Green Reporters

ZOOM ONLINE SEMINAR "AGRICULTURE, FOOD AND HEALTH"

30th January 2023

from 17.00 to 19.00 CET

17.00 Seminar introduction
17.05 Mr. Vicent Garcés – Professor at Valencia University and FACM President
17.35 Mr. Panagiotis Giaglaras – Dept. of Agricultural Policy and International Relations (Greek Ministry of Rural Development)
18.05 Q&A session and Debate
19.00 Conclusions

Co-funded by the Erasmus+ Programme of the European Union

EUROPEAN YEAR OF YOUTH

peripli

ΠΟΛΙΣ

Who is?

1982-1987 Agronomic University of Athens (**Engineering & Land Reclamation**)

1987-1990 Research assistant (**Energy saving** and **renewable energies**)

1990-1991 DEA, **Ecophysiology** and **Plant Production** (Paris XI, INA Paris-Grignon)

1991-1997 Phd on Plant Biology (**Plant growth models for the optimization of horticultural greenhouse environment management**)

1997-2001 Research assistant, EU Project manager, Faculty lecturer, Manager of the Energy Center of Larissa

2001 – in the public sector

Who is?

#Agricultural Engineering, #Land Reclamation, #Energy saving , #Renewable energies, #Ecophysiology, #Plant Production, #Plant Biology, #Plant growth models, #Horticultural greenhouse #environment management

2001- In the public sector

#Young Farmers, #In Farm Investments,
#Compensatory allowances for permanent natural handicaps,
#Renewable energy permits,
#environmental assessment #impact on water resources,
#Agriculture and food seminars,
#Common Agricultural Policy , #CAP 2021 – 2027,
#Agricultural Statistics and Documentation, #Eurostat, #ELSTAT, ..

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
Υπουργείο Αγροτικής Ανάπτυξης και Τροφίμων

Τηλεφωνικός Κατάλογος

Αναλυτικά Στοιχεία

Επώνυμο: **ΓΙΑΓΛΑΡΑΣ**

Όνομα: **ΠΑΝΑΓΙΩΤΗΣ**

Θέση: **Υπάλληλος**

Αρ.Γραφείου: **520**

Τμήμα: **ΤΜΗΜΑ ΣΤΑΤΙΣΤΙΚΗΣ ΚΑΙ ΤΕΚΜΗΡΙΩΣΗΣ**

Διεύθυνση: **ΔΙΕΥΘΥΝΣΗ ΑΓΡΟΤΙΚΗΣ ΠΟΛΙΤΙΚΗΣ, ΤΕΚΜΗΡΙΩΣΗΣ ΚΑΙ ΔΙΕΘΝΩΝ ΣΧΕΣΕΩΝ**

Γεν.Διεύθυνση: **ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ ΑΓΡΟΤΙΚΗΣ ΠΟΛΙΤΙΚΗΣ ΚΑΙ ΔΙΕΘΝΩΝ ΣΧΕΣΕΩΝ**

Email: **pgiaglaras@minagric.gr**

Τηλέφωνο: **2102124222**

Εσωτερικό: **4222**

Κριτήρια Αναζήτηση

Κείμενο προς Αναζήτηση

- Επώνυμο
- Όνομα
- Email
- Τηλέφωνο
- Εσωτερικό

Αναζήτηση

Υπηρεσιακή Μονάδα

Αναζήτηση Υπηρεσίας

X

- The food system
  - Production
  - Transport
  - Processing
  - Packaging
  - Storage
  - Retail
  - Consumption

FARM
(Agricultural Product)
to
FORK
(Food)

F2F

Agriculture is the main source of food for the population of the world

- Agriculture = Farming, livestock husbandry, managed fisheries (aquaculture) and forestry
- Unmanaged natural systems could provide food for 600 million people, one tenth of the current world population.
- **90% of the present world population could not be sustained without agriculture.** (FAO)
- Agriculture supports the **livelihoods of over 1 billion people** (IPCC)

FARMING FIRST

A global coalition for sustainable agricultural development

Sign up for our newsletter:

Enter email address Go

Home About us Explore Get involved

Sustainable Agriculture | Rural Women | Food & Nutrition Security | Water | Climate Change | Sustainable Development Goals

Green Economy

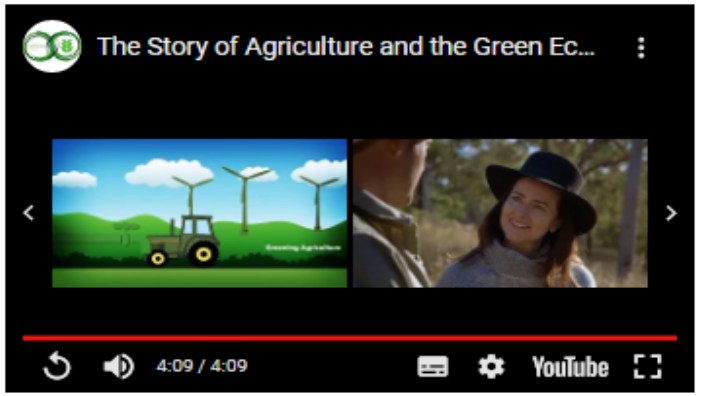
THIS IS THE STORY OF

AGRICULTURE and the GREEN ECONOMY

We need to make the global economy green. Agriculture provides significant opportunities for growth, investment and jobs to help make this happen.

Everyone needs agriculture. Agriculture feeds our entire population and produces fibre for clothing, feed for livestock and bioenergy. Particularly in the developing world, agriculture contributes significantly to GDP growth, leads the way in poverty reduction and accounts for the lion's share of employment opportunities, especially for women. Agriculture also has one of the highest potentials for reducing carbon emissions and helping vulnerable people adapt to climate change.

Watch our Green Economy video



Watch this video in other languages:

Français Português Español 中文

FarmingFirst.mp4

https://ourworldindata.org/environmental-impacts-of-food?insight=food-responsible-for-one-quarter-of-emissions

Environmental Impacts of Food Production

by Hannah Ritchie and Max Roser

Food, energy and water: this is what the United Nations refers to as the 'nexus' of sustainable development.

As the world's population has expanded and gotten richer, the demand for all three has seen a rapid increase. Not only has demand for all three increased, but they are also strongly interlinked: food production requires water and energy; water power can be used as a source of energy; agriculture provides a potential energy source.

RELATED TOPICS

Land use →

Biodiversity →

Hunger and Undernourishment →

CO_2 and Greenhouse Gas Emissions →

There is a lot of information available about the impacts of agriculture on the environment

- Environmental impact of agriculture (https://en.wikipedia.org/wiki/Environmental_impact_of_agriculture)
- Environmental Impacts of Agricultural Modifications (https://education.nationalgeographic.org/resource/environmental-impacts-agricultural-modifications)
- Environmental Impacts of Food Production (https://www.mapleridge.ca/1776/Food-Production)
- Environmental Impact of Agriculture (https://www.studysmarter.co.uk/explanations/environmental-science/biological-resources/environmental-impact-of-agriculture/)
- Agriculture and the environment (https://www.oecd.org/agriculture/topics/agriculture-and-the-environment/)

The European Green Deal

- AIM: The European Union to become the world's first "**climate-neutral bloc" by 2050**.
- GOALS: Extending to many different sectors, including:
  - construction,
  - biodiversity,
  - energy, transport and
  - food
- Is a set of proposals to make the EU's **climate**, **energy**, **transport** and **taxation policies** fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels.

https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

What are the Farm to Fork (F2F) goals for Agriculture?

- Reduce the overall use and risk of **chemical pesticides** by 50% and the use of more hazardous pesticides by 50% by 2030
- Reduce the use of **fertilisers** by at least 20% by 2030
- Reach the objective of at least 25% of the EU's agricultural land under **organic farming** by 2030 and a significant increase in **organic aquaculture**.
- Reduce by 50% overall EU sales of **antimicrobials for farmed animals**
- At least 10% of **agricultural area is under high-diversity landscape** features.

How **would** the F2F affect production? What did the simulation models predict?

https://www.youtube.com/watch?v=T2F93QOiT5c

The 3 simulation models applied

- The Joint Research Center models (**JRC, CAPRI model**)
- The **Economic Research Service (ERS) of the Department of Agriculture (USDA)** (**GTAP-AEZ** for the production, price, and trade impacts and **International Food Security Assessment (IFSA) model** for global food security)
- **Wageningen study** (**Expert assesments** - Case studies at farm level and changes for production volume, prices, international trade, additional land needed for compensation production decline at macro level)

The Joint Research Center (JRC, CAPRI model)

https://www.farm-europe.eu/wp-content/uploads/2021/09/Consequences-F2F-BDS-strategy-1.pdf

The EC study, carried out by the JRC, its research department, shows **results that do not correspond to the expectations of the F2F and BDS strategies**. Indeed, the results indicate that the application of the quantified objectives of these two strategies would lead to :

A **drop in production** of more than **10%** in all agricultural sectors

A **deterioration of the trade balance** with an increase in imports and a decrease in exports.

A **decrease in farmers' income** in almost all agricultural sectors. In the sectors where an increase in income is recorded, it is subject to a disproportionate increase in prices for consumers (up to +43% for pork) and therefore unrealistic.

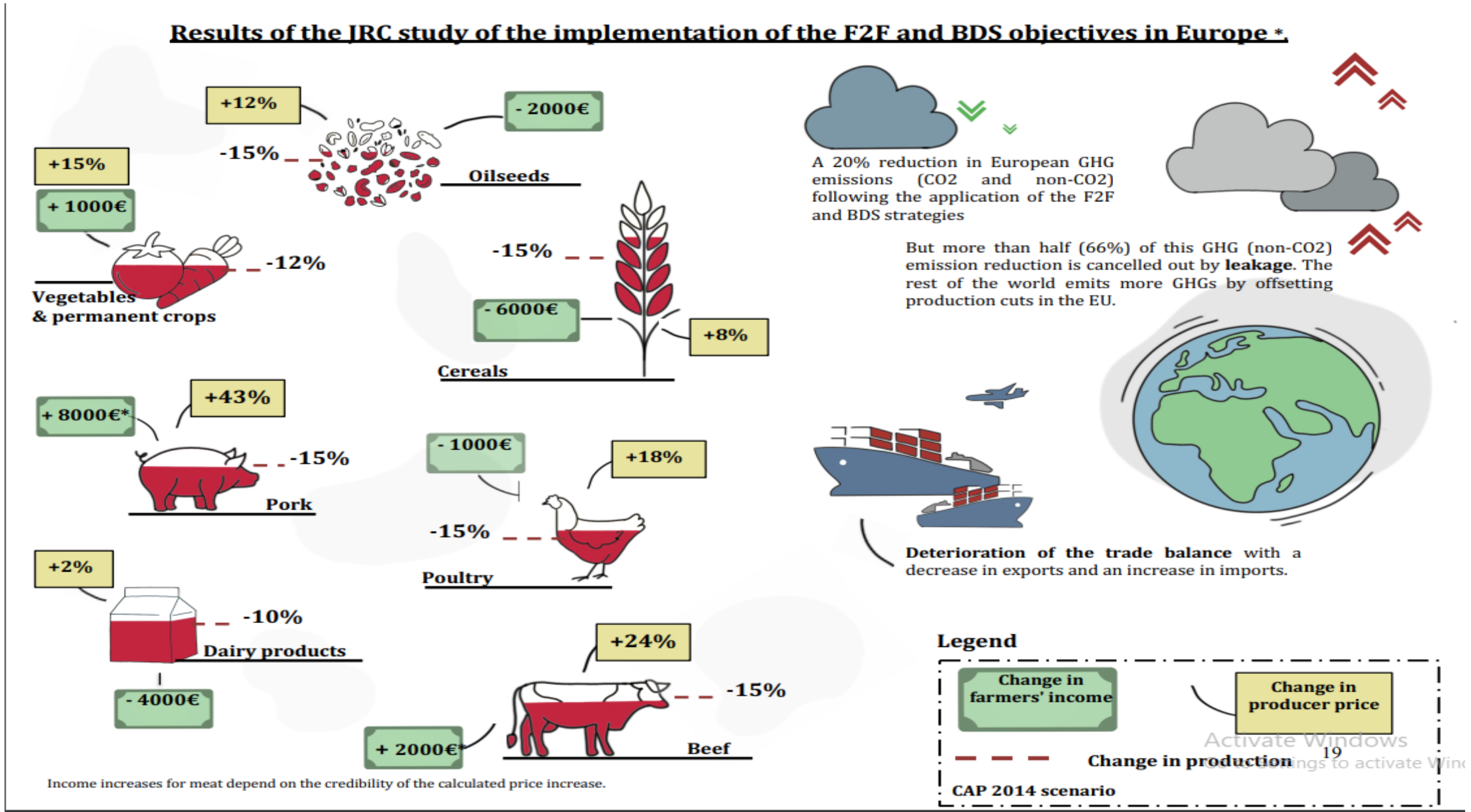
A **generalized price increase** for consumers.

A 20% reduction of agricultural GHG emissions in the EU, half of which (66% non-CO2) is re-emitted outside the EU and the other half is offset by land use changes within the EU. This reduction is more related to shifts in production types than to changes in the means of production.

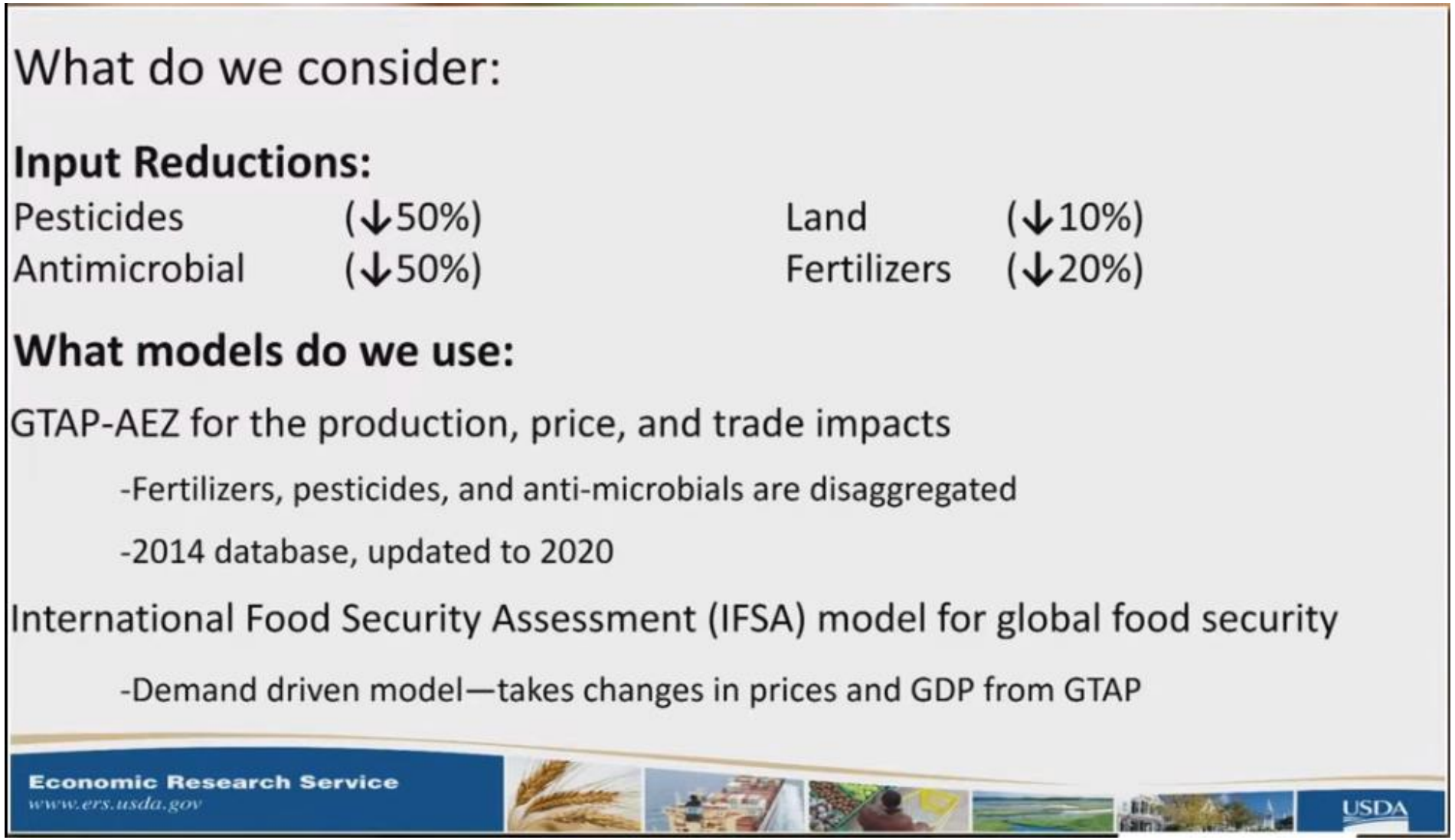
If we integrate the impacts of **deforestation in third countries, the environmental balance for the planet** could be **negative: less EU agricultural production, more global GHG emissions.**

The Joint Research Center (JRC, CAPRI model)

https://www.farm-europe.eu/wp-content/uploads/2021/09/Consequences-F2F-BDS-strategy-1.pdf



Economic Research Service (ERS) of the United States Department of Agriculture (USDA)



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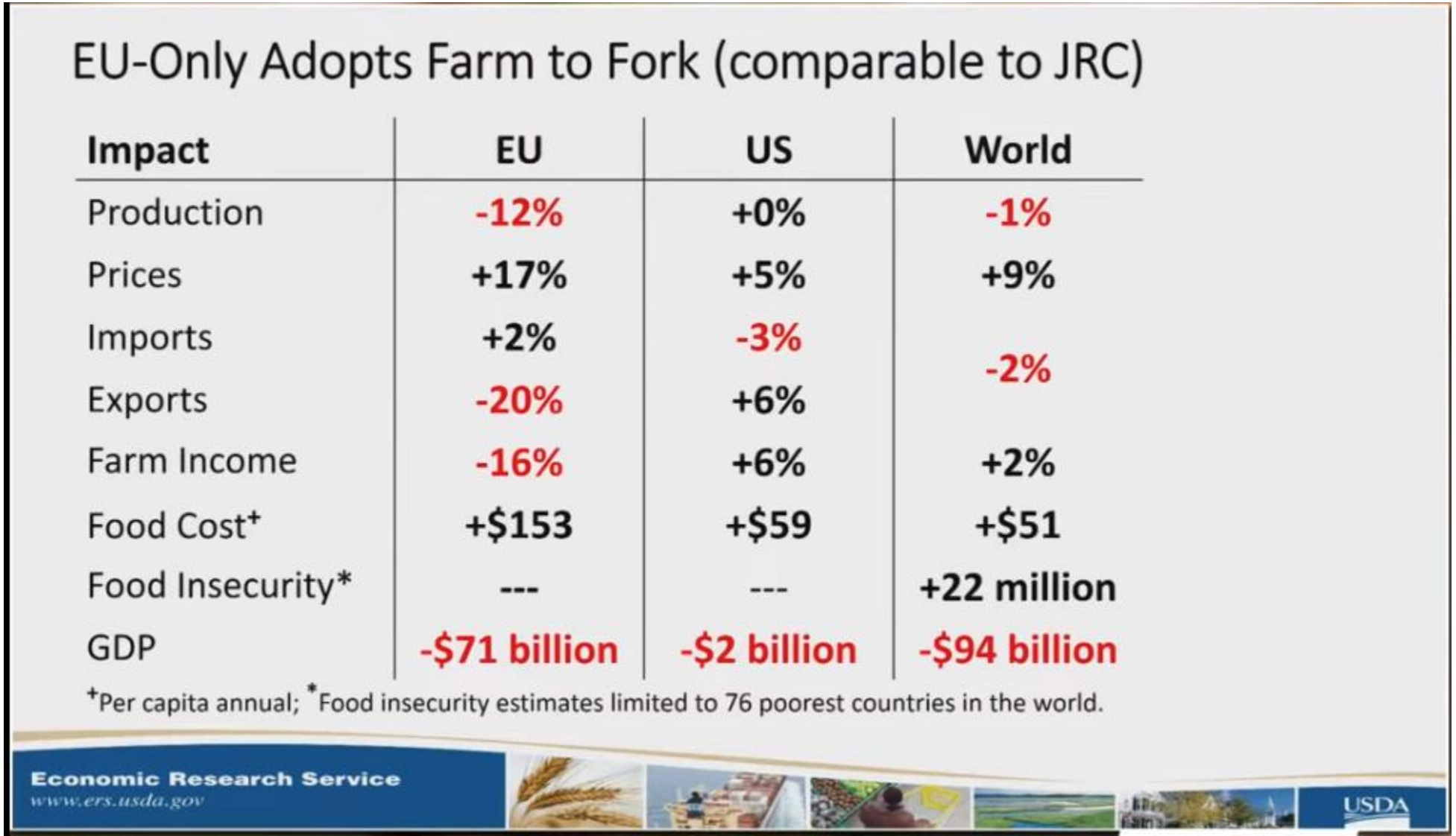
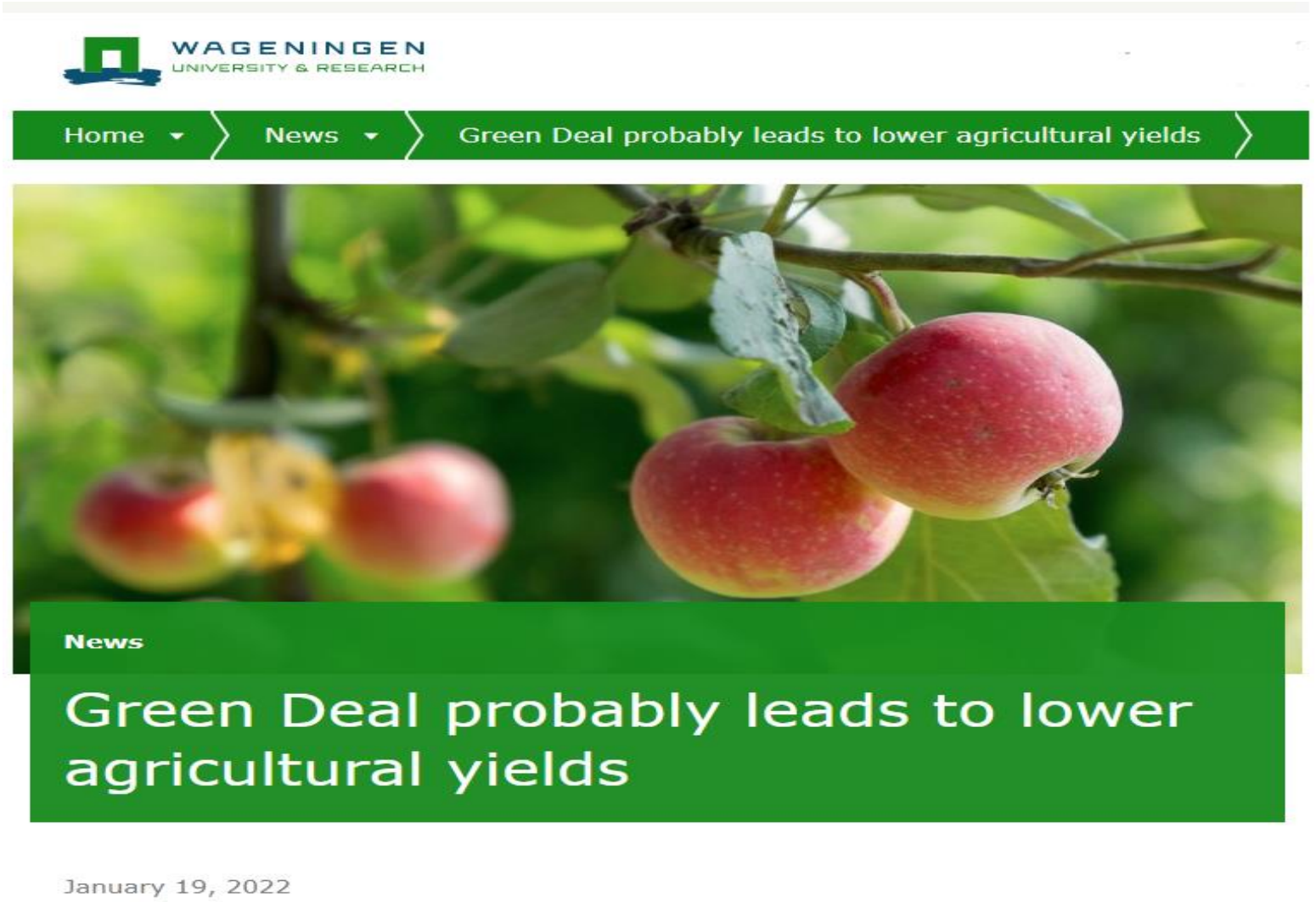


The Wagenigen University's study



- https://www.wur.nl/en/news-wur/Show/Green-Deal-probably-leads-to-lower-agricultural-yields.htm

The Wagenigen University's study

Targets and scenarios

Targets		In which scenario included	
A	50% reduction in use and risk of pesticides by 2030	1	4
B	50% reduction in use of hazardous pesticides by 2030	1	4
C	50% reduction in nutrient losses by 2030	2	4
D	20% reduction in use of fertilizers by 2030	2	4
E	10% agricultural area set aside		4
F	25% of land under organic agriculture	3	

Scenario 4 includes the cumulative effect, with exclusion of the 25% land under organic agriculture

WAGENINGEN
UNIVERSITY & RESEARCH

The Wagenigen University's study

Results based on farm level analysis scenario 1, 2 and 4

- Objectives to reduce pesticide use (50%) and nutrient emission (50%) have significant impact on yield level. Estimated **yield losses** vary:
  - From 0 to 30% in scenario 1 (reduction pesticide use)
  - From 2 to 25% in scenario 2 (reduction fertilizer use)
  - From 7 to 50% in scenario 4 (scenario 1 + 2 and 10% set aside)
- Impacts of F2F-objectives for **permanent crops** such as grapes, apples, olives, citrus are higher than for annual crops such as oilseed, rapeseed, wheat, maize and sugar beets.
  - **Logic**: in permanent crops there are less options to reduce impacts than in annual crops
- Quality impacts are explored in our study

WAGENINGEN
UNIVERSITY & RESEARCH

The Wagenigen University study

Draft results based on farm level analysis scenario 3: 25% of land under organic production

- Especially in **southern Member States**, organic production has high environmental impact (measured with Harmonized Risk Indicator I), due to pesticides based on sulphur and copper (candidate for substitution)
- The objective to reduce pesticide use and risk also applies for **organic production**
  - Scenario 1 and 2 not assessed for organic production
  - Increase of area under organic production in southern MS can have **adverse consequences** for meeting the reduction objectives, even if organic production complies with the objectives. This is the case when the Value of HRI I for the organic spraying scheme is higher than for the conventional spraying scheme

WAGENINGEN
UNIVERSITY & RESEARCH

The agri-food chain was ready to apply and asked for more support to innovation

- https://croplifeeurope.eu/news/joint-statement-farm-to-fork-strategy-how-to-reach-the-targets/

Food systems “vivono pericolosamente”!

Economic crisis (2008)

Embargo to Russia (2014)

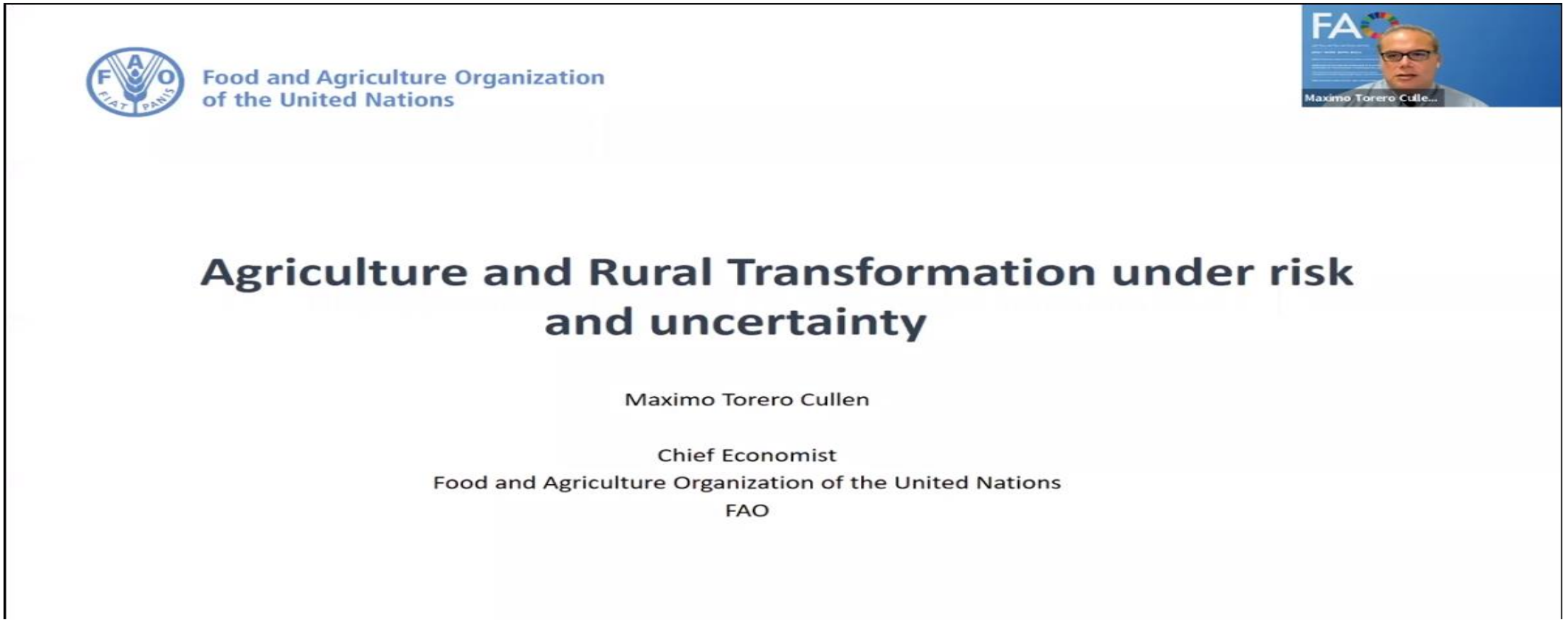
Covid (2021)

Brexit (2021)

Belarus embargo on EU food imports (2021)

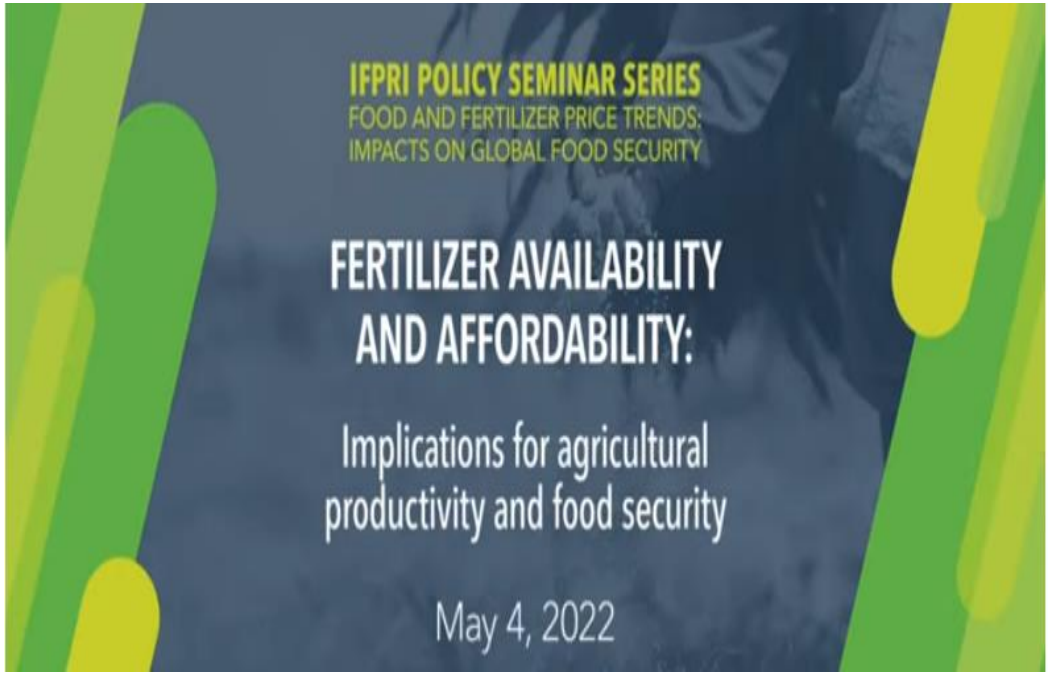
Russian invasion to Ukraine (2022)

Food systems “vivono pericolosamente”!



Griswold Center Webinar: Future of Food Security, Costs, and Supply Chain Issues
(https://www.youtube.com/watch?app=desktop&v=f_7Ix9h_1xE)
(38:26-58:23, AgricultureInRisk.mp4)

Where are we now ?



https://www.youtube.com/watch?v=-8ImaKn9zfU

What do the farmers say ?
Teo de Jager
President of the World Farmer's Organisation

Fert Teodejager20230118 134133_el.mp4

EURACTIV

AGRIFOOD

Home / Agrifood

https://www.euractiv.com/sections/agriculture-food/

https://www.euractiv.com/section/agriculture-food/news/agrifood-brief-new-year-old-tricks/

What is coming next? What should we do ?

- Griswold Center Webinar (20/09/2022): Future of Food Security, Costs, and Supply Chain Issues (Part, WhatToDo_FAO.mp4) (https://www.youtube.com/watch?app=desktop&v=f_7Ix9h_1xE)
- Bruegel (9/12/2022) : Policy brief. A European policy mix to address food insecurity linked to Russia's war https://www.bruegel.org/policy-brief/european-policy-mix-address-food-insecurity-linked-russias-war

What is coming next? What should we do ?

Policy brief: A European policy mix to address food insecurity linked to Russia's war (Bruegel 9/12/2022), Possible European responses

3.1 Increase production
- 3.1.1 Relax constraints on fallow land management
- 3.1.2 Support fertiliser usage

3.2 Shift production towards food
- 3.2.1 Reduce incentives for energy crops
- 3.2.2 Discourage meat production

3.3 Reduce consumption
- 3.3.1 Reduce consumption of high input foods
- 3.3.2 Reduce food waste

3.4 Improve allocation
- 3.4.1 Opening trade routes: getting the grain out of Ukraine
- 3.4.2 Humanitarian aid: supply more food and increase local production
- 3.4.3 Trade policy: reducing protectionist measures

Consumption (food)

- Food safety and quality (from health.ec.europa.eu)
  - Antibiotic resistance (https://www.euractiv.com/section/agriculture-food/video/reducing-the-use-of-antibiotics-in-the-meat-sector/)
  - Contaminants
  - Food-borne diseases
  - Genetically modified organisms (GMO)
  - Use of pesticides and herbicides
  - **Rapid Alert System for Food and Feed (RASFF)**
- Availability & Accessibility (*New old challenge*)
- Responsible food consumption (*New challenge*)
  - Water footprint (https://www.watercalculator.org/footprint/virtual-water-trade-moves-water/) and Virtual Water Trade (https://wad.jrc.ec.europa.eu/virtualwater)
  - Carbon footprint (https://ourworldindata.org/food-choice-vs-eating-local)

History of the Rapid Alert System for Food and Feed (RASFF)

- Created **in 1979 in response to an incident concerning oranges**, RASFF (called the "Rapid Alert System For Food" at the time) enabled authorities to share information efficiently for the first time. The 'founding members' were Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, the Netherlands and the United Kingdom. Other member countries accessed RASFF as soon as they entered the European Union. Early communications were done by phone and telex, later by fax and then by email. In 1994, Iceland, Norway and Liechtenstein became RASFF members within the framework of the European Economic Area.

- The crucial year for RASFF was 2002, when the legal basis and formalised procedures for RASFF were laid down under Regulation (EC) N° 178/2002, the 'General Food Law'. Until then, RASFF had its legal basis in the product safety Directive and Feed was not officially covered by the system. **Incorporating Feed was part of the lessons learned from serious crises in the past such as Bovine spongiform encephalopathy (BSE) or dioxins that involved animals getting ill from contaminated feed.**

https://webgate.ec.europa.eu/rasff-window/screen/list?consumer=-1

Many things can happen from the Farm to the Fork, out of the will off the farmers and their impact on human health can be much bigger

Video
OliveOilMafia.mp4

https://www.youtube.com/watch?v=kwyrangVexI

WELCOME!
in the amazing world of food systems

"Anche"
(*not only farmers*)
reporters or journalists
"vivono pericolosamente"

- https://en.wikipedia.org/wiki/List_of_journalists_killed_in_Europe

Thank you!

Sunrise or sunset?

It depends on what time it is and on which direction we are look at.

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Agriculture & Climate Change

Offender

- GHG emissions
  - Land use changes
  - Methane (ruminants, manure)
  - NOx from fertilisers
- Affects landscapes and physical habitats for natural life
- Uses water resources (desertification, salinization, ..)
- Affects soil fertility
- …..

Mitigation (reduction)

Victim

- Negative effects of higher temperatures on productivity
- More pests and diseases
- Less water available for irrigation
- Increased frequency and intensity of extreme weather conditions
- ….

Adaptation (resilience)

For more ….

- Water use and Virtual Water CO2 leakage (https://www.oecd.org/environment/global-assessment-of-the-carbon-leakage-implications-of-carbon-taxes-on-agricultural-emissions-fc304fad-en.htm)
- Herbicides (The glyphosate issue, https://www.euractiv.com/section/agriculture-food/news/commission-to-temporarily-re-approve-glyphosate-without-member-states-go-ahead/)
- Pesticides (MS governments and MEPs called for the delay or watering down of the new pesticides regulation, https://www.euractiv.com/section/agriculture-food/opinion/the-science-is-clear-we-need-an-ambitious-undelayed-pesticides-regulation/)
- Antibiotics (https://www.euractiv.com/section/agriculture-food/video/reducing-the-use-of-antibiotics-in-the-meat-sector/)