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of the United Nations



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Achieving SDG 2 without breaching the 1.5 °C threshold: A global roadmap

Part 1

Accelerated climate actions can transform agrifood systems and help achieve food security and nutrition both today and tomorrow.

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IN BRIEF

Achieving SDG 2 without breaching the 1.5 °C threshold: A global roadmap

HOW AGRIFOOD SYSTEMS TRANSFORMATION THROUGH ACCELERATED CLIMATE ACTIONS
WILL HELP ACHIEVING FOOD SECURITY AND NUTRITION, TODAY AND TOMORROW



PART 1

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30th January 2024



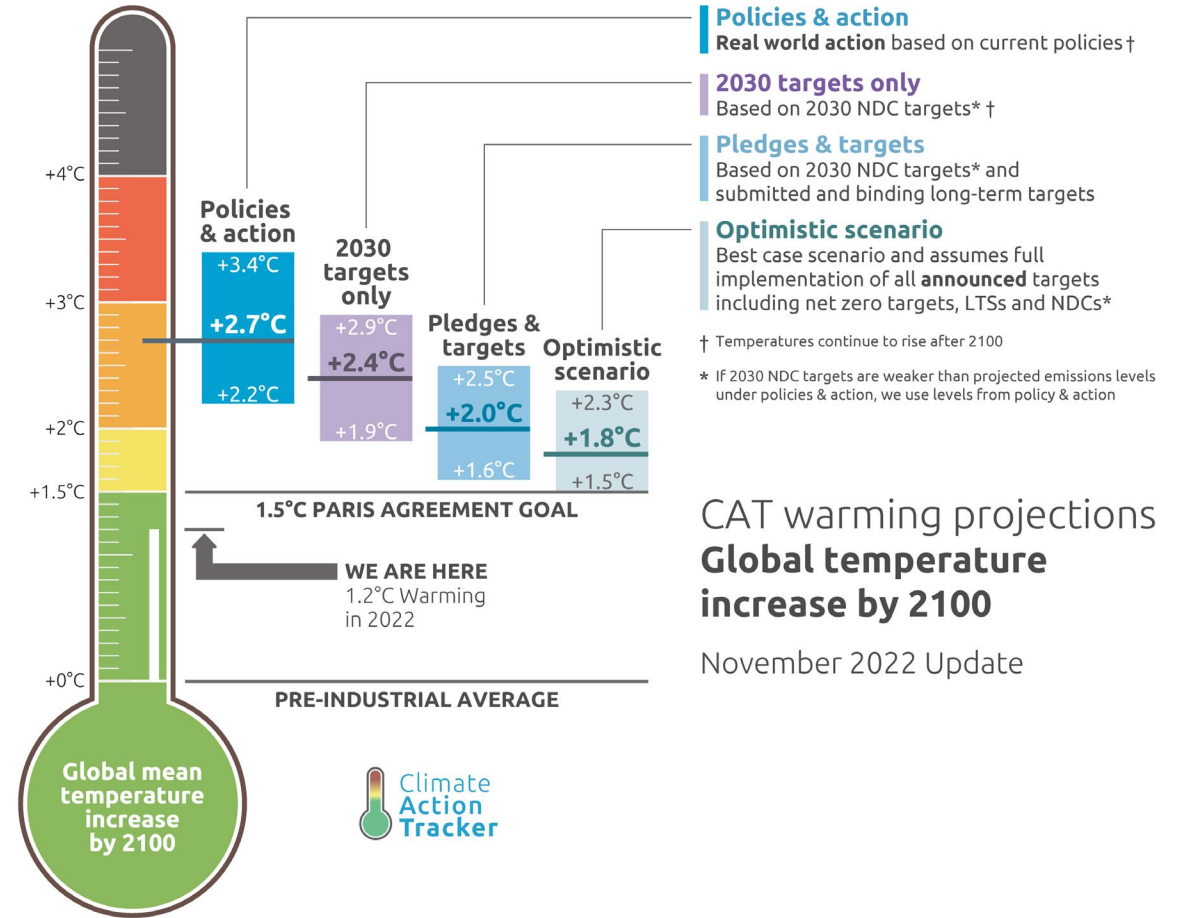
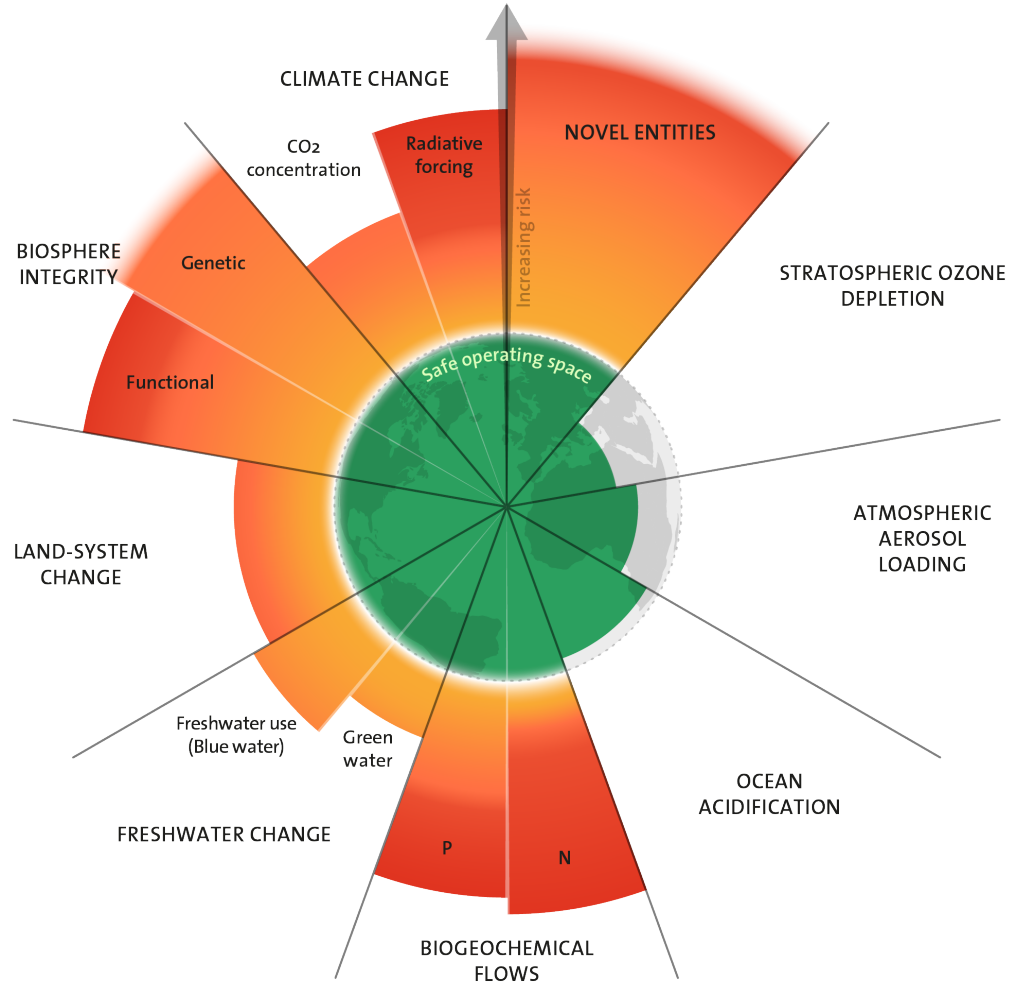
Why a roadmap?



On the Planet front: things look bad



The 2023 update to the Planetary boundaries



CAT warming projections
Global temperature increase by 2100

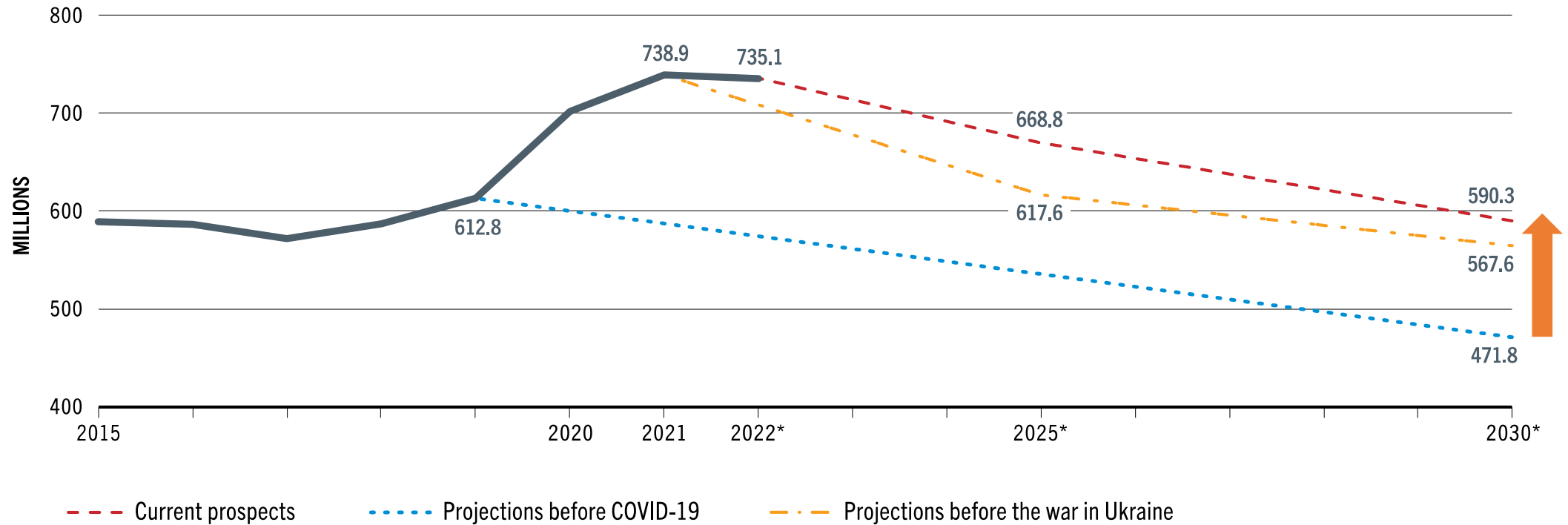
November 2022 Update



On the people front: the situation has deteriorated too



PROJECTIONS OF THE GLOBAL NUMBER OF UNDERNOURISHED PEOPLE

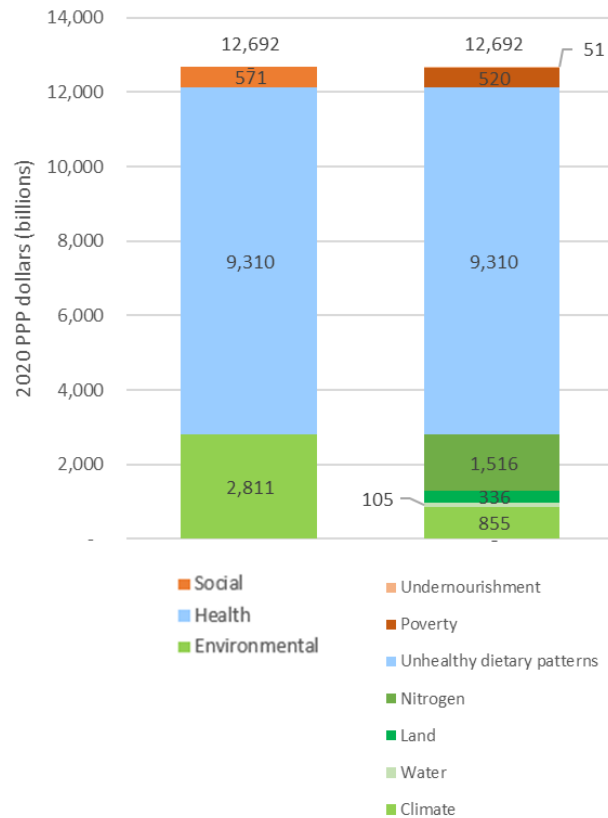


NOTES: * Projected values. The 2020, 2021 and 2022 values are based on the middle of the projected ranges.



And the situation is increasingly costly

Global hidden costs, 2020



SOFA (2023)

SOFA estimates the global hidden costs of agrifood systems in 2020 to be around **12.7 trillion 2020 PPP USD** – equivalent to 10 percent of global GPP

- **Health-related hidden costs from poor diets account for >70 percent of all costs (or USD 9 trillion 2020 PPP)**
- **Environmental costs**, which are likely underestimated, levelled at USD 2.8 trillion 2020 PPP (or 20 percent)
- **Social costs** driven by undernourishment and poverty were smaller (4 percent) and mostly driven by moderate poverty in the agrifood sector



Key messages and approach



Key messages

1
We need to urgently act and change the narrative.

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2
Food security and nutrition is an essential human right and will not be achieved sustainably without **climate actions**

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3
Silos have to be broken: across concepts, actors and sectors. It is a necessity to overcome specific trade-offs.

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4
Agrifood systems has to be on the forefront of a **just transition** and inequalities have to be reduced.

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5
Solutions, gathered in **10 domains.**

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6
International coordination is an absolute necessity.

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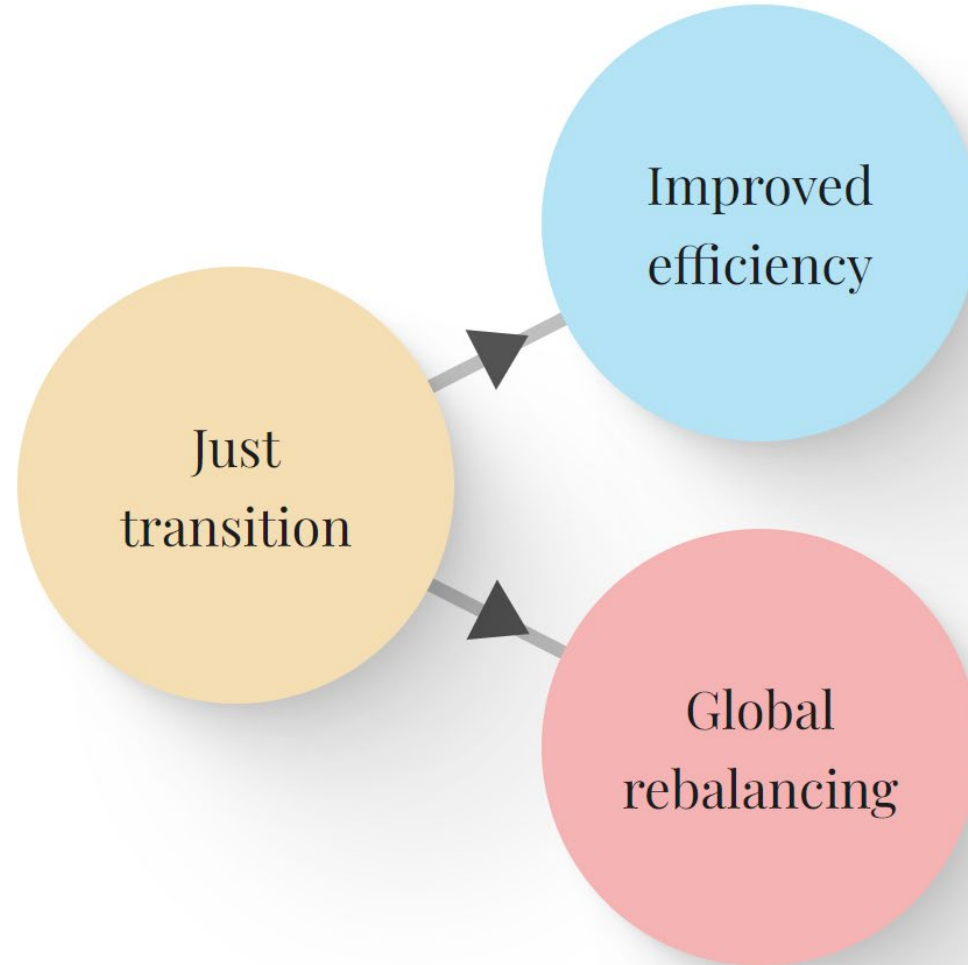


A multi-year process





1 principle: 2 guides





Solutions & Outcomes



Aspirational goals and Implementable solutions



What can be done:

1. Improve livestock productivity through better genetics
2. Intensify livestock production in relevant locations and improve feeding practices
3. Protect animal health through improved veterinary services and animal disease surveillance
4. Change the feed industry and promote new sources of proteins for feed
5. Restore degraded pasture and improve grazing management practices

	2050	Total factor productivity for crops has grown by 2.3% per year for low-income countries.
Enabling healthy diets for all	2030	All the countries have updated their food-based dietary guidelines to provide context appropriate quantitative recommendations on dietary patterns.
	2030	All countries have legislation restricting food advertisement targeting children.
Forest and wetlands	2025	Zero net-deforestation is achieved globally.
	2035	Zero gross-deforestation is achieved globally.
Soil and water	2030	Achieve universal and equitable access to safe and affordable drinking water for all.
	2040	10 Gt of CO ₂ -eq of additional carbon have been sequestered in cropland and pasture soil between 2025 and 2050.
Food loss and waste	2030	Reduce by 50% per capita global food waste at the retail and consumer levels.
	2050	All food loss and waste are integrated in a circular bioeconomy and used for feed, soil enhancement or bioenergy production.
Clean energy	2030	No people are using traditional biomass for cooking.
	2050	CO ₂ capture from bioenergy reaches 1 263 Mt CO ₂ per year.

10
domains

120
actions

20
milestones



Milestones

Domain	Year	Description
Livestock	2030	Methane emissions from the livestock sector have been reduced by 25% compared to 2020.
	2050	Total factor productivity for livestock has grown at 1.7% per year globally.
Fisheries and aquaculture	2030	100% of fisheries under effective management and all illegal, unreported and unregulated activities phased out.
	2040	At least 75% growth in global sustainable aquaculture. Production compared to 2020 level.
Crops	2050	Total factor productivity for crops has grown by 1.5% per year globally.
	2050	Total factor productivity for crops has grown by 2.3% per year for low-income countries.
Enabling healthy diets for all	2030	All the countries have updated their food-based dietary guidelines to provide context appropriate quantitative recommendations on dietary patterns.
	2030	All countries have legislation restricting food advertisement targeting children.
Forest and wetlands	2025	Zero net-deforestation is achieved globally.
	2035	Zero gross-deforestation is achieved globally.
Soil and water	2030	Achieve universal and equitable access to safe and affordable drinking water for all.
	2040	10 Gt of CO ₂ eq of additional carbon have been sequestered in cropland and pasture soil between 2025 and 2050.
Food loss and waste	2030	Reduce by 50% per capita global food waste at the retail and consumer levels.
	2050	All food loss and waste are integrated in a circular bioeconomy and used for feed, soil enhancement or bioenergy production.
Clean energy	2030	No people are using traditional biomass for cooking.
	2050	CO ₂ capture from bioenergy reaches 1 263 Mt CO ₂ per year.
Inclusive policies	2030	All countries have implemented nationally appropriate social protection systems and measures for all, and ensure that all groups vulnerable to climate-related extreme events and other economic, social and environmental shocks and disasters, are covered.
	2040	Gender productivity gap in land productivity gap between female- and male-managed farms of the same size is halved compared to 2020.
Data	2030	All farmers and ranchers have access to globally recognised solutions to monitor their GHG emissions.
	2030	Total factor productivity for crops and livestock corrected for non-market inputs and outputs are monitored in all countries on an annual basis.



To achieve a global agenda

	Food security and nutrition goals	and contributing to the 1.5 °C agenda
2025	150 million people out of hunger compared to 2020.	Emissions from drained carbon soils are cut by 5% compared to 2020.
2030	Chronic hunger eliminated.	Gross GHG emissions of agrifood systems cut by 25%.
2035	Number of people that could not access to healthy diets cut by half compared to 2020.	Agrifood systems are CO ₂ neutral, only other GHG are net emitters.
2040	Number of people that do not consume a healthy diet has been cut by half compared to 2020.	N ₂ O emissions of the agrifood systems are halved compared to 2020.
2045	Number of people that could not access to healthy diets has been reduced by 85% compared to 2020.	CH ₄ emissions of the agrifood systems are halved compared to 2020.
2050	Everyone consumes healthy diets.	Agrifood systems are a net carbon-sink (-1.5 Gt CO ₂ eq per year).



Thank You!