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Identifying Drivers of Inequalities that Induce Food Insecurity and Nutrition with a Food System Approach: Case Study of Ghana

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INTRODUCTION

- Objective
  - Identified the drivers of inequalities that induce food insecurity and nutrition in food systems
- Case study
  - Ghana
- Research part of the HealthyFoodAfrica project
  - Aim at more sustainable, equitable and resilient food systems in 10 African cities.
  - The project is a collaborative effort by 17 partners in Europe and Africa, funded by the European Union Horizon2020 programme.

TRANSFORMATION OF FOOD SYSTEM

Food systems have changed in SSA and in a transition to modernization

- Population growth (1.2 billion people today to over 1.8 billion in 2035)
- Urbanization rate (11.2% in 1950 to 40.7 in 2019)
- Economic growth (6.3% 2019)
- Change on food consumption patterns and food environments

Food systems are facing a "Triple challenge" (SWAC/OECD, 2021)

- Ensure food and nutrition security for a growing population,
- Provide livelihoods for people working in food supply chains
- Build environmental sustainability while adapting to and helping to mitigate climate change.

Exert the Right to Food

- The right to food is the right of every individual, alone or in community with others, to have physical and economic access at all times to sufficient, adequate and culturally acceptable food that is produced and consumed sustainably, preserving access to food for future generations" (de Schutter, 2014).

METHODOLOGY

•The sustainable food systems framework from HLPE was used for the assessment

Selection of indicators

Sustainable food system framework from HLPE (2020)	Food System Dashboard from Johns Hopkins University (2020)	Literature from (Allen et al., 2019; Fanzo et al., 2020; HLPE, 2020; Kennedy et al., 2020; van Berkum et al., 2018)

Criteria for the selection of variables

Oriented toward the goal of food security	Reflect the situation at a national scale	Have a standard method used for data collection and a standardized formula for construction	Data had to be routinely collected updated publicly-accessible database

The values for each variables

Open data sources FAOSTAT, the World Bank, Eurostat, UNICEF Division of Data Research, and Policy, Economist Intelligence Unit, National Statistics, Child Growth Database, and the (NCD) Non-communicable disease database

INDICATORS PER COMPONENT OF THE SYSTEM

Drivers of the food system	
Biophysical	Land use Arable land Forest cover Irrigation Climate change
Innovation, technology and infrastructure	Access to internet Innovation Infrastructure
Political and economic	Macroeconomic performance Trade Business climate Policy environment
Socio-cultural	Gender equality Education Religious composition Land tenure
Demographic	Population growth Changing age distribution Urbanization Forced displacement Women fertility

Food Supply Chain	
Food production	Productivity Biofortified crops Environmental footprint Producer equitability
Food storage and distribution	Food loss Food self sufficiency Food export Food import Environmental footprint
Food processing and packaging	Food processing sector Demand for processed foods Food fortification Regulations on processed foods
Retail and markets	Market access Policies

Consumer Behaviour	
Knowledge, Attitudes, and Motives	Food awareness
Practices	Food preparation
Diets	
Adequacy	Undernourishment Wasting Overweight in children Overweight in women
Diversity	Dietary diversity
Moderation	Dietary energy
Safety	Distribution of nutritious food supply Consuption expenditure per capita


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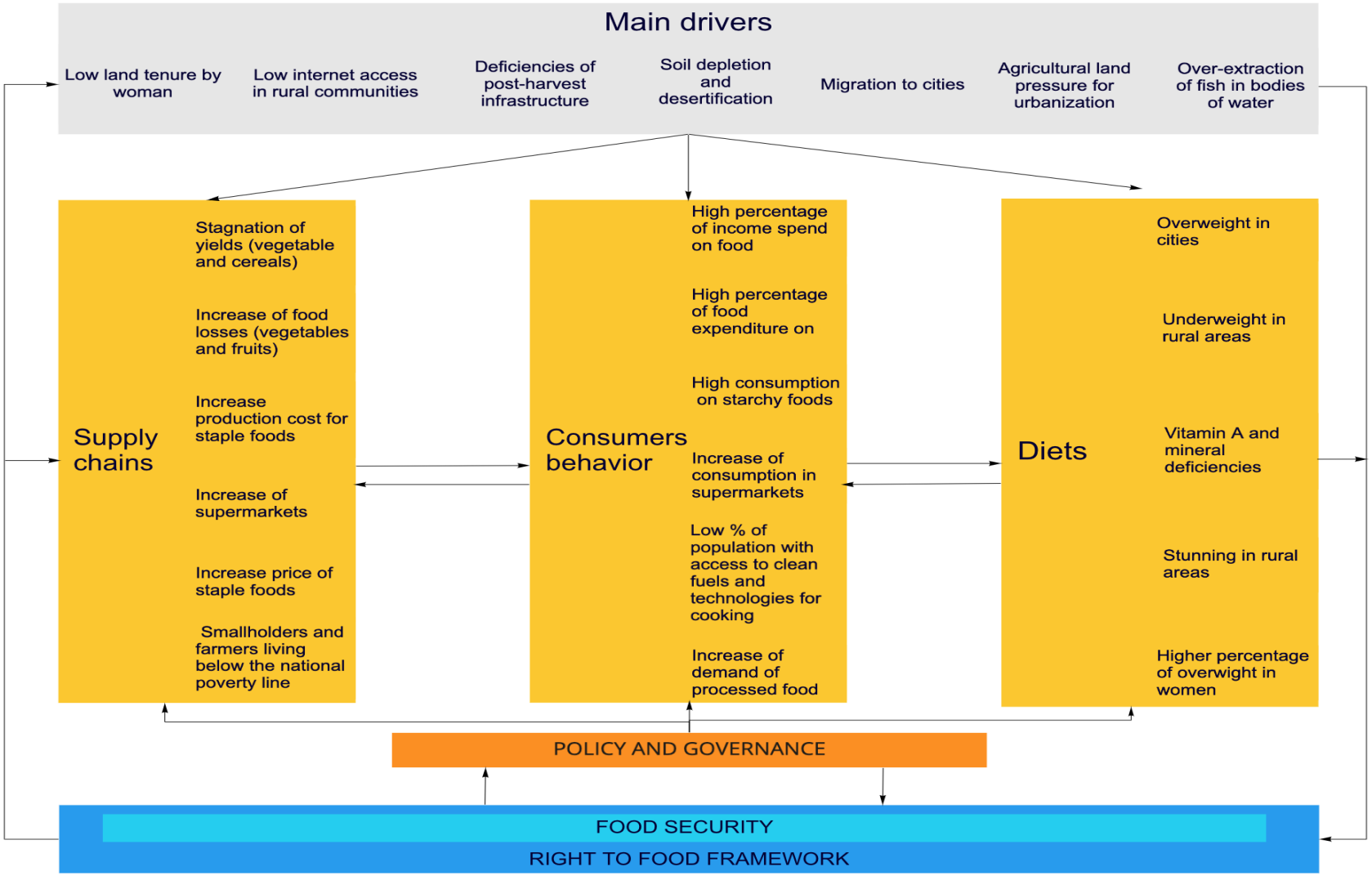
RESULTS


Main drivers
Low land tenure by woman
Low internet access in rural communities
Deficiencies of post-harvest infrastructure
Soil depletion and desertification
Migration to cities
Agricultural land pressure for urbanization
Over-extraction of fish in bodies of water
Supply chains
Stagnation of yields (vegetable and cereals)
Increase of food losses (vegetables and fruits)
Increase production cost for staple foods
Increase of supermarkets
Increase price of staple foods
Smallholders and farmers living below the national poverty line
Consumers behavior
High percentage of income spend on food
High percentage of food expenditure on
High consumption on starchy foods
Increase of consumption in supermarkets
Low % of population with access to clean fuels and technologies for cooking
Increase of demand of processed food
Diets
Overweight in cities
Underweight in rural areas
Vitamin A and mineral deficiencies
Stunning in rural areas
Higher percentage of overwight in women
POLICY AND GOVERNANCE
FOOD SECURITY
RIGHT TO FOOD FRAMEWORK

CONCLUSION

- Drivers such as urbanization, population growth, economic growth, and ecological and environmental, present new challenges for vulnerable agricultural producers and consumers.

- Trends that lead to more inequality are identified as;
  - Natural resources scarcity
  - Land distribution
  - Migration to cities
  - Poor agricultural infrastructure
  - Food loses
  - Gender inequality
  - Dependence on commodity markets
  - Market imbalances in staple foods
  - Triple burden of malnutrition

- These trends often creates loops that make vulnerable actors from the food system hard to escape from poverty and exert the right to food.

Thank you for your attention

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