

Changement climatique et alimentation : où en est-on ?

Séance du 7 avril 2021

Introduction

Pierre COMBRIS

Directeur de recherche honoraire INRAE

Membre correspondant, section 8

Quelques points pour introduire la séance

1. La Commission EAT-Lancet
2. Les rapports prospectifs : Agrimonde Terra, WRI, GIEC
3. Les défis pour 2050
4. Le programme de la séance

Les Commissions du *Lancet*

- Richard Horton, éditeur en chef depuis 1995, lance l'idée des Commissions à la fin des années 2000:
 - Fournir des faits scientifiques sur des sujets d'intérêt majeur
 - Alimenter les politiques publiques
 - Développer des plates-formes d'échanges entre chercheurs de différentes disciplines
- Rapport de la première commission publié en 2009 : *Lancet*-UCL, « Changement climatique et Santé »
- 56 Commissions référencées aujourd'hui sur le site de la revue
- EAT-*Lancet* : 37 experts (environnement et climat, nutrition et santé publique), 16 pays, 2 ans de travail

Définir des objectifs scientifiquement fondés pour le système alimentaire global, comme il en existe pour le climat

The Lancet Commissions

Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems



Walter Willett, Johan Rockström, Brent Loken, Marco Springmann, Tim Lang, Sonja Vermeulen, Tara Garnett, David Tilman, Fabrice DeClerck, Amanda Wood, Malin Jonell, Michael Clark, Line J Gordon, Jessica Fanzo, Corinna Hawkes, Rami Zurayk, Juan A Rivera, Wim De Vries, Lindiwe Majele Sibanda, Ashkan Afshin, Abhishek Chaudhary, Mario Herrero, Rina Agustina, Francesco Branca, Anna Lartey, Shenggen Fan, Beatrice Crona, Elizabeth Fox, Victoria Bignet, Max Troell, Therese Lindahl, Sudhvir Singh, Sarah E Cornell, K Srinath Reddy, Sunita Narain, Sania Nishtar, Christopher J L Murray

Executive summary

Food systems have the potential to nurture human health and support environmental sustainability; however, they are currently threatening both. Providing a growing global population with healthy diets from sustainable food systems is an immediate challenge. Although global

than the reference diet intake, whereas overconsumption of unhealthy foods is increasing. Using several approaches, we found with a high level of certainty that global adoption of the reference dietary pattern would provide major health benefits, including a large reduction in total mortality.

Published **Online**

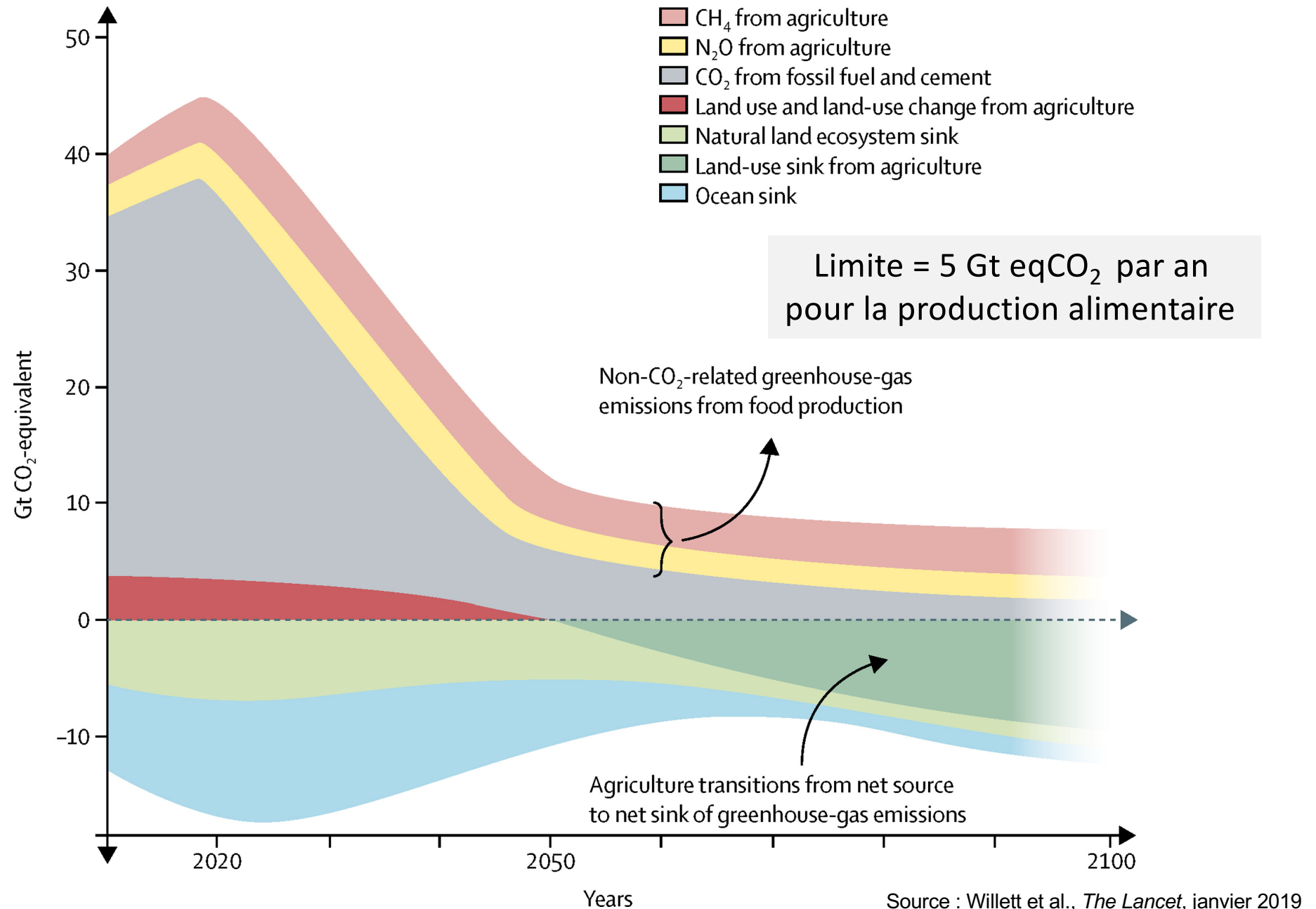
January 16, 2019

[http://dx.doi.org/10.1016/S0140-6736\(18\)31788-4](http://dx.doi.org/10.1016/S0140-6736(18)31788-4)

See **Online/Comment**

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Objectif pour les émissions de GES, réchauffement < 2°C



Alimentation durable : quelques rapports clés

Land Use and Food Security in 2050: a Narrow Road

Agrimonde-Terra

Chantal Le Mouél, Marie de Lattre-Gasquet, Olivier Mora, eds

Octobre 2018



Juillet 2019

WORLD RESOURCES REPORT

CREATING A SUSTAINABLE FOOD FUTURE

A Menu of Solutions to Feed Nearly 10 Billion People by 2050

FINAL REPORT, JULY 2019

THE WORLD BANK

UN
environment

UN
DP

WITH TECHNICAL CONTRIBUTIONS FROM
CIRAD

INRA

ipcc
INTERGOVERNMENTAL PANEL ON climate change

Climate Change and Land

An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems

Août 2019



Janvier 2019

The Lancet Commissions

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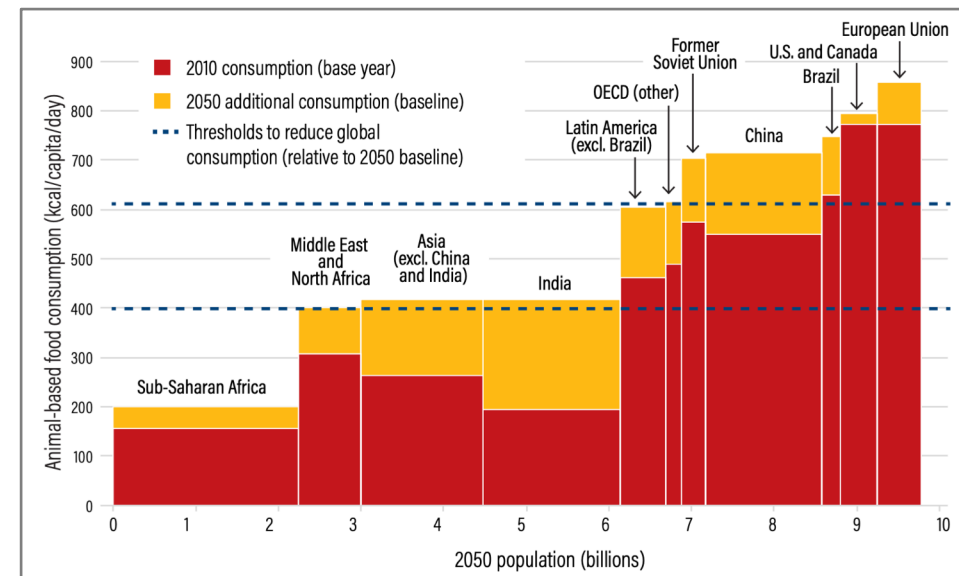
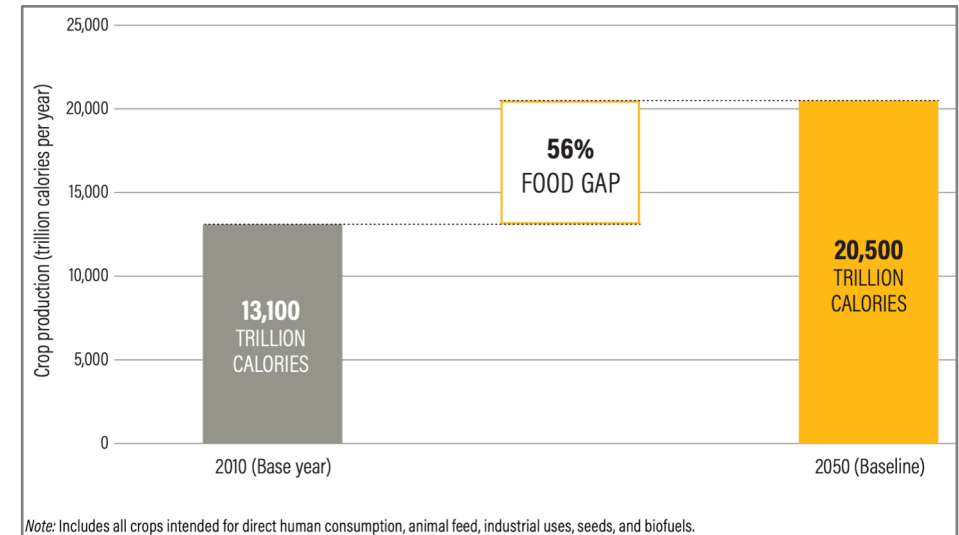
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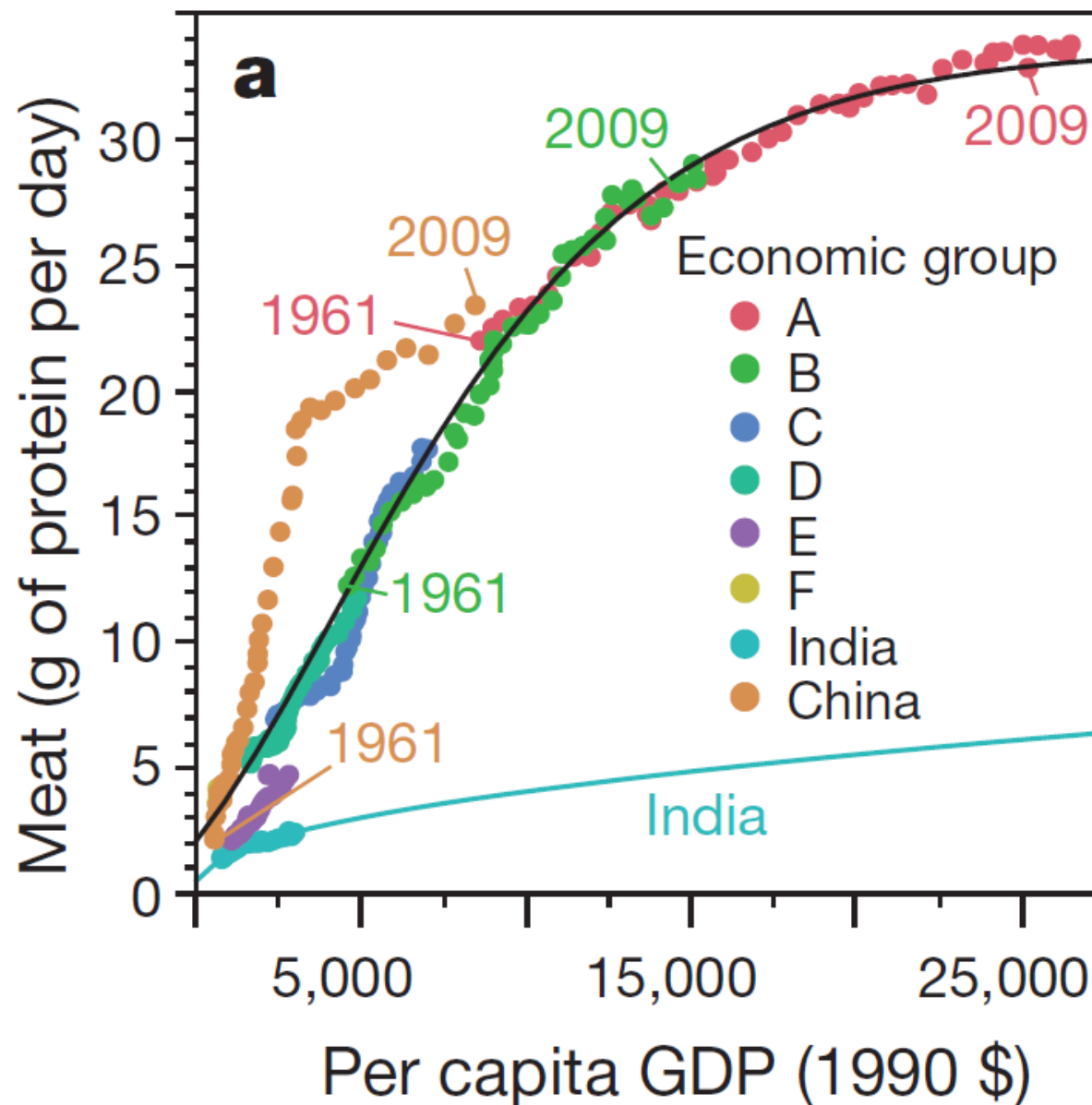
La demande mondiale de calories à l'horizon 2050

Projections pour 2050 :

- population : 7 → 9,8 milliards (+40%)
- 3 milliards de personnes vont entrer dans la classe moyenne mondiale
- demande de calories : +55% (en calories initiales)
- demande de viande et produits laitiers : +70%

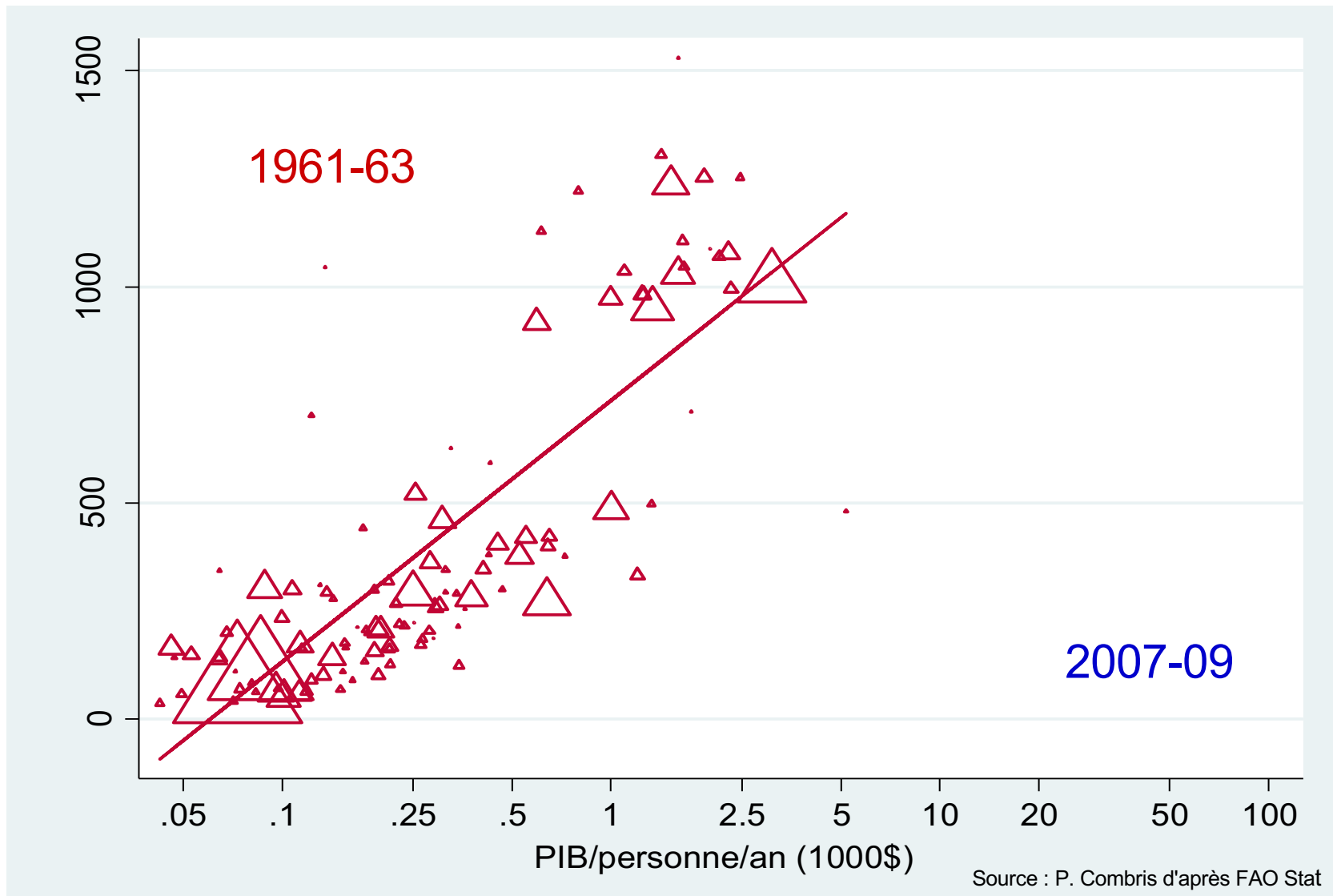


Consommation de viande en fonction du revenu



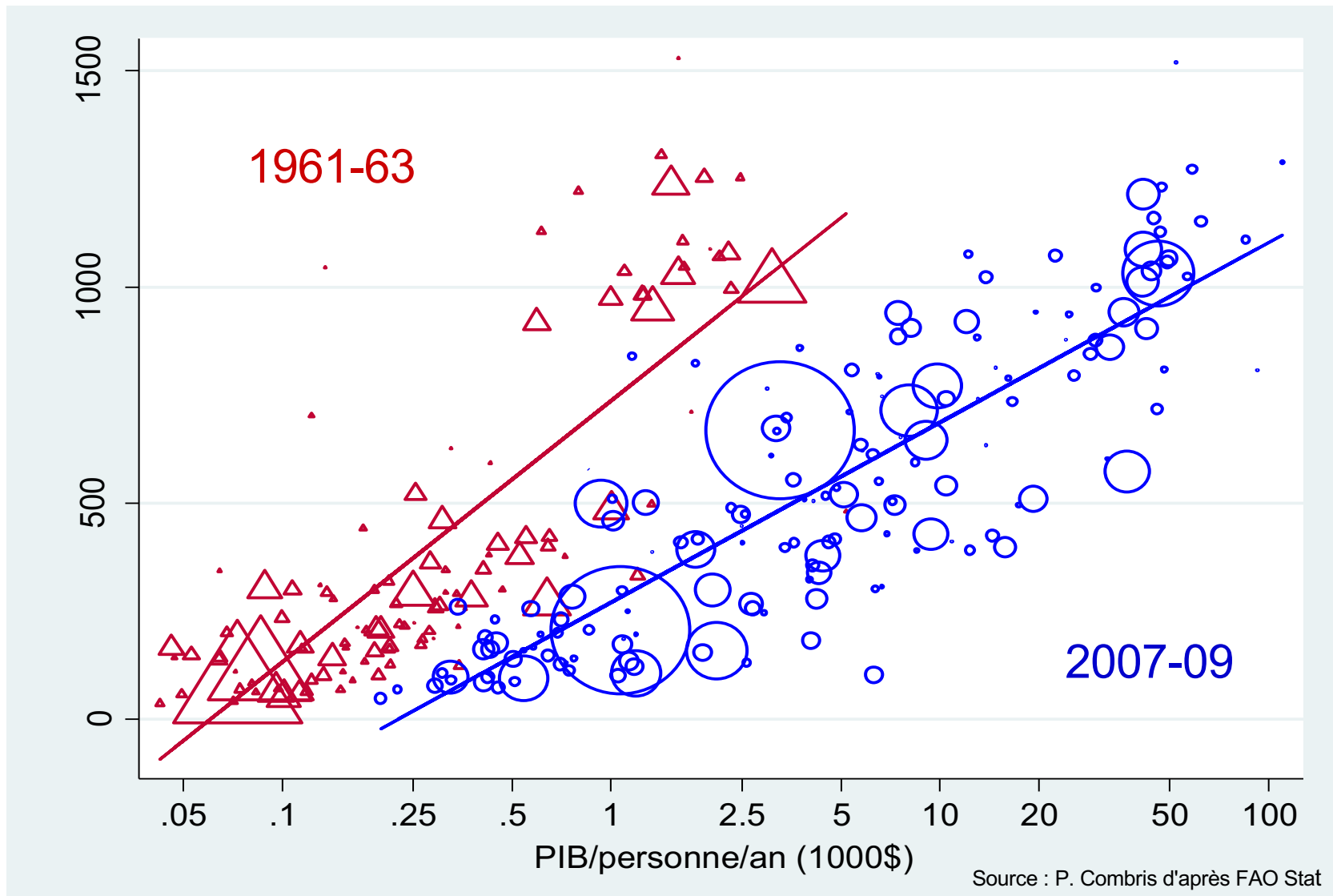
Disponibilités des calories animales en fonction du revenu

La taille des symboles est proportionnelle aux populations concernées



Disponibilités des calories animales en fonction du revenu

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Sans une nouvelle transition alimentaire les objectifs de maîtrise du réchauffement climatique (1.5°C - 2°C) ne pourront pas être atteints.

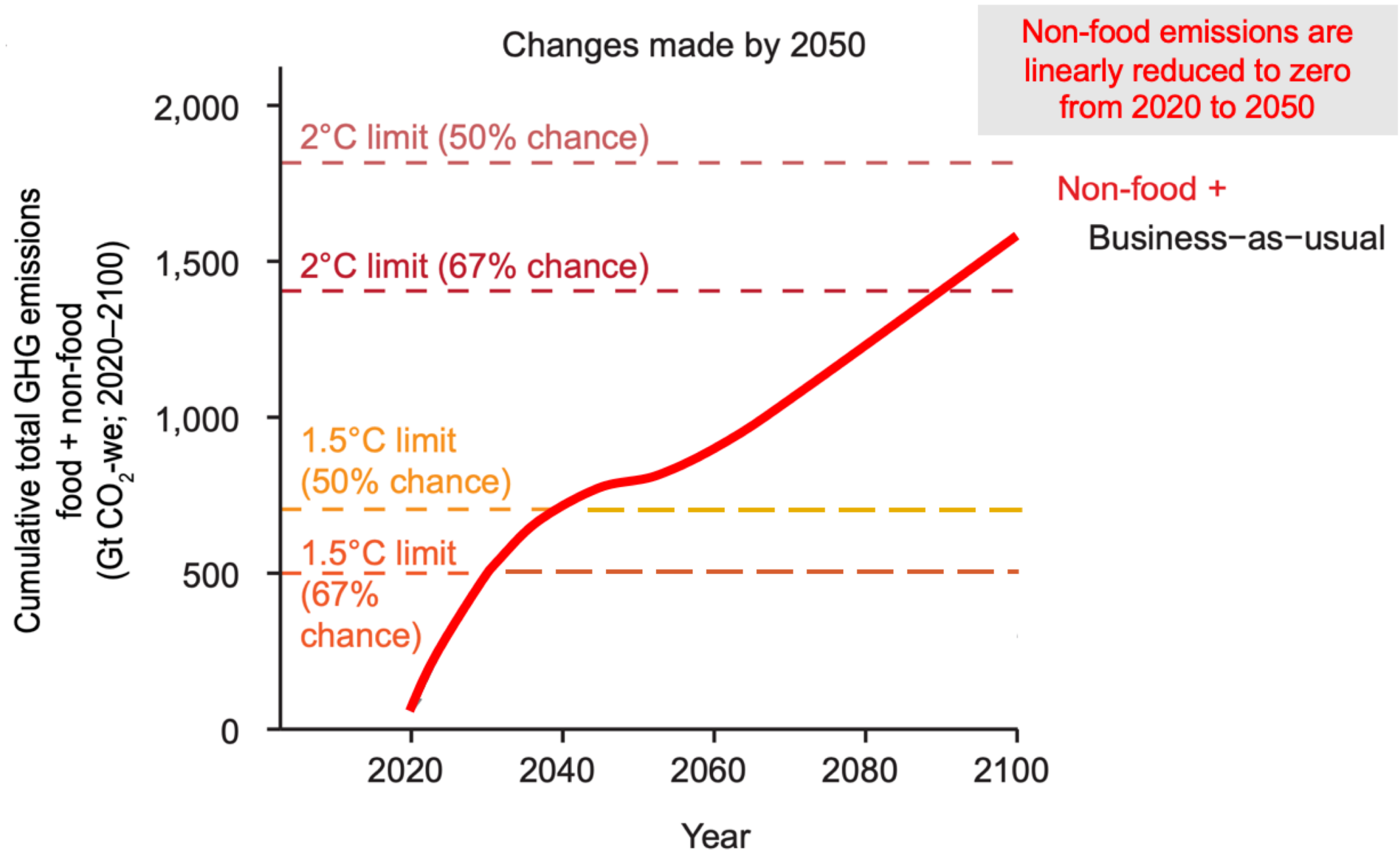
CLIMATE CHANGE

Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets

Michael A. Clark^{1*}, Nina G. G. Domingo², Kimberly Colgan², Sumil K. Thakrar², David Tilman^{3,4}, John Lynch⁵, Inês L. Azevedo^{6,7}, Jason D. Hill²

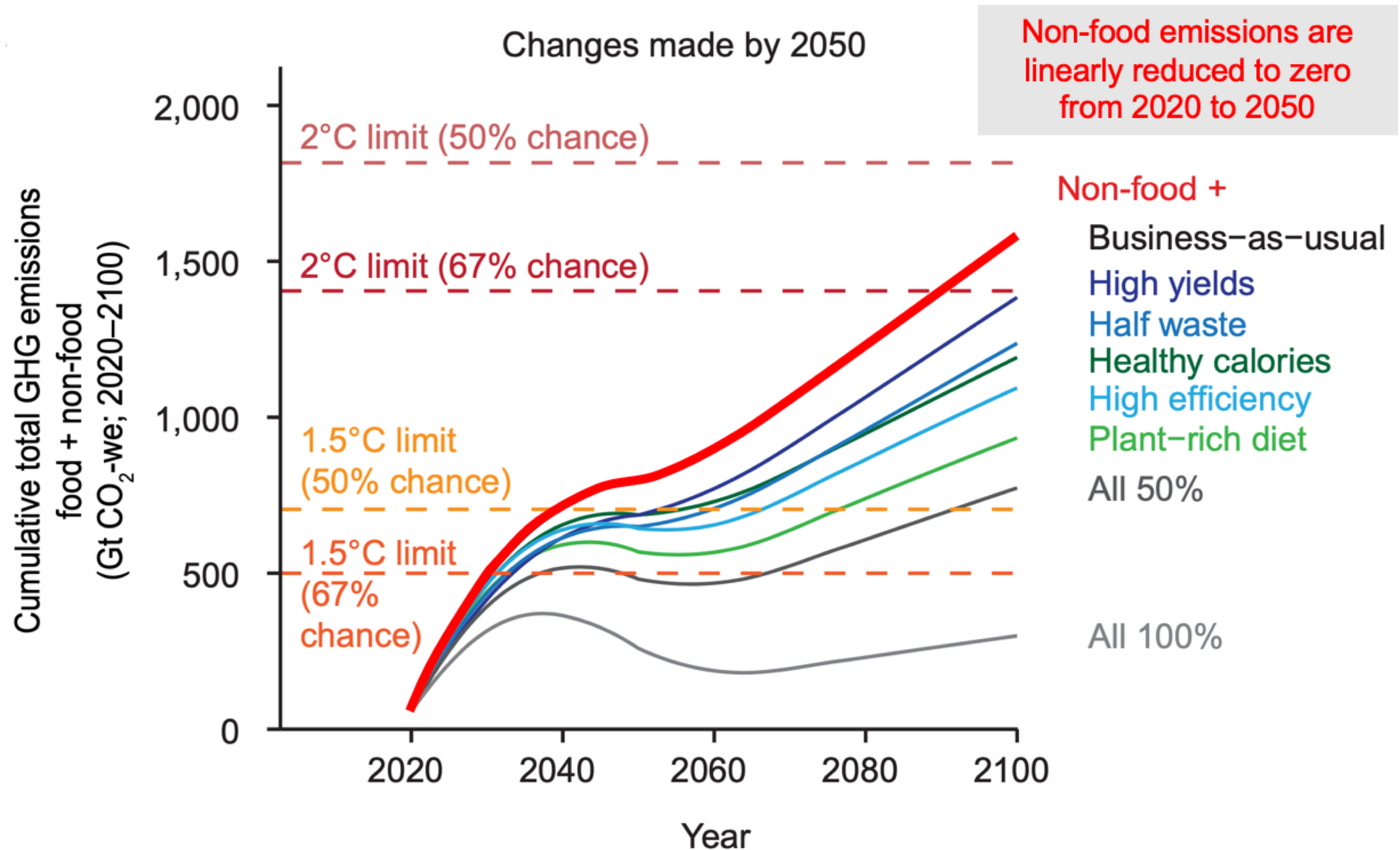
The Paris Agreement's goal of limiting the increase in global temperature to 1.5° or 2°C above preindustrial levels requires rapid reductions in greenhouse gas emissions. Although reducing emissions from fossil fuels is essential for meeting this goal, other sources of emissions may also preclude its attainment. We show that **even if fossil fuel emissions were immediately halted, current trends in global food systems would prevent the achievement of the 1.5°C target and, by the end of the century, threaten the achievement of the 2°C target.** Meeting the 1.5°C target requires rapid and ambitious changes to food systems as well as to all nonfood sectors. The 2°C target could be achieved with less-ambitious changes to food systems, but only if fossil fuel and other nonfood emissions are eliminated soon.

L'accroissement des émissions de GES liées à l'alimentation



Source : Clark et al., *Science* 370, 705–708 (2020)

L'accroissement des émissions de GES liées à l'alimentation



Programme

Changement climatique et utilisation des terres : les limites planétaires et le potentiel d'atténuation du système alimentaire

Nathalie DE NOBLET-DUCOUDRÉ

Wolfgang CRAMER

Alain VIDAL

Bon pour l'environnement, bon pour la santé, acceptable et accessible : "régime planétaire de référence" ou "alimentation durable" ?

Nicole DARMON

Mesurer les impacts environnementaux des aliments pour favoriser l'évolution de la production et de la consommation

Jérôme MOUSSET

Vincent COLOMB

Conclusion : Les conditions de la prochaine transition alimentaire

Adam DREWNOWSKI