Seventh International Conference on Agricultural Statistics

Modernization of **Agricultural Statistics** in Support of the Sustainable Development Agenda

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Modernization of agricultural statistics to respond to new multidimensional demands

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Istituto Nazionale di Statistica

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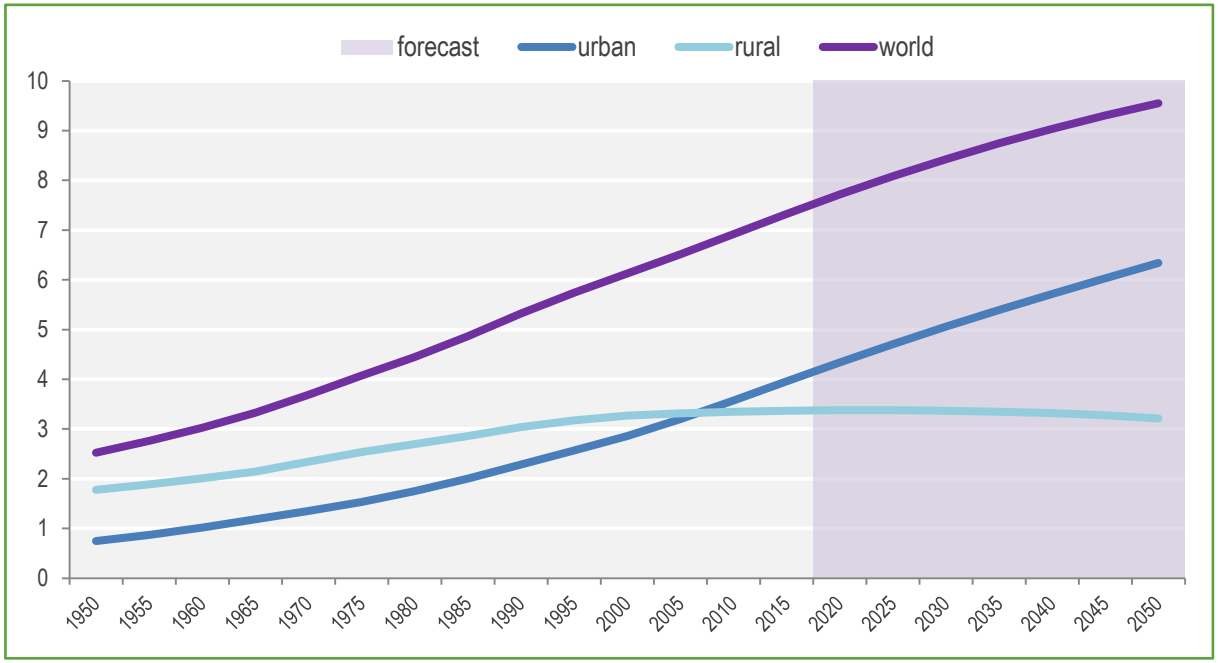
ISTAT

Outline

1. Global agriculture: facts and figures
2. Challenges ahead for agricultural statistics
3. Quality and methodological issues
4. Modernization
5. Conclusions

World population forecasts

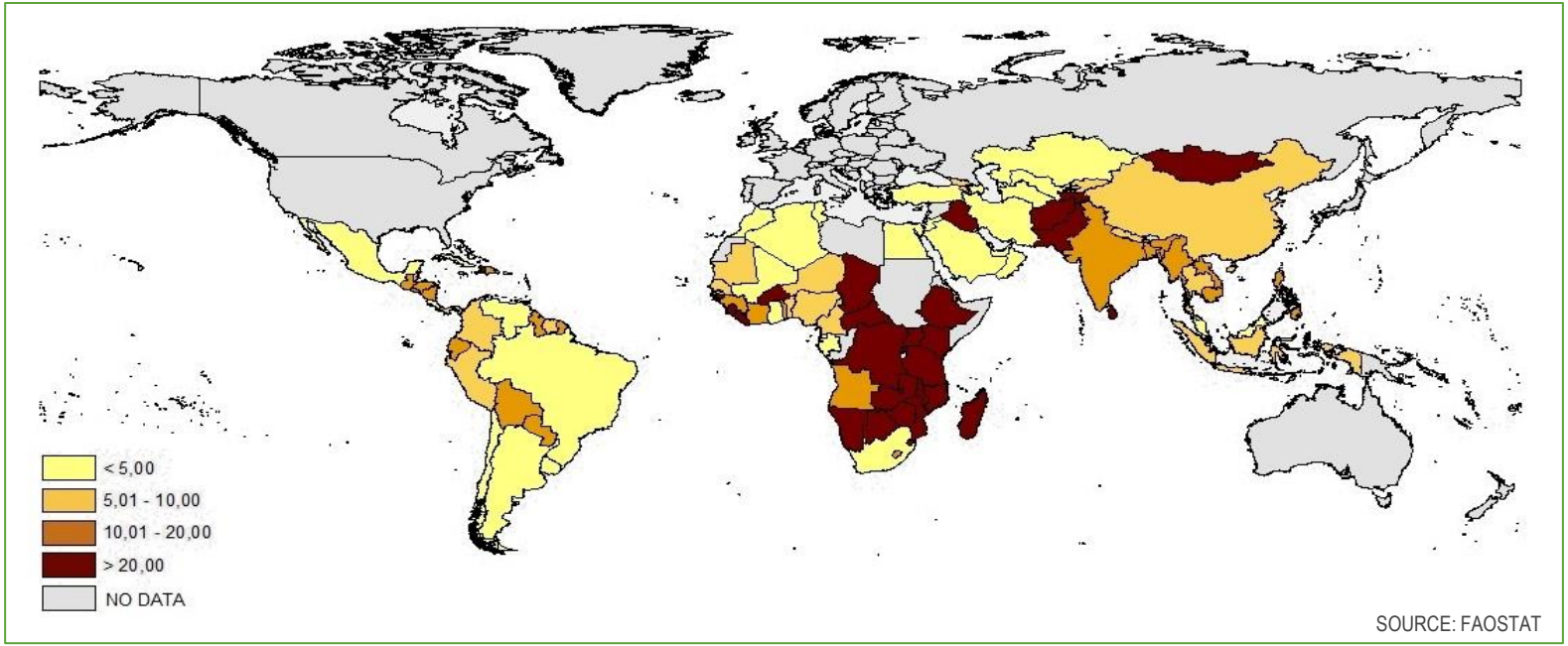


POPULATION AT MID-YEAR,
1950-2050 (BILLIONS)

SOURCE: UN WORLD URBANIZATION PROSPECTS

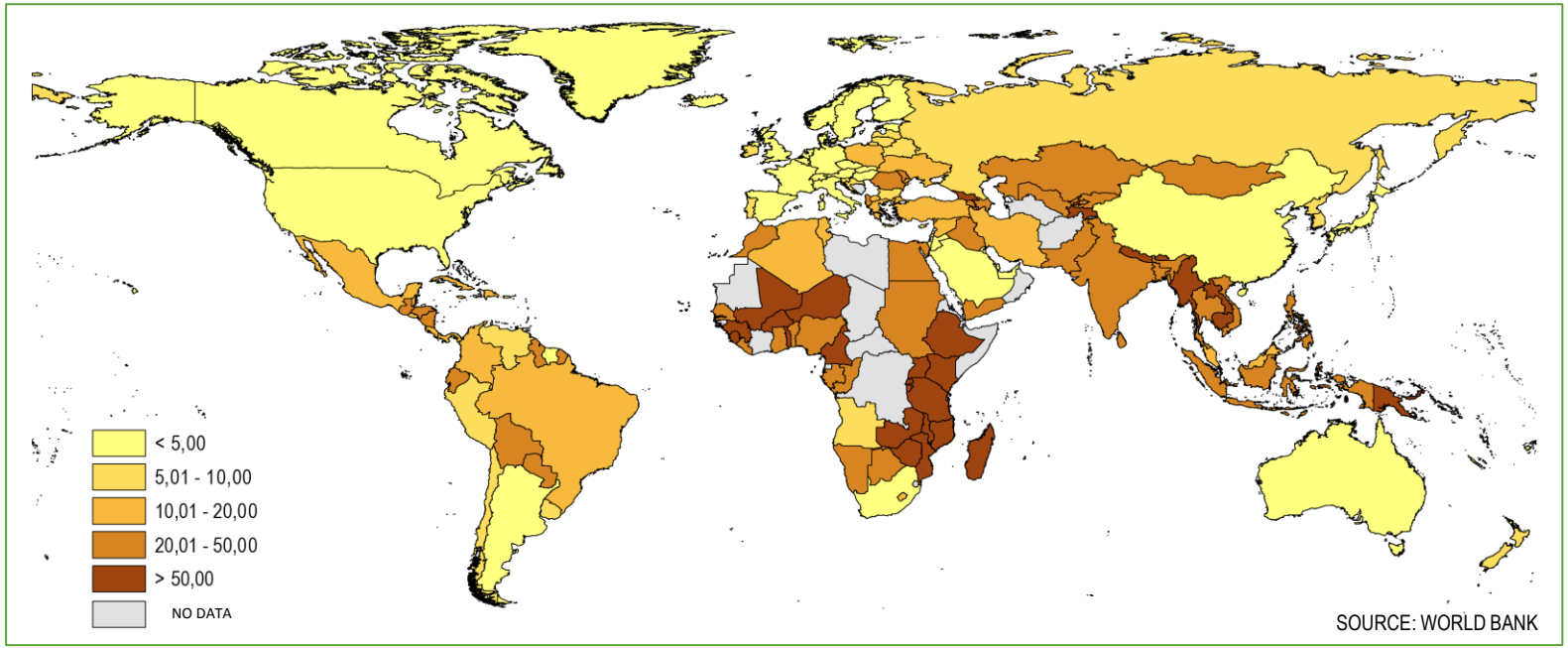
Undernourishment

PEOPLE UNDERNOURISHED, 2014-2016 (PERCENTAGE)

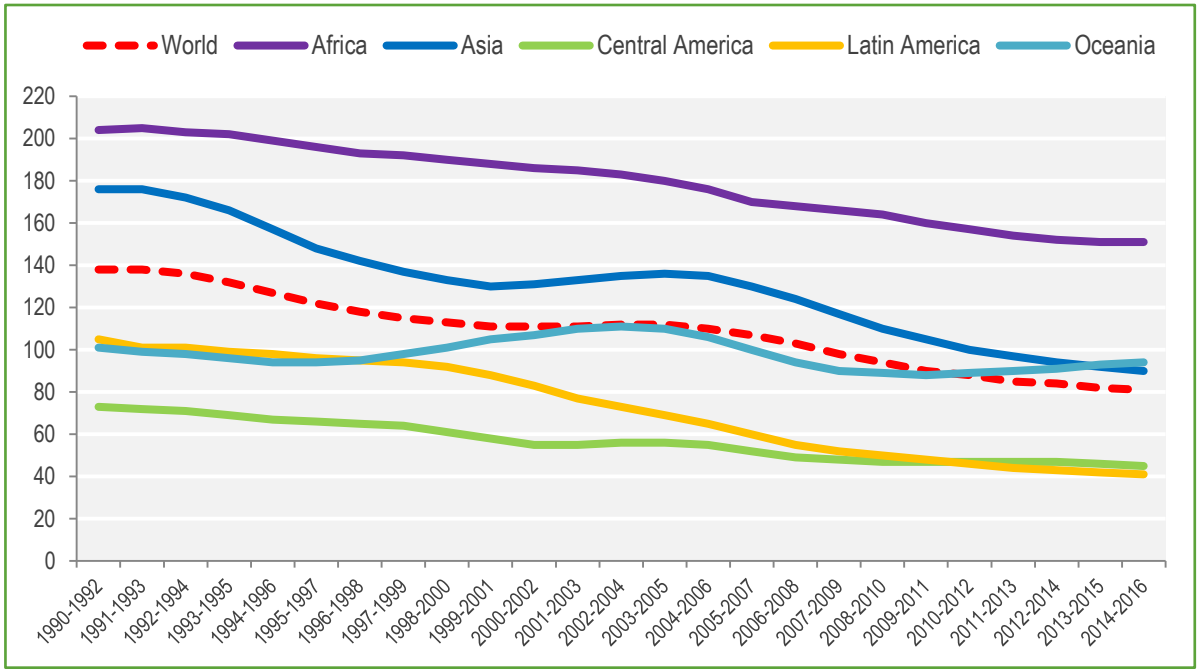


Employment

EMPLOYMENT IN AGRICULTURE, 2014, OTHERWISE LATEST AVAILABLE (PERCENTAGE OF TOTAL EMPLOYMENT)



Food deficit

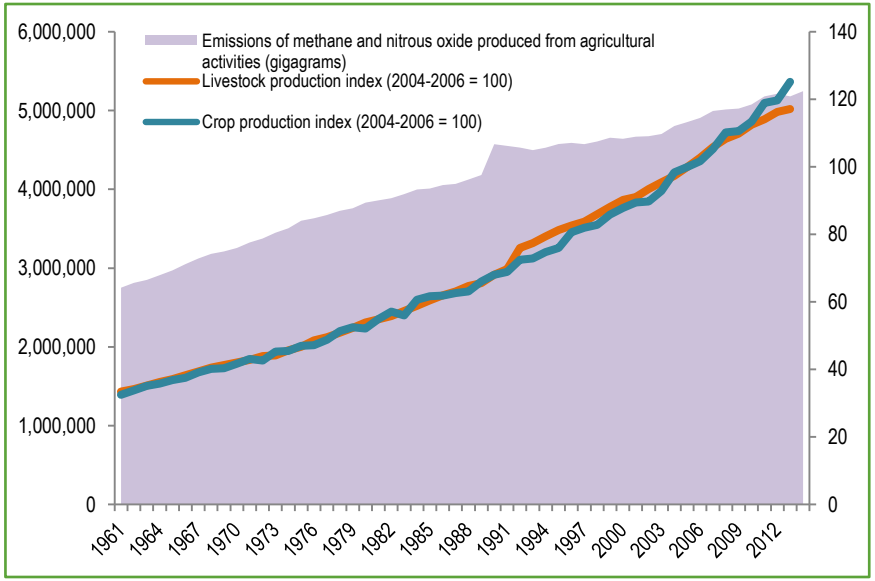


DEPTH OF THE FOOD DEFICIT, 1990-2016– 3 YEAR AVERAGE (KCAL/PER CAPITA/PER DAY)

SOURCE: FAOSTAT

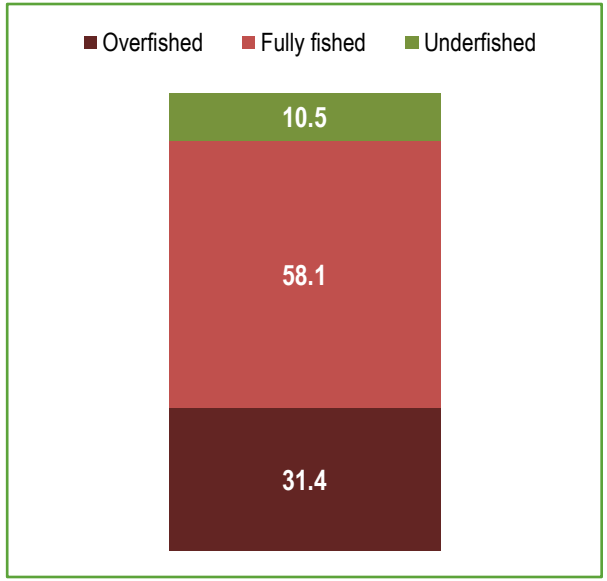
Environmental impact

EMISSIONS AND PRODUCTION,
1961-2014 (ABSOLUTE VALUES, INDEXES)



SOURCE: WORLD BANK

WORLD MARINE FISH STOCKS,
2013 (PERCENTAGE)

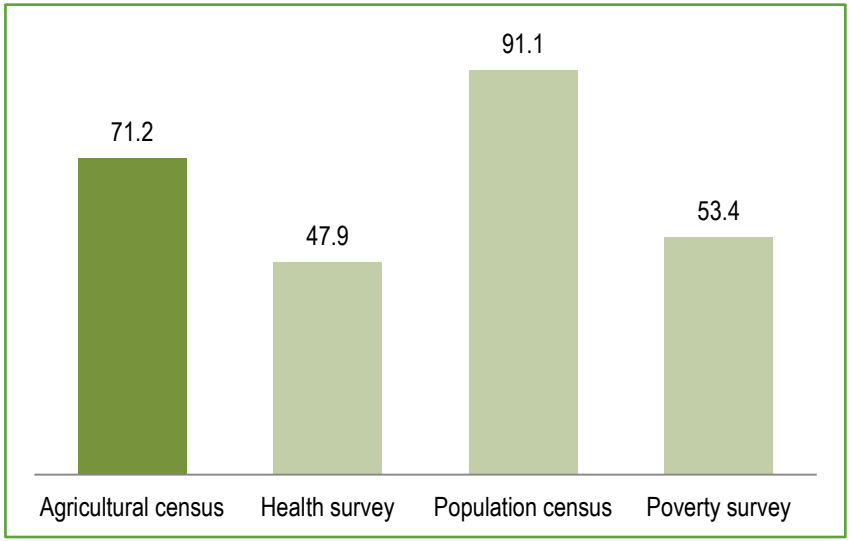


SOURCE: FAO, SOPHIA REPORT 2016

SDGs and agriculture

Statistical capacity

SHARE OF COUNTRIES THAT CONDUCTED DATA COLLECTION ACTIVITIES IN LINE WITH INTERNATIONALLY RECOMMENDED PERIODICITY



SOURCE: WORLD BANK

- Even if data availability has improved under the MDGs, more work and resources are needed to answer to the SDGs challenges
- Today still too many developing countries are lacking the agriculture census

A global system for agricultural statistics

- Producing minimum set of core economic, social, environmental and geographical core data
- Better integrate agricultural statistics into National Statistical Systems
- Improving governance and statistical capacity building

A VISION COHERENT WITH THE MODERNIZATION PERSPECTIVE

Quality

- Relevance
- Reliability
- Effectiveness
- Professional independence
- Sound methodology
- Accuracy
- Timeliness and punctuality
- Coherence and comparability
- Accessibility and clarity

Challenges

- Measure new complex cross-cutting issues
- Reduce the use of surveys and the response burden
- Satisfy multidimensional demand for good quality statistics
- Consistency checks are important especially in case of multiple sources
- Data collections should not be duplicated
- Re-think data capturing systems
- Improve human capital skills

Methodological issues

	SURVEYS	ADMINISTRATIVE DATA	EXPERT ESTIMATIONS	MATHEMATICAL MODELS	REMOTE SENSING	BIG DATA
Cost	*/**	****	***	****	**	**/****
Error	****	**	*	****	***	**/****
Methodological background	****	**	*	****	*	**/***
Timeliness	*/****	**/****	****	****	****	***

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A new paradigm

«We can and must move from a paradigm of producing the best estimates possible from a survey to that of producing the best possible estimates to meet user needs from multiple data sources»

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How to choose between these methods?

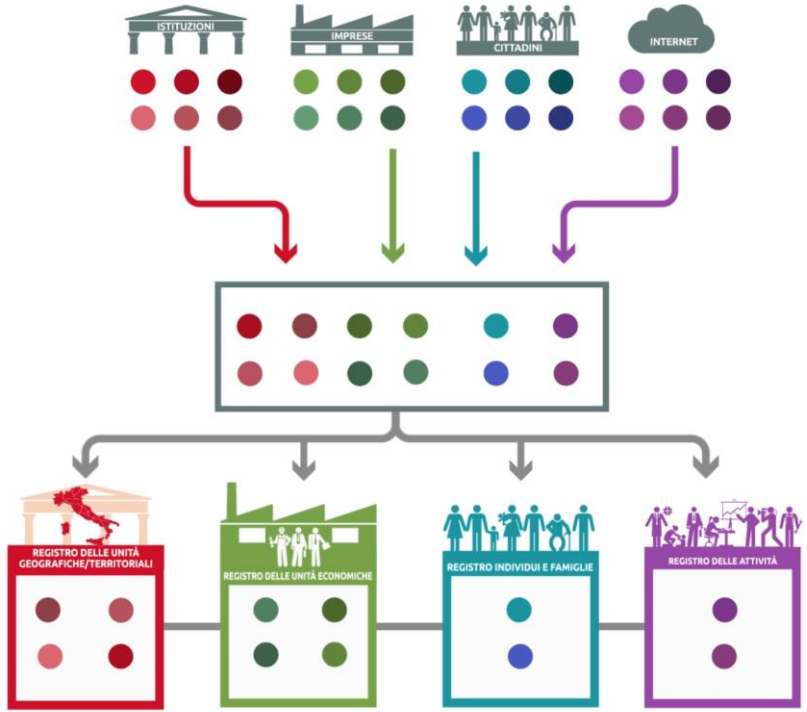
How to combine them?

- Key concepts: data quality, time series continuity, territorial details, efficiency
- Transparency
- Data flows mapping recommended
- Good relationships and synergies with other significant producers

Modernization: drawn value from data

- Assessing users needs
- Giving incentives to sustain data quality
- Integrating and linking data
- Implementing a sound legal framework
- Enhancing and reorienting skills
- Moving from 'silo' model
- Reducing burden
- Increasing technology use

Modernization: the register-based statistical system



World Program for the Census of Agriculture

- The World Program for the Census of Agriculture is setting definitions, concepts, standards and guidelines to ensure comparability across Countries
- WCA 2020 examines 4 different possibilities for census (classical, modular, integrated census/survey, combined with administrative data)
- Focus on ICT use

Key words

TRUST

QUALITY

COMPETENCIES

RESEARCH

PARTNERSHIP

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THANK YOU

and enjoy
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