

Poverty and Sustainability

Tensions and innovative solutions in the food system

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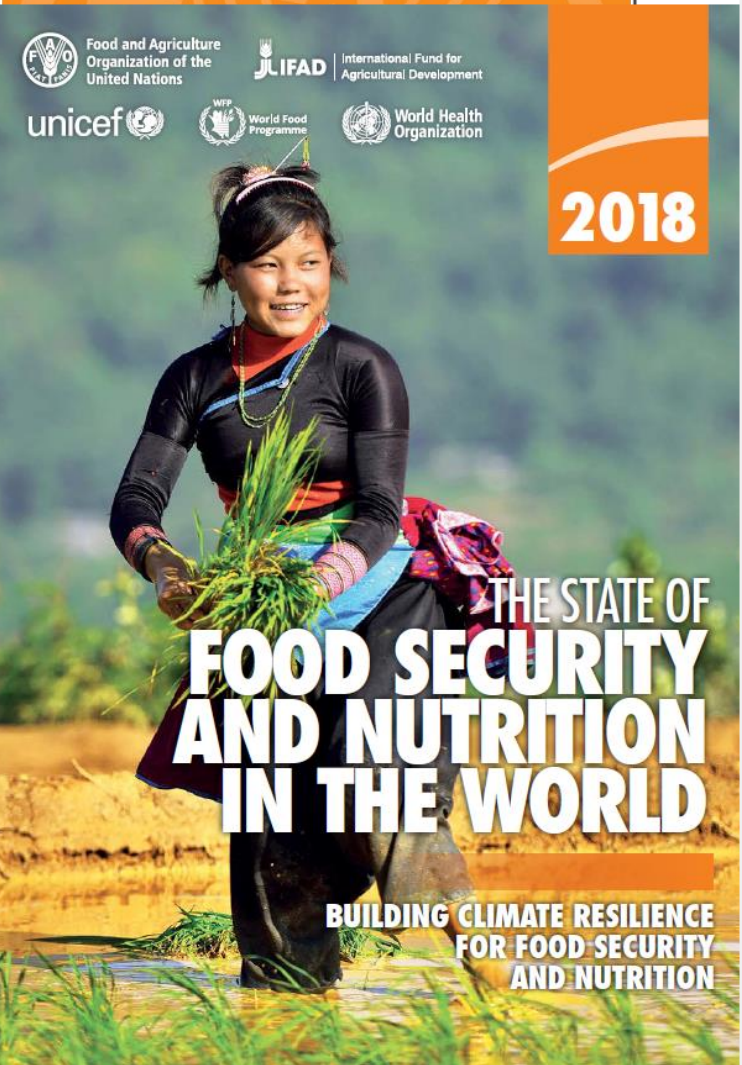
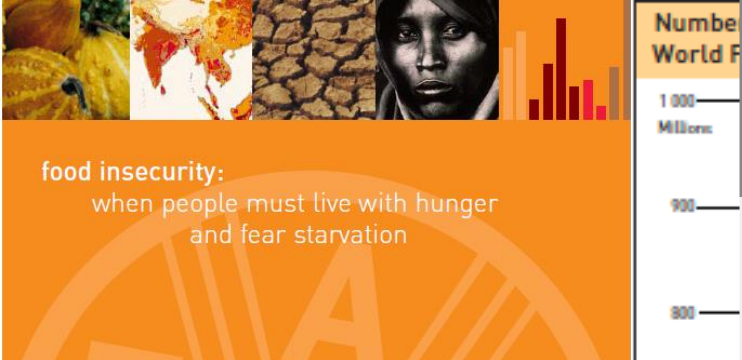
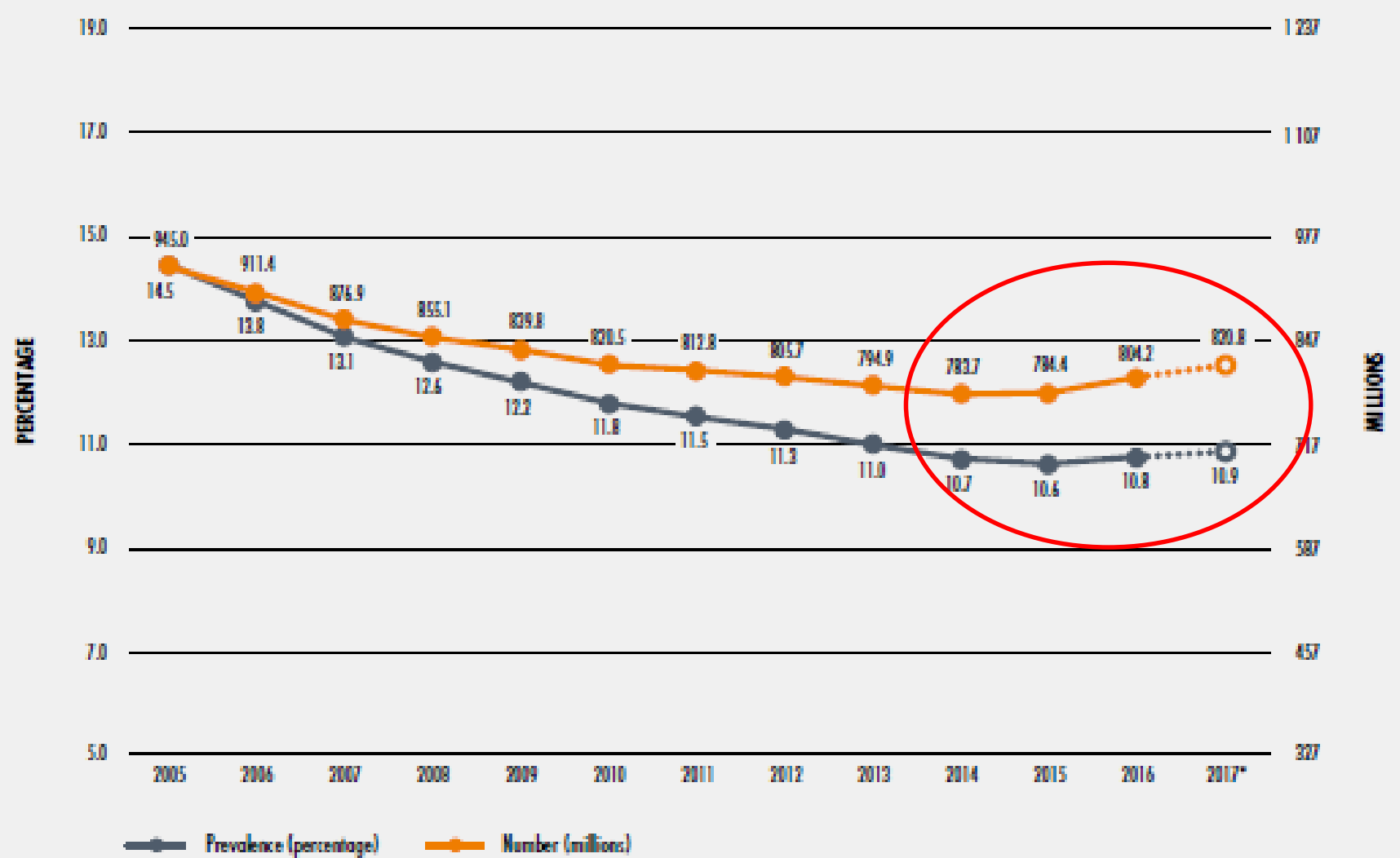


FIGURE 1
THE NUMBER OF UNDERNOURISHED PEOPLE IN THE WORLD HAS BEEN ON THE RISE SINCE 2014, REACHING AN ESTIMATED 821 MILLION IN 2017



* Projected values, illustrated by dotted lines and empty circles.
 SOURCE: FAO.

The terms of the debate changed...



Tweet



José Graziano da Silva ✓
@grazianodasilva

We know how to fight [#hunger](#), as most of it is concentrated where is [#conflict](#). But as a fast-growing epidemics, [#obesity](#) seems out of control. Promoting sustainable food systems to boost diets that are healthy, local & culturally diverse is fundamental to solve this issue



November 21, 2014

ICN2 Second International Conference on Nutrition

FAO Headquarters, Rome, Italy

At the end of the Second International Conference on Nutrition, representatives from more than 170 countries, together with around 150 from civil society and nearly 100 from the business community, reaffirmed "the right of everyone to have access to safe, sufficient, and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger". Together with the Framework for Action, the Rome Declaration on Nutrition provides the common path for actions to eradicate malnutrition and transform food systems for nutritious diets for all.

[website](#)

[Rome Declaration on Nutrition](#)

[Framework for Action](#)



SEPTEMBER
25, 2015

Adoption of the
2030 Agenda for
Sustainable
Development



Healthy Diets From
Sustainable Food Systems

Food Planet Health

... as did the metric

The Food Insecurity Experience Scale SDG indicator 2.1.2

Eight Key Questions

The FIES Survey Module (FIES-SM) consists of eight questions regarding people's access to adequate food, and can be easily integrated into various types of population surveys

The FIES Survey Module

The FIES-SM questions refer to the experiences of the individual respondent or of the respondent's household as a whole. The questions focus on self-reported food-related behaviors and experiences associated with increasing difficulties in accessing food due to resource constraints.

During the last 12 months, was there a time when, because of lack of money or other resources:

1. You were worried you would not have enough food to eat?
2. You were unable to eat healthy and nutritious food?
3. You ate only a few kinds of foods?
4. You had to skip a meal?
5. You ate less than you thought you should?
6. Your household ran out of food?
7. You were hungry but did not eat?
8. You went without eating for a whole day?

The set of eight questions compose a scale that covers a range of severity of food insecurity:

mild food insecurity

moderate food insecurity

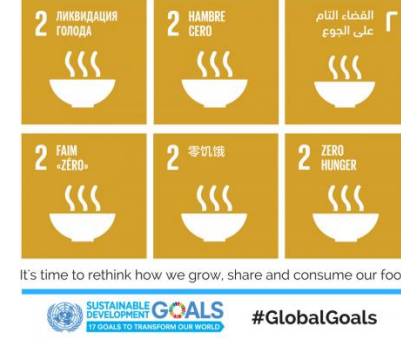
severe food insecurity

worrying about
ability
to obtain food

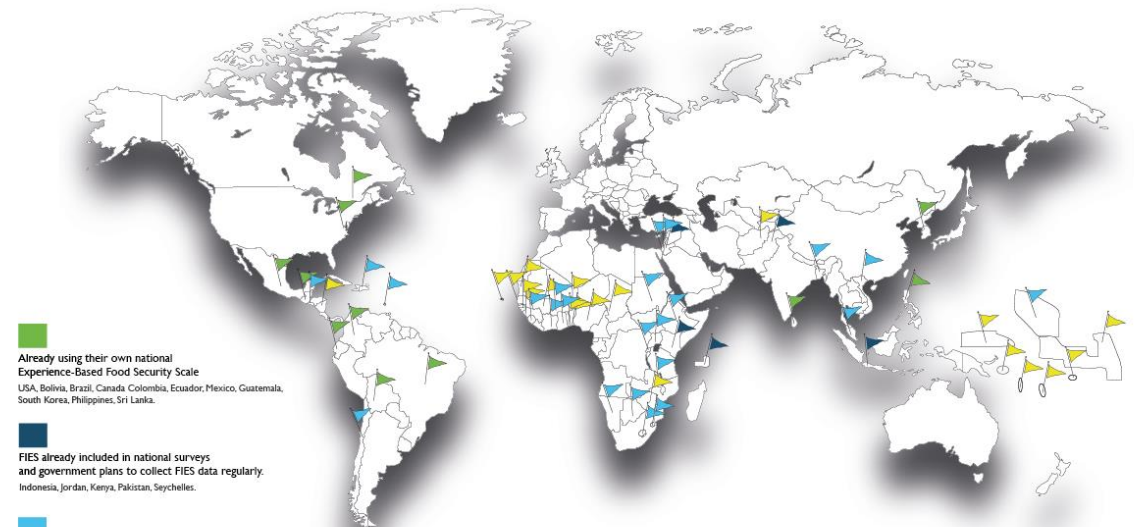
compromising
quality and variety
of food

reducing quantities,
skipping meals

experiencing
hunger



Voices of the Hungry



Already using their own national Experience-Based Food Security Scale
USA, Bolivia, Brazil, Canada, Colombia, Ecuador, Mexico, Guatemala, South Korea, Philippines, Sri Lanka.

FIES already included in national surveys and government plans to collect FIES data regularly.
Indonesia, Jordan, Kenya, Pakistan, Seychelles.

FIES or similar scales already included in national surveys
Bangladesh, Botswana, Burkina Faso, Chile, Cote d'Ivoire, Dominican Republic, El Salvador, Ethiopia, Ghana, Israel, Lesotho, Malawi, Malaysia, Marshall Islands, Namibia, Palestine, Rwanda, Sierra Leone, St. Lucia, Sudan, Swaziland, Uganda, Vietnam.


Plans in place to include FIES in national surveys
Afghanistan, Benin, Cabo Verde, Chad, Guinea, Guinea-Bissau, Honduras, Kiribati, Mauritania, Mali, Micronesia, Nicaragua, Niger, Nigeria, Samoa, Senegal, Solomon Islands, Togo, Tokelau, Tonga, Vanuatu, Zimbabwe.

September 25th, 2018

Experience-based food security assessment takes off! Watch as it builds momentum.

While several countries have used experience-based food security scales to monitor their national food security over recent decades, the development of a global version of such a tool marks the beginning of a new era. The Food Insecurity Experience Scale (FIES) is being adopted by an increasing number of countries and is gaining momentum worldwide, as they recognize its numerous advantages: simplicity, reliability, and the ability to produce results that speak to people and can effect change. This map shows countries in different stages of adopting the FIES, with the goal of being able to report on SDG indicator 2.1.2 as well as use their results to inform national food security policy.

Sustainable production *and* consumption




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Goal 12: Ensure sustainable consumption and production patterns

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Sustainable consumption and production is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and a better quality of life for all. Its implementation helps to achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty.

At the current time, material consumption of natural resources is increasing, particularly within Eastern Asia. Countries are also continuing to address challenges regarding air, water and soil pollution.

Since sustainable consumption and production aims at “doing more and better with less,” net welfare gains from economic activities can increase by reducing resource use, degradation and pollution along the whole life cycle, while increasing quality of life. There also needs to be significant focus on operating on supply chain, involving everyone from producer to final consumer. This includes educating consumers on sustainable consumption and lifestyles, providing them with adequate information through standards and labels and engaging in sustainable public procurement, among others.

SDG GOALS

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

FOOD SUSTAINABILITY INDEX 2017

KEY GLOBAL FINDINGS

The Food Sustainability Index (FSI) ranks 34 countries according to their food system sustainability. The FSI aims to highlight issues of concern across three pillars: food loss and waste; sustainable agriculture; and nutritional challenges. It is a quantitative and qualitative benchmarking model that allows for comparison between countries and pillars, thus contributing to the shift towards more sustainable food systems.

More details on the findings, scope and methodology can be found here: foodsustainability.eiu.com

FOOD AND NUTRITION ARE RELEVANT FOR ACHIEVING ALL SUSTAINABLE DEVELOPMENT GOALS (SDGS)

Food and nutrition represent a common thread linking the 17 SDGs adopted by UN member states in 2015. The UN's 2030 Agenda for Sustainable Development incorporates a number of far-reaching goals, including an end to poverty and hunger, improvements in health and the protection of the environment.

1 PEOPLE

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

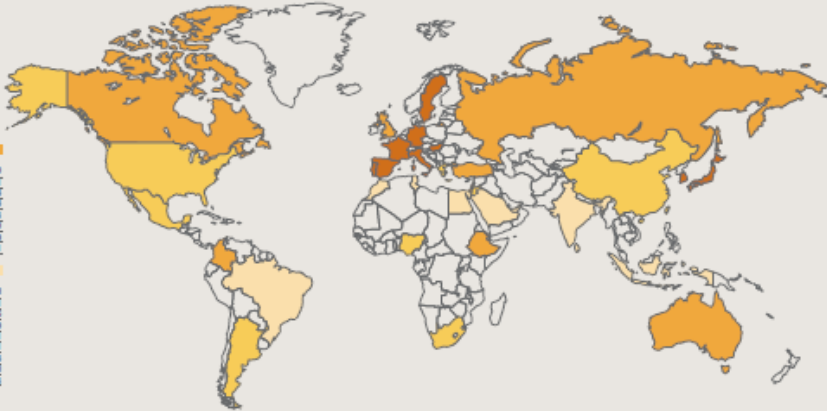
14 LIFE BELOW WATER

15 LIFE ON LAND

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS

GLOBAL RESULTS



TOP QUANTILE	MIDDLE QUANTILE	BOTTOM QUANTILE
(score 60.4 to 67.4)	(score 49.4 to 58.9)	(score 40.4 to 49.9)
France 74.8	UK 68.0	Senegal 37.7
Japan 72.9	Canada 67.7	Brazil 36.9
Germany 70.2	Chile 66.4	Morocco 33.0
Spain 70.4	Colombia 64.4	Turkey 31.7
Sweden 68.7	Australia 63.5	Laos 31.1
Portugal 68.5	Israel 63.0	Malawi 30.4
Italy 68.0	Turkey 61.9	India 30.3
South Korea 65.0	Russia 61.1	
Hungary 60.4		

HUMAN DEVELOPMENT AND FOOD SUSTAINABILITY: MODERATE POSITIVE CORRELATION

The Human Development Index (HDI) combines three broad indicators: 1) health; 2) education; and 3) income. Countries with a high HDI tend to also perform relatively well in the FSI (the correlation coefficient is 0.45, with -1 representing a perfect negative correlation and 1 a perfect positive correlation).
Note: correlation does not prove causation.

GERMANY ranks **2ND** out of the 34 countries for the HDI and **3RD** for the FSI.

INDIA ranks **32ND** out of the 34 countries for the HDI and **33RD** for the FSI.

URBANISATION AND FOOD SUSTAINABILITY: MODERATE NEGATIVE CORRELATION

Countries experiencing rapid urbanisation tend to do moderately worse in the FSI ranking than countries with slower urban population growth (the correlation coefficient is -0.41, with -1 representing a perfect negative correlation and 1 a perfect positive correlation).
Note: correlation does not prove causation.

ETHIOPIA, the country with the **highest** urbanisation rate (4.8%), ranks **12TH** in the FSI.

FRANCE, the **top-performing** country in the overall FSI, ranks only **26TH** in terms of urbanisation.

Sources: Economist Intelligence Unit data searches (national policy documents, literature searches, primary research), UN, UNDP, World Bank.



One planet
consume and produce with care



- Accelerate the shift towards SCP, supporting regional and national policies and initiatives.
- **Contributing to resource efficiency and decoupling economic growth from environmental degradation and resource use, while creating decent jobs and economic opportunities and contributing to poverty eradication and shared prosperity.**
- **Mainstream SCP into sustainable development policies**, programmes and strategies, as appropriate, including into poverty reduction strategies.
- **Support capacity building and facilitate access to financial and technical assistance** for developing countries, supporting the implementation of SCP activities at the regional, sub-regional and national levels.
- **Enable all stakeholders to share information and knowledge on SCP** tools, initiatives and best practices, raising awareness and enhancing cooperation and development of new partnerships – including public-private partnerships.



One planet
eat with care

Sustainable
Food Systems

Co-leads



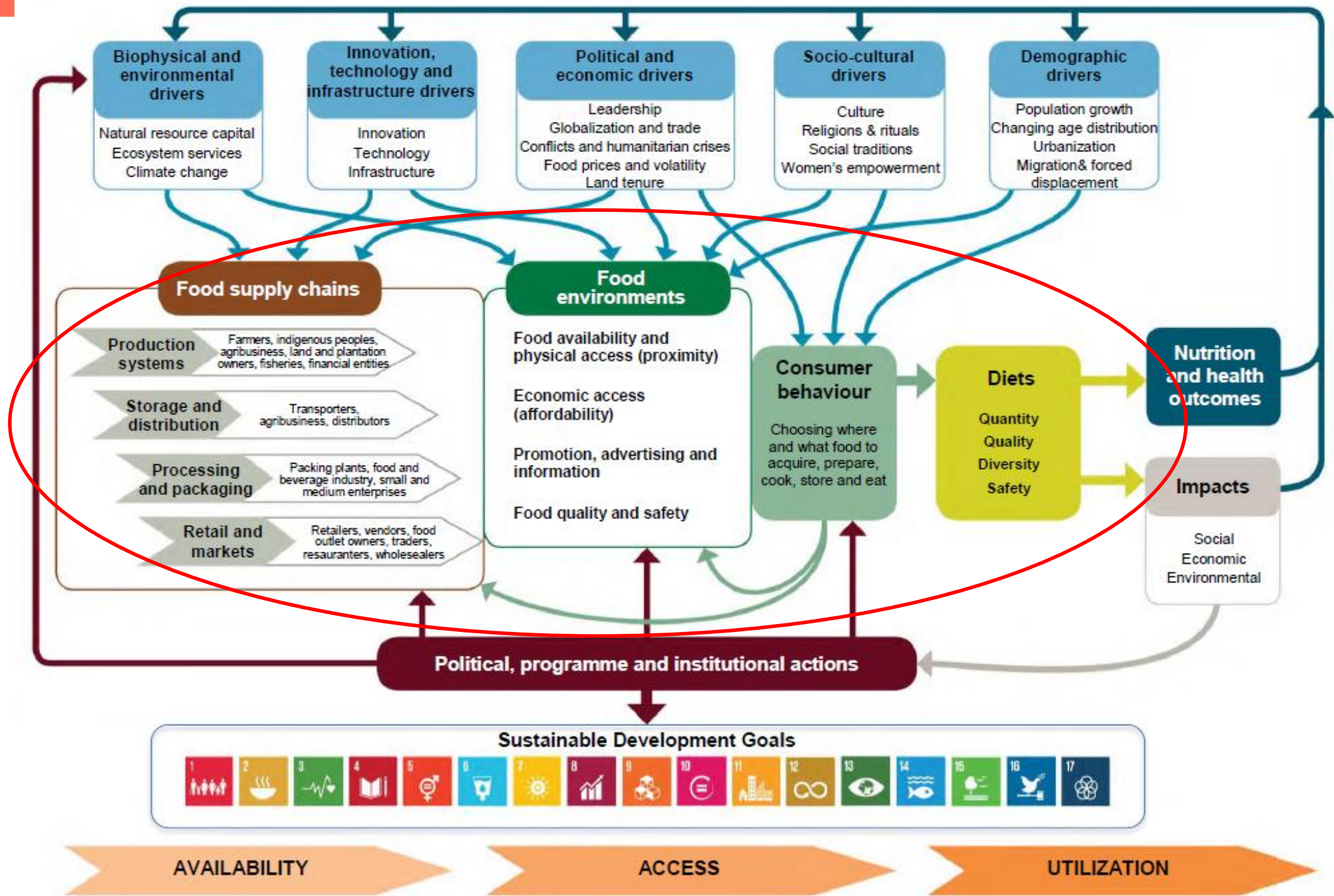
the dti
Department
Trade and Industry
REPUBLIC OF SOUTH AFRICA



Multi-actor steering committee

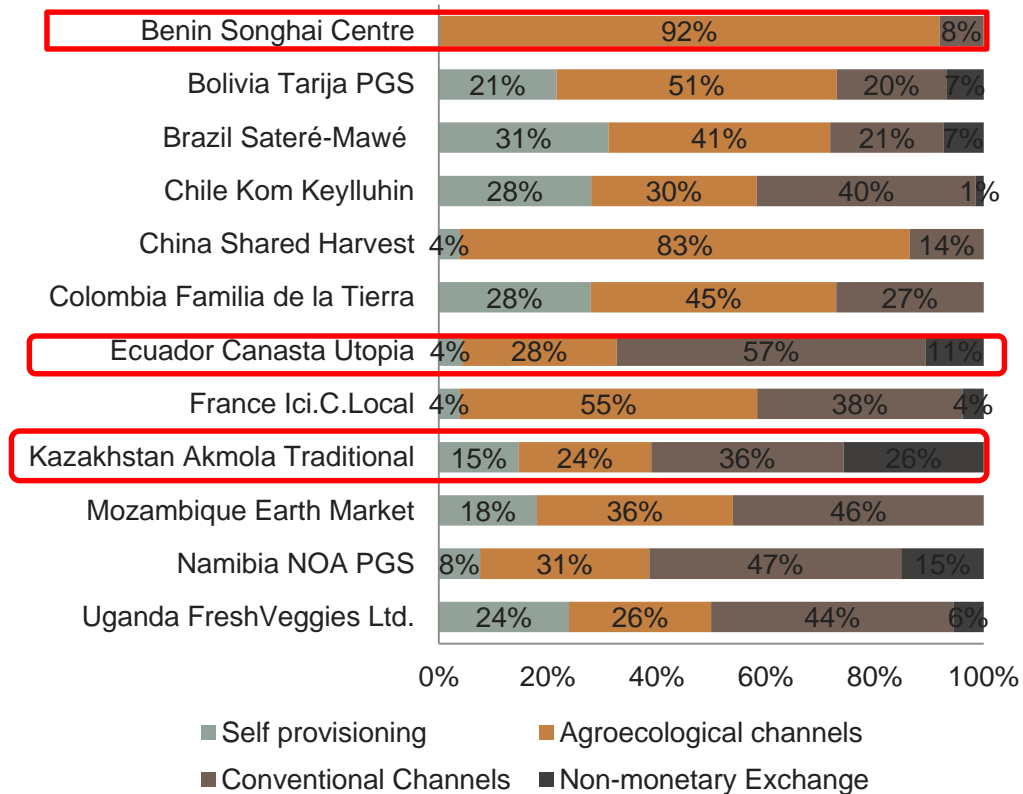


Figure 1 Conceptual framework of food systems for diets and nutrition

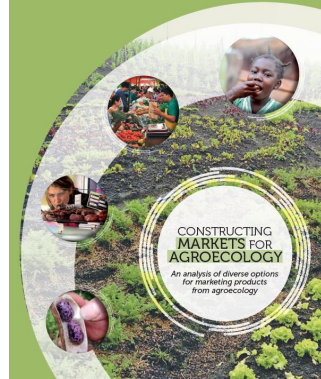
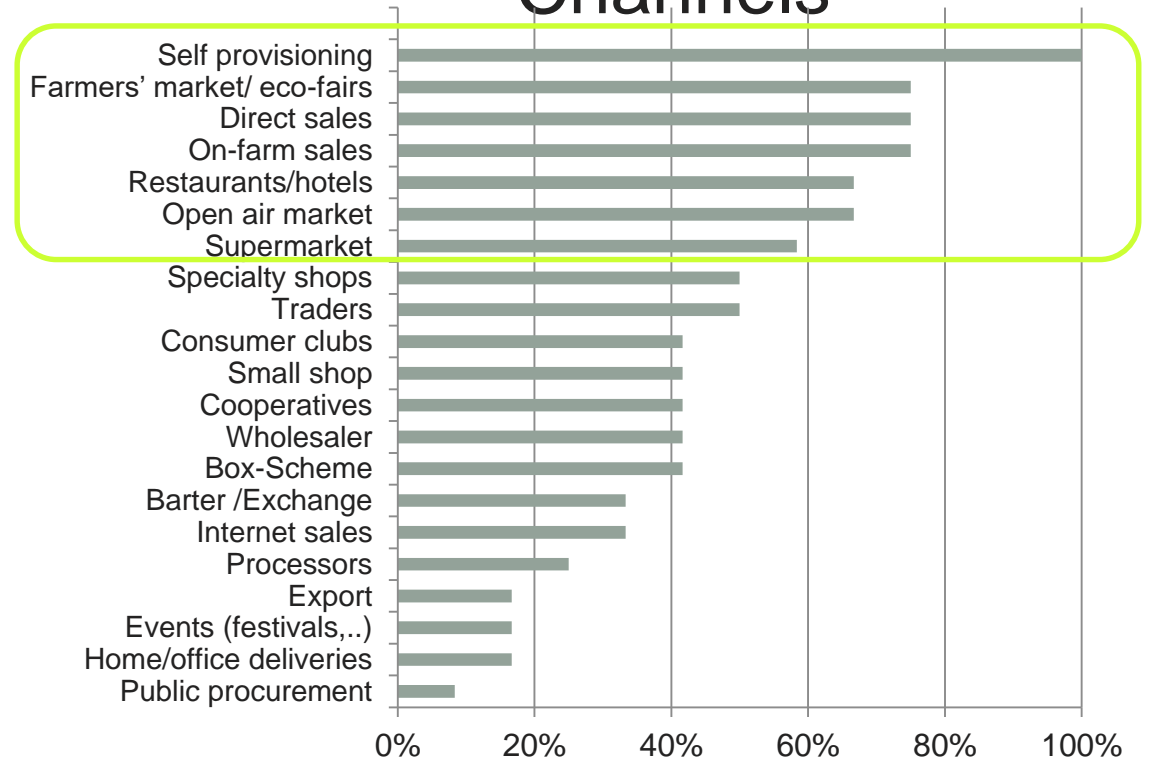


Connecting to markets and (re)localizing...

■ Diversity of exchanges



■ Diversity of Agroecological Channels



Innovation is a collective process – not only a new technology!

- An innovation is a journey (Van de Ven et al. 1999)
- “An innovation occurs when new ideas, new technical devices or new forms of organisation meet their users” (Joly 2011).
- “Innovation is not simply a technology (or a technical object), it must be the reorganization of institutions, organizations, value chains, businesses to enable actors to innovate on their own terms” (Felt et al., 2007)

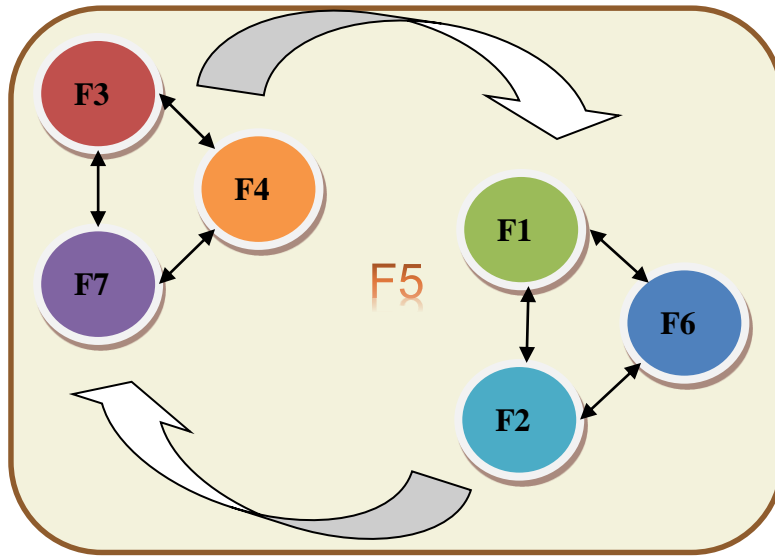


The linkages between innovations and markets – not only commercialisation of new products



- Markets are : “the collective devices that allow compromises to be reached, not only on the nature of goods to produce and distribute but also on the value to be given to them” (Callon and Muniesa, 2005).
- Re-organization of rules and re-allocation of responsibilities between actors provides space for innovation through markets.
- Institutional Innovations are new situations, not necessarily new knowledge (or technologies).

Innovations in certification



Legend of the functions needed :

F1 = entrepreneurial activity

F2 = knowledge creation

F3 = knowledge creation through networks

F4 = guiding vision

F5 = market formation

F6 = resources mobilisation

F7 = creation of legitimacy

- The focus is on **an alternative form of certification** (based on free or low-cost peer review) and farmer-led experimentation
- Begins with partnerships between farmers, consumers and intermediaries (including service providers, organic movements)
- Uses local and national knowledge (and harmonized international organic standards)
- Initial legitimacy comes from within the group, then outside recognition
- New local markets created based on direct contact with consumers: farm visits, farmers' markets, internet sales and supermarkets used
- Changes in rules for organic production, internal organization and the sharing of roles and responsibilities among different people

Bolivia: Public procurement for local agroecological food

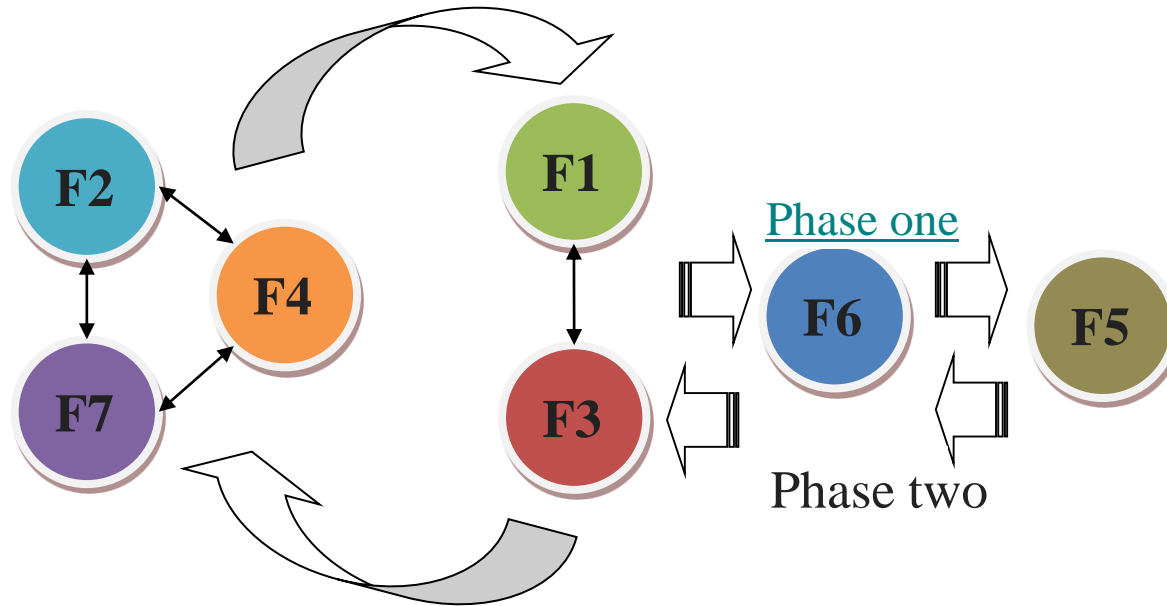
- National regulation for Ecologic Agriculture
 - 2006 - Export = 3PC, Domestic = PGS
 - Within the PGS, if one farmer does pass, the whole group doesn't pass
 - Registration with Food Safety Authority
- School Breakfast
 - Camelidos/Quinoa production system
 - Local, traditional products
 - PGS as the registration mechanism
 - Direct procurement from local farm families
 - Farmers also selling in the monthly



ISIS



Innovations in knowledge creation

Legend of the functions needed:F1 = entrepreneurial activityF2 = knowledge creationF3 = knowledge creation through networksF4 = guiding visionF5 = market formationF6 = resources mobilisationF7 = creation of legitimacy

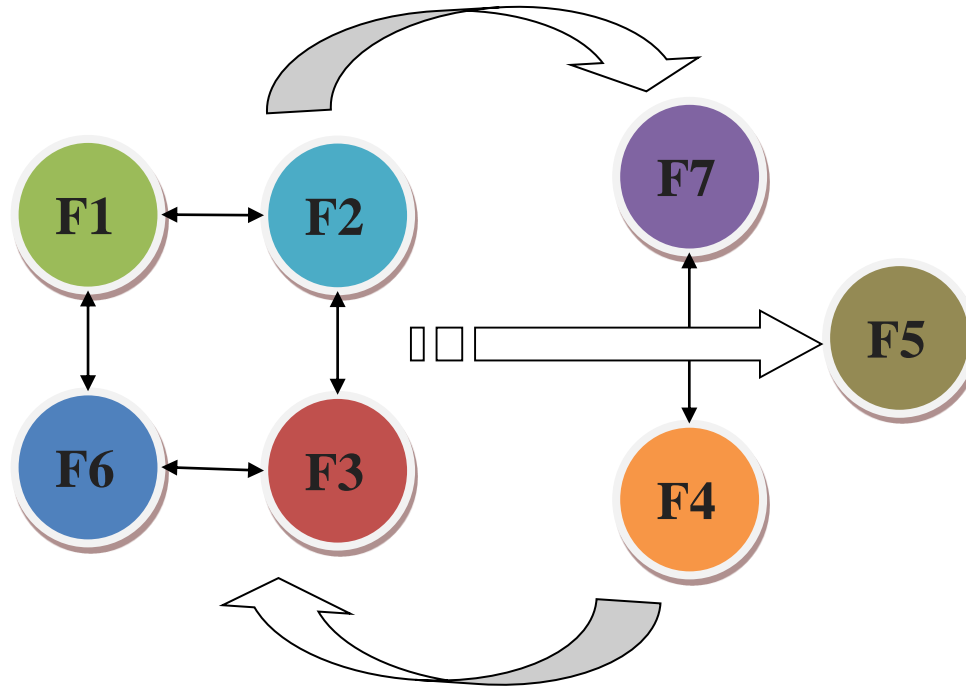
- Focus on **specific technologies & farmer-led experimentation**
- Begins with partnerships between local research, training, extension and farmers
- Uses national and international knowledge to promote agro-ecological practices and techniques
- Initial legitimacy comes from outside of the group
- New local markets created to differentiate 'safe' products
- Changes rules in extension, production, and allocation of responsibilities among actors –

Benin: Integrated production systems and the creation of local input supply systems



- Public land given to the Songhai Centre to train youth in agro-ecology
 - Free tuition for Beninese youth, small fees for other nationalities
- Integrated model (crop, livestock, aquaculture, bio-fertilizers, biogas production, transformed products, shop, business center...)
 - Taught through a program that is 25% theory, 75% practice
- 5 regional hubs (training, production, processing, services) that sell sustainable inputs (Effective Micro-organisms, seeds, bio-repellents) and buy harvest from ex-trainees to process
 - 54% of value of finished products was internal to the network. 46% constituted product sales with a

Innovations in community investment



Legend of the functions needed :

F1 = entrepreneurial activity

F2 = knowledge creation

F3 = knowledge creation through networks

F4 = guiding vision

F5 = market formation

F6 = resources mobilisation

F7 = creation of legitimacy

- Begins with grassroots entrepreneurial activities **to resolve a community concern**
- Resources mobilized from within the community
- The CSA practices are reinforced through internal improvements, focalizing on purpose of the initiative and building internal/external legitimacy
- Market formation, often in the form of bringing the market into the community, is a result of these reinforcement mechanisms
- Change seen in the rules for how the community creates a protected space to market their products within the local communities = (citizen-

Trinidad & Tobago: Community supported agriculture – multi-functional innovation

- Brasso Seco Tourism Action Committee
- Began with Bird Watching – now a vibrant agri-tourism community
 - Continuous investment, new ideas, new products, new events in order to value old traditions
 - All community members have a role and employment via a range of productive activities and services
- Bringing the market into the community



TOP: STOP AND STARE BRASSO SECO NATURE WALK
MIDDLE: COFFEE GRINDING DEMO
BOTTOM: AD FOR INDIGENOUS FOOD FESTIVAL 2011

Key messages:

- Incentives for adopting sustainable practices come from the **autonomy** created when local actors develop innovative rules for market interactions (based on values of **reciprocity** in exchanges and a **diversity of knowledges**).
- Local actors rely upon **social values** (e.g., trustworthiness, health (nutrition and safety), food sovereignty, youth empowerment/employment, farmer and community livelihoods) to adapt sustainable practices to local contexts and create new markets
- Farmers, consumers, cooperatives, firms, civil servants, NGOs, etc. are innovating together through their efforts to revise the rules and change responsibilities. No **one ‘type’ of person has only one ‘role’** in these systems.
- We cannot separate the markets (by creating a linear value chain) from the

The 6 (Re)s of policy support that can (re)value responsible, sustainable and inclusive food systems

1. **Recognize** existing markets for sustainable products by facilitating the registration of agroecological farmers with trade and food safety authorities according to **appropriate standards**
2. **Revise** input subsidy schemes to include agroecological and biological inputs (or remove subsidies altogether) and provide financial incentives for creating small-scale agro-enterprises
3. **Reform** research and extension programs in order to include agroecology and enable more flexible collaboration and experimentation with producers, civic and private actors (**recognize** the results from participatory and qualitative research as valid evidence!)
4. **Reinvest** in agriculture through public procurement from agroecological producers by adapting the procurement protocols to the local realities of agroecological production (e.g., informal trading relations)
5. **Recreate** public spaces for sustainability by providing public facilities that can be used to host farmers' markets, fairs and festivals by the community
6. **Research**, via participatory methods, the innovative markets for agroecology and sustainable agriculture in order to better understand how they contribute to Sustainable

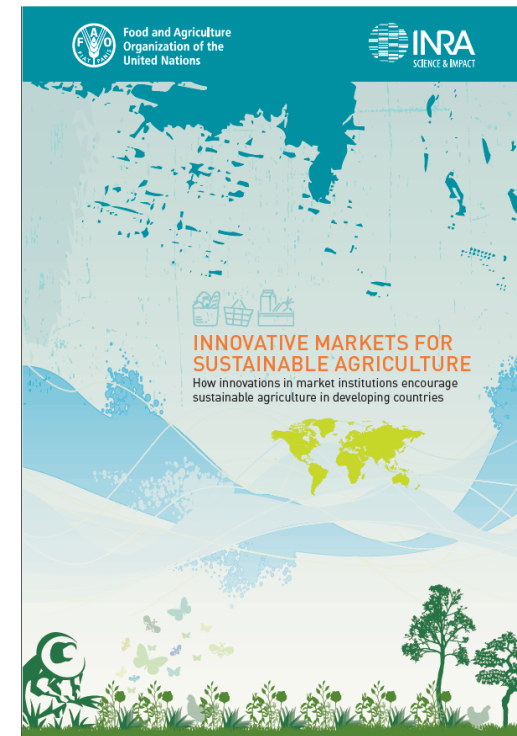
Research that has already been published:



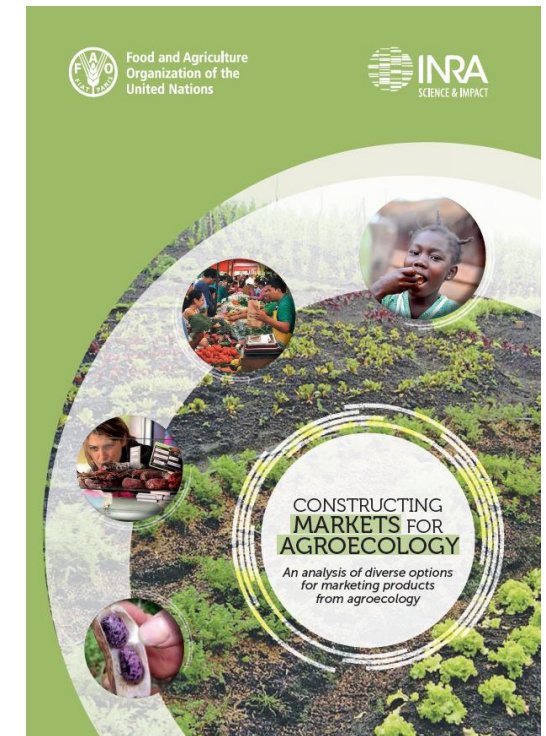
2015

<http://www.fao.org/3/a-az561e.pdf>


2015

<http://www.fao.org/3/a-i5398e.pdf>


2016

<http://www.fao.org/3/a-i5907e.pdf>


2018

<http://www.fao.org/3/I8605EN/i8605en.pdf>