

**The High Level Panel of Experts  
on Food Security and Nutrition (HLPE),  
Science-policy interface of the  
Committee on World Food Security (CFS)**

***Critical and emerging issues for FSN  
2<sup>nd</sup> HLPE note***

**Steering Committee Meeting  
Public event  
Beijing, China, 26<sup>th</sup> May 2017**

# The reform of the CFS in 2010

## 2 key points to revitalize CFS



1. Openness to civil society... **Inclusiveness**

2. Independent scientific /**evidence-based** to fuel policy debate and understand why stakeholders disagree/controversies:  
HLPE s science-policy interface

# HLPE Roles (as per CFS rules)



- (i) Assess and analyze the **current state** of food security and nutrition and its underlying causes.
- (ii) Provide scientific and knowledge-based analysis and advice on specific **policy-relevant issues**, utilizing existing high quality research, data and technical studies.
- (iii) Identify **emerging issues**, and help members prioritize future actions and attentions on key focal areas.

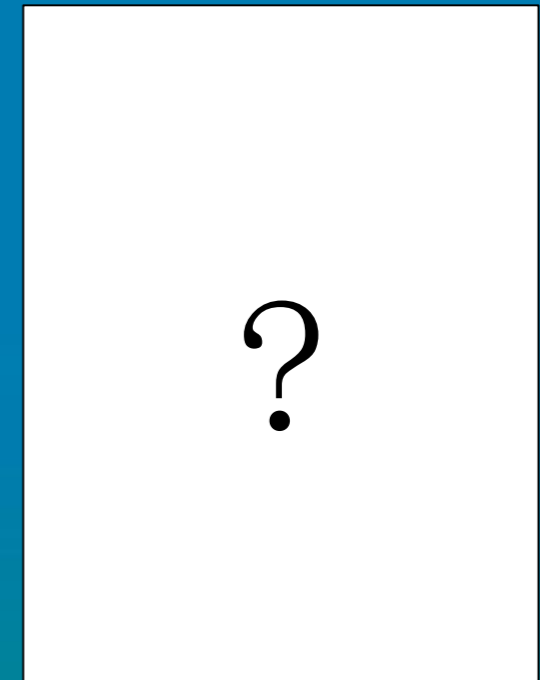
# 3 time frame: how HLPE informs CFS debates on short, medium and long terms

- CFS requests the HLPE



CFS (MYPOW) for future request

- HLPE « Critical and emerging issues »  
for future MYPOW



# In 2016, CFS requested the HLPE:

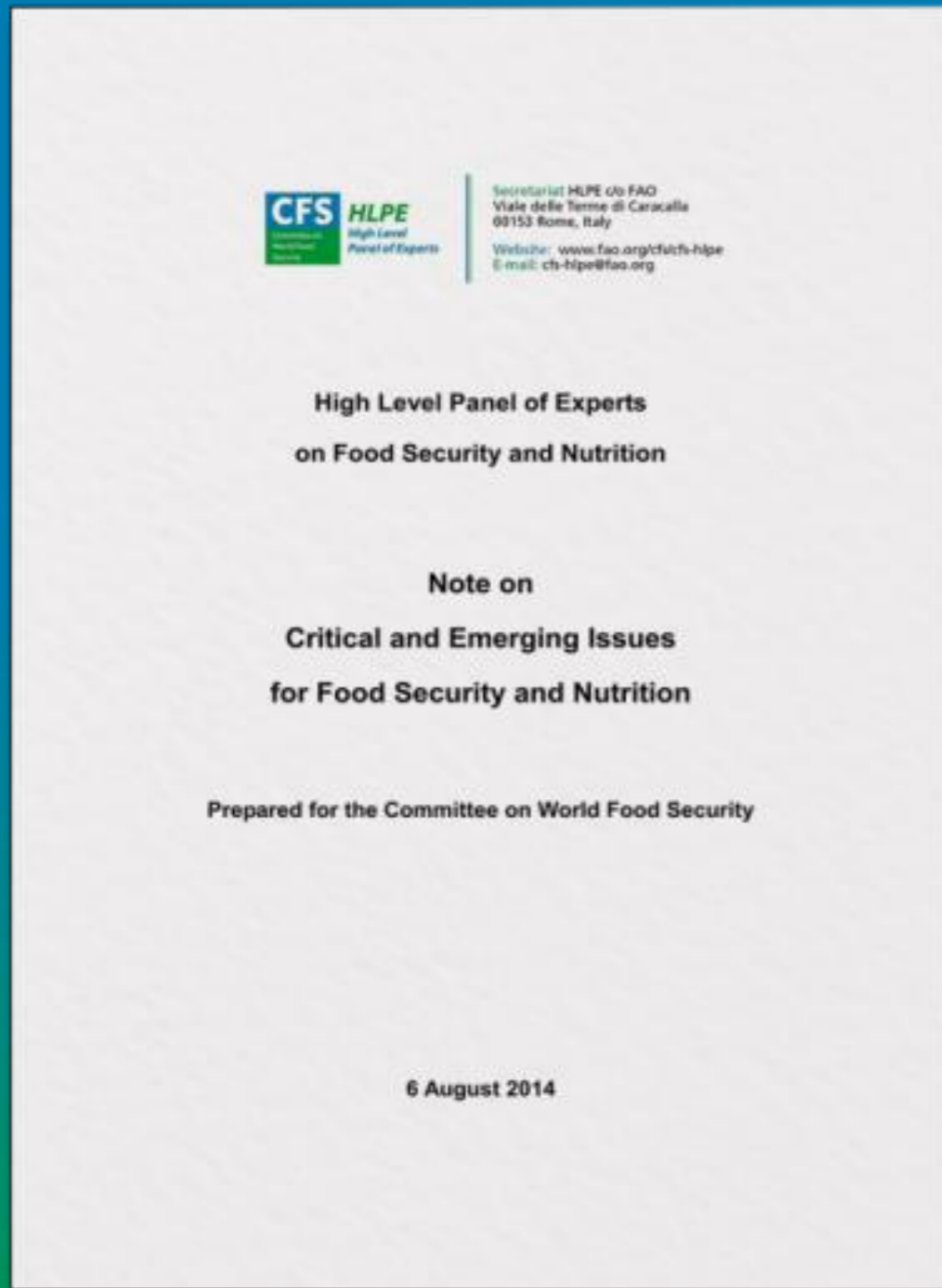


To produce a second note on *Critical and emerging issues* (C&EI) for FSN,

providing insights, through an evidence-based perspective, built on the knowledge of diverse actors

(2<sup>nd</sup> August 2016, confirmed by the Plenary in October 2016)

# First C&EI note in 2014



Critical: *“an issue that has a profound influence on one or more of the dimensions of food security, either directly or indirectly, positively or negatively”*

Emerging: *“an issue for which there are concerns that they could become critical in the future”*

# First note 2014: 5 interrelated issues

Healthy **nutrition**  
in changing food systems  
(Triple Burden, diets, food S)



HLPE report #12 on  
*Nutrition and food systems* (2017)

**Livestock systems** and FSN: challenges  
and opportunities



HLPE report #10 on *SAD for FSN:  
what roles for livestock?* (2016)

**Inequalities** and FSN (resources, access  
food, governance): the imperative of  
addressing the needs of disadvantaged  
and vulnerable populations

The increasing **role of financial markets** in  
FSN (land, products, services, non  
agricultural commodities, financial products

HLPE report #8 on *FLW in the  
context of sustainable food  
systems* (2014)

**Pathways to sustainable food systems:**  
the pursuit of human and environmental  
health for all



HLPE report #10 on *SAD for  
FSN: what roles for livestock?*  
(2016)

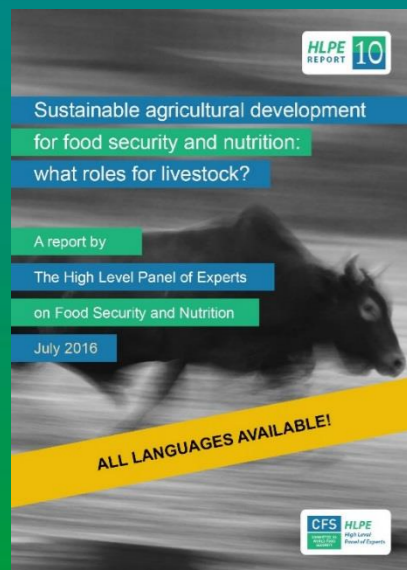
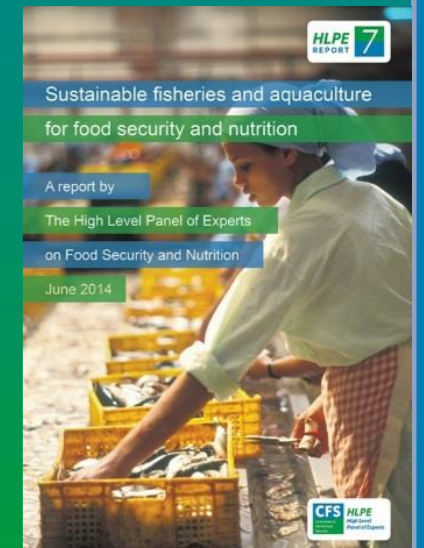
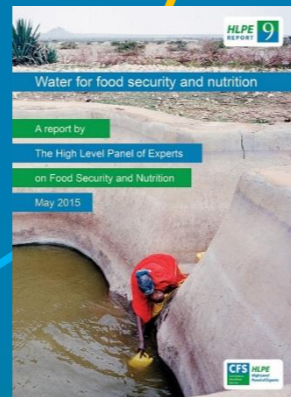
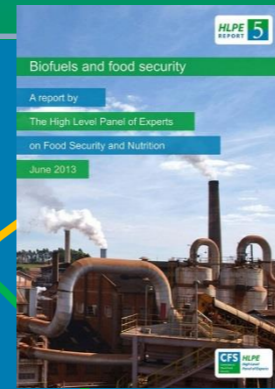
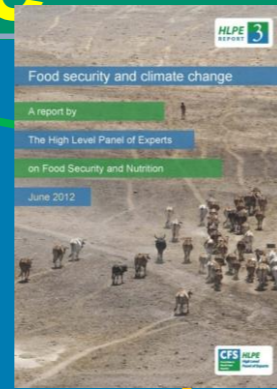
# Past HLPE reports... and SD: a global narrative

**Environment**

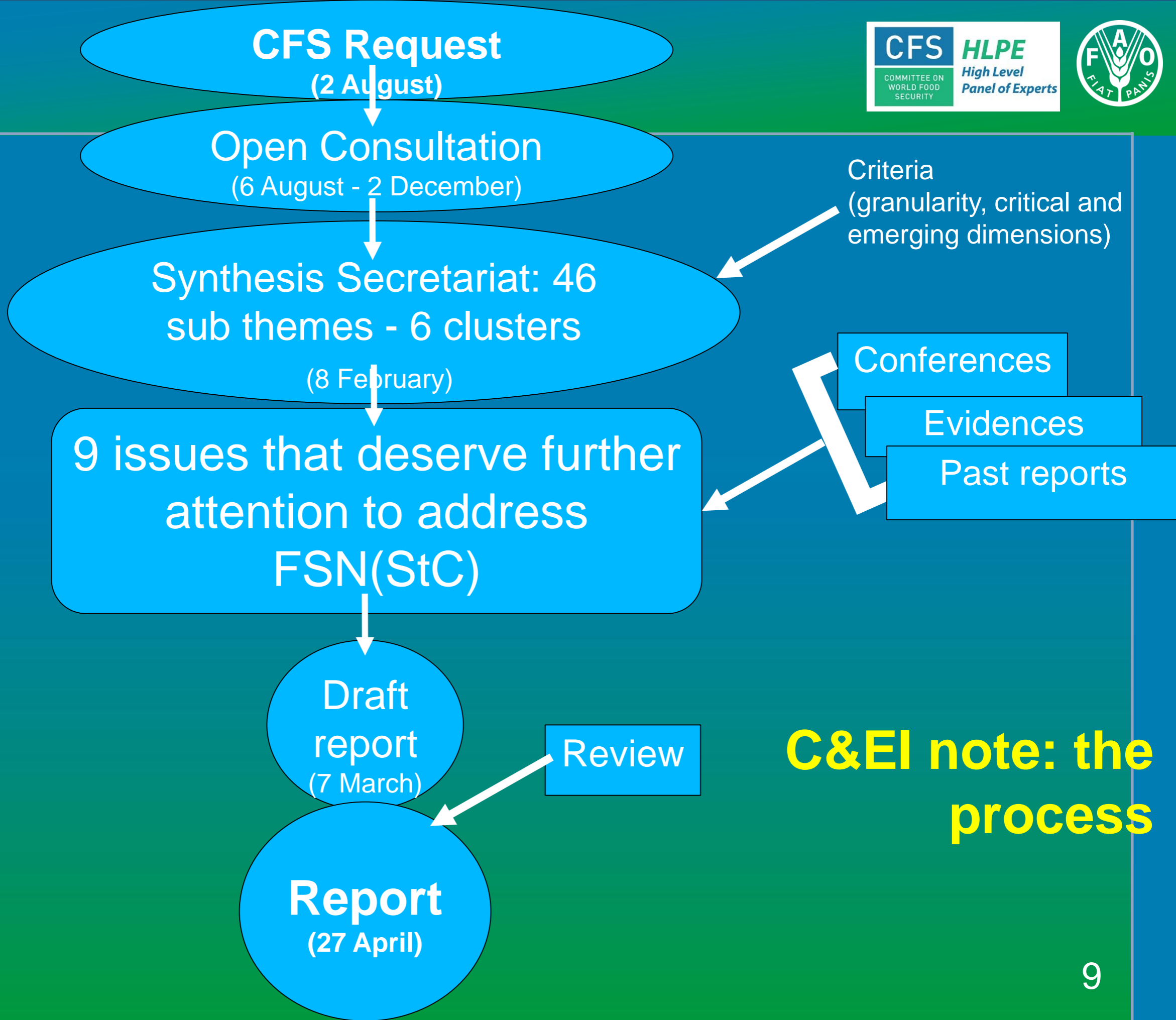
**Economic**

**SD for FSN**

**Social**







**C&EI note: the process**

# Inclusion of diverse forms of knowledge: essential for FSN

The inclusive process itself  
becomes a critical outcome

All information and results of this  
C&EI process available on HLPE website:

[http://www.fao.org/cfs/cfs-hlpe/  
critical-and-emerging-issues/en/](http://www.fao.org/cfs/cfs-hlpe/critical-and-emerging-issues/en/)

# Results of inquiry 2014 - 2017

	2014	2017
Knowledge organizations, institutions and knowledge networks	90 issues (from 25 sources out of 77 invited)	104 issues (from 38 sources out of 180 invited)
Open consultation	42 issues (from 28 sources)	70 issues (from 42 sources)
Total	132 issues 590 pages from 53 contributors	174 issues 915 pages from 80 contributors

# C&EI and the 2030 Agenda

## The 174 issues raised could be classified in 5 blocks

FSN dimension	Thematic clusters	SDGs
Availability	Climate change and natural resource management  Food chains	SDG6 (Water) SDG7 (Energy) SDG12 (Sust. Production) SDG13 (Climate change) SDG14 (Oceans) SDG15 (Terrestrial ecosyst.)
Access	Food chains  Social issues	SDG1 (Poverty reduction) SDG5 (Gender) SDG8 (Economic growth, employment) SDG9 (Infrastructures) SDG10 (Inequalities) SDG11 (Urbanization)
Utilization	Nutrition and Health	SDG3 (Health) SDG12 (Sust. Consumption)
Stability	<i>In the context of climate change and emerging conflicts and migrations</i>	SDG1 (Poverty reduction) SDG8 (Inclusive economic growth) SDG10 (Inequalities) SDG13 (Climate change) SDG16 (Peace)
<i>Means of implementation</i>	Governance  Knowledge and technology	SDG4 (Education) SDG16 (Institutions) SDG17 (Means of implementation and partnerships)

# Final note: 9 main C&E Issues



1. Anticipating the inter-connected future of urbanization and rural transformation
2. Conflicts, migrations and FSN
3. Inequalities, vulnerability, marginalized groups and FSN (reviewing C&EI in 2014)
4. Impacts of trade on FSN
5. Agroecology for FSN in a context of uncertainty and change
6. Agrobiodiversity, genetic resources and modern breeding for FSN
7. Food safety and emerging diseases
8. From technology promises towards knowledge for FSN
9. Strengthening governance of food systems for an improved FSN

## Anticipating the inter-connected future of urbanization and rural transformation

- Context

- Urban population : from 30% (1950) to 66% (2050) (Africa and Asia), yet rural population is expected to grow until 2050
- Africa: 122 million young people to enter the workforce between 2010 and 2020
- Poverty in both rural and urban areas
- Interconnected future of cities and rural areas

- Need for

- inclusive policies at territorial, national and regional levels
- Consider cities as a powerful driver of change and innovation

- Questions

- How to feed huge cities?
- Changes needed in urban dietary patterns and food environments?
- Structural changes in the economy and rural–urban linkages and migration?

## Conflicts, migrations and FSN

- Context
  - Increase of external migration (173 million in 2000, 244 million in 2015); refugees; internal migrants (763 million in 2005)
  - 35 countries, 500 million in 2016 (World Bank, 2016), but 20% world's population 1991 - 2008 (spillover effect)
  - Natural hazards: 2 billion and killed more than 1 million 2003–2013
  - Conflicts x shocks x crises : major driver
  - food production does not cease
- Questions:
  - How do food systems operate in times of conflict?
  - What are the FSN consequences and how do we evaluate FSN in times of conflicts and crises?
  - How could we improve the design of relevant measures to address the impact of crises?

## Inequalities, vulnerability, marginalized groups and FSN (reviewing C&EI in 2014)

- Context
  - Cause of “hunger riots”
  - Role of
    - High level of corporate concentration in food trade, transformation and distribution
    - Unequal endowments in agricultural assets / access to natural resources and to income
  - ethical, economic, social and environmental concerns.
  - Unequal access to food : a driver of many other inequalities and instability
  - serious handicap for social cohesion, economic transformation and political stability
  - Investments for small-scale agriculture may be key
- Need: focus on gender and youth, decent employment
- Questions:
  - How can the reduction of global, regional and national inequalities in income and in access to resources foster sustainable economic and social transformation and improve FSN? Which different pathways ?
  - How can the reduction of inequalities through sustainable food systems and better FSN contribute to conflict prevention, peace building and decrease in migration problems?
  - How can gender mainstreaming approach and youth employment programmes in the agriculture sector and rural areas contribute to social justice and better FSN?



## Impacts of trade on FSN

- Context
  - Rapid expansion : x 3 in value between 2000 and 2012
  - 1/6 obtains staple calories from international trade, 1/2 by 2050
  - Trade affects 4 pillars of FSN in a complex way, both positively and negatively
  - WTO unable to revise rules that govern multilateral trade in agricultural commodities
  - Challenges of financialization (1st HLPE note)
  - Different national strategies: food sovereignty x international trade
    - trade is more important than ever for FSN
    - decline in countries' willingness to trust their food security to international markets and cooperating in the agreement of international trade rules
  - long-standing controversies to address environmental and social concerns :
    - domestic policies that do not distort trade?
    - Stimulation of markets, with possible market interventions ?
    - local markets as a priority ?
- Questions:
  - How can policy help markets better capture the “true costs of production”, including externalities?
  - How can competition be ensured while respecting the very different political objectives and legal capacities of different countries
  - How to reconcile the competing and sometimes contradictory demands of international trade and local and subregional markets?
  - What next steps for developing trade strategies that respect food security and nutrition needs?
  - basis for multilateral negotiations in the context of trade for FSN?
  - How might trade and investment rules address the increasing concentration in food and agricultural commodity markets?

## Agroecology for FSN in a context of uncertainty and change

- Context
  - traction among scientific, agricultural and political communities : on the map as a pathway to sustainable agricultural development through improved resource efficiency and strengthened resilience of farming systems
  - Diversity: a science, a set of practices and a social movement
- Challenge: how to harness to realize the potential contribution
- Questions:
  - To what extent (controversies and uncertainties) can agroecological innovations improve resource efficiency, strengthen resilience, secure social equity/responsibility and create decent jobs,
    - at different scales,
    - in different contexts?
  - What kinds of markets and regulations are required to support agroecological farming, remunerate farmers and strengthen local, regional, and national economies?
  - How to better integrate different knowledge systems in participatory processes to tailor agroecological innovations to unique and highly diverse local situations?

## Agrobiodiversity, genetic resources and modern breeding for FSN

- **Context**
  - Agrobiodiversity and genetic resources fundamental to improve resource efficiency and strengthen resilience of agroecosystems
  - Modern agricultural practices reduce available agrobiodiversity
  - Focus on limited number of crops (75 % food production based on 12 crops and 5 animal sp.)
- **Need** : assessment of agrobiodiversity trend and roles
- **Questions**
  - Diversification of crop species and food quality?
  - Strengthening of indigenous peoples' and small farmer seed supply systems for FSN? (participatory breeding)
  - Contribution of agrobiodiversity to FSN?
  - Global regulations and investments to address implications of modern breeding on food diversity, food chains, pollinators, intellectual property rights (IPRs) and collective rights, indigenous seeds, ecosystems and gene-flow?

## Food safety and emerging diseases

- Context
  - Contaminated food responsible illnesses and deaths : 31 food-borne hazards caused 600 million food-borne illnesses and 420 000 deaths in 2010
  - 40% among children under five years old
  - Production of safe food key for economic
  - Antimicrobial resistance
- Problems / needs
  - fragmentation of food safety authorities
  - unstable budgets and appropriate infrastructure (cold chains)
  - lack of evidence and awareness about the magnitude
- Questions
  - Initiatives and international standards?
  - How to adapt / apply WHO's Five Keys to Safer Food<sup>9</sup> in diverse countries?
  - Large-scale industrial agricultural model or localized food systems?

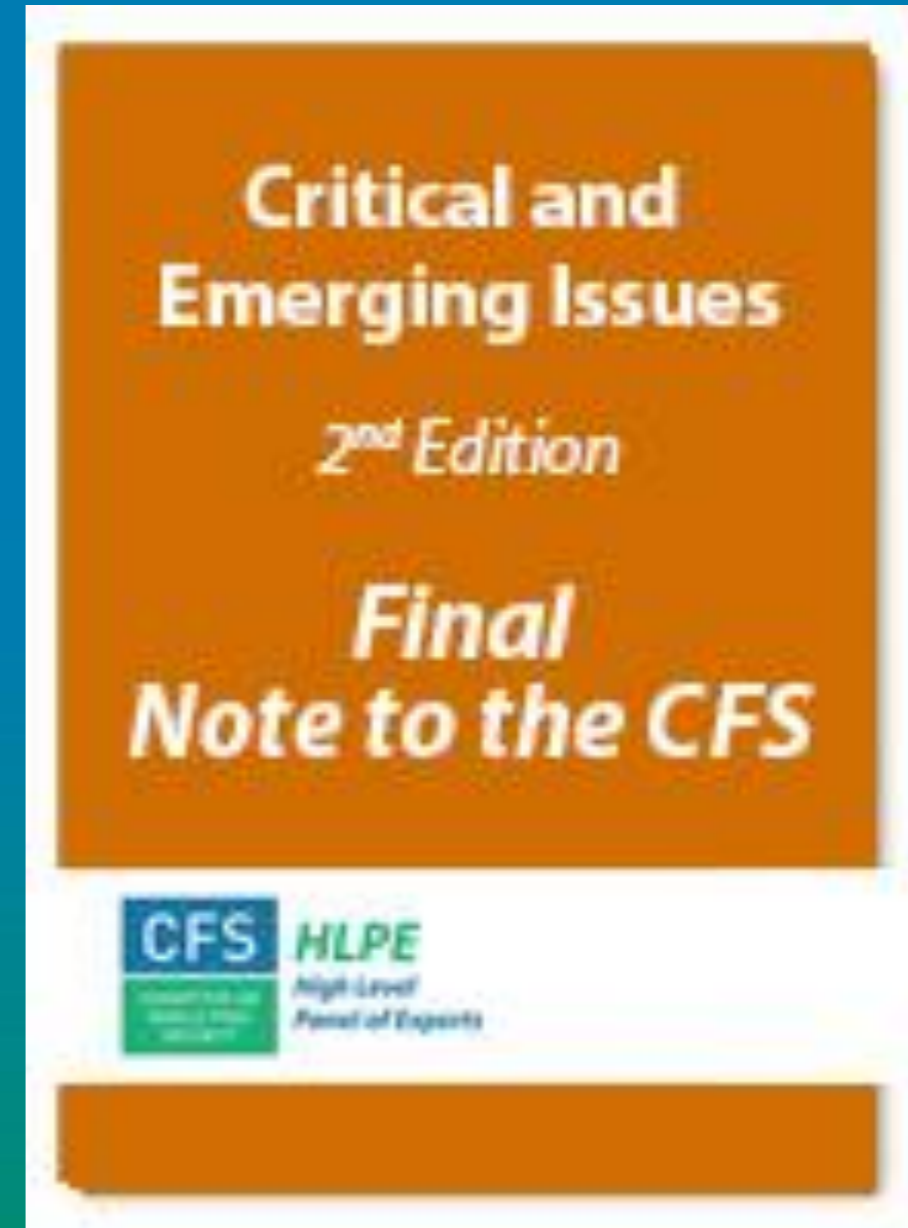
## From technology promises towards knowledge for FSN

- Context
  - Technology : a major engine for past agriculture transformation
  - Technology needed in view of changing circumstances (ex: mechanization)
  - Mobilization of science advances to improve resource efficiency, strengthen resilience and secure social equity/responsibility (digital, nano, genomics=
  - Possible negative impact and risks of technology and innovation
  - Innovation :
    - fine-tuning/adaptation
    - not only design but also fill the technology gap
  - Battle of patents with little concern for poor farmers and consumers FSN
  - Mistrust in certain institutionalized forms of science and controversies about science
- Needs
  - long-term partnerships
  - management of intellectual property rights and collective rights (genetics and big data)
- Questions
  - What knowledge and technologies for FSN?
  - Which processes, partnerships, regulations and institutions for FSN-oriented knowledge and technologies?
  - How to address technology related risks towards and strengthen trust in science?
  - Which statistics and metrics, in particular at the national level?

## Strengthening governance of food systems for an improved FSN

- Context
  - In-depth transformation 20<sup>th</sup> century to feed 7 billion: supermarket revolution, corporate concentration, changes in dietary patterns, emergence of overweight and obesity burden, exponential increase of trade, health, social and environmental consequences
  - New drivers and need for a radical (not just incremental) transformation of food systems to improve FSN and achieve Agenda 2030 (lever in return)
  - Cannot be spontaneous and will rely on an improved governance, adapted policies and policy coherence
    - (i) erosion of social and ecological diversity and resilience
    - (ii) the increasing concentration and power imbalance
    - (iii) inconsistencies and lack of coherence across sectors and scales.
- Need
  - Governance and policies to support co-existence of different farming systems and trade organizations
  - rights-based approach
  - technology patenting, sanitary norms
  - mechanisms to prevent negative and reward positive environmental and social production footprints.
- Questions
  - build upon local initiatives through territorial approaches to design governance and policies?
  - stimulate inclusive and intersectoral functioning of FSN-oriented policies and institutions?
  - support capacity of innovation and address sustainable development beyond local transformation? (consistency and alignment of local, national and international institutional arrangements and regulatory frameworks)
  - integrate FSN concerns in global agreements and conventions?
  - capacity to strengthen accountability and to enforce the right to adequate food?
  - monitoring and evaluation systems to deliver FSN?

# Thank you for your attention



For more information about the HLPE and to download the reports, please visit the HLPE website at: [www.fao.org/cfs/cfs-hlpe](http://www.fao.org/cfs/cfs-hlpe)