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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*

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HLPE
REPORT 10

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for food security and nutrition:
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CFS reform 2009 : 2 key elements



1. CFS IS INCLUSIVE

Governments + civil society, producers, private sector, intl. organizations (including trade and finance, WTO, IMF), organizations and research systems (CG and national), foundations.

2. CFS IS EVIDENCE-BASED: the HLPE

The HLPE is the science-policy interface of the CFS for evidence-based analysis and advice to the CFS, through an inclusive process.

Key role of the livestock sector (1)



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

- **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

By 2050, to meet the expected global increase in food demand

- Global agricultural production is expected to increase by 60 % in volume
- Global meat production could increase by 76 % (mostly in developing countries)
- Global milk production could grow at an annual rate of 1.8 % in developing countries and 0.3 % in developed countries

Health challenges



- ***One Health* approach: better prevent zoonoses by taking into account the links between human health, animal health and the environment**
- **Animal diseases (in Africa, 35 highest priority diseases cost USD9 billion a year – 6 % of livestock production value)**
- **Human health**
 - ✓ **Complex links between ASF, nutrition and health**
 - ✓ **Food-borne diseases: 420 000 deaths per year, developing countries bear 98 % of the burden.**
- **Antimicrobial resistance**

PNAS

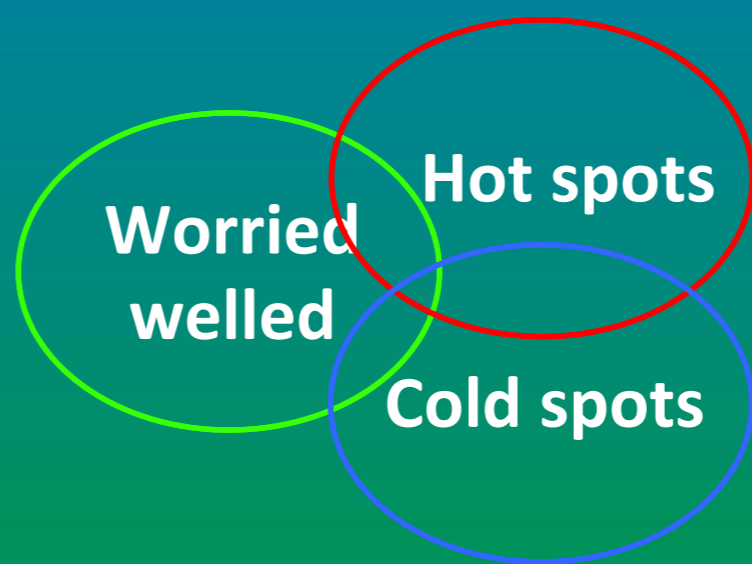
Current drivers and future directions of global livestock disease dynamics

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We review the global dynamics of livestock disease over the last two decades. Our imperfect ability to detect and report disease hinders assessment of trends, but we suggest that, although endemic diseases continue their historic decline in wealthy countries, poor countries experience static or deteriorating animal health and epidemic diseases show both regression and expansion. At a mesolevel, disease is changing in terms of space and host, which is illustrated by bluetongue, Lyme disease, and West Nile virus, and it is also emerging, as illustrated by highly pathogenic avian influenza and others. Major proximate drivers of change in disease dynamics include ecosystem change, ecosystem incursion, and movements of people and animals; underlying these are demographic change and an increasing demand for livestock



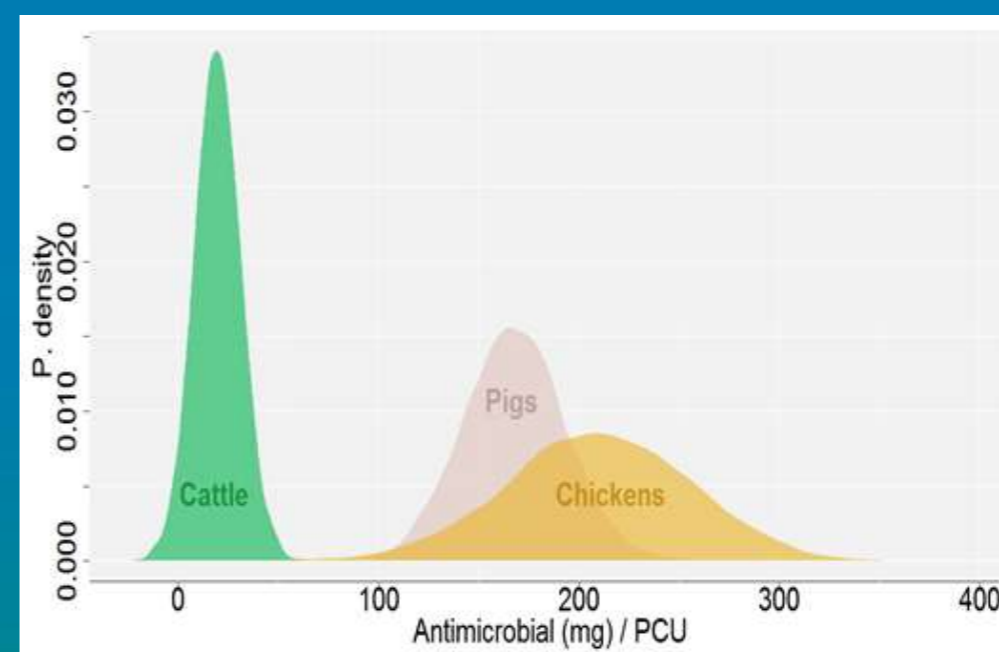
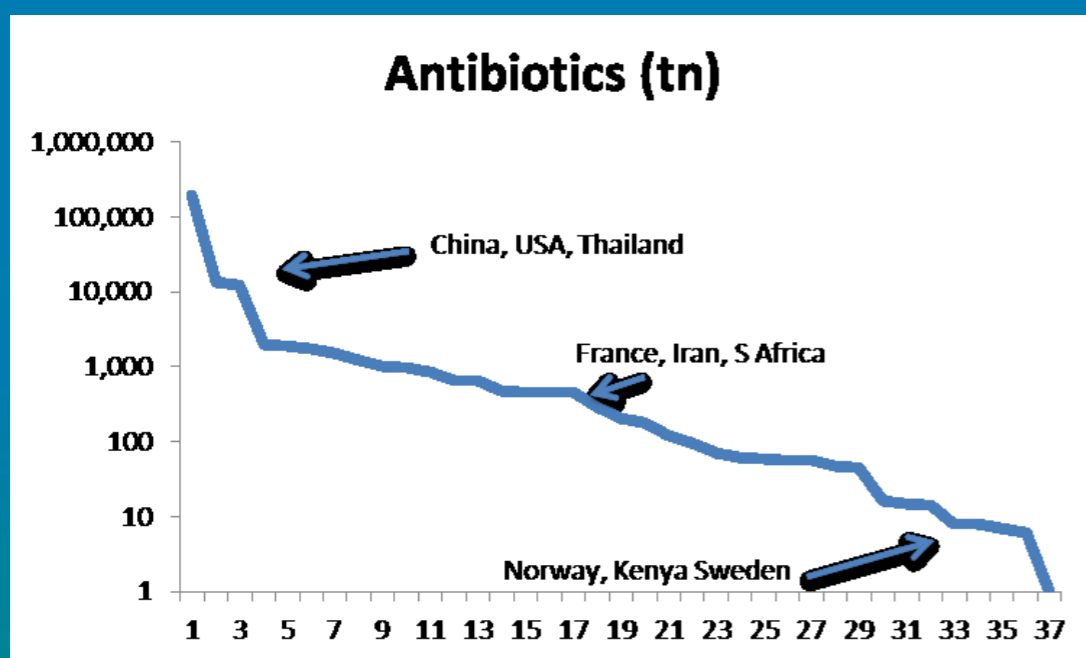
Poor access, avoidable animal death, contributes to persistent poverty



Africa: every year one in two young animals and one in five adult animals die, mostly of preventable disease.



Easy access, over-use, contributes to emerging AMR



3 operational principles for SAD:



« **Sustainable agricultural development (SAD)** is agricultural development that contributes to:

- improving **resource efficiency**,
- strengthening **resilience**, and
- securing **social equity / responsibility**

of agriculture and food systems in order to ensure food security and nutrition for all, now and in the future »

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**

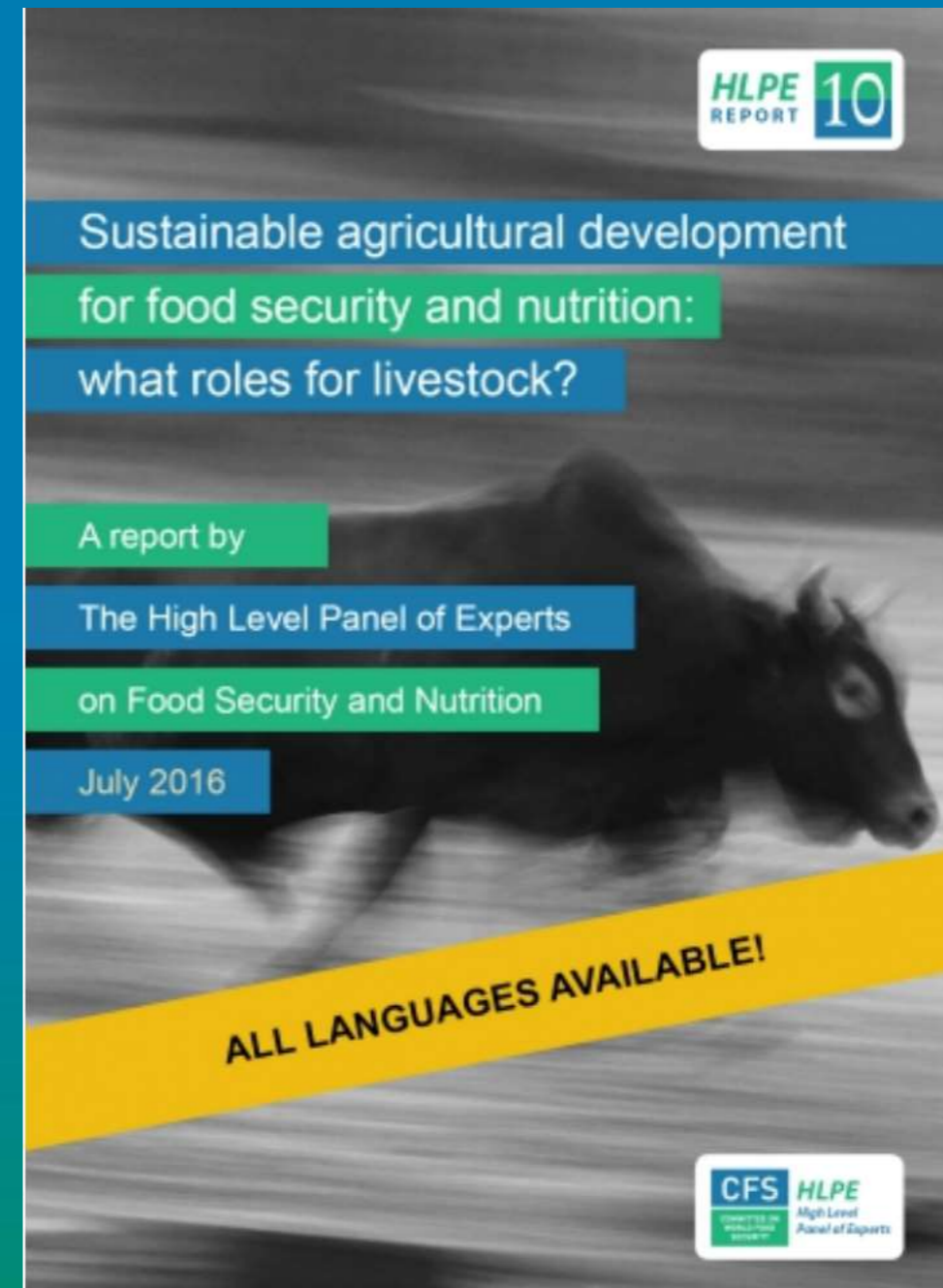
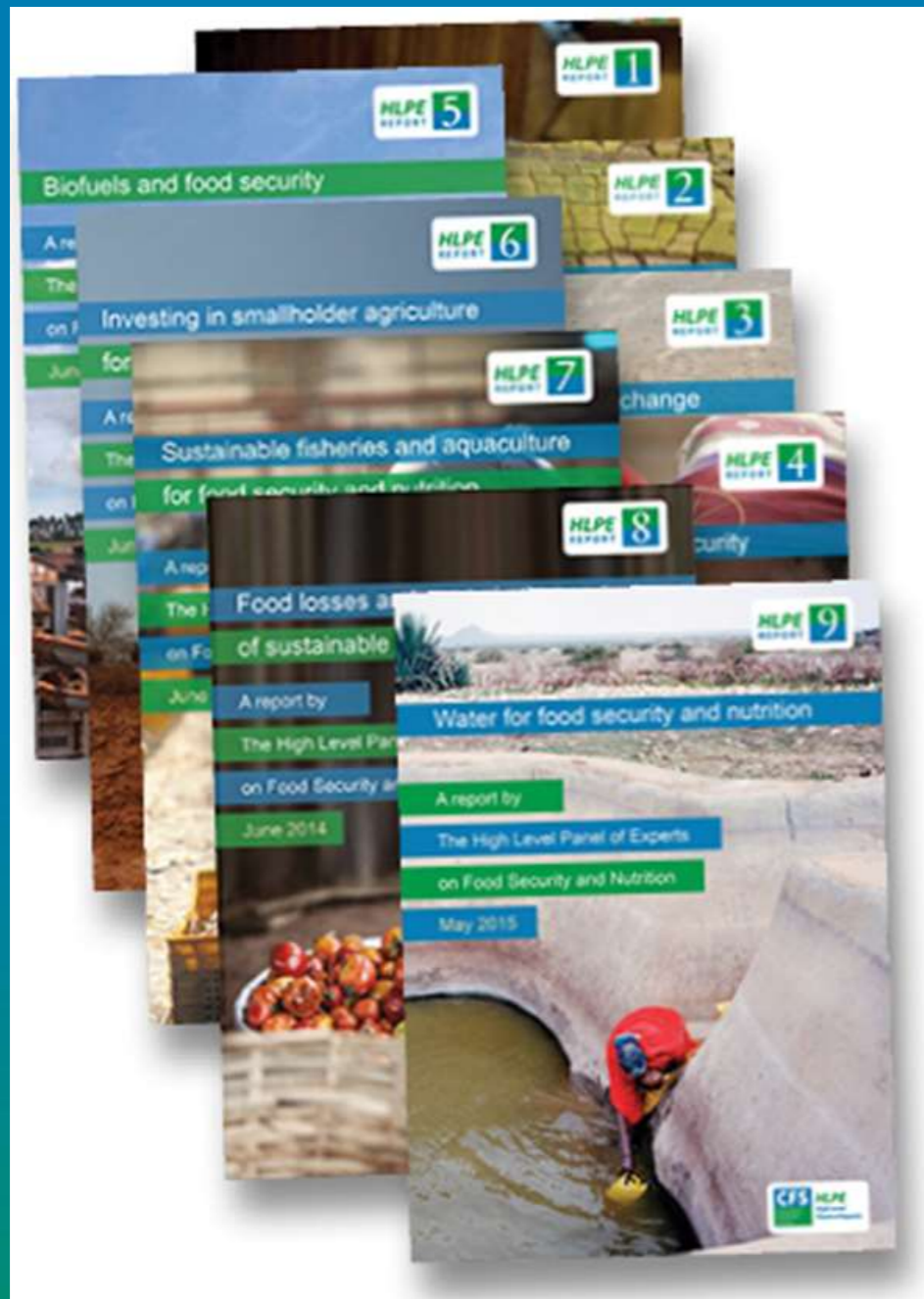
- 6. Limit and manage excessive price volatility**
- 7. Protect, preserve and facilitate the sharing of livestock genetic resources**
- 8. Improve surveillance and control of livestock diseases**
- 9. Promote research and development**
- 10. Review and improve indicators and methodology and identify 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



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