



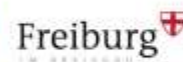
EUROPEAN  
ENVIRONMENT  
FOUNDATION

# 7<sup>TH</sup> INTERNATIONAL CONVENTION OF ENVIRONMENTAL LAUREATES

FREIBURG, GERMANY · 15 - 18 MARCH 2018

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# Laureates' Symposium

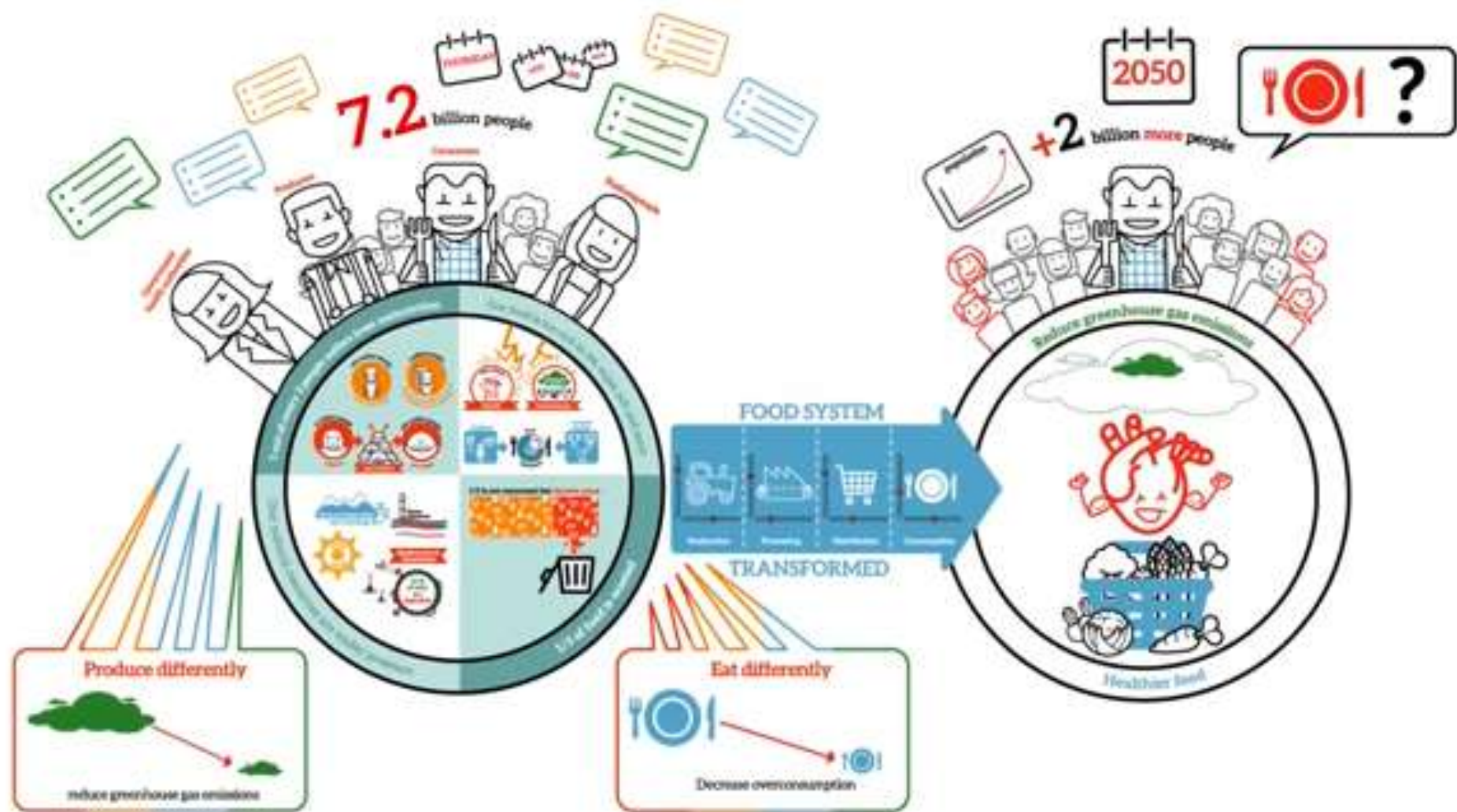
## UN Environment Food Workshop



**James Lomax**  
Sustainable Food  
Systems and  
Agriculture Programme  
Management Officer in  
UN Environment's  
Economy Division



**Natascha  
Kooiman**  
Co-founder and Owner,  
Smaackmakers Ex-  
perience, Amsterdam;  
Member of Advisory  
Board of the United  
Nations' 10YPF  
Sustainable Food  
Systems Programme





# *Lunch for...* 7.2 Billion + People





**James Lomax**  
Programme Management Officer, Food Systems and Agriculture  
UN Environment – [james.lomax@un.org](mailto:james.lomax@un.org)





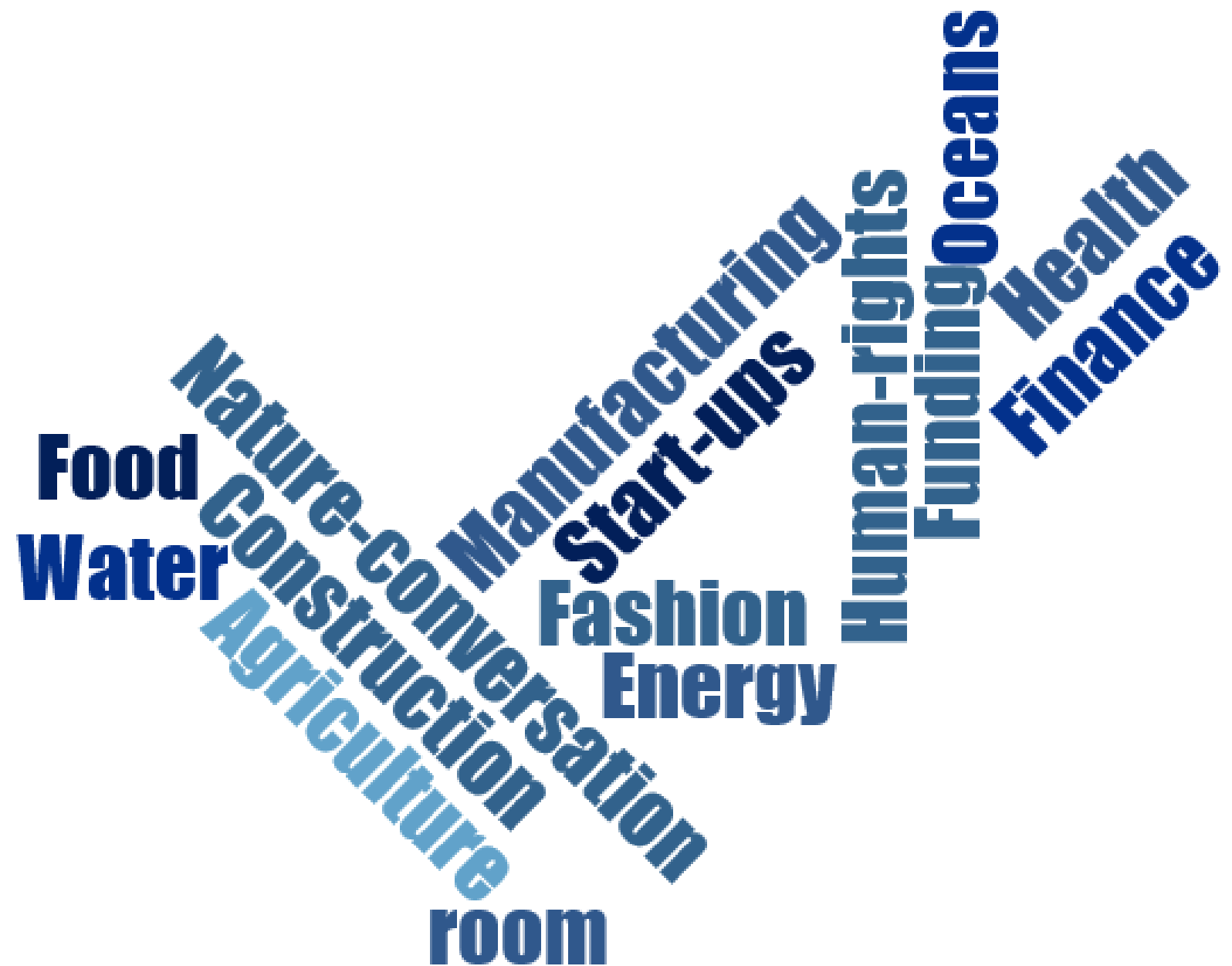
Natascha  
Kooiman

# SMAACKMAKERS

ACCELERATORS OF A SUSTAINABLE FOODSYSTEM AND  
EATINGPATTERN

[WWW.SMAACKMAKERS.NL](http://WWW.SMAACKMAKERS.NL) | [NATASCHA@SMAACKMAKERS.NL](mailto:NATASCHA@SMAACKMAKERS.NL)

And you?



A word cloud featuring various industries and sectors arranged in a large 'X' shape. The words are in a bold, dark blue font. The sectors include:

- Food
- Water
- Nature-conversation
- Construction
- Agriculture
- room
- Manufacturing
- Start-ups
- Fashion
- Energy
- Human-rights
- Funding
- Oceans
- Health
- Finance

# menu

- ❖ Why talk about food?
- ❖ What's wrong with our Food System?
- ❖ Discussion
- ❖ The consumption point of view
- ❖ Discussion
- ❖ SFS approach
- ❖ Break
- ❖ SFS Approach
- ❖ Break out groups & discussion
- ❖ SFS Transformative Framework
- ❖ Discussion
- ❖ Laurates Call to Action SFS





# SUSTAINABLE FOOD SYSTEMS PROGRAMME

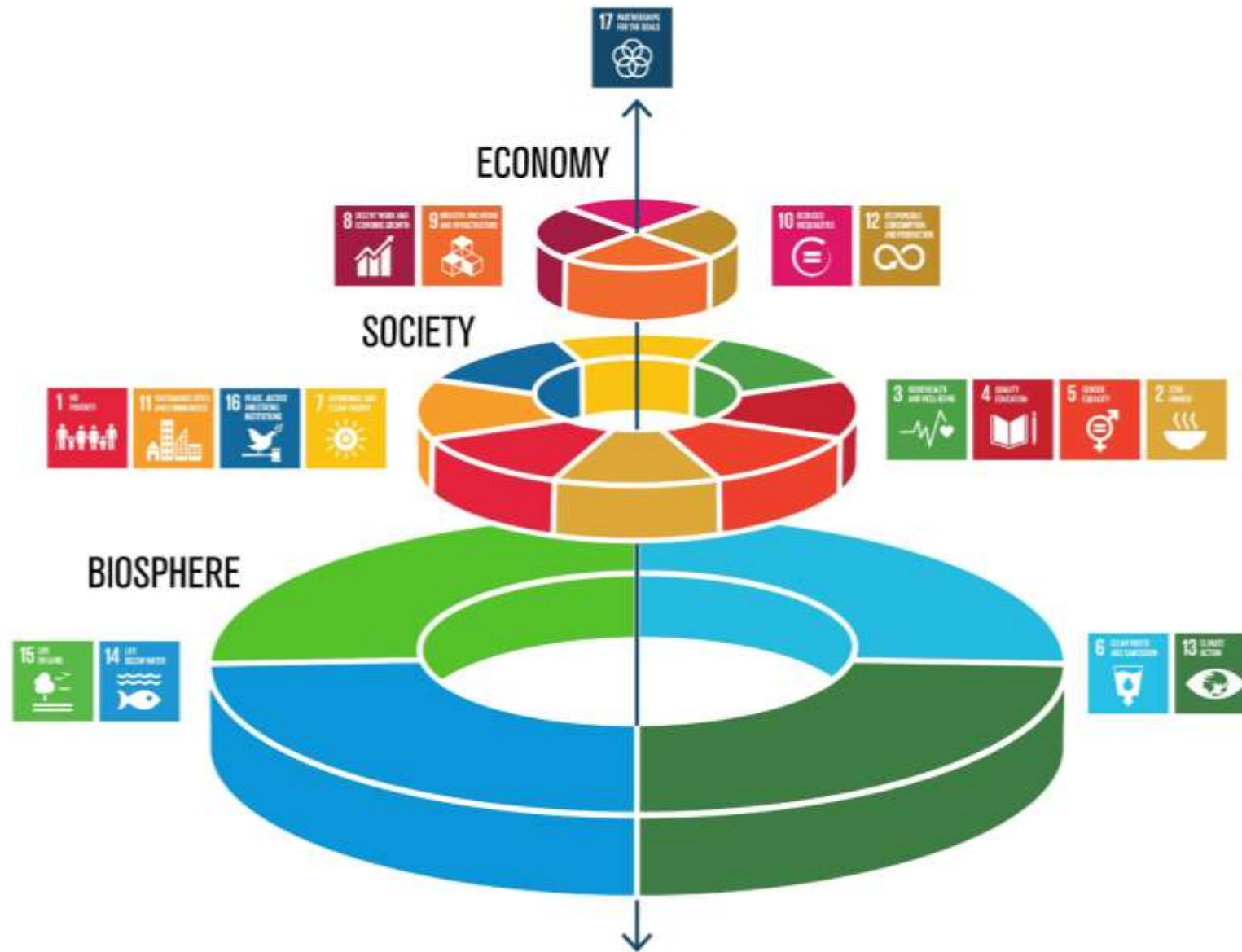


## SUSTAINABLE DEVELOPMENT GOALS



# How food connects all SDG's

- THE WEDDINGCAKE
- ECONOMY NEEDS TO SERVE SOCIETY
- Pavan Sukhdev and Röckstrom





# What is a Food System?

“A food system gathers all the elements (environment, people, inputs, processes, infrastructures, markets, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food and the outputs of these activities, including socio-economic and environmental outcomes”.

# Our food systems are not sustainable...



## Over 500 million people suffer from obesity



But lets look at a snapshot of what else is happening **in just 1 day...**

\$ 201,263,333	money spent <b>due to obesity</b> related diseases in the USA <b>today</b>
\$ 49,732,250	spending on <b>food purchased and then tossed</b> by US households today
\$ 2,312,449	spending on global <b>food aid</b> today

55,684	tons of <b>food wasted</b> in America today
11,601	tons of <b>global food aid</b> provided today



# And...

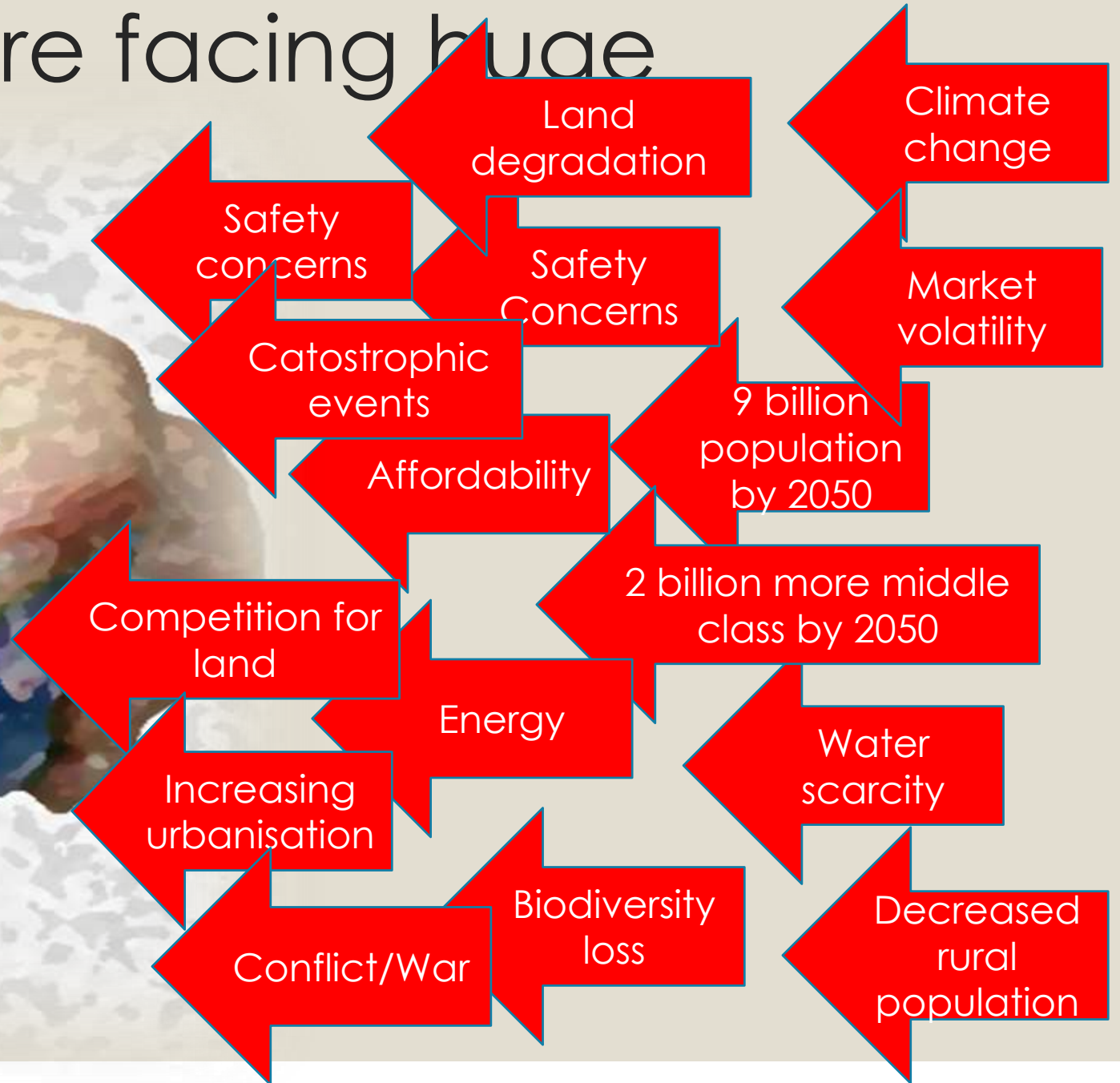
80%	percentage of harvested corn, grains, and soy beans <b>fed to animals</b> in Europe and North America
78%	percentage of malnourished children who live in <b>countries with food surpluses</b>
90%	percentage of hungriest nations on earth that are <b>net exporters</b> of food to rich nations (36 out of 40)



80 % of people who suffer from hunger are directly involved in producing and collecting food



# Our food systems are facing huge challenges.....

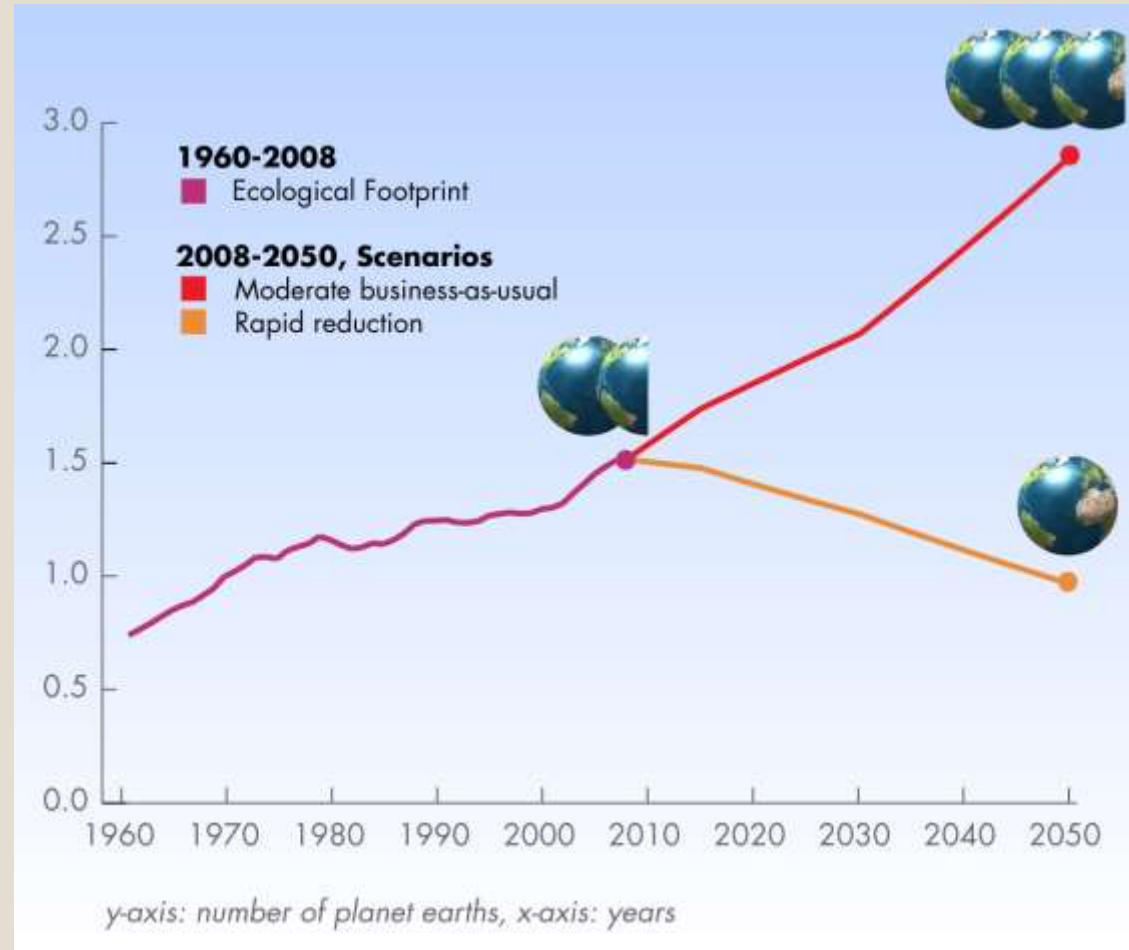


# Beyond the Earth's Limits

Today humanity **uses** the equivalent of **1.5 planets**.

Moderate UN scenarios suggest that if current population and consumption trends continue, by the **2030s, we will need the equivalent of two Earths**.

**We have only one!**



Source: Global Footprint Network,  
2012



# Biodiversity

**Only 12 plant crops & 14 animal species provide 98 % of the world's food needs. Wheat, maize and rice represents more than 50% of energy intake.**

Diet simplification can increase the vulnerability of communities to climate change, market volatility, disease, pests and catastrophic events.

Production

Agriculture is the largest driver of genetic erosion, species loss and conversion of natural habitats.

A DIVERSE DIET RICH IN VITAMINS AND MINERALS IS ESSENTIAL FOR HEALTHY GROWTH

Nutrition

Consumption



# WHAT WE LOSE OR WASTE...



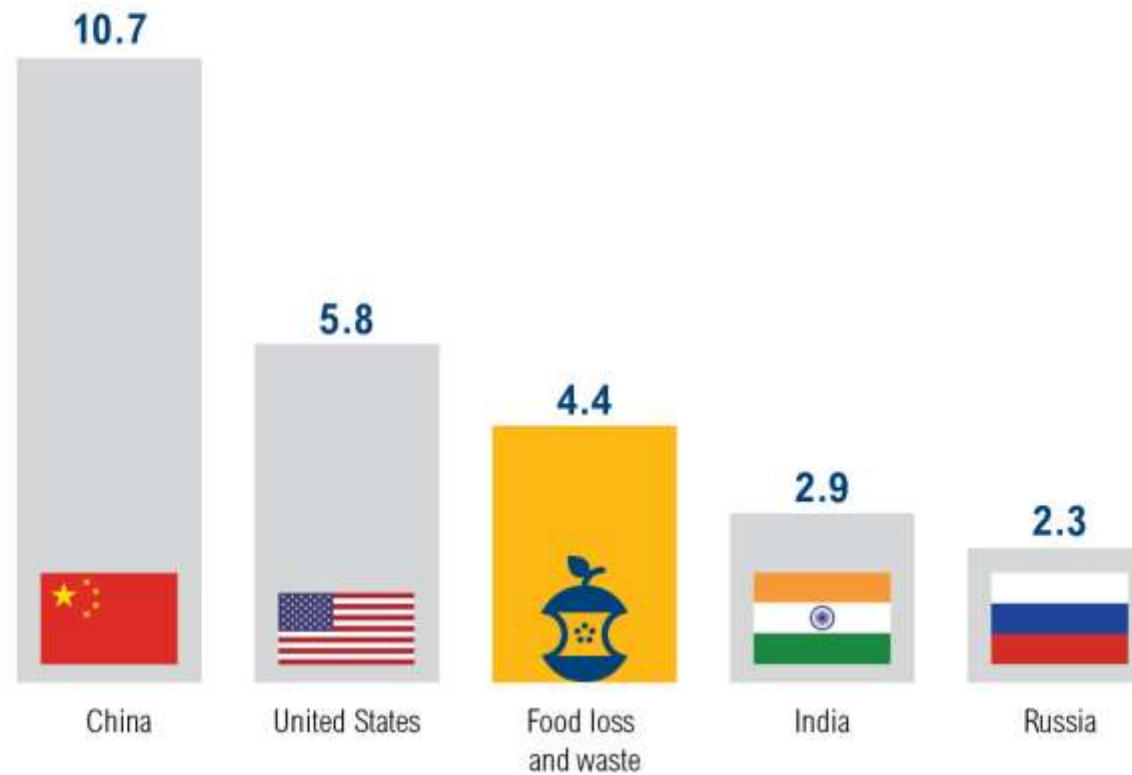
Up to 30% of food produced is lost or thrown away.

# World of Waste





## If Food Loss and Waste Were its own Country, it Would Be the Third-Largest Greenhouse Gas Emitter



GT CO<sub>2</sub>E (2011/12)\*

\* Figures reflect all six anthropogenic greenhouse gas emissions, including those from land use, land-use change, and forestry (LULUCF). Country data is for 2012 while the food loss and waste data is for 2011 (the most recent data available). To avoid double counting, the food loss and waste emissions figure should not be added to the country figures.

Source: CAIT, 2015; FAO, 2015. *Food wastage footprint & climate change*. Rome: FAO.



WORLD  
RESOURCES  
INSTITUTE





"My Dad farmed less land and milked less cows and made a modest profit – now I farm double the land and milk double the cows and I struggle to make ends meet"

PRODUCERS

"Buying a family combo of fried chicken, chips and a soft drink can feed me and my three children at a price I can afford"

CONSUMERS

What are we paying for?

# Two examples

## ◦ Climate Change

**3°C or more**

rise in temperature by the end of the century, due to doubling of GHG emissions by 2050 , under BAU.

Rise in temperatures, changing precipitation rates, unfavorable growing conditions, including severe and unpredictable weather events, along with increasing global population will place severe pressure on our food systems.

## ◦ Growing middle class

**2 to 3**

**billion**

additional **middle class** consumers by 2030

Likely to consume more energy and resource intensive foods.

FAO predicts a 60% increase in demand for meat, milk and eggs by 2050. This will have serious impacts on the food system and the environment. And it puts pressure on land, water, biodiversity, energy resources and also adds to the problem of







## DISCUSSION

- Were you aware of these issues?
- Do you see where they can affect you / your sector?
- Are the linkages clear?

# Some good news...

Innovation & Technology led to:

- Availability
- Food Safety
- Diversity
- Affordable



# OBESITY ON THE MAP

## THE GLOBAL OBESITY PROBLEM



An obese adult is classified as having a Body Mass Index equal to or greater than 30

SOURCE: World Health Organization, 2005



# FOOD WASTE

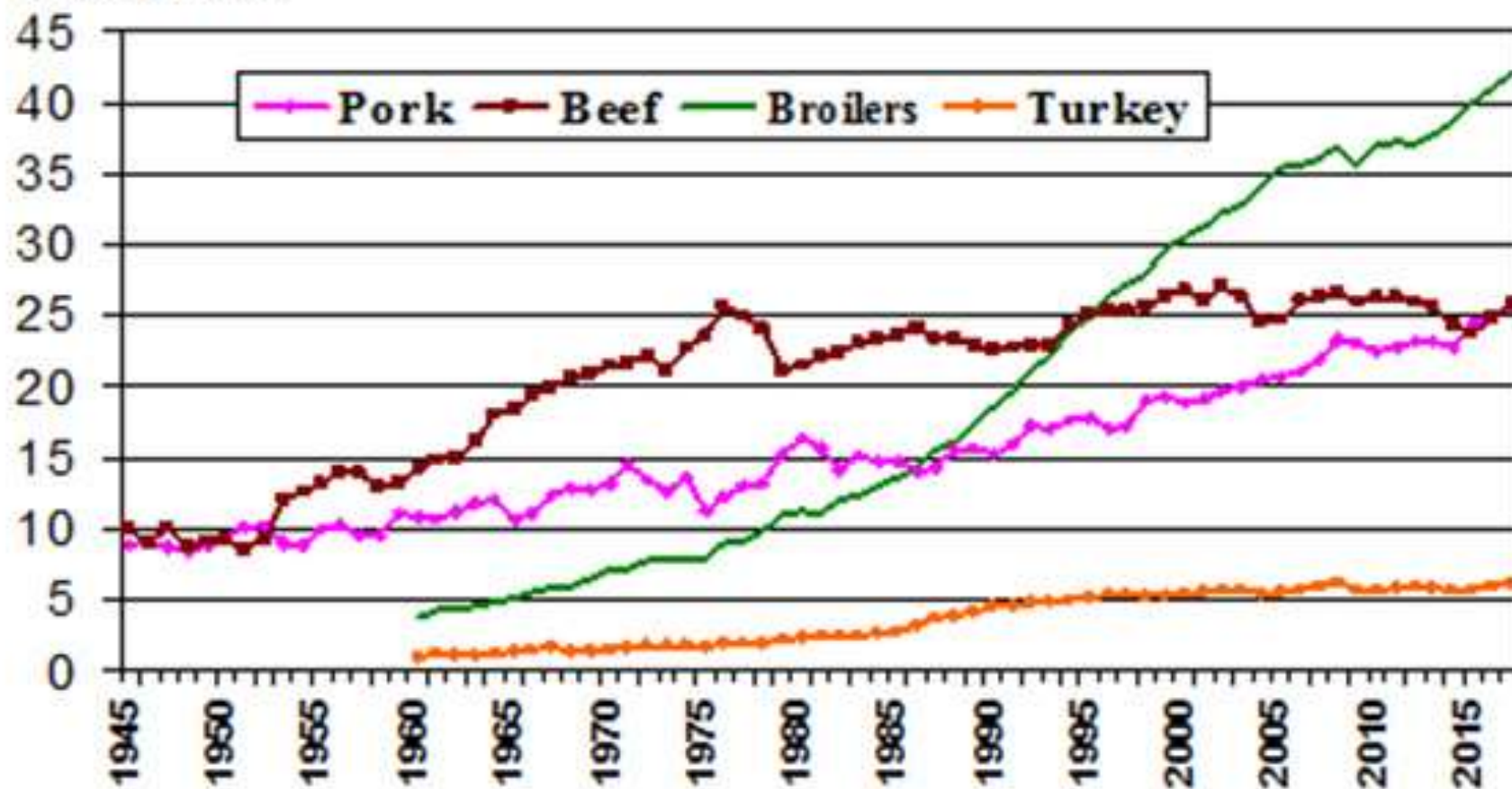


# OBESITY



# U.S. Meat Production, 1945-2017

Billion Pounds



Source: USDA-OCE WASDE, May 2016



# HIGH ENVIRONMENTAL IMPACT





# The animal industry: no. 1 consumer of fresh water





A background image showing an industrial facility at sunset. Silhouettes of pipes, valves, and structural steel are visible against a bright orange and yellow sky. A large sun is partially obscured by a distant mountain range. Thick smoke or steam rises from the facility. A semi-transparent dark green rectangular box is overlaid on the upper portion of the image, containing white text.

**The animal industry:  
18-51% of all greenhouse gas emissions**

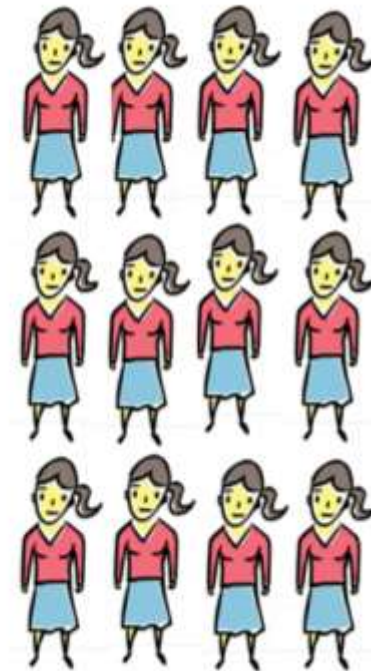
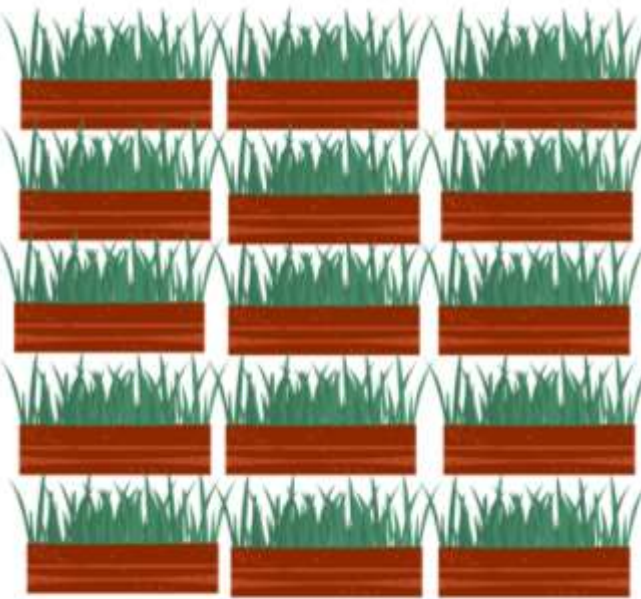
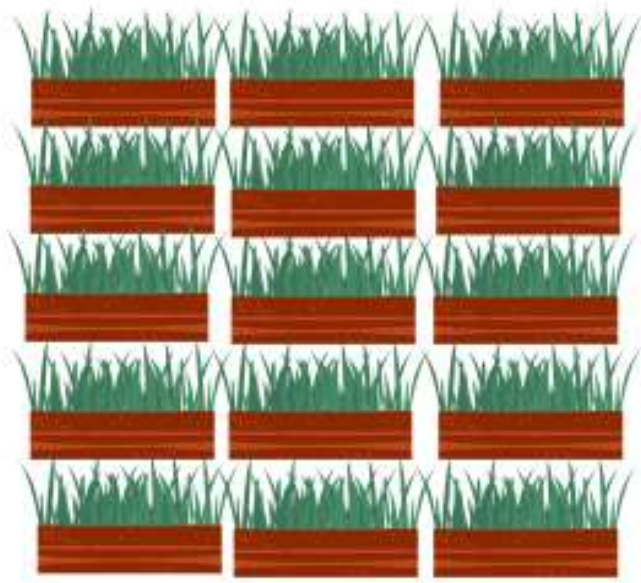
EXPERIENCE



The animal industry:  
80% of all arable land







# Pro-consumption messaging







**EUROKNALLERS**



**\$1**



We don't tell Whoppers

**We practically  
give them away**





# ROLE OF THE CONSUMER

Every consumer is a part of something bigger: the society

**Onsje  
Minder**  
**VLEESRECLAME**  
*alstublieft*



 **Green  
Protein  
Alliance**

HEREN  BOEREN



**COMMONLAND**  
4 RETURNS FROM LANDSCAPE RESTORATION

DE  
**VERSPIJINGS**  
FABRIEK

**TRANSITIE  
COALITIE**  
*voedsel*





## FOOD & AGRI

- NOT A COMMODITY
- LEVEL PLAYING FIELD
- CIRCULAR
- REVALUED





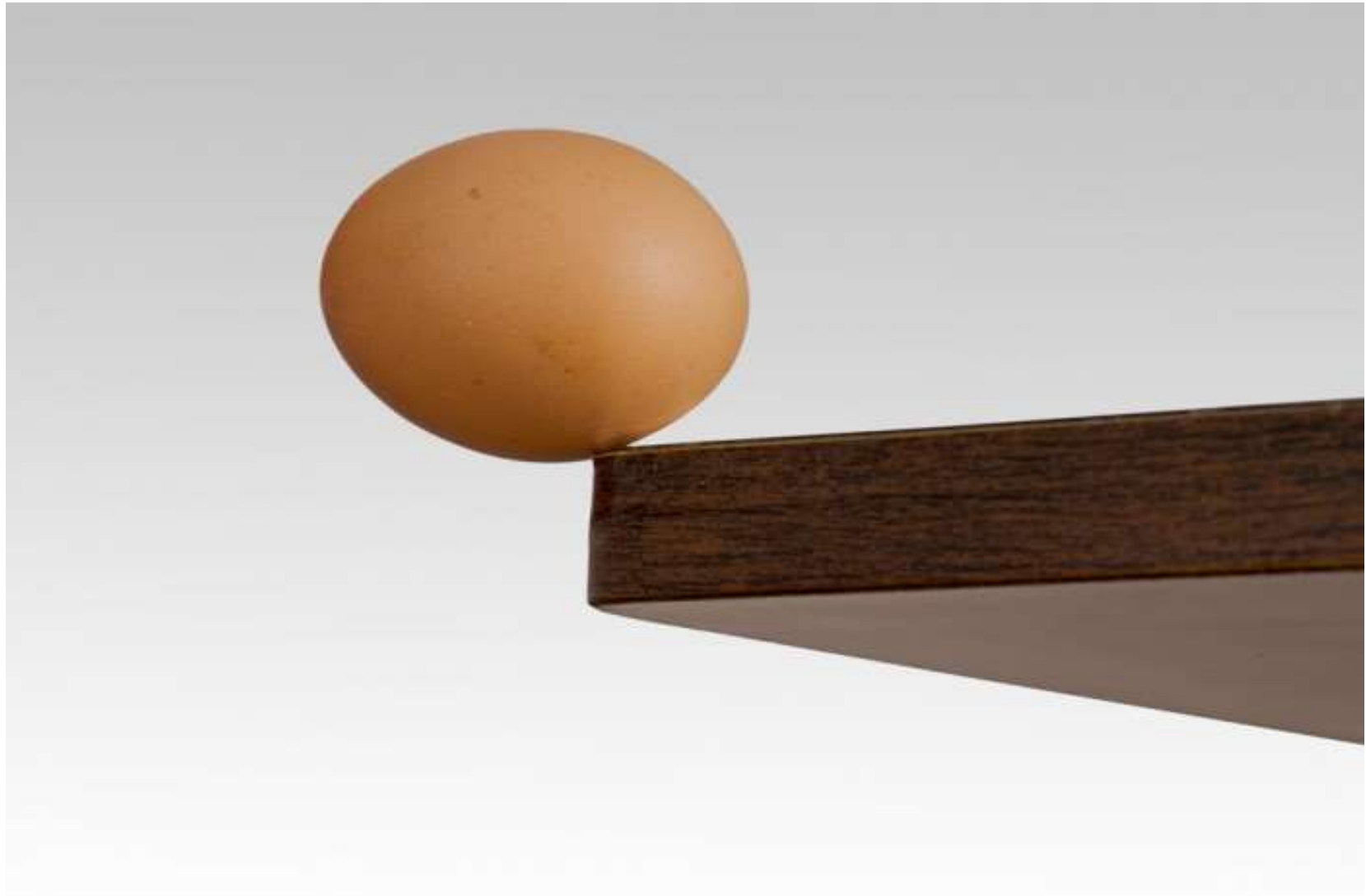
## HEALTHY & SUSTAINABLE LIFESTYLE AS STARTING POINT

FROM CONSUMER  
DRIVEN OR  
PRODUCTION DRIVEN  
→ TO → SOCIETY  
VALUE DRIVEN

# THE TIPPING POINT

- “.... that magic moment when ideas, trends, or social behaviors crosses a treshold, tips, and spreads like wildfire.”

~ Malcolm Gladwell





# SUSTAINABLE DEVELOPMENT GOALS







## DISCUSSION

- Focus on health outcomes favourably impact environmental and production outcomes?
- Boiling frog syndrome: how can we make stakeholders realize the urgency of acting
- Reconnecting as a potential kick start of new thinking?



# The challenge?

In short:

- ❖ Feeding more people with less resources
- ❖ Fair and Circular system
- ❖ Fair wages
- ❖ Cut down on food waste
- ❖ Healthy diets
- ❖ Protein puzzle





# WE NEED TO TRANSFORM OUR FOOD SYSTEMS



This will require  
**SYSTEMS  
THINKING**





It will require

farmers

industry

Civil society organisations  
marketers

MULTI-

marketers

STAKEHOLDER

Urban & rural planners

PARTICIPATION

teachers

retailers

Governments

Processors

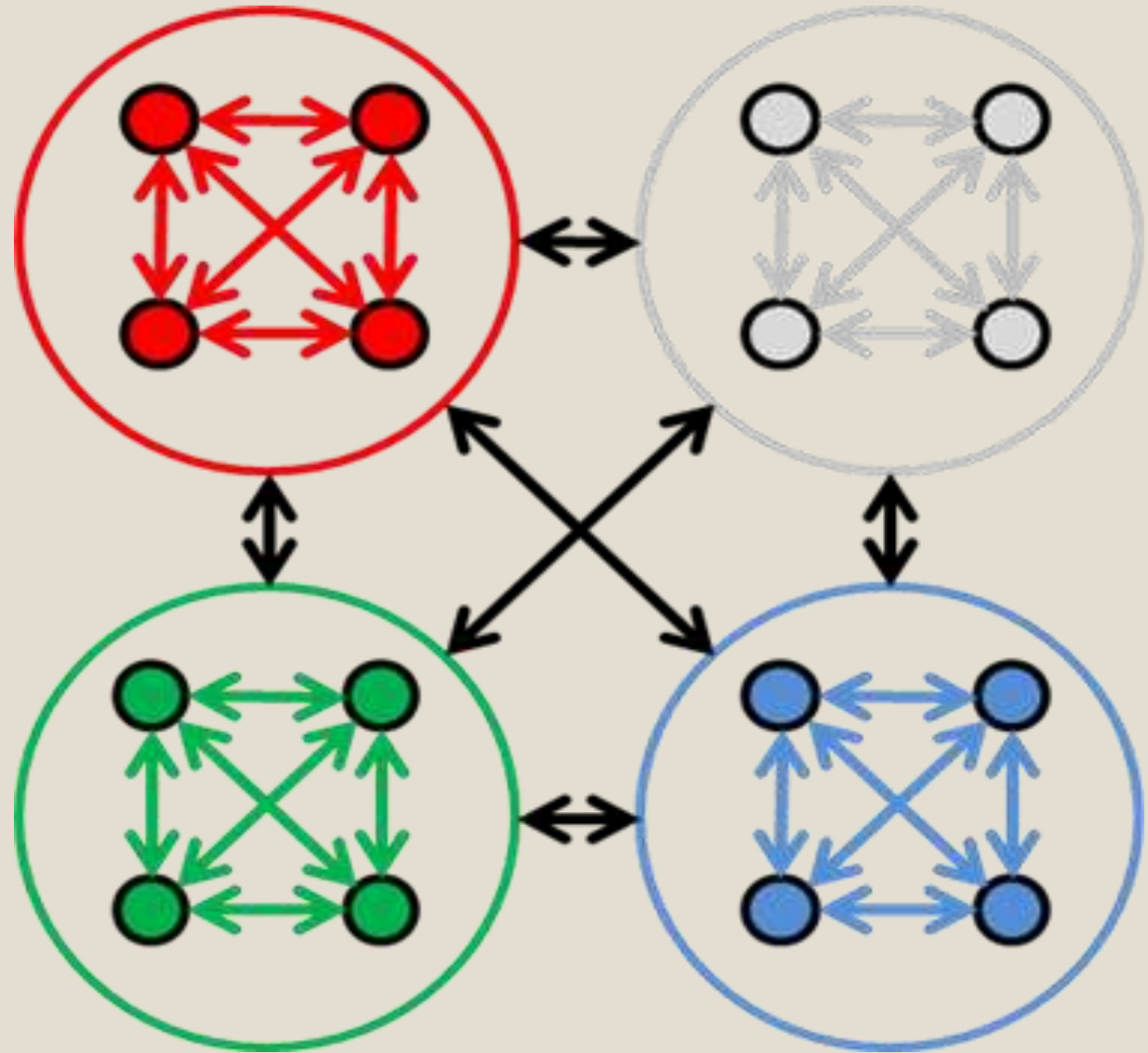
transporters  
Agriculture

and trade officials

Health workers  
transporters

Multi-stakeholder participation will encourage...

# INTER-CONNECTED POLICY-MAKING





We urgently need to  
LINK

PRODUCTION,  
CONSUMPTION  
& NUTRITION



to the BIOPHYSICAL ENVIRONMENT

## **Food system's approach:**

*“Food systems gathers **all the elements** (environment, people, inputs, processes, infrastructures, institutions, etc.) and **activities** that relate to the production, processing, distribution, preparation and consumption of food and the **outputs** of these activities, including socio-economic and environmental outcomes”.*



# What is a SFS approach?



## 1. Focus on food system's outcomes

- A food systems approach looks at the outcomes of the systems as a starting point, considering government's overarching objectives to deliver more sustainable, health, and nutritious food to a growing population, while also respecting planetary boundaries
- food system concept refers to a combination of the food system's activities (**the 'what we do'**) and the outcomes of these activities (**the 'what we get'**). (IRP, 2016)
- Takes into account the **drivers** for environmental degradation and social and economic impacts;
- Focus on **mitigating trade-offs** in decision making, improving societal outcomes
- Address environmental costs and **externalities**

# What a SFS approach means?



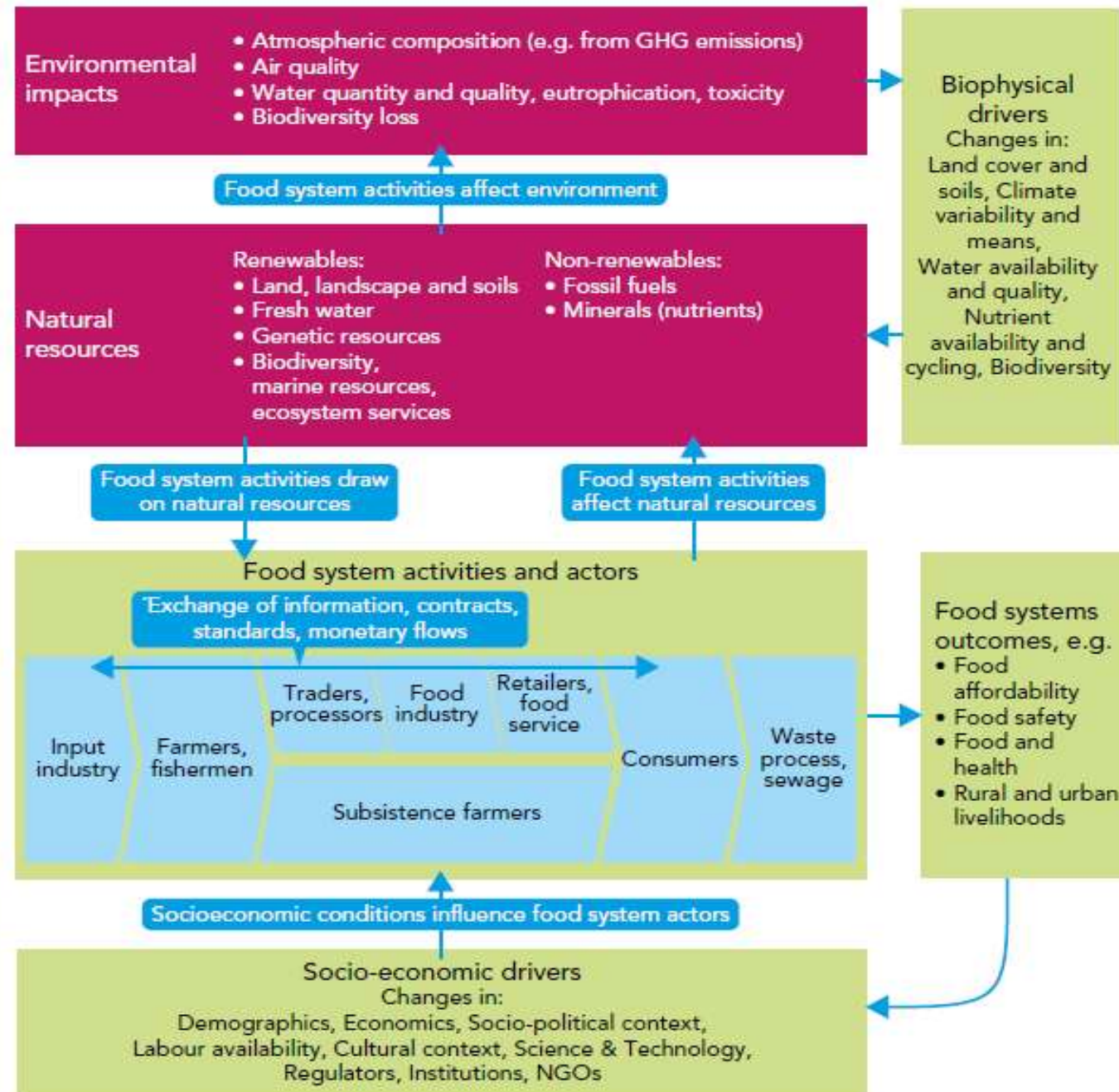
## 2. Enhance food system's governance

- food systems also better acknowledges the important roles of different food system's actors (from production to consumption) ;
- setting better policies' implementation mechanisms, based on **participatory** approach;

## 3. Address unsustainable patterns of consumption and production systemically

- key interventions covers both upstream (e.g incentives for more efficient production and supply chains), as well as downstream (eg. reducing food waste, by dietary changes towards less resource-demanding products and by reducing overconsumption of resource-intensive calories) activities.

# IRP's food systems graphic





**HOW AND WHY SHOULD FOOD BE CONSIDERED WITHIN  
CLIMATE POLICIES OF CITIES ?**

# Break out groups – Part I

- Three stakeholders
  1. Government
  2. Private sector
  3. Civil society
- How should you, in your role, engage in this agenda?
- Reporting back (short summary)

# Break out groups – Part II

- Regroup
  - mixed groups (keep your roles > different stakeholders in each group)
- Where do the interests of the different stakeholders collide and how they should come together?
- Reporting back:
  - Next step towards systems change
  - OR scenario for a sustainable food system in 2050 / on a specific theme –what do you think James?





## DISCUSSION

- Change (f)actors: which actors should take which responsibility
- Which action / which cross connections do I see with the sector that I'm active in
- How does it affect you in your daily life?

# Sustainable Food System Transformative Framework

- The SFS Framework supports countries to effectively assess their current food systems, identify gaps, and improve food system's governance. This will enhance their capacity to meet resilient and sustainable food systems, besides a number of Sustainable Development Goals (SDGs).
- Guide countries to apply more systemic interventions towards SFS.
- Targeted specially to governments, at national and local level;

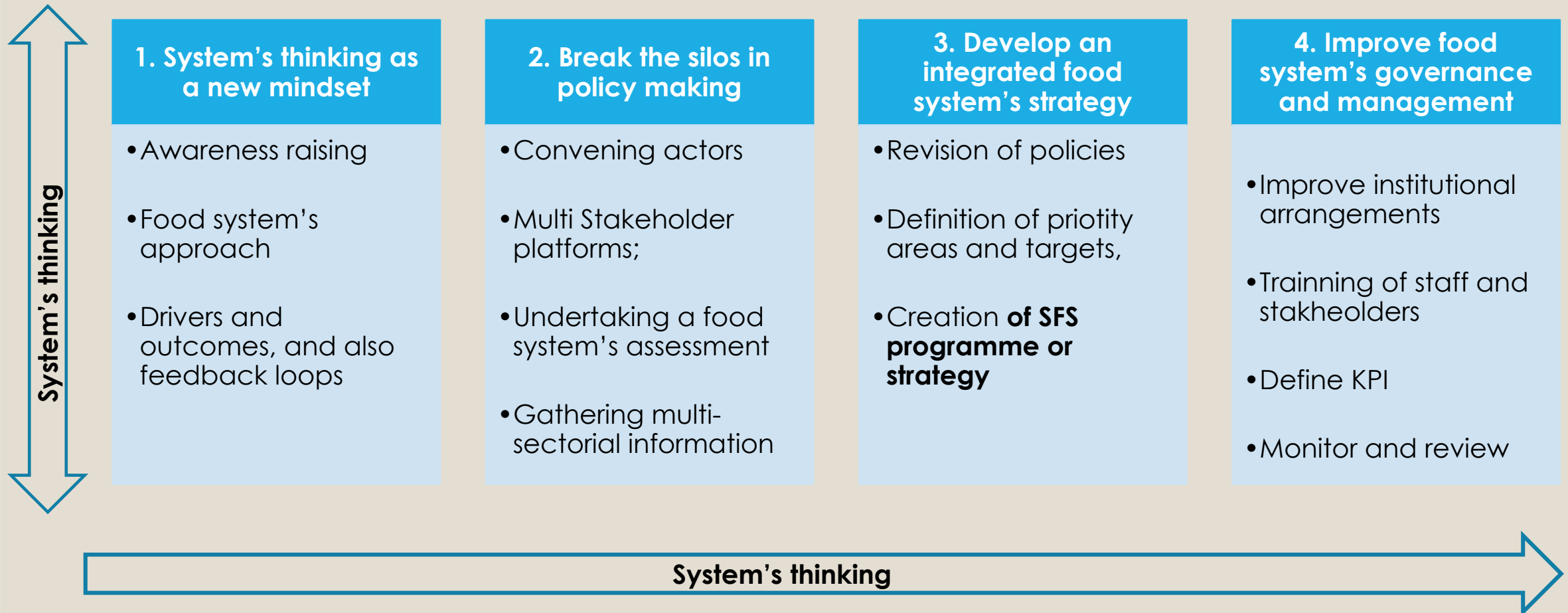
## **Based on Food system's approach:**

*“Food systems gathers **all the elements** (environment, people, inputs, processes, infrastructures, institutions, etc.) and **activities** that relate to the production, processing, distribution, preparation and consumption of food and the **outputs** of these activities, including socio-economic and environmental outcomes”.*

# Overview of the approach



**Tiered-approach of actions, based on 4 pillars for better governance:**





# Key Performance Indicators



Domain	Principles	Example of indicators
Land use and degradation from agriculture	No or very limited land degradation (in all forms) / soil erosion, prevent contamination, maintenance of landscape diversity, aiming at sustained crop yields	<ul style="list-style-type: none"> <li>- Optimized crop yields, closing the 'yield gap' without increasing environmental impacts; (efficiency)</li> <li>- Natural areas converted into agricultural land; (reduced impact)</li> </ul> <p>Source: IRP</p>
Use of agents / synthetic components	Minimized use;	<ul style="list-style-type: none"> <li>- Pollution and contamination (soil, air and water quality)</li> </ul> <p>Source: IRP</p>
ecosystem services and biodiversity	Maximize conservation – no degradation of biodiversity in protected areas and areas of high biodiversity value outside protected areas	<ul style="list-style-type: none"> <li>- Biodiversity maintained/enhanced;</li> <li>- Reduced disturbance /extinction of species</li> </ul> <p>Source: IRP</p>
Food losses in the supply chain	Minimize losses occurred on farm, during transport, in storage, and during processing	<ul style="list-style-type: none"> <li>- FAO Food Loss Index (quantitative pre and post-harvest loss)</li> </ul> <p>Source: FAO</p>
Socio -Economic	Poverty alleviation, improve livelihood and resource	<ul style="list-style-type: none"> <li>- Labour productivity and income of small holder farmers;</li> </ul>

## Key Performance Indicators:

Domain	Principles	Example of indicators
Water	No depletion of groundwater/ disturbance of water systems; prevent pollution /contamination	<ul style="list-style-type: none"> <li>- Water-use efficiency along food value chain;(efficiency)</li> <li>- Water needed in food systems;(efficiency)</li> <li>- Changes in hydrological regimes (reduced impact);</li> </ul> <p>Source: IRP</p>
GHG emission	Minimizing the carbon cost of food consumption - total consumption of the inhabitants of countries including the GHG emissions embodied in imported and exported products	<ul style="list-style-type: none"> <li>- Carbon footprint of food (whole value chain)</li> </ul> <p>Source: SERI</p>

## Key Performance Indicators:

Domain	Principles	Example of indicators
Food waste	Minimizing food and drink waste at retail and household level	- amount of food wasted by the retail sector, food and hospitality sectors, and household;  Source: Think, Eat Save Guideline
Sustainable diets	Improve nutrition and individual diet quality	- diet diversity scores (number of different foods or food groups consumed over a given reference period). Based on surveys.  Source: FAO
Food security	Improve nutrition, poverty reduction and hunger combat, sustainable consumption of	- Number and percent of undernourished people - Number and percent of obese in adults (also adolescents);
Governance	Establish inclusive, transparent, and equitable decision-making processes	- number of stakeholder platforms decisions integrated into policy making process in a given period of time; - number of consultation processes undertaken in a given period of time  Source: author



There are no  
passengers on  
spaceship Earth.  
We are all Crew

— Marshall McLuhan  
author and educator



# CONTACT

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