

CLIMATE TALKS: SOLUZIONI PER AFFRONTARE LE DUE CRISI

5 LUGLIO 10:00-13:00 | AUDITORIUM DELL'ARA PACIS, ROMA

Conferenza Nazionale sul clima 2023

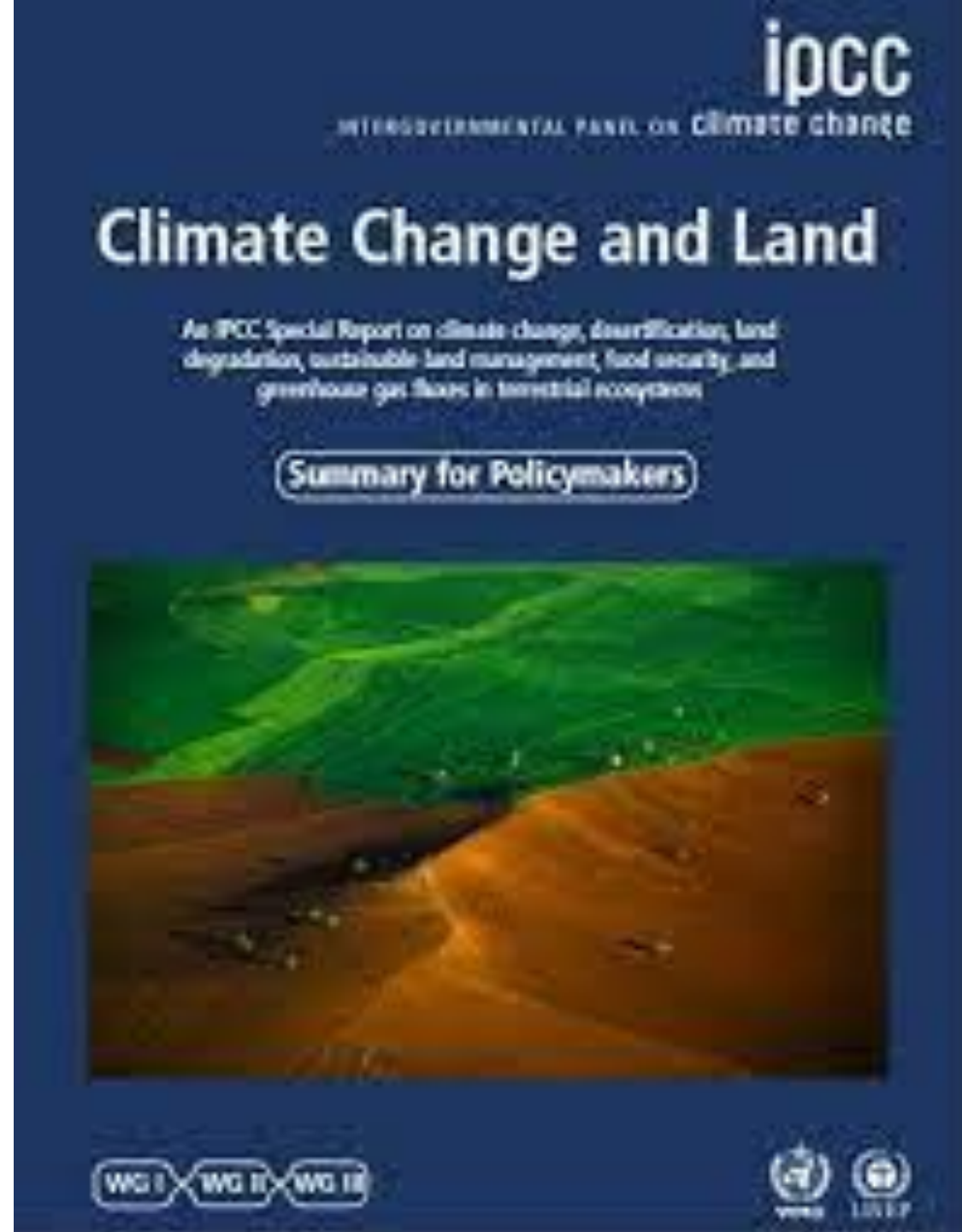
*Alluvioni e siccità. Quali strategie
per affrontare la crisi climatica?*

Agricoltura:
innovazioni per il futuro
di un settore strategico

Stefano Laporta
Presidente ISPRA

L'agricoltura è uno dei settori economici più esposti ai rischi del cambiamento climatico ...ma anche uno dei fattori “alla base” della crisi climatica

(Mbow et al. 2019, IPCC Climate Change and Land report).



Impatti del climate change sulla produttività dei sistemi agricoli

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Anthropogenic climate change has slowed global agricultural productivity growth

Ariel Ortiz-Bobea [✉](#), Toby R. Ault, Carlos M. Carrillo, Robert G. Chambers & David B. Lobell

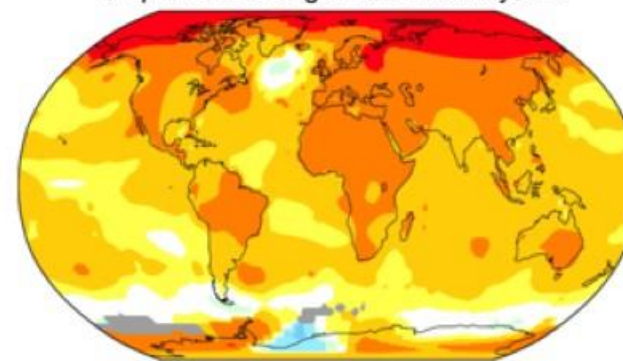
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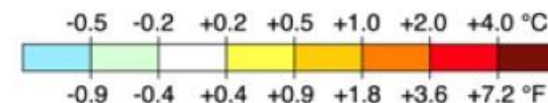
Abstract

Agricultural research has fostered productivity growth, but the historical influence of anthropogenic climate change (ACC) on that growth has not been quantified. We develop a robust econometric model of weather effects on global agricultural total factor productivity (TFP) and combine this model with counterfactual climate scenarios to evaluate impacts of past climate trends on TFP. Our baseline model indicates that ACC has reduced global agricultural TFP by about 21% since 1961, a slowdown that is equivalent to losing the last 7 years of productivity growth. The effect is substantially more severe (a reduction of -26–34%) in warmer regions such as Africa and Latin America and the Caribbean. We also find that global agriculture has grown more vulnerable to ongoing climate change.

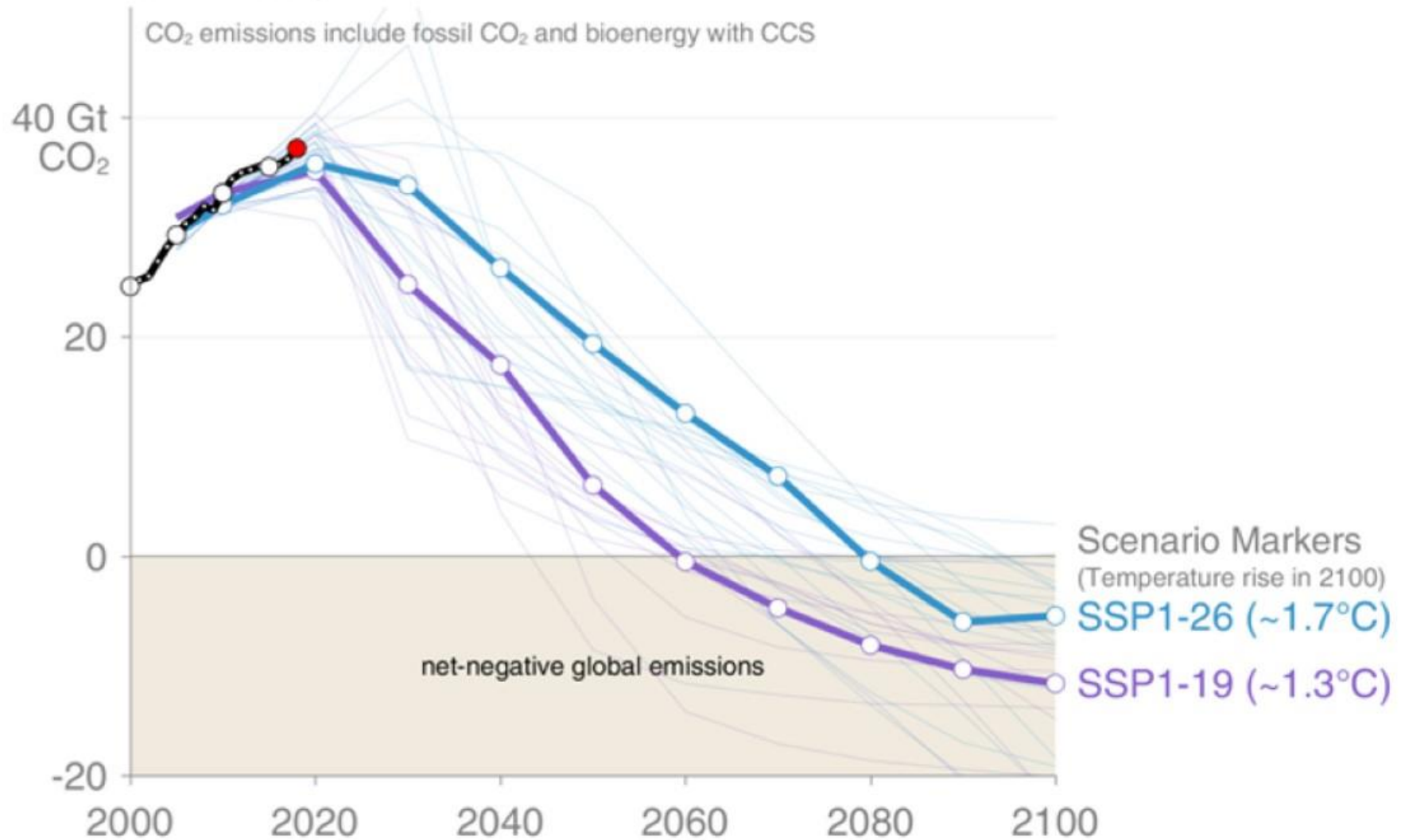
Temperature change in the last 50 years



2011–2020 average vs 1951–1980 baseline

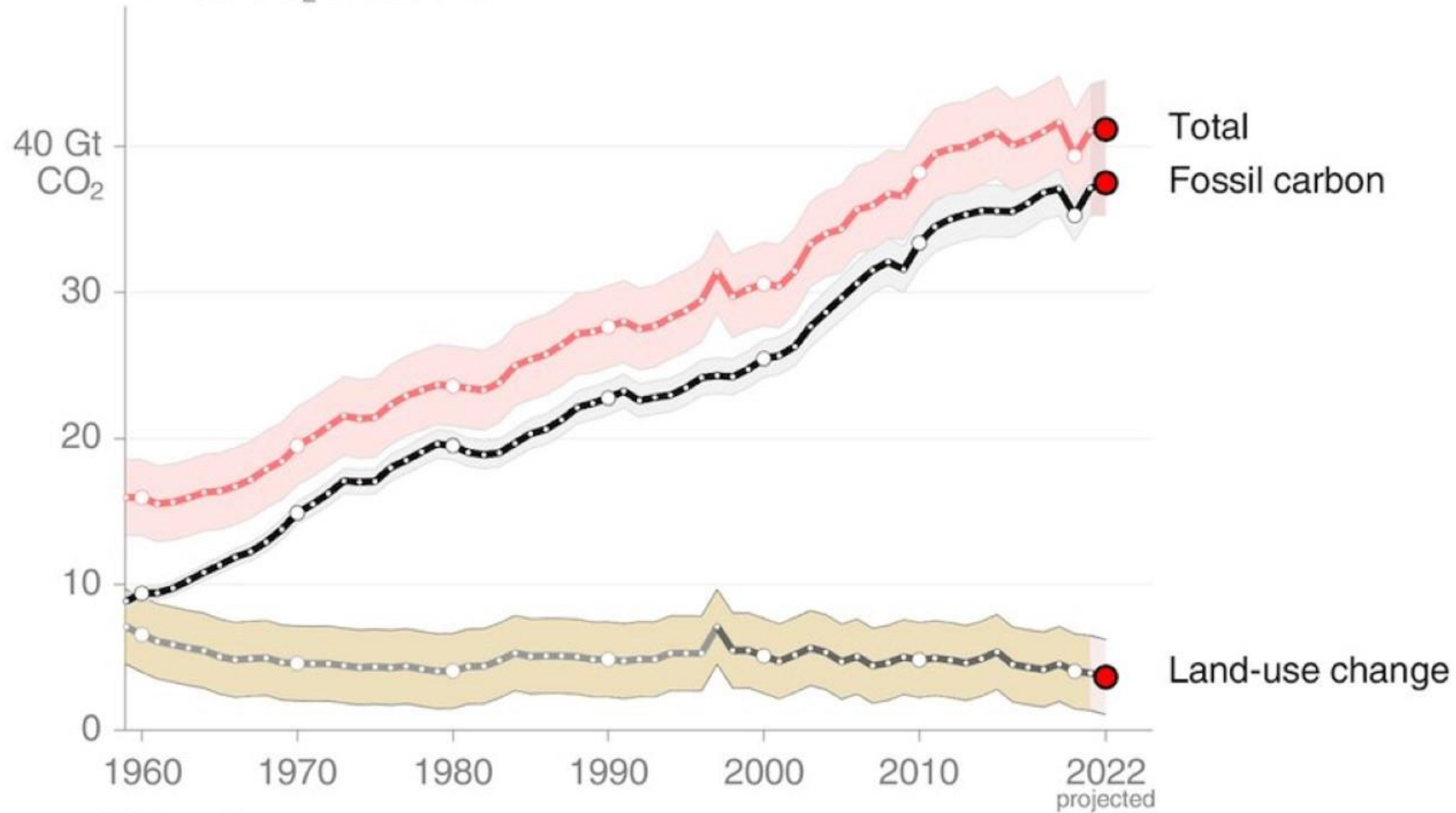


Global CO₂ emissions



© Global Carbon Project • Data: IAMC 1.5°C Scenario Explorer (hosted by IIASA)

Annual CO₂ Emissions



© Global Carbon Project

Tabella 3.5 - Emissioni di gas serra delle categorie del settore Agricoltura (Mt CO₂ eq.)

	1990	1995	2000	2005	2010	2015	2017	2018	2019	2020	2021
<i>Mt CO₂ equivalente</i>											
Fermentazione enterica	17.1	16.7	16.5	14.5	14.1	14.3	14.7	14.6	14.6	14.8	14.7
Gestione delle deiezioni	7.9	7.6	7.5	7.4	7.2	6.9	6.8	6.7	6.7	6.7	6.6
Coltivazione di riso	2.1	2.2	1.9	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8
Suoli agricoli	10.0	11.0	10.8	10.2	8.5	8.6	8.7	8.7	8.7	9.6	9.2
Combustione dei residui agricoli, emissioni di CO ₂ da applicazione di urea e carbonati	0.5	0.6	0.6	0.6	0.4	0.5	0.5	0.5	0.4	0.5	0.5
Totale settore Agricoltura	37.7	38.1	37.2	34.6	32.2	32.1	32.6	32.3	32.2	33.4	32.7

Tabella 3.6 - Assorbimenti ed emissioni di gas serra delle categorie del settore LULUCF (Mt CO₂ eq.)

	1990	1995	2000	2005	2010	2015	2017	2018	2019	2020	2021
<i>Mt CO₂ equivalente</i>											
Foreste	-17.2	-31.0	-26.2	-34.9	-36.4	-40.2	-23.0	-40.6	-35.4	-29.8	-27.8
Terre agricole	1.8	0.8	-0.5	-1.8	-0.8	0.7	-0.9	-0.5	-0.5	1.1	1.1
Prati e pascoli, altre terre boscate	5.2	-1.9	-1.4	-6.1	-9.2	-9.3	-4.0	-8.9	-8.1	-7.3	-3.6
Zone umide	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	NO,NE
Insedimenti urbani	7.1	8.9	6.9	7.7	4.7	4.7	5.5	5.5	5.5	5.5	4.7
Prodotti legnosi (HWP)	-0.4	-0.7	-0.5	-0.5	-0.1	0.1	-1.0	-0.8	-3.5	-2.2	-2.0
Totale settore LULUCF	-3.5	-23.9	-21.6	-35.6	-41.7	-44.0	-23.3	-45.2	-41.8	-32.5	-27.5

33 milioni di tonnellate di anidride carbonica contribuisce per circa il 7,8% alle emissioni totali nel 2021

Nel 2021 foreste, prati, pascoli ed altre terre boscate hanno generato un carbon sink di 28 milioni di tonnellate di CO₂

Drama, dismay, triumph: nailbiting climax to the world's biodiversity deal

Long years of complex negotiations led up to one critical moment for the planet at Cop15 in Montreal this week. For a time, it seemed all was lost. Here's what happened next...



Sealing the deal: an all-important handshake between Cop15 president Huang Runqiu and the DRC's Ève Bazaiba in Montreal on Monday. Photograph: Lars Hagberg/AFP/Getty Images

23 target per il 2030

1. **Ridurre le minacce alla biodiversità (1-8)**
2. **Far fronte alle necessità delle persone attraverso l'uso sostenibile e una giusta condivisione dei benefici (9-13)**
3. **Strumenti e soluzioni per l'attuazione e il mainstreaming (14-23)**

