

*fraym*

## **Economic Opportunities for Youth in Senegal**

Prepared for CRS Senegal

**28 August 2020**

© Fraym. Can be consulted as an example. Do not distribute without explicit consent from Fraym. If consent has been given, please credit Fraym when sharing materials.

## ECONOMIC OPPORTUNITIES FOR YOUTH IN SENEGAL || KEY TAKEAWAYS

Understanding where youth are located, their demographic characteristics, and employment opportunities can help tailor programming to improve employment outcomes for youth in Senegal.

- 1 **There are approximately 4 million youth between the ages of 15 and 29 in Senegal.** There are large concentrations of youth in the Dakar, Thiès and Diourbel regions. About 25 percent of all Senegalese youth live in Dakar, 13 percent in Thiès, 9 percent in Diourbel, 7 percent in Saint-Louis, and 4 percent in Kolda.
- 2 **Unemployment affects female youth more than male youth,** particularly in rural areas. As female youth have lower levels of educational attainment and literacy, investments in technical and vocational education for female youth could improve employment outcomes.
- 3 **A stark urban-rural divide exists in youth educational attainment.** 87 percent of youth in rural areas have not completed their primary education, contrasted with 62 percent of youth in urban areas of the country. Including educational components to interventions aimed at youth employment in rural regions could maximize their impact.
- 4 **The agriculture and skilled manual labor sectors are the largest employers of youth nationwide.** Investments aimed at improving agricultural value chains, such as groundnut, and improving training and certification in the skilled labor sector could increase employment opportunities for the youth population.
- 5 **The IT/digital and hospitality industries offer promising long-term growth opportunities for youth employment.** However, businesses in both sectors cite access to finance and credit as a significant challenge, with 37 percent of hospitality and 45 percent of digital enterprises listing it as their largest impediment. Interventions aimed at youth employment in these sectors could include financing components to unlock the growth potential.

# Outline

- I. Scope of work**
- II. Youth overview**
- III. Youth employment**
- IV. Employment opportunities**
- V. Deep-dives**
  - I. Kolda
  - II. Thiès
  - III. Diourbel
  - IV. Dakar
  - V. Saint-Louis
- VI. Appendix**

# Scope of work



## SCOPE OF WORK || OVERVIEW

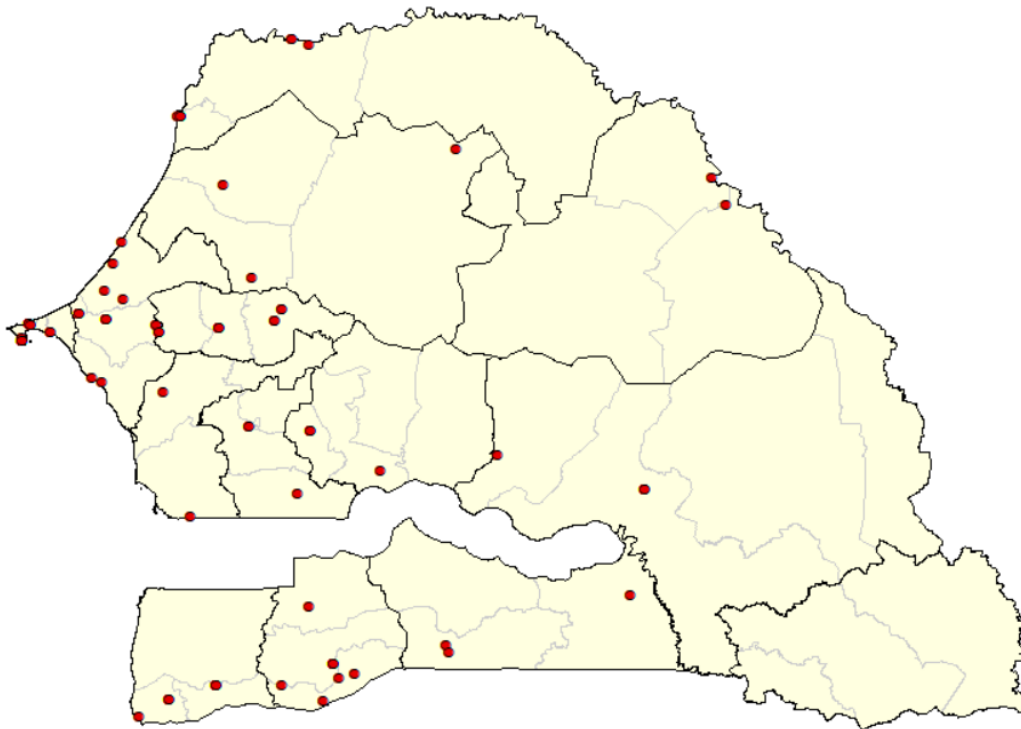
Fraym supported CRS Senegal in the development of an opportunity youth project design by providing an analysis of youth demographics and economic opportunities in Senegal, with a deep dive on Kolda, Thiès, Diourbel, Dakar, and Saint-Louis.

- 1 First, Fraym provided a **national overview** of youth, defined as individuals between the ages of 15-29, including demographic characteristics such as gender, household size, educational attainment, asset ownership, and consumer classification.
- 2 In addition, Fraym provided a national overview of **off-farm and on-farm economic opportunities** for youth.
- 3 Fraym identified the total number of youth and **mapped concentrations of youth** down to the 1km<sup>2</sup> level.
- 4 Fraym prepared a **deep-dive analysis into Kolda, Thiès, and Diourbel**. The deep-dive includes an analysis of economic opportunities, socio-demographic characteristics, and employment trends.

## SCOPE OF WORK || METHODOLOGY: CONFLICT ANALYSIS

Fraym utilized data from the Armed Conflict Location & Event Data Project (ACLED) to analyze local conflict dynamics and identify areas with unrest.

**Incidents of Protests & Violent Demonstrations  
2018 - Present**



1

Fraym utilized ACLED data to identify discrete instances of political violence or unrest. This includes protests, violent demonstrations, riots, outright armed conflict, and abuses by state security forces.

2

Fraym identified both perpetrators and targets of individual events, such as the protests led by young people, or the targets of government violence against civilians.

3

Fraym mapped individual events at the administrative level and used this information to identify areas with high conflict density.

## SCOPE OF WORK || TIMELINE

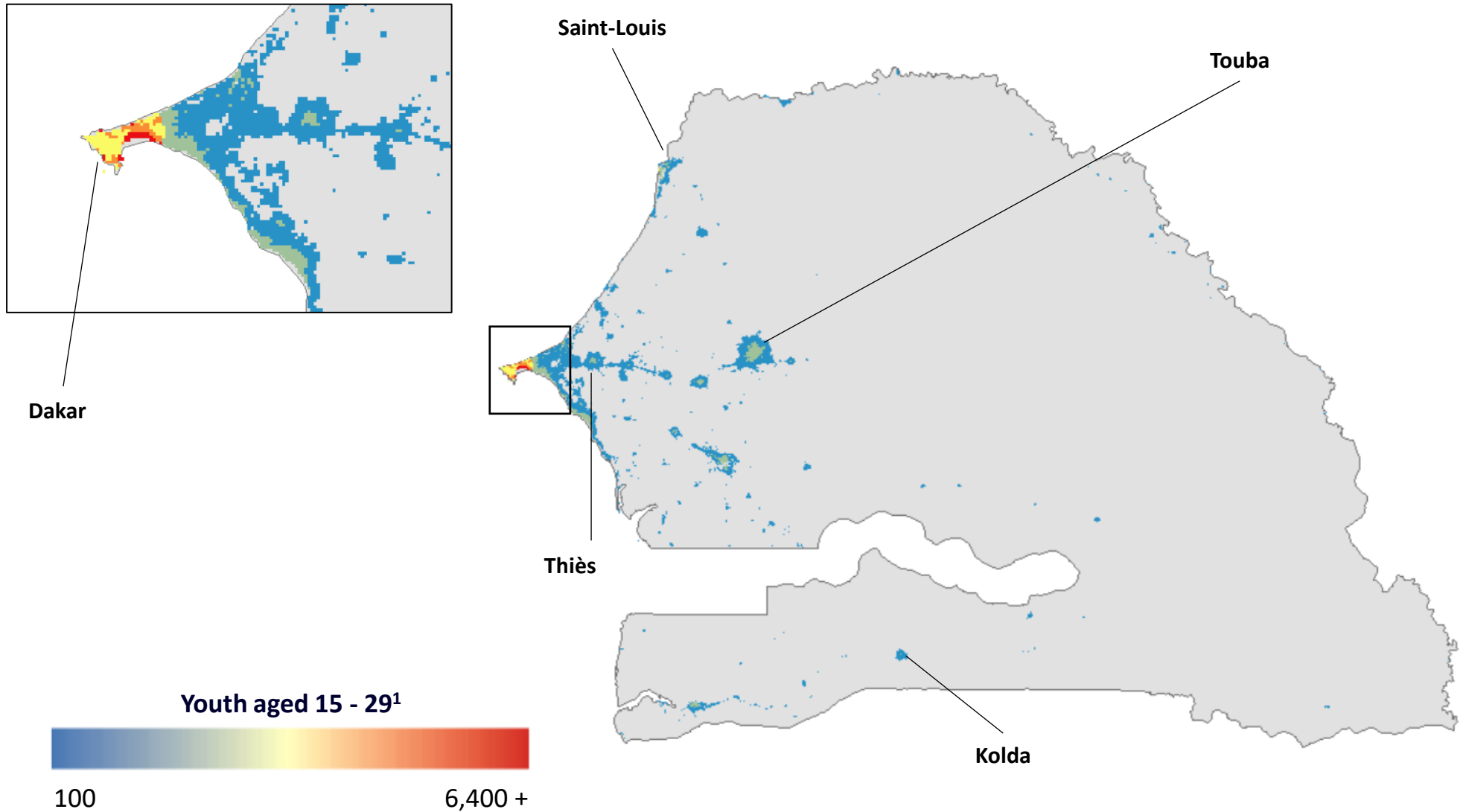
	Deliverables	Objectives
Kick-off July 30, 2020	<ul style="list-style-type: none"> <li>Kick-off meeting</li> </ul>	<ul style="list-style-type: none"> <li>Align on scope of work and methodology</li> </ul>
Check-in August 14, 2020	<ul style="list-style-type: none"> <li>Draft report sent in advance by August 12</li> </ul>	<ul style="list-style-type: none"> <li>Discuss findings and feedback</li> </ul>
Check-in August 28, 2020	<ul style="list-style-type: none"> <li>Final report</li> </ul>	

# Youth overview



## YOUTH OVERVIEW || MAPPING CONCENTRATIONS

Youth are clustered around urban areas along the Dakar-Touba corridor.



**Note 1 :** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown.  
**Source:** Fraym

## YOUTH OVERVIEW || REGIONAL BREAKDOWN

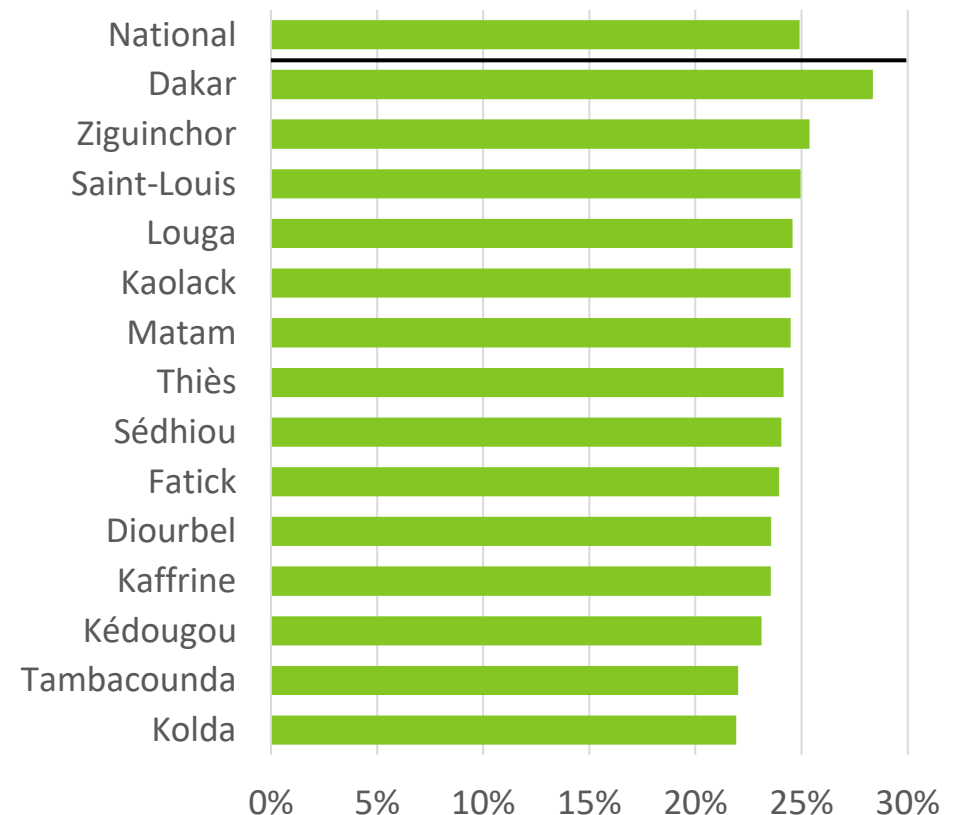
There are a total of about 4 million youth aged 15 to 29 in Senegal.

Youth between the ages of 15 and 29 account for 25 percent of the Senegalese population. The region of Dakar has both the largest proportion of youth in the population, as well as the highest concentration of youth. About 28 percent of the population in Dakar is between the ages of 15 and 29, accounting for 1 million youths.

Largest regional youth populations (top 10)<sup>1</sup>

	Youth aged 15-29
Dakar	1,002,000
Thiès	527,000
Diourbel	393,000
Fatick	293,000
Saint-Louis	268,000
Louga	263,000
Kaolack	253,000
Kolda	185,000
Ziguinchor	173,000
Kaffrine	172,000
<b>National</b>	<b>4,018,000</b>

Percentage of population aged 15-29, by region



**Note 1:** Youth are defined as individuals between the ages of 15 and 29 throughout this report.

**Source:** Fraym

## YOUTH OVERVIEW || URBAN/RURAL BREAKDOWN

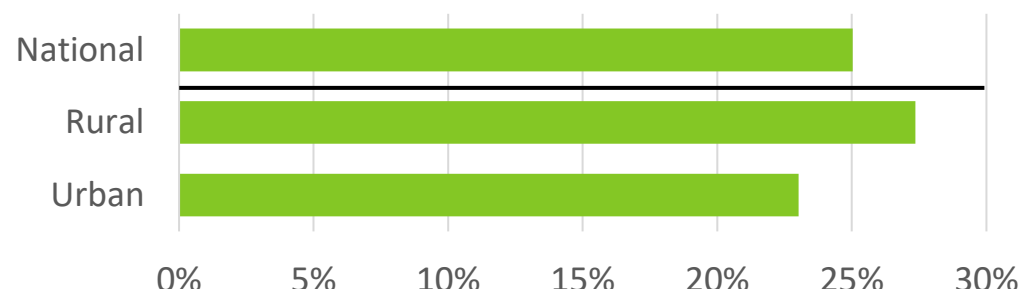
While youth in Senegal are currently evenly split between urban and rural locations, urban populations are projected to grow much faster than rural populations in the next twenty years.

- 1 Rural populations are slightly more youthful than urban populations, with youth accounting for 27 percent of the rural population compared to 23 percent of the urban population.
- 2 The urban population is projected to grow by two to three times as much as the rural population over the next 20 years, according to the UN, indicating that Senegalese youth are likely to become more urbanized.

**Youth populations by urban/rural location**

	Number of youth	Proportion of youth
Urban	2,034,000	51%
Rural	1,984,000	49%
<b>National</b>	<b>4,018,000</b>	<b>100%</b>

**Percentage of population aged 15-29, by urban/rural**



**Projected growth of urban and rural populations in Senegal<sup>1</sup>**

	2020 - 2025	2025 - 2030	2030 - 2035	2035 - 2040
Average annual rural population growth	1.61%	1.34%	1.10%	0.88%
Average annual urban population growth	3.59%	3.47%	3.35%	3.22%
<b>National</b>	<b>2.59%</b>	<b>2.45%</b>	<b>2.33%</b>	<b>2.22%</b>

**Note 1:** United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision, Online Edition.  
**Source:** Fraym

## YOUTH OVERVIEW || NATIONAL DEMOGRAPHICS



**Youth live in very large households** with an average of almost 9.2 people.<sup>1</sup> Household heads tend to be men, with an average age of 40.



**Most youth have access to electricity at home.** 67 percent of youth live in households that have electricity.



**Youth are well connected through mobile phones.** 91 percent of youth use mobile phones at least once a month. 86 percent of youth personally own a mobile phone and 96 percent have one mobile phone in their household.



**Computer and internet access is relatively low.** About 18 percent of youth have a computer in their household and only 7 percent have access to the internet at home. 39 percent of youth use the internet at last once a month.



**Transportation assets are limited.** Only 17 percent of youth have access to a bicycle in their household, 15 percent have access to a scooter, and 12 percent have access to a car.



**Youth have a mixed level of educational attainment.** Less than a third (30%) of youth have attended school in the past year, and only 19 percent of youth completed their primary education.



**Finding full employment is a challenge for youth.** 56 percent of youth who have exited the education system are employed. 44% of these employed youth suffer from time-related underemployment.<sup>2</sup>



**There is a large gender gap in youth employment.** Male youth are almost twice as likely to be employed as female youth, with 80% of males and only 35% of females working.



**Farming is important for a large percentage of youth.** About 45 percent of youth live in a household that owns farmland and 72 percent live in a household that owns livestock. Of all employed youth, over a third are employed on household farms.

**Note 1:** Youth are defined as individuals between the ages of 15 and 29 throughout this report.

**Note 2:** Time-related underemployment is defined as working less than a threshold of 40 hours per week to be consistent with the threshold used by the National Agency of Statistics in Senegal.

**Source:** Fraym

## YOUTH OVERVIEW || DEMOGRAPHICS BY GENDER OF HOUSEHOLD HEAD

Youth living in female-headed households have lower levels of employment, but higher rates of education.

### Youth in male-headed household

**More likely to leave school earlier.** 29 percent of youth are still in school and, on average, youth complete 4.7 years of education.

**More likely to be employed.** The employment rate for youth living in male-headed households is 46 percent.

**Have larger households.** The average household size for a male headed household is 9.7 people.

**Few differences in connectivity.** 97 percent of youth have access to a mobile phone, 18 percent have a computer, and 6 percent have the internet at home.

**More likely to have access to bicycles and scooters.** 18 percent of youth have access to a bicycle at home and 17 percent have a scooter.

**Worse access to water and sanitation.** 52 percent of youth live in a household with piped in water and 25 percent have a flush toilet.



### Youth in female-headed household

**More likely to stay in school longer.** 33 percent of youth are still in school and, on average, youth complete 5.4 years of education.

**Less likely to be employed.** The employment rate for youth in female-headed households is 40 percent.

**Have smaller households.** The average household size for a female-headed household is 8.4 people.

**Few differences in connectivity.** 97 percent of youth have access to a mobile phone, 18 percent have a computer, and 8 percent have the internet at home.

**Less likely to have access to bicycles and scooters.** 13 percent of youth have access to a bicycle at home and 10 percent have a scooter.

**Better access to water and sanitation.** 60 percent of youth live in a household with piped in water and 38 percent have a flush toilet.

# YOUTH OVERVIEW || EDUCATIONAL ATTAINMENT

About three quarters of youth in the national labor force have not completed primary school.<sup>1</sup>



1

Roughly 2,767,000 Senegalese youth aged 15-29 are not attending school and are part of the labor force.

2

Youth in Dakar and Ziguinchor are the most likely to have completed primary school or secondary school.

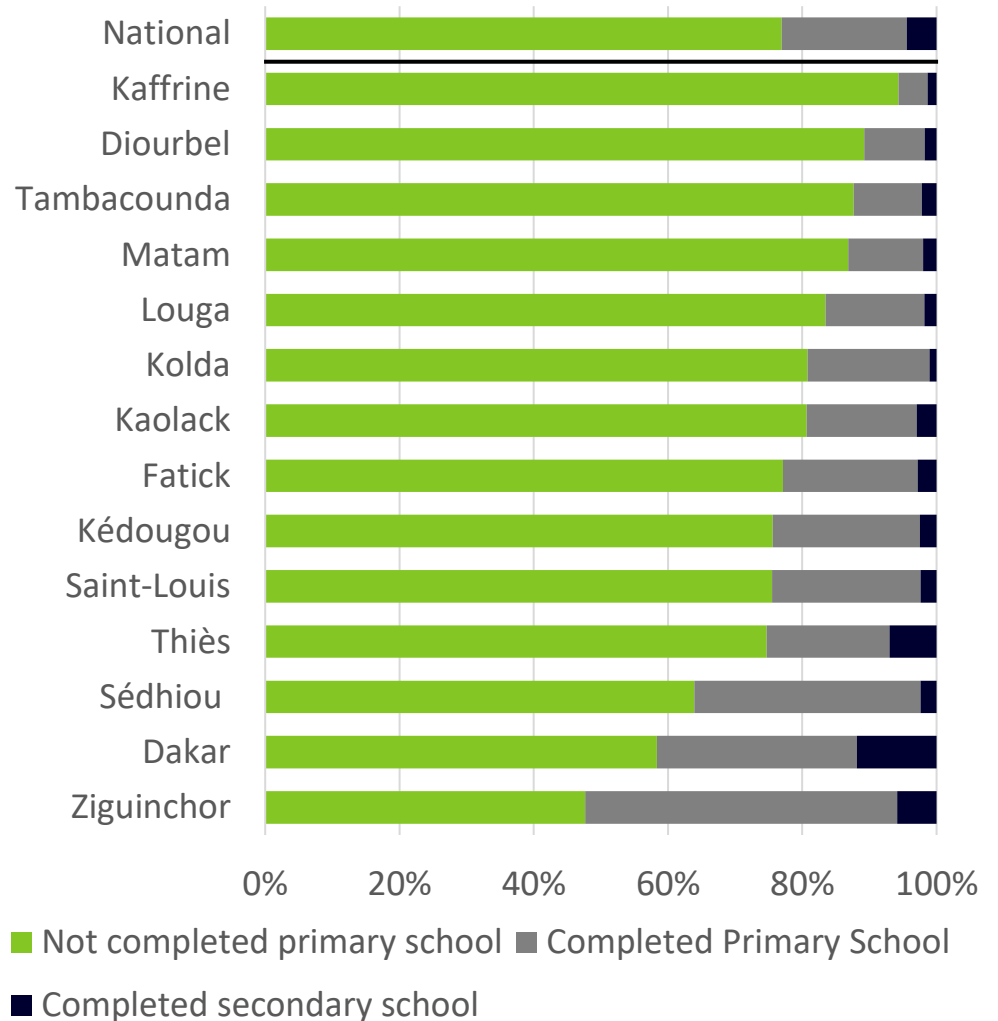
3

While only 5 percent of youth have finished secondary school nationally, 16 percent have completed at least some secondary school education.

3

About 4 percent of youth have some tertiary education.

Educational attainment of youth age 15 to 29 in the labor force<sup>2</sup>



**Note 1:** This data only covers secular education. Koranic and other religious schooling is not captured in the data.

**Note 2:** Youth in the labor force are those who have exited the education system and are no longer attending school, meaning they have either dropped out or completed their schooling.

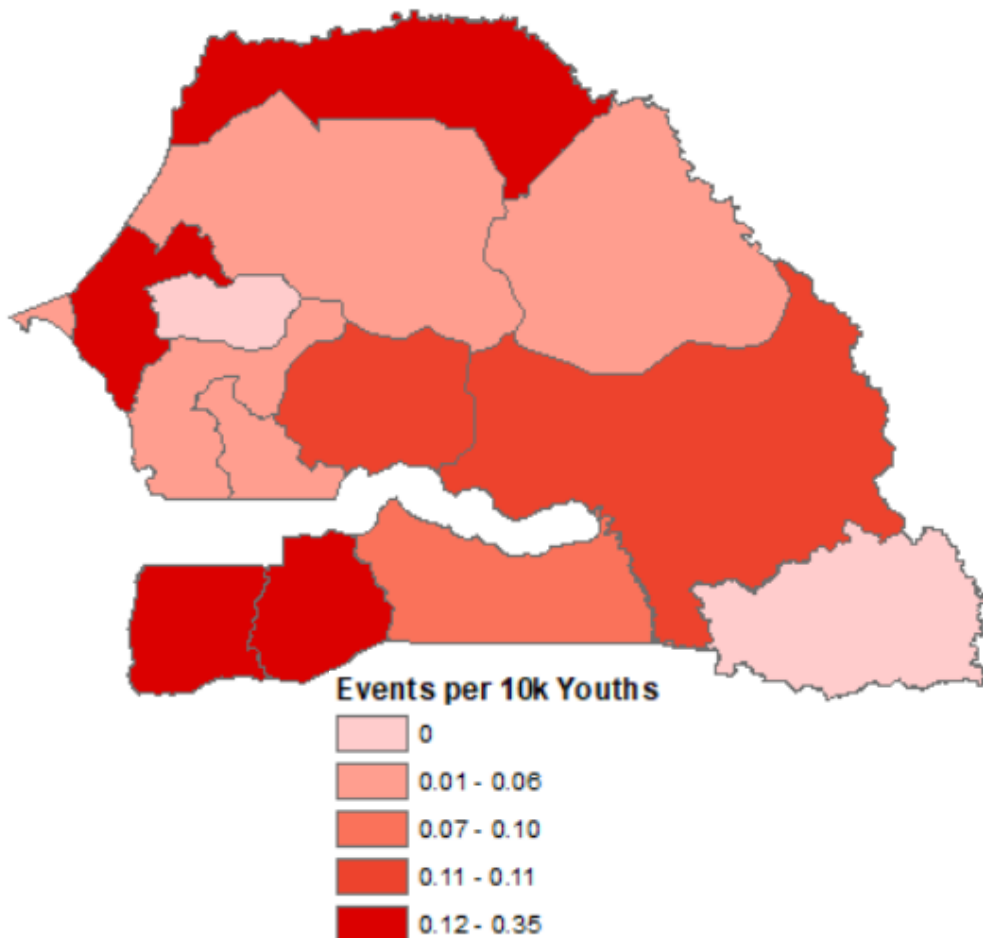
**Source:** Fraym

## YOUTH OVERVIEW || YOUTH-LED CONFLICT

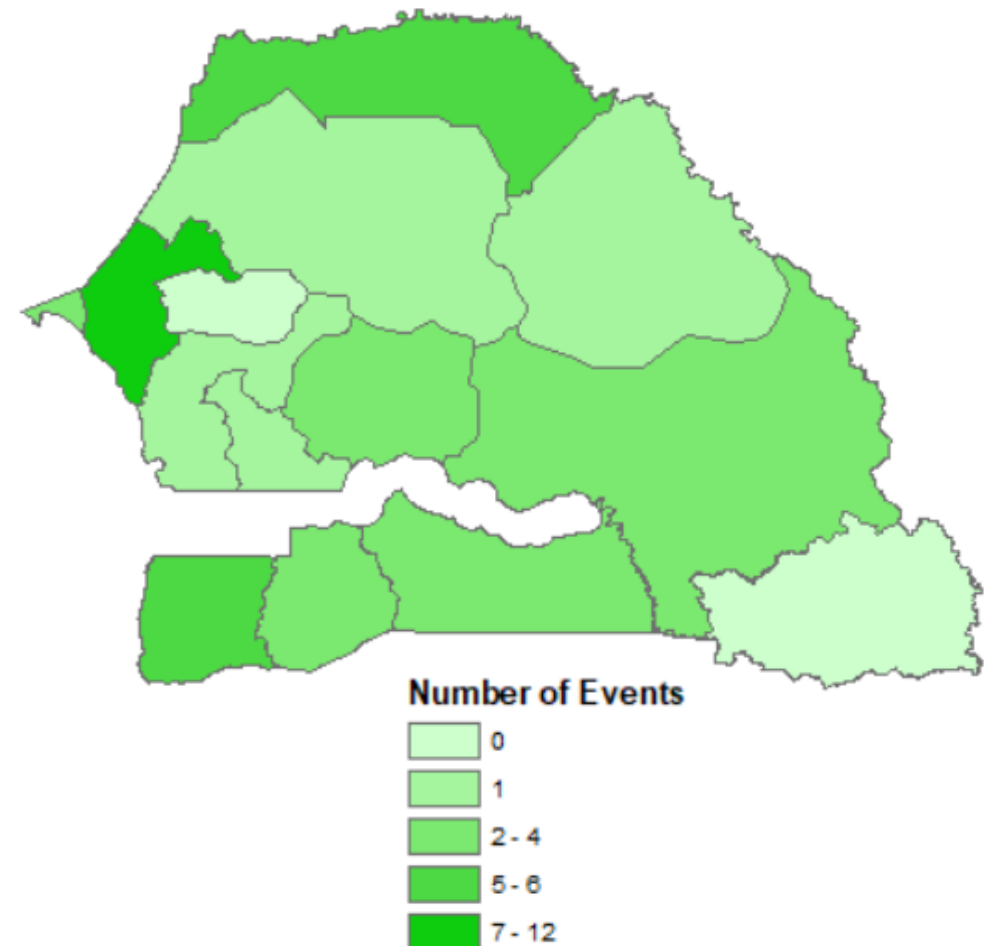
Youth-related protest and unrest is heavily concentrated in the region of Thiès.

### Youth-related conflict events by youth population

Number of events per 10,000 youths



### Total youth-related conflict events<sup>1</sup>



**Note 1:** Youth related conflict is defined as protests, demonstrations, or riots led by youths or focused on youth issues, or actions by state security forces that explicitly targeted youths.

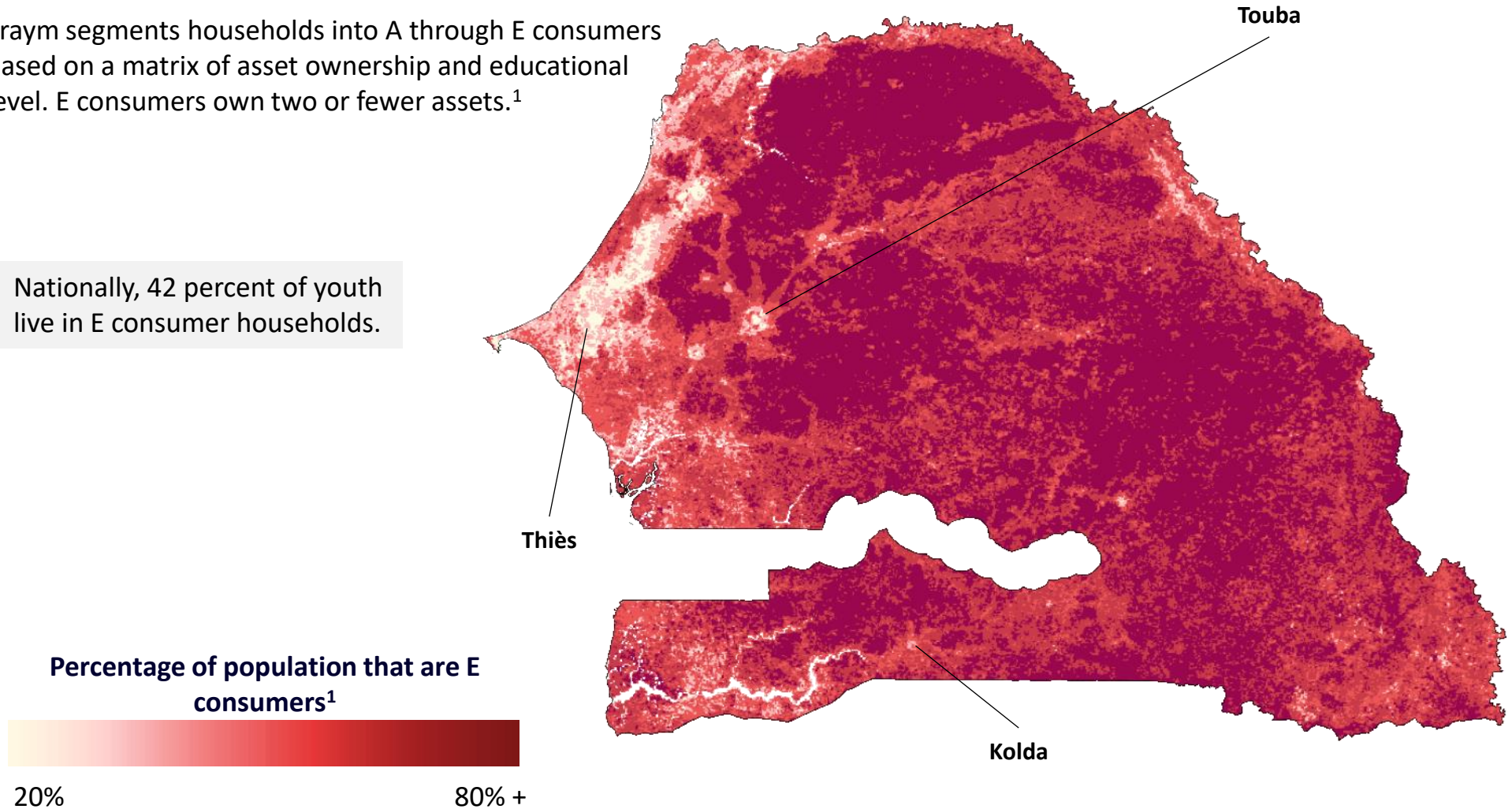
**Source:** Fraym, The Armed Conflict Location & Event Data Project (ACLED)

## YOUTH OVERVIEW || VULNERABLE YOUTH

Vulnerable youth can be identified as those in the poorest consumer segment, defined as households with the lowest combination of asset ownership and educational attainment of household head.

Fraym segments households into A through E consumers based on a matrix of asset ownership and educational level. E consumers own two or fewer assets.<sup>1</sup>

Nationally, 42 percent of youth live in E consumer households.



**Note 1:** See Appendix A for more information on the ABC1 consumer classification methodology. Areas with less than 100 youth per square km are not shown.  
**Source:** Fraym

**Youth  
employment**



## YOUTH EMPLOYMENT || KEY TAKEAWAYS

Unemployment affects female youth more than male youth, particularly in rural areas.

- 1 Nationally, **56 percent of Senegalese youth in the labor force are employed.**<sup>1</sup> Kolda, Thies, Saint-Louis and Diourbel have lower rates of employment, with approximately half of youth in the workforce employed full time or seasonally. Dakar exceeds the national average, with 62 percent of Senegalese youth in the labor force working.
- 2 There is a **significant gender gap in youth employment.** The employment rate for male youth is 80 percent, compared to 35 percent for female youth. This may be impacted by lower educational attainment for female youth.
- 3 **Female youth in rural areas have the lowest rates of employment.** The difference in educational levels between male and female youth is also more dramatic in rural areas.
- 4 While **agriculture** is the predominant employer of youth in rural areas, **skilled manual labor and sales** are more common in urban areas.<sup>2</sup>
- 5 Youth employment in the informal economy, as proxied by receiving in-kind payment, is much more common in rural areas. Approximately **57 percent of rural youth are informally employed**, compared to 26 percent of urban youth.

**Note 1:** Youth in the labor force are those who have exited the education system and are no longer attending school, meaning they have either dropped out or completed their schooling.

**Note 2:** Skilled manual labor includes plant and machine operators, assemblers, drivers, crafts and trade workers, as well as agriculture laborers.

**Source:** Fraym



## YOUTH EMPLOYMENT || OVERVIEW

The youth employment rate varies by region, with a national average of 56 percent.<sup>1</sup>



1

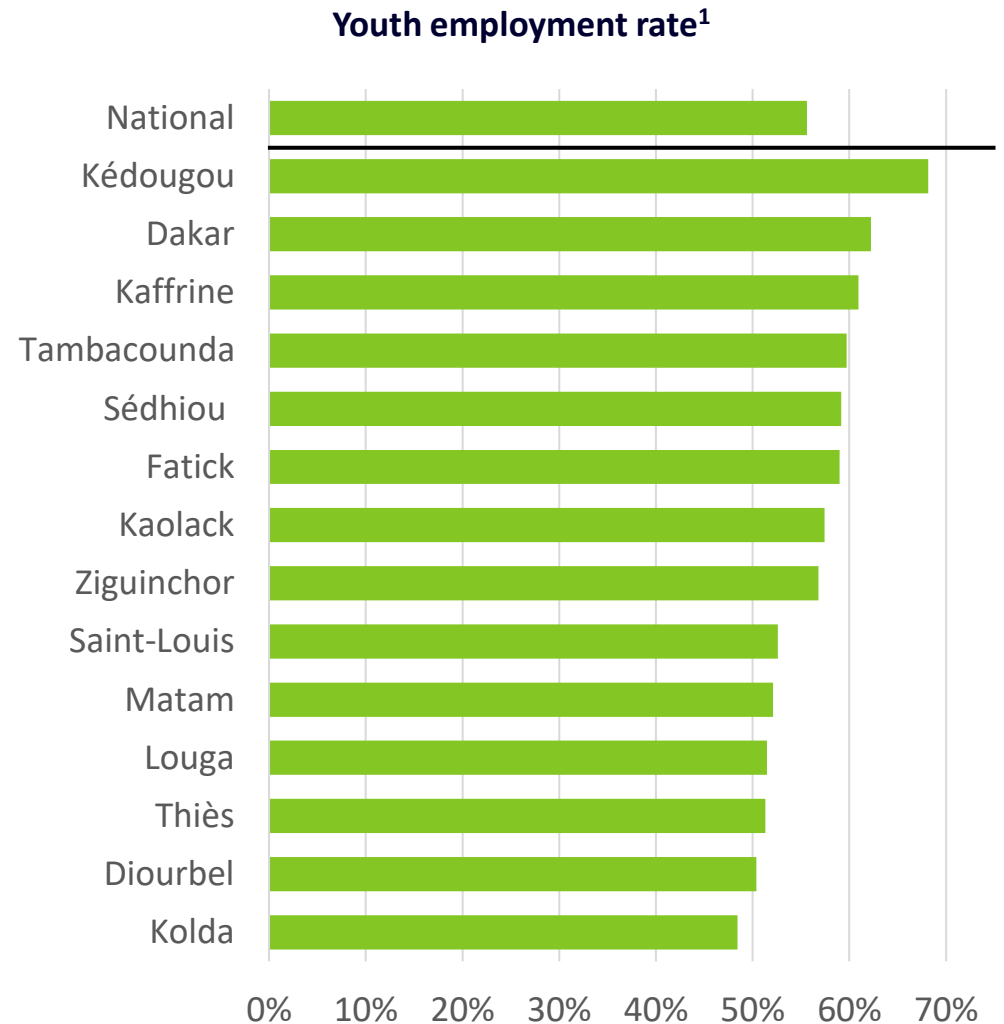
A total of about 1,539,000 Senegalese youth are employed.

2

Kolda, Diourbel, and Thiès have the lowest rates of youth employment, at around 49, 50, and 51 percent, respectively.

3

Kédougou and Dakar have relatively high levels of youth employment, with 68 and 62 percent of youth in the labor force employed, respectively.



**Note 1:** The youth employment rate is calculated as the ratio of employed youth to total youth not currently in school. Youth are considered to be employed if they work full-time or seasonally. Occasional work is excluded.

Source: Fraym

## YOUTH EMPLOYMENT || GENDER DYNAMICS

Male youth are twice as likely to be employed as female youth. Females also have lower levels of education, literacy, and are more likely to be married with children.

### Male youth

**Relatively high employment rate.** 80 percent of male youth in the national labor force are employed.<sup>1</sup>



**Stay in school longer.** 35 percent of male youth are still in school. On average, male youth have finished 3.7 years of education.



**More likely to be literate.** Around 56 percent of male youth are literate.



**Less likely be married.** Only 12 percent of all male youth are married, and 8 percent have children.



**Equally likely to live with parents, slightly more likely to be household heads.** Only 5 percent of male youth are household heads, while 51 percent live with their parents.



### Female youth

**Much less as likely to be employed.** Only 35 percent of female youth in the national labor force are employed.<sup>1</sup>

**Stop attending school earlier.** 28 percent of female youth are still in school. On average, female youth finish 2.9 years of education, one year less than male youth.

**Lower levels of literacy.** Less than half of female youth (45 percent) are literate.

**Much more likely to be married and have children.** 53 percent of all female youth are married, and 45 percent have children.

**Equally likely to live with a spouse or with parents.** Only 2 percent of female youth are a household heads. 13 percent live with a spouse and 49 percent live with their parents or parents-in-law.

**Note 1:** Youth in the labor force are those who have exited the education system are no longer attending school, meaning they have either dropped out or completed their schooling.

Source: Fraym

## YOUTH EMPLOYMENT || GENDER DYNAMICS BY LOCATION

Rural areas have the most pronounced gender gap in youth employment.

- 1 The gap in education indicators for male and female youth is much smaller in urban areas than in rural areas. While about a third of both male and female youth are still in school in urban areas, only 20 percent of female youth are still in school in rural areas.
- 2 Female youth are much more likely than male youth to be married and have children in all locations, and this difference is starker in rural areas.
- 3 Male youth in Senegal, on average, have completed one more year of school than their female counterparts.

**Youth gender dynamics by location**

	Urban		Rural		National	
	Male	Female	Male	Female	Male	Female
Employed	77%	41%	82%	32%	80%	35%
Married	9%	39%	14%	65%	12%	53%
At least one child	7%	35%	9%	53%	8%	45%
Still in school	37%	38%	33%	20%	35%	28%
Years of education completed	5.4	4.7	2.2	1.7	3.7	2.9

# YOUTH EMPLOYMENT || OCCUPATIONS

Employment opportunities for youth vary by location, with skilled manual labor and sales being more common in urban areas.

**Agriculture** includes subsistence farmers and fishers, as well as market-oriented agricultural, fishery, and forestry workers.

**Sales** includes service and sales workers, in addition to hospitality and service managers.

**Professional** includes managers, professionals, technicians, and armed forces occupations.

**Skilled manual labor** includes plant and machine operators, assemblers, drivers, crafts and trade workers, as well as agriculture laborers.

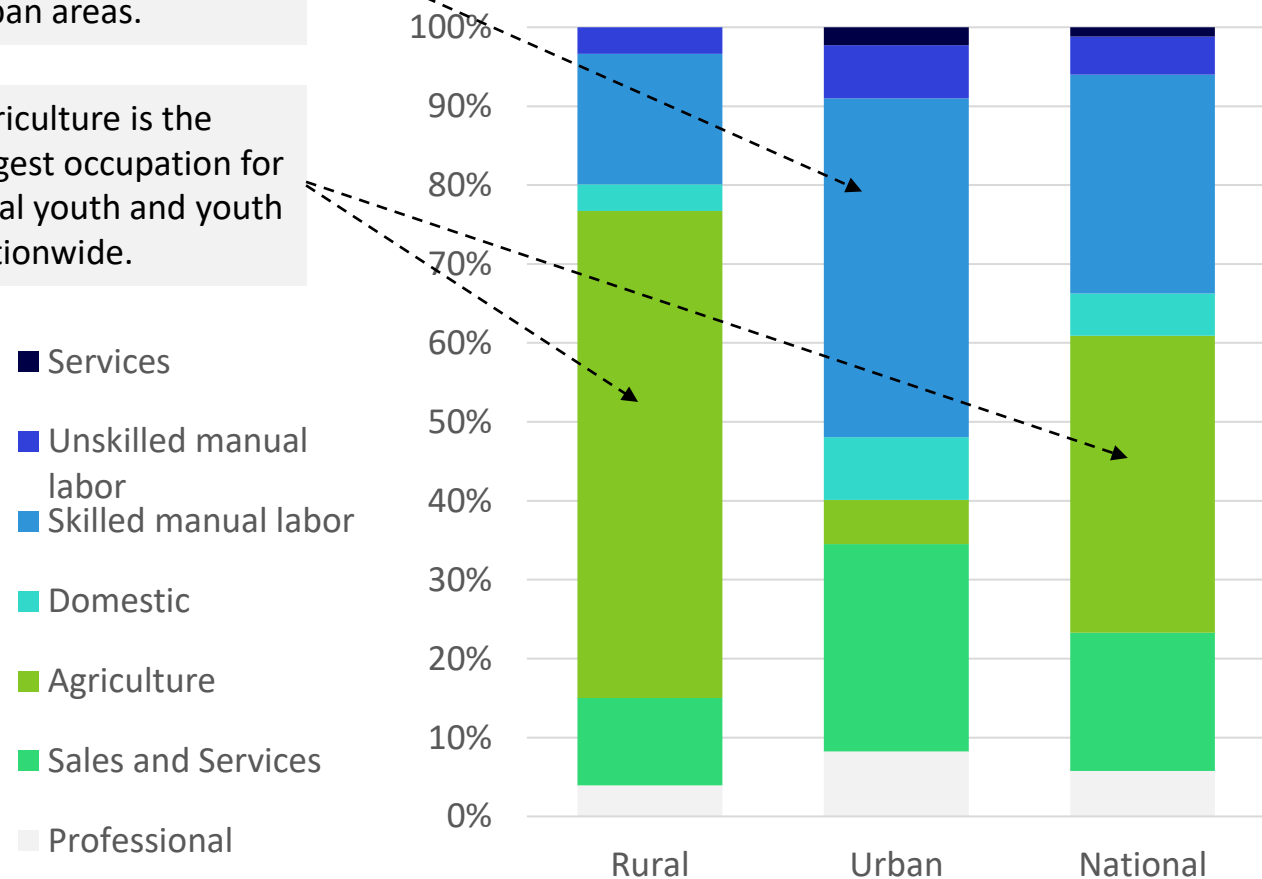
**Unskilled manual labor** includes mining and construction laborers, food preparation assistants, and hawkers.

**Domestic** includes cleaners and other household workers.

Skilled manual labor employs the largest share of youth in urban areas.

Agriculture is the largest occupation for rural youth and youth nationwide.

Proportion of employed youth, by occupation categories<sup>1</sup>



**Note 1:** Occupation statistics are calculated for youth aged 15 to 29, who are not currently attending school, and who work full-time or seasonally. Occasional work is excluded.

**Source:** Fraym



## YOUTH EMPLOYMENT || INFORMAL & SEASONAL EMPLOYMENT

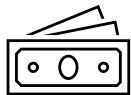
Almost 43 percent of youth out of school in Senegal are informally employed, as proxied by receiving in-kind or no compensation for their work.



**Female youth are less likely to be employed informally.** 39 percent of female youth in the work force reported receiving in-kind compensation, compared to 49 percent of men.



**Female youth are less likely to be seasonally employed.** 11 percent of female youth in the work force are seasonally employed, compared to 22 percent of male youth .



**Seasonally employed youth are twice as likely to be employed informally.** 73 percent of seasonally employed youth reported receiving in-kind payments, compared with 34 percent on youth employed full-time.



**Youth without a primary education are more likely to be seasonally employed and paid in-kind.** 15 percent of youth without a primary education work seasonally and 45 percent are paid in-kind, compared to 8 and 34 percent, respectively, for those with primary education.



**Rural youth are more likely to be seasonally employed.** 21 percent of rural youth are seasonally employed, compared with 4 percent of youth in urban areas outside of Dakar.



**Youth in rural regions are more likely to be employed in the informal sector.** 57 percent of working youth in rural regions received in-kind payments, compared to 43 percent of youth nationally.

**Note 1:** Occupation statistics are calculated for youth aged 15 to 29 and are not currently attending school. Informal employment is defined based on if a respondent was paid either wholly or partly via in-kind compensation, or worked and did not receive compensation.

Source: Fraym

**Employment  
opportunities**

A vertical green line is positioned to the right of the text, extending from the top of the text area down to the bottom of the text area.

## EMPLOYMENT OPPORTUNITIES || KEY TAKEAWAYS

The agriculture, tourism, and technology sectors offer a variety of investment opportunities for increasing youth employment.

- 1 About **1.6 million youth live in areas where groundnut is a key crop**. Agriculture is predominantly rainfed in these areas, suggesting that investments in irrigation may improve groundnut value chains and increase opportunities for youth to find full employment in agriculture.
- 2 **Along the coast of Senegal, there are a variety of opportunities in tourism**. Urban youth along the Dakar-M'bour corridor may benefit from interventions promoting employment in the tourism sector.
- 3 Relatively high levels of goat and chicken ownership indicate opportunities for investments in **livestock value chains, particularly in the rural areas surrounding Touba and the Casamance region**.
- 4 **Access to finance is the largest barrier facing technology and hospitality enterprises**. Targeted interventions aimed at reducing this constraint may allow these enterprises to expand and, as a result, increase opportunities for youth seeking employment.

## EMPLOYMENT OPPORTUNITIES || ON-FARM: OVERVIEW

Agriculture is the leading employment sector for youth in Senegal, with 60 percent of rural youth working in agriculture

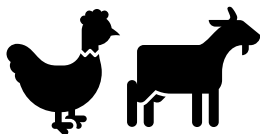
- 1 Sugar cane, groundnuts, rice, and millet are the top crops produced by Senegalese farmers. Farmers harvested over 962,000 hectares and produced over 846,000 tons of groundnuts in 2018.<sup>1</sup>
- 2 Agriculture is the leading employment activity in Kolda and Saint-Louis, with over 55 and 50 percent of youth working in the sector, respectively. Agricultural employment is less important in Diourbel and Thies where 21 and 27 percent of youths work in agriculture related jobs respectively. Agricultural employment is almost nonexistent in Dakar.



**At the national level, agricultural land ownership is moderate.** Approximately 38 percent of Senegalese households own agricultural land. However, the majority of rural households (70 percent) own land.



**The average Senegalese agricultural landowner has 5 hectares of land.** Only 27 percent of farming households own less than 2 hectares of land.



**Over half of rural households own chickens and/or goats.** About 57 percent of rural households own at least one chicken and 49 percent own at least one goat.

**Note 1:** UN Food and Agriculture Organization's FAOSTAT database.

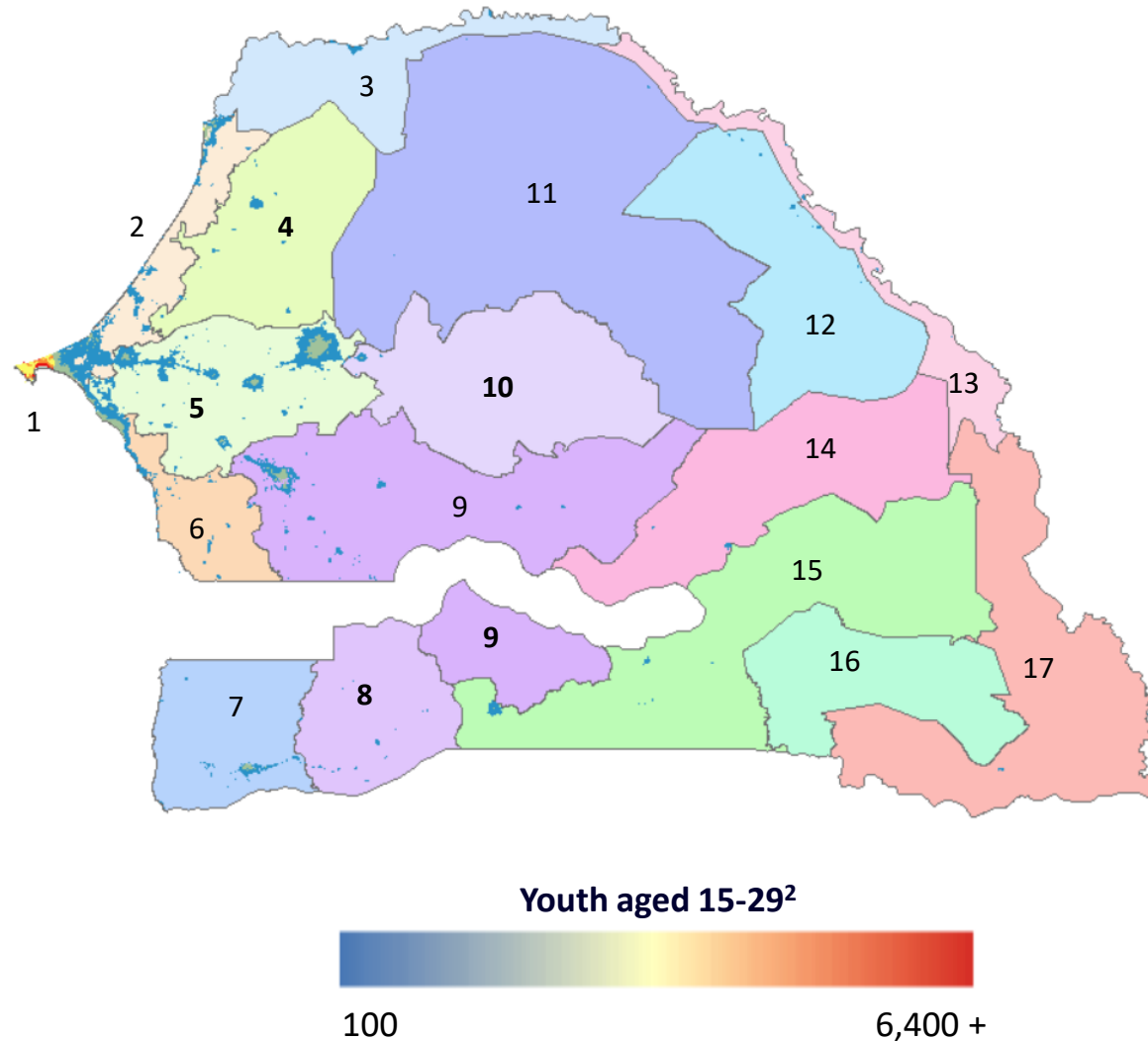
**Source:** Fraym, FAOSTAT

## EMPLOYMENT OPPORTUNITIES || ON-FARM: LIVELIHOOD ZONES

1.6 million youth live in areas where rainfed groundnut is an important crop grown for livelihood.

### Youth population by livelihood zone<sup>1</sup>

1	Urban area - Dakar	865,500
2	The Niayes gardening and fishing	386,900
3	Delta rice, horticulture, and agricultural labor	104,900
4	Rainfed cowpea and <b>groundnut</b>	203,000
5	Rainfed <b>groundnut</b> and millet	766,300
6	Small coast fishing and tourism	178,500
7	Forest and rainfed rice	173,200
8	Forest, rainfed rice and <b>groundnut</b>	135,300
9	Rainfed <b>groundnut</b> and cereals	501,000
10	Agropastoral <b>groundnut</b>	66,900
11	Sylvopastoral livestock and gathering	122,300
12	Dieri Millet and remittances	105,300
13	Valley rice and remittances	83,800
14	Rainfed maize and lumber	43,300
15	Rainfed maize, cotton and cattle	184,100
16	National park	17,100
17	Rainfed maize and artisanal gold mining	36,600



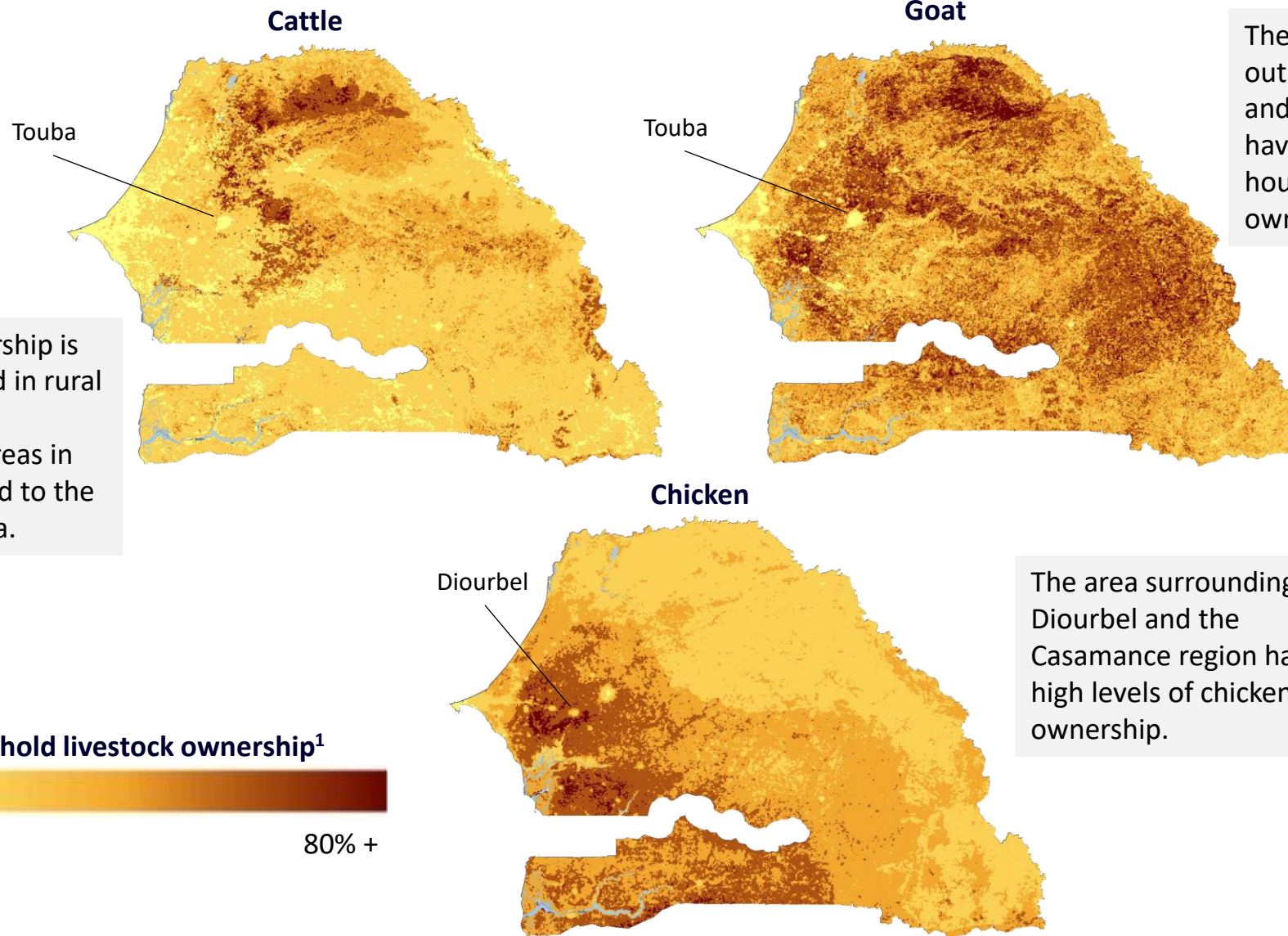
**Note 1:** A livelihood zone is defined as an area where the population shares the same income and market opportunities.

**Note 2:** Each 1 x 1 square kilometer grid represents the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown.

**Source:** Fraym, The Famine Early Warning Systems Network (FEWS NET) (2018)

## EMPLOYMENT OPPORTUNITIES || ON-FARM: LIVESTOCK

While goat ownership is relatively common throughout Senegal, cattle and chicken ownership are concentrated in certain regions.



The rural areas outside of Touba and Tambacounda have high levels of household goat ownership.

Cattle ownership is concentrated in rural and sparsely populated areas in the north and to the east of Touba.

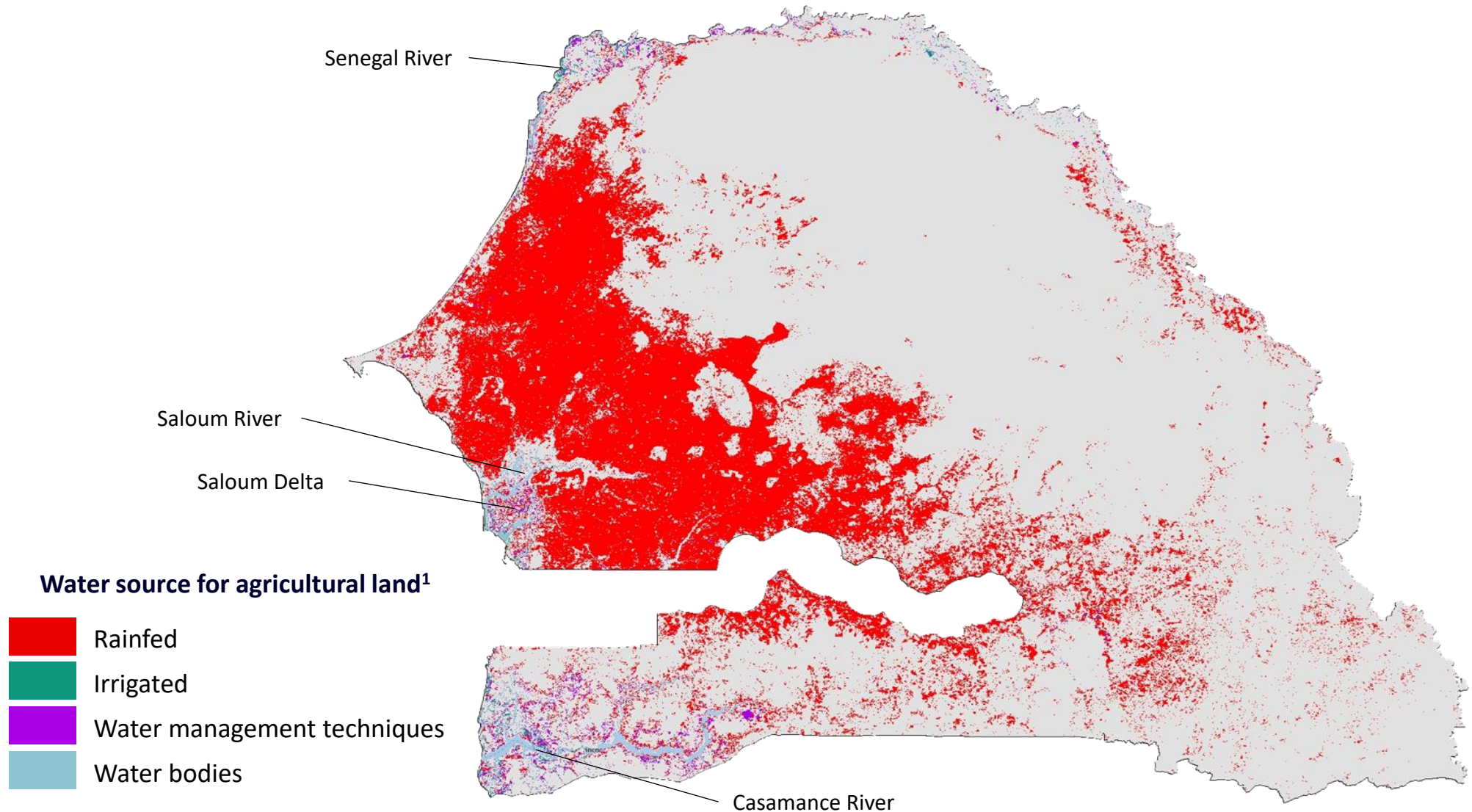
The area surrounding Diourbel and the Casamance region have high levels of chicken ownership.

**Note 1:** Each 1 x 1 square kilometer grid shows the proportion of the population that lives in a household with at least one of the animal. Water bodies are shown in blue.

Source: Fraym

## EMPLOYMENT OPPORTUNITIES || ON-FARM: IRRIGATION

While agriculture in Senegal is predominantly rainfed, irrigation and water management techniques are used in certain areas, particularly near the Senegal, Casamance and Saloum rivers.



**Note 1:** Each 1 x 1 square kilometer grid represents the type of water source for agricultural land in that area. Areas with no agricultural activity are shown in gray. Water bodies are shown in blue. Water management techniques include various cultivation practices that leverage soil moisture such as flood plains, valley bottoms, short term crops, and other water conservation techniques.

**Source:** International Water Management Institute (2010), Fraym

## EMPLOYMENT OPPORTUNITIES || OFF-FARM: OVERVIEW

Tourism, skilled labor, and the ICT sectors offer strong opportunities for youth employment off-farm.

- 1 About **27 percent of youth work in the skilled manual labor sector** and most of them have not completed their primary education. Employers in this sector regularly cite **issues with labor force experience, training, and certification of training**. Interventions that incorporate apprenticeship, certification, and other formal skills-building elements in the production and manual labor sectors could boost youth employment.
- 2 The **tourism and ICT sectors were listed as priority sectors** in the Senegalese government's National Forum on Youth Employment. While these sectors account for a relatively low percentage of GDP, the government aims to invest in developing their employment potential.<sup>1</sup>
- 3 Digital literacy initiatives offer promising opportunities for employment. **The 4G network has increased to cover most youth** in priority regions. Employers in the digital/ICT sector regularly cite an inadequately educated workforce as a challenge. Interventions to support digital literacy and skills-building in targeted areas could support youth employment.
- 4 Youth in the **Thiès and Diourbel regions are concentrated in areas that have historically seen heavy tourist traffic**. Businesses in the hospitality industry cite access to credit and finance as their greatest impediment to their operations.<sup>2</sup> Addressing this challenge through targeted interventions to support access to credit for tourism-based businesses in these regions could yield additional opportunities for youth employment.

**Note 1:** See report here: [https://pefop.iiep.unesco.org/fr/system/files/resources/Pef000103\\_MJEPVC\\_Rapport\\_Forum\\_National\\_Emploi\\_Jeunes\\_SN\\_2014.pdf](https://pefop.iiep.unesco.org/fr/system/files/resources/Pef000103_MJEPVC_Rapport_Forum_National_Emploi_Jeunes_SN_2014.pdf)

**Note 2:** World Bank Enterprise Survey, 2014

**Source:** Fraym

## EMPLOYMENT OPPORTUNITIES || OFF-FARM: TOURISM & HOSPITALITY

Growth in the tourism sub-sector indicates there may be opportunities to promote youth employment through professional skills training in the hospitality industry.

1

In 2017, the broad hospitality and restaurant sector only accounted for 1 percent of GDP, but international tourism receipts accounted for 10.2 percent of Senegal's total exports.<sup>1</sup>

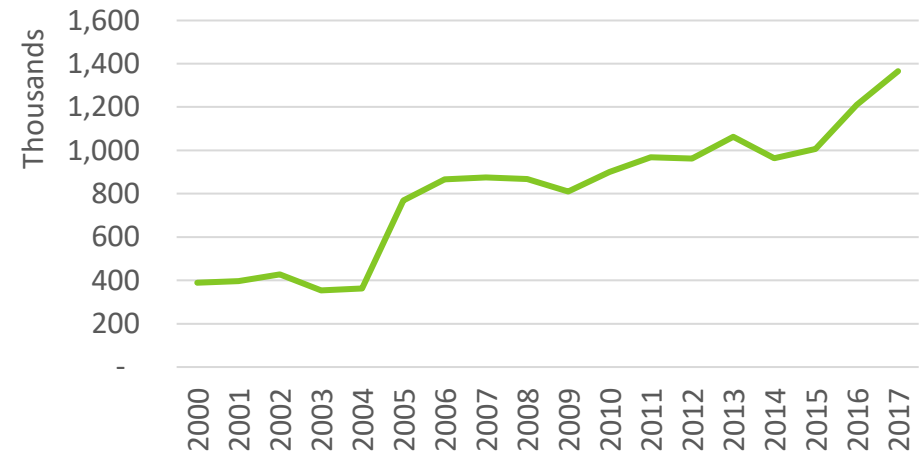
2

The number of tourists travelling to Senegal has risen steadily since the early 2000s, reaching nearly 1.4 million in 2017.

3

Expenditures by international tourists have also shown an upward trajectory, increasing nearly 30% from 2010 to 2014.

Number of international tourist arrivals, 2000 - 2017<sup>2</sup>



Total expenditures by international tourists, 2000 - 2017<sup>3</sup>



**Note 1:** Tourism receipts data from The World Bank Open Data Catalog; GDP values from the ANSD Report accessible here:

[http://www.ansd.sn/ressources/publications/PIB\\_T1\\_2018\\_%20VF.pdf](http://www.ansd.sn/ressources/publications/PIB_T1_2018_%20VF.pdf)

**Note 2:** International tourists are those who do not have their usual residence in Senegal and who visit for a period not exceeding 12 months.

**Note 3:** Total expenditures include all expenses made by international tourists, including payments to foreign carriers for international transport.

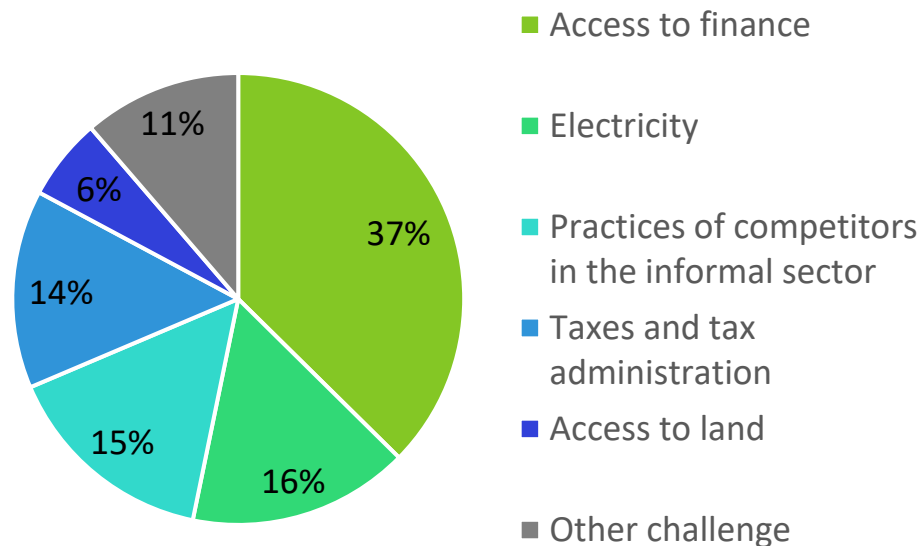
**Source:** The World Bank, Fraym

## EMPLOYMENT OPPORTUNITIES || OFF-FARM: TOURISM & HOSPITALITY

Interventions targeting youth employment in the tourism sector should promote education tailored for the sector and focus on alleviating the credit constraints facing most tourism enterprises.

- 1 Access to finance is the biggest challenge for formal enterprises in the tourism sector. Only 5 percent of enterprises have taken a loan from a financial institution in the past year. Of those who did not take out a loan, 65 percent listed financial barriers as the reasons for not taking out a loan.<sup>1</sup>
- 2 While only 1 percent of formal tourism-related enterprises listed inadequate educational levels in the workforce as the largest challenge they faced, 9 percent believe it is a major obstacle to business operations.

**Largest challenge for formal enterprises in the hospitality sector<sup>2</sup>**



**Characteristics of formal enterprises in the hospitality sector<sup>2</sup>**

	Percent of enterprises
Female owner	33%
Average number of full-time employees	15 – 50
Use e-mail for communications	76%
Has taken a loan from a financial institution in the past year	5%
Has not taken out loan due to financial barrier <sup>2</sup>	64%
If has electricity, experiences at least one power outage a month	81%
Average percentage of Fixed Assets funded with bank borrowing	18%

**Note 1:** Financial barriers include complex loan application procedures, high interest rates, high collateral requirements, insufficient loan sizes, and difficulty being approved for credit.

**Note 2:** The tourism sector includes accommodation, bars and restaurants. Statistics are representative for formal enterprises in the regions of Dakar, Kaolack, Saint-Louis, and Thiès. The informal sector is not included in this data.

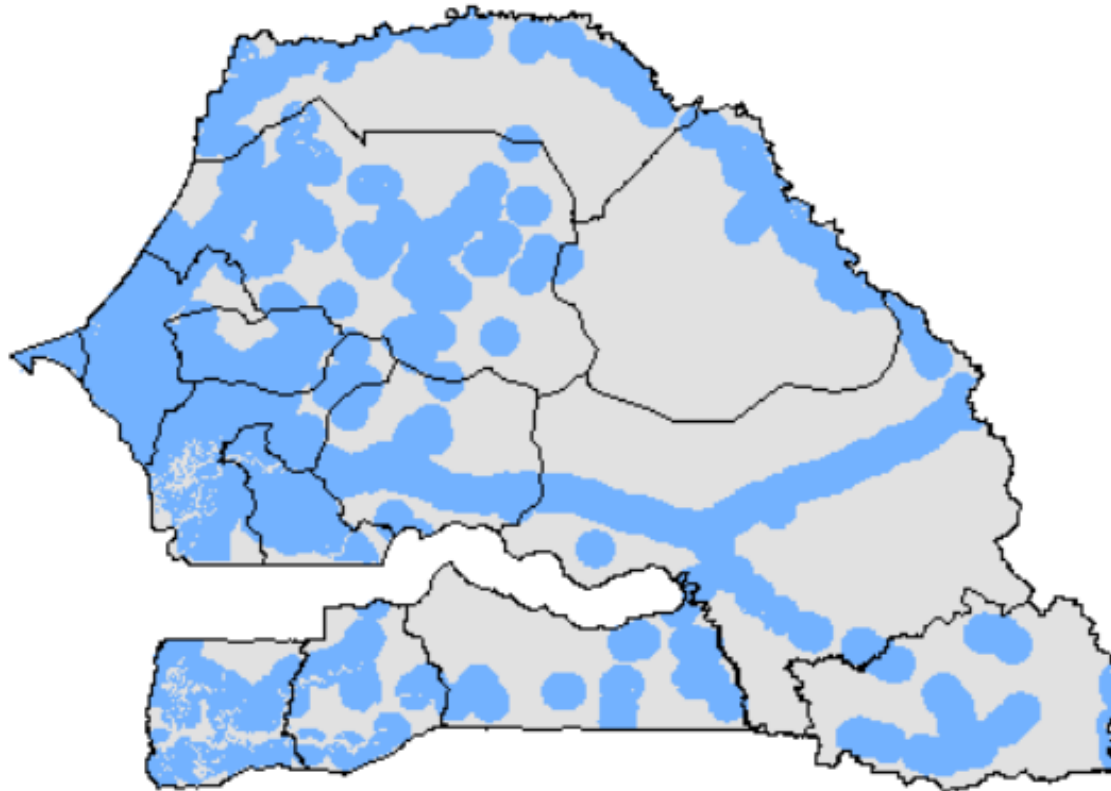
**Source:** Fraym

## EMPLOYMENT OPPORTUNITIES || OFF-FARM: ICT & DIGITAL EMPLOYMENT

Growth in 4G coverage throughout Senegal suggests there may be opportunities to promote youth employment in the ICT and digital sectors.

- 1 In 2017, the information and communication sector accounted for about 4 percent of GDP.<sup>1</sup>
- 2 Since 2018, 4G coverage in Senegal has grown substantially and covers most urban areas of the country, as well as important road corridors.

4G data Coverage in Senegal



**Note 1:** GDP values from the ANSD Report accessible here: [http://www.ansd.sn/ressources/publications/PIB\\_T1\\_2018\\_%20VF.pdf](http://www.ansd.sn/ressources/publications/PIB_T1_2018_%20VF.pdf)

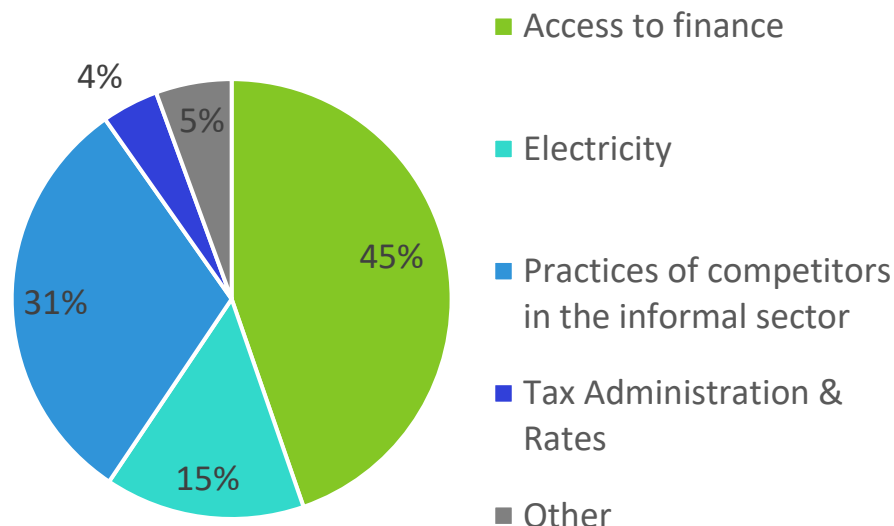
**Source:** The World Bank, Fraym

## EMPLOYMENT OPPORTUNITIES || OFF-FARM: ICT & DIGITAL EMPLOYMENT

Employment interventions in the digital sector should address the challenges entrepreneurs face concerning access to finance.

- 1 While 54 percent of formal digital enterprises have taken out a loan in the past year, access to finance is still the most common challenge for enterprises in this sector. Of the enterprises who have not taken out a loan, 58 percent listed financial barriers as the reasons for not taking out a loan.<sup>1</sup>
- 2 Approximately 32 percent of digitally focused businesses reported an inadequately educated workforce as an impediment to their business operations. Nationally, only 4 percent of youth in the workforce had completed secondary school, and only 18 percent had completed primary.

**Largest challenge for formal enterprises in the digital sector<sup>2</sup>**



**Characteristics of formal enterprises in the digital sector<sup>2</sup>**

	Percent of enterprises
Female owner	27%
Average number of full-time employees	12 – 74
Use e-mail for communications	97%
Has taken a loan from a financial institution in the past year	54%
Has not taken out loan due to financial barrier <sup>2</sup>	58%
If has electricity, experiences at least one power outage a month	98%
Average percentage of fixed assets funded with bank borrowing	15%

**Note 1:** Financial barriers include complex loan application procedures, high interest rates, high collateral requirements, insufficient loan sizes, and difficulty being approved for credit.

**Note 2:** Common sub-sectors in the digital industry include IT, telecoms, and digital media. Statistics are representative for enterprises in the regions of Dakar, Kaolack, Saint-Louis, and Thiès. The informal sector is not included in this data.

Source: Fraym

**Kolda**



## KOLDA || KEY TAKE-AWAYS

Agriculture is the leading employment sector for youth in Kolda, with opportunities to boost on-farm youth employment in livestock and groundnut production.

- Engage youth employed informally.** Kolda has one of the highest rates of youth receiving payment either wholly or in part in a non-cash form. Of youth who were paid for their labor, 26 percent reported receiving a non-cash payment for their labor, which is more than double the national average of 10 percent.
- Orient on-farm employment activities around sectors prevalent in Kolda.** Cattle farming is prevalent in the area surrounding Kounkane, and households throughout Kolda also have high levels of goat and chicken ownership. In addition to investing in traditional crops such as rainfed maize and groundnuts, investment in these livestock sectors could increase youth employment in a region where 55% of youth work in agriculture.
- Training and certification courses could boost youth employment.** A quarter of employed youth in Kolda work in manual labor. Almost a fifth of businesses employing skilled production workers cited inexperience and lack of verifiable training as barriers to hiring. Interventions that help youth develop certifiable skills could boost employment.
- ICT readiness is low in Kolda.** Only 8 percent of youth report access to a computer, and 6 percent have internet access. However 95% of youth have access to a cell phone, with a large portion of youth in Kolda and Velingara city having 4G coverage. These figures indicate opportunities for investment in IT/digital employment.

## KOLDA || YOUTH CHARACTERISTICS

Agriculture is the leading profession for youth in Kolda, followed by skilled manual labor.

	Thiès	Diourbel	Kolda	Dakar	Saint- Louis
<b>Demographics</b>					
Number of youth <sup>1</sup> aged 15-29 in region	527,000	393,000	185,000	1,002,000	268,000
Youth as a percentage of regional population	24%	23%	22%	27%	25%
Percentage of youth who are female	56%	65%	56%	49%	59%
<b>Education</b>					
Percent of youth who have attended school in the past year	35%	19%	27%	35%	26%
Percent of youth in the labor force with complete primary school <sup>2</sup>	18%	9%	18%	30%	22%
Percent of youth in the labor force with complete secondary school <sup>2</sup>	7%	2%	1%	12%	2%
<b>Employment</b>					
Percent of youth employed full-time or seasonally <sup>3</sup>	51%	50%	48%	62%	53%
Most common professions:					
Agriculture	27%	21%	55%	>1%	50%
Sales	22%	19%	11%	28%	15%
Skilled manual labor	28%	46%	25%	41%	22%
Unskilled manual labor	5%	5%	3%	8%	3%
Professional	5%	6%	3%	9%	5%

**Note 1:** Youth are defined as individuals between the ages of 15 and 29 throughout this report.

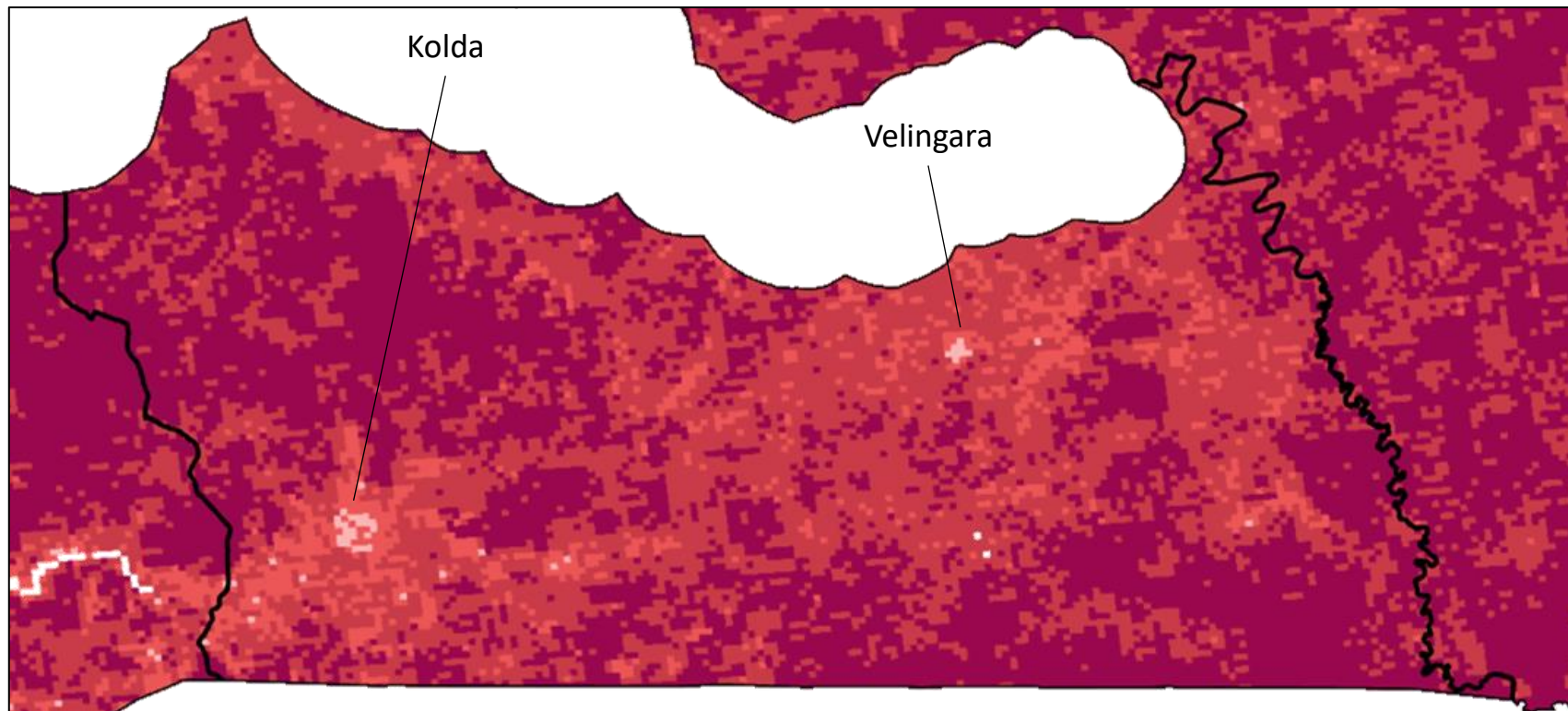
**Note 2:** Utilizing the Senegalese government's definition, a student has completed primary school upon completion of six years of school and the CFE exam. Secondary school completion reflects the completion of seven years of secondary school and the BEP or BET exams.

**Note 3:** Fraym identifies youth in the labor force as individuals aged 15 to 29 who have not attended school in the past year.

Source: Fraym

## KOLDA || VULNERABLE YOUTH

Kolda has the highest percentage of youth living in E consumer households compared to other priority regions. At 72%, approximately 133,000 youth in Kolda are vulnerable.



Youth living in rural areas outside of Kolda and Velingara are the most likely to live in vulnerable households.

Percentage of population that are E consumers<sup>1</sup>

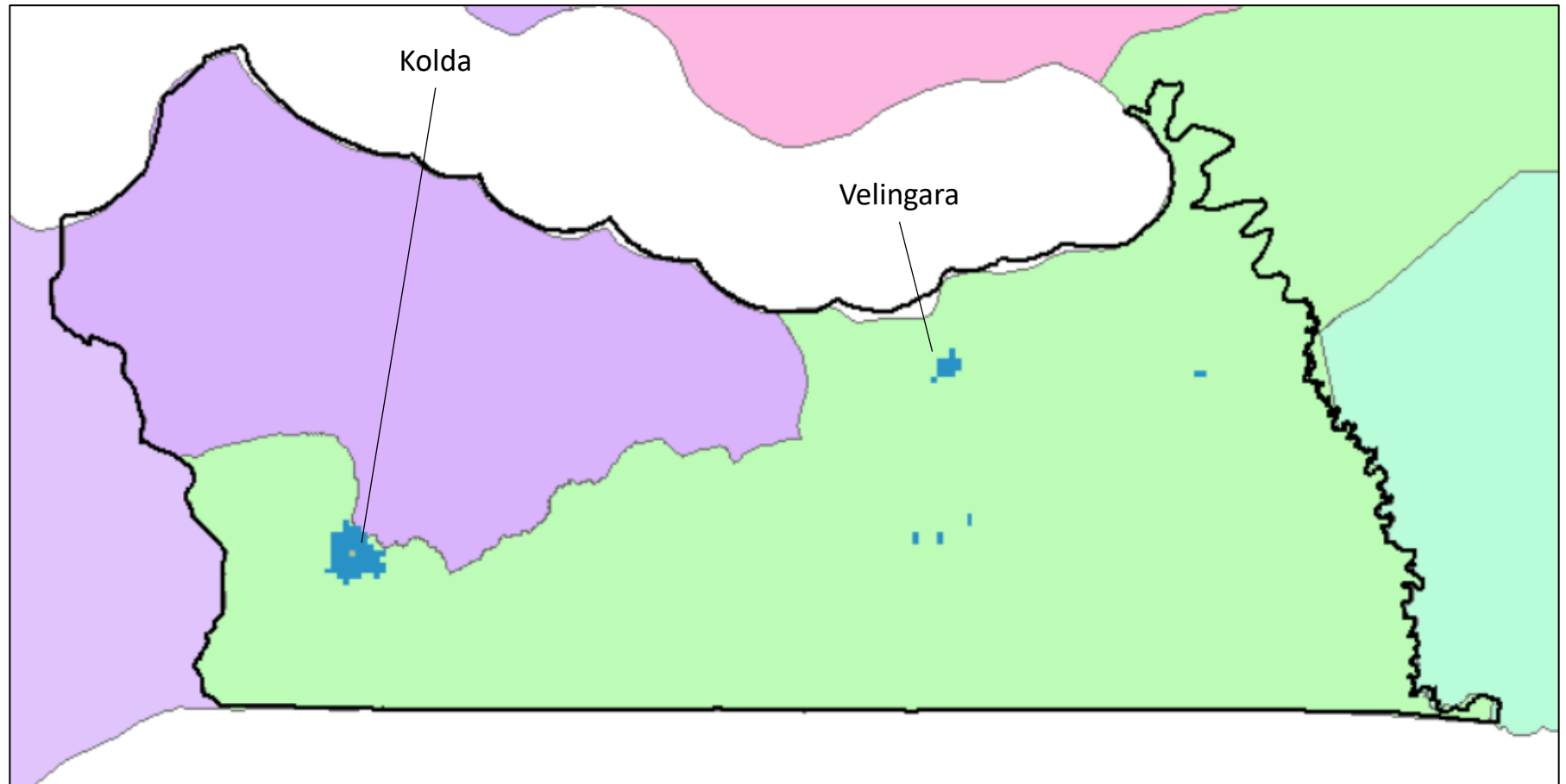


20%

80% +

## KOLDA || EMPLOYMENT OPPORTUNITIES: ON-FARM

Youth are concentrated in regions where rainfed groundnut, maize, cotton, and cattle are essential for livelihoods.



### Livelihood Zones<sup>1</sup>

- Rainfed groundnut and cereals
- Rainfed maize, cotton and cattle

### Youth aged 15 - 29<sup>2</sup>



**Note 1:** A livelihood zone is defined as an area where the population shares the same income and market opportunities.

**Note 2:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown

**Source:** Fraym, The Famine Early Warning Systems Network (FEWS NET) (2018)

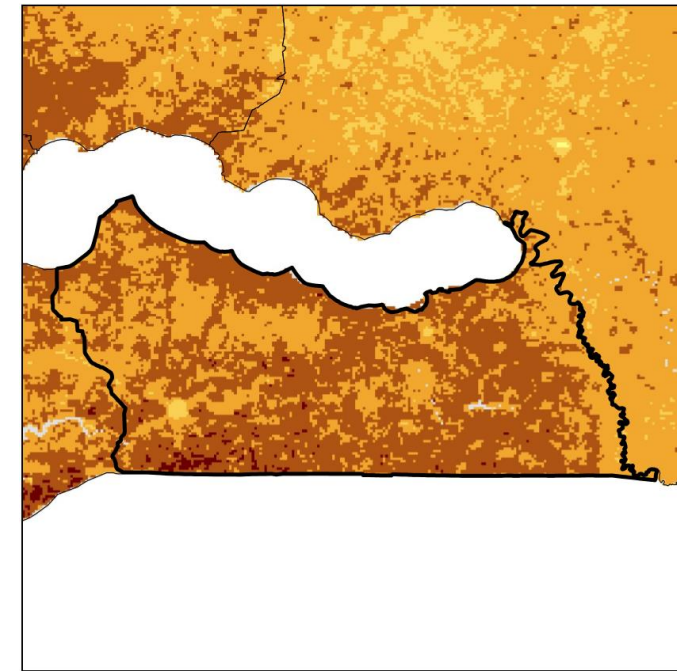
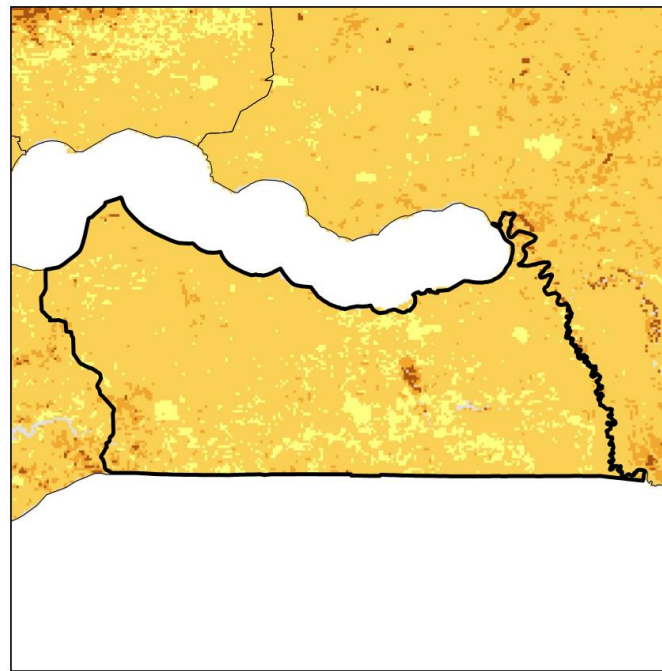
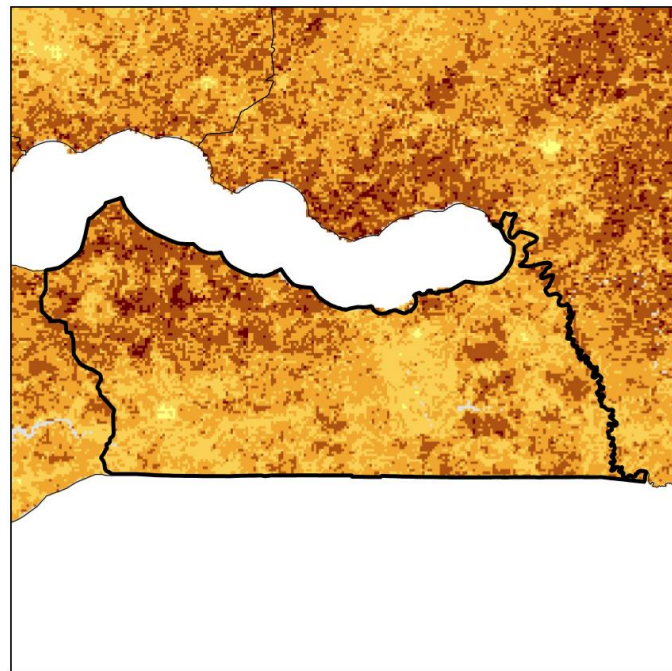
## KOLDA || EMPLOYMENT OPPORTUNITIES: ON-FARM

Kolda has high levels of goat and chicken ownership, with nearly half of all households owning goats and two thirds owning chickens.

Household goat ownership

Household cattle ownership

Household chicken ownership



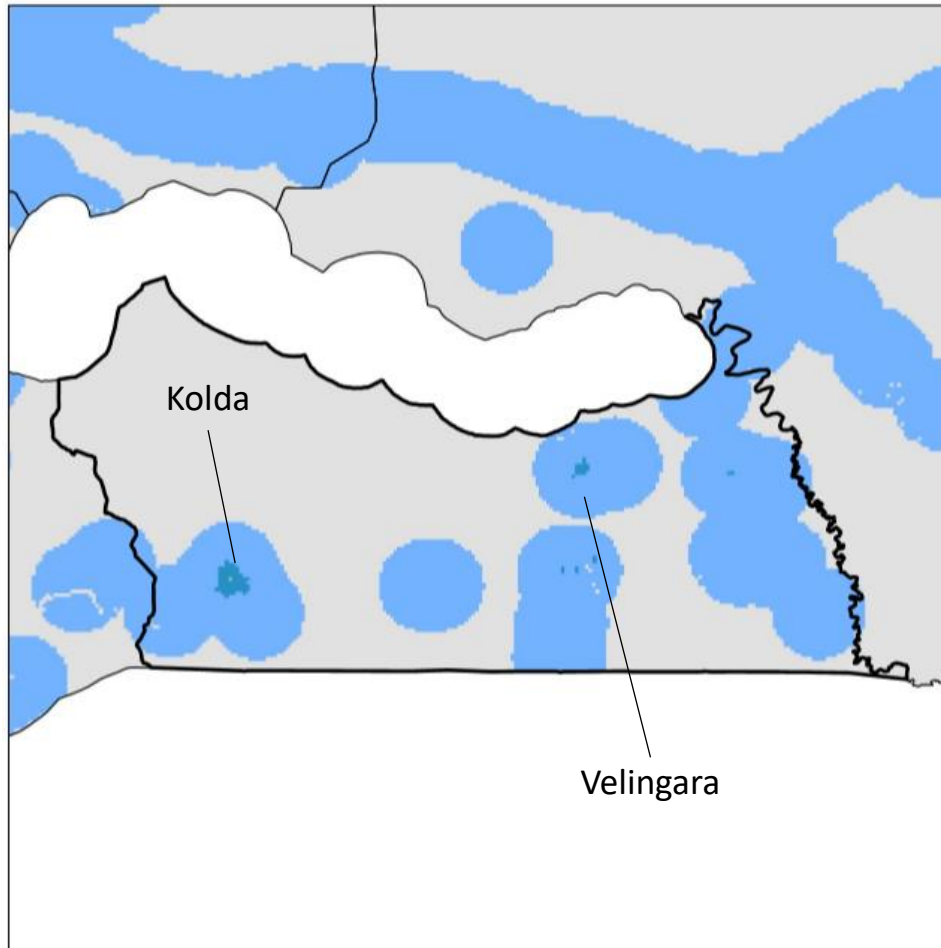
Household livestock ownership<sup>1</sup>



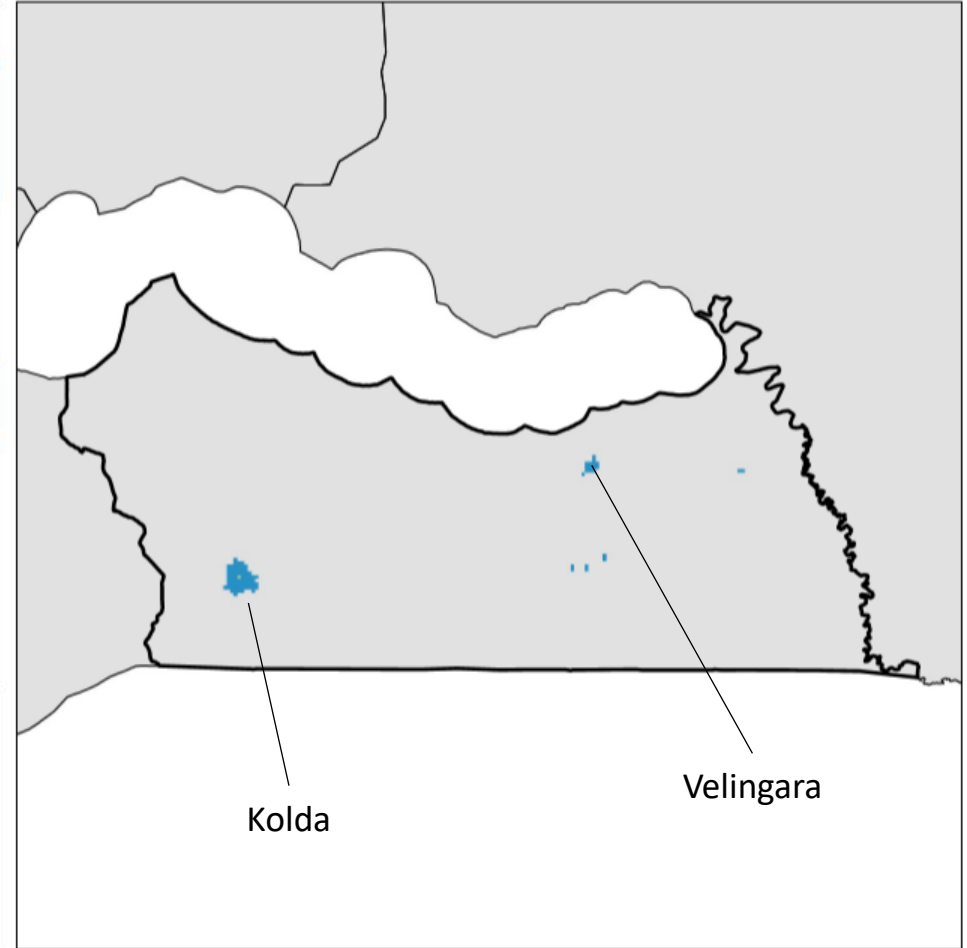
# KOLDA || EMPLOYMENT OPPORTUNITIES: OFF-FARM

Youth are generally concentrated in areas with 4G data network coverage.


Youth population and 4G cell network coverage



Youth population centers and tourism opportunities



 4G network coverage<sup>1</sup>

**Youth aged 15 - 29<sup>2</sup>**  
  
100 6,400 +

**Note 1:** 4G Network coverage has been sourced from the OpenCellID project and compiled by Collins Bartholomew's Mobile Coverage Explorer.

**Note 2:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown.

Source: Fraym

**Thiès**



## THIÈS || KEY TAKE-AWAYS

Youth in Thiès have a comparatively high readiness to engage in the IT sector, as well as opportunities for employment in the tourism sector.

1

**Opportunities exist to engage youth in the ICT sector in Thiès.** About 16 percent of youth reported access to a computer, and 99 percent report access to a mobile phone. In addition, most youths reside in areas with 4G mobile coverage.

2

**Workforce training and skills building are a large need for digital enterprises.** Nearly 32 percent of digitally-focused businesses listed an inadequately educated workforce as a moderate to very severe challenge to their operations. Only 7 Percent of youth in Thiès have completed secondary education. Programs to support youth in developing the necessary skills for the ICT sector could increase employment outcomes.

3

**Tourism-based employment is a major opportunity.** Youth are concentrated along the southwestern coast of Thiès, a primary livelihood zone for tourism and fishing. Engaging the hospitality and tourism sectors in the M'bour department could provide opportunities for youth employment.

4

**Focus on-farm employment programming to local advantages.** Youth are concentrated along the northern coast near Kayar and the southern coast of M'bour department, both prime areas for fishing. Youth are also concentrated in the east of the city of Thiès, where rainfed groundnut production is common.

## THIÈS || YOUTH CHARACTERISTICS

Skilled manual labor, agriculture, and sales are the most common professions for youth in Thiès.

	Thiès	Diourbel	Kolda	Dakar	Saint- Louis
<b>Demographics</b>					
Number of youth <sup>1</sup> aged 15-29 in region	527,000	393,000	185,000	1,002,000	268,000
Youth as a percentage of regional population	24%	23%	22%	27%	25%
Percentage of youth who are female	56%	65%	56%	49%	59%
<b>Education</b>					
Percent of youth who have attended school in the past year	35%	19%	27%	35%	26%
Percent of youth in the labor force with complete primary school <sup>2</sup>	18%	9%	18%	30%	22%
Percent of youth in the labor force with complete secondary school <sup>2</sup>	7%	2%	1%	12%	2%
<b>Employment</b>					
Percent of youth employed full-time or seasonally <sup>3</sup>	51%	50%	48%	62%	53%
Most common professions:					
Agriculture	27%	21%	55%	>1%	50%
Sales	22%	19%	11%	28%	15%
Skilled manual labor	28%	46%	25%	41%	22%
Unskilled manual labor	5%	5%	3%	8%	3%
Professional	5%	6%	3%	9%	5%

**Note 1:** Youth are defined as individuals between the ages of 15 and 29 throughout this report.

**Note 2:** Utilizing the Senegalese government's definition, a student has completed primary school upon completion of six years of school and the CFE exam. Secondary school completion reflects the completion of seven years of secondary school and the BEP or BET exams.

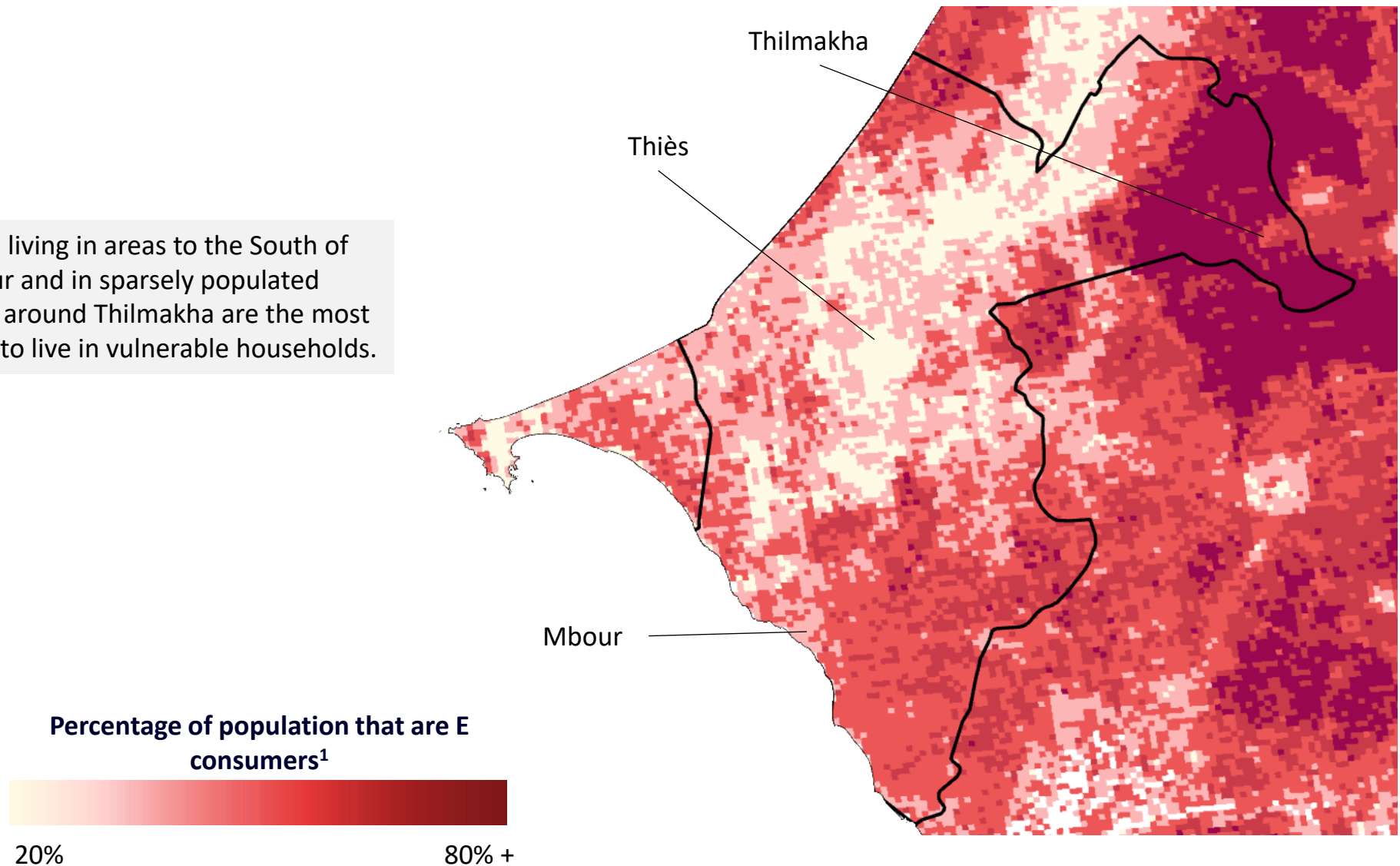
**Note 3:** Fraym identifies youth in the labor force as individuals aged 15 to 29 who have not attended school in the past year.

**Source:** Fraym

## THIÈS || VULNERABLE YOUTH

Only about a quarter of youth in Thiès live in E consumer households, indicating there are 130,000 vulnerable youth.

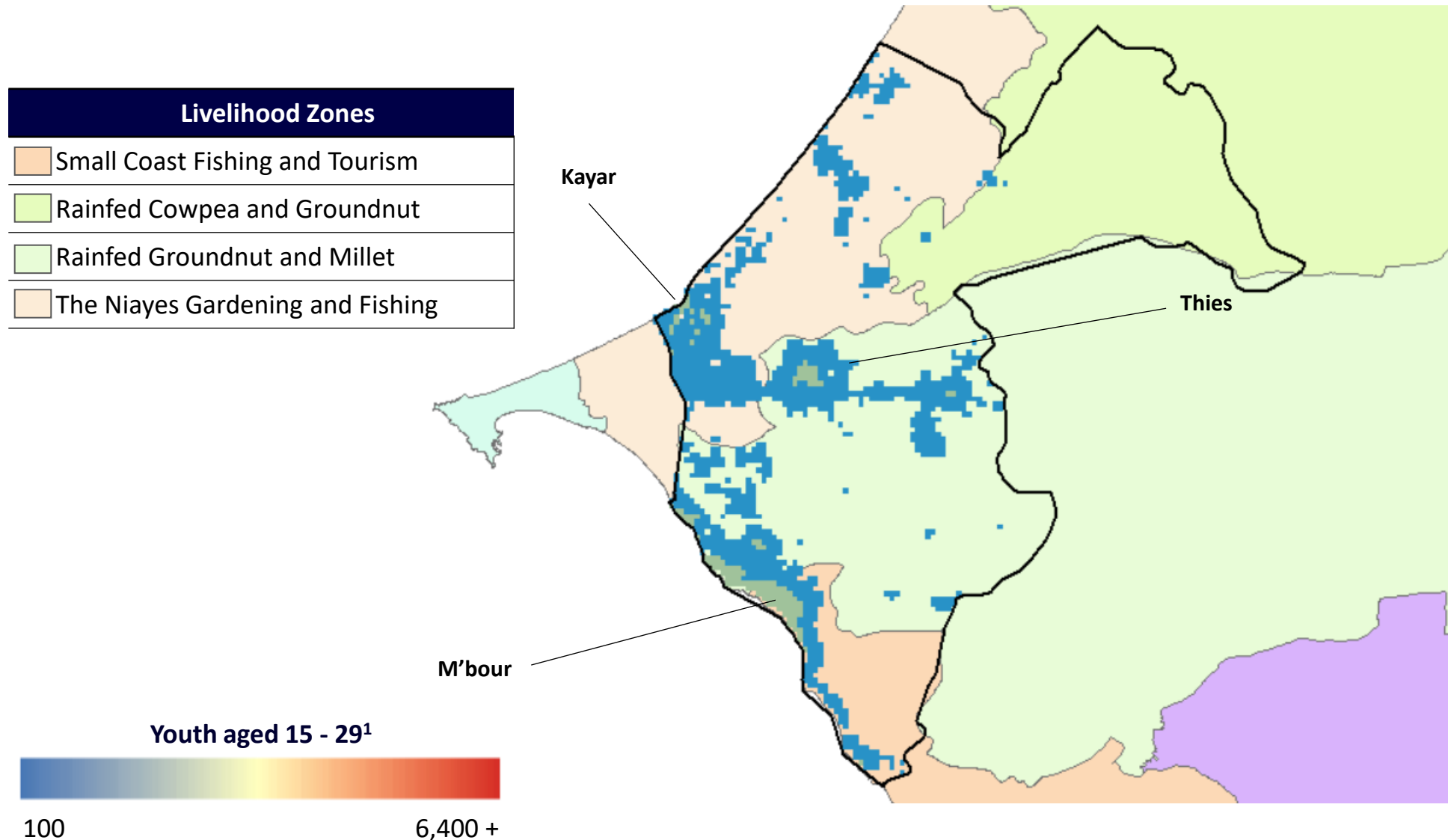
Youth living in areas to the South of Mbour and in sparsely populated areas around Thilmakha are the most likely to live in vulnerable households.



**Note 1:** See Appendix A for more information on the ABC1 consumer classification methodology. Areas with less than 100 youth per square km are not shown.  
**Source:** Fraym

# THIÈS || EMPLOYMENT OPPORTUNITIES: ON-FARM

Youth are concentrated in livelihood zones where fishing, rainfed groundnut, and millet are the leading agricultural products



**Note 1:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown  
**Source:** Fraym

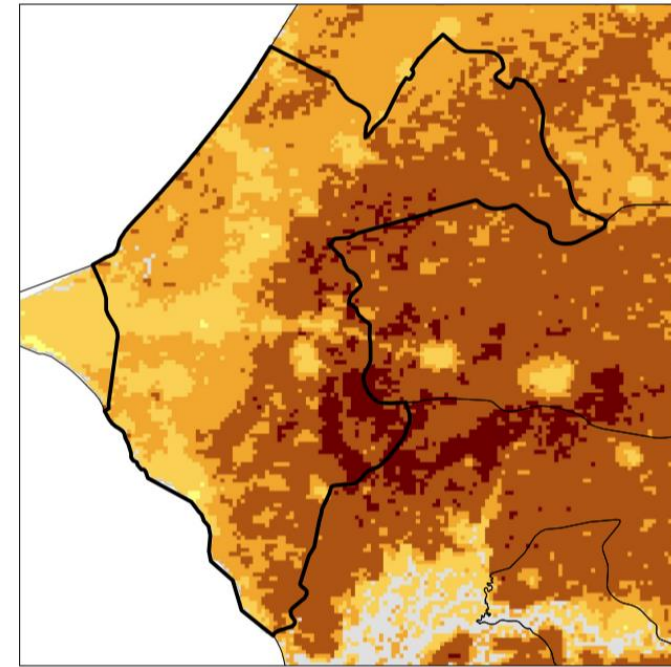
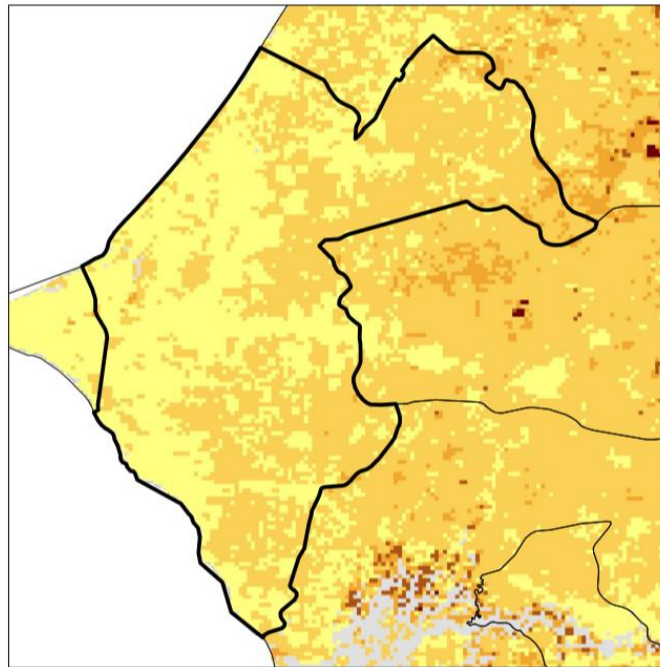
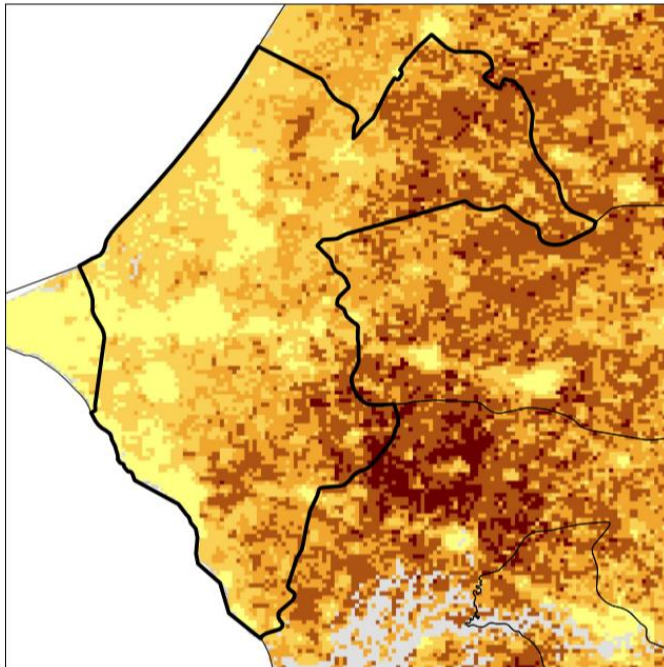
# THIÈS || EMPLOYMENT OPPORTUNITIES: ON-FARM

Livestock ownership is concentrated in Eastern and Northeastern Thiès, where chicken and goat ownership is particularly prevalent.

Household goat ownership

Household cattle ownership

Household chicken ownership



Household livestock ownership<sup>1</sup>



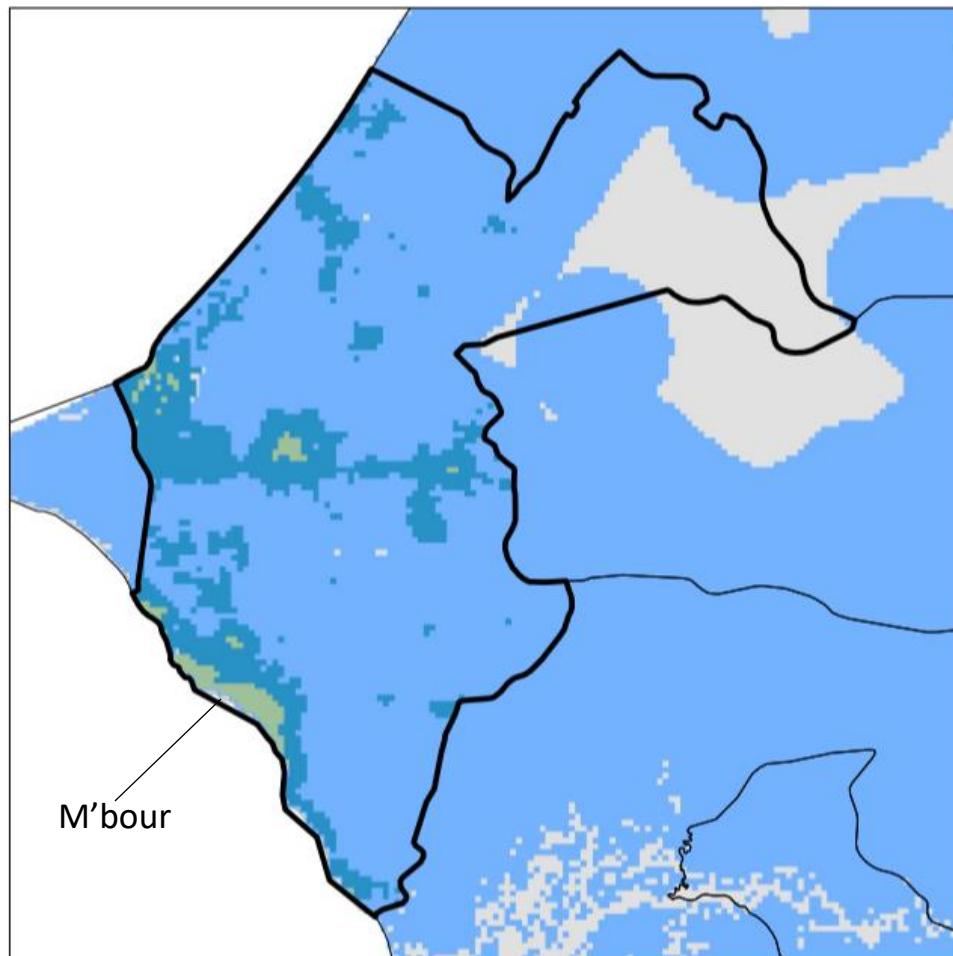
0%

80% +

# THIÈS || EMPLOYMENT OPPORTUNITIES: OFF-FARM

Youth are concentrated in the M'bour department of Thies, a leading area for the tourism and hospitality industry.

Youth population and 4G cell network coverage

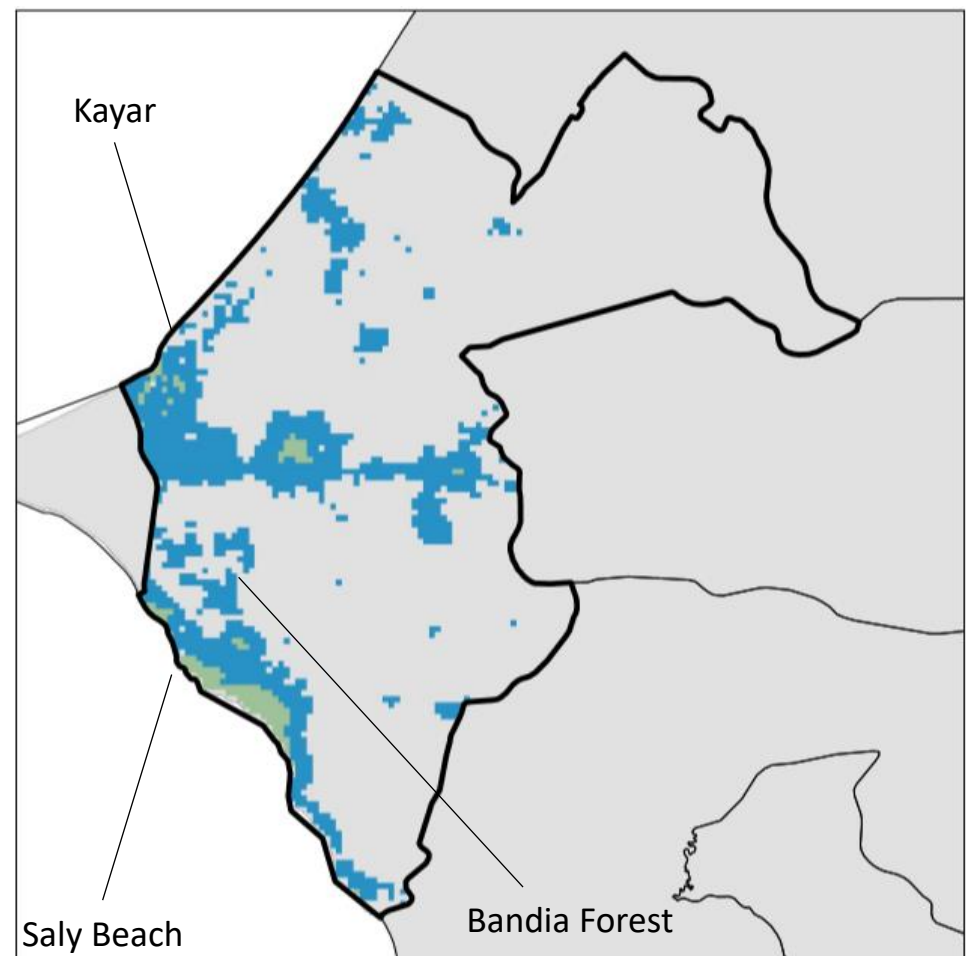


M'bour



4G network coverage<sup>1</sup>

Youth population centers and tourism opportunities



Kayar

Saly Beach

Bandia Forest

Youth aged 15 - 29<sup>2</sup>



100

6,400 +

**Note 1:** 4G Network coverage has been sourced from the OpenCellID project and compiled by Collins Bartholomew's Mobile Coverage Explorer.

**Note 2:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown.

Source: Fraym

**Diourbel**



## DIORBEL || EMPLOYMENT OPPORTUNITIES: KEY TAKE-AWAYS

Diourbel offers strong employment opportunities for youth engaged in skilled production and manual labor, as well as for tourism around the city of Touba.

- 1 **Skilled manual labor presents an opportunity for growth in employment.** Nearly half of youth in Diourbel work as skilled manual laborers. Businesses in this sector cite inexperience and a lack of standardized training as an impediment to their hiring process. Programs offering youth a certification and opportunity to build their skills could boost their employment in this sector.
- 2 **Suitability for ICT employment is low.** Only 5% of youth households have access to internet, although 4G coverage is generally present. Similarly, only 11% of youth have access to a computer and 92% have access to cell phones.
- 3 **Tourism could be a driver of employment for youth along the Mbacke-Touba corridor.** Youth are concentrated around Touba and the city of Mbacke. Domestic tourism, particularly to Touba's Great Mosque, could provide an opportunity for youth employment.
- 4 **Youth are primarily concentrated in the urban areas of Diourbel, Mbacke, Bambey, and Touba.** For youth outside these urban centers, a focus on agricultural outputs such as rainfed groundnut, poultry, and goats could offer opportunities for productive youth employment in agriculture.

## DIORBEL || YOUTH CHARACTERISTICS

Skilled manual labor is the leading profession for youth in Diourbel, followed by agriculture and sales.

	Thiès	Diourbel	Kolda	Dakar	Saint- Louis
<b>Demographics</b>					
Number of youth <sup>1</sup> aged 15-29 in region	527,000	393,000	185,000	1,002,000	268,000
Youth as a percentage of regional population	24%	23%	22%	27%	25%
Percentage of youth who are female	56%	65%	56%	49%	59%
<b>Education</b>					
Percent of youth who have attended school in the past year	35%	19%	27%	35%	26%
Percent of youth in the labor force with complete primary school <sup>2</sup>	18%	9%	18%	30%	22%
Percent of youth in the labor force with complete secondary school <sup>2</sup>	7%	2%	1%	12%	2%
<b>Employment</b>					
Percent of youth employed full-time or seasonally <sup>3</sup>	51%	50%	48%	62%	53%
Most common professions:					
Agriculture	27%	21%	55%	>1%	50%
Sales	22%	19%	11%	28%	15%
Skilled manual labor	28%	46%	25%	41%	22%
Unskilled manual labor	5%	5%	3%	8%	3%
Professional	5%	6%	3%	9%	5%

**Note 1:** Youth are defined as individuals between the ages of 15 and 29 throughout this report.

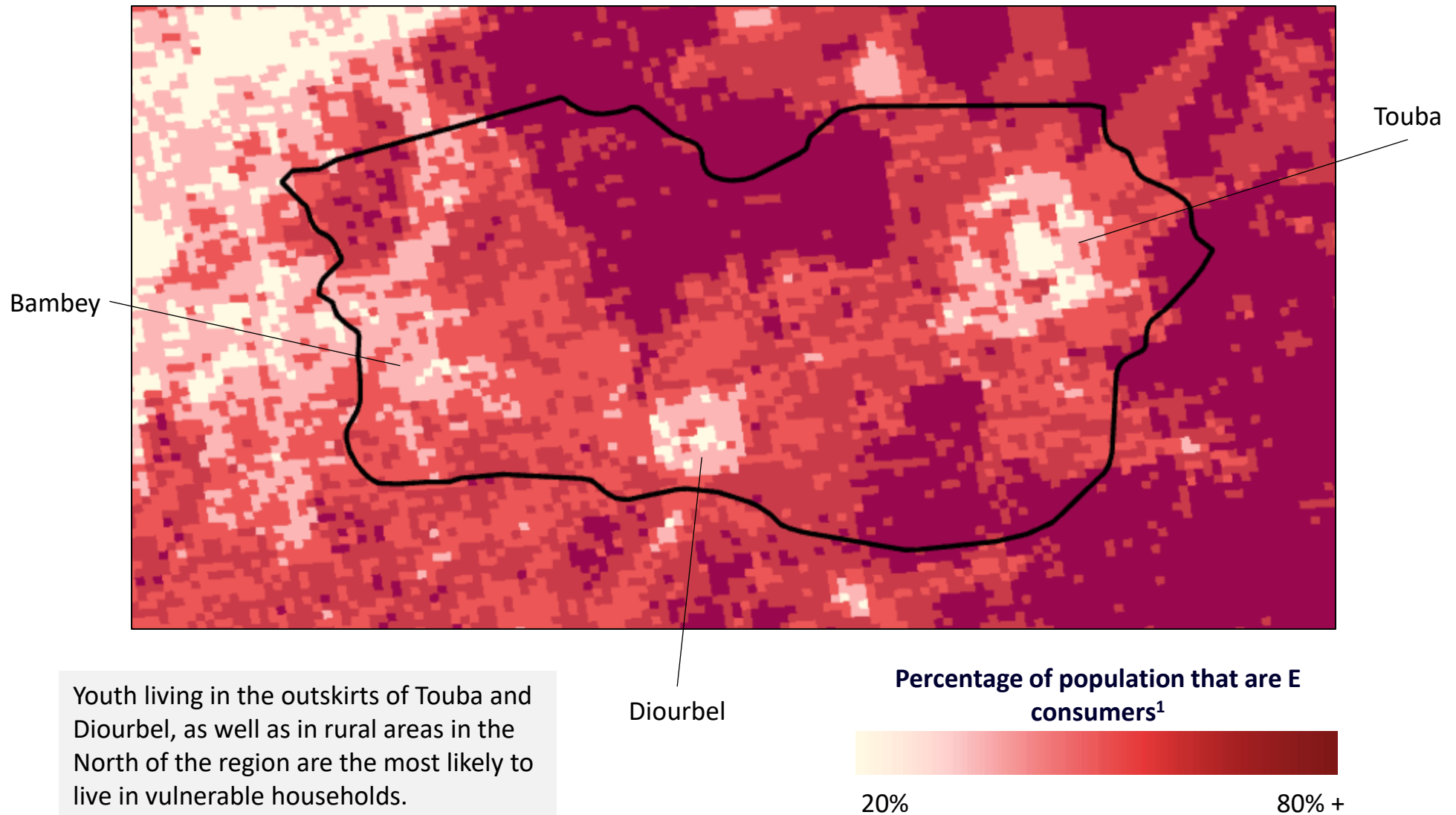
**Note 2:** Utilizing the Senegalese government's definition, a student has completed primary school upon completion of six years of school and the CFE exam. Secondary school completion reflects the completion of seven years of secondary school and the BEP or BET exams.

**Note 3:** Fraym identifies youth in the labor force as individuals aged 15 to 29 who have not attended school in the past year.

**Source:** Fraym

## DIORBEL || VULNERABLE YOUTH

About 36 percent of youth, or 144,000 youth, in Diourbel live in E consumer households.

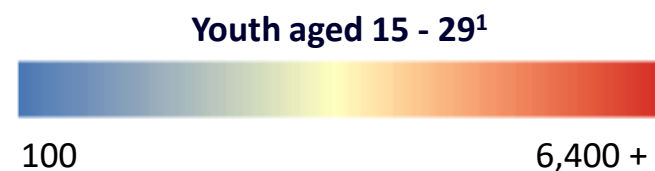
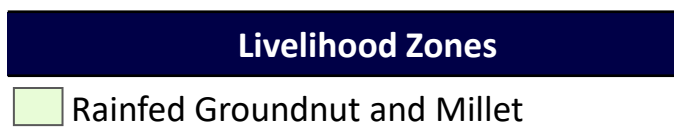
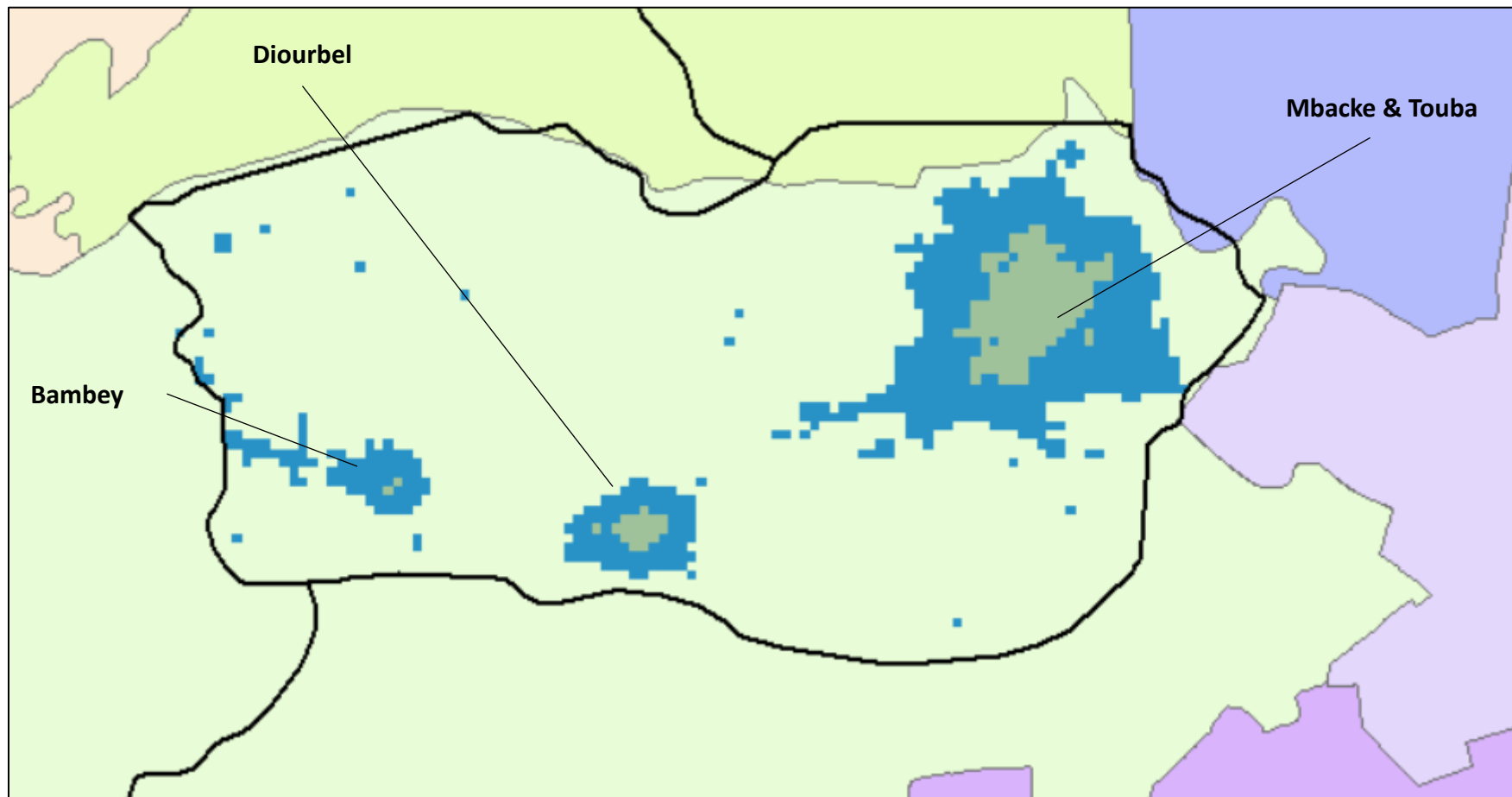


Youth living in the outskirts of Touba and Diourbel, as well as in rural areas in the North of the region are the most likely to live in vulnerable households.

**Note 1:** See Appendix A for more information on the ABC1 consumer classification methodology. Areas with less than 100 youth per square km are not shown.  
**Source:** Fraym

## DIORBEL || EMPLOYMENT OPPORTUNITIES: ON-FARM

Rainfed groundnut and millet are the leading agricultural outputs of the Diourbel region.



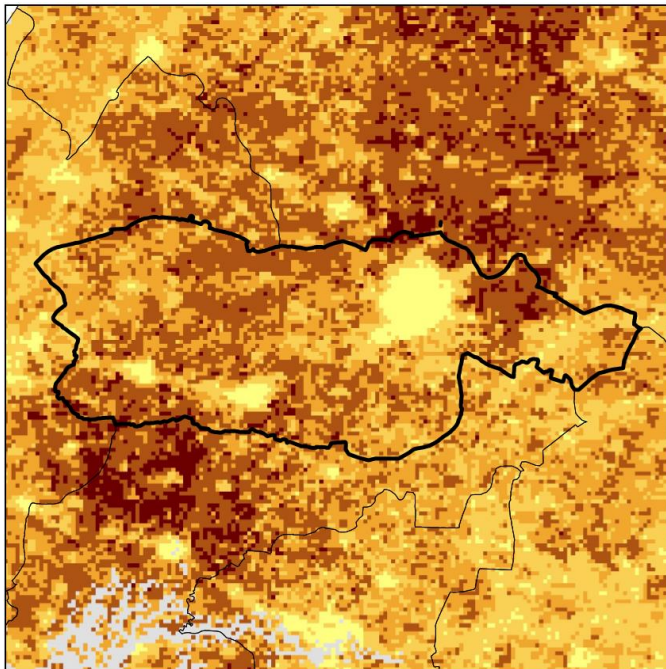
**Note 1:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown.

Source: Fraym

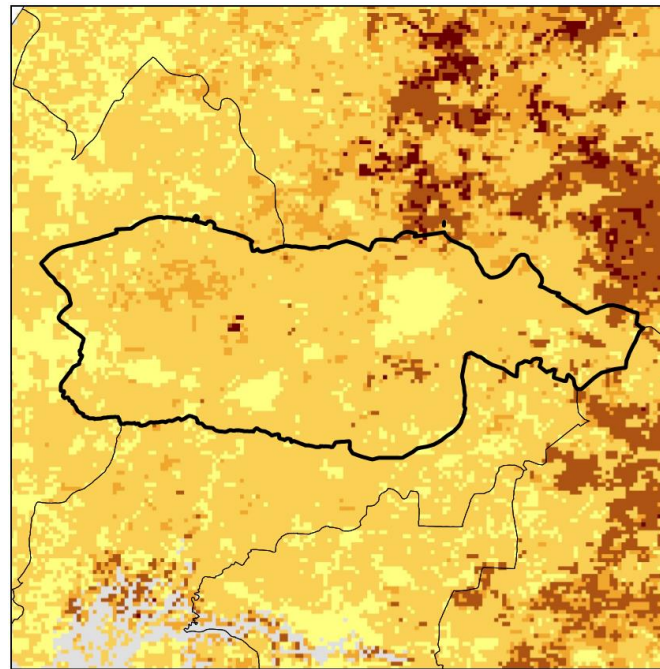
## DIORBEL || EMPLOYMENT OPPORTUNITIES: ON-FARM

Chickens are the most common livestock owned outside major urban areas in Diourbel.

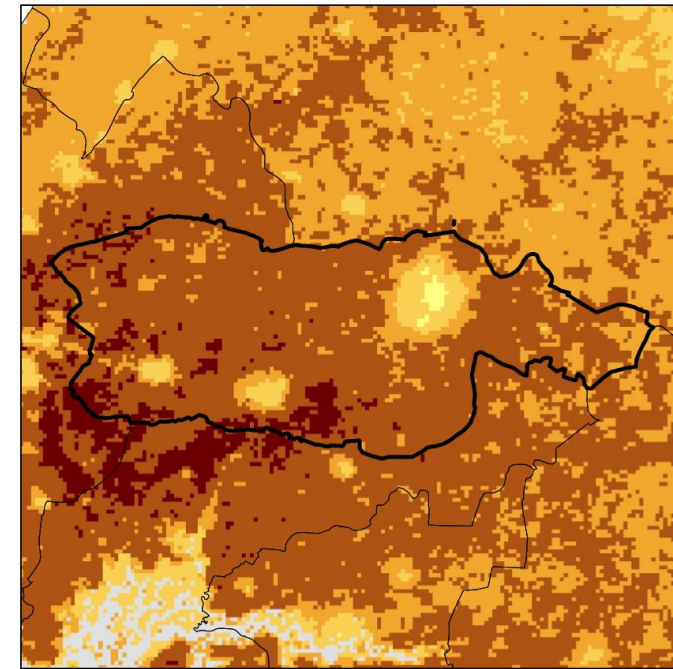
Household goat ownership



Household cattle ownership



Household chicken ownership



Household livestock ownership<sup>1</sup>

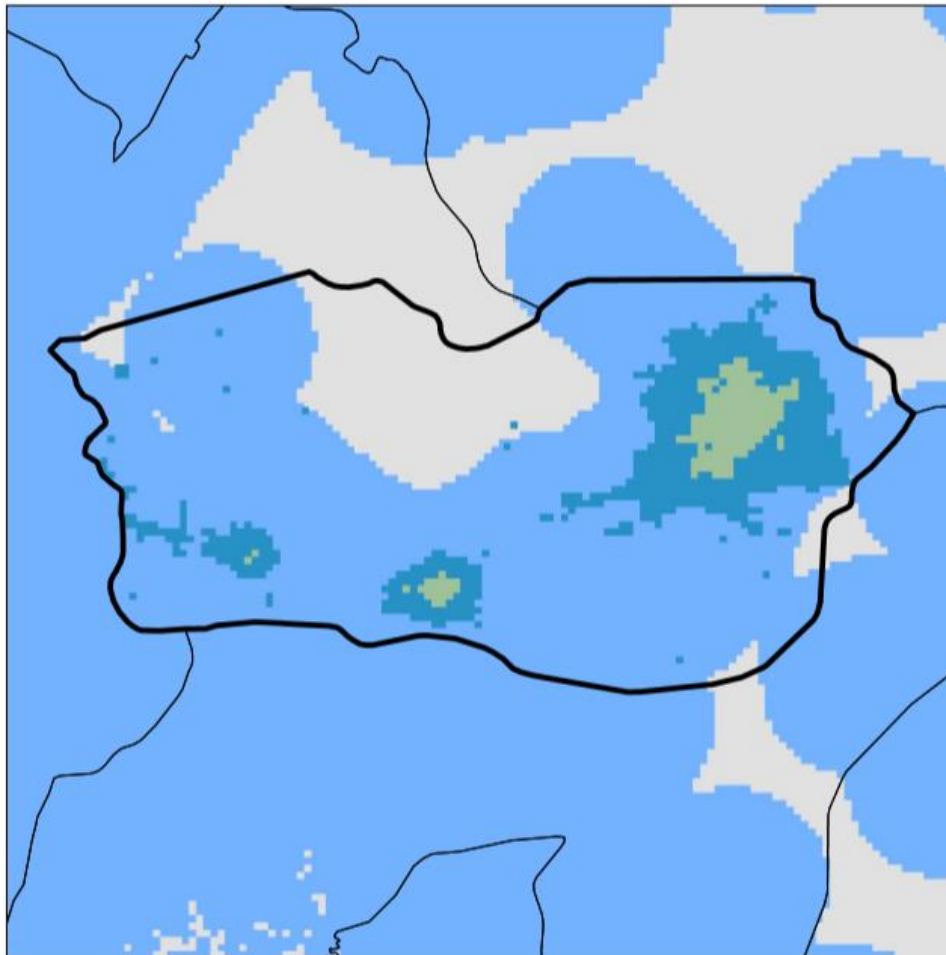


**Note 1:** Each 1 x 1 square kilometer grid shows the proportion of households that owns at least one chicken, cow or, goat.  
**Source:** Fraym

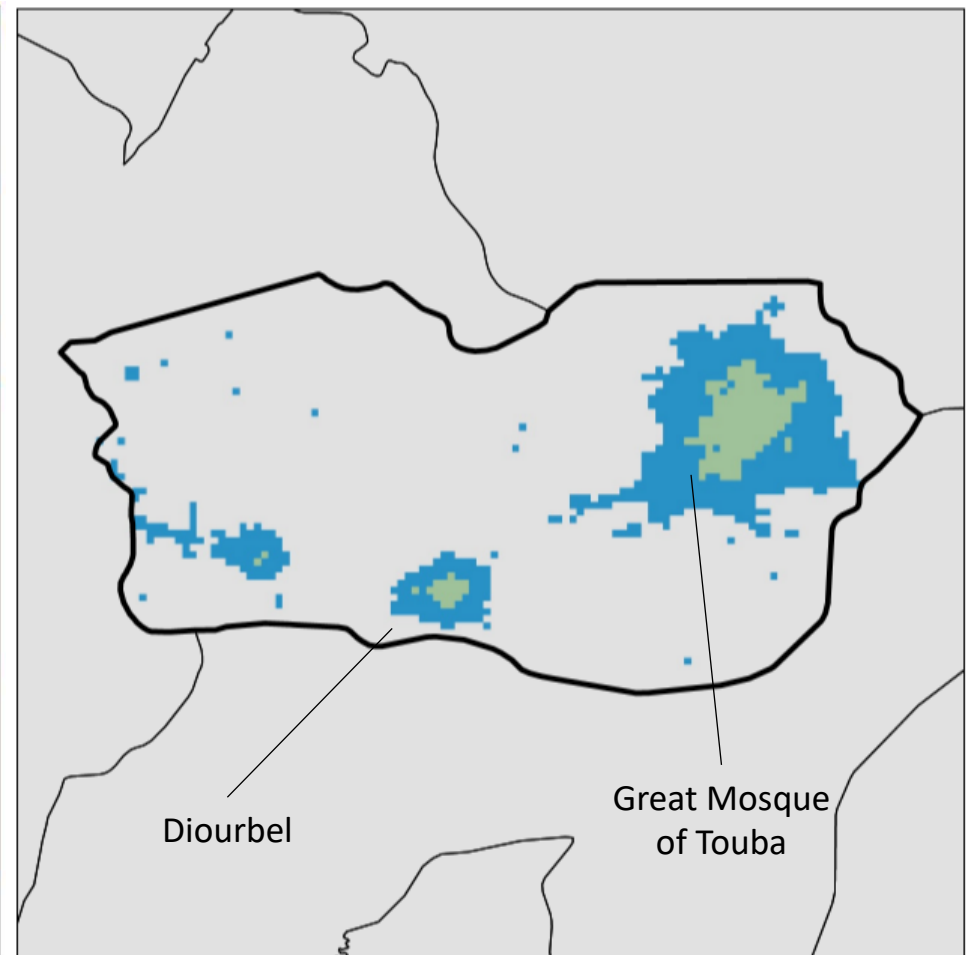
## DIORBEL || EMPLOYMENT OPPORTUNITIES: OFF-FARM


The largest concentrations of youth in Diourbel live in areas covered by a 4G network, as well as around tourist attractions in Touba.


Youth population and 4G cell network coverage



Youth population centers and tourism opportunities



 4G network coverage<sup>1</sup>

**Youth aged 15 - 29<sup>2</sup>**  
  
100 6,400 +

**Note 1:** 4G Network coverage has been sourced from the OpenCellID project and compiled by Collins Bartholomew's Mobile Coverage Explorer.

**Note 2:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown.

Source: Fraym

**Dakar**



## DAKAR || KEY TAKE-AWAYS

Skilled manual labor is the leading professional sector in Dakar, with significant opportunities for tourism and IT employment.

1

**Formal employment in skilled sectors is a strong area for growth.** Dakar has one of the lowest rates of informal employment in Senegal, with only 19 percent of youth who were paid for their labor receiving a non-cash payment. 41 percent of youth are also employed in skilled manual labor.

2

**On-Farm employment opportunities are limited.** A negligible portion of youth in the Dakar region are employed in agriculture. While some portion of youths are located in a livelihood zone dedicated to fishing, opportunities for on-farm employments are limited in Dakar.

3

**ICT readiness is high in Dakar.** Over 37 percent of youth report access to a computer, and 16 percent have internet access. Moreover, 99% of youth having access to a cell phone and 4G data coverage is prevalent throughout Dakar. Initiatives targeting youth employment in the digital sector could have a large impact on increasing professional employment for youth, which currently accounts for only 9 percent of all youth employment in Dakar.

4

**Tourism-based employment offers strong long-term growth potential.** A quarter of employed youth in Dakar work in the sales sector. Dakar is a major tourism hub and attraction for international travel, and linking youth working in the sales sector with tourism-based businesses could present a strong growth opportunity as international travel resumes.

## DAKAR || YOUTH CHARACTERISTICS

Youth are heavily employed in the skilled manual labor and sales sectors in Dakar, which also has the largest concentration of professional labor in Senegal.

	Thiès	Diourbel	Kolda	Dakar	Saint- Louis
<b>Demographics</b>					
Number of youth <sup>1</sup> aged 15-29 in region	527,000	393,000	185,000	1,002,000	268,000
Youth as a percentage of regional population	24%	23%	22%	27%	25%
Percentage of youth who are female	56%	65%	56%	49%	59%
<b>Education</b>					
Percent of youth who have attended school in the past year	35%	19%	27%	35%	26%
Percent of youth in the labor force with complete primary school <sup>2</sup>	18%	9%	18%	30%	22%
Percent of youth in the labor force with complete secondary school <sup>2</sup>	7%	2%	1%	12%	2%
<b>Employment</b>					
Percent of youth employed full-time or seasonally <sup>3</sup>	51%	50%	48%	62%	53%
Most common professions:					
Agriculture	27%	21%	55%	>1%	50%
Sales	22%	19%	11%	28%	15%
Skilled manual labor	28%	46%	25%	41%	22%
Unskilled manual labor	5%	5%	3%	8%	3%
Professional	5%	6%	3%	9%	5%

**Note 1:** Youth are defined as individuals between the ages of 15 and 29 throughout this report.

**Note 2:** Utilizing the Senegalese government's definition, a student has completed primary school upon completion of six years of school and the CFEÉ exam. Secondary school completion reflects the completion of seven years of secondary school and the BEP or BET exams.

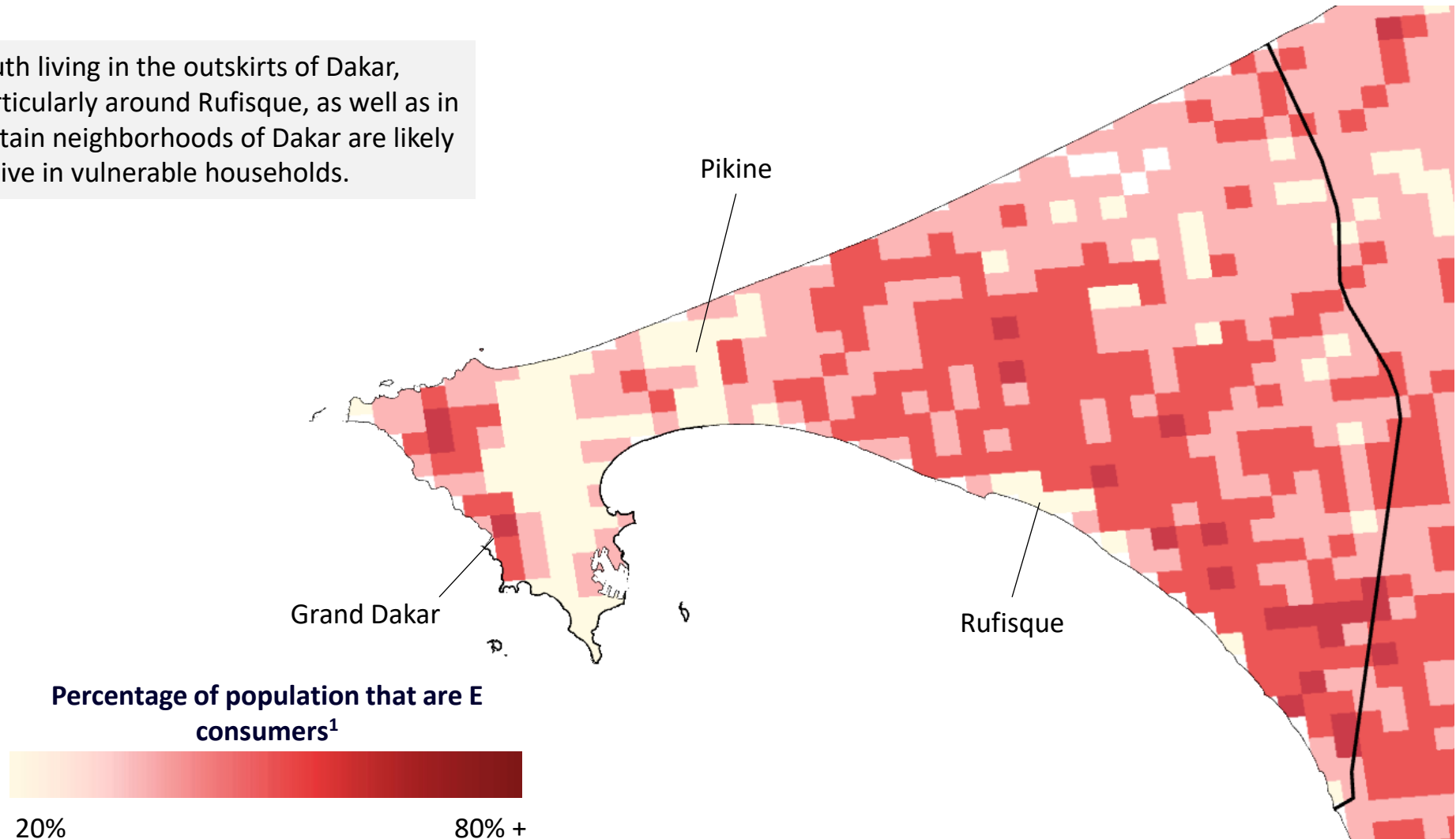
**Note 3:** Fraym identifies youth in the labor force as individuals aged 15 to 29 who have not attended school in the past year.

Source: Fraym

## DAKAR || VULNERABLE YOUTH

Dakar has the lowest percentage of youth living in E consumer households at 23 percent, but the region's large youth population indicates there are an estimated 226,000 vulnerable youth.

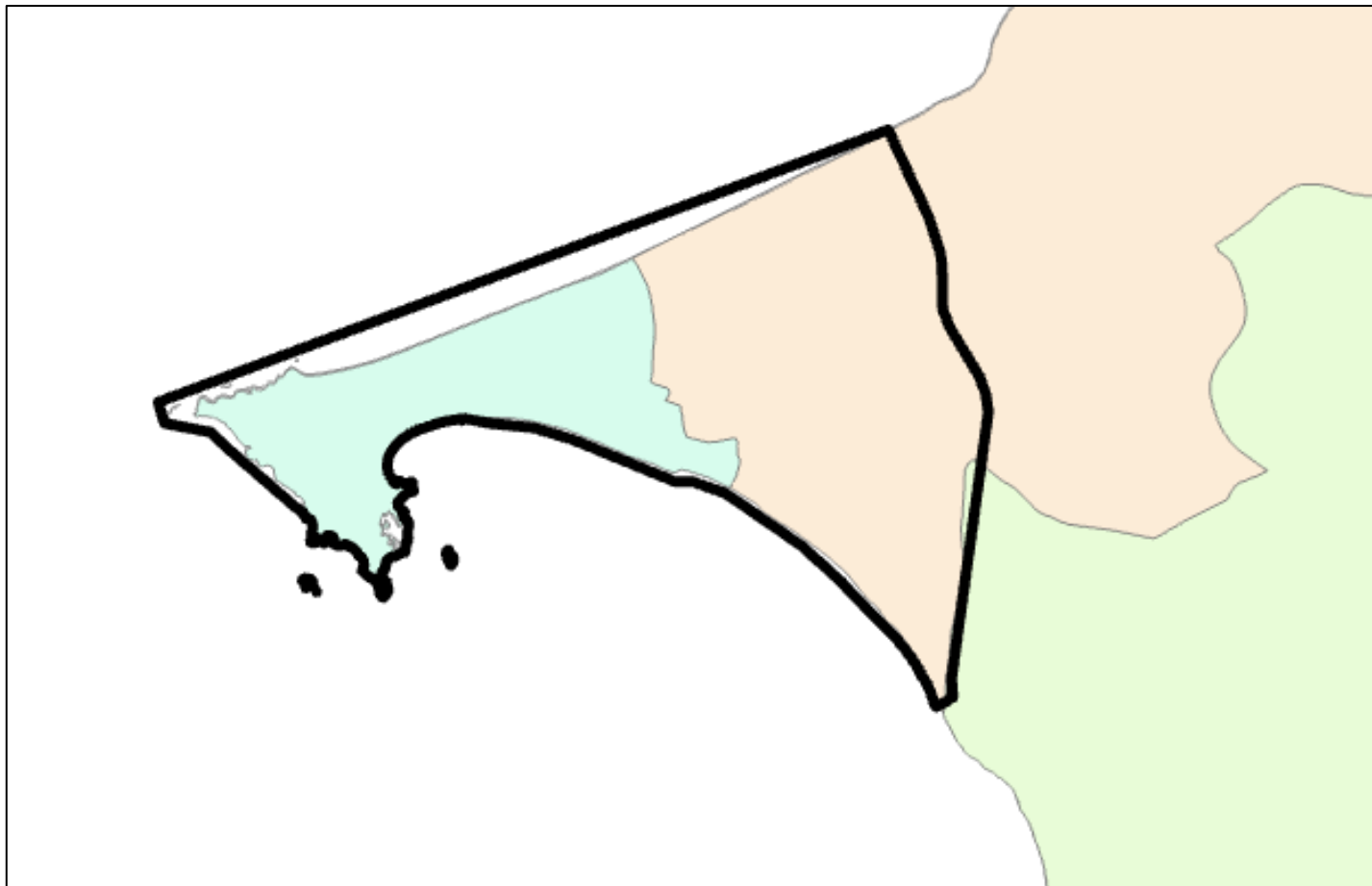
Youth living in the outskirts of Dakar, particularly around Rufisque, as well as in certain neighborhoods of Dakar are likely to live in vulnerable households.



**Note 1:** See Appendix A for more information on the ABC1 consumer classification methodology. Areas with less than 100 youth per square km are not shown.  
**Source:** Fraym

## DAKAR | EMPLOYMENT OPPORTUNITIES: ON-FARM

Youth are primarily concentrated in the heavily urbanized Dakar region, although some youth in Eastern Dakar are in a fishing livelihood zone.



### Livelihood Zones<sup>1</sup>

- Dakar/Urban
- The Niayes Gardening and Fishing

### Youth aged 15 - 29<sup>2</sup>



**Note 1:** A livelihood zone is defined as an area where the population shares the same income and market opportunities.

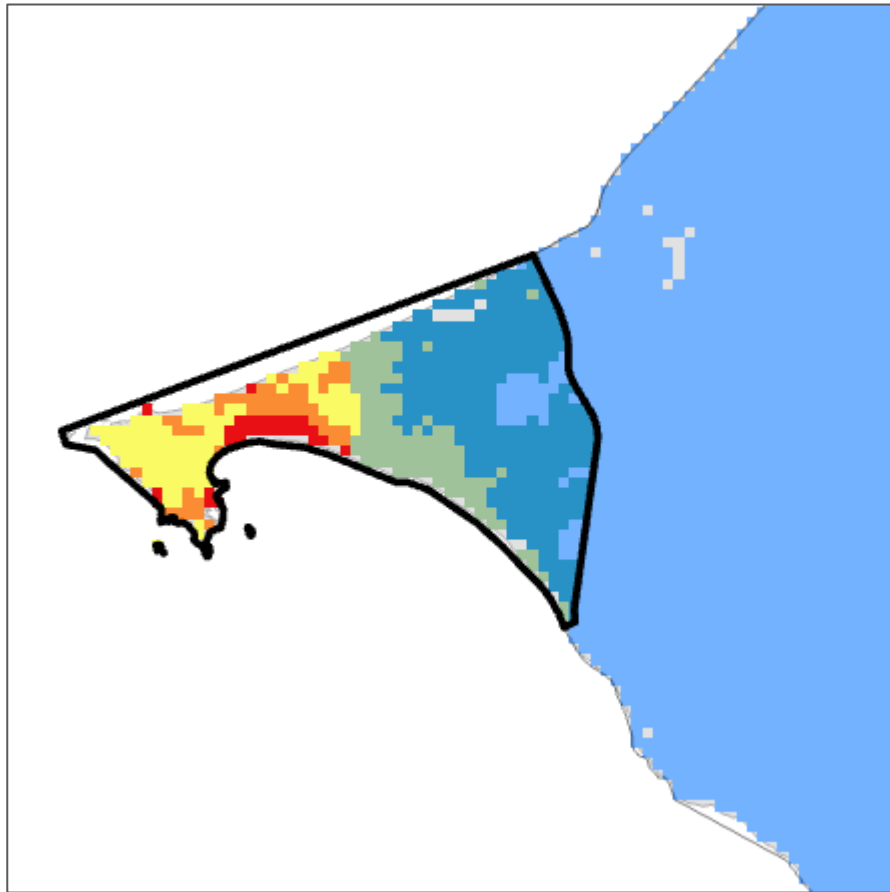
**Note 2:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown

**Source:** Fraym, The Famine Early Warning Systems Network (FEWS NET) (2018)

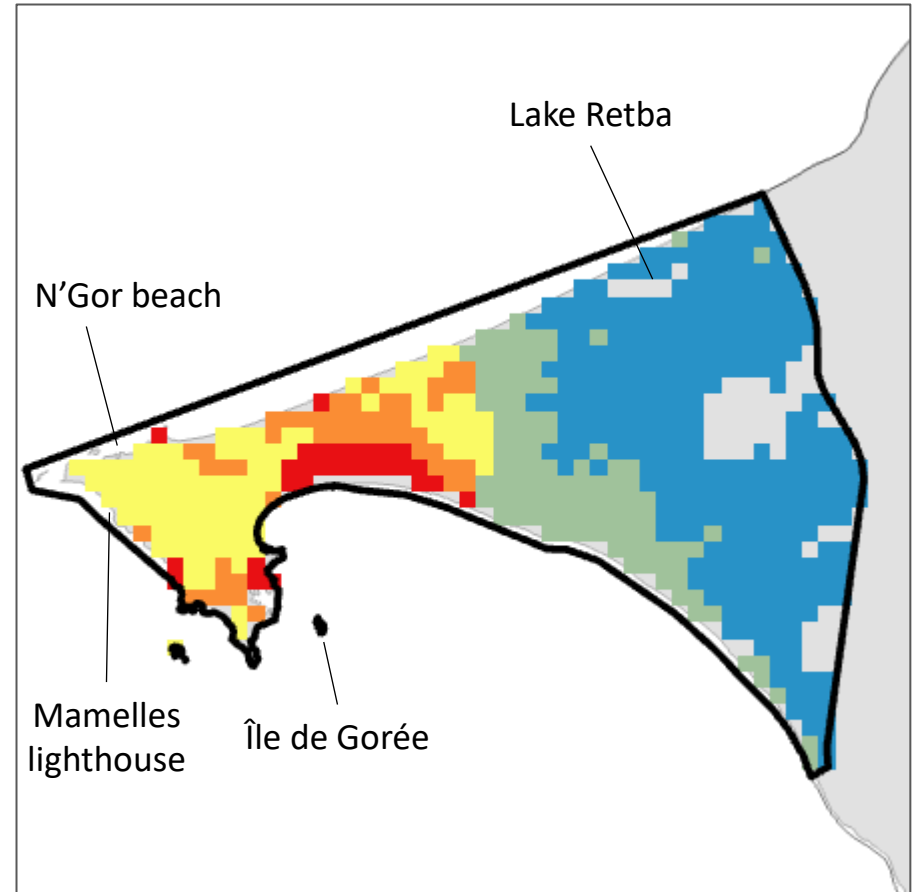
## DAKAR || EMPLOYMENT OPPORTUNITIES: OFF-FARM

Nearly all of Dakar region is covered with 4G data network and the city has many historical and natural tourist attractions.

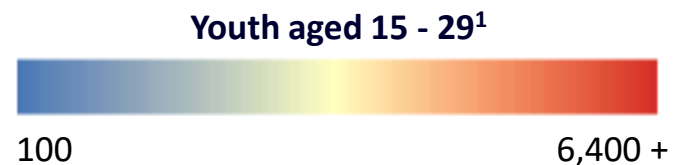
Youth population and 4G cell network coverage



Youth population centers and tourism opportunities



 4G network coverage<sup>1</sup>



**Note 1:** 4G Network coverage has been sourced from the OpenCellID project and compiled by Collins Bartholomew's Mobile Coverage Explorer.

**Note 2:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown.

Source: Fraym

**Saint Louis**



## SAINT-LOUIS || KEY TAKE-AWAYS

Agriculture is the leading employment sector for youth in Saint-Louis. Opportunities exist to boost on-farm youth employment in fishing, rice farming, and livestock.

- 1 **Youth are predominantly located in western Saint-Louis** around the regional capital as well as portions of northwestern Saint Louis near the Mauritanian border.
- 2 **Opportunities to boost on-farm employment include activities such as rice farming, as well as fishing along the coast.** In addition, cattle farming is prevalent in the center of the region and goat farming is common throughout central and eastern Saint-Louis.
- 3 **An incipient tourism industry around the Senegal River delta offers long-term potential.** Youth are concentrated in coastal, western Saint-Louis, where the Langue de Barbarie National Park South is located. This park has been cited as a potential attraction that could boost youth tourism and serve as a model for sustainable tourism in the region.<sup>1</sup>
- 4 **ICT readiness is low in Saint-Louis.** Only 7 percent of youth report having access to a computer in their household, and only 1 percent have internet access. While 90 percent of youth have access to a cell phone, this rate is lower than the national average.

**Note 1:** Cuadernos de Turismo, 31, (2013), 355-358 Cuadernos de Turismo, nº 31, (2013); pp. 355-358 Universidad de Murcia ISSN: 1139-7861. THE IMPACT OF TOURISM ON THE LANGUE DE BARBARIE (SENEGAL RIVER DELTA). Available here:

[https://www.researchgate.net/publication/280233541\\_The\\_impact\\_of\\_tourism\\_in\\_the\\_Langue\\_de\\_Barbarie\\_Senegal\\_river\\_delta](https://www.researchgate.net/publication/280233541_The_impact_of_tourism_in_the_Langue_de_Barbarie_Senegal_river_delta)

Source: Fraym

## SAINT-LOUIS || YOUTH CHARACTERISTICS

Agriculture is the leading profession for youth in Saint-Louis, followed by skilled manual labor.

	Thiès	Diourbel	Kolda	Dakar	Saint- Louis
<b>Demographics</b>					
Number of youth <sup>1</sup> aged 15-29 in region	527,000	393,000	185,000	1,002,000	268,000
Youth as a percentage of regional population	24%	23%	22%	27%	25%
Percentage of youth who are female	56%	65%	56%	49%	59%
<b>Education</b>					
Percent of youth who have attended school in the past year	35%	19%	27%	35%	26%
Percent of youth in the labor force with complete primary school <sup>2</sup>	18%	9%	18%	30%	22%
Percent of youth in the labor force with complete secondary school <sup>2</sup>	7%	2%	1%	12%	2%
<b>Employment</b>					
Percent of youth employed full-time or seasonally <sup>3</sup>	51%	50%	48%	62%	53%
Most common professions:					
Agriculture	27%	21%	55%	>1%	50%
Sales	22%	19%	11%	28%	15%
Skilled manual labor	28%	46%	25%	41%	22%
Unskilled manual labor	5%	5%	3%	8%	3%
Professional	5%	6%	3%	9%	5%

**Note 1:** Youth are defined as individuals between the ages of 15 and 29 throughout this report.

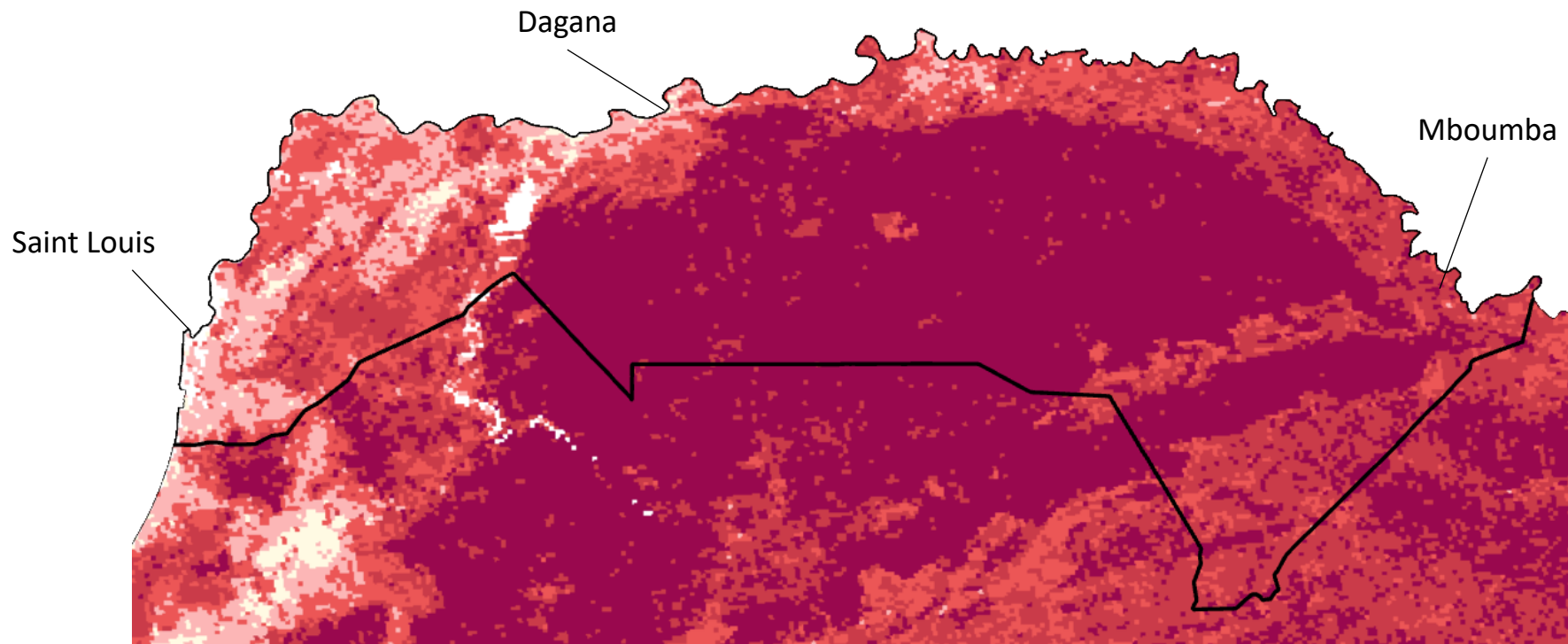
**Note 2:** Utilizing the Senegalese government's definition, a student has completed primary school upon completion of six years of school and the CFEÉ exam. Secondary school completion reflects the completion of seven years of secondary school and the BEP or BET exams.

**Note 3:** Fraym identifies youth in the labor force as individuals aged 15 to 29 who have not attended school in the past year.

**Source:** Fraym

## SAINT LOUIS || VULNERABLE YOUTH

About 41 percent of youth, or 111,000 youth, in Saint Louis live in E Consumer households.



Youth living in towns along the N2 from Dagana to Mboumba are the most likely to live in vulnerable households.

Percentage of population that are E consumers<sup>1</sup>

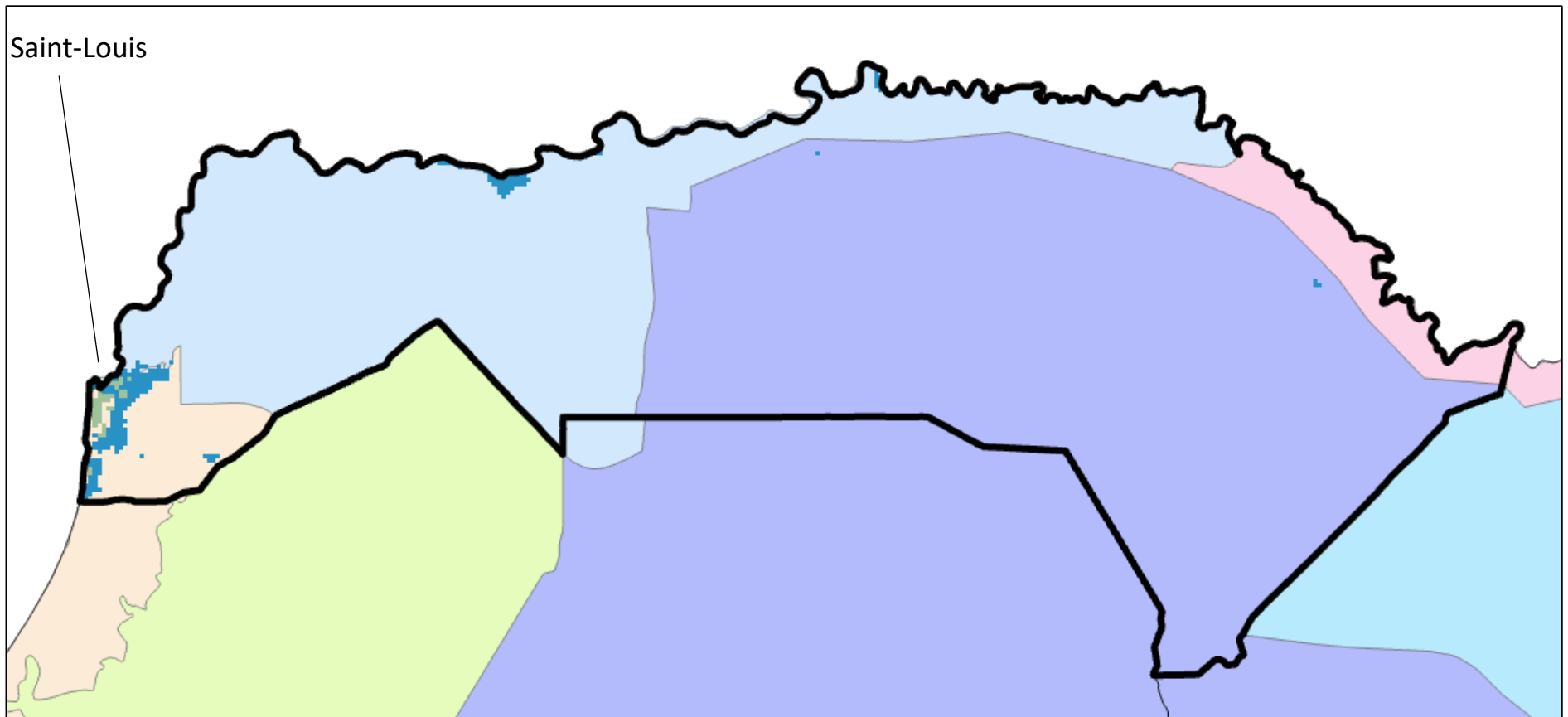






20%

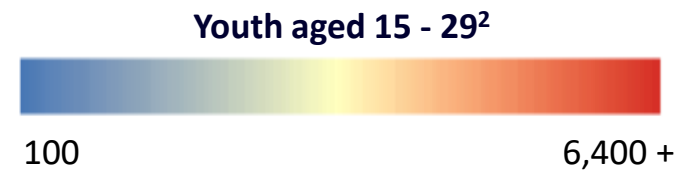
80% +

## SAINT-LOUIS || EMPLOYMENT OPPORTUNITIES: ON-FARM

Youth are concentrated in regions where fishing, gardening, and rice farming are prevalent.



Livelihood Zones <sup>1</sup>	
 Niayes Gardening and Fishing	 Sylvopastoral Livestock and Gathering
 Delta Rice & Horticulture	 Valley Rice, Remittances



**Note 1:** A livelihood zone is defined as an area where the population shares the same income and market opportunities.

**Note 2:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown

**Source:** Fraym, The Famine Early Warning Systems Network (FEWS NET) (2018)

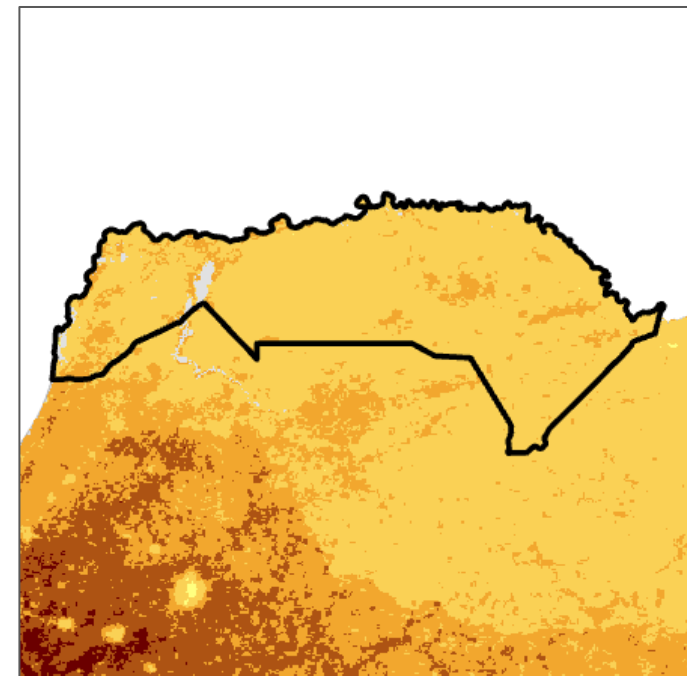
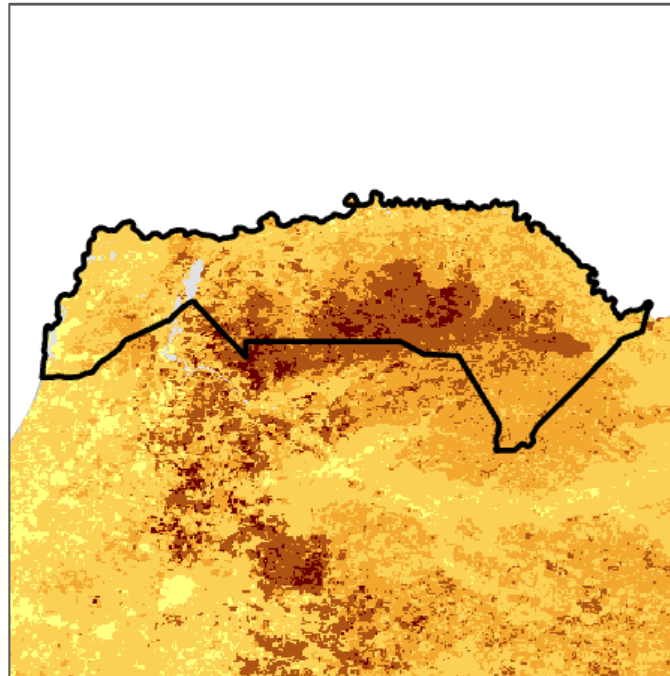
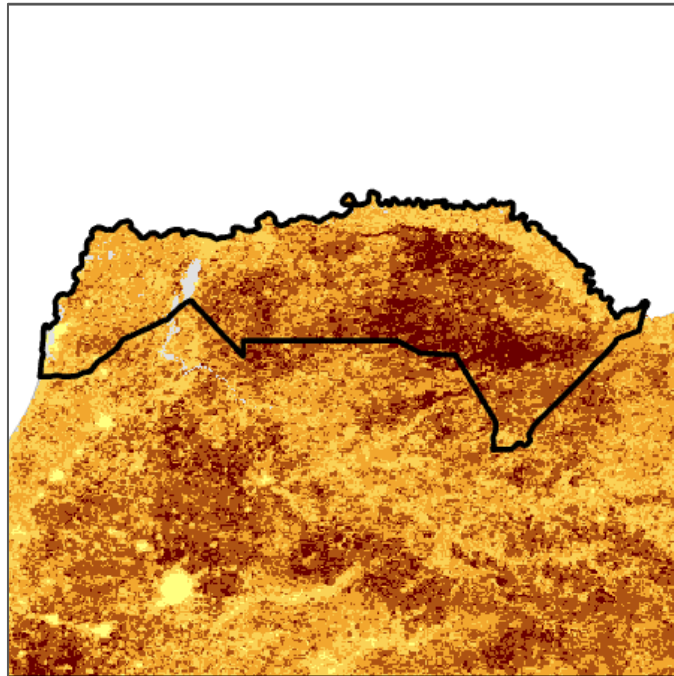
## SAINT-LOUIS || EMPLOYMENT OPPORTUNITIES: ON-FARM

Saint-Louis has high levels of goat and cattle ownership in the sparsely populated central and western portions of the region.

Household goat ownership

Household cattle ownership

Household chicken ownership



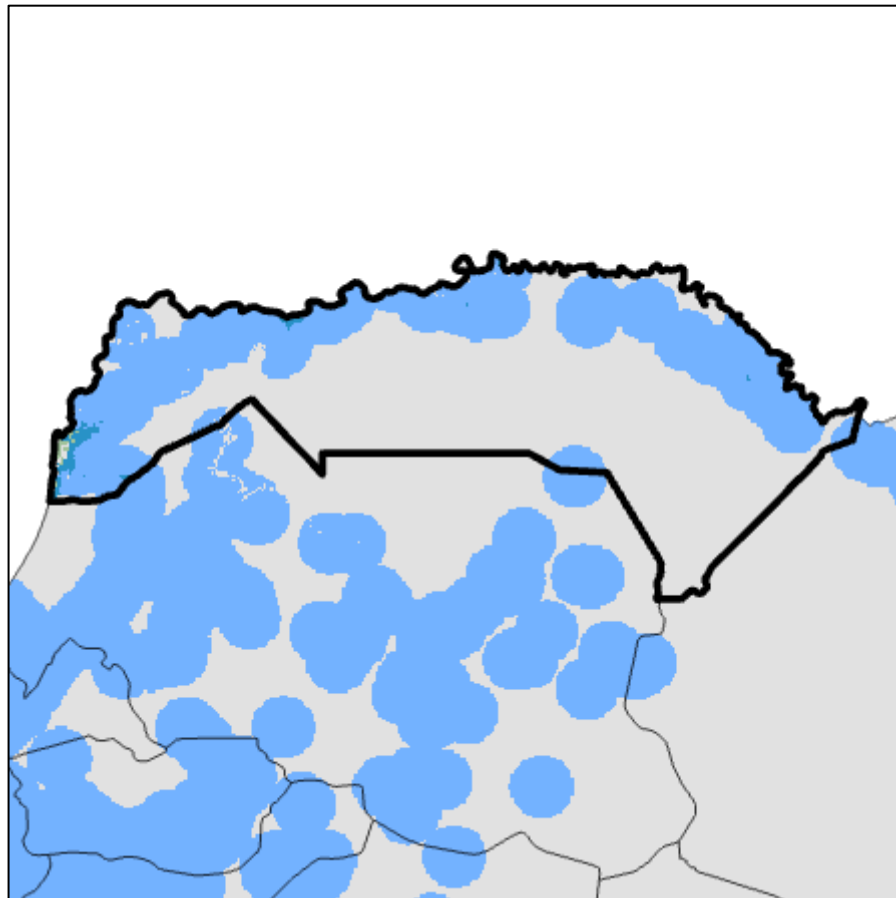
Household livestock ownership<sup>1</sup>



## SAINT-LOUIS || EMPLOYMENT OPPORTUNITIES: OFF-FARM

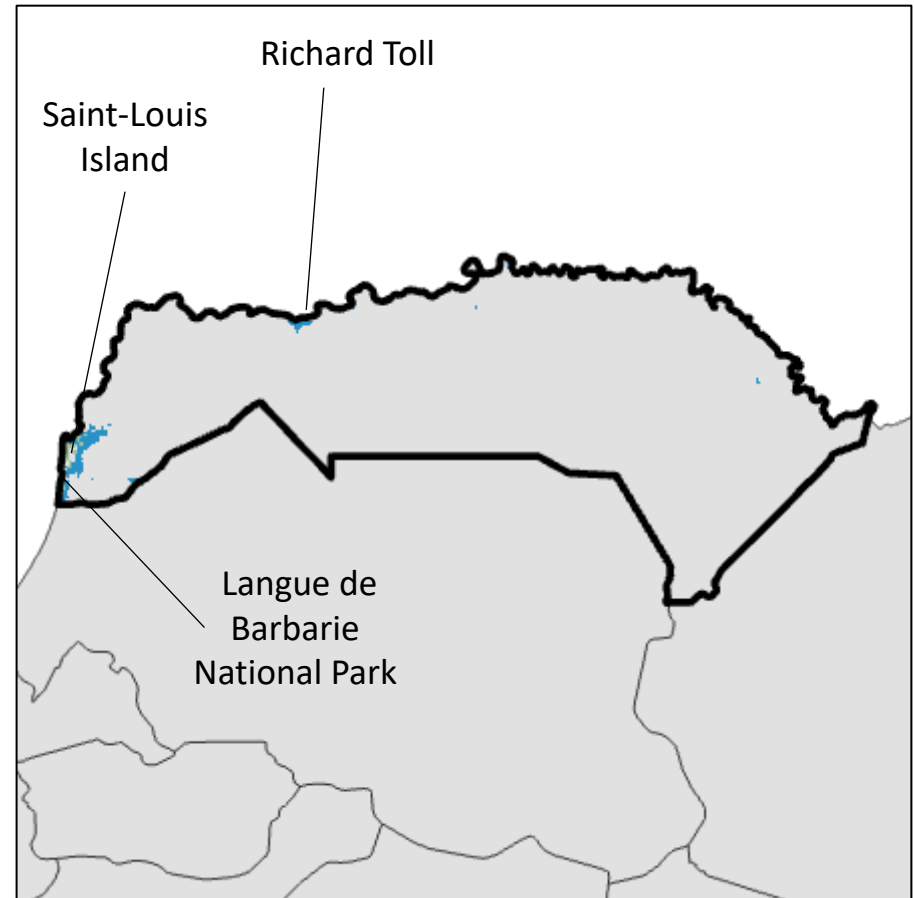
Youth are generally concentrated in areas with 4G data network coverage and around the city of Saint-Louis, which is a UNESCO World Heritage site.


Youth population and 4G cell network coverage



 4G network coverage<sup>1</sup>

Youth population centers and tourism opportunities



**Youth aged 15 - 29<sup>1</sup>**  
  
100 6,400 +

**Note 1:** 4G Network coverage has been sourced from the OpenCellID project and compiled by Collins Bartholomew's Mobile Coverage Explorer.

**Note 2:** Each 1 x 1 square kilometer grid shows the number of youth aged 15 to 29 in that area. Areas with less than 100 youth per square km are not shown.

Source: Fraym

# Appendices



## APPENDIX A || CONSUMER SEGMENTATION METHODOLOGY

Fraym utilizes the ABC1 approach for initial consumer segmentation purposes. This approach is based on the New Consumer Classification System (NCCS) in India, which segments households based upon asset ownership and educational level. The results are then aggregated into two categories (ABC1 and C2DE). E Class consumers refer to consumers in the E1-E3 classes, reflecting those populations with the most limited resources and education attainment.

The two metrics Fraym uses for consumer classification are:

**Asset ownership:** Households are classified based on the number of eleven total assets they own. Assets fall into two categories: durables (e.g. refrigerator, television, sofa) and household characteristics (e.g. household has access to electricity, household has piped-in water, household owns agricultural land).

**Education level:** Fraym classifies customers in nine education levels based on the highest type of school attended/completed and the number of years of education or degrees awarded.

ABC1 consumer classification matrix						
Number of assets	No education	Some primary education	Completed primary education	Completed secondary education	Some higher education	Completed higher education
0	E3	E2	E2	E2	E2	E1
1	E2	E1	E1	E1	D2	D2
2	E1	E1	D2	D2	D1	D1
3	D2	D2	D1	D1	C2	C2
4	D1	C2	C2	C1	C1	B2
5	C2	C1	C1	B2	B1	B1
6	C1	B2	B2	B1	A3	A3
7	C1	B1	B1	A3	A3	A2
8	B1	A3	A3	A3	A2	A2
9	B1	A3	A3	A2	A2	A1
10	B1	A3	A3	A2	A2	A1
11	B1	A3	A3	A2	A2	A1

## APPENDIX B || DATA AND METHODOLOGY

### Fraym Data Sources

The Fraym platform weaves together the latest satellite imagery and geostatistical datasets with professionally enumerated household surveys. This allows for the disaggregation and re-aggregation of large datasets to cover any geographically bounded area.

**Indicators are drawn and harmonized** from a wide variety of household surveys and other data sources. These include the following sources:

**USAID:** Demographic and health surveys

**United Nations:** UN population division database

**World Bank:** Enterprise surveys, living standards, global index surveys, and respective country statistics

**National Statistical Offices:** National censuses and surveys covering population, businesses, health, housing, agriculture, and other areas

**International Monetary Fund:** World economic outlook databases and respective country statistics

**National Air and Space Administration:** Remote sensing satellite data, such as vegetation, temperature, and precipitation

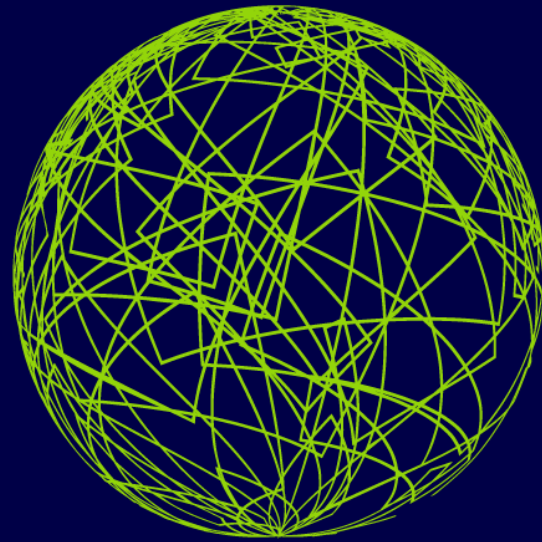
**Population:** Landscan, WorldPop, Google Earth, GeoData Institute, OSM, Facebook Connectivity Lab

### Fraym Methodology

Fraym data scientists closely examine representativeness, sampling frames, questionnaire coverage, periodicity, and a range of other factors. **Fraym obtains microdata**, e.g. individual rows of responses of survey data, in order to avoid any manipulation that could potentially occur during the analysis phase.

The surveys used in this report include the Senegal Demographic and Health Survey (DHS) from 2016, the Senegal Enterprise Survey from 2014, and the Enquête à l'Ecoute du Sénégal from 2014. The surveys were implemented by the South Africa Department of Statistics with financial, technical, and managerial support by large **internationally respected organizations**, including the World Bank and US Agency for International Development. These surveys are designed to be representative of both the *de jure* and *de facto* populations.

These surveys typically use a **stratified, two-stage cluster design** that ensures representative samples for the national and subnational levels. After data collection, *post-hoc* sampling weights are created to account for any oversampling and ensure representativeness particularly at hyperlocal levels.



*fraym*

**Primary contact**

Marina Tolchinsky | [m.tolchinsky@fraym.io](mailto:m.tolchinsky@fraym.io)

**Lead analyst**

Nate Dobbin