

# Food and agriculture systems: Current and emerging challenges for a sustainable future

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*Will global food and agricultural systems be able to feed humanity sustainably and satisfactorily in the future, while also accommodating additional non-food agricultural demand?*



## Unsustainable food and agricultural systems

- Food and agricultural systems are not sustainable (now)
- Business as usual is no longer an option (for the future)
- *Today, there is an increasing recognition of the challenges to food security [and nutrition] posed not only by unsustainable production and consumption, but also by factors such as climate change, conflict and economic downturns\* [and demographic dynamics]*

\* UN, CPD 2020. Population, food security, nutrition and sustainable development Report of the Secretary-General



## Challenges for food stability and availability\*

1. Improving agricultural production to meet increasing demand
2. Ensuring a sustainable natural resource base
3. Addressing climate change and intensification of natural hazards
4. Preventing transboundary diseases and emerging agriculture and food system threats

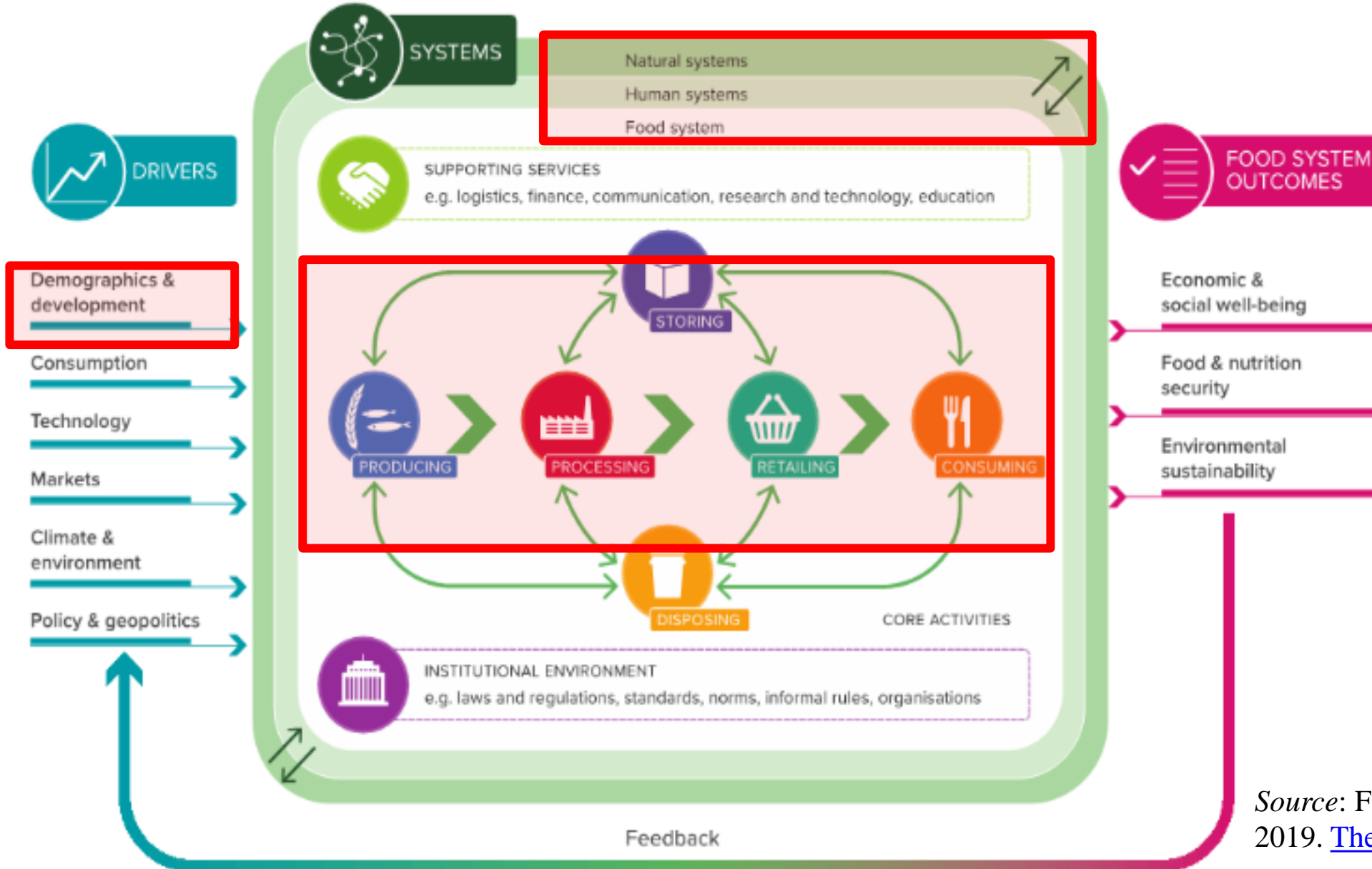


## Challenges for access and utilization

5. Eradicating extreme poverty and reducing inequality
6. Ending hunger and all forms of malnutrition
7. Improving income earning opportunities in rural areas and addressing the root causes of migration
8. Building resilience to protracted crises, disasters and conflicts

## Systemic challenges

9. Making food and agricultural systems more efficient, inclusive and resilient
10. Implementing coherent and effective national and international governance



Almost every element of global and local food and agricultural systems raises challenging sustainability concerns:

- Core activities
- Drivers
- Outcomes
- Interactions with other systems

Source: Foresight for Food (F4F), 2019. [The dynamics of food systems](#)



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## COVID-19: Disruption of food and agricultural systems

- **Consumption:** Purchasing power of people in precarious jobs
- **Logistics:** e.g access to market for small holders/food distribution
- **Retailing:** Poor food distribution for segregated people
- **Processing:** proximity of operators and food safety
- **Institutional environment:** budget diversion,
- **Migrations:** precarious housing and physical distance
- **Labour:** lack of supply from informal workers
- **Overlapping crises:** COVID-19 in conflict areas and food security

### *References:*

COVID-19 impacts on Food systems: [FAO Policy Briefs](#)

Country policy responses to COVID-19: [FAO FAPDA database](#)



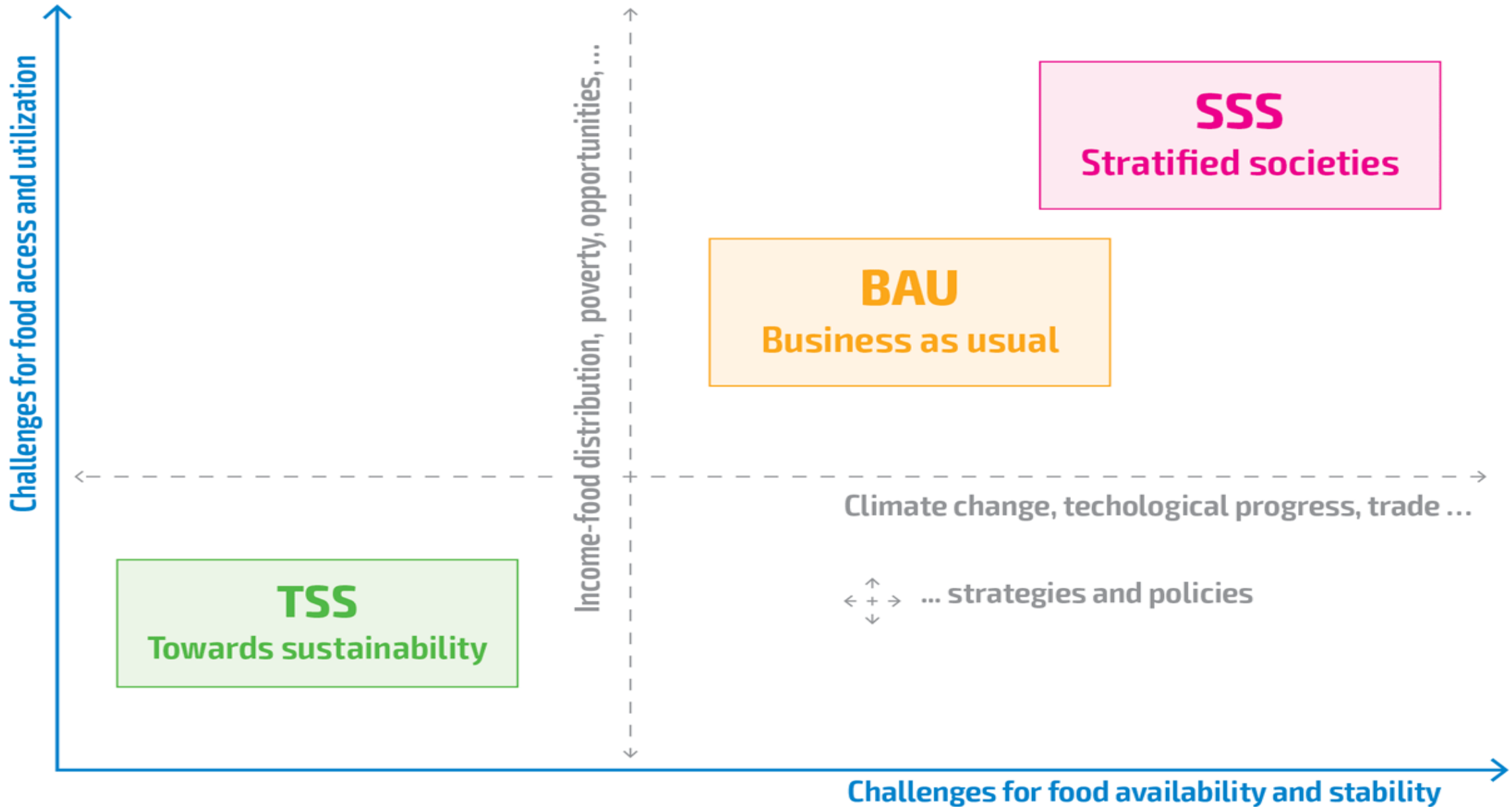
## (Inter)dependencies among systems affecting food\*

- **Cross sectoral interdependencies:** ...tackling all forms of malnutrition is not the domain of any one sector alone: the health, education, agriculture, social protection, planning and economic policy sectors all have a role to play...(35)
- **Cultural dependencies:** Changes [in food preferences] may signal a global convergence towards the consumption habits prevailing in Western Europe and North America ...(38)
- **Cross-country interdependencies:** Highly unequal income distribution within countries and [...] between low-, middle- and high-income countries help to perpetuate poverty and privation...(39)
- **Technological dependency:** ...the digital technology needs of low- and middle-income countries depend increasingly on oligopolistic markets for big-data platforms, where a small number of corporations manage extraordinary amounts of information on production and consumption processes...(52)

\* UN, CPD 2020, [Population, food security, nutrition and sustainable development](#) Report of the Secretary-General



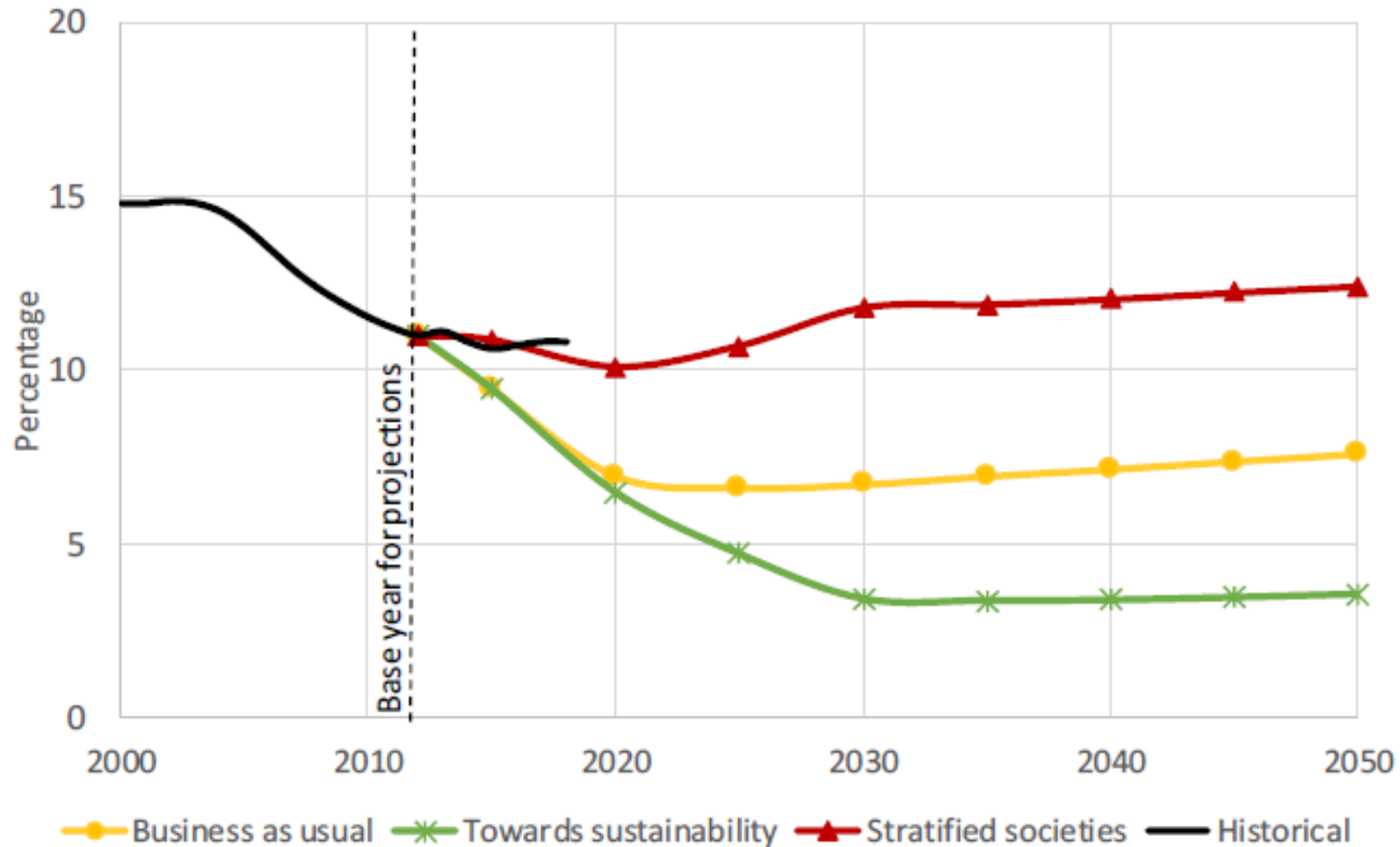
# Scenarios for the future of food and agriculture





# Undernourishment: alternative pathways

Global prevalence of undernourishment, 2000–2050



Sources: UN CPD 2020, based on:

FAO, 2018. [The future of food and agriculture – Alternative pathways to 2050](#)

FAO et al. 2019. [The state of food security and nutrition in the world](#)



## Long-term foresight at FAO

### FOFA 2050 material

[www.fao.org/publications/fofa](http://www.fao.org/publications/fofa)

- Full report FOFA 2050
- Summary report
- Flyer
- Global country-level database
- Supplementary material

### FAO long-term foresight exercises

[www.fao.org/global-perspectives-studies](http://www.fao.org/global-perspectives-studies)

