Sustainable Agricultural Development for Food Security and Nutrition: What Roles for Livestock?

A report by the CFS High Level Panel of Experts on Food Security and Nutrition

CFS 43rd Plenary Session
17 Octobre 2016

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Why a focus on livestock?

Livestock is a:

- key sector world wide and in many countries
- a driver of land use and of cereal consumption
- powerful engine and a key driver for sustainable agriculture and food system development
- good illustration to explore possible pathways to SAD
- sector that has often not received the balanced attention it deserves concerning SAD for FSN

Many challenges for SAD are related or depend on the evolution of the livestock sector

Key roles of the livestock sector (1)

- Around 1/3 of global agricultural gross production value
- In 2010, animal products (excluding fish and seafood) globally produced 16 % of total calories and 31 % of protein
- In developing countries, most rural households keep livestock (between 44 and 79 % in seven African countries)
- Beyond ASF, livestock generates co-products and benefits (wool, skin, manure, draught power, store of wealth and safety nets, landscapes…)

Key roles of the livestock sector (2)

- **Largest user of land resources :**
  - ✓ **Pastures = 26 % of global land area**
  - ✓ **Pastures + feed crops = 80 % of ag. land**
- **Major user of water resource, including irrigation for feed crops.**
- **14.5 % of GHG emissions:**
  - ✓ **45 %: feed production and processing,**
  - ✓ **39 %: enteric fermentation of ruminants,**
  - ✓ **10 %: manure storage and processing, and**
  - ✓ **6 %: processing/transporting animal products**

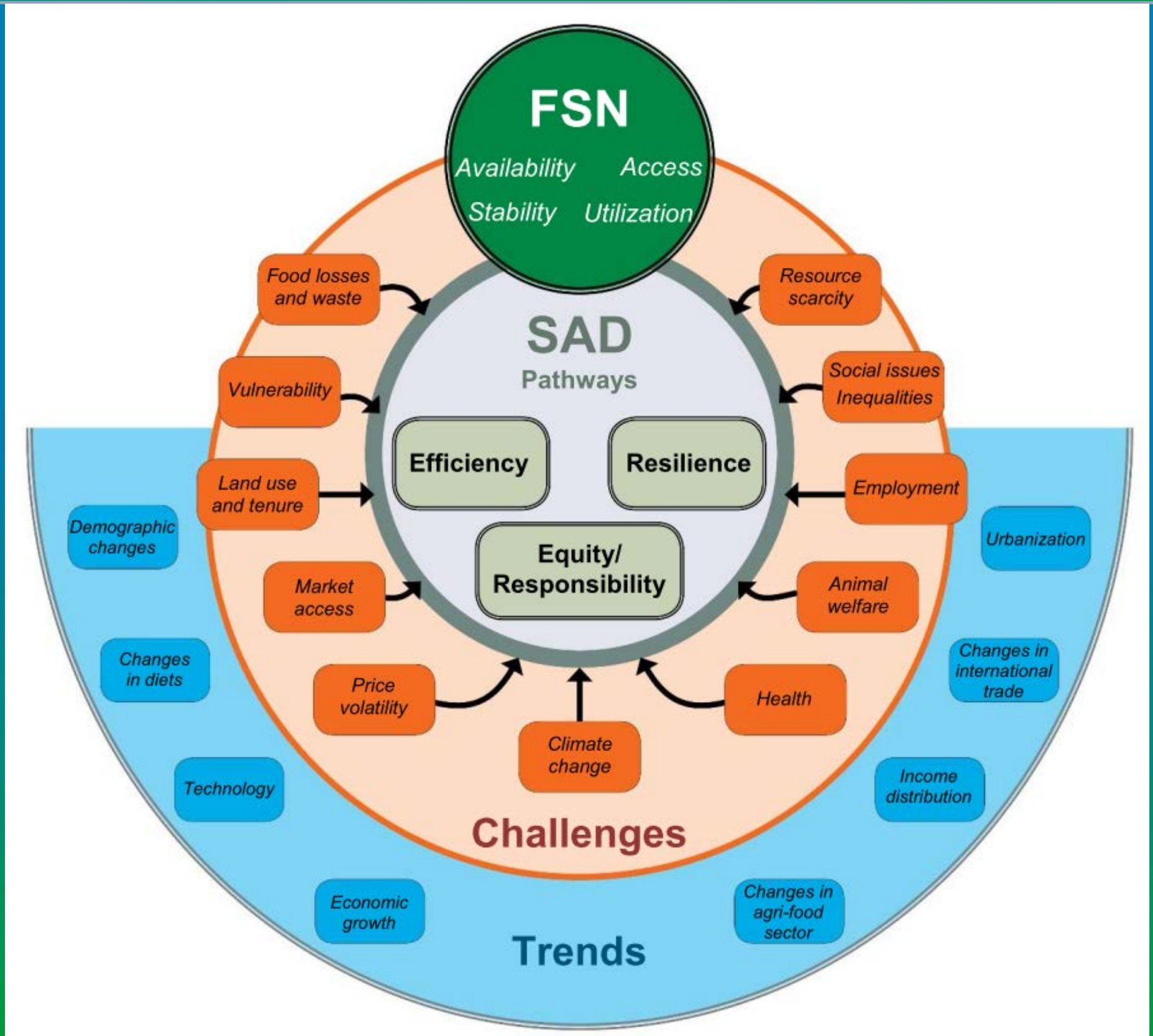
Given current trends, to meet food demand by 2050:

- **Global agricultural production will need to increase by 60 % in volume**

- **Global meat production could increase by 76 % and milk production by 62%**

(This increase in livestock production will occur mostly in developing countries)

Conceptual framework



Specific challenges (1):

Smallholder mixed farming systems:

- Access to resources, markets and services
- Resource efficiency and resilience

Pastoral systems:

- Conflicts for land and water
- Discrimination / Social and gender inequity
- Human and animal health challenges

Specific challenges (2):

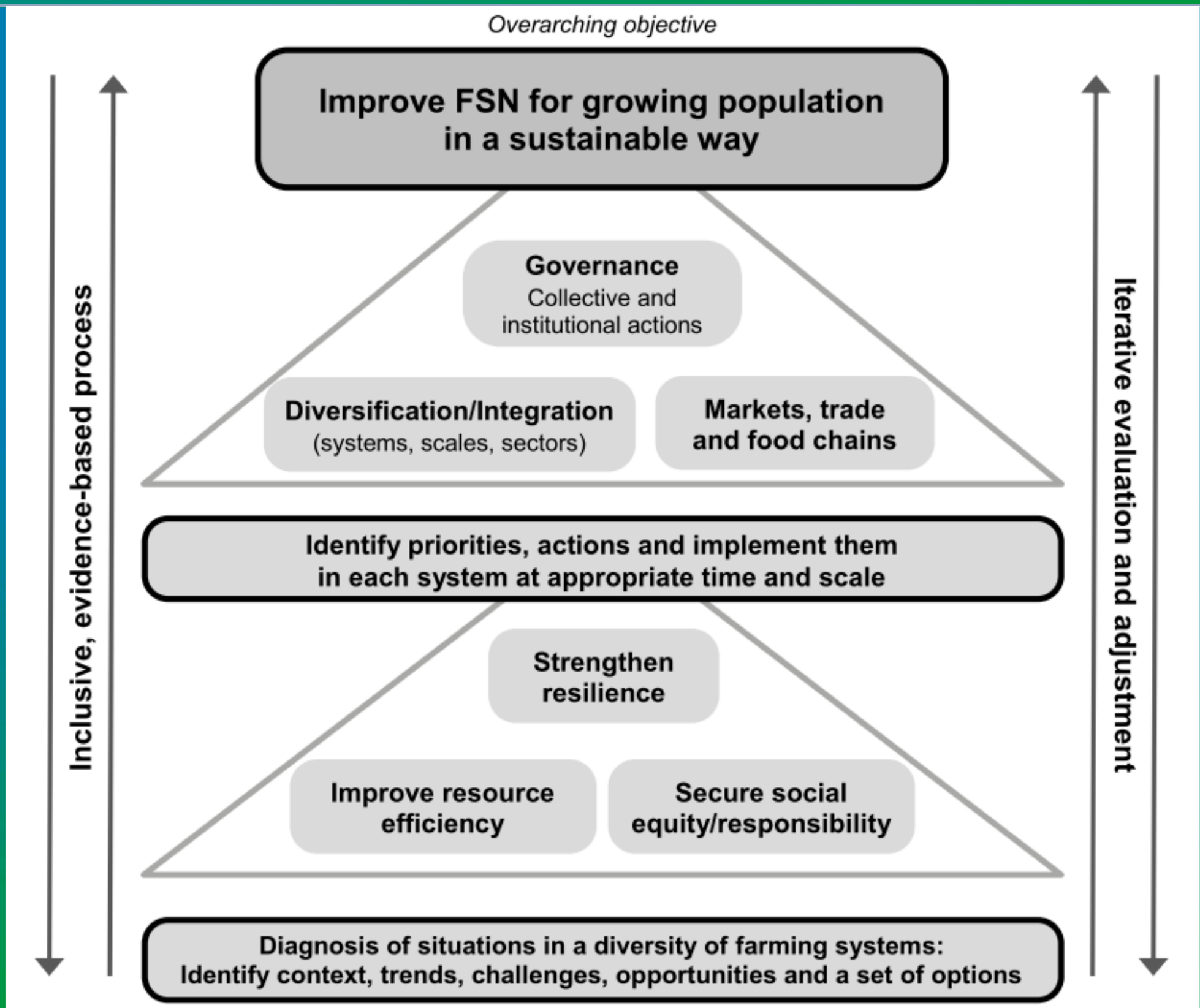
« Commercial » grazing systems:

- Grassland degradation & biodiversity loss
- Conflicts for land and resources
- Working conditions

Intensive livestock systems:

- Water, soil and air pollution
- Pressure on land (feed production)
- Antimicrobial resistance
- Working conditions & occupational hazards

Common approach for pathways (1)



Common approach for pathways (2)

Pathways towards SAD for FSN will have to:

- address multiple challenges at the same time and cover all the dimensions of sustainability and FSN
- be context specific and vary across countries / farming systems
- combine technical actions, investments and enabling policy instruments

The HLPE proposes a common and iterative approach in 8 steps to achieve SAD pathways

3 operational principles for SAD

- Improve **resource efficiency** (of production, natural resources and the environment)

- Strengthen **resilience** (ability to respond and adapt to shocks)

- Secure **social equity/responsibility** (addressing and respecting the diversity of social issues)

Improve resource efficiency

- **Reduce animal mortality (improve access to veterinary services in developing countries)**
- **Reduce yield gaps and environmental footprint**

  (GHG emissions could be reduced by 18-30 % if all producers adopted best practices in a given system and region)
- **Improve animal feed efficiency**
- **Close nutrient cycles**
- **Reduce food losses and waste**

Strengthen resilience through

- Adapting to climate change
- Protecting and managing genetic resources
- Strengthening actions to improve animal health
- Wider application of risk management tools

Secure social equity/responsibility

This covers a wide range of social issues: income distribution, human rights, gender, tenure and property rights, discriminations, responsibility of all actors (individual, corporate, collective)…

Among the operational priorities for action:

- Developing social protection systems, in particular for smallholders
- Improving working conditions (legislation, law enforcement, practical guidelines)
- Enhancing animal welfare (standards, technical innovations)

Cross-cutting recommendations

1. Elaborate context-specific pathways to SAD for FSN
2. Strengthen integration of livestock in national SAD strategies
3. Foster coherence between sectoral policies and programmes
4. Develop gender-sensitive livestock policies and interventions
5. Better integrate SAD issues for FSN in trade policies

Cross-cutting recommendations

6. Limit and manage excessive price volatility

7. Protect, preserve and facilitate the sharing of livestock genetic resources

8. Improve surveillance and control of livestock diseases

9. Promote research and development

10. Review and improve indicators and methodology and identify data gaps

System specific recommendations

11. Recognize the importance of smallholders mixed farming systems for FSN and support them

12. Recognize and support the unique role of pastoral systems

13. Promote the sustainability of « commercial » grazing systems

14. Address the specific challenges of intensive livestock systems

Thank you for your attention

Photo credit: ILRI/Susan MacMillan