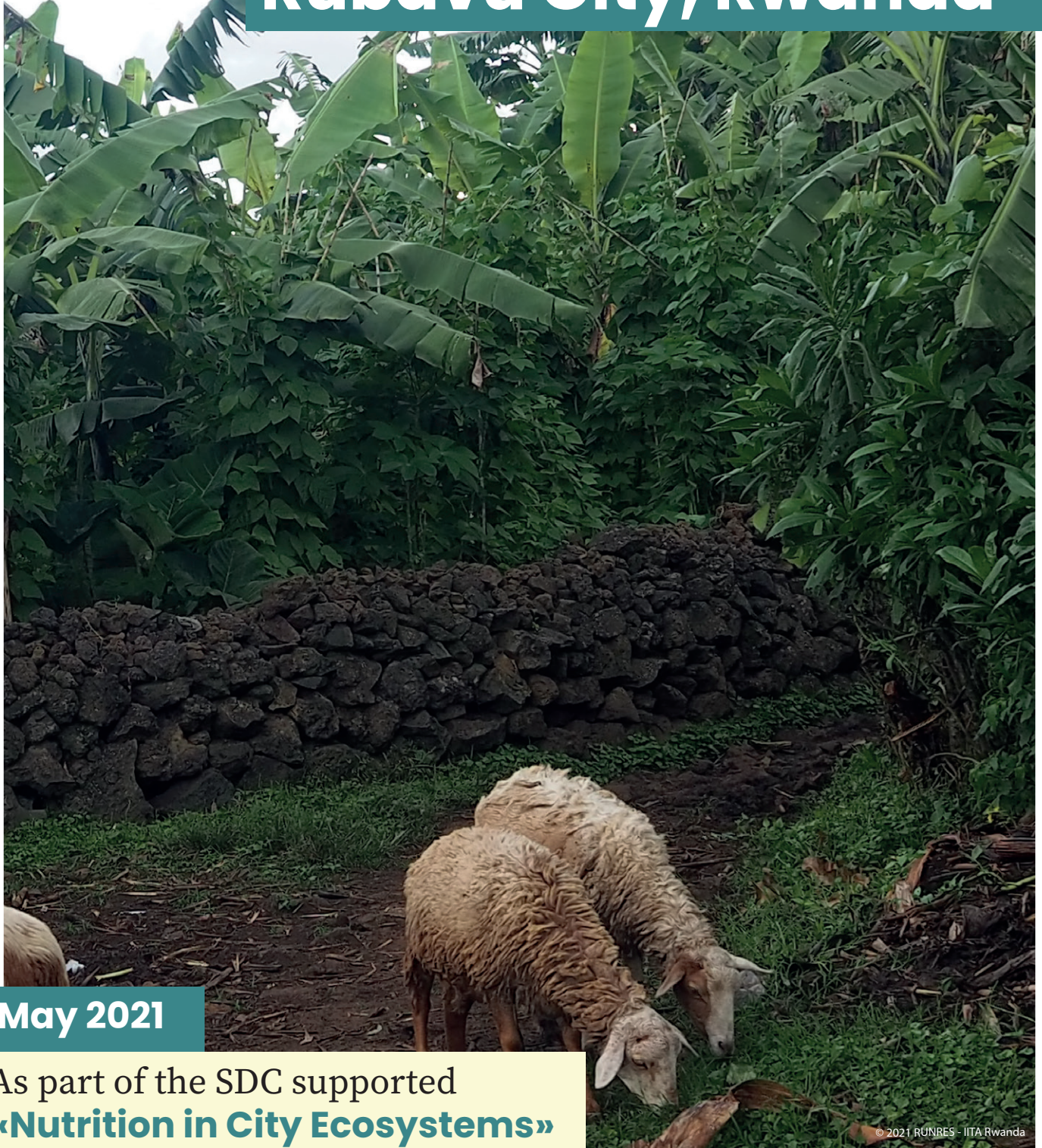


City Overview on *Food and Nutrition of:*

1

Rubavu City, Rwanda



May 2021

As part of the SDC supported
«**Nutrition in City Ecosystems**»
(NICE) project

© 2021 RUNRES - IITA Rwanda

Banana plantation with local
sheep breed in the front



NUTRITION *in*
CITY ECOSYSTEMS



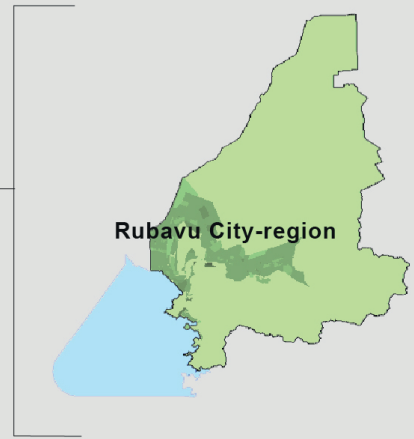
Supported by:

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC



Rubavu District



Rubavu City-region

'This map was created using ArcGIS® software by Esri. ArcGIS® and ArcMap™ are the intellectual property of Esri and are used herein under license. Copyright © Esri. All rights reserved. For more information about Esri® software, please visit www.esri.com.'

Rubavu city is the fastest urbanizing city of Rwanda, with a population growth rate of 5% annually³

Rubavu City is situated in the Western Province of Rwanda. The city is comprised of seven spatial sectors: Gisenyi, Rugerero, Nyamyumba, Nyundo Kanama, Nyakiliba and Rubavu. It is a generally **flat urban area dominated by residential housing and small commercial businesses**. It is surrounded by Rubavu Mountain in the east, Lake Kivu in the south and the city of Goma (in the Democratic Republic of Congo) in the west.

The district has an **equatorial climate** with an average temperature of 20°C near Lake Kivu and 15°C on the vertices. This area has four seasons, of which two are wet seasons and two are dry, and annual rainfall varies between 1,200 and 1,500 mm¹.

| | Rubavu City ¹ | Rubavu District ² |
|---------------------------|-----------------------------------|-----------------------------------|
| Population size | 149,209 (2018) | 422,348 (2020) |
| Total surface area | 45 km ² | 388,3 km ² |
| Density | 1,940 inhabitants/km ² | 1,041 inhabitants/km ² |

Health and hygiene

| | |
|--|--|
| Food insecurity prevalence⁷: | 21.9% (2018) |
| Stunting⁷: | 54% of boys 43% of girls aged 6-59 months (2018) |
| Basic sanitation coverage²: | 94.1% of the population (2019) |
| Access to an improved water source²: | 98.6% (2019) |

Waste management

Waste management in Rubavu is still a need. **The majority (60%) of urban households, dispose their domestic waste in nearby fields.** The waste collected in the city center is dumped at an unmanaged site on the Rubavu hill. Hence, the District Development Strategy plans to have a modern landfill at Rutagara and construct a fecal sludge treatment plant by 2024⁴.

Other key numbers:

| | |
|---|---|
| Distance from capital city Kigali: | 152 km |
| Dominant religion⁸: | Christianity |
| Language spoken by the population of Rwanda^{5,9}: | Kinyarwanda >90% French <15%, English <5%, Swahili 11% |
| People in the district: | |
| Living in poverty⁶: | 35.8 % (2018) |
| Living in extreme poverty⁶: | 14.6 % (2018) |

Households in Rubavu District⁶:

- 2018**
- Owning a computer: 3.1%
 - Owning a mobile phone 68.7%
 - With a rain water catchment system 23,7%
 - Using firewood cooking: 58.9%



Landscape of Rubavu

In Rubavu, around **3 children out of 5 between 24 and 47 months are stunted⁷**

From farm to fork

Production

High volumes of potatoes, sweet potatoes, cassava, sorghum, maize, beans, vegetables and fruits (mangoes and passion fruits) are being produced in Nyamyumba, Kanama, Rubavu, and Rugerero sectors all in the peri-urban areas of Rubavu City. Excess is sold to other markets countrywide or exported to the DRC via the neighboring city of Goma. Cash crops produced in the district, largely for export, are coffee, tea and pyrethrum⁴. Other important value chains are **fish and livestock**. The fishing sector is dominated by fish rearing in Kivu Lake under regulations from the Rwandan Agriculture Board (RAB). The small pelagic fish species *Ndagala* accounts for 49% of the total annual commercial catch in Lake Kivu⁸. In total, **the production of food in the foodshed counts up to 70% of the total food consumed by the city population**⁹.

40% of households own land smaller than 0,2 ha⁷

There are **49 agriculture cooperatives** operating in the district of Rubavu⁴

Chemical fertilizers are used by **46.5%** and **organic fertilizers** by **13%** of the households in Rubavu⁴

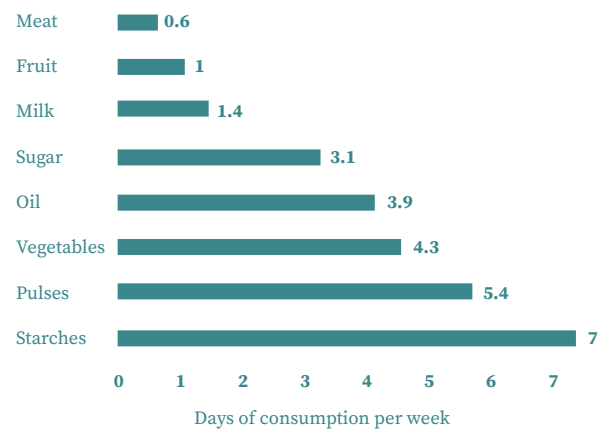
Purchase and consumption

The major food products consumed at home are rice, beans, sweet potatoes, maize (flour), cassava (flour), legumes and milk. Fruits such as mangoes and avocados are eaten in smaller quantities⁹. **Nearly 80% of the food consumed comes from markets and 18% comes from own production in the Rubavu District**⁷.

Around 25% of Rubavu Districts' population are in business and cross-border trading and marketing, often having their meals at markets, restaurants and canteens. However, most meals are consumed at home⁹.

The demand pattern of the city residents, who can only afford to buy small amounts of foods at a time, leads to many sellers selling small quantities of foods, which subsequently leads to higher prices per unit than bulk purchases. With the evolving economic development in the city, supermarkets and formal markets are gradually replacing traditional street sellers leading to more consumption of processed products, generally at higher prices¹⁰. **There are, in total, twelve modern public markets and forty-one trading centers in the entire district**⁴, and it takes on average 30 to 60 minutes for the population of Rubavu District to access the main market⁶.

Average household diet diversity in Rubavu district⁷



Processing

Rubavu has few factories and small processing plants, mainly handcraft, for maize, fish, fruits and vegetables. The Rugerero Milk Collection Centre belongs to the few larger ones, processing up to 5000 liters of milk a day, which is used as milk or to produce dairy products for consumers in Rubavu City and its surroundings. The Rugali processing plant processes sausages providing around 200 kilos per day to the Rubavu City⁹. Other plants include fish processing plants and coffee washing, the latter being a cash crop for export⁴.

Transport

The public transport infrastructure in Rubavu is weak, with less than 4% of the population making use of it. The primary mode of transport is motorcycles. The population has difficulties to access the markets to buy or sell their food⁹. Hence, **cooperatives operating in trading and agriculture often pick up the goods at the farmgate and distribute them to the local/region market.** The planned construction of an extra 25 km of tarmac roads and 100 km of feeder roads by 2024 will facilitate improved transport within the city-region food system⁴.



Young people selling vegetables at the local market



Local physalis fruit

Women, youth and other vulnerable groups in the city–region food systems

Employment

In this city and district in particular, **youth and women are highly engaged in the agriculture and livestock-based subsistence, as well as cross-border trading of agricultural and non-agricultural commodities with the DRC.** However, they are less present in processing and agri-business. A range of barriers keeps them from engaging in these two sectors, such as the lack of starting-capital and training/education in these sectors⁹. The rapidly growing city, hosting a substantial number of migrants, suffers from a high unemployment rate, unstable job offering and low payments. The patriarchal background leads to women being in a worse situation than men when it comes to the labor market, limiting their access to better paying jobs. Unpaid family work or work in the informal sector also remains an issue for women. This is noticed by looking at the higher number of women involved in **small scale trans-border trading, often having to leave their children alone without sufficient food in quality and quantity.** On top of that, even though the law considers equal access and ownership of land and resources between men and women, women continue to be dominated by men in terms of land and resources usage, which is why women are pushed to small scale performance¹⁰.

Inclusion of people with disabilities

The total number of people with disabilities is estimated at 3300 in the city. Currently, people with disabilities can be supported by two local organisations: the Ubumwe Community and the Vision Jeunesse Nouvelle (VJN). These two organisations get support from the local government (LODA) and provide disabled people with skills for inclusion in the local food systems by, among other activities, teaching marketing and selling skills. However, there is a need for additional support of disabled people cooperatives operating in the agri-food systems⁹.

Female cross-border traders and their children

Women who cross the border to sell food often leave their children without anyone to care for them or with a woman to watch over them. They are often left with cold food, usually food that is easy to handle such as potatoes or maize pasta, under minimum hygienic conditions without any clean water to drink, according to the District Director of Health and a local hospital nutritionist during the city consultation⁹. To tackle some of the issues faced by female cross-boarder traders, ADEPE, a non-profit NGO, started cooperatives to improve women's financial literacy and to teach them how to care for their children (e.g. how to prepare balanced meals). ADEPE also provides starting capital for these women to be able to provide basic needs, such as food, to their families¹⁴.

District of cooperatives

The district counts **49 agricultural cooperatives of which more than 70% of the total members are women.** COOPPAVI is one of those cooperatives and it was founded by a group of women in 2003. This cooperative organizes trainings and supplies women with equipment for fishing in Lake Kivu, which goes against the patriarchal expectation of what jobs belong to men and to women. **Along with fishing techniques and equipment, the cooperative is also active in fish farming, fish processing and fish trade⁹.**



Rubavu street seller of vegetables

Policies, governance, advocacy for food and nutrition

Policy framework

From May 2000 onwards, the Government of Rwanda has been operating under the principle of decentralization whereby public powers are dispersed to local governments and administrative divisions. The thirty districts, having financial autonomy and legal personality, oversee the functioning of the 416 sectors (*imirenge*), 2,148 cells (*akagali*). A key feature of the decentralization is the creation of a yearly performance contract signed between the district mayors and the President. The measures for progress in this contract demonstrate the achievements of the mayors in a year¹¹.

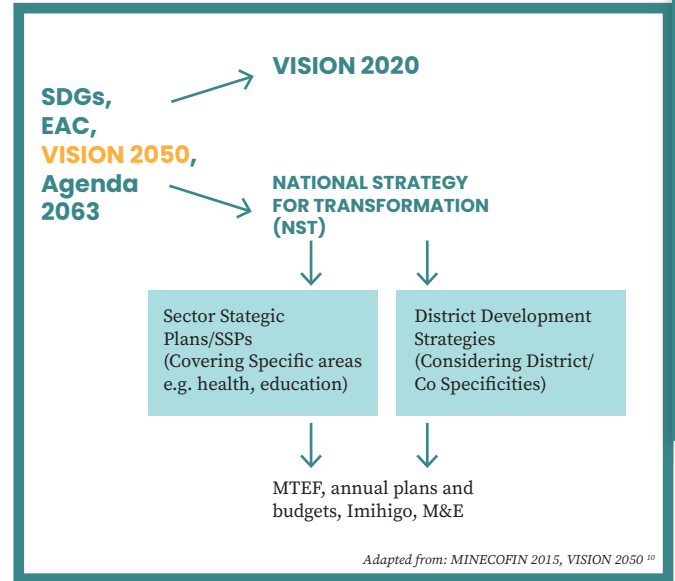
Rwanda Vision 2050

One of the priorities of the Rwandan government is **Rwanda's Vision 2050**, setting an ambitious agenda for further improvements in the standard of living. It aims at addressing food insecurity and malnutrition, as well as further reducing poverty, aligning with the broad recognition that stunting, with its long-term negative effects on human capital development, represents an impediment to Rwanda's aspiration to become a middle-income country.

The planning and execution of Vision 2050 will be driven by existing development planning and implementation frameworks at the national, sector, and district level, building on the earlier Vision 2020. In the words of the Rwandan government: where Vision 2020 focused on „**How to survive**“, the Vision 2050 focuses on „**The future we choose**“. The main targets of Vision 2050 are: (1) Human Development, (2) Competitiveness and Integration, (3) Agriculture for wealth creation, (4) Urbanization and Agglomeration and (5) Accountable and Capable State Institutions¹².

Secondary cities

To meet the challenges that secondary cities are facing in terms of basic infrastructure services and growing population sizes, the Government of Rwanda has elaborated a **vision for secondary city development** aiming at strengthening the energy, transport, buildings, water, and sanitation sectors and infrastructures in Muhanga, Huye, Rusizi, **Rubavu**, Nyagatare and Musanze. These investments are also expected to increase employment opportunities in the cities and, in turn, develop their economic prosperity, with a specific focus on “green growth” and “green urbanisation” spelled out in a master plan for each of the cities³.



District Plan to Eliminate Malnutrition (DPEM)

The District Plan to Eliminate Malnutrition (DPEM) includes directives from the government and partner organizations related to food systems and nutrition. The main goal of the DPEM is to **eliminate malnutrition by helping district partners to understand the situation of malnutrition in the district**, tap into existing initiatives, monitor potential gaps and challenges, as well as establish a framework for monitoring, evaluation and reporting. In this way, the district wishes to share promising practices in the nutrition sector¹⁰.

The kitchen demonstrations at the village levels known as *Igikoni cy'umudugudu* are an example of a DPEM intervention. This intervention aims at equipping parents with adequate skills and knowledge on different uses of the local available food products to prepare balanced diets, which can help resolve issues of malnutrition among households' members, especially young children.



Rubavu climbing beans crop

Shocks to the food systems

In 2018, **21.9% of households in Rubavu District reported having been affected by shocks**, whereof 37.1% of the affected households stated it was due to a drought and 6.4% due to landslides. A recurrent trend is that **more than 50% of the households face seasonal food access issues**⁷.

The impacts of climate change

Climate change often causes droughts and floods, affecting the different types of soils in different ways. The northern part of the district has a very rich soil due to the volcanic activity but is shallow with decomposed volcanic ash and lava. The south-east of the district has rather deep soils, which on the contrary, are acidic with sandy clay and leached by erosion¹. **Floods are one of the largest contributors to socio-economic damage such as crop losses, soil erosion, landslides and even deaths.**

In March 2018, Rubavu District experienced heavy rainfall that resulted in flooding and landslides. Five thousand households were affected, nearly 150ha of mixed crops were damaged and 643 of livestock were dead or missing¹³.

COVID-19

In Rubavu district, due to the movement restrictions due to COVID-19, **the distribution of food products was negatively affected**; a huge quantity of the produce could not be transported, resulting in major losses.

Regarding consumption, some of the families who relied on daily activities to earn income for securing food for household members struggled after losing their jobs leading to limited access to food products. However, because parents (particularly mothers) more time at home with their families, there was a **positive impact of these restrictions on the food preparation and feeding of children**¹⁰.

Rubavu local market for vegetables and fruits



Final notes

The Rubavu City Consultation, held on 6th of April 2021, with government officials, representatives of the civil society, youth, businesses and cultural organizations as invitees, provided the following outcomes¹⁰.

Main issues/priorities

Agricultural production

- Limited access to production inputs (clean seeds and fertilizers). The entire district does not have a storage facilities for agricultural production inputs.
- Prevailing knowledge gaps in Good Agricultural Practices (GAP).
- Post-harvest losses for perishable products due to an insufficient post-harvest infrastructure (handling and processing).

Agricultural processing

- Lack of infrastructure related to post harvest handling of agricultural products, such as: (1) driers and coolers for horticultural products (mainly vegetables), (2) milk coolers to support the existing MCC's capacity that is currently too small for milk production, (3) coolers for fishing products coming from Lake Kivu, (4) need of selling point for foods to alleviate the prevailing selling on streets affecting product quality and hygiene.

Nutrition

- The District (DPM) Plan, the Sector (SPM) Plan, the Cell (CPM) Plan and the Village (VPM) Plan to eliminate malnutrition are constrained by financial capacities and availability of human capital resulting in limited numbers of kitchen demonstrations and minimal assistance in alleviating issues related to malnutrition.
- Parents in trans-border trading between Rubavu and Goma city leave children during working hours with little food in critical hygienic conditions.

Livelihoods

- Increasing number of migrants from neighbouring districts (Rutsiro and Ngororero) on the search for better jobs and living conditions, with poor access to nutritious food and shelter.
- High number of poor families constrained by limited access to nutritious food.
- Financial constraints for local childcare centers (Early Childcare Development centres) in Rubavu City.

Equity

- Functional and operational capacity constraints for the 45 mostly women-led cooperatives in agricultural and agribusiness activities
- Youth inclusion initiatives (such as "Vision Jeunesse Nouvelle") are constrained by limitations for youth to access assets and lack of interest from youth as the majority turn to modern technology trends.

Drivers for a nutrition vital city

Agriculture

- Farmer Field Schools (FFS) and Livestock Farmer Field Schools (L-FFS) as a hub for sharing resources and the exchange of knowledge and skills.

Livelihoods

- Support of the existing (women) cooperatives as engines of socio-economic growth, agricultural development, social cohesion.

Nutrition

- Supporting and enhancing the financial and human capacities of DPM, SPM, CPM and VPM for reducing malnutrition in particular among children, youth women and vulnerable groups.

Socio-economic/Advocacy

- Support establishment of Self Help Groups (SHG), playing an important role locally in socio-economic development for local people with a lower income. Members capitalize small amounts of money for saving, ensuring accessibility to loans on the long run, which effects their food security positively.

Equity

- Strengthening cooperatives of people with disabilities operating in the transport and distribution of food in Rubavu City and trans-border trade.

Bottlenecks for a nutrition vital city

Agricultural production:

- Inadequate transportation systems and lack of transportation facilities for production inputs (seeds and fertilizers).

Gender and behavior change:

- Planning/budget allocation errors on household level. Less involvement of men in family care.

Nutrition

- Knowledge gaps in the preparation of balanced diets.

References

1. **Local Administrative Entities Development Agency (LODA).** 2020. Environmental and Social Impact Assessment (ESIA) Report: For Rwanda Urban Development Project (RUDP) - Phase 2 in Secondary Cities of Musanze, Rubavu, Rusizi, Huye, Muhanga, and Nyagatare. Republic of Rwanda.
2. **Gubic, I. and Ogbonnaya, O. D.** 2019. Mapping of Public Spaces to Inform Master Plan Review for Secondary Cities in Rwanda. Global Green Growth Institute, Kigali, Rwanda.
3. **Government of Rwanda and Global Green Growth Institute.** 2015. National Roadmap for Green Secondary City Development. Kigali, Rwanda.
4. **Ministry of Local Government (MINALOC) and Global Green Growth Institute.** 2018. District Development Strategy 2018-2024. Republic of Rwanda, Gisenyi, Rwanda.
5. **Samuelson, B. L. and Freedman, S. W.** 2010. Language policy, multilingual education, and power in Rwanda. *Language Policy* 9(3):191-215.
6. **National Institute of Statistics of Rwanda (NISR).** 2018. The Fifth Integrated Household Living Survey 5 (EICV5). Kigali, Rwanda.
7. **World Food Program, Vulnerability Analysis and Mapping (VAM).** 2018. Comprehensive Food Security & Vulnerability Analysis (CFSVA) 2018: Rubavu District Profile. World Food Programme, Rome, Italy.

8. **Olapade, O. J. and Omitoyin, B. O.** 2010. Fish Species Composition in Lake Kivu, Rwanda - East Africa.:6.
9. **Nkurunziza Ryarasa, J.** 2021. City Context Assessment: Rwandan Report. Nutrition in City Ecosystems (NICE) Project, Kigali, Rwanda. [Access upon request: see contact]
10. **Nkurunziza Ryarasa, J.** 2021. City Consultation Process: Food Systems in Rubavu City Rwanda. Nutrition in City Ecosystems (NICE) Project, Kigali, Rwanda. [Access upon request: see contact]
11. **Institute of Policy Analysis and Research - Rwanda (IPAR - Rwanda).** 2020. Central Policy Brief: Strengthening the Urbanisation and Development of Secondary Cities in Rwanda. IPAR - Rwanda, Kigali, Rwanda.
12. **Ministry of Finance and Economic Planning (MINECOFIN).** 2015. Vision 2050. Republic of Rwanda, Kigali, Rwanda.
13. **International Federation of Red Cross and Red Crescent Societies (IFRC).** 2018, March 23. DREF Emergency Plan of Action (EPoA) Rwanda Floods.
14. **ADEPE.** 2020. Women Empowerment Program. [Internet]. Available at Website <https://adepe-rw.org/women-empowerment-program/>.

NICE (Nutrition is City Ecosystems) is an SDC co-financed project implemented by a Swiss public-private partnership.

Endorsed by the World Food Programme (WFP), this project aims to connect the supply and demand side of food systems, engage women and your people - including through social business models - and build local governance capacity initially in two secondary cities each in Bangladesh, Kenya and Rwanda. Emphasis is placed on increasing the production and demand for local, agroecological, diverse and affordable foods, and on making food value chains more nutrition-focused so they contribute to better health, multi-stakeholder and multi-sectoral collaboration brings together city authorities, local businesses and civil society, creating a dynamic network of city learning hubs for dissemination and scaling-up.

Contact

Helen Prytherch PhD, MPH
NICE Project Coordinator
Head of Health Systems Support Unit, Swiss TPH
Email: helen.prytherch@swisstph.ch

Limitations

The majority of sources stem from the context assessment and city consultation processes that were arranged during the NICE project inception phase (January-May 2021). These sources are largely qualitative and have been put forward by city leadership, local stakeholders, and consultants to the project.

We acknowledge the efforts of all those that have contributed to this City Overview. The information was consolidated by Sophie van den Berg under the oversight of Dominique Barjolle from ETH-Zürich Group of Sustainable Agroecosystems, Department of Environmental Systems Science. Any views and ideas expressed herein are those of the author(s) and do not imply or reflect the opinion of the Swiss Agency for Development and Cooperation or the NICE consortium member institutions. We invite you to share this information freely. The suggested citation is Nutrition in City Ecosystems (NICE) Project City Overview Series (2021).