

Climate Change, Biodiversity Loss and the Future of Food: *A Global Perspective to Inform Local Action*

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for the Bowen Island Food Resilience Society (BIFS) and Bowen Library

29 April 2023

Topics to Cover

- Introduction
- Latest Science & Updates on the Climate and Biodiversity Crises
 - Conclusions of the new IPCC Report, March 2023
 - Report from Climate Conference (COP 27) in Egypt, November 2022
 - Report from the Biodiversity Conference (COP 15) in Montreal, December 2022
- The Elephant in the Room: Our Food System and Its Impacts on Climate, Biodiversity and Health
- What Can We Do?



My Grandfather, Samuel Mack Eastman, on Bowen at site of current cottage at the end of Mt. Gardner Road in 1919

~ Served in World War I in British Columbia's 196th Western Universities Battalion from 1916-1919

~ Dean & Professor of History, UBC, 1919-1925

~ Served the International Labour Office (ILO) of the League of Nations from 1925-1940



My
Grandmother,
**Antonia
Leontine
Francoise
Larribe
Eastman**, on
Bowen Island &
Vancouver &
Paris







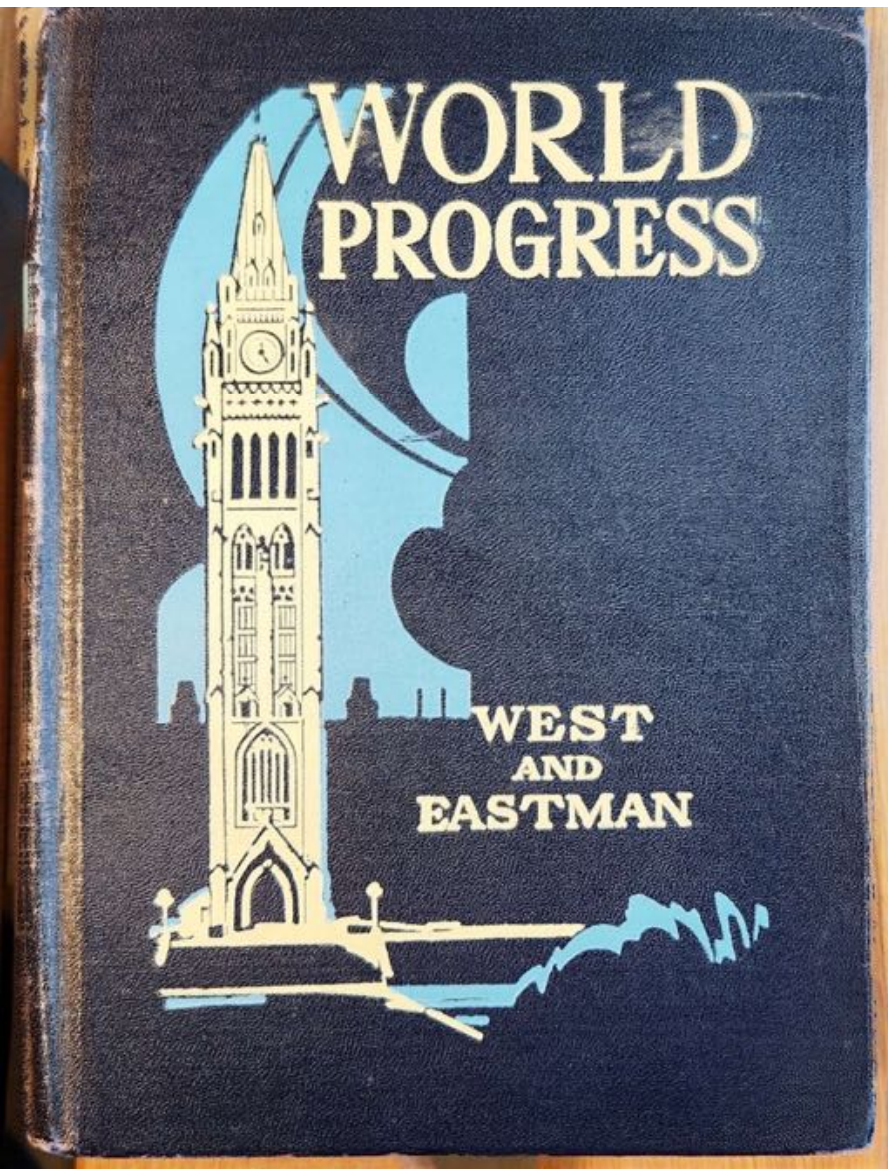
CANADIAN POET IN HAPPY POSE—Bliss Carman, With Infant Daughter of Prof. Mack Eastman of University of British Columbia, and Mrs. Eastman; Photo Taken at Bower Island, Near Vancouver. 1922.



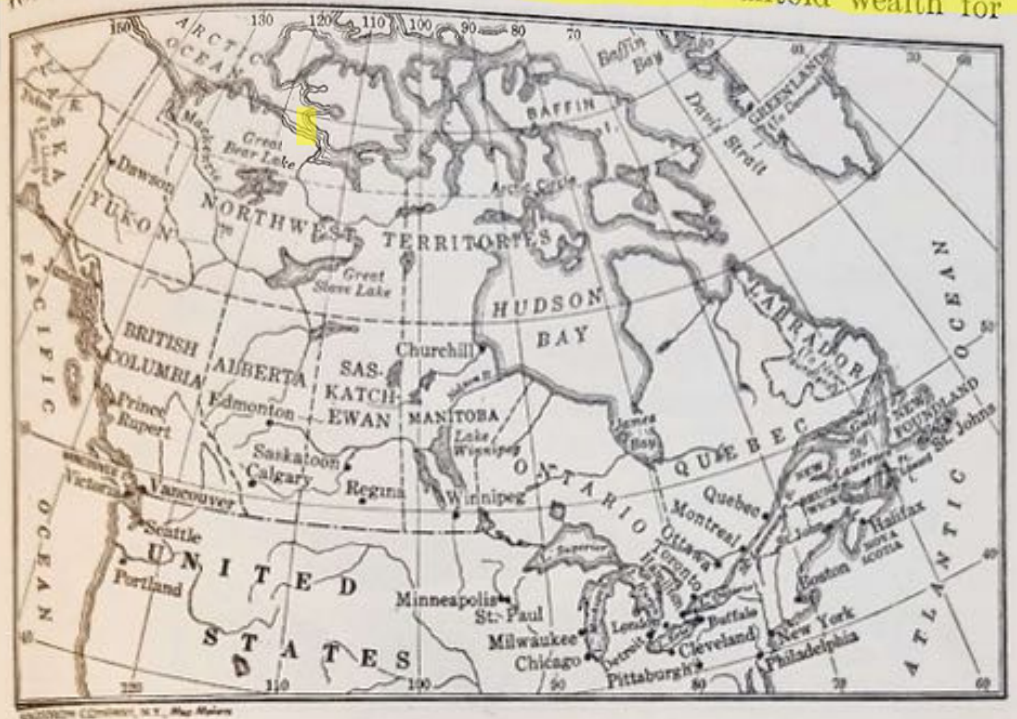
Bliss Carman, renowned Canadian poet & my mother. **Isabelle Eastman,** photo featured in Canada's newspapers, 1 March 1923 (Vancouver Sun, Toronto Globe, Montreal Gazette, etc.)

Mack Eastman Joins League of Nations, 1925-1940





Between 1867 and 1935 Canada increased in population from three to nearly eleven millions, and in area from 377,000 square miles to 3,850,000. As a grain-producer she ranks high, and as a grain-exporter she comes first, with the United States second. Her forests, mines, and waters are storehouses of untold wealth for



THE DOMINION OF CANADA

future generations, if wise policies of national conservation be unswervingly followed. Next to her in population and resources



Tale of Two Cities:

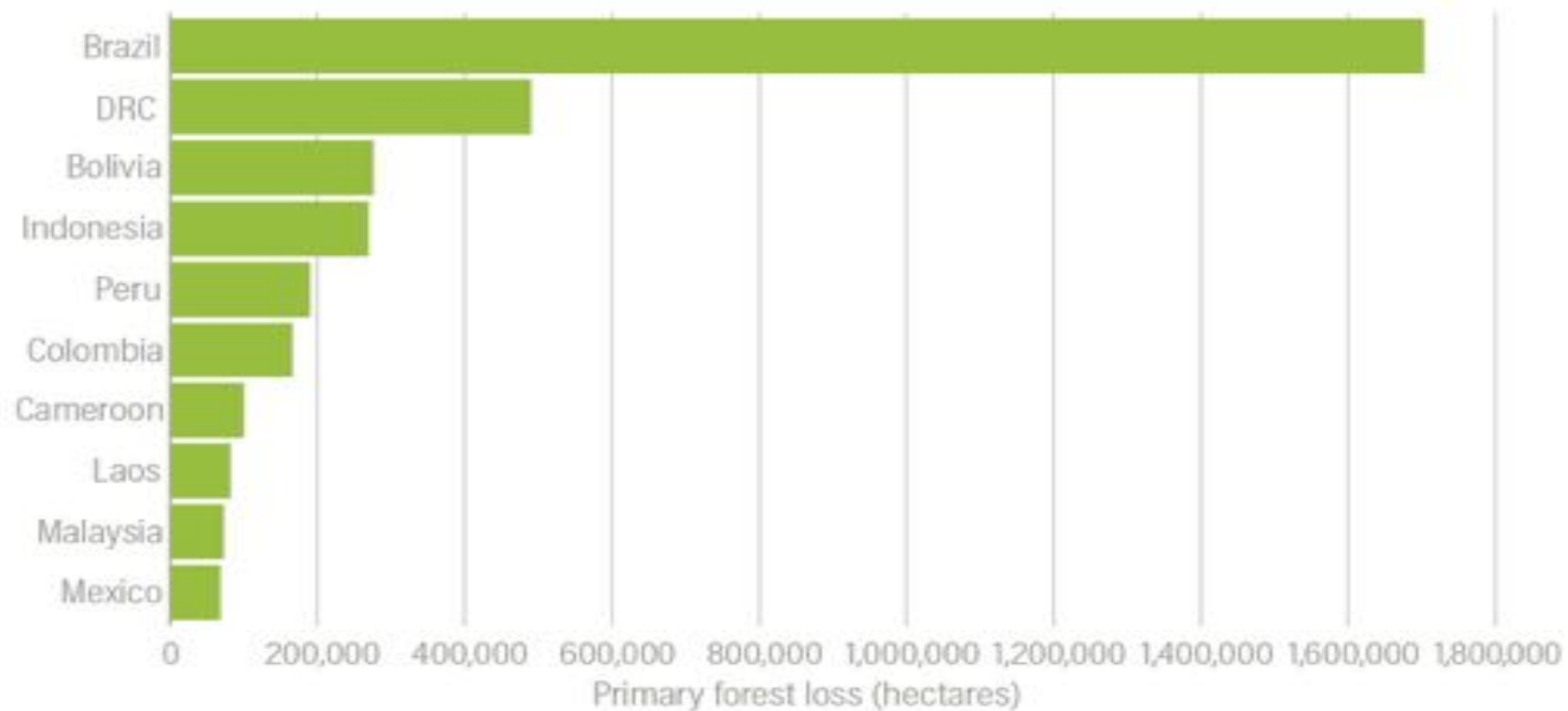
BOWEN ISLAND: 19 sq mi, pop'n: 4,000 (approx.)
MANHATTAN: 22 sq mi, pop'n: 4,000,000 (approx.)



FOCUS OF MY CURRENT WORK WITH UN: The Interfaith Rainforest Initiative (IRI)



Top 10 Countries for 2020 Primary Forest Loss



WORLD RESOURCES INSTITUTE

Interfaith Rainforest Initiative

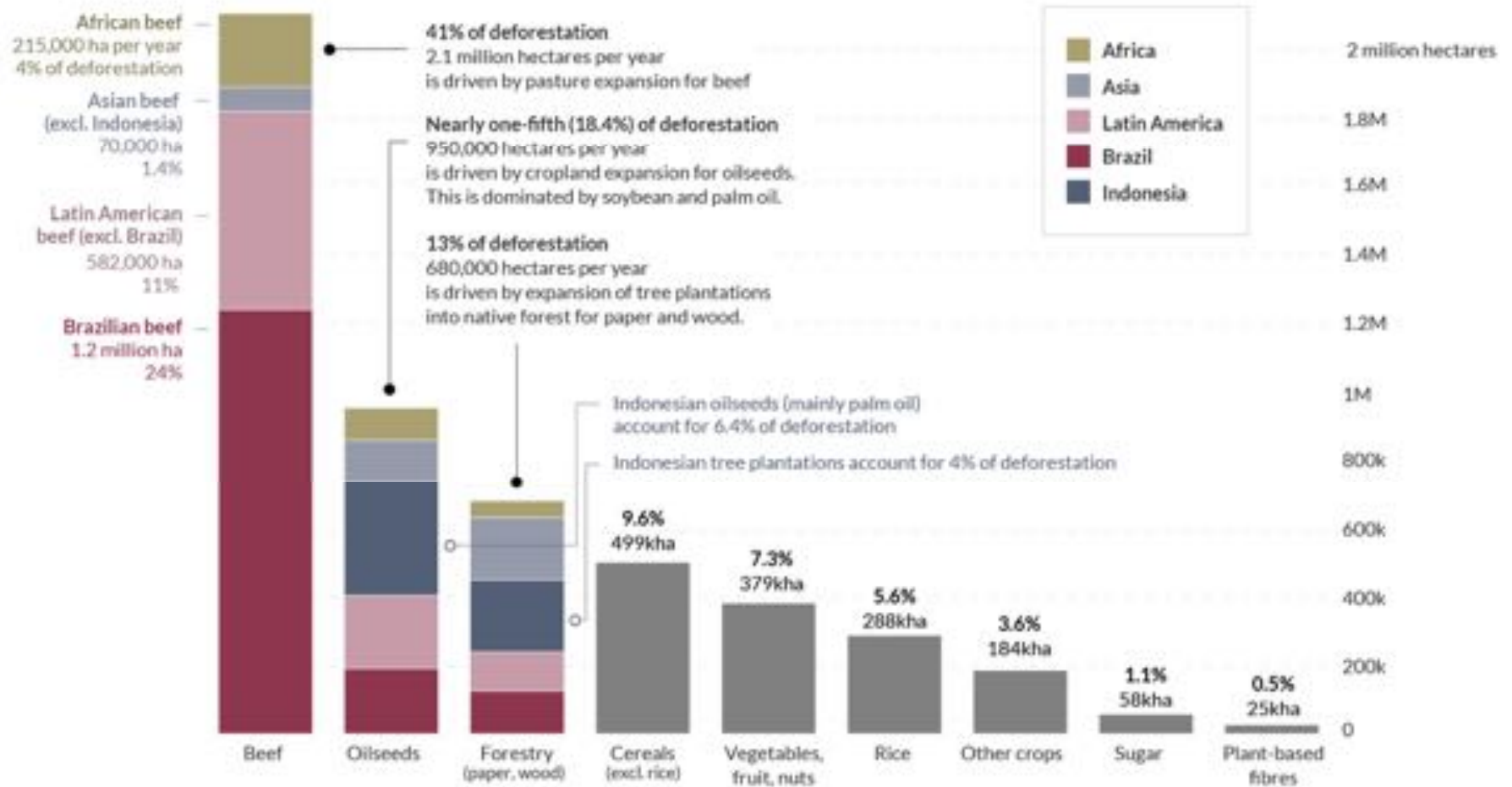






What are the drivers of tropical deforestation?

Nearly all of global deforestation occurs in tropical and subtropical countries. 70% to 80% is driven by conversion of primary forest to agriculture or tree plantations. Shown is the breakdown of these drivers averaged over the years 2005 to 2013. Further observations since 2013 suggest that drivers have not changed substantially over this period.



Conclusions of the New & Final
Report of the

**INTERGOVERNMENTAL PANEL ON
CLIMATE CHANGE (IPCC)**

20 March 2023

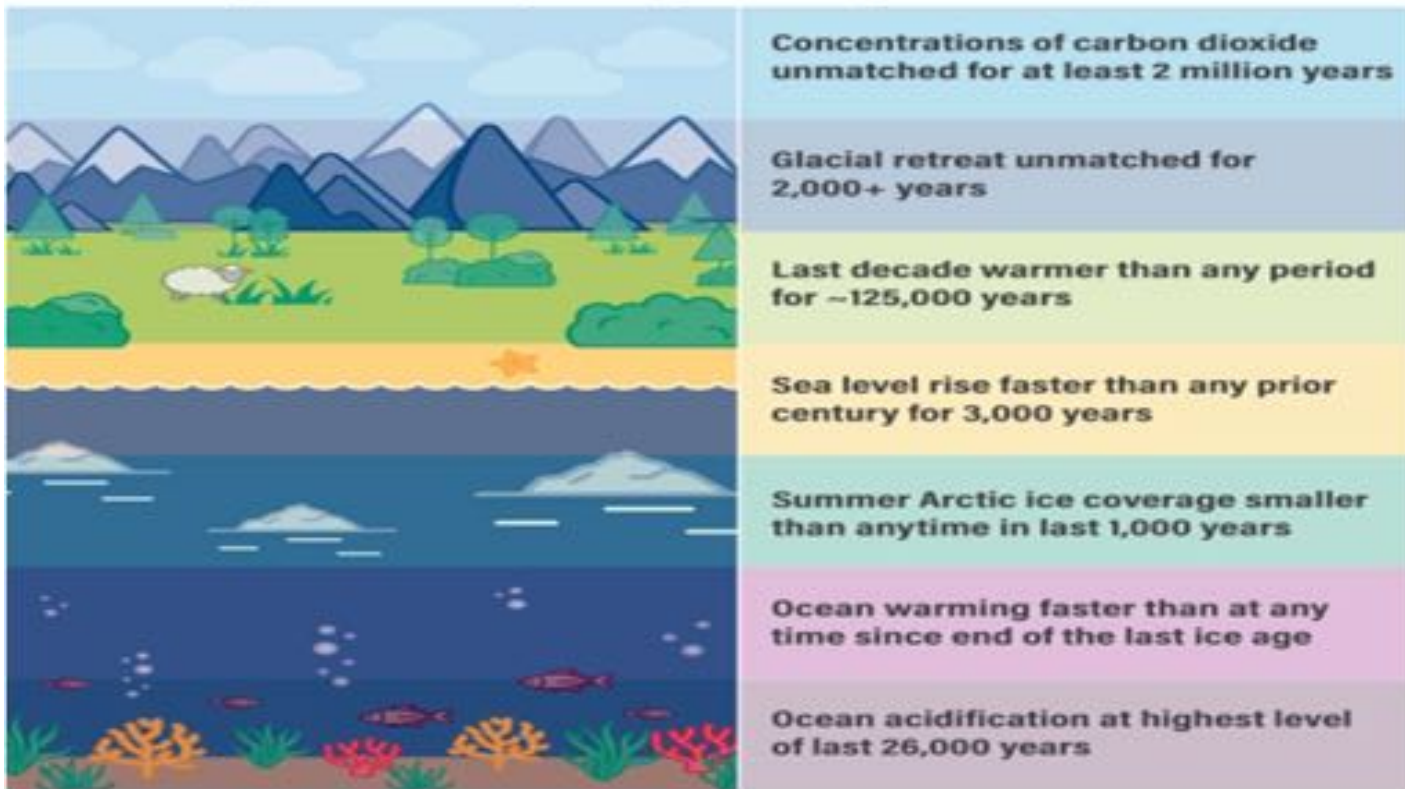
INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC) REPORT 2023

*“I have seen many scientific reports in my time, but nothing like this. Today’s IPCC report is **an atlas of human suffering and a damning indictment of failed climate leadership**. ... the world’s biggest polluters are guilty of arson of our only home.”*

~ António Guterres, the UN Secretary General

Human-caused warming of 1.1 degrees C changing Earth's climate in ways unprecedented in human history

Evidence of global warming already underway

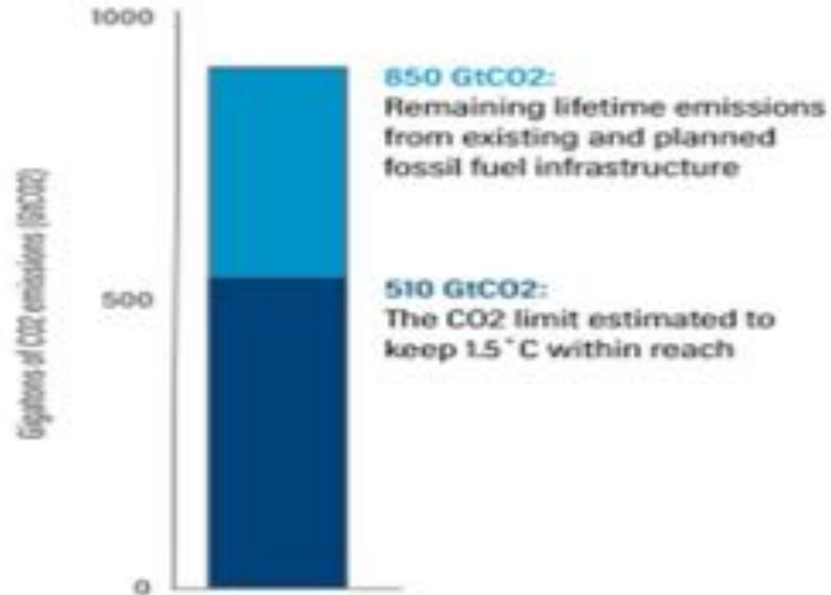


Source: IPCC AR6.

 WORLD RESOURCES INSTITUTE

The World Must Rapidly Shift Away From Fossil Fuels

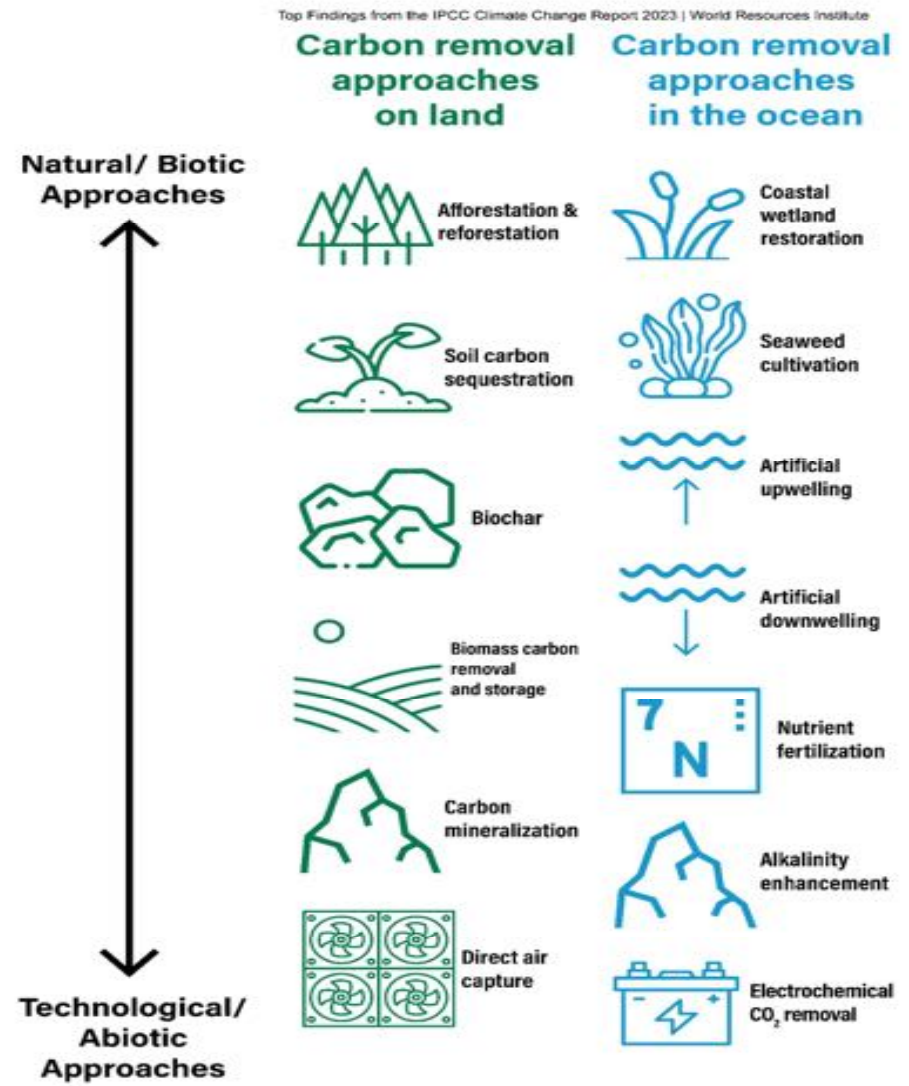
CO2 emissions from existing and planned fossil fuel infrastructure put 1.5°C out of reach



Note: Analysis of pathways that limit warming to 1.5 degrees C with no or limited overshoot.

Source: IPCC AR6.

Carbon removal is now essential to limit global temperature rise to 1.5 degrees C.



We also need systemwide transformations to secure a net-zero, climate-resilient future

10 key solutions needed to mitigate climate change

- 1.**  **RETIRE** coal plants
- 2.**  **INVEST** in clean energy & efficiency
- 3.**  **RETROFIT** and **DECARBONIZE** buildings
- 4.**  **DECARBONIZE** cement, steel & plastics
- 5.**  **SHIFT** to electric vehicles
- 6.**  **INCREASE** public transport, biking and walking
- 7.**  **DECARBONIZE** aviation and shipping
- 8.**  **HALT** deforestation & **RESTORE** degraded lands
- 9.**  **REDUCE** food loss and waste and **IMPROVE** agricultural practices
- 10.**  **EAT** more plants & less meat



IPCC Report Conclusions

The world needs to:

- **Peak** GHG emissions before 2025 at the very latest
- Nearly **halve** GHG emissions by 2030 and
- Reach **net-zero** CO2 emissions around 2050

Governments, the private sector, civil society and individuals must all step up to keep the future we need in sight.

A narrow window of opportunity is still open, but no time to waste.

Climate Change Conference of the Parties **COP 27, Egypt, November 2022**



List of Major Commitments, Reports and Partnerships Related to Nature Based Solutions at Climate Conference (COP 27)

- POLITICAL WILL
 - Forest and Climate Leader's Partnership.
 - Enhancing Nature-based Solutions for Climate Transformation (ENACT)
 - Large Rainforest Nations United
 - US NBS Roadmap
 - US Forest Relations Progress Report
 - Forest Partnerships
 - Positive Conservation Partnerships
- TOP-LINE FINANCIAL COMMITMENTS
 - Public money commitments
 - Private funds and capital commitment
 - IFACC
 - LEAF Coalition
 - FMO
 - &Green
 - Restoration Fund.
 - Bezos Earth Fund
 - CIFF. The [Climate Investment Funds \(CIF\)](#)
 - IKEA Climate Funding
- LINKING CLIMATE AND BIODIVERSITY
 - 30x30
- Call for a Paris-Like Agreement at COP15
- Call from civil society
- NATURETECH
 - How Scaling Nature Tech Could Help Solve the Climate and Nature Crises
 - Forest Data Partnership
- FINANCE
 - Finance Sector Deforestation Action (FSDA) initiative
 - Bridgetown Agenda
 - Central banks
 - N4C TOOLS
 - N4C Commitment Tracker
 - N4C Policy Tracker
 - Naturebase
- CARBON MARKETS
 - Africa Carbon Markets Initiative
 - LEAF Inks Agreements
 - NCS Alliance Lighthouses
 - VCMI and We Mean Business Join Forces
 - Pilots Digital Measuring Of Forest Carbon.
- RESTORATION
 - Restore Africa
 - Trillion Trees + Restor
- US Restoration
- USAID Joins [1t.org](#)
- [1t.org](#) in India
- Brazilian Restoration.
- FORESTRY
 - Forestry Roadmap
- FOOD SYSTEMS
 - Agriculture Sector Roadmap
 - Africa Sustainable Commodities Initiative
 - \$1.4 Billion for Smallholder Farmers
 - Cocoa in Côte d'Ivoire.
 - Indoor Wheat
 - True Value of Food Initiative
- OCEAN COMMITMENTS
 - Seagrass mapping
 - Red Sea Initiative
 - Blue Ambition Loop
 - Blue Carbon
 - Blue Carbon Principles Advancing the Ocean Conservation Pledge
 - Deep sea mining
 - Blue Mediterranean Partnership
 - Mangrove Breakthrough
 - Mangrove Alliance for Climate (MAC)
- Expanding the Blue Carbon Inventory Project
- WATER
 - ADB Water and Sanitation Resilience
 - Water security in Bangladesh
 - Water for Women
 - AWARe Initiative
 - African Cities Water Adaptation Fund
 - Save Cleantech Utilities
- ADAPTATION
 - Sharm-El-Sheikh Adaptation Agenda
 - ACRF
- REPORTS
 - Green Gigaton Report
 - Forest, Agriculture, and Commodities Dialogue Progress Report
 - Net-Zero Report
 - Two for One: Are the climate impacts of trade a good proxy for biodiversity impacts?
 - Deforestation in the Amazon is accelerating the point of no return.
 - An Introduction to REDD+ Standards
 - New insights on Nature-
- based Solutions: Scaling up strategies for Net Zero, Nature Positive and addressing Inequality
- \$1 trillion a year needed for climate action.
- WBCSD NBS Report
- Brazilian Beef & Soy Report
- Freshwater Report
- Scaling and Accelerating Adaptation In Food Systems in Africa
- Climate Science Report
- Stolen Amazon: the roots of environmental crime in five countries
- Environmental Defense Fund Highlights the Role of Indigenous Communities In Achieving Success for NBS.
- New Survey on Nature Agenda
- URBAN NBS
- Nature In The Streets
- Tree Equity
- International Tree Equity

THE BIODIVERSITY CRISIS

- ❑ 1 million of the world's estimated 8 million species of plants and animals are threatened with extinction
- ❑ Global rate of species extinction today is higher than the average rate over the past 10 million years
- ❑ 2/3 of ocean area is impacted by human activities, including from fisheries and pollution
- ❑ Since 1970, size of many thousands of animal populations have declined by 69%
- ❑ Almost 90% of the world's marine fish stocks are fully exploited, overexploited or depleted



UN BIODIVERSITY COFERENCE (COP 15)

Hosted by Canada, Montreal, December 2022



Indigenous Peoples Assert Their Forest Rights



A close-up photograph of a person's hand holding a large amount of dark, rich soil. The hand is positioned in the center of the frame, with the fingers slightly curled. The background is a solid black color, which makes the dark soil and the skin of the hand stand out. There are some orange decorative elements: a square at the top center and a vertical line at the bottom center.

But we have a MASSIVE problem...

OUR FOOD SYSTEMS
ARE BROKEN



2 billion

Diets are the biggest driver
of ill health, around the
world



800 million

Hunger is again
on the rise



1 / 3

of the climate problem





~80%

of the nature/
biodiversity problem



Food systems are a major driver of pandemic risk



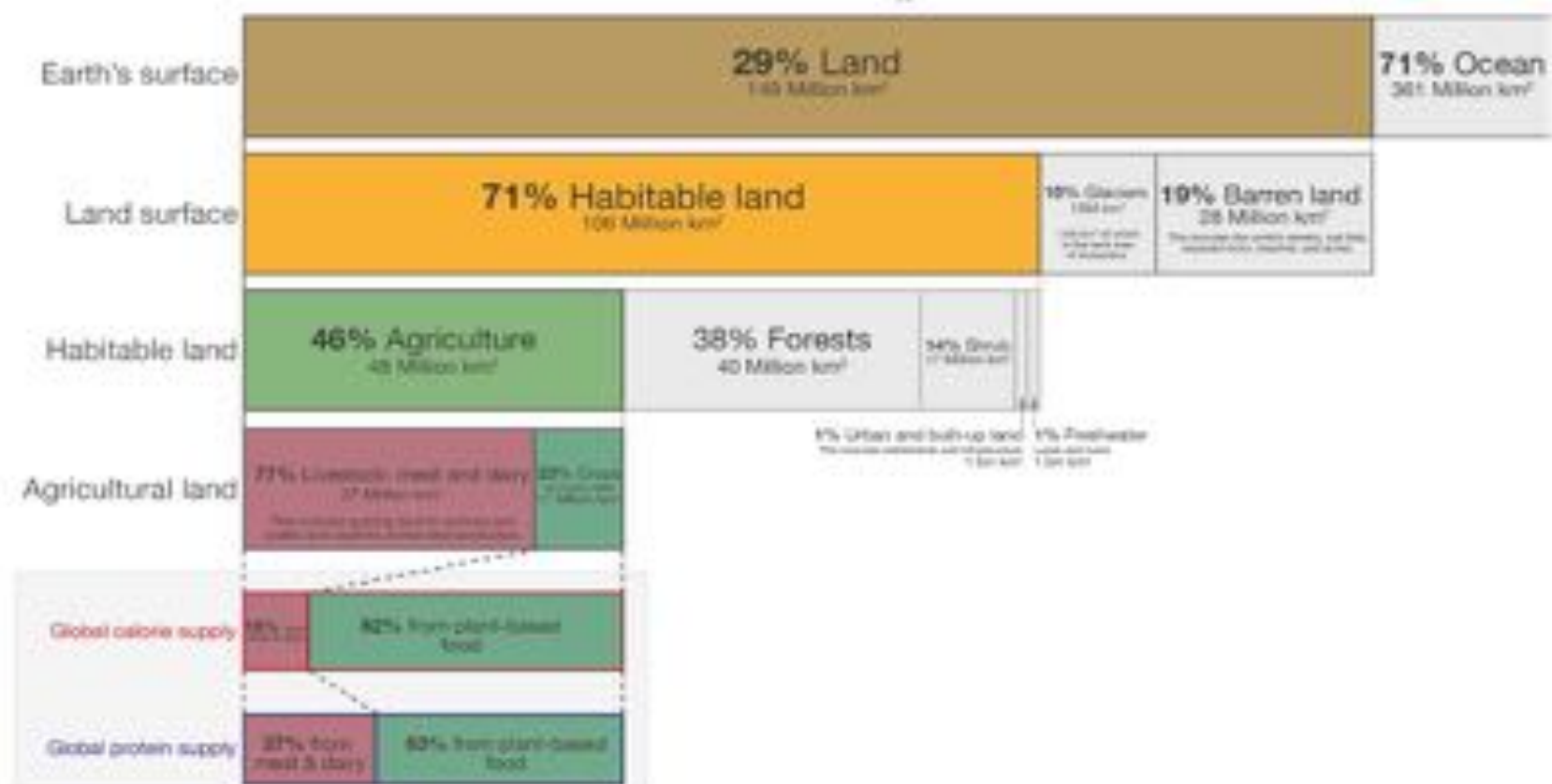
Food producers & workers are losing out

Escalating food insecurity will destabilize societies & give rise to conflict



Global land use for food production

Our World
in Data

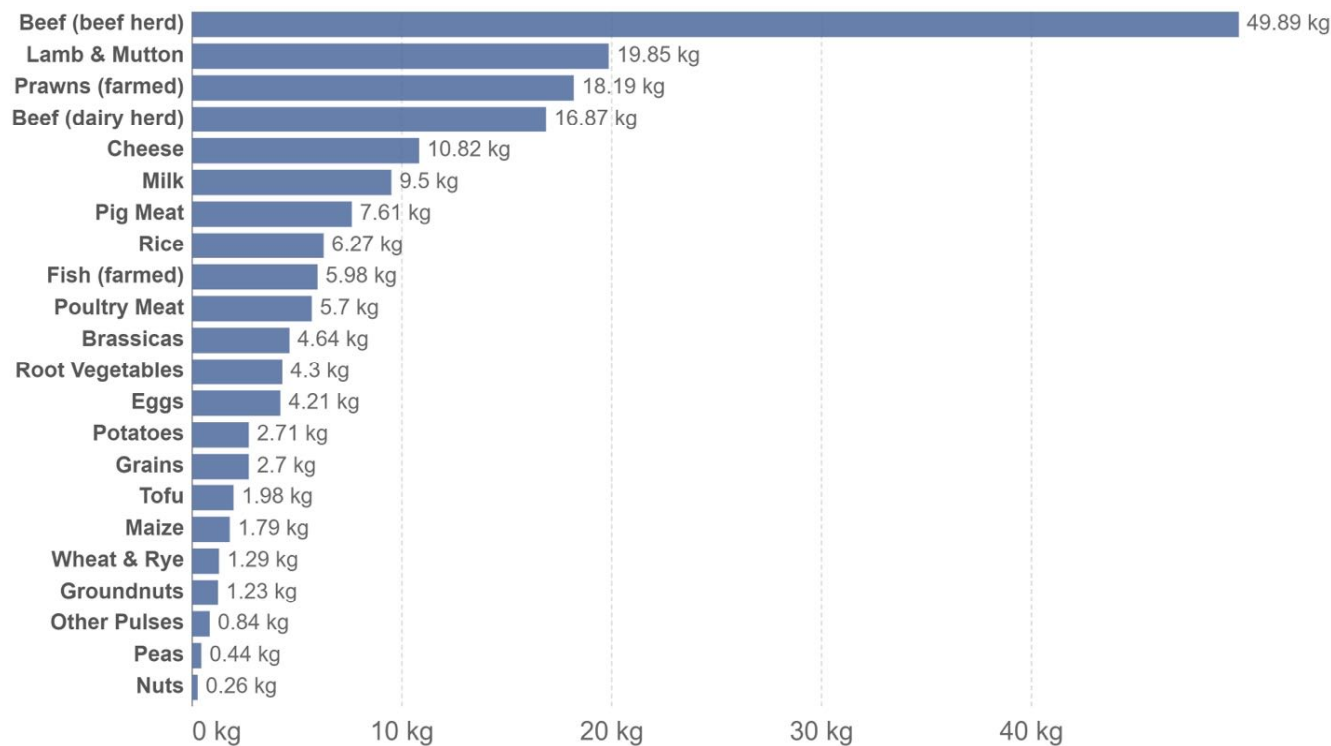


Data source: [FAO Food and Agriculture Organization \(FAO\)](#)
OurWorldInData.org - Research and data to make progress against the world's biggest problems.

licensed under CC BY by the authors Hannah Ritchie and Max Roser
Data published November 2017

Greenhouse gas emissions per 100 grams of protein

Emissions are measured in carbon dioxide-equivalents¹.



Source: Joseph Poore and Thomas Nemecek (2018). Additional calculations by Our World in Data.
[OurWorldInData.org/environmental-impacts-of-food](https://www.ourworldindata.org/environmental-impacts-of-food) • CC BY

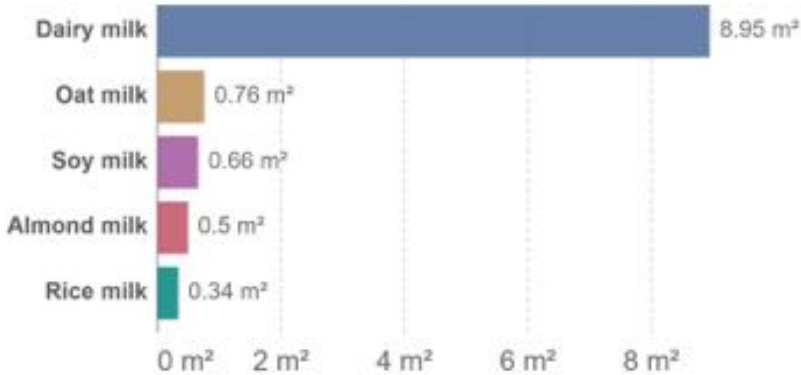
1. Carbon dioxide-equivalents (CO₂eq): Carbon dioxide is the most important greenhouse gas, but not the only one. To capture all greenhouse gas emissions, researchers express them in 'carbon dioxide-equivalents' (CO₂eq). This takes all greenhouse gases into account, not just CO₂. To express all greenhouse gases in carbon dioxide-equivalents (CO₂eq), each one is weighted by its global warming potential (GWP) value. GWP measures the amount of warming a gas creates compared to CO₂. CO₂ is given a GWP value of one. If a gas had a GWP of 10 then one kilogram of that gas would generate ten times the warming effect as one kilogram of CO₂. Carbon dioxide-equivalents are calculated for each gas by multiplying the mass of emissions of a specific greenhouse gas by its GWP factor. This warming can be stated over different timescales. To calculate CO₂eq over 100 years, we'd multiply each gas by its GWP over a 100-year timescale (GWP100). Total greenhouse gas emissions – measured in CO₂eq – are then calculated by summing each gas' CO₂eq value.

Environmental footprints of dairy and plant-based milks



Impacts are measured per liter of milk. These are based on a meta-analysis of food system impact studies across the supply chain which includes land use change, on-farm production, processing, transport, and packaging.

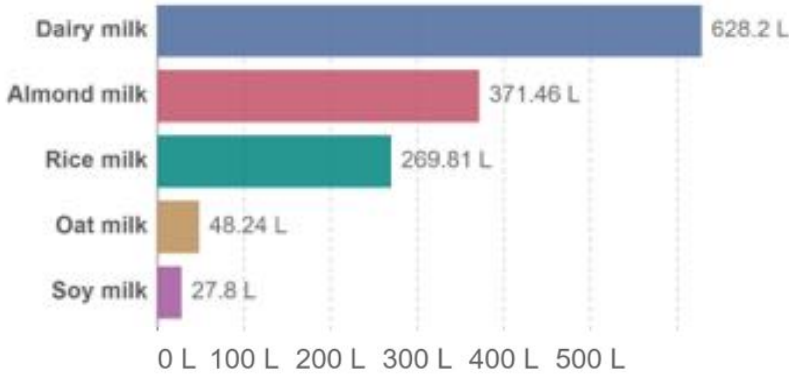
Land use



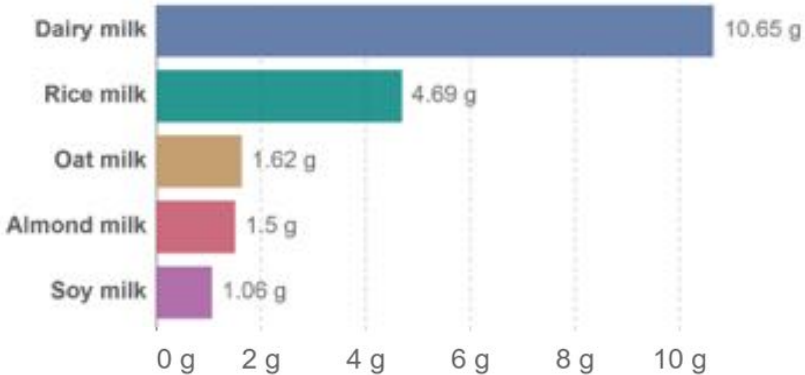
Greenhouse gas emissions



Freshwater use



Eutrophication



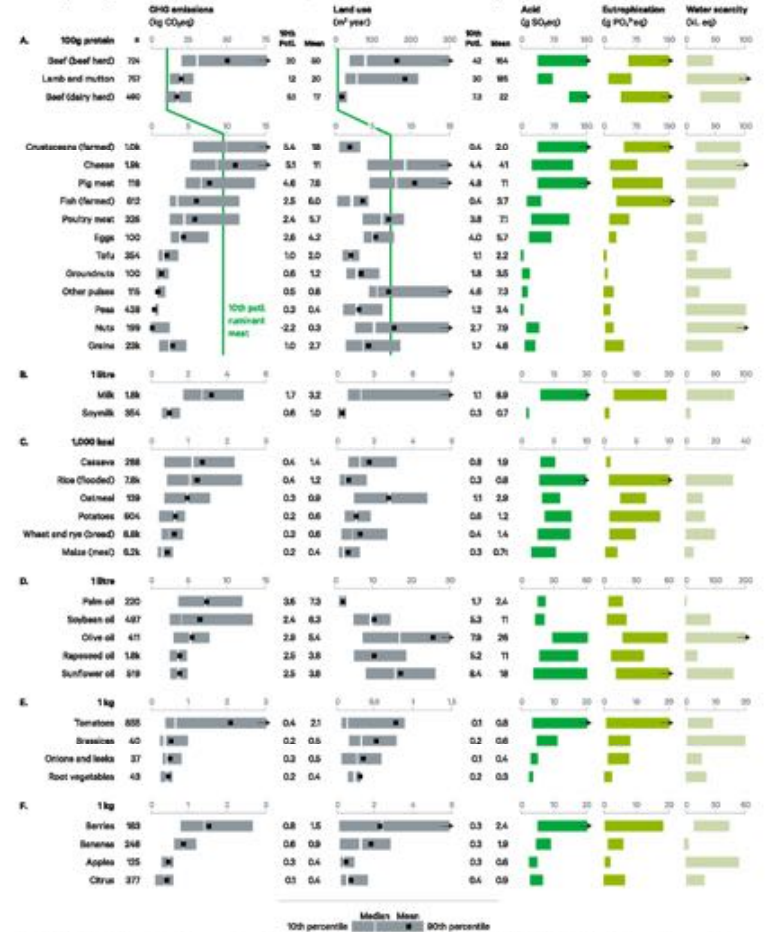
Source: Joseph Poore and Thomas Nemecek (2018).

Environmental Impacts of 36 Major Foods:

- Greenhouse Gas Emissions
- Land use
- Eutrophication
- Freshwater Use

Food system impacts on biodiversity loss
Three levers for food system transformation in support of nature

Figure 7. Estimated global variation in GHG emissions, land use, terrestrial acidification, eutrophication and scarcity-weighted freshwater withdrawals, within and between 36 major foods

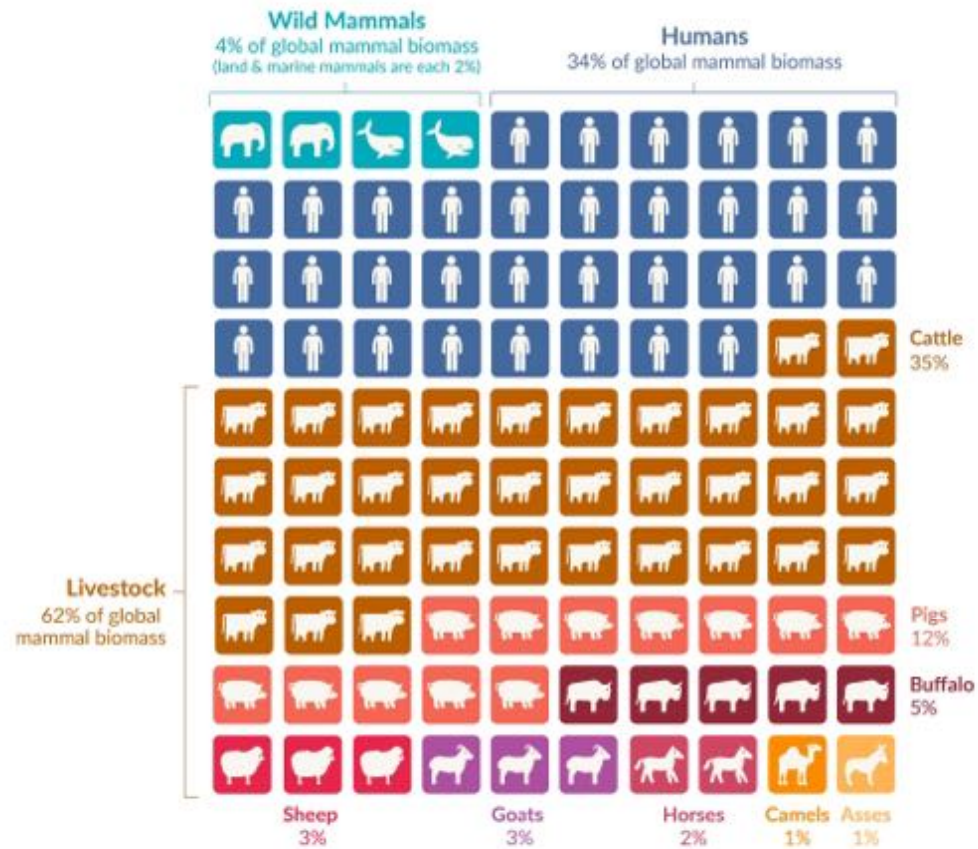


Notes: (A) Protein-rich products. Grains are also shown here, given that they contribute 41 per cent of global protein intake, despite lower protein content. (B) Milks. (C) Starch-rich products. (D) Oils. (E) Vegetables. (F) Fruits. n = farm or regional inventories. Pctl. = percentile. Source: Poore and Nemecek (2018), 'Reducing food's environmental impacts through producers and consumers'.

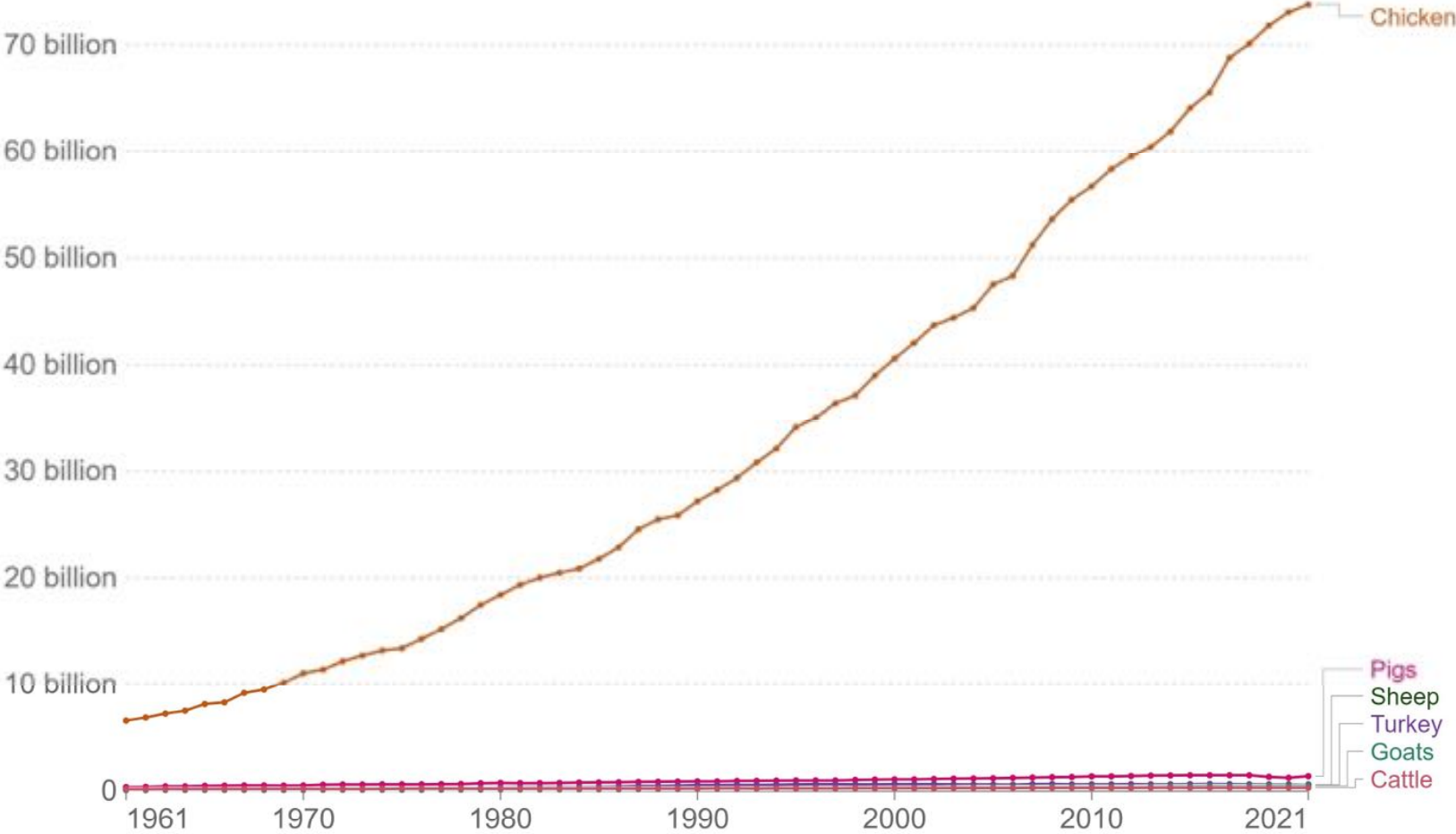
Distribution of mammals on Earth



Mammal biomass is measured in tonnes of carbon, and is shown for the year 2015. Each square corresponds to 1% of global mammal biomass.



Yearly number of animals slaughtered for meat, World, 1961 to 2021



Source: Food and Agriculture Organization of the United Nations

OurWorldInData.org/meat-production • CC BY

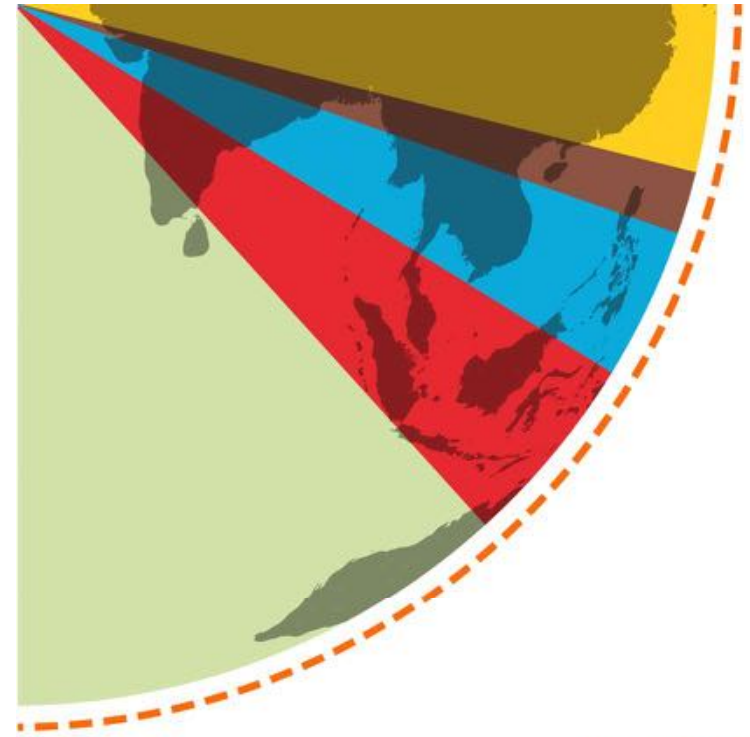
Note: This is based on livestock production for meat (and therefore does not include dairy or egg production).

EAT Lancet Commission

World leading scientists came together to answer this question:

Can we feed a future population of 10 billion people a healthy diet within planetary boundaries?

Their answer is YES ... If we can improve food production, transform eating habits and reduce food waste.



Summary Report of the EAT-Lancet Commission

Healthy Diets From
Sustainable Food Systems



Food Planet Health

Defining Healthy Diets

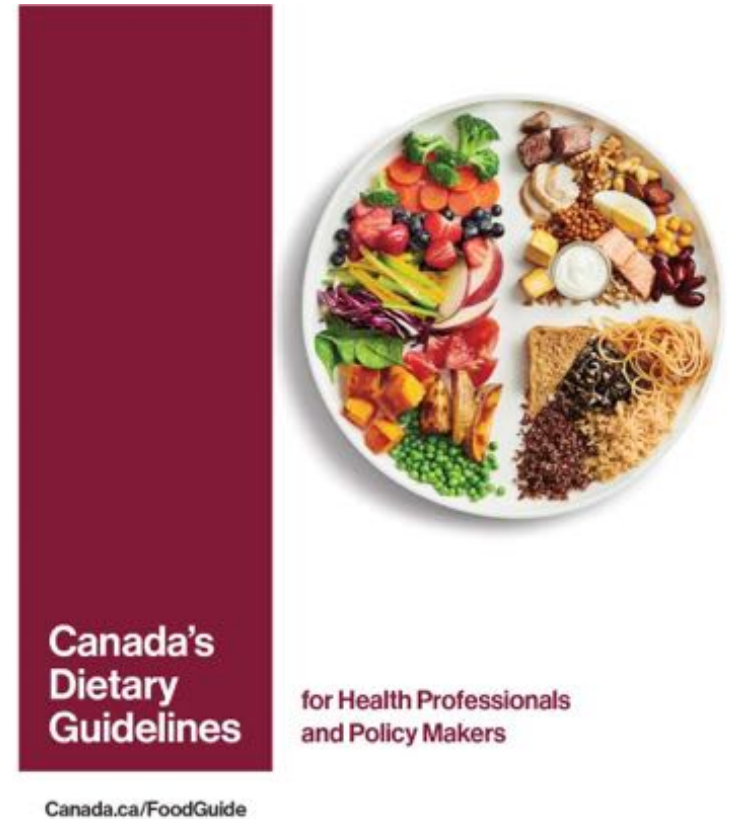
2500 kcal/day



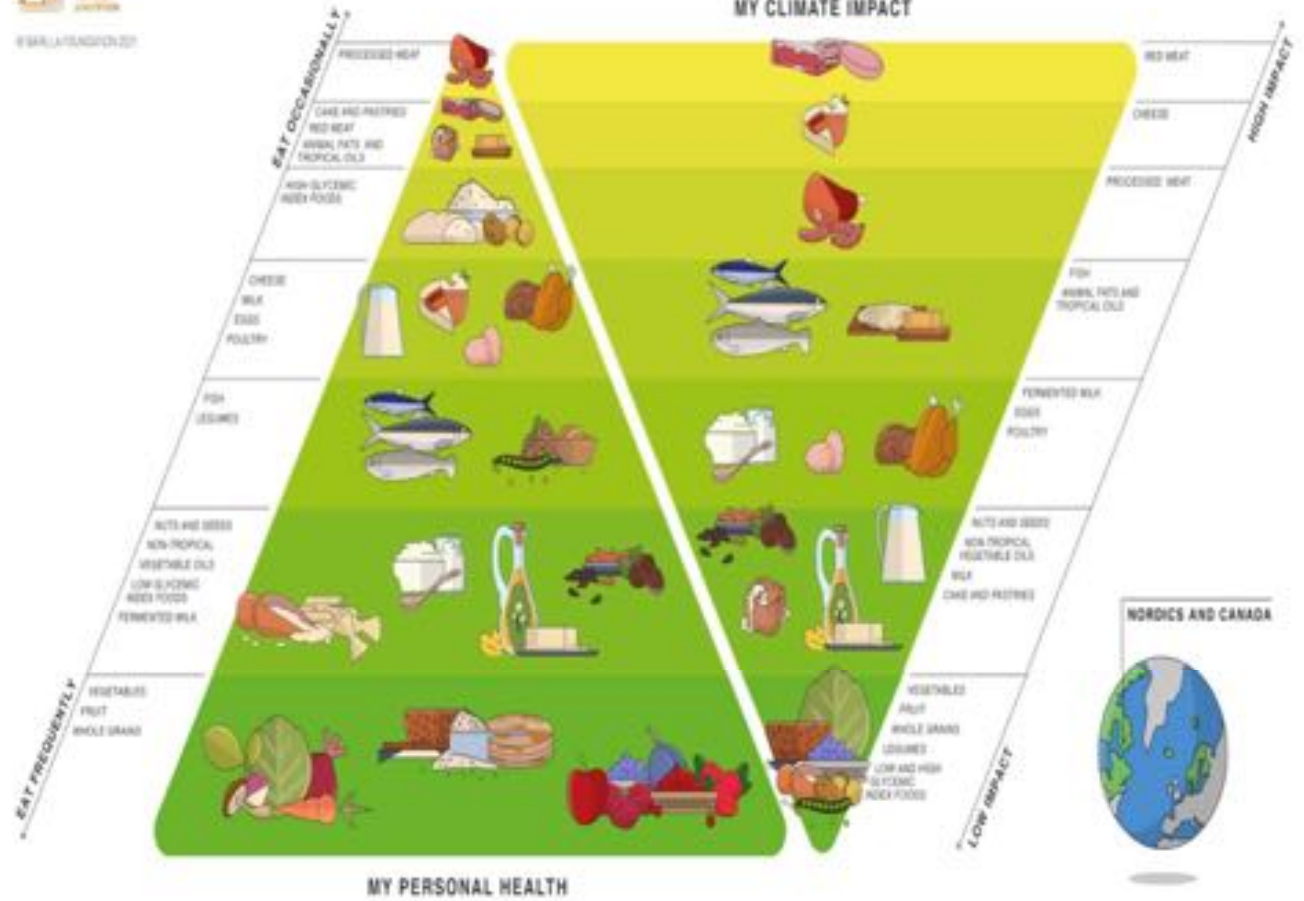
	Macronutrient intake grams per day (possible range)	Caloric intake kcal per day
Whole grains Rice, wheat, corn and other	232	811
Tubers or starchy vegetables Potatoes and cassava	50 (0-100)	39
Vegetables All vegetables	300 (200-600)	78
Fruits All fruits	200 (100-300)	126
Dairy foods Whole milk or equivalents	250 (0-500)	153
Protein sources		
Beef, lamb and pork	14 (0-28)	30
Chicken and other poultry	29 (0-58)	62
Eggs	13 (0-25)	19
Fish	28 (0-100)	40
Legumes	75 (0-100)	284
Nuts	50 (0-75)	291
Added fats		
Unsaturated oils	40 (20-80)	354
Saturated oils	11.8 (0-11.8)	96
Added sugars		

Canada's Dietary Guidelines:

“Vegetables, fruit, whole grains, and protein foods should be consumed regularly. Among protein foods, consume plant-based more often.”



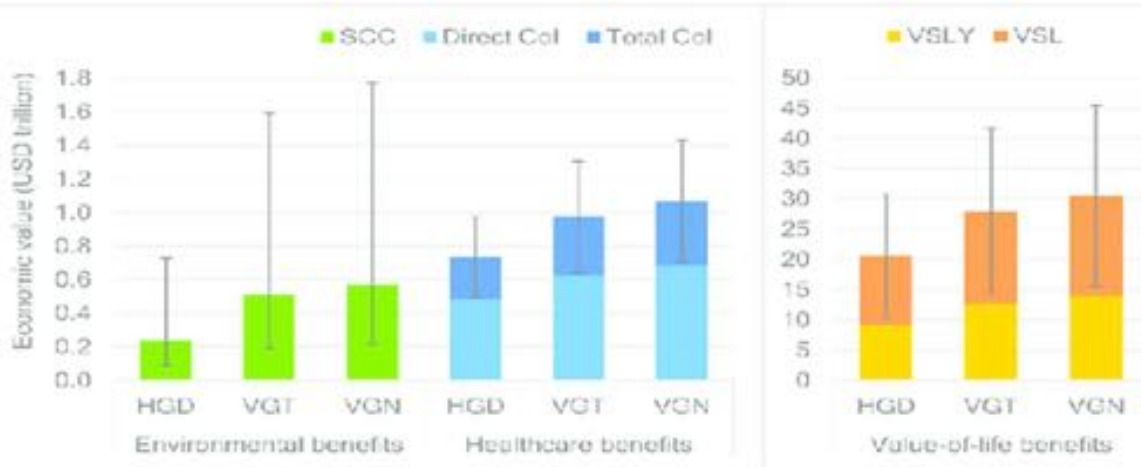
Healthy Foods Have Less Environmental Impact



DAILY CONSUMPTION: WATER: AT LEAST 2 LITERS | COFFEE OR TEA: MAX 3 CUPS | WINE: MAX 1-2 GLASSES | BEER: MAX 1 CAN | SALT: MAX 1 TEASPOON
 SOFT DRINKS: OCCASIONALLY
 BE PHYSICALLY ACTIVE AND PRACTICE EVERYDAY MINDFULNESS

Economic Valuation of the Health and Environmental Benefits of Dietary Change

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Analysis and valuation of the health and climate change cobenefits of dietary change

Marco Springmann^{a,b}, H. Charles J. Godfray^{a,c}, Mike Rayner^{a,b}, and Peter Scarborough^{a,b}

^aOxford Martin Programme on the Future of Food, Department of Zoology, University of Oxford, Oxford OX1 3PS, United Kingdom; ^bBritish Heart Foundation Centre on Population Approaches for Non-Communicable Disease Prevention, Nuffield Department of Population Health, University of Oxford, Headington, Oxford OX3 7JL, United Kingdom; and ^cDepartment of Zoology, University of Oxford, Oxford OX1 3PS, United Kingdom

Edited by David Tilman, University of Minnesota, St. Paul, MN, and approved February 9, 2016 (received for review November 22, 2015)

What we eat greatly influences our personal health and the environment we all share. Recent analyses have highlighted the likely dual health and environmental benefits of reducing the fraction of animal-sourced foods in our diets. Here, we couple for the first time, to our knowledge, a region-specific global health model based on dietary and weight-related risk factors with emissions accounting and economic valuation modules to quantify the linked health and environmental consequences of dietary changes. We find that the impacts of dietary changes toward less meat and more plant-based diets vary greatly among regions. The largest absolute environmental and health benefits result from diet shifts in developing countries whereas Western high-income and middle-income countries gain most in per capita terms. Transitioning toward more plant-based diets that are in line with standard dietary guidelines could reduce global mortality by 6–10% and food-related greenhouse gas emissions by 29–70% compared with a reference scenario in 2050. We find that the monetized value of the improvements in health would be comparable with, or exceed, the value of the environmental benefits although the exact valuation method used considerably affects the estimated amounts. Overall, we estimate the economic benefits of improving diets to be 1–31 trillion US dollars, which is equivalent to 0.4–13% of global gross domestic product (GDP) in 2050. However, significant changes in the global food system would be necessary for regional diets to match the dietary patterns studied here.

sustainable diets | dietary change | food system | health analysis | greenhouse gas emissions

The choices we make about the food we eat affect our health and have major ramifications for the state of the environment. The food system is responsible for more than a quarter of all greenhouse gas (GHG) emissions (1), of which up to 80% are associated with livestock production (2, 3). The aggregate dietary decisions we make thus have a large influence on climate change. High consumption of red and processed meat and low consumption of fruits and vegetables are important diet-related risk factors contributing to substantial early mortality in most regions while over a billion people are overweight or obese (4). Without targeted dietary changes, the situation is expected to worsen as a growing and more wealthy global population adopts diets resulting in more GHG emissions (5) and that increase the health burden from chronic, noncommunicable diseases (NCDs) associated with high body weight and unhealthy diets (6).

Recent analyses have highlighted the environmental benefits of reducing the fraction of animal-sourced foods in our diets and have also suggested that such dietary changes could lead to improved health (7–14). They have shown that reductions in meat consumption and other dietary changes would ease pressure on land use (11, 12) and reduce GHG emissions (7, 11–14). Changing diets may be more effective than technological mitigation options for avoiding climate change (14) and may be essential to avoid negative environmental impacts such as major agricultural expansion (7) and global warming of more than 2 °C (13) while ensuring access to safe and affordable food for an increasing global population (8, 15).

The diets investigated in these studies include diets with a per capita reduction in animal products (ruminant meat, total meat, dairy) (11, 13, 14), specific dietary patterns that include reduced or no meat (such as Mediterranean, “pescatarian,” and vegetarian diets) (11, 12), and diets based on recommendations about healthy eating (7, 11). The health consequences of adopting these diets have not been explicitly modeled or quantitatively analyzed, but instead inferences have been drawn from information available in the epidemiological literature (16). In the most comprehensive study to date, Tilman and Clark (12) analyzed the GHG emissions of a series of diets that differed in their animal-sourced food content and presented their results alongside a series of observational studies of the health consequences of adopting the different diets.

Here, we use a region-specific global health model to link the health and environmental consequences of changing diets. We also make a first attempt, to our knowledge, to estimate the economic value of different dietary choices through their effects on health and the environment. For the health analysis, we built a comparative risk assessment model to estimate age and region-specific mortality associated with changes in dietary and weight-related risk factors (4, 17). The specific risk factors influence mortality through dose-response relationships, which allow us to compare different dietary scenarios based on their exposure to those risk factors. Given the availability of consistent epidemiological data, we focused on changes in the consumption of red meat, and of fruits and vegetables, which together accounted for more than half of diet-related deaths in 2010 (4), and also on the fraction of people who are overweight or obese through excess caloric consumption, which too is associated strongly with chronic disease mortality (18, 19).

Significance
The food system is responsible for more than a quarter of all greenhouse gas emissions while unhealthy diets and high body weight are among the greatest contributors to premature mortality. Our study provides a comparative analysis of the health and climate change benefits of global dietary changes for all major world regions. We project that health and climate change benefits will both be greater the lower the fraction of animal-sourced foods in our diets. Three quarters of all benefits occur in developing countries although the per capita impacts of dietary change would be greatest in developed countries. The monetized value of health improvements could be comparable with, and possibly larger than, the environmental benefits of the avoided damages from climate change.

Author contributions: M.S., H.C.J.G., M.R., and P.S. designed research; M.S. performed research; M.S., H.C.J.G., M.R., and P.S. analyzed data; and M.S. and H.C.J.G. wrote the paper. The authors declare no conflict of interest.

This article is a PNAS Direct Submission. Freely available online through the PNAS open access option.

Data deposition: The region-specific results of the health, environmental, and economic valuation analyses have been deposited in the Oxford University Research Archive (ORA), ora.ox.ac.uk (doi: 10.5287/oxfordjournals.ora.2016.2443).

*To whom correspondence should be addressed. Email: marco.springmann@dpf.ox.ac.uk. This article contains supporting information online at www.pnas.org/lookup/suppl/doi:10.1073/pnas.1523119113/-DCSupplemental.



Health Benefits of Plant-based Diets

- ✓ Reduced Diabetes Type 2 Risk
- ✓ Reduced Risk For Obesity And Overweight
- ✓ Lower Risk Of Heart Disease
- ✓ Reduced Risk Of Certain Cancers
- ✓ Lower Mortality Rate

It is now widely accepted that a plant-based diet offers numerous benefits compared with a diet centred on animal-based products. While animal-based diets carry several health risks, a rich and varied plant-based diet can offer prevention and treatment of a host of modern lifestyle diseases, including some forms of cancer and hypertension.

4 Big Shifts Needed For Our Food System



Transforming

Transforming to regenerative, nature-positive food production—no more destructive mining of soils and waters for food



Securing

Securing fair, equitable livelihoods for food producers and food workers



Shifting

Shifting our diets: foods that are healthy and sustainably produced



Slashing

Slashing food loss and waste out of the system



How To Reduce Food Loss & Waste

Need to substantially reduce food loss at both the **production** and **consumption** sides through:

- Improving post-harvest infrastructure, food transport, processing and packing
- Increasing collaboration along the supply chain
- Training and equipping producers
- Implementing public policies
- Educating and mobilizing consumers

**But, how
do we
unleash
these
shifts?**

Global Level

- Robust scientific targets
- True cost of food metrics
- Food into climate & biodiversity Conventions
- Transform food finance and trade
- Building a global public movement

National / Local Level

- Multi stakeholder dialogue and collaboration
- Progressive food policies
- Public and private investment in regenerative agriculture, healthy food, reducing food waste
- National / local people's movements for change

Not proposing to get rid of ALL cows ...

- Animals play an important role in resilient, regenerative food systems
- But must phase out industrial scale operations
- Since beef undermines human health and forests worldwide we need to reduce the numbers of cows



Transformation of the Global Food System: Key Facts

- The food system accounts for nearly 1/3 of total greenhouse gas emissions and is the driver of most species loss.
- However, food systems are absent from most countries' climate and biodiversity plans and so governments, especially in the Global North, must take food systems and dietary shift into account when updating their climate and biodiversity strategies.
- Changing the way we produce and consume food could reduce greenhouse gas emissions by at least 20% of the cut needed by 2050 to prevent catastrophic climate change and help achieve the global goal to protect 30% of land and oceans by 2030, while improving human health.
- Without this, it is not possible to keep warming below the critical 1.5 or 2 degrees, stop massive extinctions and guarantee food security.

CONCLUSIONS

- **Food will be a defining issue of the 21st century**: Unlocking its potential will catalyze achievement of the Paris (Climate) and Montreal (Biodiversity) Agreements and the UN Sustainable Development Goals.
- Widespread multi-sector, multi-level action is needed including: a substantial **global shift toward healthy dietary patterns; large reductions in food loss and waste**; and major improvements in food production practices, such as **regenerative organic agriculture.**
- **Feeding the 10 billion people expected by 2050 a healthy diet** within **safe planetary boundaries is possible** and will **improve the health** and well being of millions of people and allow us to pass onto our children a **viable planet.**

What Can We Do? AS INDIVIDUALS

- Further educate ourselves and others
- Advocate on Bowen, BC, nationally & globally
- Support effective initiatives on Bowen, in BC, nationally
- Reduce our per capita greenhouse gas emissions and improve our own health by shifting our diets towards more plants and reducing food waste
- What else can we do?

What Can We Do? AS COMMUNITY

- Support BIFS to explore options for agroecological and regenerative organic agriculture on Bowen to demonstrate food system transformation at a local level and support local food production
- Offer more plant-based options in Bowen's restaurants! (We need to walk the talk here!)
- Develop programs and ways to reduce food waste
- Have Bowen achieve 30% protected land by 2030 goal by protecting Cape Roger Curtis and adding adjacent Crown lands to the park
- Build on the opportunity of Howe Sound designation as a UNESCO Biosphere Region to protect and restore ecosystems
- Support achievement of the MetroVan plan to reduce GHG emission by 45% by 2030
- What else can we do?

What Can We Do? PROVINCIAL LEVEL

- End fossil fuel infrastructure expansion
- Remove, reduce, redirect 'environmentally harmful subsidies' for liquified natural gas (LNG) in Howe Sound, forest biomass energy and other schemes
- Stop logging Old Growth forests!
- Support Indigenous priorities in housing, mitigation and adaptation efforts
- Support regenerative organic agriculture in BC
- What else can we do?

What Can We Do? NATIONAL LEVEL

- Fulfill on Canada's promises from Climate COP 26 & 27 on Forests, Methane, Coal, funding Adaptation, phasing out Fossil Fuels, etc.
- Fulfill on Canada's promises from Biodiversity COP 15 on 30% by 2030, etc.
- Increase Canada's ambition for Climate COP28, and embed Food system transformation into Canada's climate plan
- Uphold Indigenous Rights and work in partnership with Indigenous Peoples
- Redirect, repurpose or eliminate fossil fuel subsidies and other 'environmentally harmful subsidies' (The trillions of dollars spent on propping up polluting technology can be directed to stimulate growth, innovation and health!)
- What else can we do?



**Timeless
sunsets from
the end of Mt.
Gardner Road,
1920s**