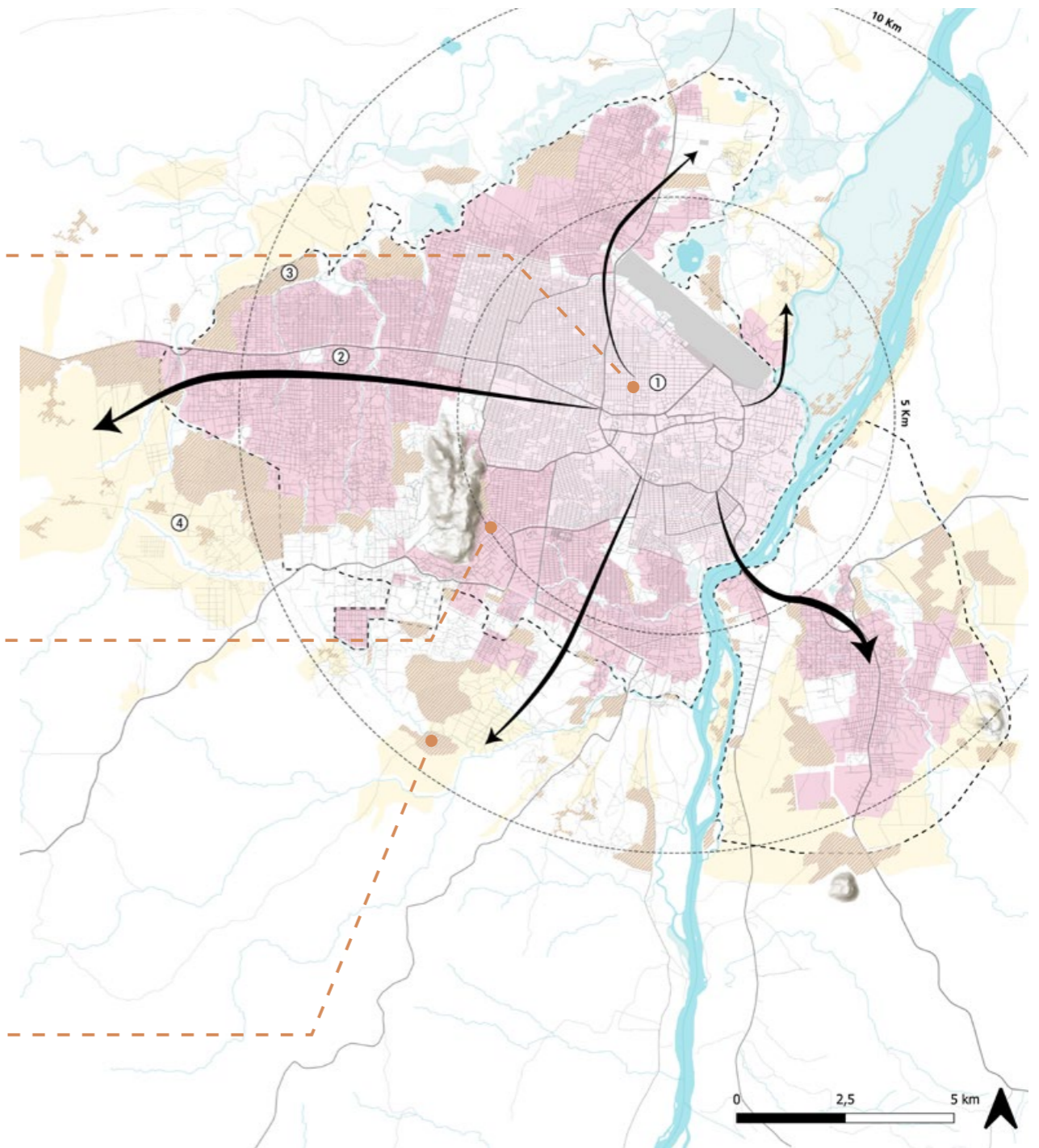
**Land Class One**  
Has a consolidated urban fabric, is where higher classes usually live.



**Land Class Two**  
Has a more or less urban structure, medium class usually lives in this area.



**Land Class Three**  
Has no urban structure and low classes & newcomers live here.



- Legend**
- Direction of Expansion
  - 1. Urban center
  - 2. Horizontal city growth
  - 3. New informal settlements
  - 4. Urban growth scenario 2035 (business as usual)
  - International Airport
  - Wetlands & floodplains
  - Rivers & water streams
  - Road Network**
  - Main roads
  - Secondary roads
  - Tertiary roads

Map 35: Strategic diagnosis: Uncontrolled Growth and Development Patterns (Land & Housing)

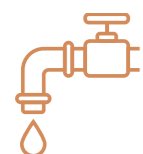


## 5.4 Limited Coverage of Water, Sanitation and Urban Health Services

Outbreaks of cholera and measles dhiarrea, have been reported in Juba county in the previous years. Nonetheless, the Covid-19 pandemic has not caused the city and South Sudan the same harm it did to most countries. The vaccination started in 2021, with the first batch arriving in March. The major factors leading to diseases are the lack of accessibility to basic WASH (water, sanitation and hygiene) infrastructure and water pollution. It happens primarily due to the dumping of garbage into water bodies, the proximity of pit latrines to water sources and the lack of a waste management system. According to WHO, 80% of diseases are waterborne. They are cholera, diarrhoea, typhoid fever, encephalitis, hepatitis (A and E) and Poliomyelitis. The increase in population plays a negative role in polluting water due to the increase in solid and liquid waste generation, which ends in rivers, shallow wells and boreholes.

Multiple organizations, such as the Red Cross, have implemented water treatment facilities in the country, including Juba. Studies state most citizens of Juba get their water from tanks distributed throughout the city and most of the water consumed in the city is groundwater.

The key to solving this problem is prevention: fixing the contamination sources and improving the WASH services provision. The following map illustrates previous cholera outbreaks, identified contaminated water points and possible hazardous sources, such as unprotected pit latrines and dumpsites. Besides preventing diseases, it is also essential to provide sufficient access to medical care. The Accessibility analysis has identified that almost all of Juba's population has access to some health facility, but only 11% had a hospital within a 10-minute walk. Almost all hospitals were in good condition and with electricity, water and sanitation during the assessment. There are also many health centres and dispensaries, but those are in worse conditions. Half of the hospitals are managed either by the municipality or the government. However, the private sector is predominant. At the managerial level, future actions should ensure that these units are affordable. The high number of dispensaries make the city full of health facilities, but hospitals only account for 9% of them and health centers for only 36%. Further qualitative assessment regarding capacity and medical specialties are recommended.



**57.5%**  
of households use Chlorine tablets as treatment for drinking water.



**80%**  
of diseases worldwide are waterborne, according to WHO



**70%**  
of the hospitals have adequate basic services like water, electricity and sanitation facilities



**90%**  
of the hospitals are in good conditions, compared to 70% of the health centers and 55% of dispensaries



### Topping Area

More than 4000 IDPs where vaccinated against cholera by MSF in this area in 2016.



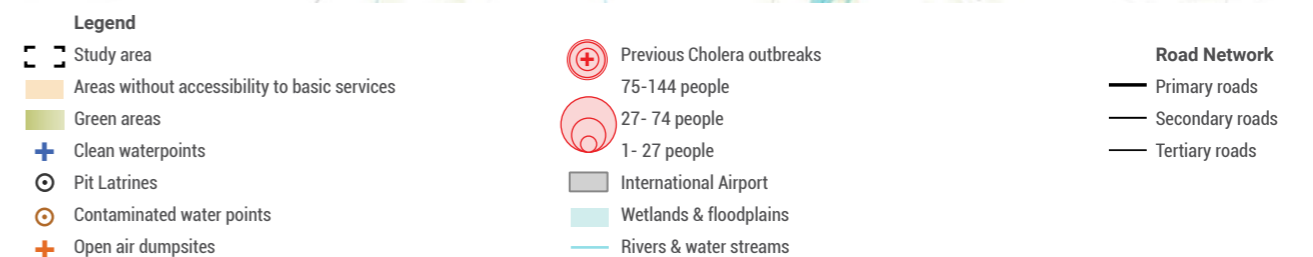
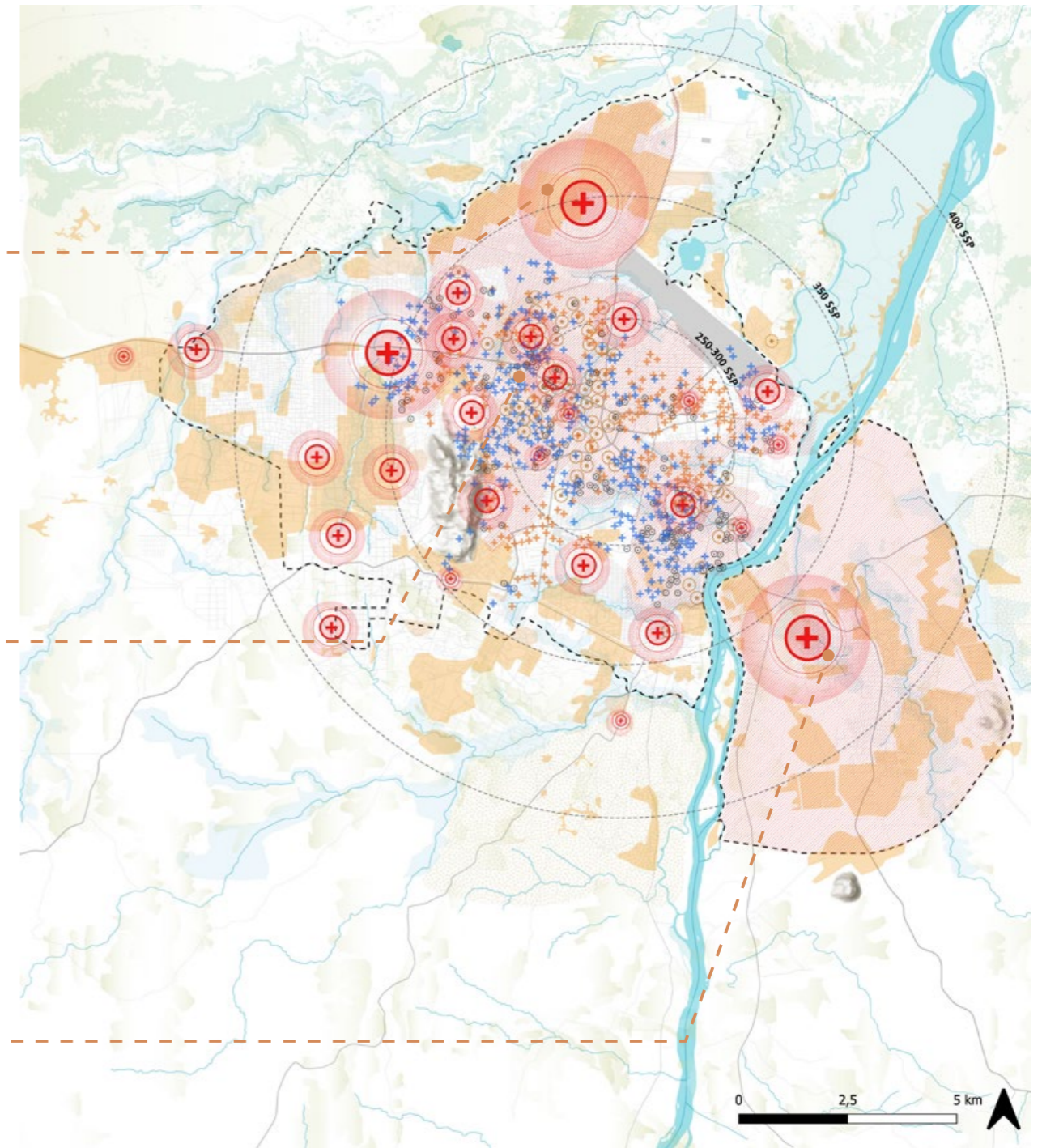
### Munuki Area

More than 90 cholera cases where reported at Munuki area in 2014.



### Don Bosco Area

More than 150 cholera cases where reported at Don Bosco area in 2014.



Map 36: Strategic diagnosis: Limited coverage of Water, Sanitation and Urban Health Services



## 5.5 Inadequate Services and Infrastructures

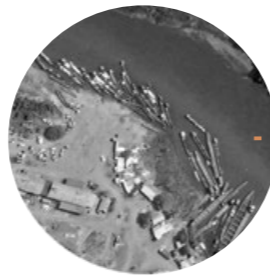
Juba city is facing a series of challenges that can perpetuate constraints in the sustainable development for the future city. Infrastructure and service provisions are failing to keep pace with the expanding town. Many residents live in informal settlements without access to basic services, and infrastructure such as access to clean water, electricity, and adequate sanitation systems, not to mention the lack of a proper waste management system for the different neighbourhoods.

Within the city's central areas, most of the services are only partially available. The existing structures are primarily located in the city centre, and are under high pressure and in the peripheral areas are almost absent. Most WASH (water, sanitation and hygiene) services are provided by private means. Most of the mapped clean water points were identified as reliable, but there are clusters in which the service fails, either by dysfunctional hand pumps or an unpredictable water supply.

The lack of sewerage system and having poor conditioned latrines clusters is similar to the ones missing reliable water supplies. It is important to start to develop a plan for upgrading the infrastructure conditions in Juba. As for education facilities, most of the young population has access to schools with 20%

of the population living more than 1km away from the education facilities, while the same proportion accounts for the schools without water. The outskirts of the city only have pre-primary and primary schools. The public spaces and open green areas are available within walking distance to only 63% of the population, and they are primarily unmaintained. River transportation has a great potential for the transport of people and goods, but the current projects of expansions of the river port are proceeding slowly. In addition, Juba has not a railway station, and it is disconnected from the existing Ugandan, Kenyan and Sudan networks, but there is an inter-regional standard gauge railway yet to be built within the city. Waste management is a significant challenge in Juba.

The open dumping areas are spread throughout the city, and roughly 50% of waste is burned. It is estimated that 75% of the total waste is poorly managed at the source. At the national level, the urban population of South Sudan with access to electricity has increased from 4% in 2010 to 46.8% in 2018. The conditions in urban areas are much better than the nation's average, but it needs to be more accessible



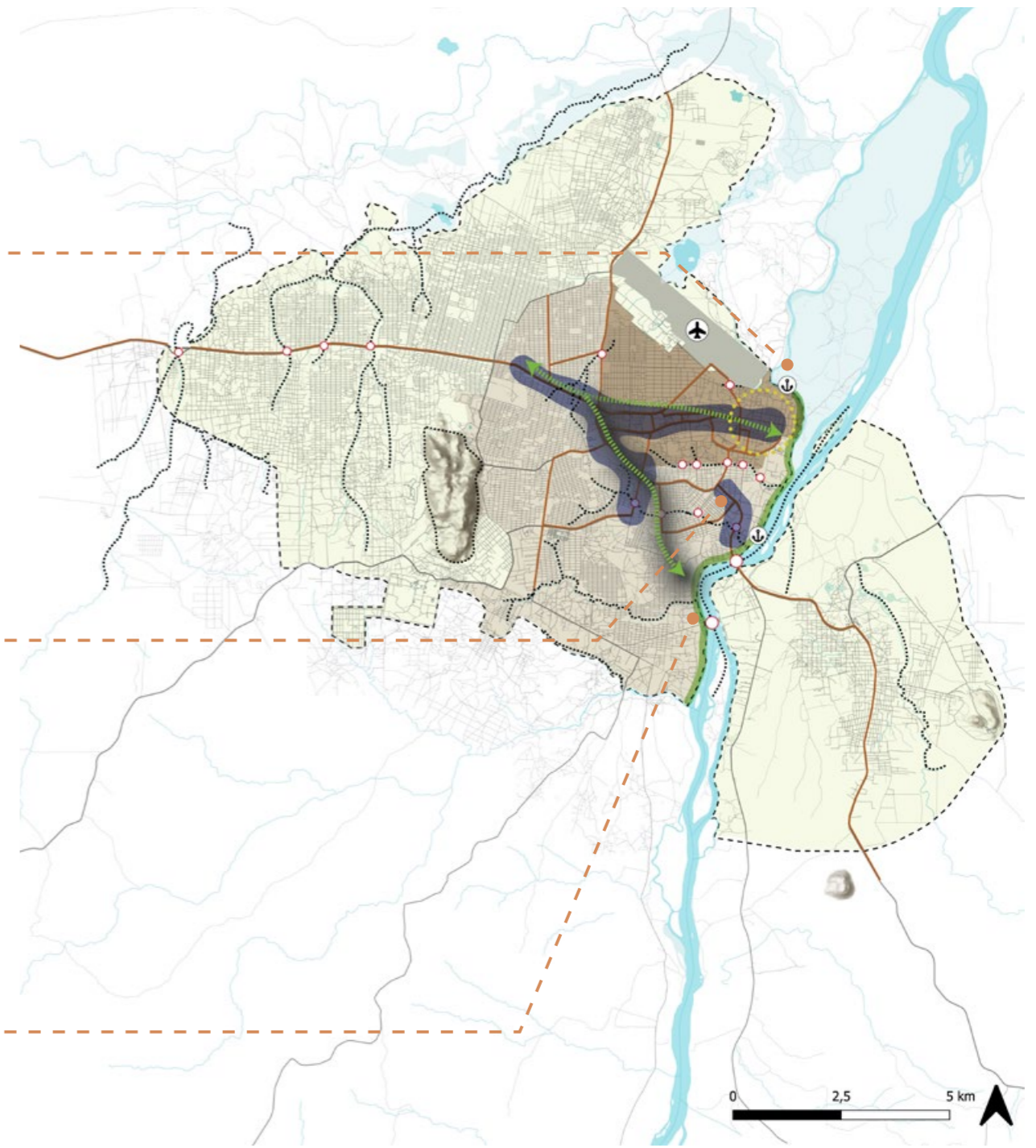
**Old River Port**  
The current Port is dysfunctional and not operating at its full capacity.



**Konio Konio Market**  
The biggest market in Juba, with difficult accessibility by pedestrians and cars.



**Freedom Bridge**  
Was just concluded to connect the East banks of the Juba with the city center.



of water sources are privately owned. This includes wells, borehole, hand pump and water filling stations



of the solid waste is burned in the city, there is no proper management system



of all electricity customers in the country were in Juba by 2010



barrels per day of petroleum are produced in South Sudan. However, the access to electricity in the country has one of the lowest figures of the continent



## 5.6 Environmental Imbalance & Climate Change Risk

During the last years, Juba has been undergoing a radical transformation in urban expansion and population growth. Due to these several changes, the territorial ecology and environmental systems have been affected with a negative impact on their natural dynamics. Urban encroachment over natural resources such as the wetlands in the north, the forest areas in the south, and the different water streams within the city have provoked a socio-ecological imbalance.

Climate change has increased the instability of the rains and droughts periods in South Sudan, making extreme events more frequent in the country. The city of Juba needs to strengthen its resilience to climate change while sustainably managing its natural resources and densifying the urban fabric. The first step would be reconciling its relationship with the White Nile River and the different urban water streams that are polluted with plastic and garbage.

Due to drought, Juba is affected by severe agricultural and water stress, but it already has insufficient food production, relying on Uganda and other states to fulfil their needs. Consequently, its population can be highly affected if neighbouring territories suffer from drought. On the other hand,

the increase in the rainy periods tends to make the floods longer and more common on the margins of the White Nile River and the flat regions of Juba. The floods destroy homes, livelihoods and infrastructures whilst threatening to contaminate the water sources. Not all environmental imbalance is due to climate change. Even though Central Equatoria has not had land conflicts like Unity, Warrap, and Lakes state, the cities of Juba and Yei have seen many episodes of land conflict with fatalities within its borders and vicinities. The city of Juba has seen considerable deforestation on its outskirts, resulting in soil degradation and loss of flora and fauna biodiversity. The loss of productive land can increase conflict episodes and political instability.

Around 2% of the forest is destroyed every year due to population growth and urban expansion. The following map shows the flood-prone areas of the city overlaid with the highest densities. All the orange circles indicate where the floods can cause the most significant impact on the city's residents. Usually, the informal settlements are the most vulnerable to flooding, and it is urgent to establish a comprehensive environmental strategy to address the climate change risk in Juba city.

**900.000**  
people were affected by severe floodings in South Sudan in 2019

**8th**  
country which suffered the hardest due to climate change in 2021

**22%**  
of Central Equatoria State is under a mild agricultural stress due to drought

**2%**  
of all South Sudanese vegetation is lost every year



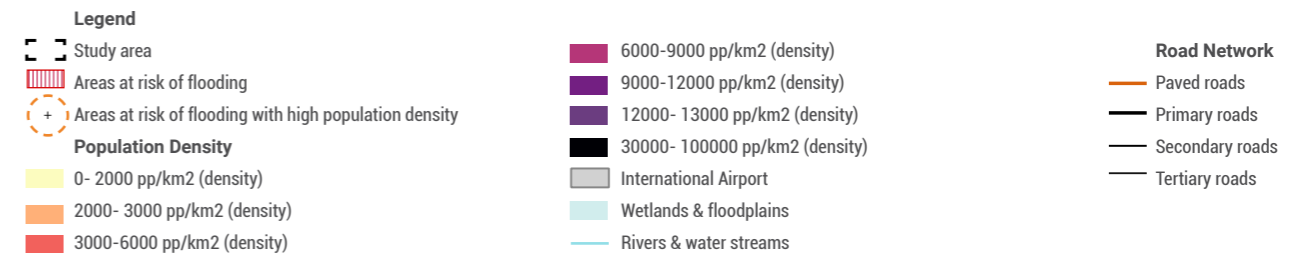
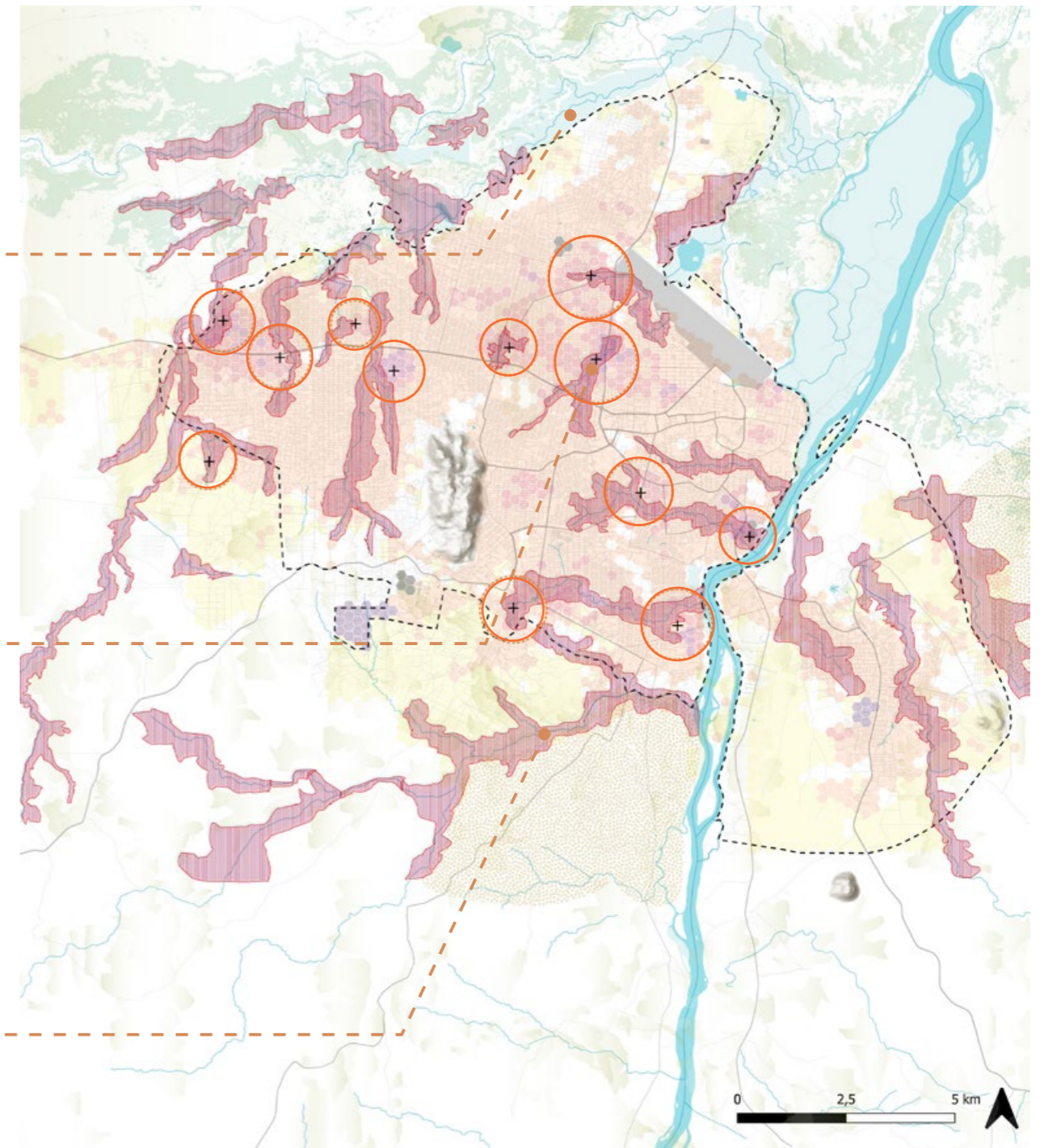
**Wetlands at North East**  
The northern area of Juba has not been urbanized due to the existing wetlands area.



**Water Streams in City Center**  
There are many water streams within the city that are at high risk of flooding.



**Water Streams at South**  
Many of the water streams within the city can become public spaces and green corridors.



Map 38: Strategic diagnosis: Environmental Imbalance & Climate Change Risk



# 06

## THE FUTURE CITY



Figure 44: Aerial image of Juba. Source: Copernicus Open Access Hub (Sentinel-2)



# 06

## The Future City

*“The main objective of the strategic vision is to support the local government to clearly understand the main constraints and strengths of their city’s context. Establish a prioritization of these challenges and opportunities to facilitate the decision-making process.”*

**90pp/ha**  
Density can be increased in certain areas of Juba

**30%**  
of Mixed land use can be increased within Juba

**25km**  
of new linear green corridors can be implemented

### 6.1 Strategic Responses

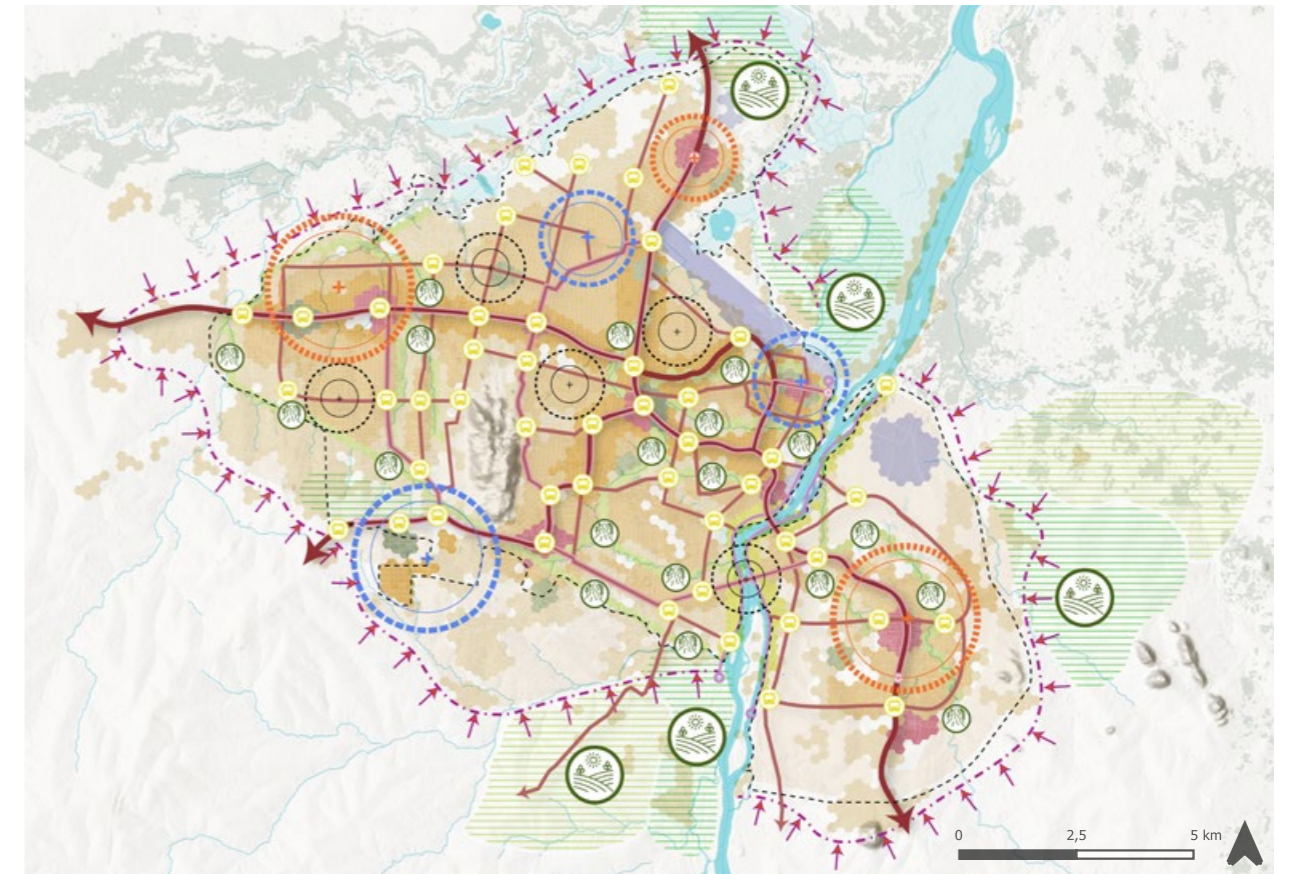
The main objective of a Strategic Vision is to support the local governments to clearly understand the main constraints and strengths of their city’s context. Establish a prioritization of these challenges and opportunities to facilitate the decision-making process regarding potential urban development interventions and capital investments. To support this task, a set of multi-scalar and multi-dimensional maps were elaborated to build the narrative and establish a comprehensive vision of the city’s future sustainable development. Once defined in their conceptual nature, they are developed into a more detailed description, spatially interpreted and contextualized in Juba at various scales. A roadmap follows this to implementation in the form of an articulated Action Plan.

According to the UN-Habitat principles, cities need to encourage spatial development strategies that consider the need to guide urban extension, limiting urban sprawl and horizontal expansion, and prioritizing well-connected infrastructure and services. An integrated city has different urban centers within the city’s fabric.

### 6.2 Developing a Future Vision for Juba

The future vision for Juba relies on four main strategic recommendations that directly address the critical urban issues identified in the spatial analysis. One of the main objectives of the work methodology was to create an urban development vision based on the participation of the concerned people and potential development partners, taking into consideration different inputs, perspectives, suggestions, and views during the early stages of preparing the urban plan.

After defining the first vision for each sector and selecting the development opportunities in each area to ensure the possibility of implementing such proposals, a series of catalytic interventions were developed and discussed according to their priority during a Validation Workshop that took place in February of 2022 in the city of Juba. This workshop was facilitated by the UN-Habitat team with key stakeholder’s such as; The Deputy Major of Juba, The Director of Urban Planning from Juba Municipality, The Chairperson from the National Bureau of Statistics, The representative of the Ministry of Land, Housing and Urban Development, citizens from the city, as well as colleagues from IOM and UNHCR.



Map 39: The Strategic Vision for Juba

### The Future Vision for Juba





**“The participatory planning process was an essential component of the project. From this workshop a joint vision for Juba was established in a collective manner, and different interests, aspirations, and needs of different sectors were oriented towards the same direction”**

During the workshop, the discussion focused on the validation of the gathered primary and secondary data, the main issues at national, regional and city scale, and the future vision for Juba. The key elements of discussion were:

- Land tenure and security of the city
- How to deal with migration and population growth
- Refugees, Returnees and IDPs dynamics at national, regional and city level
- The current social and spatial conditions of the IDP’s camps and Collective Sites in Juba
- Issues regarding urban mobility and traffic within Juba
- Switching from a centric model of city to a polycentric city
- Status and future interventions for a waste management system and accessibility to basic services such as clean water and sewage.
- The lack of land policies for the urban plots in Juba
- Protect the rights of indigenous people for protecting their land
- Plans for future urban food markets within the city
- Engagement with IOM regarding data of the IDP’s camps and possible urban projects with long term vision

This participatory design process was an essential component of the project. From this discussion, a joint vision for the future of Juba was developed in a collective manner, including the different interests, aspirations and needs of various sectors while trying to push all the ambitions into the same direction. In definitive, the strategic recommendations aim at developing and achieving a compact, resilient, inclusive, accessible, and open Juba.

The strategic approach of a compact city intends to limit the urban sprawl and avoid the pop-up of new informal settlements around the city’s outskirts, where returnees and newcomers usually settle. The intention is to consolidate the town’s central core and increment the

population density numbers within the proposed developmental protection boundary, rather than continuing to expand the city into a horizontal direction, creating more dispersion. Three concrete actions in the form of specific projects and policies are recommended to transform Juba in a compact city.

Vulnerability to climate change and flooding risk depends not only on adverse climate conditions but also on the capacity of governments and societies to anticipate, adapt and resist its impacts. Cities with complex informal and precarious settlements as Juba are more vulnerable to human and economic losses. The strategic approach for a resilient city aims to reconcile the natural features within Juba with the urbanization processes that have taken place during the last decades. Strengthen the relationship with the Nile River that is currently neglected and protect the water streams inside the city’s urban fabric and at risk of flooding, establishing buffer protection areas to avoid informality. As part of this vision, the promotion of urban agriculture in the surroundings, with the objective of first, protecting the land from undesired urbanization, and second, to address the issue of food insecurity in the city and the dependency of food from Uganda.

The term “Connected City” can be defined in multiple ways. A city can be connected through its physical layout and its opportunities for social interaction. To address each of those meanings is the primary recommendation for a connected and integrated city, pointing towards relinking the existing pieces of infrastructure, the economic cores of activities and the main pockets of population density within Juba. Urban mobility is one of the main challenges, and the proposals for the city are to implement alternative options of mobility other than the car. UN-Habitat proposes implementing more biking and pedestrian infrastructure, increasing the mixed land use regulations, and strengthening the public transport system to create new cores of activity apart from the ones situated at the city’s centre. This will help address traffic jams and increase

the accessibility to jobs and services within a 15-minute ratio.

Cities are often at the frontline for integrating migrants and facilitating their social and economic inclusion, responsible for developing and implementing urban programmes and the management of service delivery systems (JMDI). The strategic approach for consolidating an open city, looks to establish urban planning as a peace building tool and create a participatory physical planning process for integrating migration (IDPs, returnees & refugees) into future development interventions in Juba. Inclusive, sustainable, and evidence-based urban planning ensures that basic services and infrastructure are developed in line with a vision for integrated territorial development that considers urban growth due to migration. Failure to plan for growing urban

populations can put pressure on urban services; increase competition on housing and land; and amplify existing disfunctions in urban systems. This can contribute to social tensions; create new informal settlements; exacerbate urban poverty; and increase vulnerability to gender-based violence and exploitation.

There is an interrelatedness of the many components of a land planning system. A Strategic Urban Plan cannot address the discussion of land use, transportation, the natural environment, migration, and economic growth without recognizing the contributing effects of one on the other. To support this task, a set of multi-scalar and multi-dimensional maps are elaborated to build the narrative and establish a comprehensive vision of the city.

**“A Strategic Urban Plan cannot address the discussion of land use, transport, migration, and economy without recognizing the contributing effects of one on the other.”**



Figure 45: Participatory workshop for the Juba City Profile ©United Nations Human Settlements Programme (UN-Habitat), 2022



### 6.3 The Compact City

Achieving a compact city implies creating an efficient urban space that is safe, comfortable and attractive for all the residents. Residents of the compact city enjoy a highly efficient urban form characterized by proximity to services and various uses. A highly walkable environment is supported by the urban layout encouraging walking and cycling, providing opportunities for people to interact and businesses to emerge. Establishing spatial and legal mechanisms to consolidate a Compact City should increase accessibility and walkability, therefore increasing use of public transport and public space, reducing congestion, boosting the local economy and increasing interactions across society. An efficient public transport system provides better accessibility, bringing multiple economic and environmental benefits. Low population density and urban sprawl are standard features of the Juba urban structure. This phenomenon is accentuated by the high number of IDPs, returnees and refugees that have arrived in the city over the last decades and by the absence of any means of urban planning and management, promoting the city's expansion in a horizontal direction rather than vertical.

The first strategy consists in limiting the urban sprawl, establishing a solid boundary that limits the extension of the city and consolidates the inner boundary. The boundary, regulating the planned growth of Juba, includes the current urban fabric and unbuilt land towards the south and east on the other side of the Nile in order to allow future city expansions and service provision. This will increase the density within the built-up areas and work on the vacant land in the urban fabric.

A dense and urbanized city fabric requires less resource consumption, facilitate the accessibility to basic infrastructure and public services such as public transport,

reduce the pressure on municipality for maintenance and supply, and have positive impact in terms of economy, environmental, and social dynamics. In the land use plan, optimal density to be achieved in the city need to be taken into account throughout a gradient of density from city centers, new urban cores and main roads to the outside.

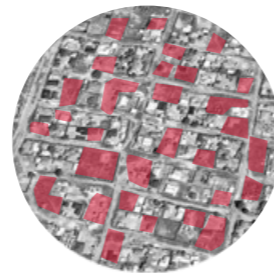
A compact city makes the provision of the services more efficient. It releases financial pressure from the local governments. Due to the sewerage costs, electricity and clean water distribution networks have become more economically feasible. Overall, the provision of more efficient and capillary infrastructure, especially by complementing the existing road system and providing public transport, will increase accessibility and support the creation of new centres envisaged as new mixed-use cores. The city must create incentives to encourage the development of vacant land within the city limits as a priority. Installing public transport will help to concentrate development along accessible and strategically important corridors to the city's connectivity. Defining a hierarchy of primary, secondary, and local nodes with correspondingly scaled catchment areas and levels of commercial services will also create a structured pattern of development, making the city more legible.

To become a compact city, Juba should use the following strategies:

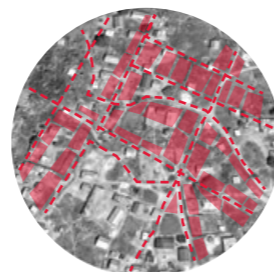
- Limit city growth & urban sprawl
- Densify the existing urban fabric
- Incentivize infill and multi-storey building in Juba center and along major roads and nodes
- Requalify and densify low density organic settlement in the city
- Provide urbanization of low density settlement in the outskirts of the city



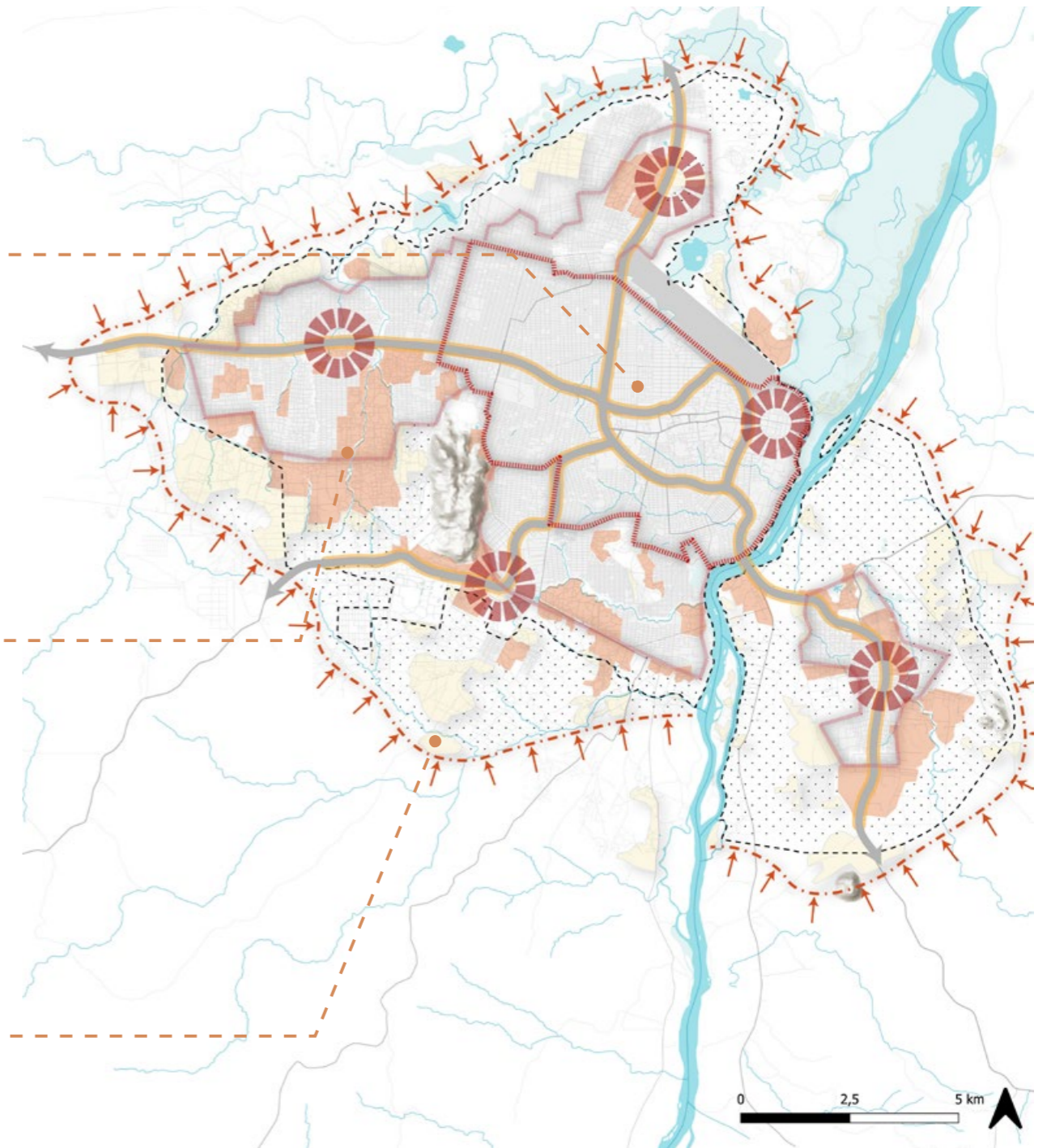
**Land Class One**  
Increase buildings heights and number of stores in selected existing buildings.



**Land Class Two**  
Urban infill strategy in the existing vacant land at the city's center. This will increase population density.



**Land Class Three**  
Establish a clear urban structure with defined streets and sidewalks and land allocation.



<b>Legend</b>		<b>Road Network</b>	
	Study area		Densification along main axis
	First urban development protection boundary		Mixed-use
	Second urban development protection boundary		New urban cores
	Requalification area		International Airport
	Urban infill		Wetlands & floodplains
	Vacant land		Rivers & water streams
	Planned urban growth		Paved roads
			Primary roads
			Secondary roads
			Tertiary roads

Map 40: Juba: The Compact City



The **Densification** is carried out throughout three different means:

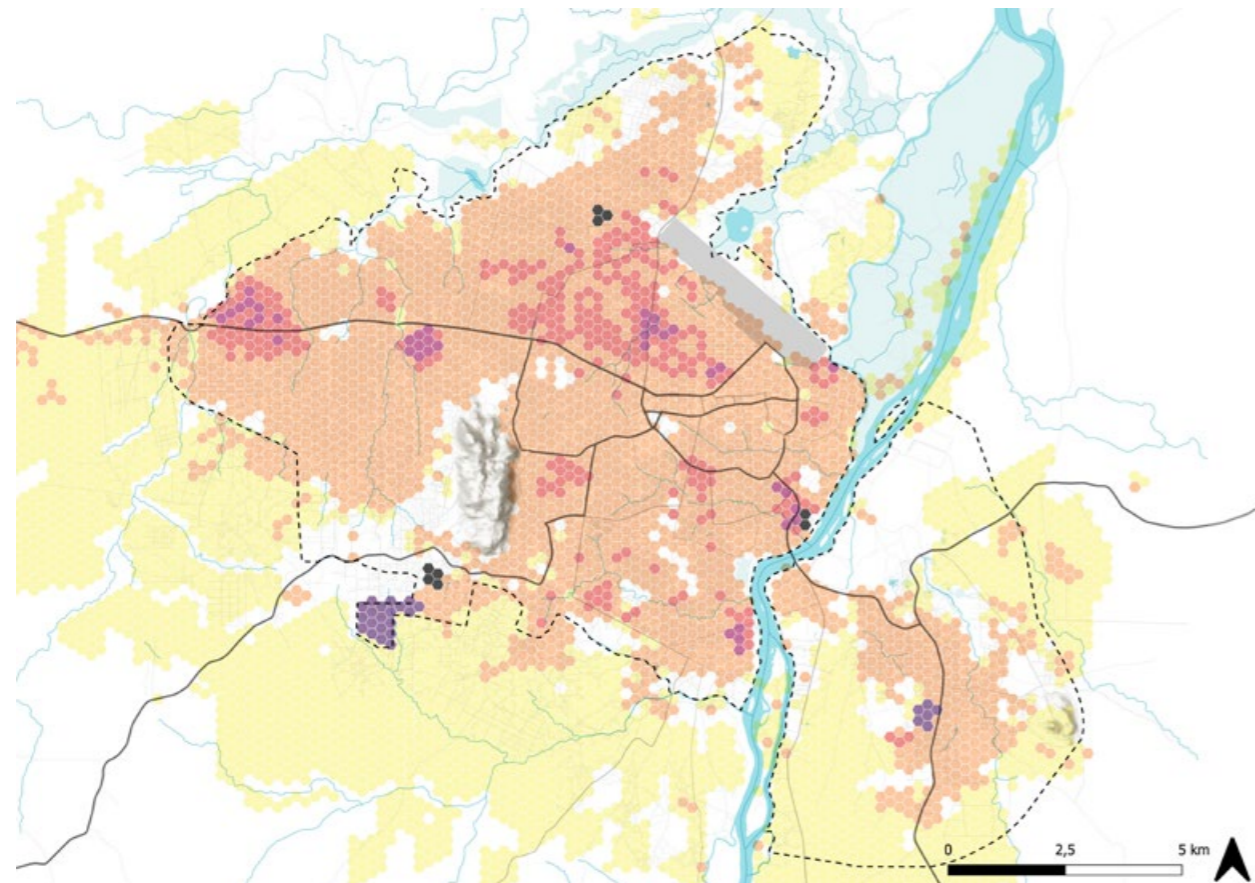
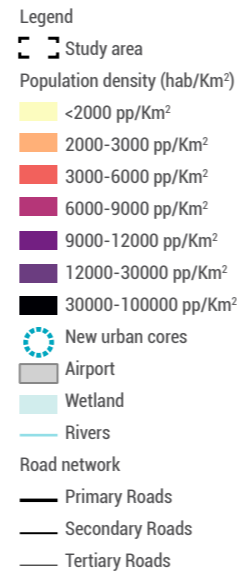
**1-2. Infill in urban voids and high-rise dwellings.**

Despite its formal and gridded urban fabric composition, the density of Juba city center is considerably low for a capital city, around 3000 hab/Km<sup>2</sup>. An area for high densification and an area for medium densification have been outlined with the objective of being able to support the continuous pressures Juba is experiencing and invert the sprawl trend. This is set to be achieved mainly through infill, building high-rise constructions in the common empty and unused plots – mostly in the medium

densification areas – and through a gradual replacements with high-rise buildings in strategic areas of the city center. An analog strategies need to be applied along the main identified roads and in new mixed use urban cores. This must be adequate supported by appropriate socio-economic measures, making living in central districts financially sustainable - thus overcoming the criterion of classification of residential land in the city - and reversing the trend that sees part of the population pushed from the city center to peripheral areas of the city.

**3. Requalification:**

The area is partially developed with an organic form and a partially developed road



Map 41: Juba population density distribution scenario 1: business as usual

network consisting of meandering streets forming irregular blocks. The zone has the potential to absorb population. However, the higher density would not be achieved without transforming the housing type, improving the road network, and providing services.

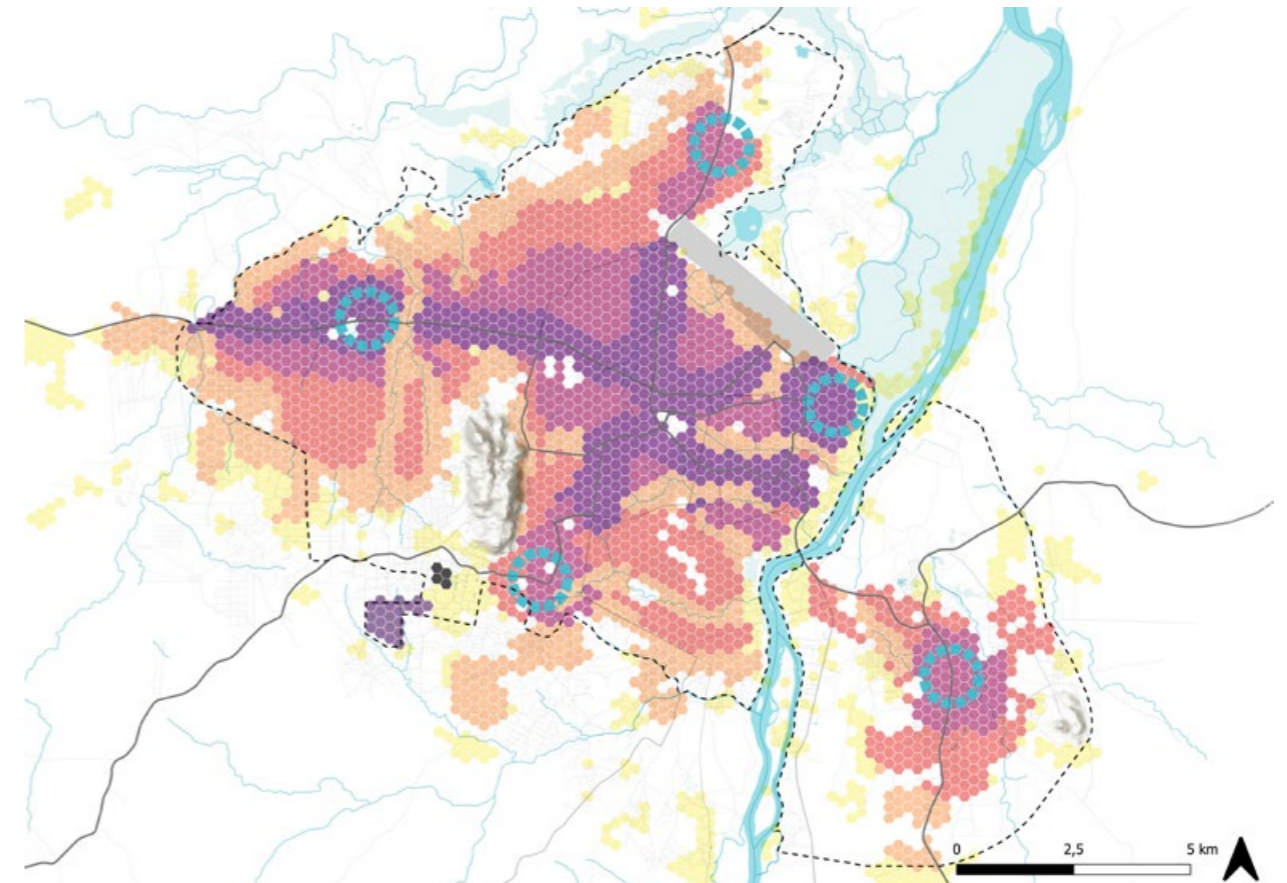
**4. Urbanization:**

This area consists of grassland with few houses recently developed by returnees settling at the city's boundaries. The zone has great potential for absorbing population because of the high vacant land, achieving a higher density level than a business-as-usual scenario. On the other hand, since road networks, essential services and

infrastructures are not developed, the creation and improvement of primary and secondary urbanization are required, and a better connection with the city centre and the new cores of the city.

Strong arguments have emerged to promote the compact city as the most sustainable urban form. It is envisioned as a high-density urban settlement characterised by mixed-use development, recognisable, dense, and revitalised central areas, with well-distributed services and facilities (hospitals, parks, schools, leisure, and entertainment). In addition, compact urban development aims to preserve land resources and natural assets while increasing the efficiency of public infrastructure services.

**“Compact urban development aims to preserve land resources and natural assets while increasing the efficiency of public infrastructure services”**



Map 42: Juba population density distribution scenario 2: densifying along the main roads and in the new urban cores



## 6.4 The Connected and Integrated City

Residents of connected city leverage the highly permeable and efficient street network with walkable distances and a variety of route options, allowing convenient travel between designations and public transport services as intermediate stops, increasing the overall resilience of the transportation system. The urban environment of the connected city is making local trips more pleasant by walking and cycling, considering streets as vibrant, safe and attractive public spaces accessible for all. A connected city is integrated with blue and green networks to support the functionality of the ecosystem and its adaptability to climate change.

The local transport system and the new structured transport nodes can enhance mobility within the city, consolidate the urban fabric, and induce urbanization and densification in strategic points. Historically, Juba expansion has been carried out without rules and regulations following a concentric direction, with the urban road network unable to keep pace with the rapid urbanization. The road network has to be improved, enhancing the existing roads in terms of width, drainage system and paving and creating a more capillary network of secondary and tertiary roads connecting the whole city, including the east banks of the Nile River.

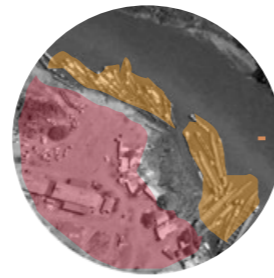
The strategic identification of five new mixed-use urban cores with a particular focus would allow the decentralization of certain functions and alleviate the congestion in the city centre in terms of traffic, pollution and provision of services and infrastructures. Thanks to the provision of more efficient infrastructures, mobility will increase the connection of the periphery to the city centre and the city's access throughout the city to basic services and infrastructures such as schools, hospitals,

and essential services. Light industrial activities should be reinforced in selected new urban cores. Similarly, Juba does not have an appropriate river port that could exploit the potential to move the river's goods and people. The rehabilitation of the river port is then fundamental. Currently, the only railway in South Sudan arrives from Babanusa in Sudan and reaches Wau. According to the LAPSET Corridor project, a commercial railway will connect Juba with Lamu in Kenya. The construction of a Railway line connecting Sudan-South Sudan-Uganda-Kenya would open South Sudan to international traffic, and a suitable location for a future Railway station must be considered during the land use planning.

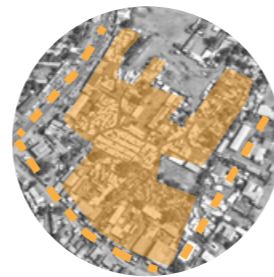
In this scenario, public transport can provide fast cross-town connections linking the city's public areas and functional cores to the surrounding neighbourhoods. Most importantly, these neighbourhoods, in turn, should provide opportunities and conveniently located facilities that are accessible locally by the community, which in turn reduces the dependency on private vehicles.

To become a connected and integrated city, Juba should use the following strategies:

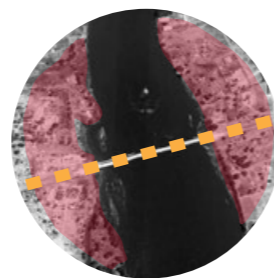
- Improve existing road network
- Increase pedestrian and biking connectivity within the city (and riverfront)
- Implement mixed-use function along main roads and nodes and industrial activity in selected areas
- Implement mobility infrastructure
  - New Airport
  - Rehabilitation of river port
  - Bus stations and public transport system
  - Railway system



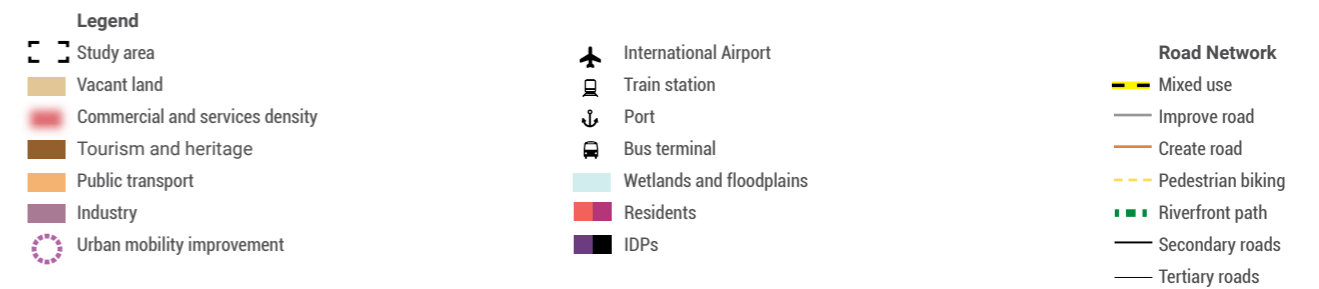
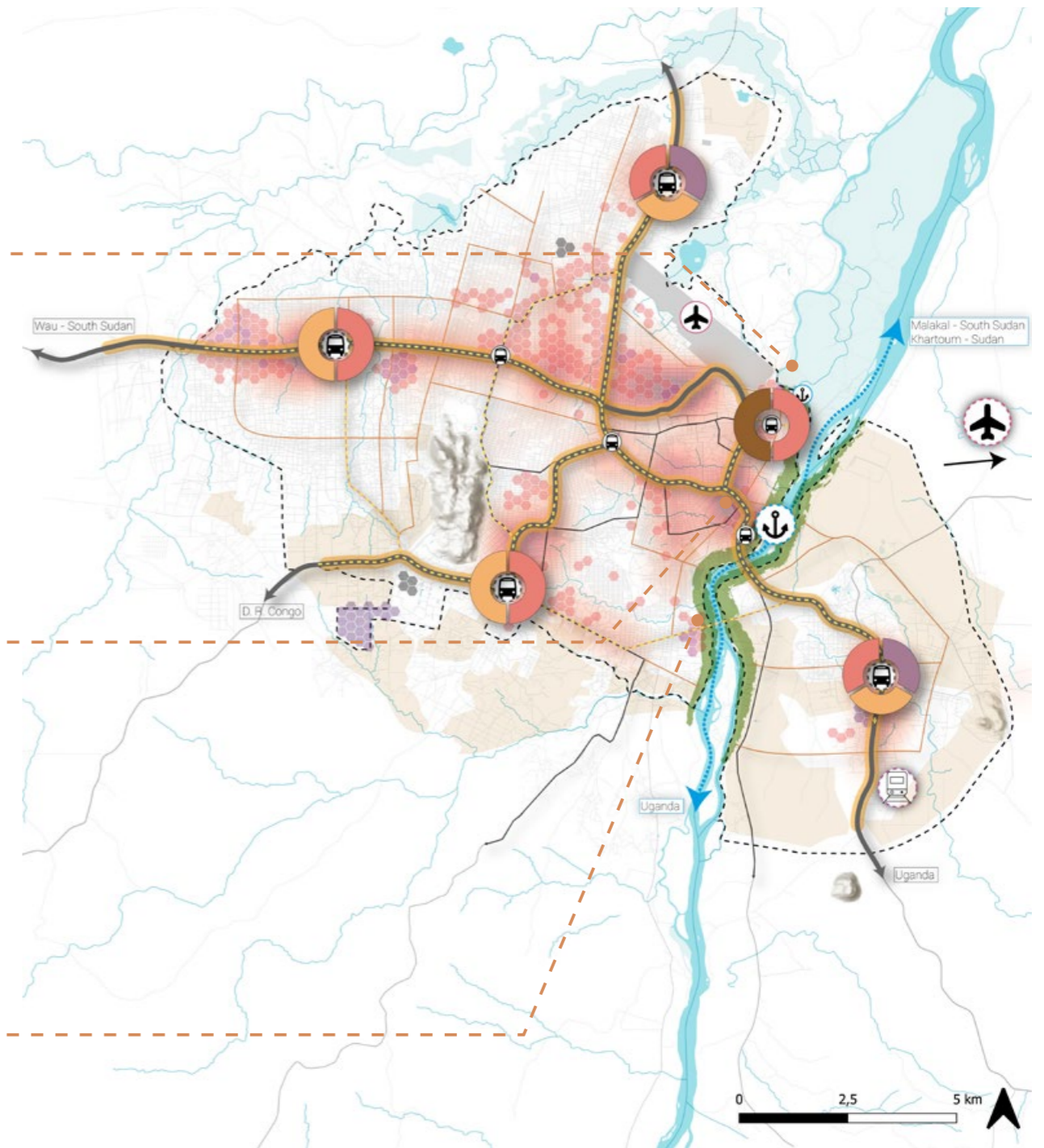
**Upgrade The River Port**  
Leverage the current operation capacity and the connectivity of the port with the city and other regions.



**Re-design Konio Konio Market**  
Create a better and easier accessibility for pedestrians and cars with the rest of the city, and establish spatial order.



**Freedom Bridge**  
Increase the connectivity of the city center and the Eastern Banks of Juba not only with the bridge but also with water transportation.



Map 43: Juba: The Connected and Integrated City



## 6.5 The Inclusive & Accessible City

Cities are often at the frontline for integrating migrants and facilitating their social and economic inclusion, responsible for developing and implementing urban programmes and the management of service delivery systems (JMDI). City and local governments, in many contexts, directly deal with the practical realities of managing and providing education, health, housing, and social service needs of migrants and documentation and legal identification processes (IOM, 2018).

To consolidate Juba as an open and accessible city, urban planning and design need to be framed as a political tool for peacebuilding. The IDP camps and PoC sites have a substantial impact on the urban fabric of Juba, as well as on the social and economic dynamics of the city. The humanitarian response has faced severe challenges to cope with the crisis, failing to meet the minimum SPHERE emergency standards in implementing some of the sites, particularly in the case of Mangaten, Mahad, Don Bosco and the Camps at the UN House. These Camps urgently need improvement and upgrading interventions regarding shelter provision, public space, health care, education, water and sanitation, waste management systems, and jobs creation.

The strategic interventions propose to create a balance of the future investments in the Camps from the further international cooperation and development agencies. Juba is experiencing a transition from humanitarian to development-oriented projects. These should be made with a long-term urban vision and not just as temporary solutions. The new projects should avoid targeting particular population sub-groups, such as IDPs, refugees, and returnees. While also improving the livelihoods of the local population living around the Camps

to demonstrate support for the needs of all the residents in Juba.

Juba suffers successive epidemic waves of cholera, diarrhoea, typhoid, hepatitis, and Covid-19. The significant factors that lead to diseases are the lack of accessibility to water and sanitation infrastructure, creating water pollution due to the proximity of dumping sites and pit latrines to clean water points. Fact that gets worst due to the city's lack of a waste management system. This issue is exacerbated during the rainy season when pit latrines collapse and the flooding disperses the polluted water all over the settlements, increasing the risk of diseases.

Public Health interventions in urban settings aim to meet the basic health needs of IDPs. Health services are intricately linked to nutrition and WASH interventions to prevent disease outbreaks and reduce public health risks and provide a favourable environment for the protection of nutrition status and food security.

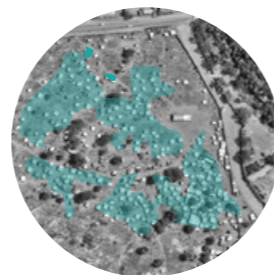
As stated in the analysis stage, It is recommended to have a proper management of the water bodies and waste disposal system, and waste should be treated before entering the water bodies. Awareness programs and formulation of laws should be carried out to control pollution. Further research studies, including epidemiological studies, are necessary to determine better the impact of water pollution on human health and the environment.

To become an inclusive and accessible city, Juba should use the following strategies:

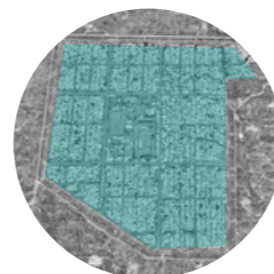
- Invest in development projects within the different IDP camps in the city
- WASH and Urban health interventions



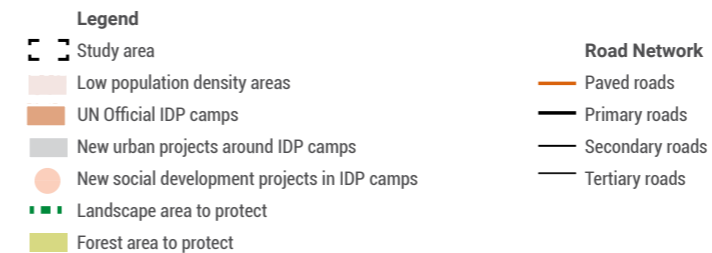
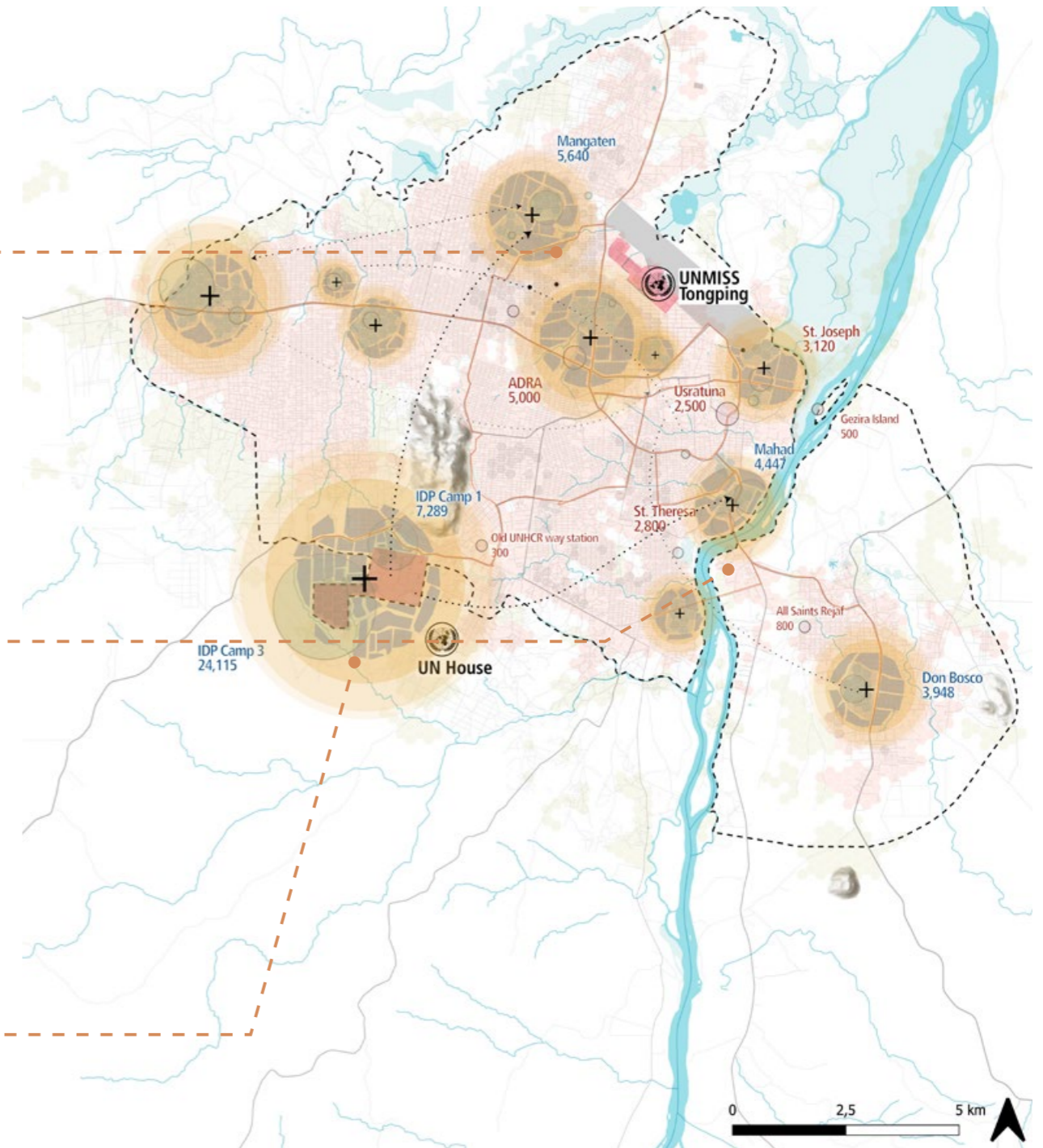
**Mangateen IDP Camp Upgrade**  
There are 5,640 IDPs living in this settlement that need shelter upgrade and a LHP project.



**Mahad IDP Camp Renovation**  
There are 4,021 IDPs living in this settlement that need a WASH project and basic services provision.



**Juba IDP Camp 3 Upgrade**  
There are 24,126 IDPs living in this settlement. More public spaces and community centers.



Map 44: Juba: The Open & Accessible City



## 6.6 The Resilient City

All the Residents of the resilient city are secured from immediate and chronic stresses within urban systems, being prepared for future challenges. A resilient city provides continuous functionality of services and urban systems that can withstand the potential crisis and facilitate the recovery process. In addition to budding adaptation to the changing world, the resilient urban form may correct existing social and economic structures, improving the community's well-being.

Juba is rich in natural resources and green areas both within its urban boundaries and its immediate surroundings due to the wetlands, forests, the White Nile River, and the multiple streams and rivers crossing the city. This should make Juba a livable, green and environmentally friendly city. Currently, the green public spaces are not maintained, disconnected from each other and isolated from the existing blue network. In addition, the unregulated expansion of urban areas towards hazardous prone areas poses severe risks of vulnerability to flooding.

First, the riverfront on both sides of the Nile River is planned to become a structured green area with a promenade, urban furniture, and rest facilities and become an iconic landmark for Juba. Currently, the west riverbank is partially urbanized; in the northern part are located touristic facilities, depot, water and electricity companies and commercial and business functions, while the southern riverfront has more unoccupied land to be used for greenery and open spaces. On the other hand, the east bank of the Nile River is still mostly unurbanized.

Due to the high presence of streams, certain Juba areas are occasionally subjected to flooding, a process worsened by the adjacent high urbanization and the inadequate sewage and solid waste management systems. To protect the several water streams in

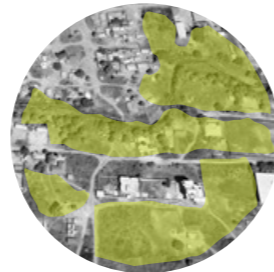
the city from urbanization and informal settlements. A protection mechanism or initiative as the green urban corridors needs to be established, consolidated, and improved, serving as eco-corridors for the city, increasing connections and providing open green areas for the inhabitants living in the adjacent neighbourhoods. In addition, the abundance of vacant land and open areas within the city boundaries will create a network of green public spaces in correspondence or linking the city's central urban cores of activity and the areas of greater density in the city, including the PoC sites. Jebel Mountain should also reinforce its status as a natural landmark of the city.

Agricultural activities can be found northwards and northeastwards of the city, a swampy area fitting agricultural and pastoral criteria, eastwards, close to the urban settlement of the east bank, and southwards, along the White Nile River. To foster agriculture and help to improve food security and commercial activities, the existing agricultural areas eastwards and southwards of the Juba urban fabric are to be reinforced and expanded by selecting new adjacent potential areas suitable for agricultural development.

A protection belt, partly matching the city limit for the planned growth, is set to protect the natural environment – forest and wetland – characterizing the immediate zones outside Juba boundaries in the north.

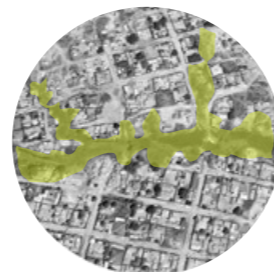
To become a resilient city, Juba should use the following strategies:

- Protect natural habitat – forest, wetland and Nile river
- Create green connected public spaces throughout the city – green corridor, public spaces, riverfront



### Wetlands Preservation

Preservation and restoration of more than 20,000 Ha of wetlands and floodplains at the north.



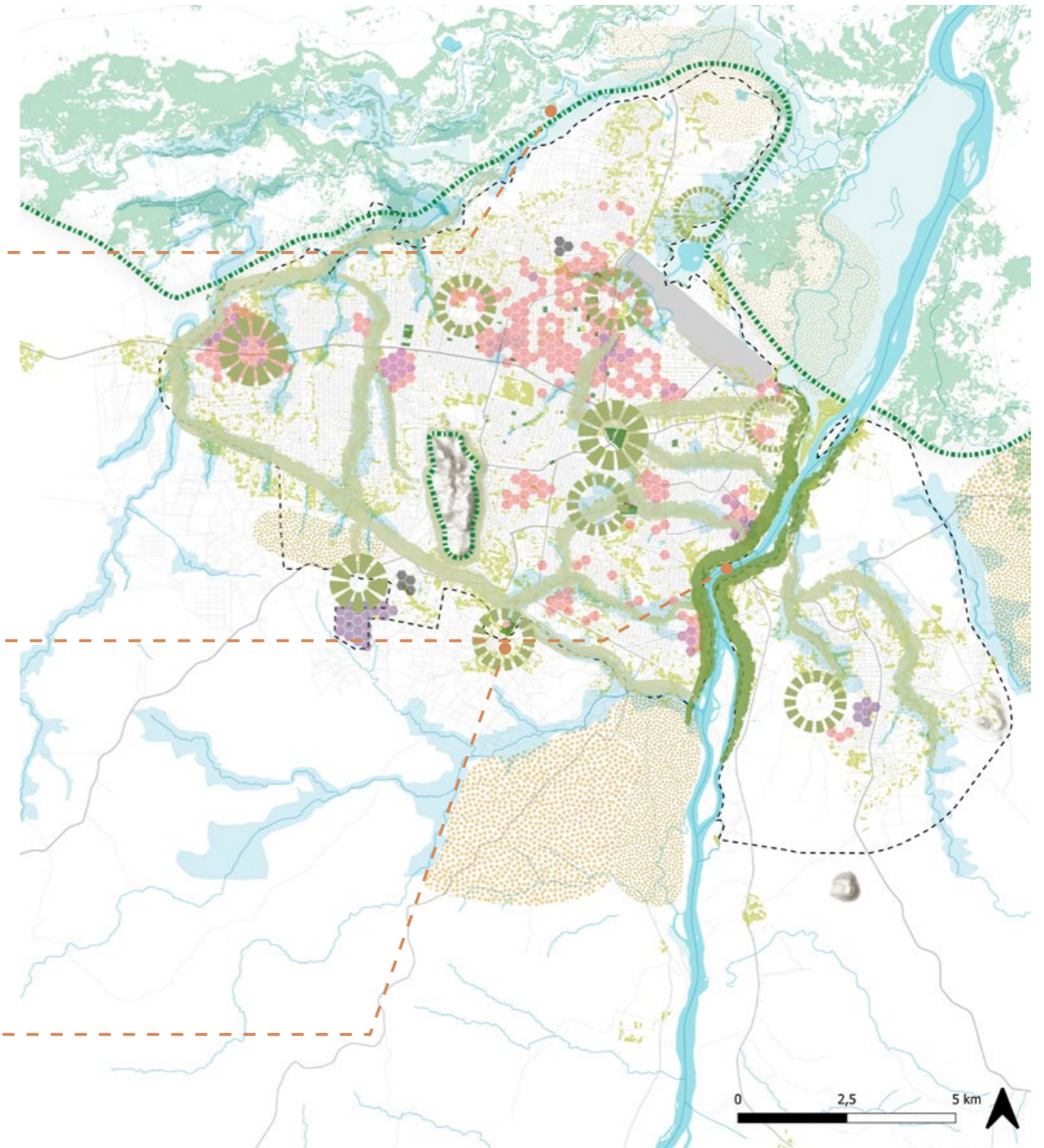
### Green Corridors

Establish more than 26 lineal Km of green corridors and public spaces in different water streams in the city.



### New Public Spaces

Establish new public spaces & parks in different vacant plots within the city.



Legend		Road Network	
	Study area		Paved roads
	Agriculture area to protect		Primary roads
	Agriculture area to reinforce production		Secondary roads
	Suitable land for agriculture		Tertiary roads
	Forest area to protect		Abandoned public space
	Landscape area to protect		New public space
	Urban green		Green corridors
			New riverfront area
			Flood prone areas
			Residents
			IDPs

Map 45: Juba: The Resilient City



## 6.7 The Strategic Plan for Juba

The UN World Population Prospects projections for Juba calculate that it will double its current inhabitant's number by 2035. This represents an accelerated pace in its density growth, passing from 400,030 pp to 761,000pp in a matter of 13 years. Given the expected population growth for the city, the demand for land, housing, basic services, and jobs will be critical.

The main objective of the Strategic Plan is to anticipate and guide the sustainable urban development for the future city's expansion over the next upcoming years.

**There are two main questions this plan aims to address:**

**In which directions will expansion and urban growth should be guided?**

**What urban patterns, character, and density, will the new city's form should follow to secure equal access to public infrastructure and public facilities for everyone?**

Moving forward from the intention to the action, the first strategy is to consolidate a compact city, implementing a development protection boundary to avoid future spontaneous settlements and dispersion at the outskirts. Limiting the urban expansion will impact in increasing the population density numbers within the city limits and will push for development in the vacant land located in the consolidated urban fabric.

This strategy will also help to protect the wetlands in the north-west and north-east of Juba, as well as the few agricultural lands situated in the surroundings, which are essential to the water cycle and regulation of the environmental assets of the city, as well as for the provision of ecosystemic services.

Cities with higher densities are more

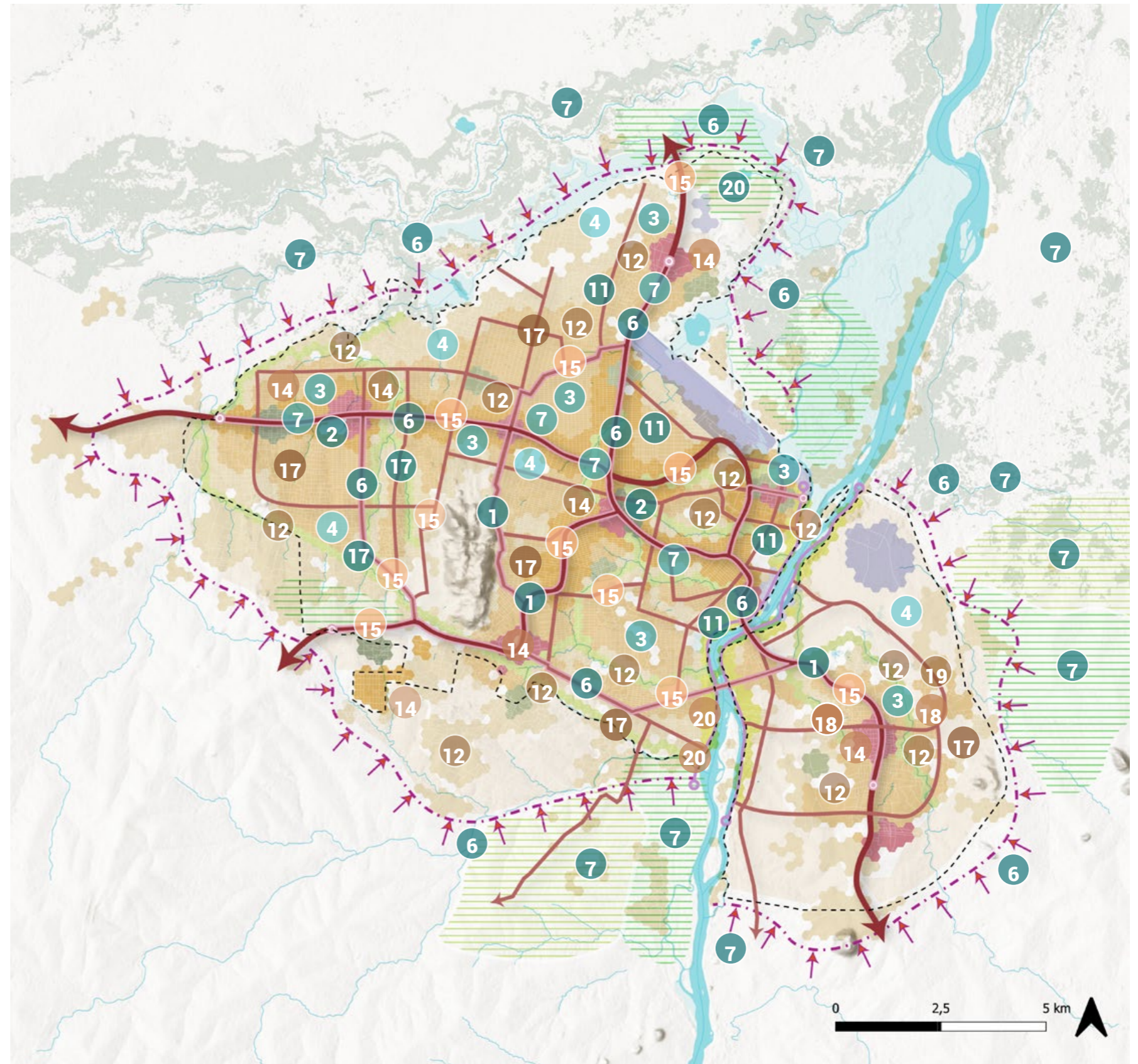
efficiently served by basic services and infrastructure than cities with low densities. The plan proposes a policy to designate a new land zoning, promoting a regulation to increase the building's heights and the construction density in the ongoing and consolidated urban fabric. The city council must establish incentives to encourage development on the existing vacant land as a priority. Installing public transport will help to concentrate development along accessible and strategically important corridors to the city's connectivity.

Defining a hierarchy of primary, secondary, and local nodes with correspondingly scaled catchment areas and levels of commercial services will support consolidating higher densities along the main corridors and commercial cores.

To consolidate Juba as a resilient city, the strategic plan aims to implement an approach based on different Nature-based solutions for delivering infrastructure, services, and integrative solutions to meet the rising challenges within Juba regarding flooding risk, water pollution, waste, and disease outbreaks. The proposed interventions go beyond sectoral boundaries and require cross-sectoral partnerships from key stakeholders and international development agencies.








The first recommendation is to implement a land use and zoning policy to protect the water streams, and seasonal rivers with a protection buffer. This action will restore the natural flooding dynamic of the watercourse and re-balancing it with the urban water dynamic of Juba.

The second strategy is to relocate the informal constructions and settlements currently in flood-prone areas, establishing instead green riparian corridors that can allocate social activities and transform these





## 6.8 Policies & Projects of the Strategic Plan

Project/Policy	Description	Priority	High Priority					Medium priority					Low	Potential implementation partners/donors	Related SDGs
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2032+		
<b>1. Strengthen the Institutions Planning Capacity &amp; The Urban Planning System</b>	<p>Juba Urban Planning Institutions have a low capacity to manage sustainable development. Furthermore, the city lacks a strong and clear urban planning system able to give certainty to the proposed projects. To effectively implement the different tools and mechanisms in this document, the first recommendation is to start a process with external support to strengthen the human systems and operational capacity of ministries and municipal level departments of the different governmental institutions.</p> <p>The capacity building process means improve human resources development, including local urban planners, architects, legislators, decision-makers, and technicians working for the local administrations. The three main aspects of improving in Juba are human resources, organizational, and institutional development.</p> <p>The process will reinforce the status of legislation, policy, governmental statutes, regulations, and building codes to update and consolidate the new mechanisms and tools needed to manage, control, and guide sustainable urban development in the city.</p>	1	█	█	█	█	█	█	█	█	█	█	█	<ul style="list-style-type: none"> <li>Ministry of Lands, Housing, and Physical Planning (National)</li> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UN-HABITAT</li> </ul>	  
<b>2. Official Digital Cadaster</b>	<p>There are several land tenure issues in Juba, and the demand for land will grow dramatically over the following years with the anticipated influx of IDPs, returnees, and refugees. Given the potential for conflict that could arise in the contesting of land ownership, the government needs to conduct a comprehensive records review of the existing cadastral records in the Building and Lands Administration and the Land Survey Office, against the records in the Land Registry Office.</p> <p>Pending the establishment of the Land Commission for Urban Land and property, The Juba City Council can consider an interim policy of dispute resolution or suspension of claims determination pending formal review of urban land issues.</p> <p>A digital cadaster is one of the basic building blocks for any land administration system. Such a system includes the interaction between the identification of land parcels, the registration of land rights, the valuation and taxation of land and property, and the present and future uses of land (Enemark 2006). However, because of the rapid growth of Juba's population, the land value is changing fast; Thereby the security of land property rights can no longer be guaranteed by the traditional, paper-based, cadastral systems.</p> <p>It is urgent to start a process of a land survey, data collection, update, and digitalization of the old cadaster map in GIS to start consolidating a Digital Cadaster that can be open and accessible to the community online. Streamlining the process and transparency of land allocation will allow existing and future residents to understand the legal process encouraging land ownership and using more reliable systems. It would have the added benefit of bringing services to the people and providing local technicians and land administrators on-the-job training while providing a necessary public good.</p>	1	█	█	█	█	█	█	█	█	█	█	<ul style="list-style-type: none"> <li>Ministry of Lands, Housing, and Physical Planning (National)</li> <li>South Sudan Land Commission</li> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UN-HABITAT</li> </ul>	   	

█ High Priority  
█ Medium Priority  
█ Low Priority  
**Policy**  
**Project**

abandoned interstitial spaces into public spaces for community use. The green riparian corridors are an excellent strategy to enhance biodiversity and create linear parks able to reconnect different areas of the city.

This strategy also addresses the critical issue of plastic pollution and water contamination that is usually found in most of the seasonal river streams within the urban tissue. The Preservation of forests, wetlands and agricultural areas is another key policy in the strategic plan for Juba. Establishing programmes to monitor the recovery of riparian forests in the West Nile river area as well as reinforce with different implementation projects the agriculture activity in the city, particularly in the IDP's camps areas, to create job opportunities and strengthen the food resilience among the refugees, returnees and IDP's population.

Juba is composed of different urban areas lacking spatial integration and connection. It is imperative to develop several regulations and projects to establish a connected and

integrated city to address this urban pattern. This can be done via the provision of a policy and a system of a formal public transport network of BRT, feeder buses, bike lanes, pedestrian streets, and green corridors.

The recommendation for the system also includes alternative modes of urban mobility to release the high car dependency in Juba, which creates several traffic jams and is a critical mobility issue in the city. A set of new urban cores of activity and economic centres with services provision is recommended. If

Juba wants to solve the traffic problems, it needs to switch from a Centric to a Polycentric model of a city, avoiding as much as possible unnecessary people displacements.

A land-use policy and regulation can address this reactivity to different deteriorated neighbourhoods, particularly those situated at the city's periphery. In parallel, specific projects to rehabilitate the large pieces of infrastructure are proposed. For instance, the upgrading and possible renovation of the existing Port in the White Nile river is essential

***"The proposed interventions go beyond sectoral boundaries and require cross-sectoral partnerships."***



Project/Policy	Description	Priority	High Priority					Medium priority					Low	Potential implementation partners/donors	Related SDGs
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2032+		
<b>3. Land Information System (LIS) or Joint Information System (JIS).</b>	<p>Due to the several land tenure issues affecting Juba and the inconsistencies of the existing cadastre with the land registry documentation regarding the property of urban land. It is important to start a process of creating an organized and unified land register system in which both institutions are interlinked and exchange property data and information. In simplified terms, a unified database that can be updated in real-time able to give legal certainty to land property.</p> <p>Land registries and cadastres are different institutions and contain different levels of information. A cadastre contains spatial data on parcels, buildings, surfaces, and the legal status of the land. A land registry is a public register where the data on the legal property status of legal merit transactions are recorded.</p> <p>The LIS or JIS will be a dynamic system with a continuously updated network of interrelated databases of geographically referenced information linked to a comprehensive digital cadastral database for Juba. This are the main principles that will govern the new Land Information System for Juba:</p> <ul style="list-style-type: none"> <li>-The principle of plot-based organization of the cadastral data.</li> <li>-The principle of legality of deeds.</li> <li>-The principle of time priority.</li> <li>-The principle of public and open digital cadastral information.</li> </ul>	1												<ul style="list-style-type: none"> <li>•Ministry of Lands, Housing, and Physical Planning (National)</li> <li>•South Sudan Land Commission</li> <li>•Juba Municipality</li> <li>•Juba City Council</li> <li>•State Ministry of Local Government</li> <li>•Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>•Government of Central Equatoria State</li> <li>•UN-HABITAT</li> </ul>	
<b>4. Update the existing 2009 Land Act and the 2009 Local Government Act</b>	<p>The existing Land Act and Local Government Act established in 2009 are no longer effective in regulating the current dynamics of the city. The local government has made significant progress in establishing legal frameworks. However, Juba local institutions need assistance in addressing chronic gaps, upgrading, and updating the different legal mechanisms and systems to control and guide urban development. It is urgent to start a process to revise, modify and adapt the Land and Local Government Acts to the current community interests to guide and effectively implement future sustainable urban development.</p> <p>Updating the Land Act and Local Government Act would positively impact the issues regarding land registration and rights, population density, building permissions, public space, urban infrastructure, basic services, etc. The different functions and actions will be legally regulated to an effective implementation of such.</p>	1											<ul style="list-style-type: none"> <li>•South Sudan Government</li> <li>•Ministry of Lands, Housing and Physical Development (National)</li> <li>•South Sudan Land Commission</li> <li>•Juba City Council and Municipality</li> <li>•State Ministry of Local Government</li> <li>•Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>•Government of Central Equatoria State</li> <li>•UN-HABITAT</li> </ul>		
<b>5. Public Transport Act</b>	<p>The public transport system in Juba has a vast number of challenges and issues, ranging from underdeveloped infrastructure, inadequate management and administration, but most importantly insufficient policy regulations and legislation.</p> <p>A Public Transport Act is the legal mechanism to manage and regulate all public transport by road, railway, waterway, and air. It is the basis to set up detailed rules for applying the regulations and policies for any future comprehensive public transport network plan.</p> <p>The Public Transport Act will have an impact on reducing considerably the traffic and vehicles congestion, giving structure and order to the informal transport system, and will be the base to properly manage the associated infrastructure for urban mobility in Juba.</p>	1											<ul style="list-style-type: none"> <li>•South Sudan Government</li> <li>•Juba Municipality</li> <li>•Juba City Council</li> <li>•State Ministry of Local Government</li> <li>•Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>•Government of Central Equatoria State</li> <li>•UN-HABITAT</li> </ul>		

Policy Project













- High Priority
- Medium Priority
- Low Priority




to connect the city at a regional and national level, moving goods, people, and livestock. This operation will enhance the commercial activity and the jobs creation. The construction of the new railway station is also significant to connect the city at the national level, but most important to strengthen the connection with the LAPSSSET Corridor and the neighbouring countries in the East, such as Uganda, Kenya, Ethiopia. The intervention will represent a substantial economic impact on the city and

on the country. Usually, IDP settlements are created with a short-term vision and as emergency responses, with little planning for long-term living. Juba needs to transit from humanitarian and emergency interventions to establish local development projects. Building

open and inclusive communities for refugees, IDPs, and returnees, requires inclusive city planning policies, projects, and programmes. In elaborating such strategies, the needs, perspectives and voices of these minorities must be included.



Project/Policy	Description	Priority	High Priority					Medium priority					Low	Potential implementation partners/donors	Related SDGs
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2032+		
<b>6. Physical Layout with Urban Planning Guidelines and Planned Urban Infills</b>	<p>Juba has emerging urban sprawl and informality issues at the city's periphery. The horizontal urban expansion is not controlled nor regulated, mainly due to the rapidly changing population dynamics of IDPs, returnees and refugees.</p> <p>Different policy instruments for managing urban growth and protecting land from urban sprawl exist. A Physical Layout with urban planning guidelines and planned urban infills will provide quick support to strategically guide land management and city expansion. The urban planning guidelines will have a more operative approach through implementable pilot projects and plans for concrete city areas and neighbourhoods. This fast regulatory approach defines the city limit prohibiting the issuance of building permits and new developments beyond the designated areas. This methodology is commonly used in rapidly growing cities to procure and gain time for planning long-term solutions to urban expansion issues.</p> <p>Establishing a Physical Layout with Urban Planning Guidelines for Juba would be a quick win temporary solution that can be implemented quickly, fast and economically to contain the emerging informal settlements while a long-term solution, such as a Land Use Plan, is developed.</p>	1	High	High	High	High	High	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UN-HABITAT</li> </ul>	   	
<b>7. A Land Use Plan with Regulations and Sectoral Plans.</b>  <b>Mandatory Sectoral Plans:</b> -Water & Sanitation Plan -Disaster Risk Management Plan -Public Transport & Urban Mobility Plan  <b>Optional Sectoral Plans:</b> -Environmental Management Plan -Public Space Network Plan	<p>Land management is one of the main issues in Juba. The city lacks an operative system of land-use that can guide and balance future urban development with appropriate densities and locations for various land uses. Currently, there is no land administration strategy and legal framework regulating the different uses such as recreational, agricultural, residential, commercial, mixed-use, industrial, public space, and transport.</p> <p>A Land Use Plan is a living document that should evolve with the shifting needs of the city. This document is essential to define a clear vision to address the future needs of Juba with the appropriate regulations and legal mechanisms to issue the proper building permits following strict building codes.</p> <p>A Land Use Plan for Juba will impact establishing high-density urban growth, alleviating the urban sprawl, and maximizing land efficiency. Furthermore, it will promote walkability while reducing car dependency for urban mobility. It will also help to protect the wetlands, and the agricultural areas, restoring the natural environmental systems and building urban resilience. Lastly, it will make the provision of essential services and urban infrastructure more efficient for the community.</p>	2	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UN-HABITAT</li> </ul>	   		
<b>8. Waste Wise Cities Tool UN-Habitat (WaCT)</b>	<p>During the last 20 years, Juba has barely invested in a waste management system for the city. JICA is currently implementing a pilot project for waste management improvement for some neighborhoods but a wider strategy would benefit other areas of the city as well.</p> <p>WaCT is a tool that cities can use to evaluate and improve their municipal solid waste management performance. It generates critical information and parameters through primary data collection to establish better waste and resource management strategies and action plans, as well as to mobilise funds and engage stakeholders of the waste chain.</p>	2	Low	Low	Low	Low	Low	Low	Low	Low	Low	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UN-Habitat, FAO, UNEP, UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   		

















 High Priority  
 Medium Priority  
 Low Priority  
 Policy  
 Project






Project/Policy	Description	Priority	High Priority					Medium priority					Low	Potential implementation partners/donors	Related SDGs
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2032+		
<b>9. UN-Habitat City Resilience Action Planning Tool</b>	<p>Currently, more than 34% of the Juba population is at risk of flooding. It represents 136,000 Juba citizens, and more than 39% of the land is at risk of flooding. Currently, there is no plan to manage the city's natural hazards and climate change risks.</p> <p>The CityRAP tool is used for training city managers and municipal technicians in small to intermediate sized cities in sub-Saharan Africa. It enables communities to understand and plan actions aimed at reducing risk and building resilience through the development of a Resilience Framework for Action.</p> <p>The development of a framework and a disaster risk reduction strategy, will make Juba more prepared for any environmental and social risk. Including water-borne diseases such as cholera outbreaks, typhoid and encephalitis, which the main cause is associated with rain and bad water.</p>	1	High	High	High	Medium	Medium	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>FAO, UNEP, UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   	
<b>10. Urban Mobility &amp; Public Transport Sectoral Plan</b>	<p>Juba lacks a proper legal framework to regulate urban mobility in the city but also lacks proper urban mobility and public transport plan. Most commutes are done through informal means, causing chaos and traffic in the town, apart from being considered unsafe by the local population. An urban mobility plan supports the integration and balanced development of all modes of transport in a city.</p> <p>Transportation planning involves designing, assessing, and evaluating various transport facilities like public transport lines, bike lanes, highways, and streets and increasing the performance for achieving more significant advantages from the facilities and connecting different city areas with the centre.</p> <p>The urban mobility plan will engage the entire urban area, including currently excluded areas. The program will integrate technical, infrastructure, policy, and measures to improve performance and cost-effectiveness. In Juba, the main impact will be on improving transport quality and accessibility to more neighbourhoods and people.</p>	1	High	High	High	Medium	Medium	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   	
<b>11. Public Space Network Sectoral Plan (Optional):</b> -Gudele Central Market -Hai Tarawa -Acacia Village -Gumbo Gurei -Jebel Dinka Park	<p>Juba lacks proper public spaces where people can socialize and realize open-air well-being activities. There is also mismanagement of the few existing parks and open spaces, which could be spatially improved.</p> <p>A public space sectoral plan is a guiding document that defines the type, quality, and design of the city's different public spaces, stating the appropriate use, activities, and scale according to each area and neighbourhood of the city.</p> <p>Public space is a tool that will help to consolidate peace in Juba, providing spatial and social cohesion within the different communities in Juba using common spaces.</p>	3	Medium	Medium	Medium	Low	Low	Low	Low	Low	Low	Low	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UN-HABITAT, FAO, UNEP, UNHCR, NRC, JICA, UNDP, IOM, USAID, UKAID, SIDA, UNOPS</li> </ul>	   	
<b>12. Neighborhood Plans:</b> - Mangateen - Mahad - Don Bosco - Lemon Gurei - Gudele	<p>Different Neighborhoods in Juba lack of urban structure, accessibility to services, public spaces, jobs and public transport. Particularly, the areas with formal and informal IDP's, returnees, and refugees, that also have no proper housing conditions.</p> <p>Neighbourhood plans provide an opportunity for the local communities to shape and upgrade their current livelihood. Furthermore, a neighbourhood plan offers the proper guidance for future urban development, implementing balanced land uses with regulations, public transport guidelines and urban design proposals for streets and public spaces.</p> <p>The neighbourhood plans will improve the current conditions of the IDP's, returnees, and refugees in such neighbourhoods providing accessibility to housing, public transport, as well as public services and infrastructure.</p>	1	High	High	High	Medium	Medium	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   	




■ High Priority  
■ Medium Priority  
■ Low Priority  
**Policy**  
**Project**




Project/Policy	Description	Priority	High Priority					Medium priority					Low	Potential implementation partners/donors	Related SDGs
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2032+		
<b>13. Housing Land and Property Rights Programmes (UN-Habitat STDM Tool &amp; GLTN):</b> - Mangateen - Mahad - Don Bosco - Lemon Gurei - Gudele	<p>Access to property rights such as housing and land are the main issues in Juba. The municipality also raised this concern during the validation workshop. Furthermore, this issue affects more to the IDP's, returnees, and refugees in the city.</p> <p>Addressing HLP issues is fundamental to contributing to durable solutions and protecting the rights of displaced and other populations affected by conflict or disaster.</p> <p>An HLP programme will support consolidating the peace-building processes and help the local government to make the transition from humanitarian interventions to long-term urban solutions for the IDP's, returnees, and refugees.</p>	1												<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   
<b>14. Transit Oriented Development Projects (TOD):</b> - Lemon Gurei - Hai Gudele I - Hai Jebel - Kiworjit - Bilpham - Lologo II	<p>Juba has a vibrant city centre but lacks vibrancy and a mix of activities in other city areas. Several neighbourhoods also need to reinforce public transport nodes' with lively commercial and economic activities.</p> <p>TOD projects support establishing vibrant and sustainable communities. Transit-oriented development creates dense, walkable, and mixed-use spaces near transit that support vibrant and equitable neighbourhoods. TOD projects include a mix of commercial, residential, office, and entertainment land uses.</p> <p>Establishing different TOD interventions in Juba will help to change from a monocentric to a polycentric model of the city, generating economic and social activities at the city's periphery, which are currently without access to public transport, jobs and social services.</p>	2											<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   	
<b>15. Bike Lanes &amp; Pedestrian Street Projects:</b> - Gudele Road - Airport Road - Juba Bypass (north) - Bilpham Road - Unity Ave. - Lanya St. - Nimule St. - Nimule Highway	<p>Bicycle is still one of the most used methods of public transportation in Juba. Unfortunately, there is a lack of adequately designated spaces for people to circulate safely around the city.</p> <p>A connected bike network provides a safe and comfortable transportation experience, enabling people of all ages to move easily around the city. Furthermore, a bike lane system helps to release the car congestion and traffic issues.</p> <p>Implementing a Bike Lane network and pedestrian streets will support addressing the car congestion problem in Juba. Moreover, it will improve the connectivity between different neighbourhoods and reduce air pollution in the city, creating a sustainable way of mobility.</p>	2											<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   	
<b>16. Pit Latrines Pilot Project:</b> - Mangateen - Mahad - Don Bosco - Lemon Gurei - Gudele	<p>Juba's cholera and water-borne disease outbreaks are mainly due to a lack of order in the pit latrines' disposition and a proper waste management system. During intensive rain periods, there are urban floodings in different neighbourhoods, and the fecal matter and soil pollutants are spread all over the areas, provoking several diseases that, in the worst-case scenario, are life costing.</p> <p>WASH interventions are designed to provide lifesaving, long-term and sustainable access to clean water and sanitation infrastructure whilst promoting good hygiene practices that reduce the risk of water-related disease transmission.</p> <p>A pit latrines pilot project for Juba will build capacity and resilience to unforeseen future shocks and stressors. Furthermore, it will reduce the inequalities of infrastructure accessibility between IDP's, returnees, refugees, and local citizens.</p>	1											<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   	

 High Priority  
 Medium Priority  
 Low Priority  
**Policy**  
**Project**



Project/Policy	Description	Priority	High Priority					Medium priority					Low	Potential implementation partners/donors	Related SDGs
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2032+		
<b>17. Water Collectors and Clean Water Points Pilot Project:</b> - Mangateen - Mahad - Don Bosco - Lemon Gurei - Gudele	<p>Juba lacks access to clean water, only 15% of the population has access to clean water points, and the rest depends on trucks and private vendors at high costs.</p> <p>Rainwater harvesting provides a long-term answer to the problem of water scarcity, offering an ideal solution in areas with sufficient rain, but inadequate groundwater supply and surface water resources.</p> <p>Establishing clean water points and rainwater collectors pilot projects in several neighbourhoods of Juba will have a substantial impact on the continuity of water supply for IDP's, returnees, and refugees in the long term.</p>	1	High	High	High	High	High	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   	
<b>18. Agricultural Development Project Gumbo Gurei</b>	<p>Juba's high dependency on vegetables and fruits from Uganda creates urban food insecurity. Only 3% of the land in the city is being farmed by the local population, while a 60% of the land has high suitability for agriculture.</p> <p>There are several agricultural projects for IDP's, refugees, and returnees, that support these minorities to reduce the food insecurity risks and provide them with job opportunities for the benefit of their families.</p> <p>Establishing an agricultural project for IDP's, returnees, and refugees in Gumbo Gurei will strengthen their food security, offering a meaningful occupation that also creates social links within the community.</p>	2	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>FAO, WFP, UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   		
<b>19. Food Urban Market in Gumbo Gurei</b>	<p>Juba lacks the adequate infrastructure to sell and offer the local vegetables and fruits harvested in the Gumbo Gurei and other areas of the region.</p> <p>To protect and promote peri-urban agriculture practices and strengthen the urban-rural linkages. A new urban agro-hub can be implemented in the East bank area of the city, including constructing an urban food market to sell locally produced vegetables and fruits.</p> <p>A new food urban market will offer a space to sell locally produced vegetables and fruits, promoting local commercial activities while reducing the food dependency from Uganda. It is a key alternative to providing jobs and self-subsistence opportunities to the IDPs in Juba.</p>	1	High	High	High	High	High	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>FAO, WFP, UNHCR, NRC, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   		
<b>20. White Nile Riverfront Project</b>	<p>There is a spatial and social disconnection from Juba city to the White Nile River. Therefore, there is a relevant opportunity to consolidate this area into a vibrant and prosperous place with solid commercial activity as well as different uses and activities.</p> <p>Waterfront projects usually take advantage of the connection between the banks and the land to create pedestrian pathways, bike lanes, and gathering places that can offer recreation and resting activities.</p> <p>Establishing a clear spatial link and accessibility from the city centre to the riverfront will help to release water pollution, insecurity, and promote formal economic activity around the water.</p>	2	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UNEP, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   		
<b>21. New Port Project</b>	<p>The current old port in Juba lacks spatial order and design. There is activity on goods and people using the port as a source of transport, but the capacity has the potential to be strengthened.</p> <p>River ports, to remain competitive, have to accommodate and handle ever-increasing size with the associated size increase in ship-to-shore cranes, internal operating equipment, and increased capacities at port gates.</p> <p>In the case of Juba, rehabilitation of the river port will make the flow of people more efficient and the exchange of goods from other regions in the country, positioning Juba as an open and prosperous capital city.</p>	2	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	<ul style="list-style-type: none"> <li>Juba Municipality</li> <li>Juba City Council</li> <li>State Ministry of Local Government</li> <li>Ministry of Lands, Housing &amp; Public Utilities (State)</li> <li>Government of Central Equatoria State</li> <li>UNHCR, JICA, UNDP, IOM, UN-HABITAT, USAID, UKAID, SIDA, UNOPS</li> </ul>	   		

 High Priority  
 Medium Priority  
 Low Priority  
 Policy  
 Project



*“The projects & policies respond to a long term urban vision strategy”*

*“Cities with higher densities are more efficiently served by basic services.”*

The plan for Juba aims to create projects for inclusive public service delivery and settlement upgrading in Magaten, Mahad and Don Bosco IDP camps. The strategy includes WASH projects, implementing a new waste management system, developing the existing vacant land into public spaces, housing relocation and shelter upgrading, among other interventions. The Relevant stakeholders, different humanitarian and UN agencies, and the local and regional Ministries, need to be involved and cooperate to support the initiatives. It is also mandatory that the new interventions respond with a long term and urban vision to the different populations' dynamics and social complexities.

The creation of a new Agro-Hub in the East-banks of Juba is proposed with the primary objective of providing jobs, increasing food security among IDPs and promoting the conservation of the agricultural lands in the city. In other camps of the world, such as Cameroon, Syria, and Jordan, the refugees and IPDs are finding innovative ways to incorporate urban agriculture and agroforestry into the settlements.

According to the New Urban Agenda (NUA), cities need to ensure environmental sustainability by promoting clean energy and sustainable use of land and resources, protecting ecosystems and biodiversity, promoting sustainable consumption and production patterns, reducing disaster risks, and mitigating and adapting to climate change. The NUA states that cities must invest in generating and using renewable and affordable energy and sustainable and efficient transport infrastructure and services.

A Resilient City also supports and is mutually supported by its territorial ecosystems, activating positive urban metabolism mechanisms, and ensuring a reliable resource supply and balanced value chains. In addition, compact urban development aims to preserve land resources and natural assets while increasing the efficiency of

public infrastructure and transportation services. A compact built form, supported by an efficient public transport backbone, offers opportunities to increase densities, protect environmental resources, and enhance accessibility to the central area for all residents. In this scenario, public transport can provide fast cross-town connections linking the city's public areas and functional cores to the surrounding neighbourhoods.

The table of strategic policies and recommendations for Juba follows the UN-Habitat principles for sustainable urbanization and directly addresses the main challenges and opportunities for the city. Furthermore, it establishes a clear prioritization timeframe, explaining the different phases required to consolidate each process step. In this regard, it is easier for the local authorities to determine the most urgent projects to implement on the ground and to design a clear route map to execute the proposed strategic plan with the specific tasks and policies.

Organizing effective long-term planning determines implementation periods, identifying those responsible for executing and financing the strategic projects and policies. The first step will be strengthening the planning system, making it possible to define the available interventions and control framework. In parallel with the preparation of the policies and regulations, it is essential to determine a timetable for implementing demonstrative or catalytic projects. The demonstration projects are “more visible” and have a shorter-term impact while showing the progress made by the municipality; therefore, it will be easier for the strategic plan to gain more political support from the local population, other agencies, and key stakeholders. Moreover, these projects can then be replicated in other cities and regions of South Sudan.



Figure 46: Participatory Consultation at United Nations Mission in Juba by UNMISS ©Isaac Billy (UNMISS), 2017



## 6.9 The Roadmap to Implementation

### Institutional Feseability:

The strategic projects and recommendations of the Juba Strategic Plan are directly attached to the fundamental principles and goals of the two leading national development plans and institutional documents, “The SS Vision 2040” and The R-NDS 2021-2024. A good communication and coordination strategy with the national, state, and county authorities as well as its institutions is essential to the succesful implementation of each recommendation.

The scope of work and time for developing the different initiatives needs to adapt to the country’s changing context and establish flexible implementation stages. This involves strong communication and governmental support to deliver accountability mechanisms (implementation, monitoring, evaluation and reporting); data management and a risk mitigation plan specifically for each action. A non-extensive list of several activities that need to be performed before any project implementation plan are:

- Project evaluation and impact study
- Physical feasibility study of the project
- Risks assessments and studies
- Financial feasibility study
- Cost study
- Banking feasibility study
- Land value assessment
- Investments planned and budgeted by the government and multilateral organizations

### Financial Feseability:

Data limitations prevented elaborating on a detailed programme/action budget and implementation cost. Different partners and donors need to commit to funding, and UN-Habitat will achieve to mobilize the various resources efficiently to guarantee the successful delivery of the plan. According to the “Revised National Development Strategy” and “The SS Vision 2040”, the government ministries can also put in place financial mechanisms to support the different actions aligned to accomplish the main goals of the national plans and objectives.

### Strategic Partnerships:

The Humanitarian-Development and Peacebuilding approach for SS encourages more vital collaboration among actors from the development and cooperation field, humanitarian action and peacebuilding, which are already implementing projects in Juba and have the financial and human capacity to support the Strategic Plan’s strategies promoted by UN-Habitat. Furthermore, the different international agencies can provide operational guidance for each item and endorse the government’s view that development work can be adapted to crises, not halted.

Different sector working groups and forums need to be established by UN-Habitat and other multilateral organizations, including the various UN agencies, to discuss agreements and MoUs, consolidating additional partnerships to secure financial and capacity support to implement each action of the plan within Juba. Among the different tasks still needed to provide continuity.



Figure 47: UN-Habitat technical team during the validation workshop with State and County Authorities ©UN-Habitat (UN-Habitat), 2022



# 07

## DEMONSTRATION PROJECTS



Figure 48: Aerial image of Juba. Source: Copernicus Open Access Hub (Sentinel-2)



# 07

## Demonstration Projects

*“The main objective of the strategic vision is to support the local government to clearly understand the main constraints and strengths of their city’s context. Establish a prioritization of these challenges and opportunities to facilitate the decision-making process.”*

**90pp/ha**  
Density can be increased in certain areas of Juba

**30%**  
of Mixed land use can be increased within Juba

**25km**  
of new lineal green corridors can be implemented

### 7.1 Demonstration Projects

Transforming strategic recommendations into concrete and implementable programmes and policies requires detailed systemic actions that can trigger the envisaged spatial, economic, and social transformation. Four demonstration projects are developed to illustrate how to implement the strategic recommendations in different city areas, with a series of systematically subsequent packaged interventions for Juba’s future development. It serves as a guide when prioritizing and detailing following actions needed for building a compact, connected, inclusive, open, and resilient city.

**Project One: Gurei Urban Periphery**

**Project Two: Comprehensive intervention in Mangaten IDP camp**

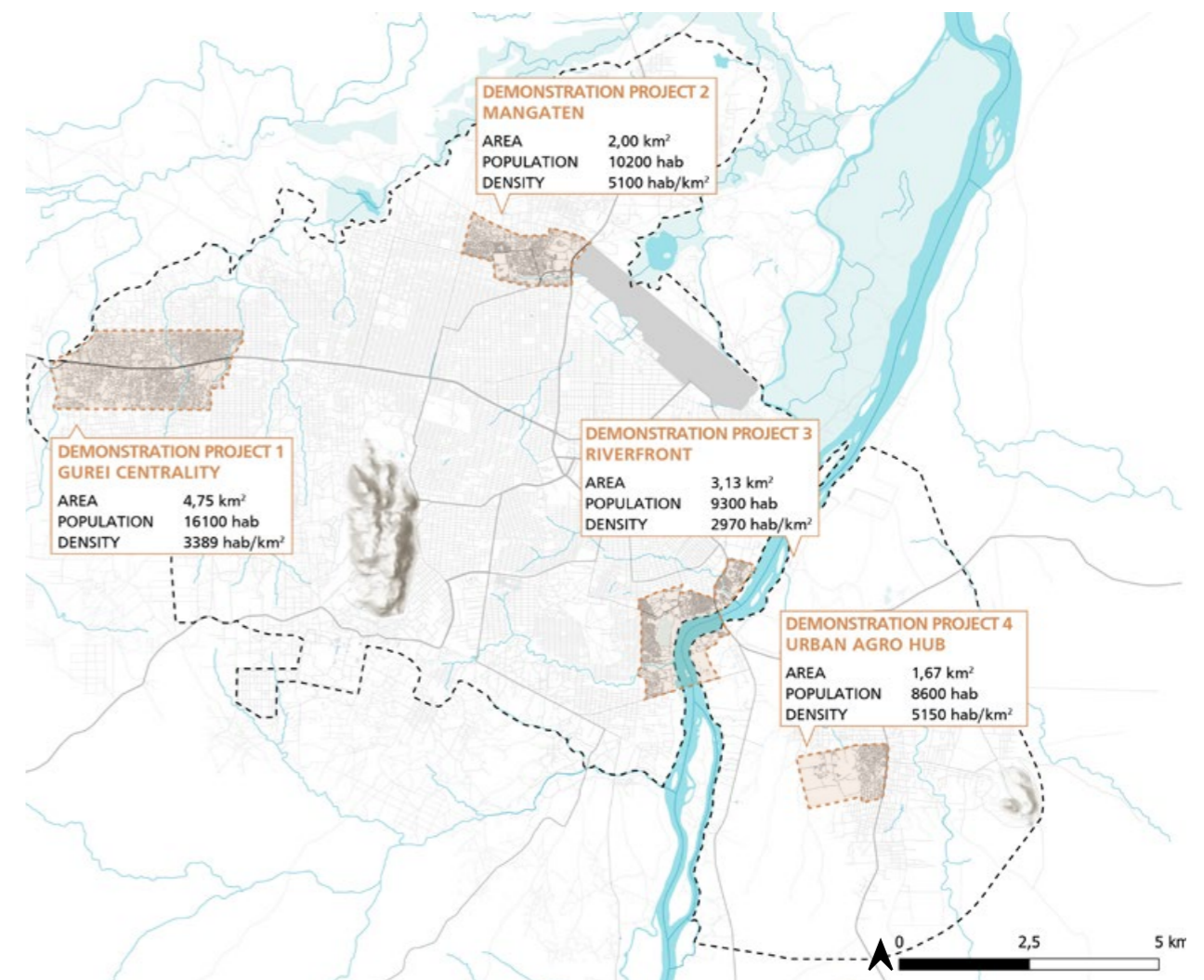
**Project Three: Consolidation of a riverfront in the southern area**

**Project Four: Creation of a new Agro-urban Hub in the Eastern banks**

Therefore, the demonstration projects establish synchronized impact at the three scales; city, neighborhood, and micro-

scale (plot). These interventions support the retrofitting and extension of planned programmes with multiple purposes, rebuilding the relationships between different city users, improving integration between the urban outskirts and the inner city, improving transport and mobility networks, development of new economic and commercial cores, implementation of green corridors, rebalancing the relationship with the White Nile river and the agricultural lands.

The first demonstration project addresses the issues of urban periphery and dispersion. The second, the IDPs camps segregation in the city and how to address it, mainly focused on upgrading different areas where IDP’s, returnees, and refugees have settled informally. The third demonstration project sets a pedestrian green riverfront increasing the commercial and mixed land use areas to improve the economic activity along the river and promote pedestrian use to trigger social life around the water. Lastly, the fourth intervention is the creation of a new agro-hub on the East-banks of the White Nile river, the main objective is to consolidate the Gumbo Sherikat area as an agricultural business district.



Map 47: Demonstration projects for Juba



**Gurei Urban Periphery**  
Densification strategies & urban infill projects



**Mangateen IDP Camp**  
Shelter upgrading & LHP projects



**The New Riverfront**  
Reconcile the relation of the river with the city center



**New Agro-urban Hub**  
A new food market & agriculture projects for IDPs, returnees and refugees



## 7.2 Gurei Urban Periphery Project

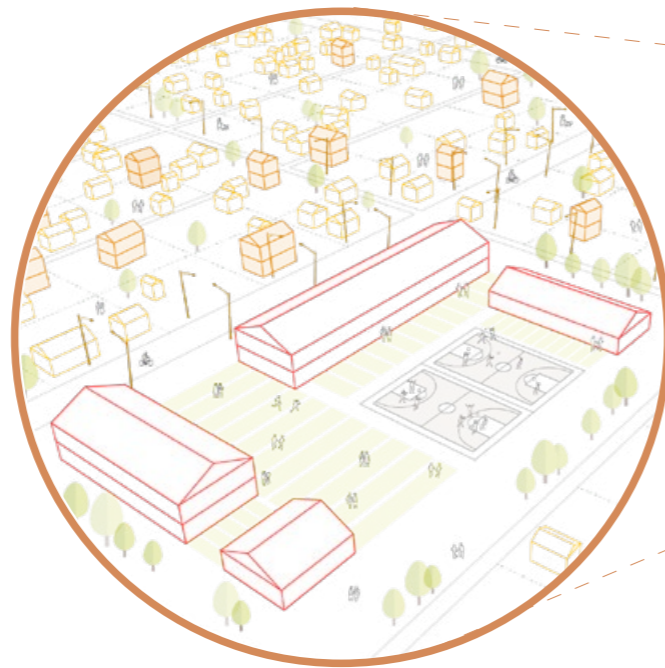
The Gurei area is about 15 km from the city centre. It is one of the most recent neighbourhoods of the Juba, where new residents, refugees, and returnees have settled from 2005 onwards. The settlement's name refers to a grey bird in the Bari native language. The area suffers from a lack of connectivity with the city centre and the main economic cores of activity. Going downtown using the only informal public transport available can easily take 2 to 3 hours to go and return. Food in the city centre and in Konyo Konyo market is cheaper. The more distant from the centre, the more expensive the vegetables and fruits are. According to Juba in the making, water delivery trucks drive from the Nile River and pumping water stations and incorporate the extra fuel they use into the price of each drum of water. Communal water tanks were put in place with the support of international organizations such as UN-Habitat to try and ease accessibility to water.

The site is mainly monofunctional, of residential use, characterized by low-density dwellings and an average density estimated at around 2000-3000 hab/km<sup>2</sup>. Limited commercial activities and basic infrastructure are found in the area and managed public spaces. This fact explains the high rate of unemployment in Gurei area and the surroundings. In contrast, with the activity presented in the centre. There is also a high rate of vacant land and seasonal water streams crossing from north to south that need to be protected with buffers to avoid spontaneous settlements appearing in high-risk flooding areas.

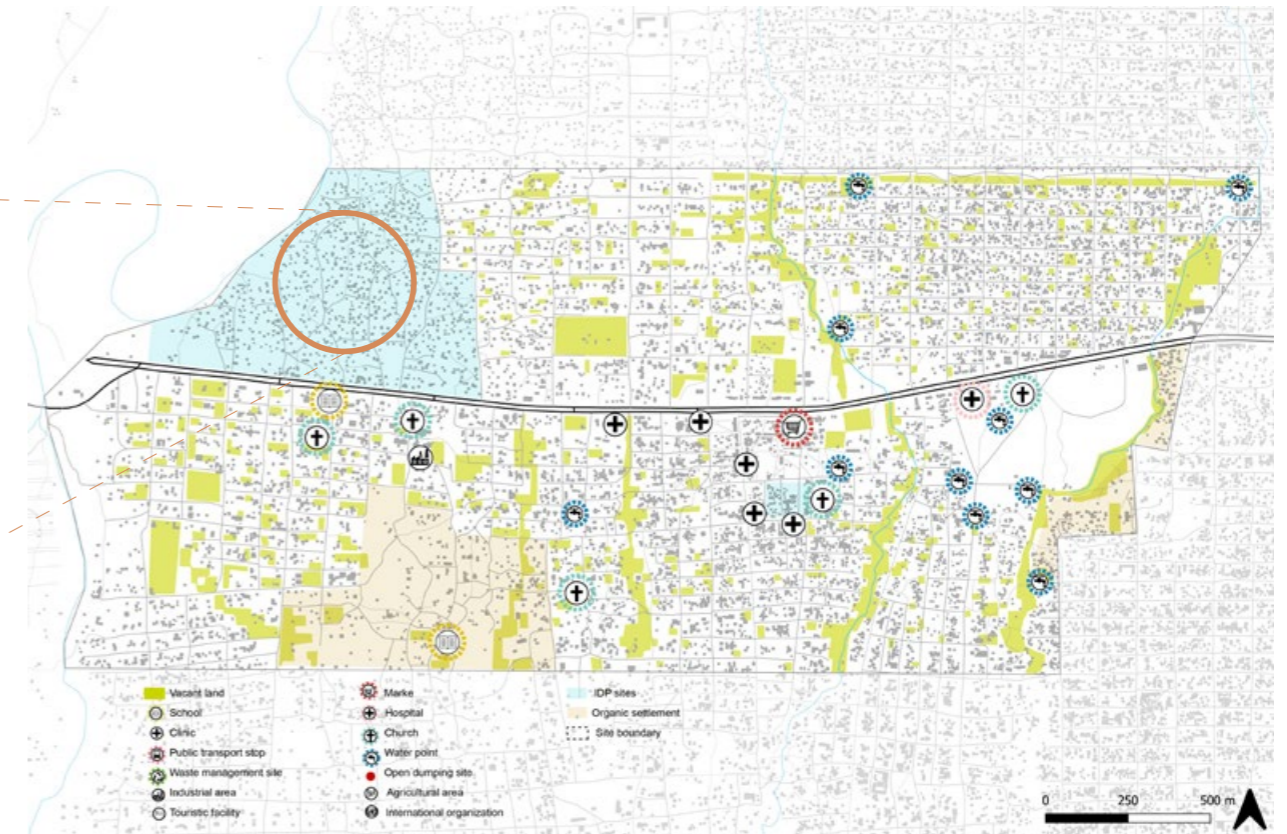
Gurei has a severe lack of availability of basic services, infrastructure, and public spaces. This area is particularly interesting for the city dynamics due to having a consolidated urban fabric next to areas that still have not consolidated urban forms and structure.



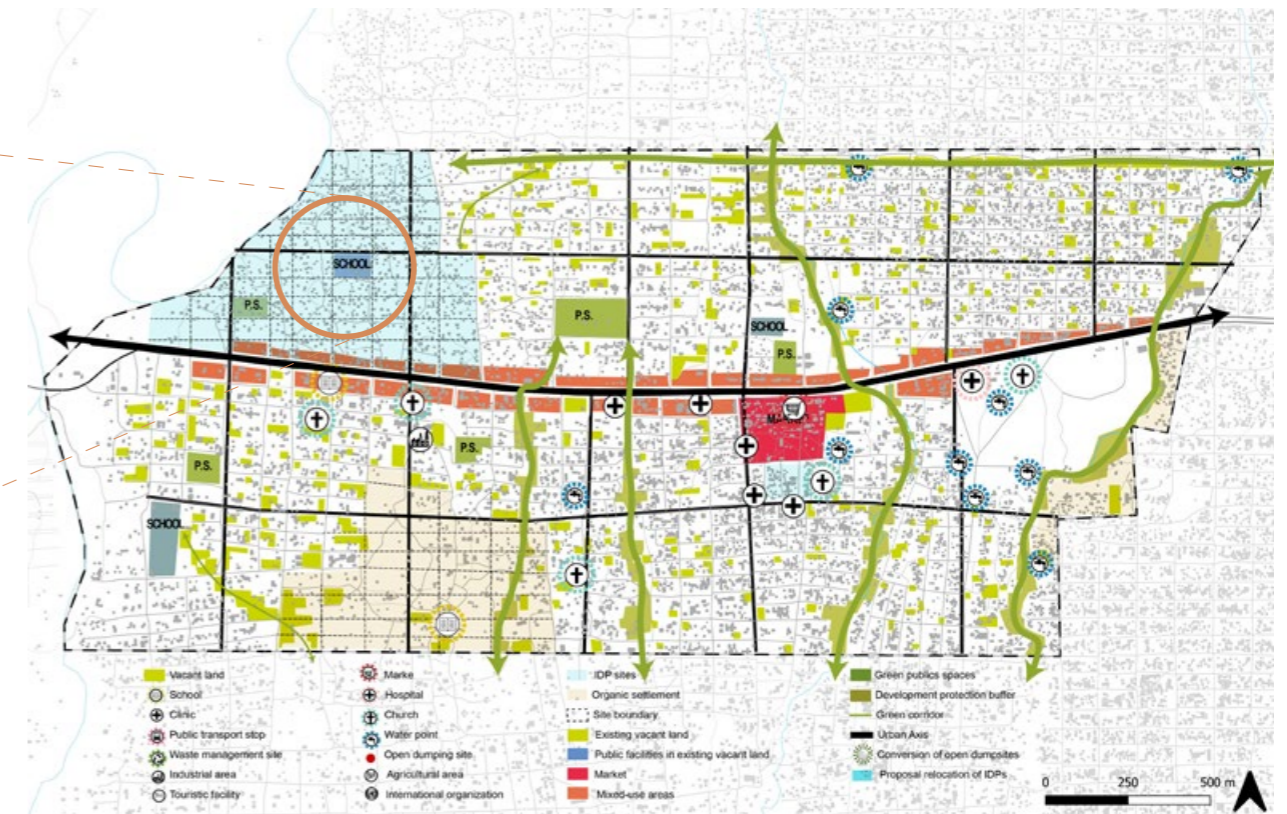
**Existing Condition of an Organic Urban Pattern Settlement**  
Average density: 0-2000 pp/km<sup>2</sup>



**Proposed Densification Strategy & New Education Facilities**  
Average density: 2000-3000 pp/km<sup>2</sup>



Map 48: Gurei area current condition



Map 49: Project proposal for a new urban centrality in Gurei area



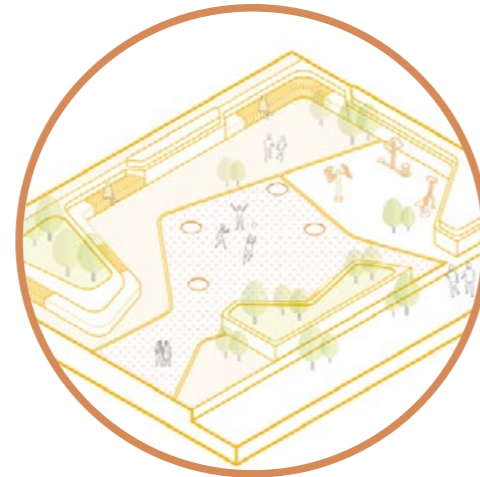
## 1. Urban Improvement and Densification.

**a. Consolidate urban fabric:** The first action is to increase the population density in Gurei, which currently has 0-2000 pp/km<sup>2</sup>, to achieve an approximate density of 4000-6000 pp/km<sup>2</sup>. It will be done through urban infill, requalifying the land use, and increasing the stores of the buildings that are only one store constructions. Establishing new commercial and mixed-use areas is part of the strategy to promote upgrading the existing development. The main objective is to avoid the increase of urban sprawl in the City's periphery and provide access to essential services and infrastructure.



Green Corridor as a Stormwater Collector

**b. Settlement upgrading in informal IDP sites:** The second action is to renovate and upgrade the informal settlements in the area, give urban structure with clear streets, define blocks, and establish areas for public use. A comprehensive project of housing, land and property (HLP) will be implemented to provide adequate housing and land ownership to the minorities currently living in the periphery of the Gurei area.

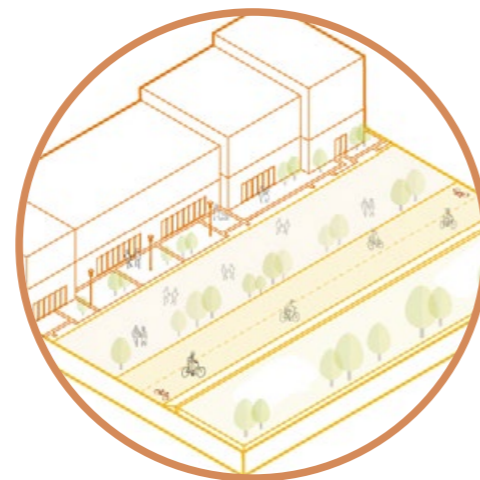


Public Space Implementation in Vacant Land

## 2. Green Network and Public Spaces.

**a. Green corridors:** This action establishes four linear green corridors in the existing urban water streams, that are located within the neighborhood. The main goal is to establish different development protection buffers to avoid informal constructions in the high-risk flooding areas. The green corridors will have different functions, and uses, such as bike lanes, public spaces, pedestrian sidewalks, mixed land-uses, etc. The green corridors are nature based solutions that will serve as natural water management areas.

**b. Public green spaces:** Different public spaces of various functions and scales are proposed. Abandoned plots will be reconverted into multi-functional parks for community use, including playing areas for children, gathering



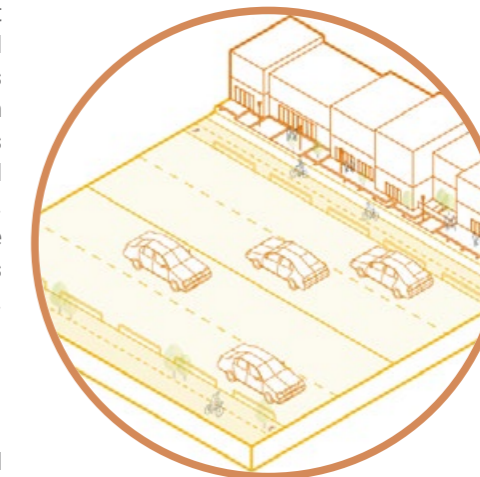
Green Corridor with Bike Lanes & Commercial Use

areas for residents and spaces to play sports. This strategy will provide better accessibility to leisure and strengthen urban health within the communities, improving the quality of life and promoting social interaction, as well as community participation.

## 3. Public Facilities and Commercial Cores of Activity

**a. Mixed land use & new commercial cores of activity:** The proposal to increase the commercial activities and promote diversified land uses is to re-use the current vacant plots with public spaces, commercial activities, schools and health care clinics. It is strengthening the diversity of activities within the area how IDPs can have more opportunities for jobs and services. Access to jobs is a crucial element for the future development of Juba. Having job access within a close distance without spending time on daily commutes will raise the population's productivity.

of the city with alternative ways of mobility, releasing the car dependency that is causing congestion.



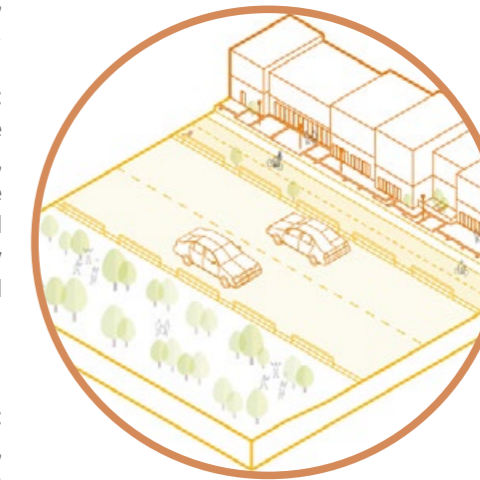
New Bike Lanes in the Primary Roads

## 4. Urban Connectivity

Gurei area has no clear urban structure and defined road hierarchy of primary, secondary, and tertiary streets. A project to provide urban structure and consolidate clear sidewalks, bike lanes and formal public transport.

**a. Hierarchy of roads and streets network:** Selected roads need to be upgraded into the secondary road to improve the pedestrian, bike and vehicular connectivity within the neighbourhood, improve the current road state of the area, and link the area with the city centre through a public transport system and construction of new roads.

**b. Cycling and Pedestrian connectivity:** Establish a network of bike lanes, sidewalks, and pedestrian streets that can link the area internally and connect it to different parts



New Pedestrian Sidewalks in Secondary Roads



### 7.3 Mangateen IDP Camp Upgrading

Mangateen neighbourhood is located in the northern part of Juba's city centre, and west to the international airport within the Juba Bypass and Bilpam road. The site is mainly monofunctional for residential use, characterized by low-density dwellings and an average density estimated around 1000-3000 hab/Km<sup>2</sup>.

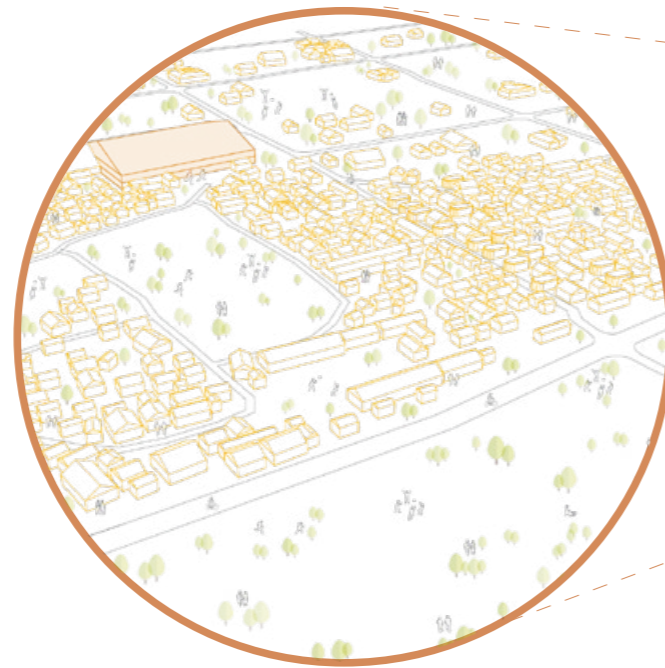
A higher peak in the Mangateen IDP site can reach the 9000-12000 hab/km<sup>2</sup>. The area presents a better urban structure and provision of services when compared to more peripheral areas of Juba. There is good access to schools, water points and health facilities spread throughout the site, with commercial activities, local businesses, and informal public transport hubs.

The high rate of vacant land allows the creation of a network of public spaces and upgrades of the current open-air dumpsites located near the pit latrines and the clean water points. Mangateen site has hosted a small number of IDPs and local communities.

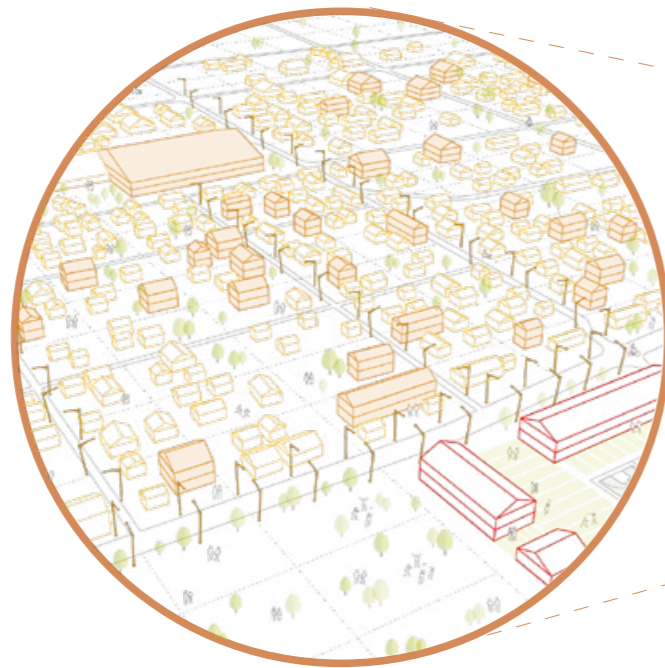
However, following tensions in Juba House POC 3, over 3000 people were rapidly relocated to Mangateen in 2018, causing a sudden increase in population in the area, reaching a population of around 5640 people. A second smaller camp, Mangateen 2, was recently opened eastwards of Mangateen 1, hosting a few hundred IDPs.

The problems related to the site's management are the IPDs, returnees, and refugees overcrowding, the provision of services, and the integration of IDPs into the urban social and economic dynamics of Juba.

Lastly, the relatively central location of Mangateen area makes the site a priority for the future development of the city and the integration of its inhabitants into the economic and commercial dynamics.



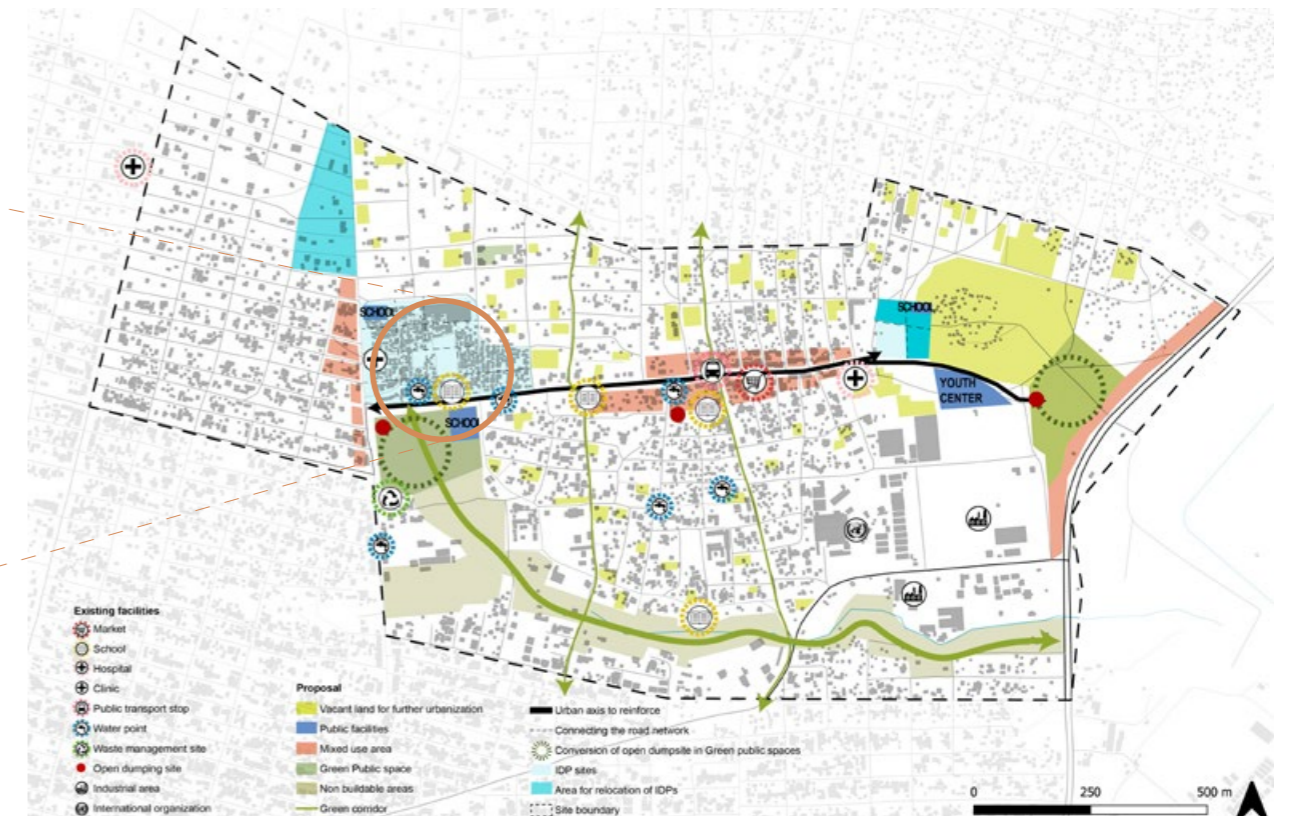
**Existing Condition of Mangateen IDP Camp**  
Average density: 9000-12000 pp/km<sup>2</sup>



**Proposed Densification Strategy & New Public Services**  
Average density: 3000-6000 pp/km<sup>2</sup>



Map 50: Mangateen IDP camp current condition



Map 51: Project proposal for Mangateen IDP camp spatial upgrading



## 1. Urban Improvement and Densification.

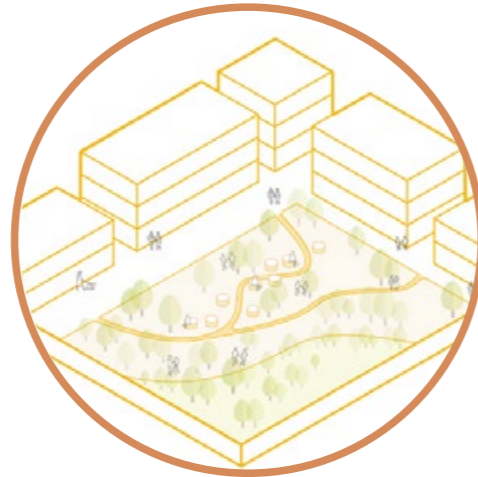
**a. Consolidate urban fabric:** The current density in Mangateen is approximately 2000-3000 hab/km<sup>2</sup> which is considered low. The first action addresses this issue, implementing densification strategies such as urban infill to achieve a recommended density of 6000-9000 hab/km<sup>2</sup>.

**b. Mangateen IDP camp upgrading:** Mangateen site is overcrowded with more than 5000 people living in less than 6 hectares and a relative density of 100000 hab/Km<sup>2</sup>. The site include a health facility, a school and WASH facilities, but given the rapid increase over the last years, these are insufficient for the population they serve. The site requires a re-organization in the structure and an increase of services within the site boundary. In particular a school, WASH facilities and open spaces.

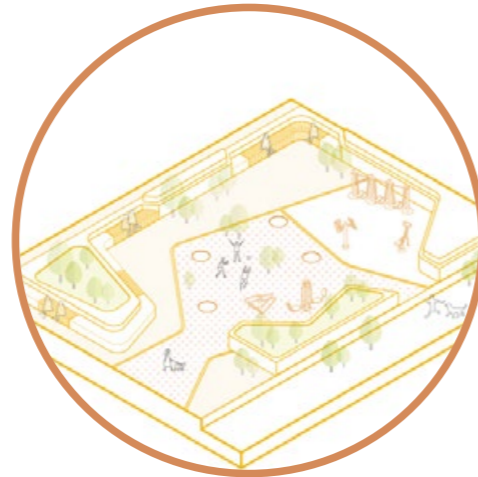
Relocation of IDPs within the neighborhood: Relocating part of the IDP population is recommended. A comprehensive HLP project needs to be developed with other potential partners and international cooperation agencies, in order to upgrade the current shelter situation of IDPs that do not meet the minimum SPHERE standards. The main objective is to upgrade the area and distribute the actual population density in a ordered manner.

## 2. Green Network and Public Spaces.

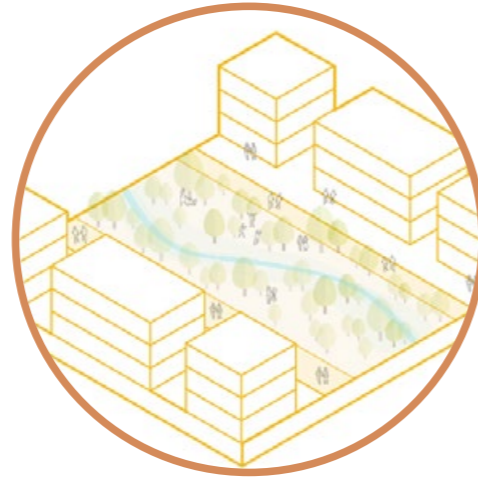
**a. Green corridors:** Two new green corridors are proposed in the existing water streams that cross the Mangateen area. A protection buffer is set to be established along the river streams that connect Mangateen site to Bilpam road. The intervention also proposes to implement bike lanes and pedestrian pathways following the streams. These corridors are reserved to create public spaces of social interaction,



Natural Playgrounds in Existing Seasonal Streams



Public Space Implementation in Vacant Land



Natural Corridors in an Urban Context

linear parks, and revitalise the natural water management systems within the city.

**b. Public green spaces:** A network of various public spaces with different types of use and scale is proposed for the Mangateen area to cover the needs of the IDPs and residents. The existing vacant land within the area needs to be converted into a vital link of interconnected spaces that also will form part of the general public space system of Juba city. Implementing such spaces will also contribute to the green and blue networks, reducing the evapotranspiration and supporting the overall water-tables recharge mechanisms.

## 3. Public Facilities and Commercial Cores of Activity

**a. Mixed land use:** Given the area's high density, the first action is to improve and allocate new basic infrastructure, mixed land use, and commercial activities to generate the integration of the IDPs, returnees, and refugees within the city's urban dynamics in terms of commercial activities.

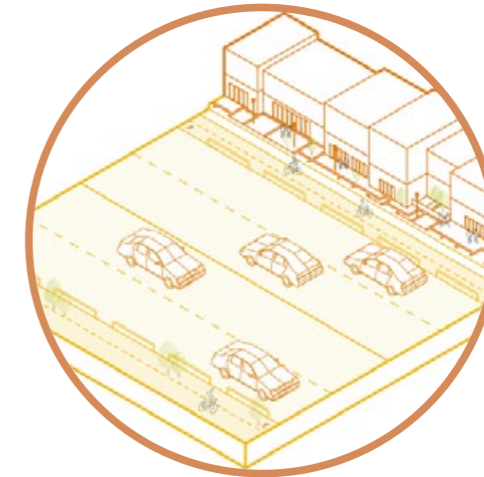
**b. New commercial cores of activity:** The aim of this action is to establish and consolidate new cores of economic and social activity within the area. Mainly establishing mixed-use nodes, commercial nodes, and ecological nodes. This will help to create a diversified system of new centralities depending on the surrounding conditions, in terms of urban function, form, and roles within the neighborhood and in relation to the main system of Juba city.

## 4. Urban Connectivity

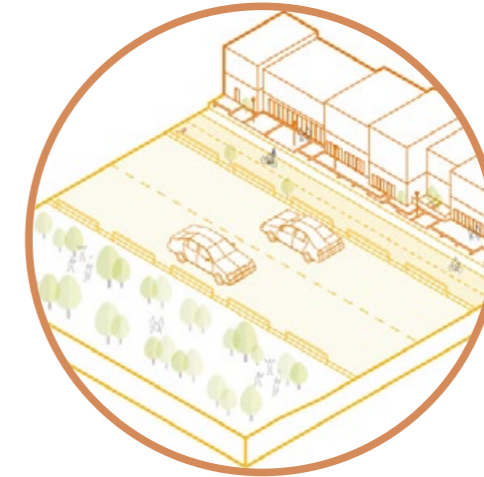
**a. Hierarchy of roads and streets network:** Selected roads need to be upgraded, and a hierarchy of primary, secondary and tertiary roads needs to be defined. As part of the mobility strategy, it is imperative considering

to improve the pedestrian and bike connectivity within the neighbourhood, improve the current road state of the area, and link the area with the city centre through a public transport system and construction of new roads.

**b. Cycling and Pedestrian connectivity:** Establish a network of bike lanes, sidewalks, green corridors and pedestrian streets that can link the area internally and connect it to different parts of the city with alternative ways of mobility, releasing the car dependency that is causing congestion from unnecessary long



New Bike Lanes in the Primary Roads



New Pedestrian Sidewalks in Secondary Roads

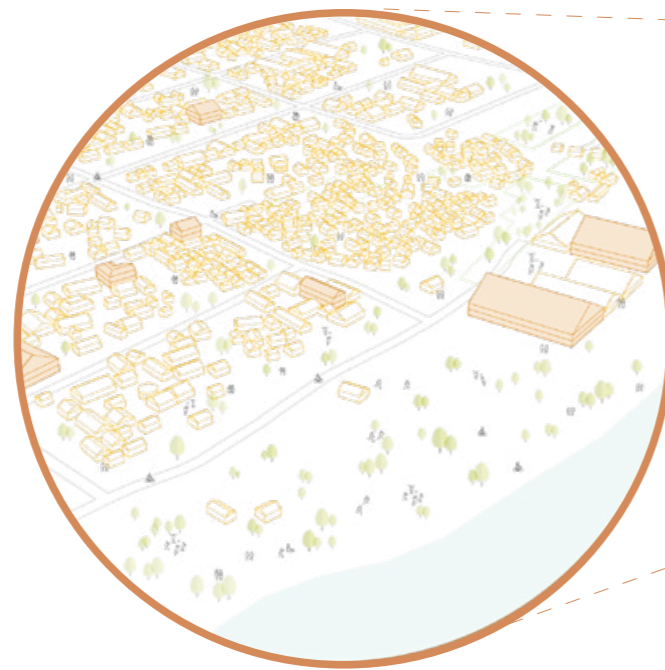


## 7.4 The New Riverfront

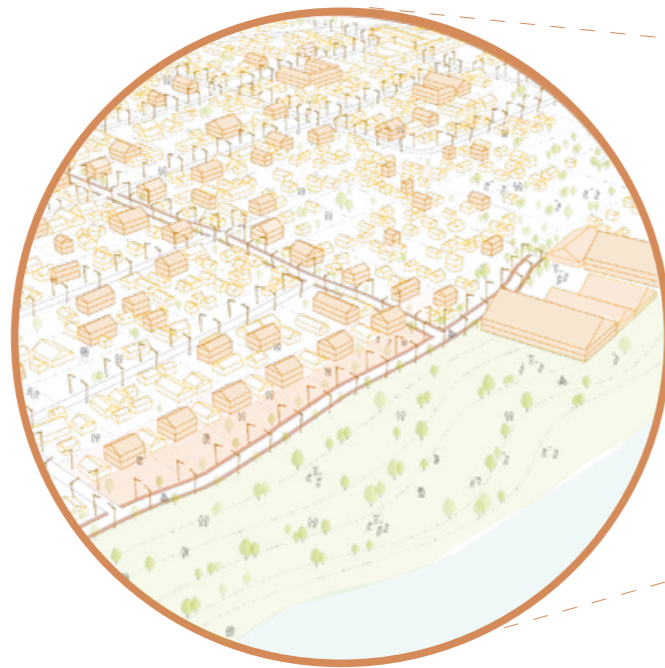
The White Nile river is disconnected from the rest of the city, and most of the land on the riverfront is privately owned, so no public use or activities are happening due to how the land has developed, establishing a poor social dynamic in an area that has a solid potential to become one of the most economic active areas in Juba. The riverfront in the west has IDP camps, the Konyo Konyo market, the stadium, the port and different businesses that have the potential to attract people and activate the current dynamic.

The study area includes the riverfronts on both banks between the Nile River bridge and the newly constructed Freedom bridge. The east side of the river, privatization has not already reached a saturated level as in the northern part. Various lodges and hotels are located in the area. In the central and southern part of the east banks, residential neighbourhoods are located, including services such as schools, WASH facilities, public transportation and commercial activities facing the riverside, as well as a large portion of open spaces with great potential to be transformed into a managed and equipped riverfront to act as a catalytic project to trigger further development.

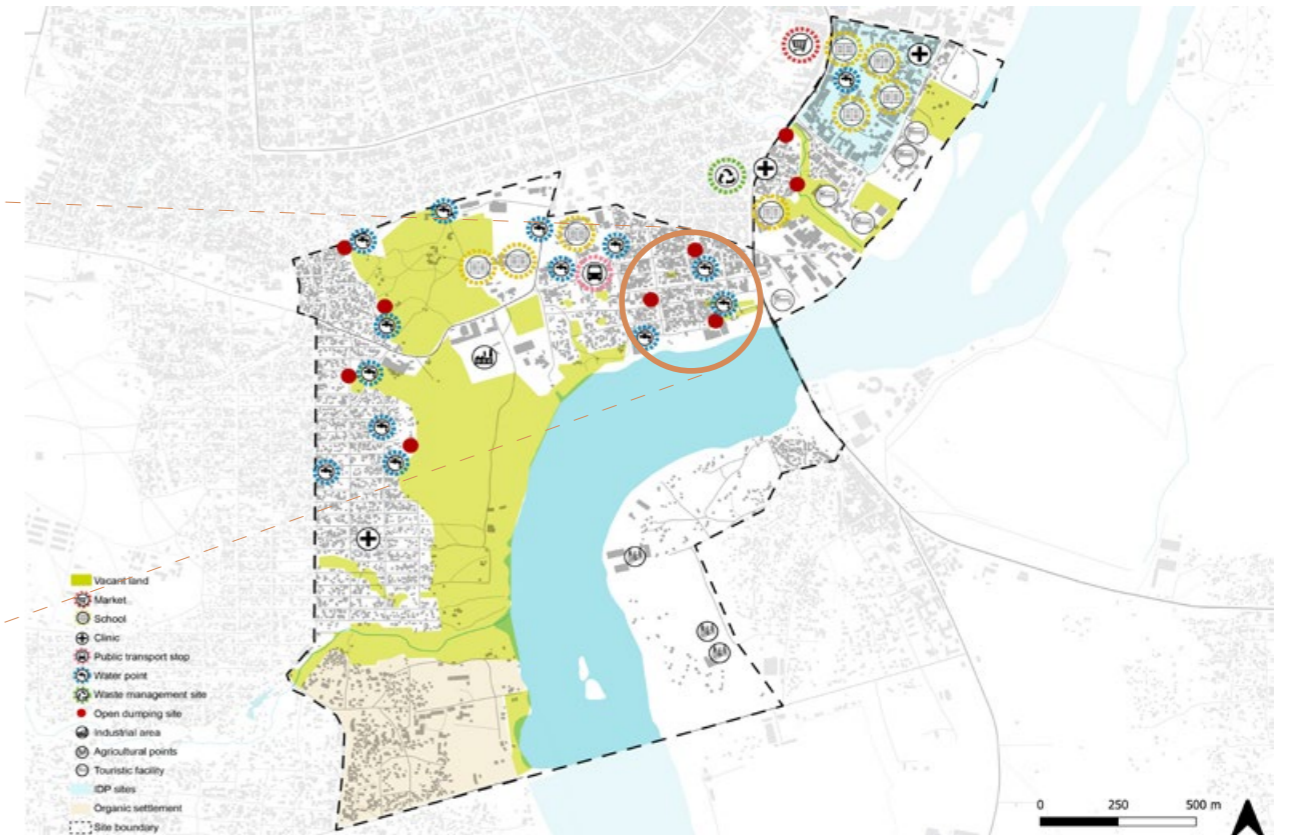
The White Nile riverfront presents an excellent opportunity to start economic and commercial initiatives, encouraging urbanization and incrementing the current low population density numbers, being from 0-2000 hab/km<sup>2</sup>. There is a lack of pedestrian sidewalks and paths, bike lane connections and linear public spaces that can connect the riverfront to the rest of the city in a direct manner. Also, different agricultural activities can be implemented due to the proximity to the water, which makes easier the construction of sustainable irrigation schemes.



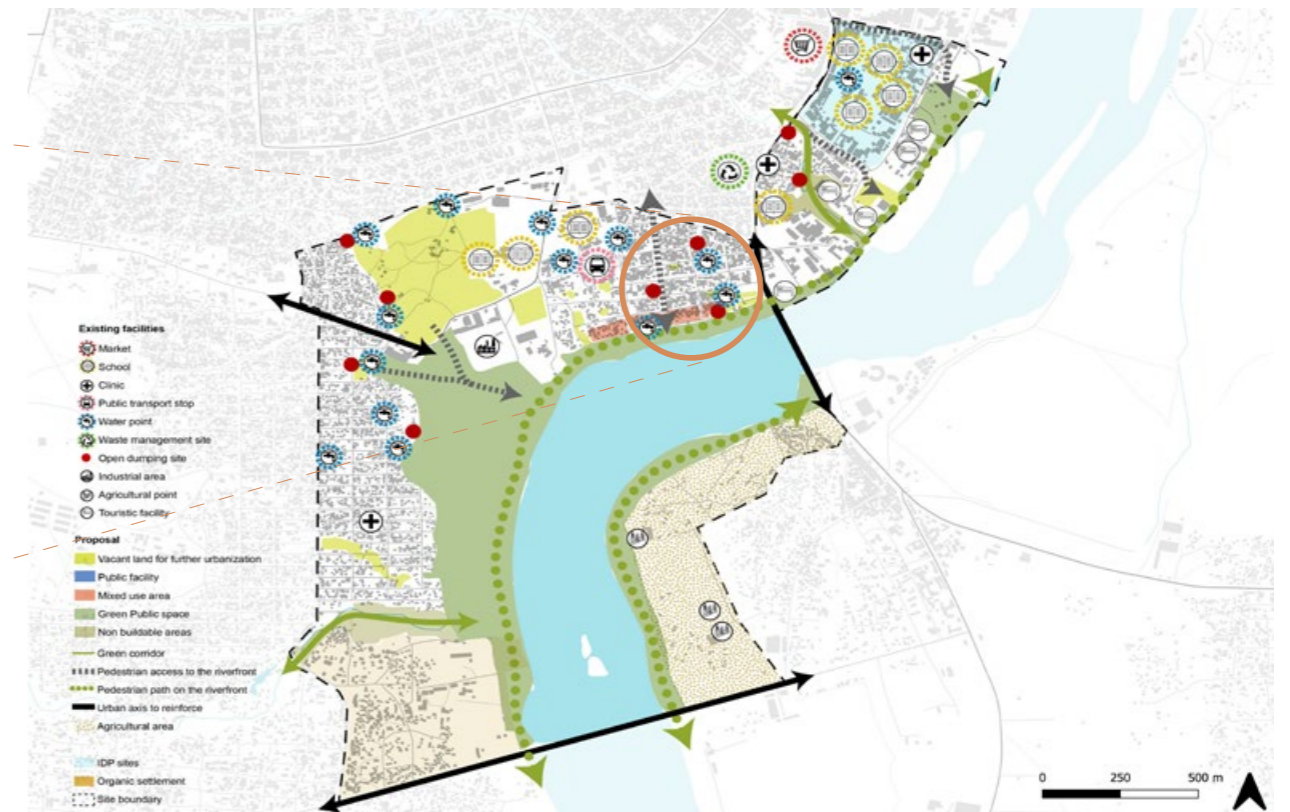
**Existing Condition of a Consolidated Urban Area in the Riverfront**  
Average density: 3000-6000 pp/km<sup>2</sup>



**Proposed Densification Strategy & Mixed Land Use Allocation**  
Average density: 9000-12000 pp/km<sup>2</sup>



Map 52: Southern riverfront area current condition



Map 53: Project proposal for Southern riverfront area renovation



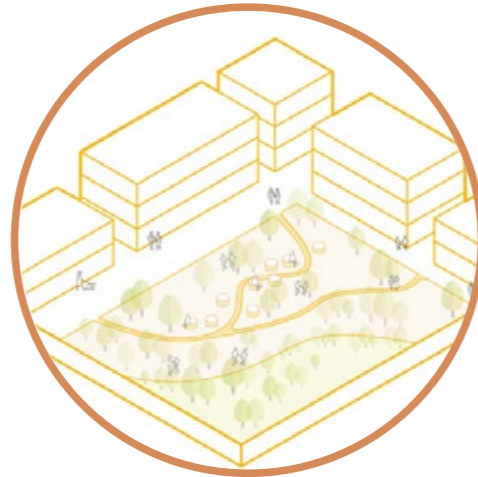
## 1. Urban Improvement and Densification.

**a. Consolidate the urban fabric:** The first action is to increase the population density within the riverfront area, which currently has 0-2000 pp/km<sup>2</sup>, to achieve an approximate density of 4000-6000 pp/km<sup>2</sup>. It will be done through urban infill strategies, requalifying the land uses, and increasing the stores of the buildings that are one store constructions. Distributing the urban density will help to achieve a better basic services provision and infrastructure efficiency within the area, promoting accessibility to public facilities. Establishing new commercial and mixed-use areas is part of the strategy to increment the economic and social activity in the existing development. The main objective is to reconcile the relation of the river with the city.

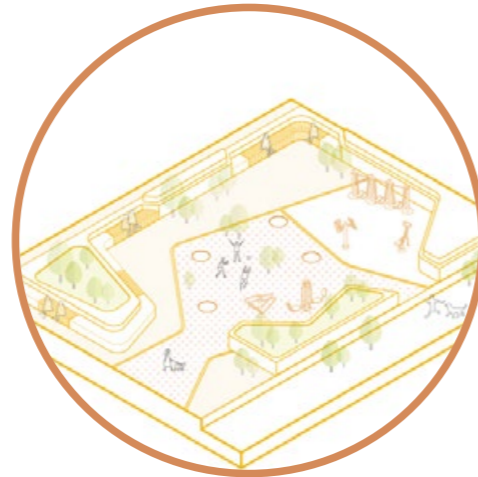
**b. Settlement upgrading:** The second action is to renovate and upgrade the informal settlements in the area, providing a new urban structure with clear streets, defined blocks, and established areas for public use. A comprehensive project of housing, land and property (HLP) will be implemented to provide adequate housing and land ownership to the minorities currently living in the area. This action will help to tackle the inequality issue that Juba peripheral areas are experiencing.

## 2. Green Network and Public Spaces.

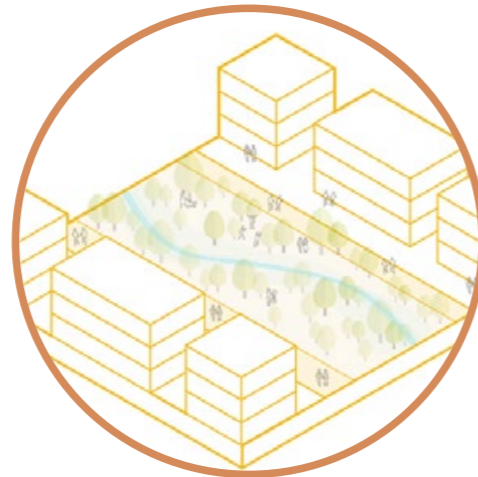
**a. Consolidate a pedestrian Riverfront:** This action implies the creation of a linear pedestrian pathway, and a cycling green corridor in the riverfront area, providing new places for leisure, social interaction, and sport activities. This action will also link the river with the network of green corridors and public spaces in the city. With this action it is also proposed to develop new commercial businesses and urban agricultural fields, to increment the accessibility to jobs and improve the economic dynamic within the Riverfront area.



Natural Playgrounds in Existing Seasonal Streams



Public Space Implementation in Vacant Land



Natural Corridors in an Urban Context

**b. Public green spaces:** Due to the large amount of vacant land in this area, the action aims to tackle the absence of managed equipped public spaces and integrate them with the riverfront intervention. An articulated and well-linked system of small scale public spaces needs to be set in place, targeting the areas surrounding the White Nile River and the Konyo Konyo Market.

**c. Agroforestry preservation area:** The Westbank of Juba has not been urbanized yet, and most of the existing trees, shrubs, and local vegetation of the city is located in this area. The main objective of the action is to integrate and preserve the existing vegetation to strengthen the local biodiversity, utilizing the same land-management system through the integration of trees, farms, and agricultural fields into the urban landscape. Agroforestry are multifunctional systems that can provide a wide range of economic, sociocultural, and environmental benefits.

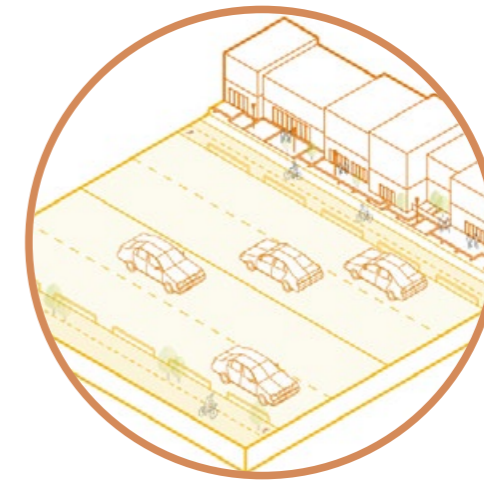
## 3. Public Facilities and Commercial Cores of Activity

**a. Mixed land use & commercial areas:** The aim of this action is to increase the land efficiency, by establishing vibrant neighborhoods with a strong identity and a relevant contribution to the city's overall economic activity.

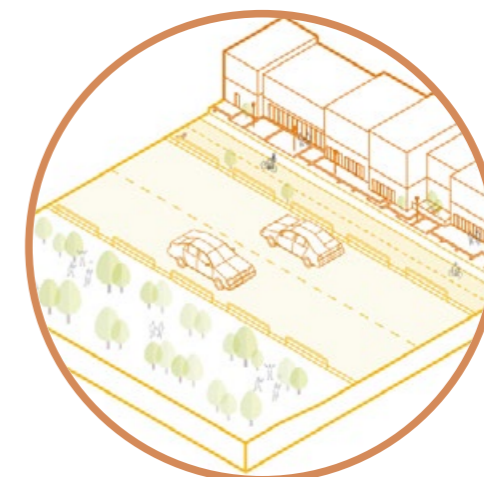
The strategy proposes to re-use and re-utilize the majority of vacant land to create new cores of commercial activity that can attract people into the riverfront area. establishing mixed-use nodes, commercial nodes, and ecological nodes. This will help to create a diversified system of new centralities depending on the surrounding conditions, in terms of urban function, form, and roles within the neighborhood and in relation to the main system of Juba city.

## 4. Urban Connectivity

**b. Cycling and Pedestrian connectivity:** Establish a network of bike lanes, sidewalks, green corridors and pedestrian streets that can link the area internally and connect it to different parts of the city with alternative ways of mobility, releasing the car dependency that is causing congestion from unnecessary long displacements.



New Bike Lanes in the Primary Roads



New Pedestrian Sidewalks in Secondary Roads



## 7.5 The Agro-urban Hub

Gumbo Sherikat area is located on the East Bank of the White Nile river. Since 2005 new housing settlements have started to develop after signing the Comprehensive Peace Agreement (CPA). Many newcomers arrived in Juba and settled around the Gumbo-Sherikat district. Currently, it is easy to find several warehouses, wholesale vegetable markets, and several Chinese farms built along the White Nile. The area has one of the lowest densities in Juba, with an average of 2000-3000 hab/km<sup>2</sup>. Mainly one-storey houses are located at Gumbo, with plenty of vacant land. According to the UN-Habitat GIS suitability analysis, the soil has high suitability for agricultural production due to its proximity to the river, and some of the most fertile soils of Juba are found here.

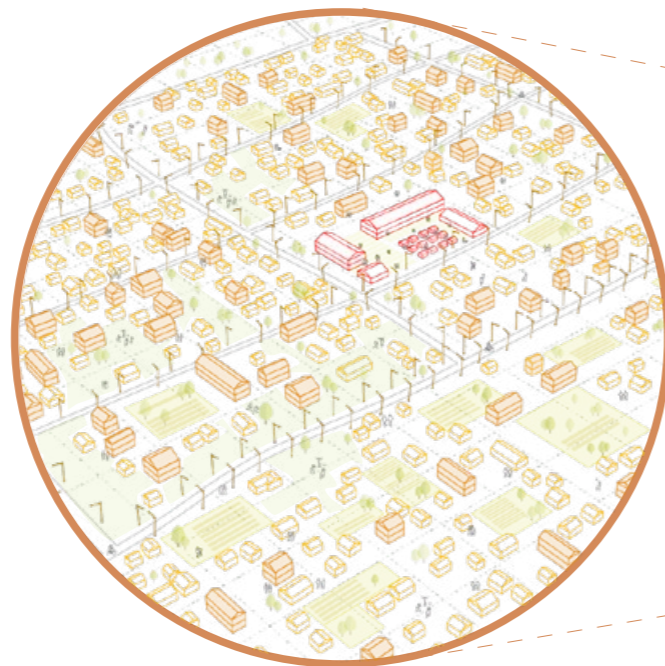
According to Juba in the Making official site; the agricultural production is mainly sold to the Chinese community in Juba, especially the Chinese contingent of UN peacekeepers. The surrounding countryside, which looks like a perfect ground for farming thanks to the river's proximity, does not show signs of significant agricultural development, Chinese farms aside. Lack of security and the uncontrolled presence of cattle, with reported cases of land grabbing.

### 1. Urban Improvement and Densification.

**a. Consolidate the urban fabric:** The current urban settlement patterns at the East Banks are mostly organic spontaneous. This means that informal settlements with low density are the most usual type of constructions. There are no consolidated road networks, basic services, and other types of infrastructure. The first action is to establish a clear and coherent formal land subdivision to define clear blocks and the internal subdivisions in and parcels and plots to allocate housing, commercial areas, public spaces, and larger buildings of public



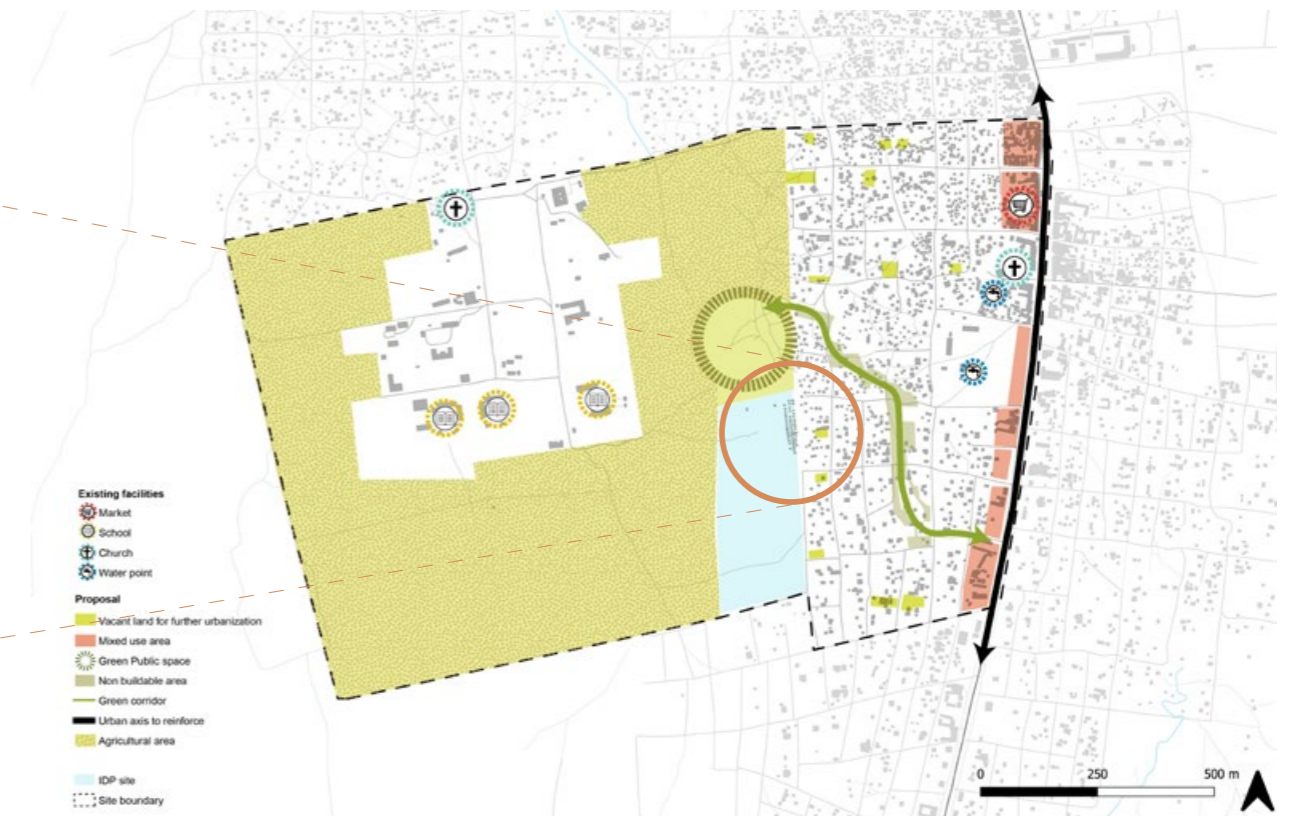
**Existing Condition of an Organic Urban Pattern Settlement**  
Average density: 0-2000 pp/km<sup>2</sup>



**Proposed Densification Strategy & Urban Agriculture**  
Average density: 2000-3000 pp/km<sup>2</sup>



Map 54: East banks area current context



Map 55: Project proposal for a new Agro-urban hub in the East banks area



infrastructure such as community centers, libraries, or health clinics. After strategy, is necessary to define a clear roads hierarchy, with primary, secondary and neighborhood streets, with sidewalks, and public spaces.

**b. Upgrading of the IDPs Camp site:** Renovate the current IDPs informal shelters in the East Banks with a comprehensive project of housing, land and property (HLP). Establish adequate housing and land to the minority and parallelly establish a proper zoning regulation system and frameworks.

## 2. Green Network, Agricultural plantations, and Public space network

**a. Green corridor:** Establish a linear green corridor in the existing water streams that cross the Gumbo Sherikat area. Consolidate a security buffer around the water streams with a regulation for non-construction permits. Green corridors should be designed for multiple functions such as new bike paths, walking, and jogging routes, in addition to water management areas. Green corridors can help establish better landscape connectivity across the city and improve ecosystem functions.

**b. Public Green spaces:** Establish green spaces distributed around the neighborhood, with different scales functions. The parks provide a wide variety of recreation possibilities, ecosystem benefits, refugia for wildlife and a large cumulative impact in stormwater reduction if they are larger integrated into larger green infrastructure networks, such as the linear corridors. This strategy will improve commercial activity and enhance the life quality of the residents providing public health benefits and health regulation.

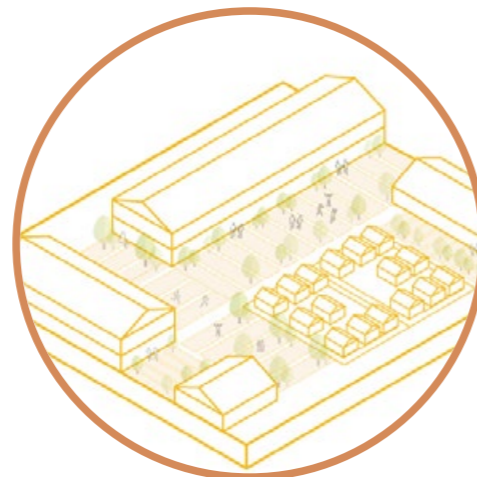
**c. Agricultural Plantations:** The most important incentive for urban farming is increase food security for the urban livelihoods in Juba. In addition to contribute to nutrition, agricultural activities



Housing Provision with Urban Agriculture



Agriforest Plantations for Food Security



New Food Urban Market

also provide multiple benefits. It supports climate change adaptation and mitigation, biodiversity strength and ecosystem services, resources efficiency urban regeneration, land management, social cohesion, and economic growth. Various irrigation schemes need to be designed, to ensure continue food ponds, tanks and rainwater can meet the rest of the irrigation needs

## 3. Public Facilities Provisioning:

**a. Public facilities provision:** Given the absence of accessibility to education facilities in the area, public schools are proposed in order to provide access to education to the IDPs and local residents living in Gumbo Sherikat. The consolidation of a waste and water waste management system needs to be implemented with accessibility to clean water points. Mixed-use to diversify functions is suggested throughout the area in terms of commercial activities, with higher commercial density, particularly in the plots near the primary roads.

## 4. Urban Food Market:

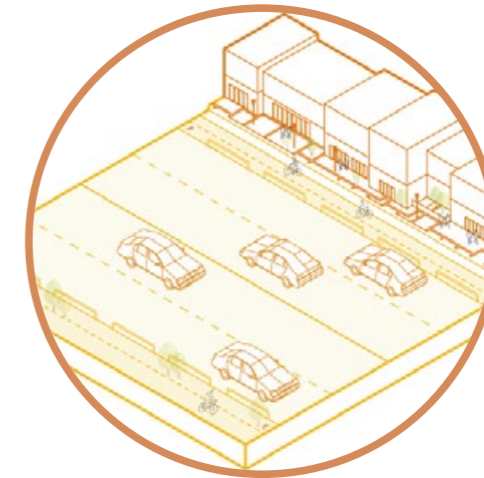
**a. New urban food market:** Gumbo Sherikat has already a relevant agricultural activity and wholesale vegetable markets, the vegetables are mainly sold to the Chinese community in Juba, but a project to establish the area as an Agro-Hub with agricultural fields but with a big Urban Food Market, capable of bring different restaurants and hotels to buy and consume locally produced food. This will release the external dependency from Uganda regarding food supply, as well as trigger and boost the local economy and development.

## 5. Increase Connectivity

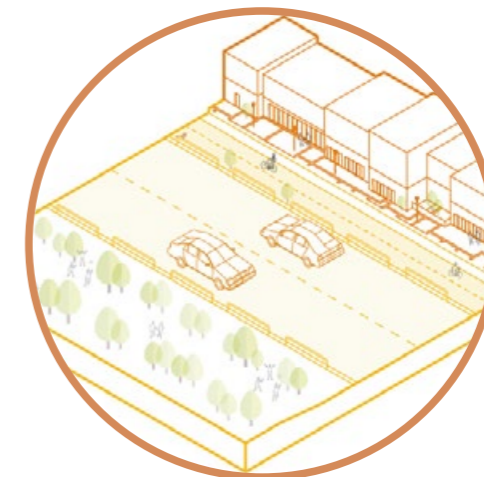
Gumbo Sherikat area has no clear urban structure of blocks and a defined street hierarchy of primary, secondary and local streets. A project to define this mobility network is essential in order to provide with a better understanding of the urban fabric.

**a. Hierarchy of roads and streets network:** Selected roads need to be upgraded into the secondary road to improve the pedestrian, bike and vehicular connectivity within the neighbourhood, improve the current road state of the area, and link the area with the city centre through a public transport system and construction of new roads.

**b. Cycling and Pedestrian connectivity:** Establish a network of bike lanes, sidewalks, green corridors and pedestrian streets that can link internally the area but also connect it to different parts of the city.



New Bike Lanes in the Primary Roads



New Pedestrian Sidewalks in Secondary Roads



## 7.6 The Way Forward Towards Territorial and Social Cohesion

The way forward to transform concepts into projects is to find the needed financial resources and establish the specific partnerships to initiate an implementation phase for each strategy.

The guiding principles for funding and highlight mechanisms should be focused on presenting innovative funding sources with specific costs, estimations, key partners involved, potential donors, and phases needed to address each action plan individually as well as the case scenarios.

**1.- Leverage UN-Habitat and urban planning value.** There is a need to improve the urban planning capacity within the national and local government to promote the importance of urban planning and design for the cities. The current capacity is low, which makes it challenging to engage with the ministries about investments with a long term vision.

**2.- Align the strategies with other already ongoing projects or initiatives in Juba.** Various ongoing projects are being implemented in Juba by different International Organizations, and it is imperative to align the strategic recommendations and sum efforts with investments that are already being done.

**3.- Better positioning for outside funding.** There are different grant applications available to apply for project funding. A core team to support and elaborate on different grant applications needs to be established on the ground.

**4.- Engage with the private sector and consider PPP funding mechanisms.** This type of founding mechanism provides advantages to both parties. The private sector can bring technology and innovation to improve the operational efficiency of services and infrastructure for the inhabitants of Juba.

*“There is an urgent need to improve the planning capacity within the national and local governments to promote the importance of urban planning and design for the South Sudanese cities.”*



Coordinate meetings in the field with other UN Agencies and the Planning Ministries to enhance the urban planning capacities in Juba city by organizing several capacity-building trainings and workshops about the legal urban planning framework, instruments, and tools to establish sustainable urban planning. The local ministries and government officials need to be involved in implementing strategies.

Identify potential partners and possible donors to engage in discussions regarding common objectives and goals for Juba's sustainable development and how to achieve them. Coordinate meetings in the field with other UN Agencies, International Development Organizations, and Planning Ministries to agree on the possible next steps for the action and strategic plans.

Start elaborating project funding proposals, campaigns and different international grant applications to secure financial resources for starting the implementation stage of the vision. Several development funds related to waste management, environmental projects, social and economic development, and humanitarian assistance can sponsor the different proposed interventions in Juba city.

Initiate different conversations and sector working groups with the National and Local authorities, such as the Ministry of Land, Housing and Urban Development, which acts locally and the Ministry of Housing, Physical Planning and Environment at the National level. Other authorities involved are the Ministry of Transport, Roads and Bridges, and The Ministry of Agriculture, Forestry, Tourism and Rural Development.

Engage the private sector in the different discussions around the strategic recommendations and the possible funding strategies, considering strategic sectors such as communications, infrastructure, industry, economic development and agricultural expansion. Other companies would be interested in long-term investments if South Sudan consolidates peace and political stability.



Figure 49: Spatial upgrading of a United Nations IDP Camp in South Sudan by UNMISS ©United Nations (UNMISS), 2017



# 08

## ANNEX



Figure 50: Aerial imagem of Juba. Source: Copernicus Open Access Hub (Sentinel-2)



## Endnotes

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JICA (2010). **Juba Urban Transport Infrastructure and Capacity Development Study in the Southern Sudan - Final Report**  
JICA (2007). **Part I - Emergency study on the planning and support for basic physical and social infrastructures in Juba town and the surrounding areas**  
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- 30 The regional infrastructure components are:  
I) Inter-regional Highways from Lamu-Garissa-Isiolo, **Isiolo-Lodwar-Nakodok and Juba**, Isiolo-Moyale and Addis Ababa, Lamu-Garsen;  
II) Inter-regional Standard Gauge Railway lines from Lamu to Isiolo, **Isiolo do Nakodok (Kenya/South Sudan Border) and Juba (South Sudan)**, Isiolo to Moyale (Kenya/Ethiopia borde) and Addis Ababa, and Nairobi to Isiolo;  
III) Crude Oil Pipeline from Lamu to Isiolo, **Isiolo to Nakodok and Nakodok to Juba (South Sudan)**;  
IV)Product Oil Pipeline from Lamu-Isiolo-Moyale (Kenya) and Moyale to Addis Ababa(Ethiopia)
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Category Ia - Protected areas that are strictly set aside to protect biodiversity and also possibly geological/geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.

Category Ib - Protected areas that are usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.

Category II – National Park means “Large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities”.

Category III - Protected areas set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.

Category IV - Protected areas aiming to protect particular species or habitats and management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

Category V - A protected area where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

Category VI – Protected area with sustainable use of natural resources means “Protected areas that conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area”

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