The CAP and the Green Deal:

How could research and innovation support the management of the trade-offs between the different dimensions of sustainability?

Hervé Guyomard (INRAE, France)

Jean-Christophe Bureau (AgroParisTech and INRAE, France)

> Agriculture and food in the Green Deal (1)

Carbon neutrality by 2050

Low-carbon and sustainable growth

Implementation through various strategies, including

The Climate Plan and Law

The Farm to Fork Strategy (F2F)

The EU Biodiversity Strategy in 2030

Quantitative targets for agriculture by 2030

No explicit quantitative targets for the food sector and for diets (except for food waste and losses)







The New CAP and sustainability issues – challenges and progress EURAGRI Webinar, May 31, 2022

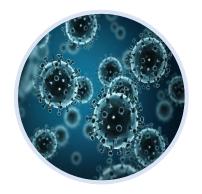
➤ Agriculture and food in the Green Deal (2)



2030 Green Deal targets for agriculture defined in the F2F and Biodiversity strategies













Reduce by 50% the overall use and risk of chemical pesticides and reduce use by 50% of more hazardous pesticides by 2030

Achieve at least 25% of the EU's agricultural land under organic farming and a significant increase in organic aquaculture by 2030

Reduce sales of antimicrobials for farmed animals and in aquaculture by 50% by 2030

Reduce nutrient losses by at least 50% while ensuring no deterioration in soil fertility; this will reduce use of fertilisers by at least 20 % by 2030

Bring back at least 10% of agricultural area under high-diversity landscape features by 2030

Achieve 100% access to fast broadband internet in rural areas by 2025

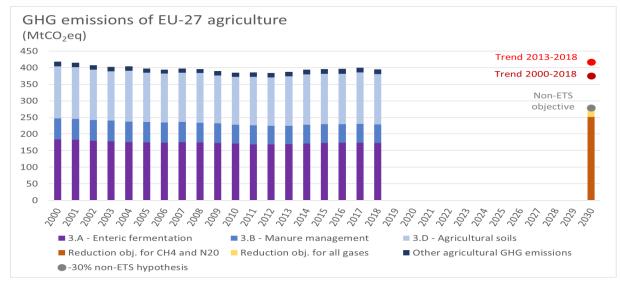
INRAE

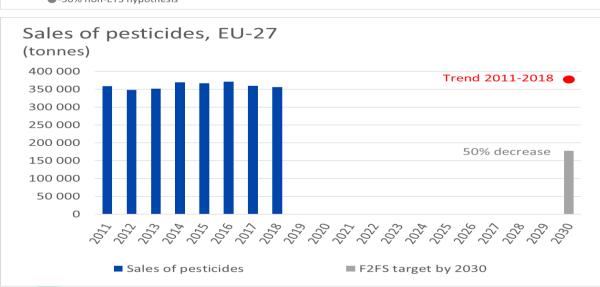
Source : EC (2020)

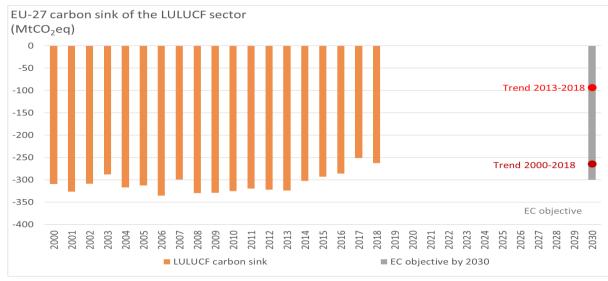
+ Climate change objectives (Climate Plan and Law)

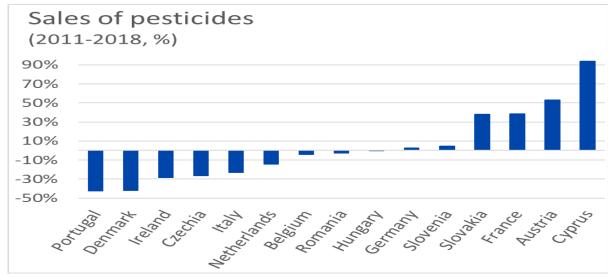
▶ EU agriculture is not on the right track to meet the Green Deal targets (1)









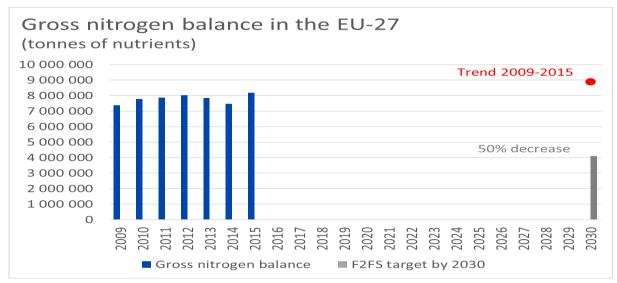


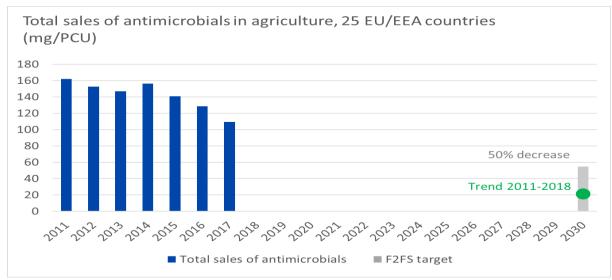


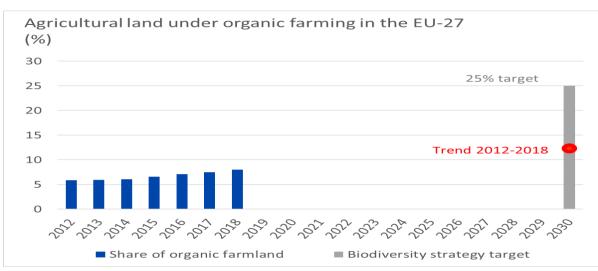
Source: Guyomard, Bureau et al. (2020)

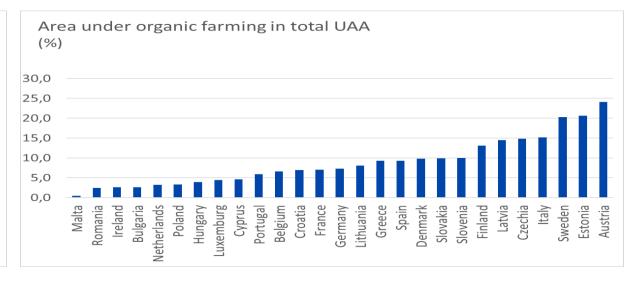
EU agriculture is not on the right track to meet the Green Deal targets (2)





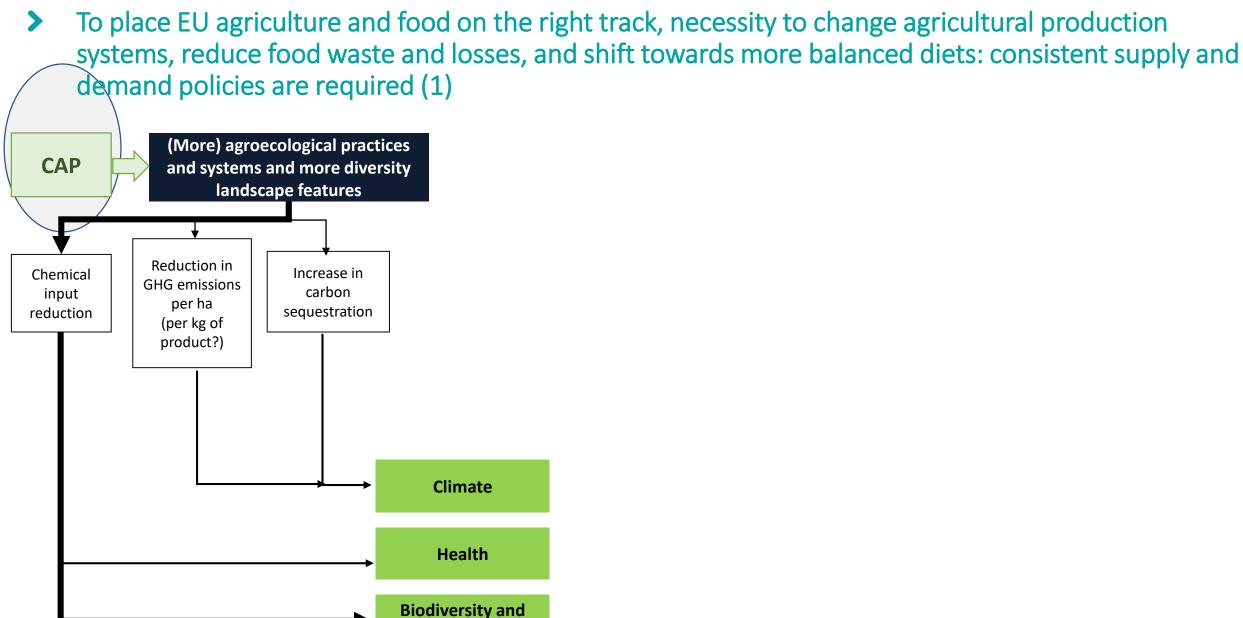








Source: Guyomard, Bureau et al. (2020)



The New CAP and sustainability issues – challenges and progress EURAGRI Webinar, May 31, 2022

INRAe

Environment

To place EU agriculture and food on the right track, necessity to change agricultural production systems, reduce food waste and losses, and shift towards more balanced diets: consistent supply and demand policies are required (2) (More) agroecological practices **CAP** and systems and more diversity 2023-27 landscape features Reduction in Chemical Increase in **GHG** emissions carbon input per ha sequestration reduction (per kg of product?) **Climate**

Health

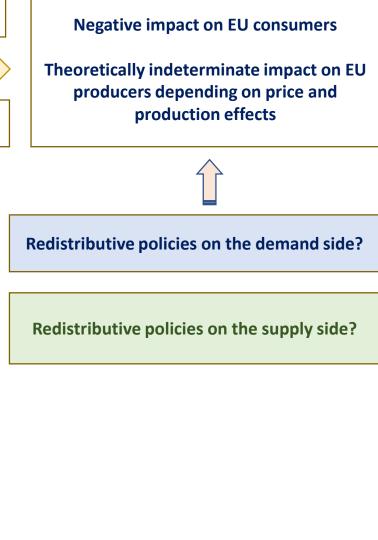
Biodiversity and Environment To place EU agriculture and food on the right track, necessity to change agricultural production systems, reduce food waste and losses, and shift towards more balanced diets: consistent supply and demand policies are required (3)

Higher prices (EU and W)
Lower production levels in the EU

Negative impact on EU consumers

Theoretically indeterminate impact on EU producers depending on price and production effects

Lower EU exports





in GHG

emissions

per ha (per kg of

product?)

Chemical

input

reduction

The New CAP and sustainability issues – challenges and progress EURAGRI Webinar, May 31, 2022

Increase in carbon

sequestration

Climate

Health

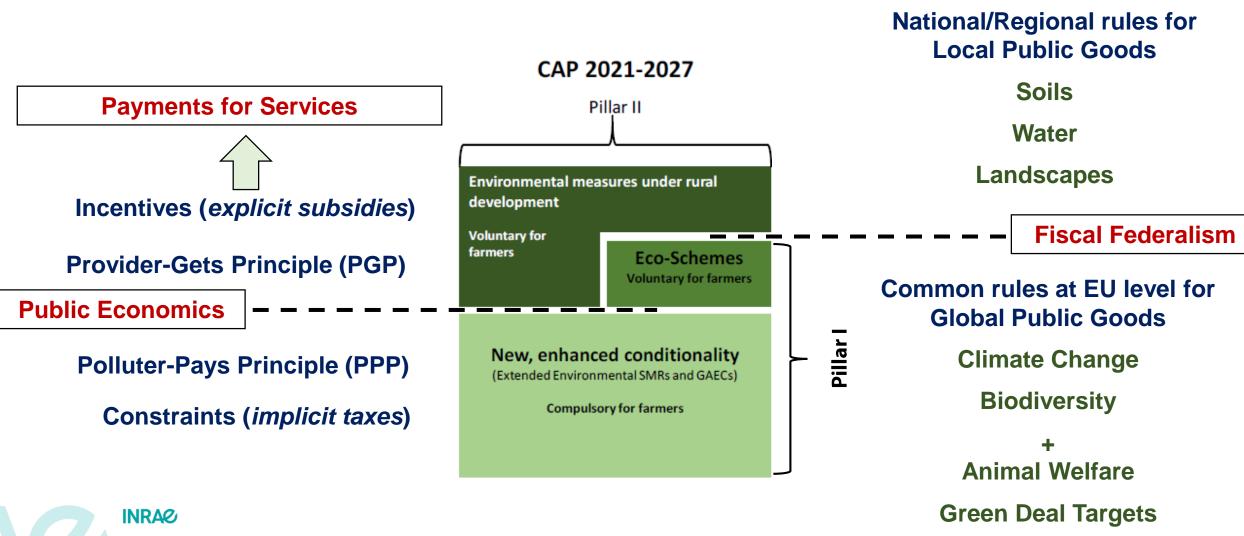
Biodiversity and Environment

To place EU agriculture and food on the right track, necessity to change agricultural production systems, reduce food waste and losses, and shift towards more balanced diets: consistent supply and demand policies are required (4) Higher prices (EU and W) Lower production levels in the EU **Negative impact on EU consumers** (More) agroecological practices **CAP** Theoretically indeterminate impact on EU and systems producers depending on price and **Higher EU imports** production effects **Lower EU exports** Reduction Chemical in GHG Increase in Agricultural carbon land use input emissions sequestration reduction per ha (per changes kg of Higher price increases in product?) the EU In the EU (?) In the Rest of the World (+) **Border adjustment mechanisms** Climate in order to | + | **Limit pollution leakages** Health Ensure « similar » production conditions **Biodiversity and Pollution Environment Trade policy instruments** leakages INRAe

The New CAP and sustainability issues – challenges and progress EURAGRI Webinar, May 31, 2022

To place EU agriculture and food on the right track, necessity to change agricultural production systems, reduce food waste and losses, and shift towards more balanced diets: consistent supply and demand policies are required (5) **Circular bioeconomy policies** (More) agroecological practices **Changes in** Reduction of food **CAP** and systems diets waste and losses Food and nutrition policies Reduction Circular Bioeconomy Chemical in GHG Increase in **Balanced diets** What instruments? Agricultural Changes in practices in the carbon input emissions Animal vs plant land use food chain (retail and final sequestration reduction per ha (per proteins **EU and/or MS levels?** consumption stages) kg of product?) UE Rest of the (-) World Final impacts on EU Consumers? **Trade policy** (access to balanced diets) **Climat** Final impacts on EU producers depending notably on production choices (plants versus animals) Health **Biodiversity and Environment** Research, innovation and INRAe development policies The New CAP and sustainability issues – challenges and progress (productivity gains) EURAGRI Webinar, May 31, 2022

How to use the green architecture of the PAC to help to achieve the Green Deal objectives?



The New CAP and sustainability issues – challenges and progress EURAGRI Webinar, May 31, 2022

Source : Guyomard, Bureau et al. (2020)

> Explicitly addressing possible/potential trade-offs

- Climate/Environnement versus Economy (farm incomes)
 - Progressivity of the transition (but climate and environment urgency)
 - Productivity gains (breeding, precision farming): importance of using all progress levers (impacts on all sustainability dimensions)
 - Horizontal (territories) and vertical (food supply chains) solidarities
 - Development of payments for services (notably climate/environment services) funded by both the taxpayer and the intermediate/final user -> from an obligation of means (practices) to an obligation of results (impacts, indicators, causality modelling)
 - Compensation of agricultural additional costs thanks to savings in pollution and health expenditure
 - Do not forget the consumer
 - Consumers' willingness to pay for more sustainable agri-food systems
 - Reduction of food access inequalities (food stamps)



> Explicitly addressing possible/potential trade-offs

- Climate/Environnement versus Food Security
 - Issue exacerbated by the COVID-19 crisis and the war in Ukraine (legitimacy of the Green Deal?)
 - Do not generalize the rationality of the Green Deal (land sharing/extensification) to all world agricultures (notably in regions where priority needs are water, fertilization, crop protection -> sustainable intensification and land sparing)
 - Response to the world food crisis
 - By maintaining open world markets (no trade restrictions)
 - By providing financial resources to food importer countries (Africa and Asia)
 - By increasing the share of crop directly for food rather than by the cultivation of set-aside land
 - Crops used for biofuels (in the short run) and crops used for feeding livestock (in the long run)
 - Food availability is not the issue in the EU
 - Dependency on external factors (labour, energy both directly and indirectly through fertilizers)
 - More sustainable and resilient farm and food systems: Green Deal



Report for the European Parliament (Nov. 2020) Hervé Guyomard, Jean-Christophe Bureau, Vincent Chatellier, Cecile Détang-Dessendre, Pierre Dupraz, Florence Jacquet, Xavier Reboud, Vincent Réquillart, Louis-Georges Soler, Margot Tysebaert

STUDY Requested by the AGRI committee



The Green Deal and the CAP: policy implications to adapt farming practices and to preserve the EU's natural resources





Policy Department for Structural and Cohesion Policies Directorate-General for Internal Policies PE 629.214 - November 2020

EN



INRAO

Thank you for your attention