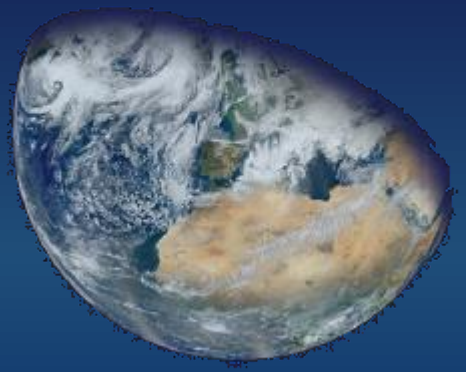
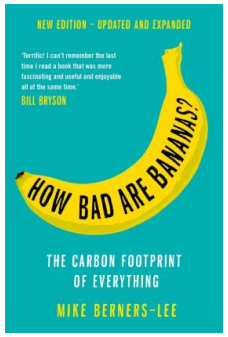
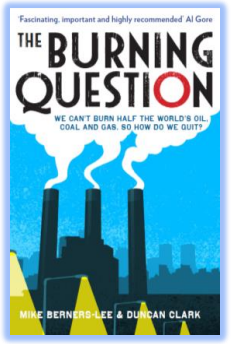


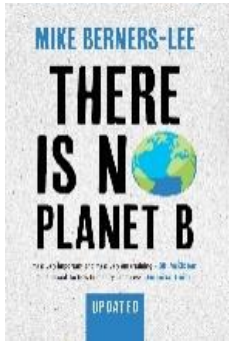
Thriving in the Anthropocene

The critical transition issues

Mike Berners-Lee







Lancaster University

Institute for Social Futures

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GREAT BRITISH ICE CREAM EST. 2002
Jude's

BAILLIE GIFFORD

JCB

BT Group

Microsoft

BBC

DISHOOM

energy

Willis Towers Watson

BREWDOG

TIMPSON
Great Service by Great People

M&S

Rogers Stirk Harbour + Partners

emr

CoGo
CONNECTING GOOD

National Parks

AMRC
ADVANCED MANUFACTURING RESEARCH CENTRE

The University Of Sheffield.

CITU

Pawprint
eco companion

MOUNTAIN EQUIPMENT

Cumbria
County Council

THE INDEPENDENT

Mike Berners-Lee
Mike@sw-consulting.co.uk

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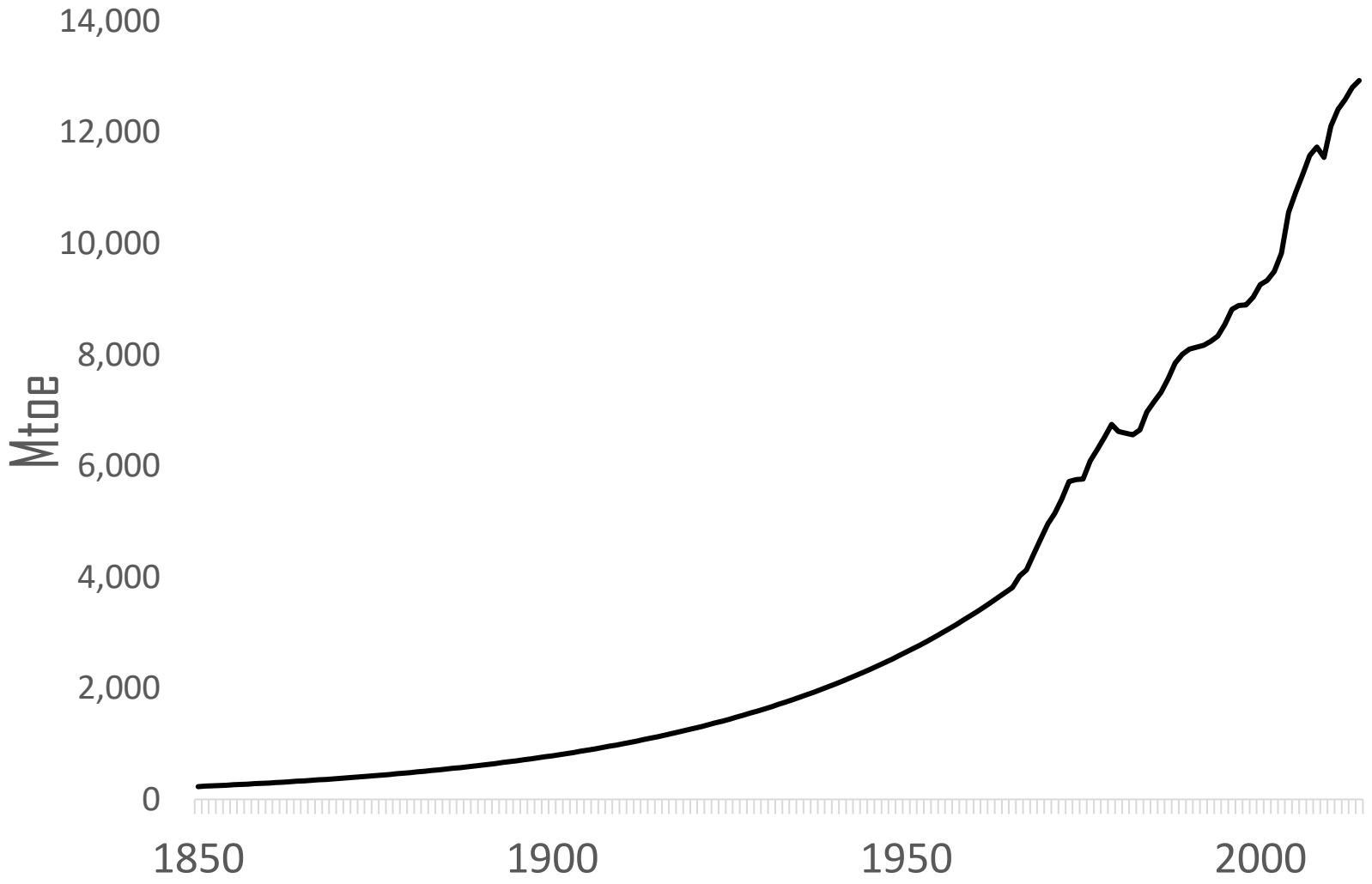
Global energy use



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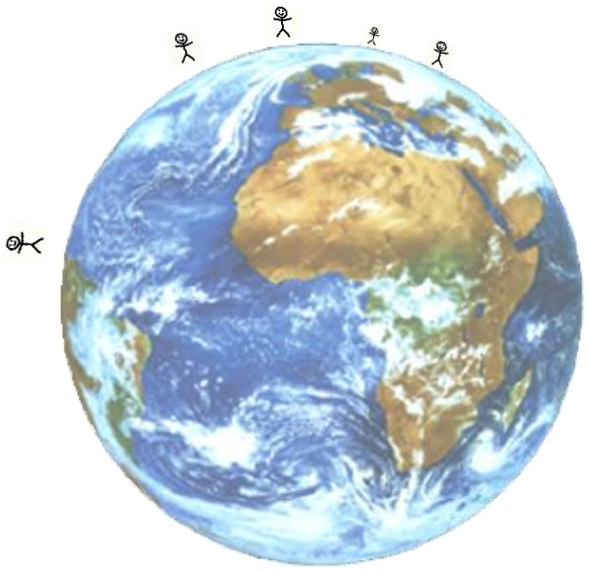
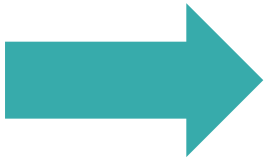
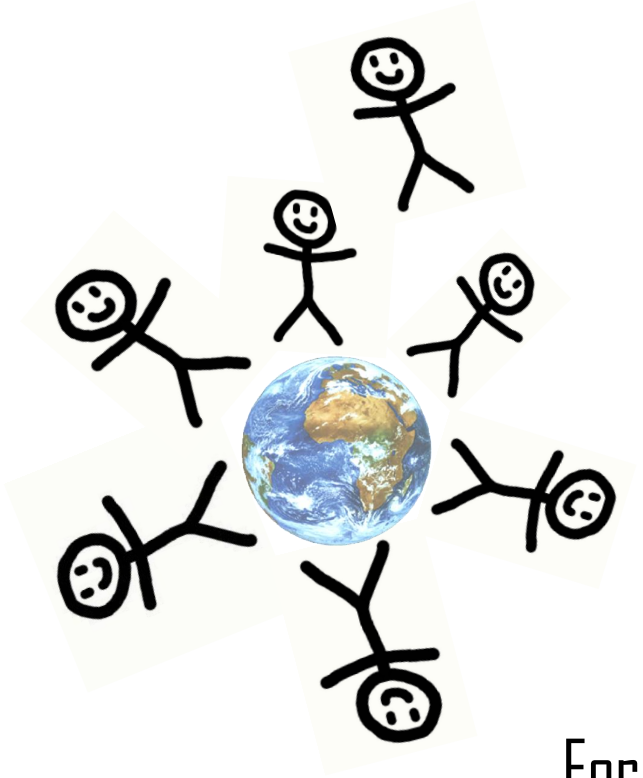
Here We Are in the **Anthropocene**







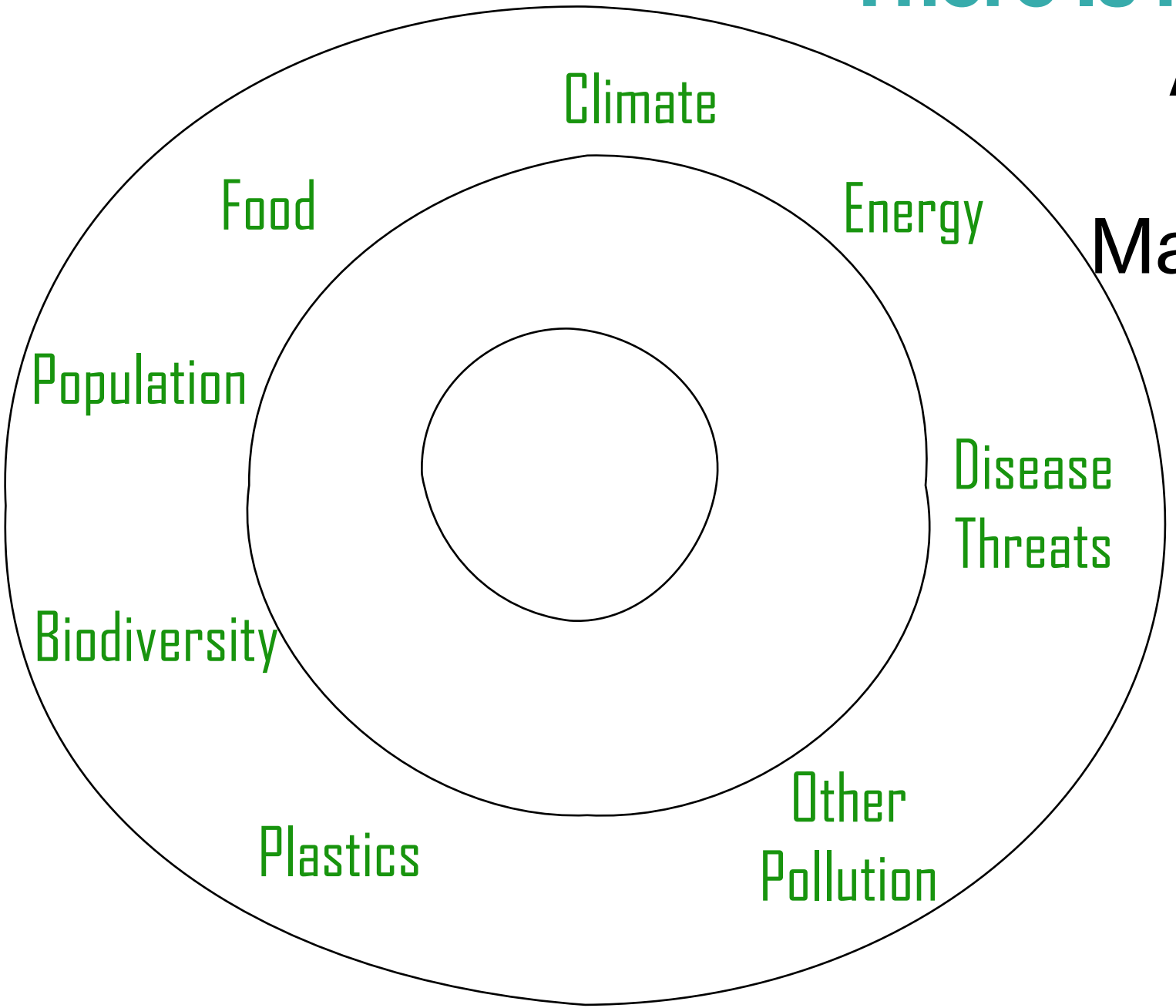
For better and worse

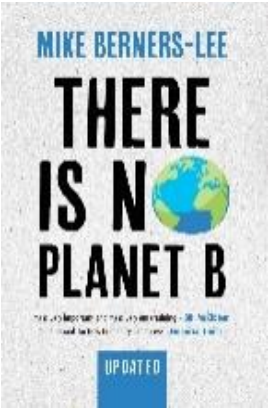
Like it or not

Ready or not

There Is No Planet B:

A Handbook for the Make or Break Years





Early symptoms

Cascading tipping points?

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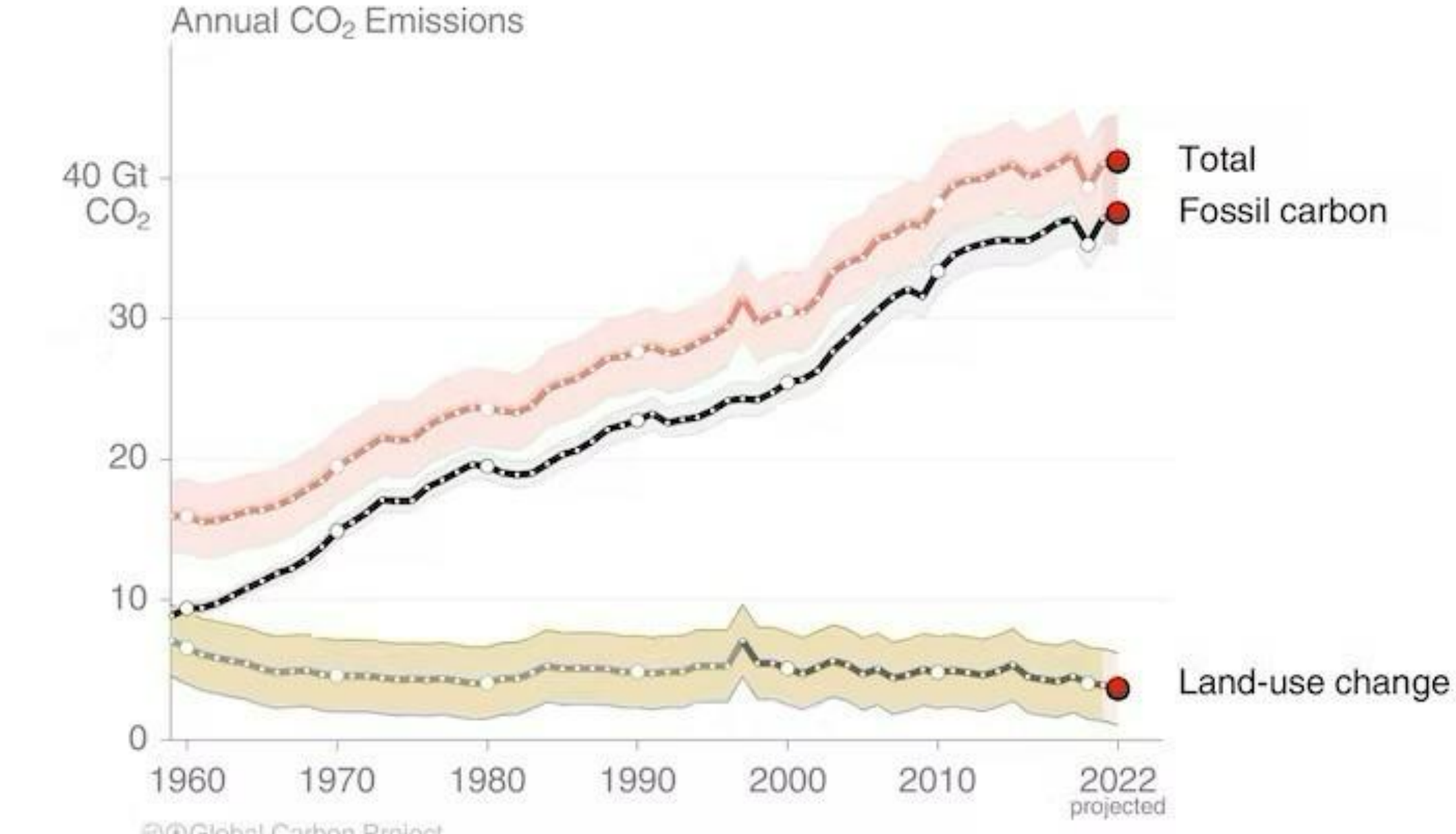
Climate progress so far



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Some reasons why

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And some more reasons

Lobbying

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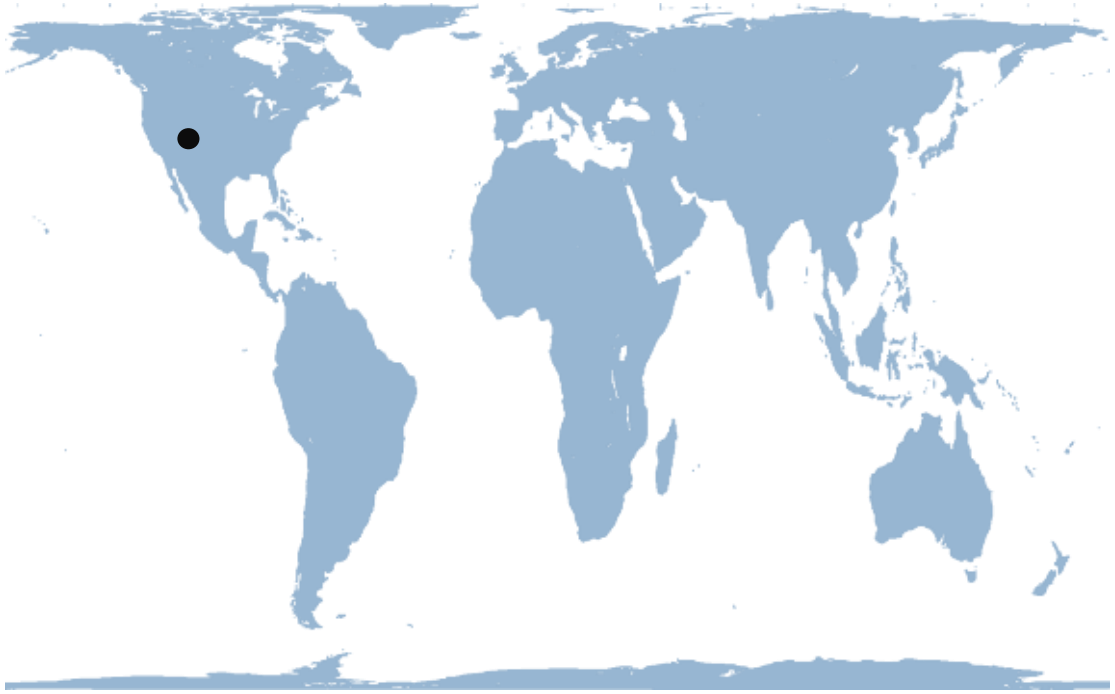
How much of the world's land area would need to be covered in solar panels to meet today's human energy needs?



2017

0.1% = 228 miles square

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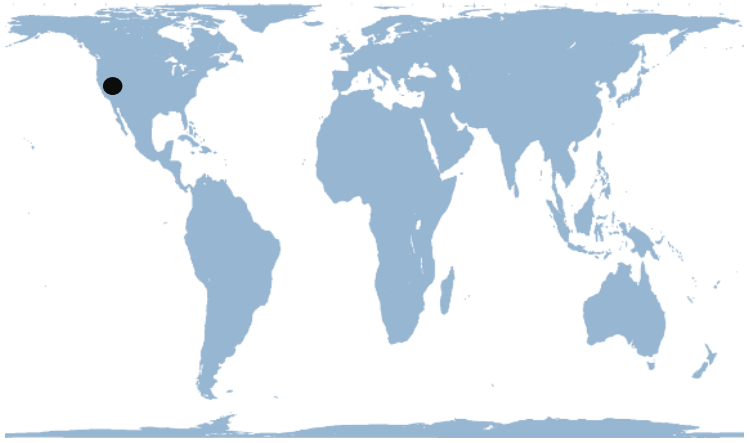
But If We Keep Growing Our Supply ....



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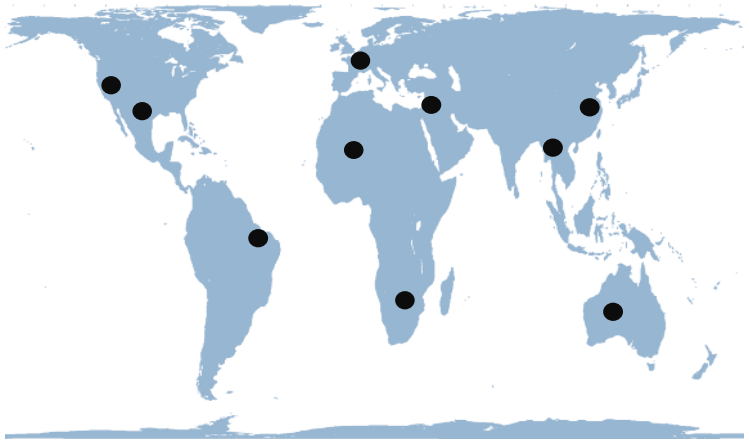
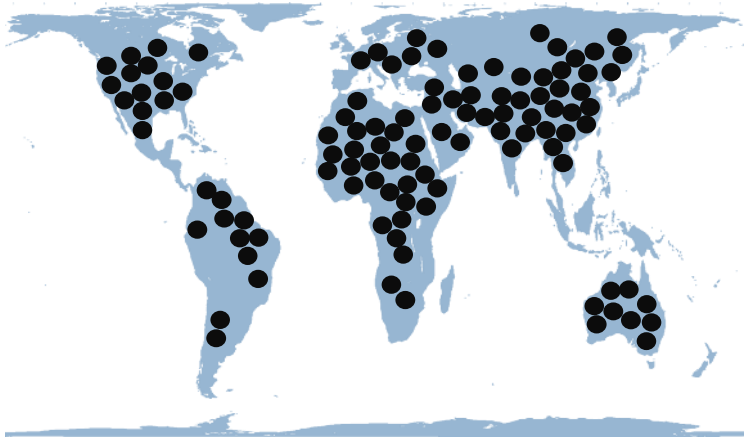


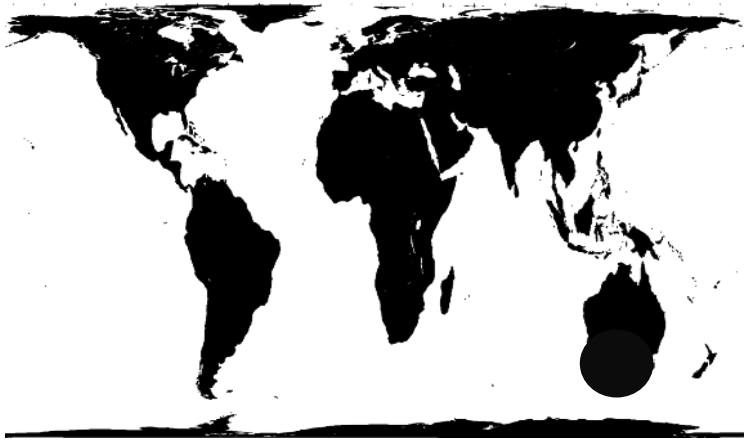
2117

1.0% = 2280 miles square



2217

10.4% = 2445 miles square



2317

111.8% = 8004 miles square

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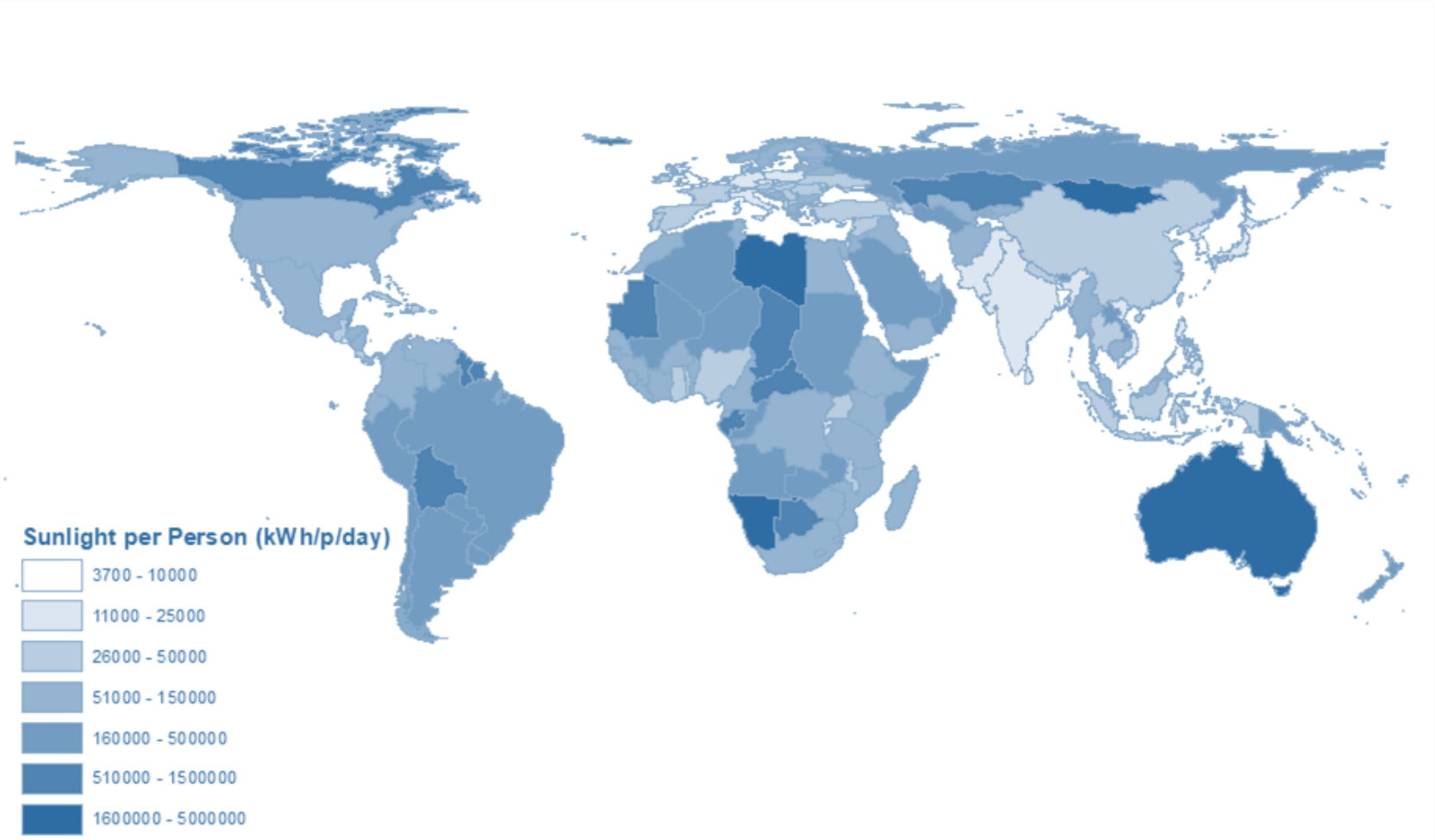
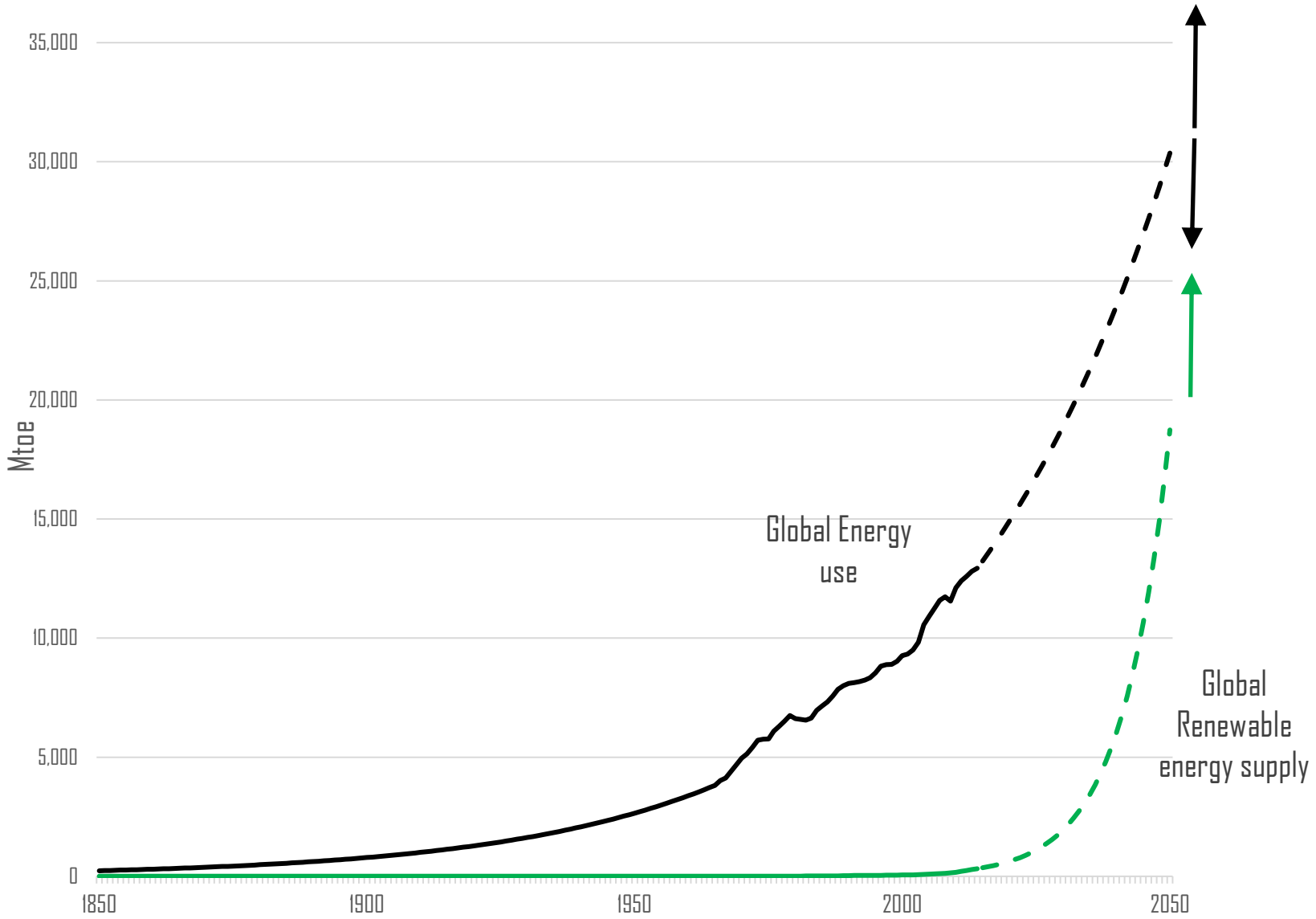
Who gets the sunlight?



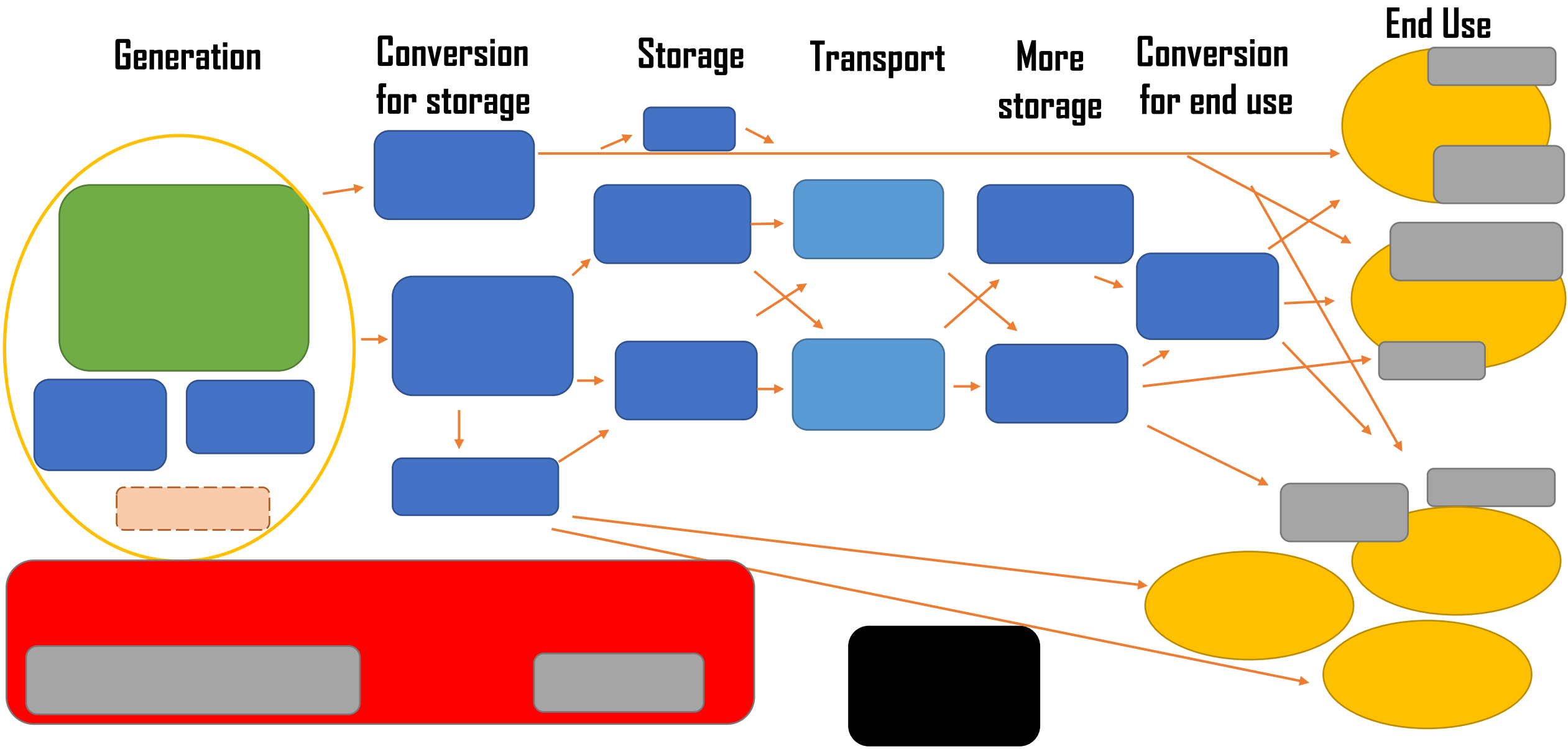
More renewables doesn't mean less fossil fuel?



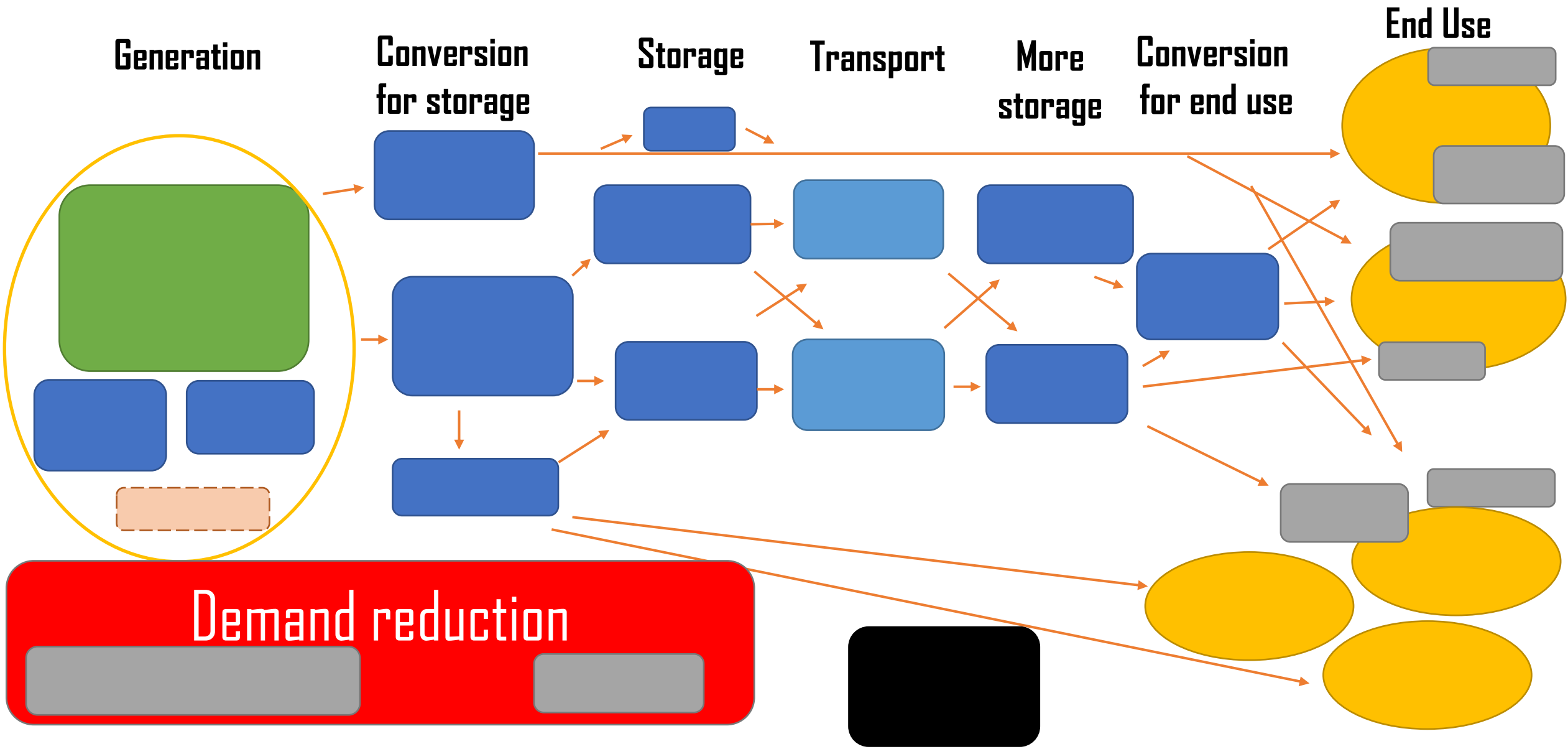
Technical Solution to Energy and Climate

Generation	Conversion for storage	Storage	Transport	More storage	Conversion for end use	End Use

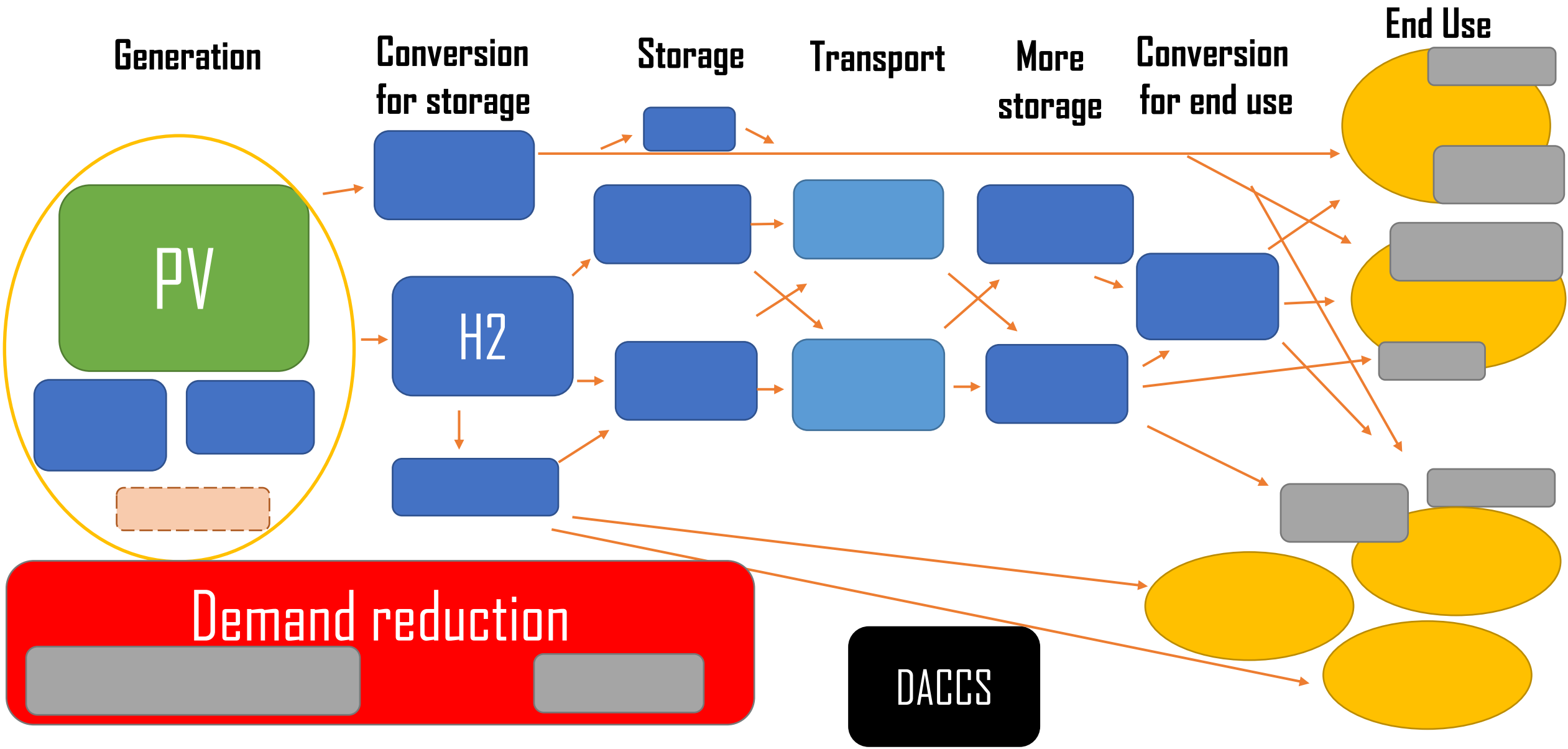
Technical Solution to Energy and Climate



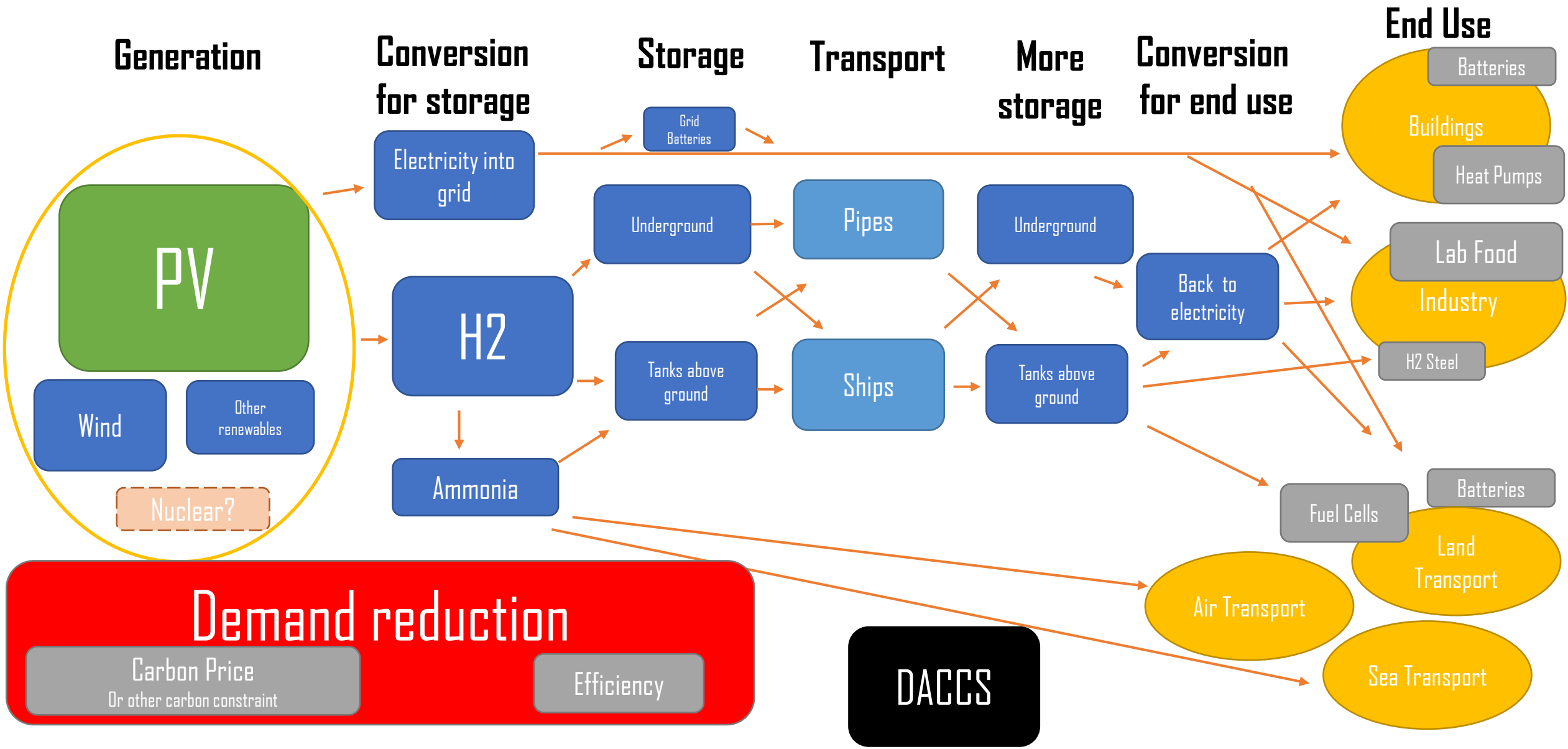
Technical Solution to Energy and Climate



Technical Solution to Energy and Climate

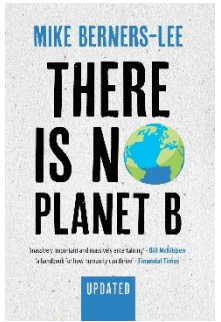


Technical Solution to Energy and Climate



We DON'T Need a New Coal Mine

Where do the world's calories go?



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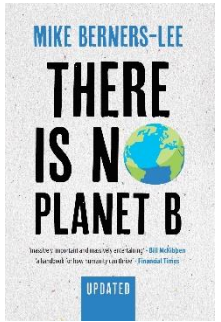

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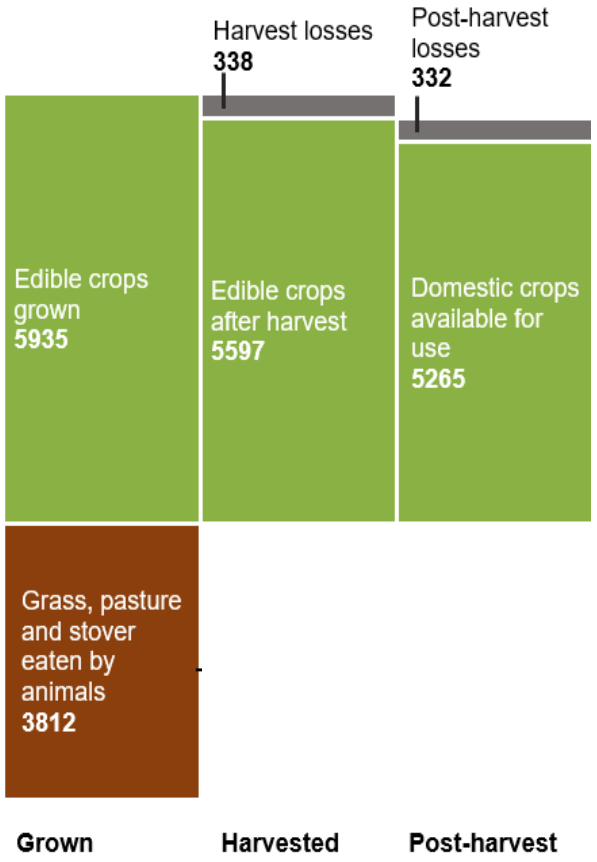

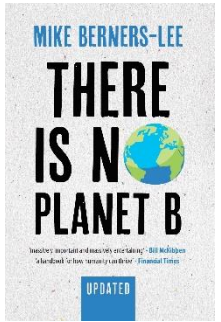

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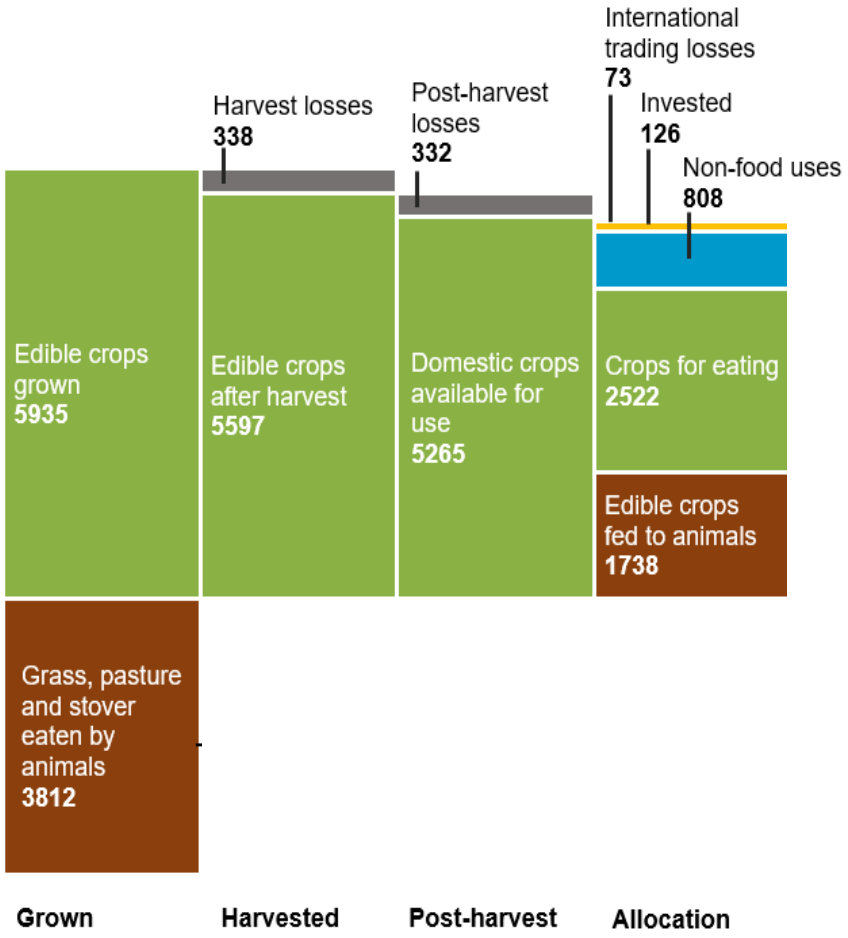

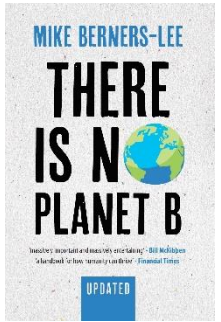

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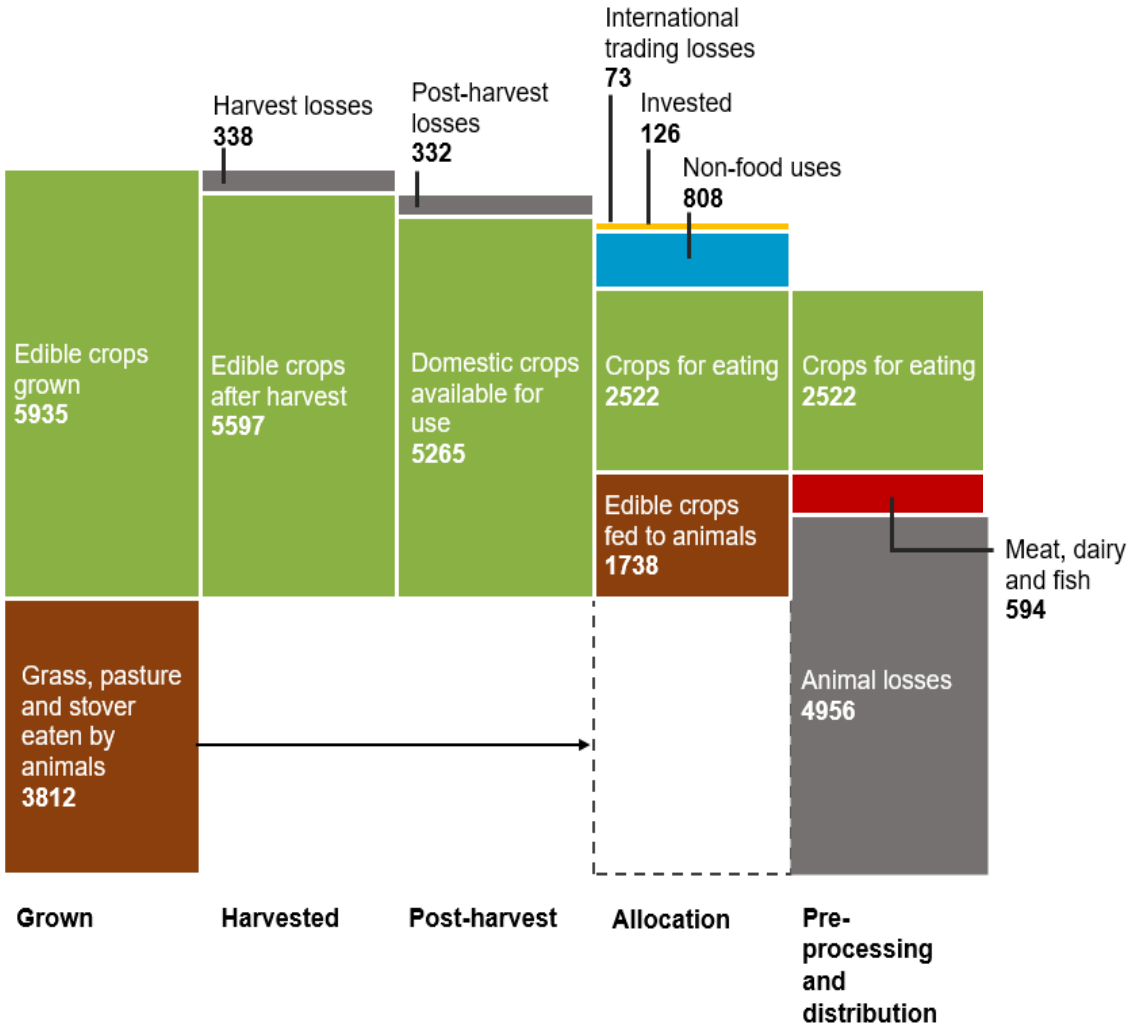

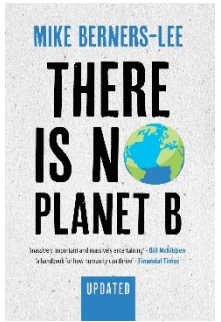

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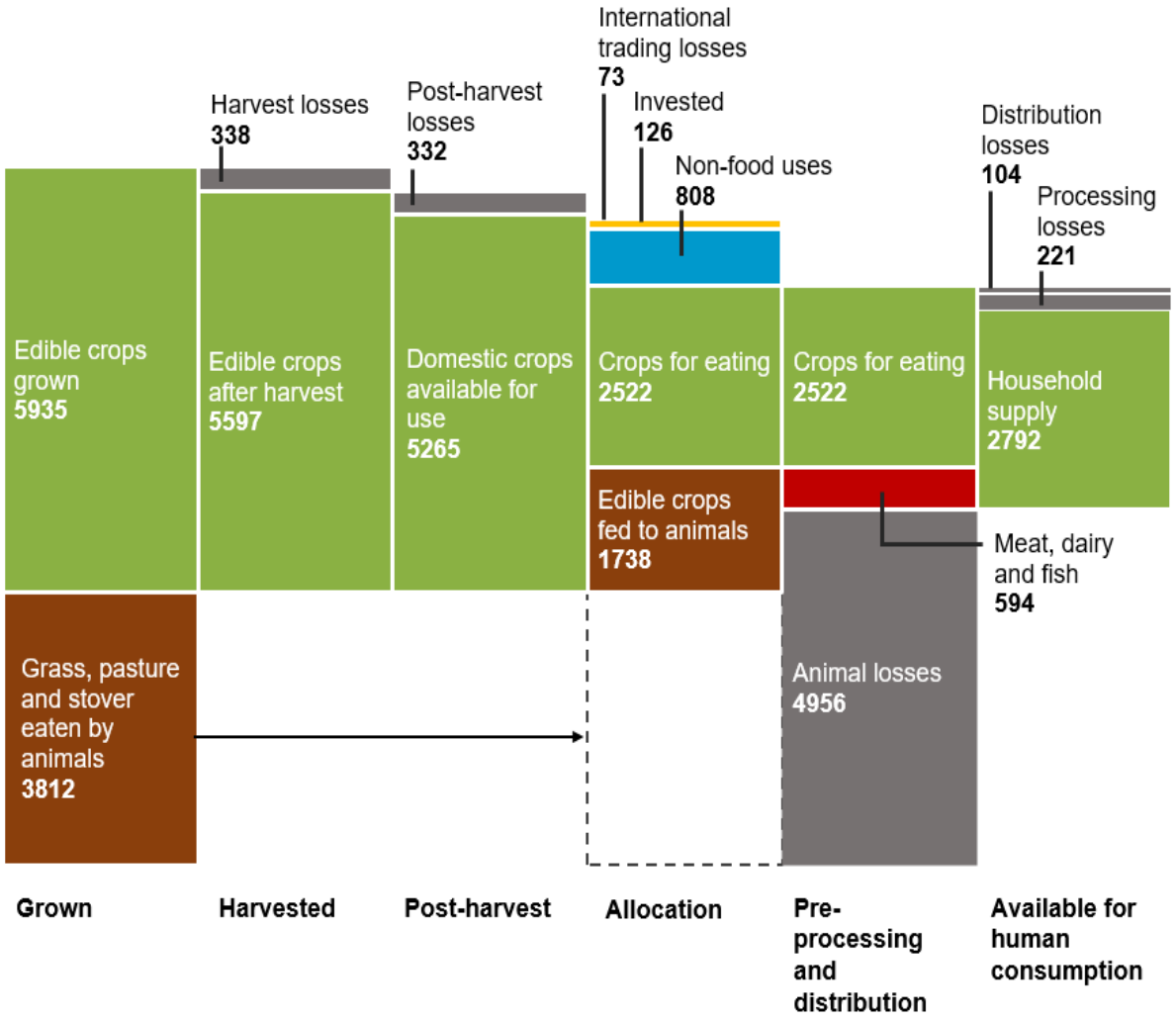

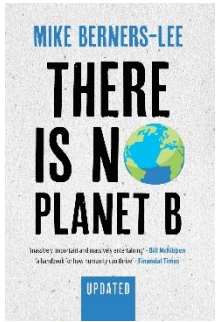

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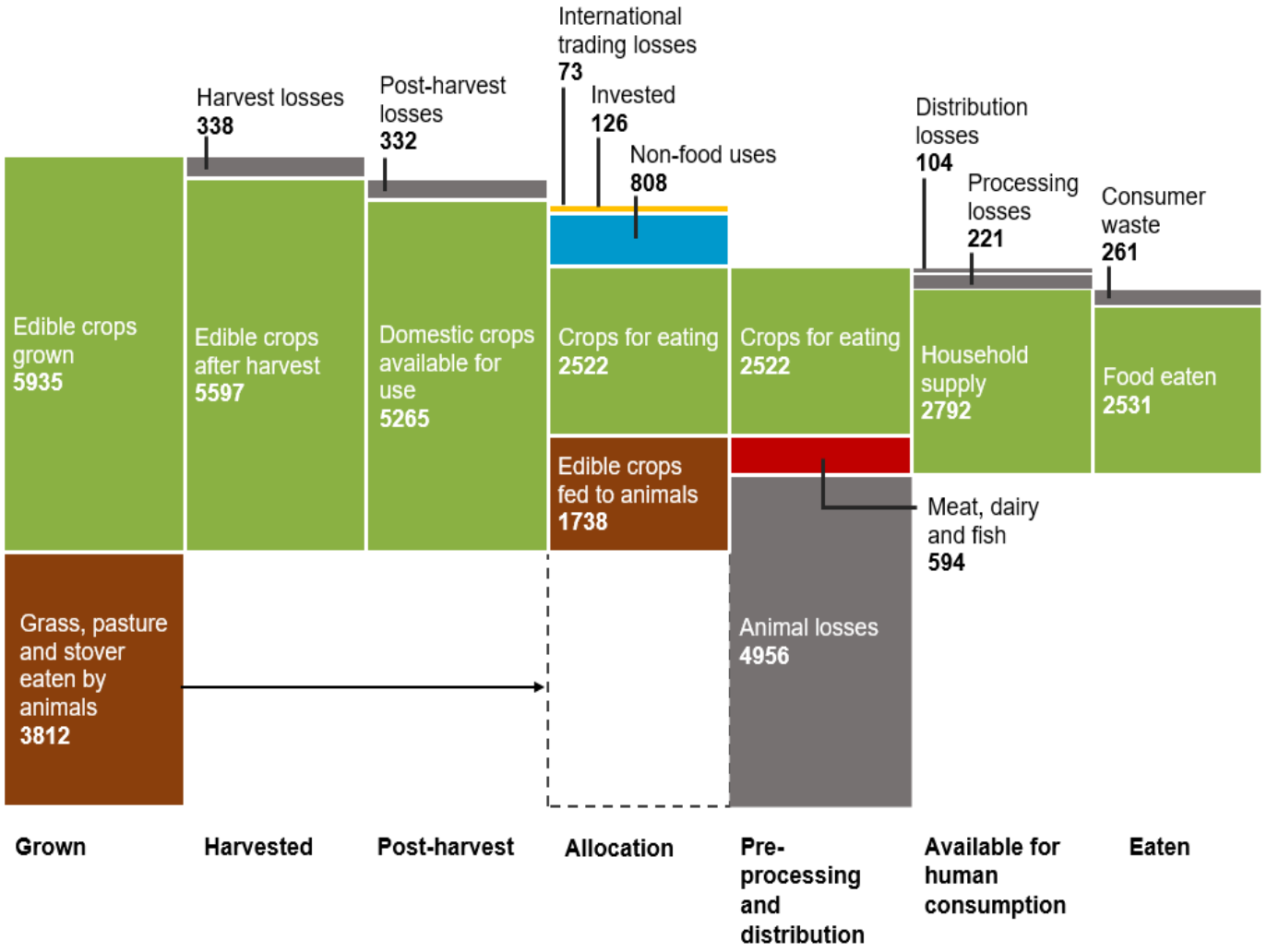

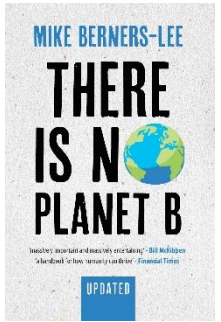

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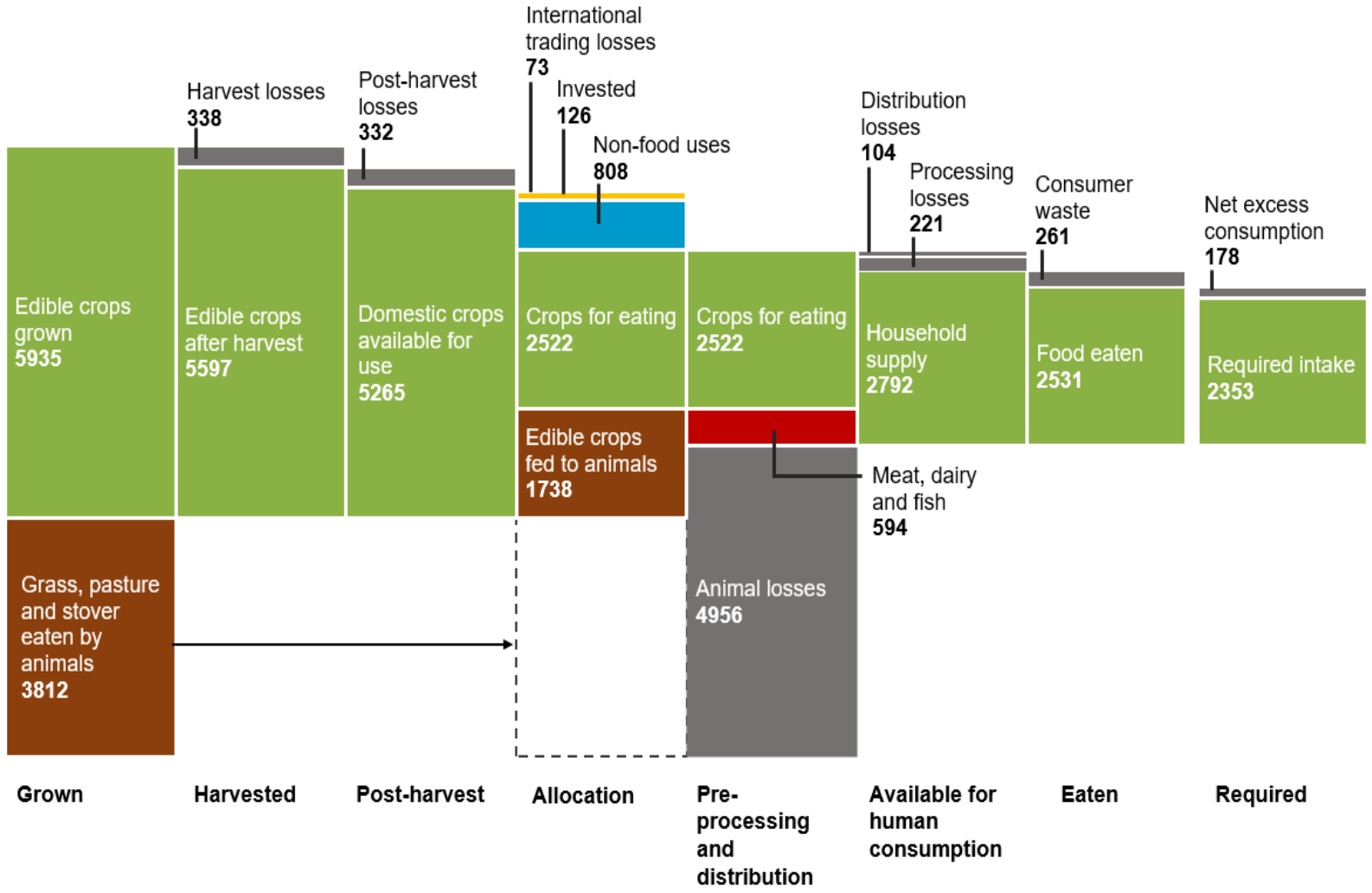
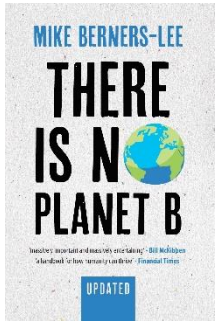
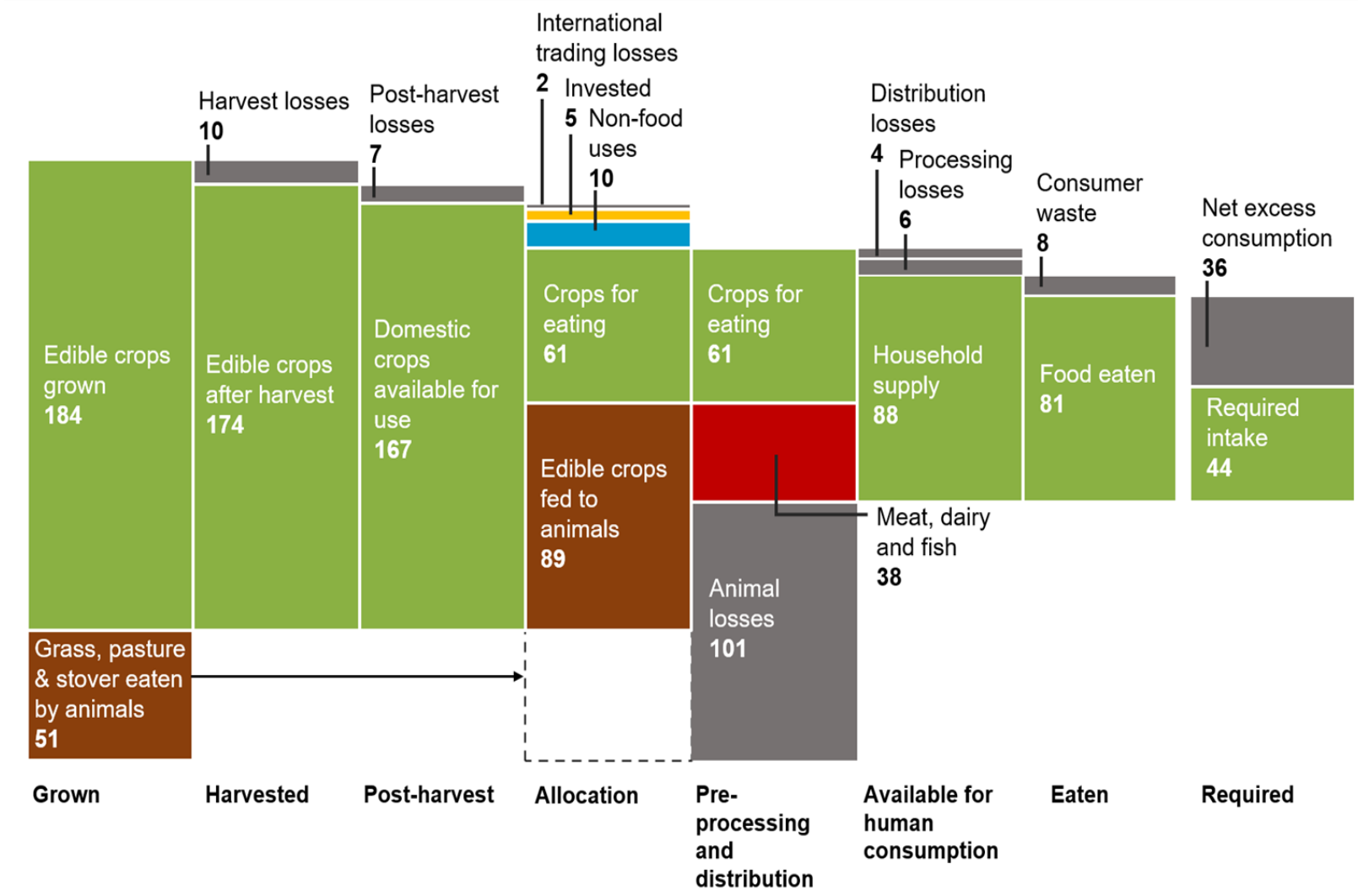
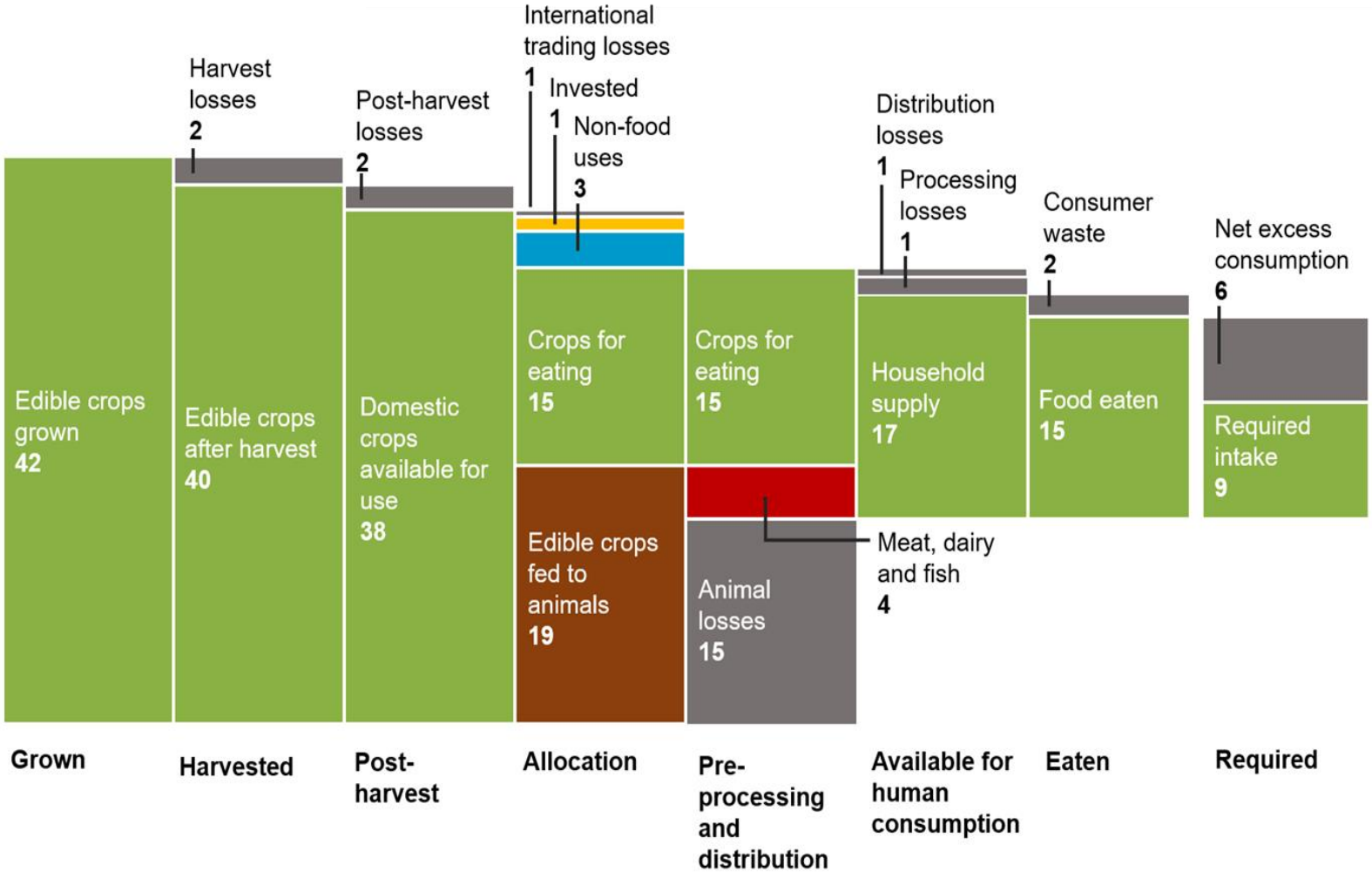




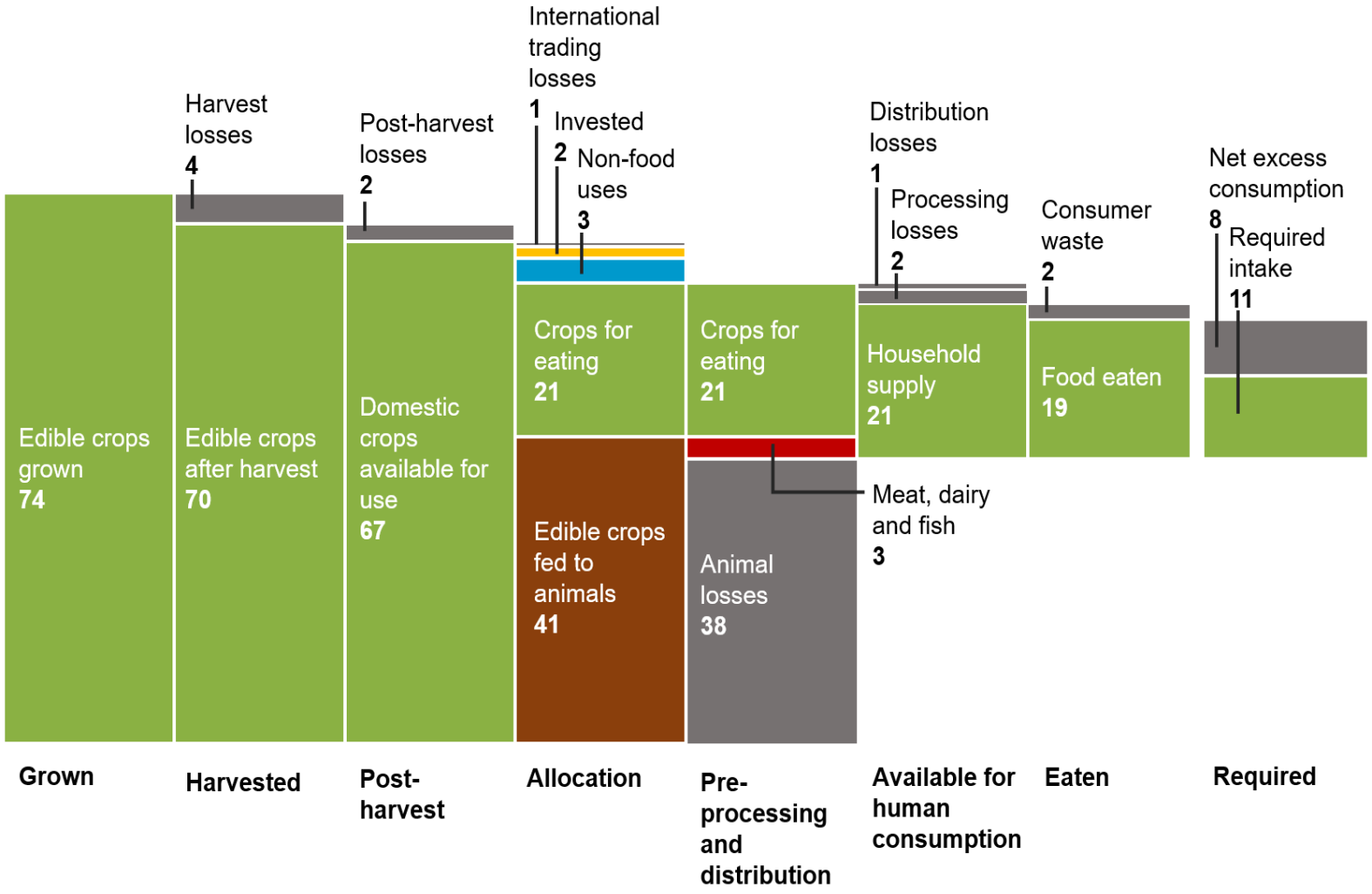
Protein (grams pr person per day)



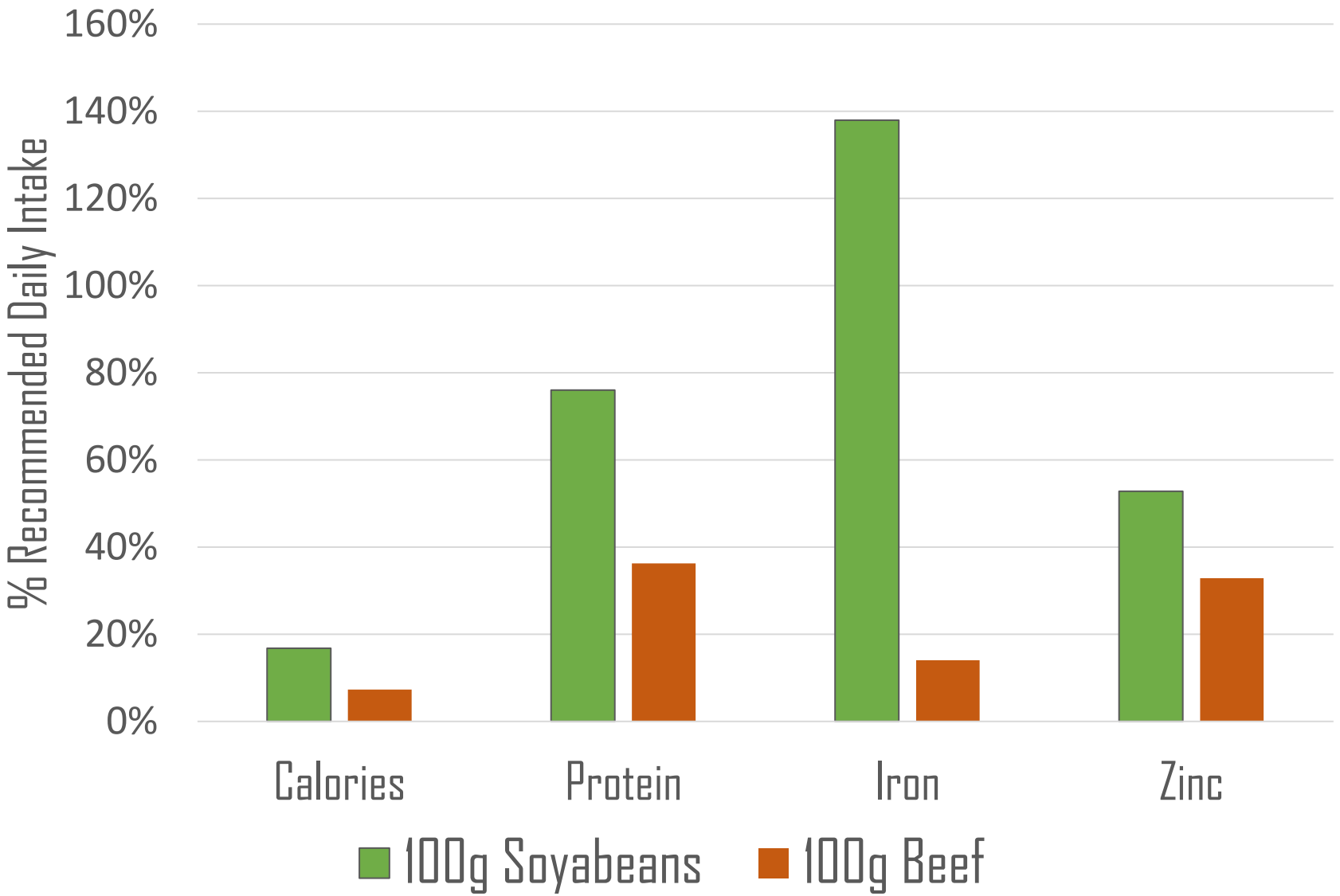
Zinc (pre-fortification and supplements)

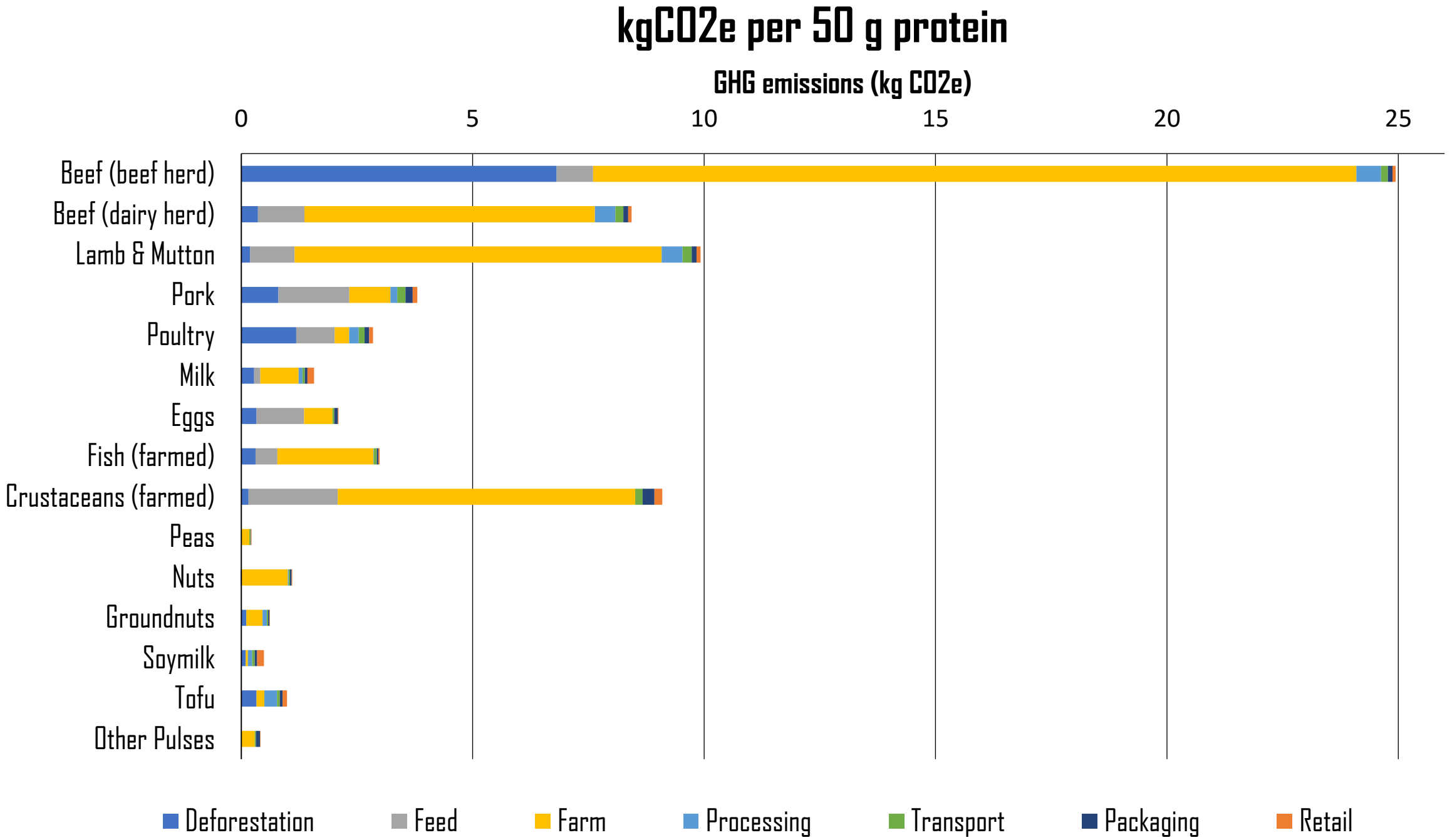


Iron (pre-fortification and supplements)

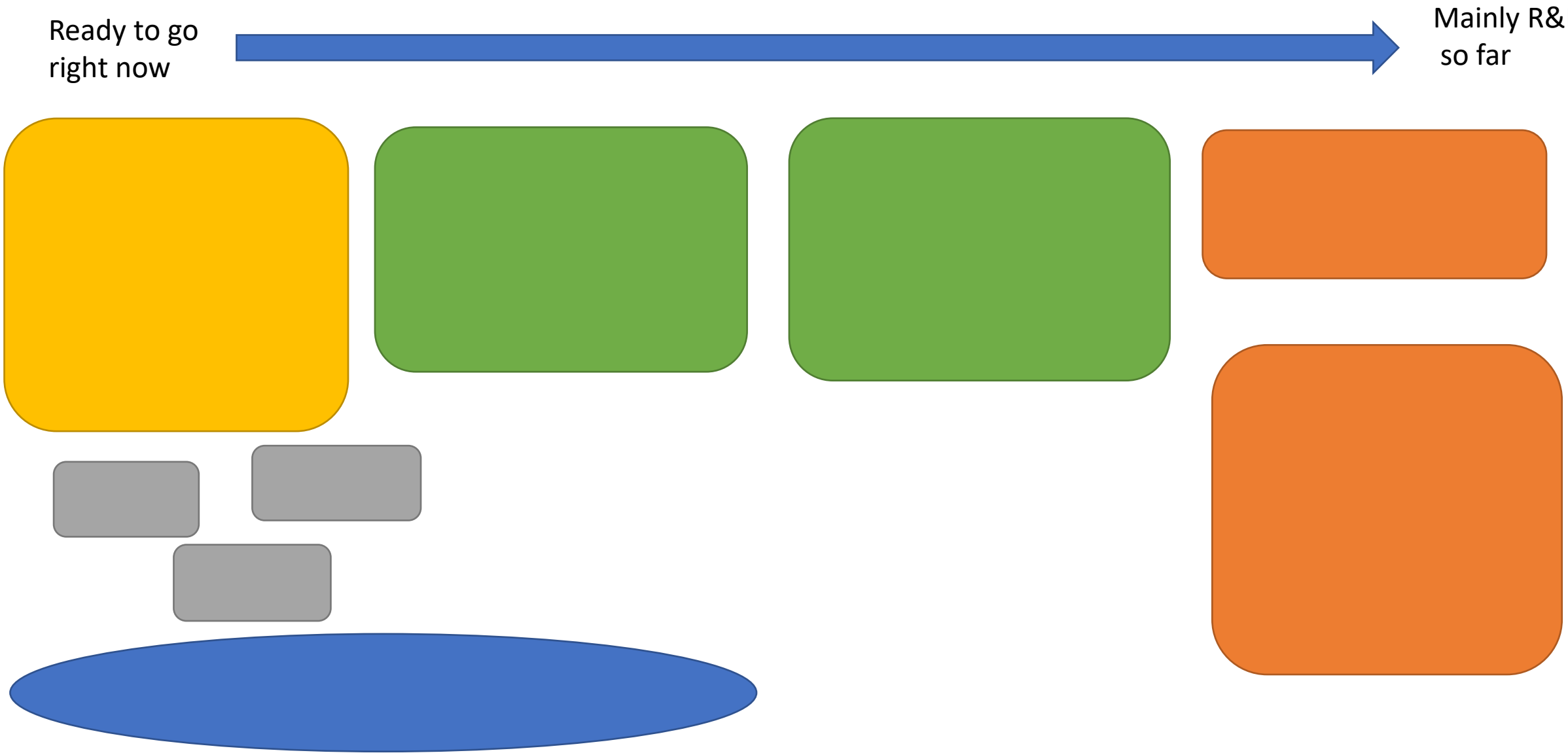


Soya vs Beef


160%
140%
120%
100%
80%
60%
40%
20%
0%
% Recommended Daily Intake
Calories
Protein
Iron
Zinc
100g Soyabeans
100g Beef


kgCO2e per 50 g protein
GHG emissions (kg CO2e)
0
5
10
15
20
25
Beef (beef herd)
Beef (dairy herd)
Lamb & Mutton
Pork
Poultry
Milk
Eggs
Fish (farmed)
Crustaceans (farmed)
Peas
Nuts
Groundnuts
Soymilk
Tofu
Other Pulses
Deforestation
Feed
Farm
Processing
Transport
Packaging
Retail

Technical solution to food and land



Technical solution to food and land

Ready to go right now

Mainly R&D so far

Towards
Plant-Based Diets

Land restoration
for wildlife and carbon storage

‘Agroecology’
(low tillage, permanent cover, low fertiliser and pesticide, rotations, mixed crops, robot weeders…)

Perenial
cerial crops

Beyond Photsynthesis
For protein, fat and carbohydrate

Freezers and cold stores

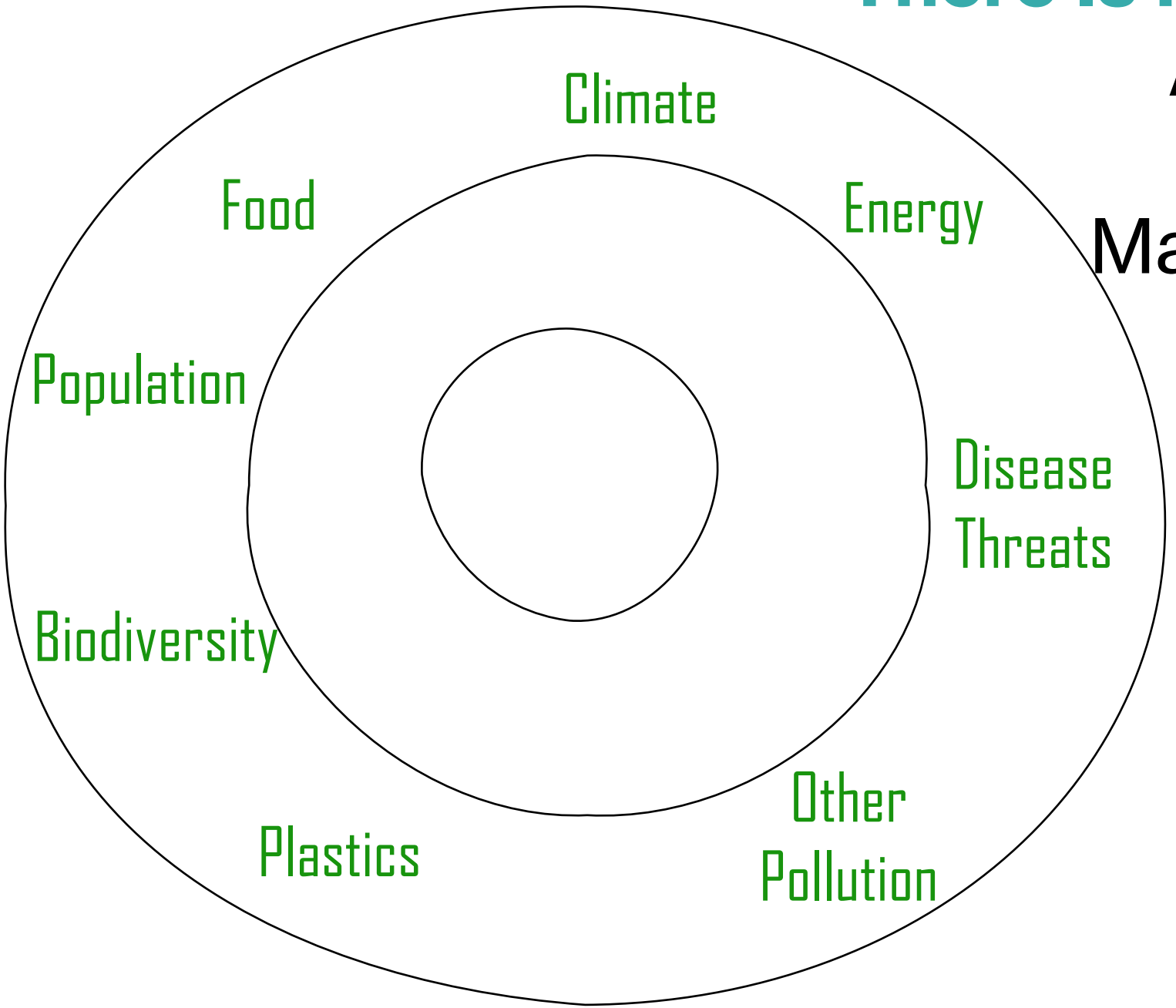
Boats for transport

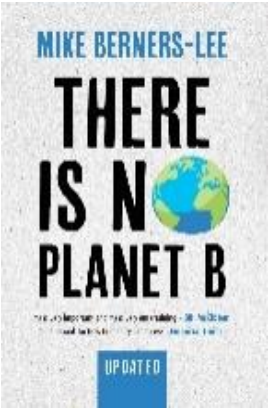
Waste reduction

Limit population
education, poverty elimination and women’s rights

There Is No Planet B:

A Handbook for the Make or Break Years





There Is No Planet B:
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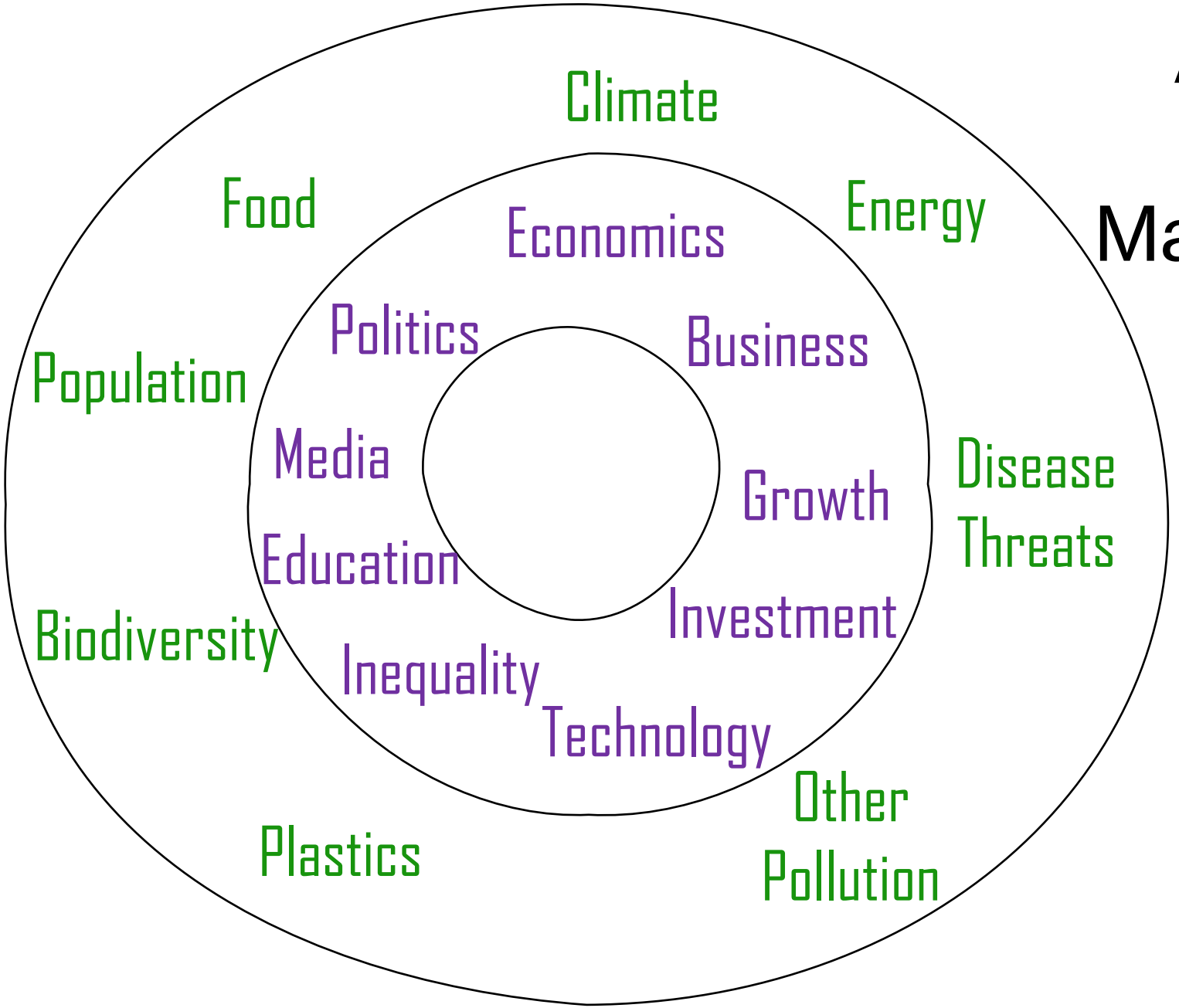
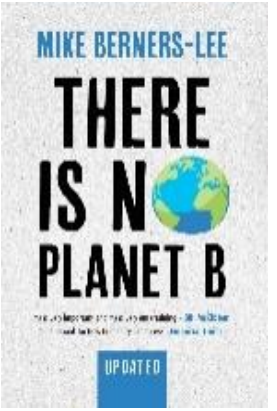
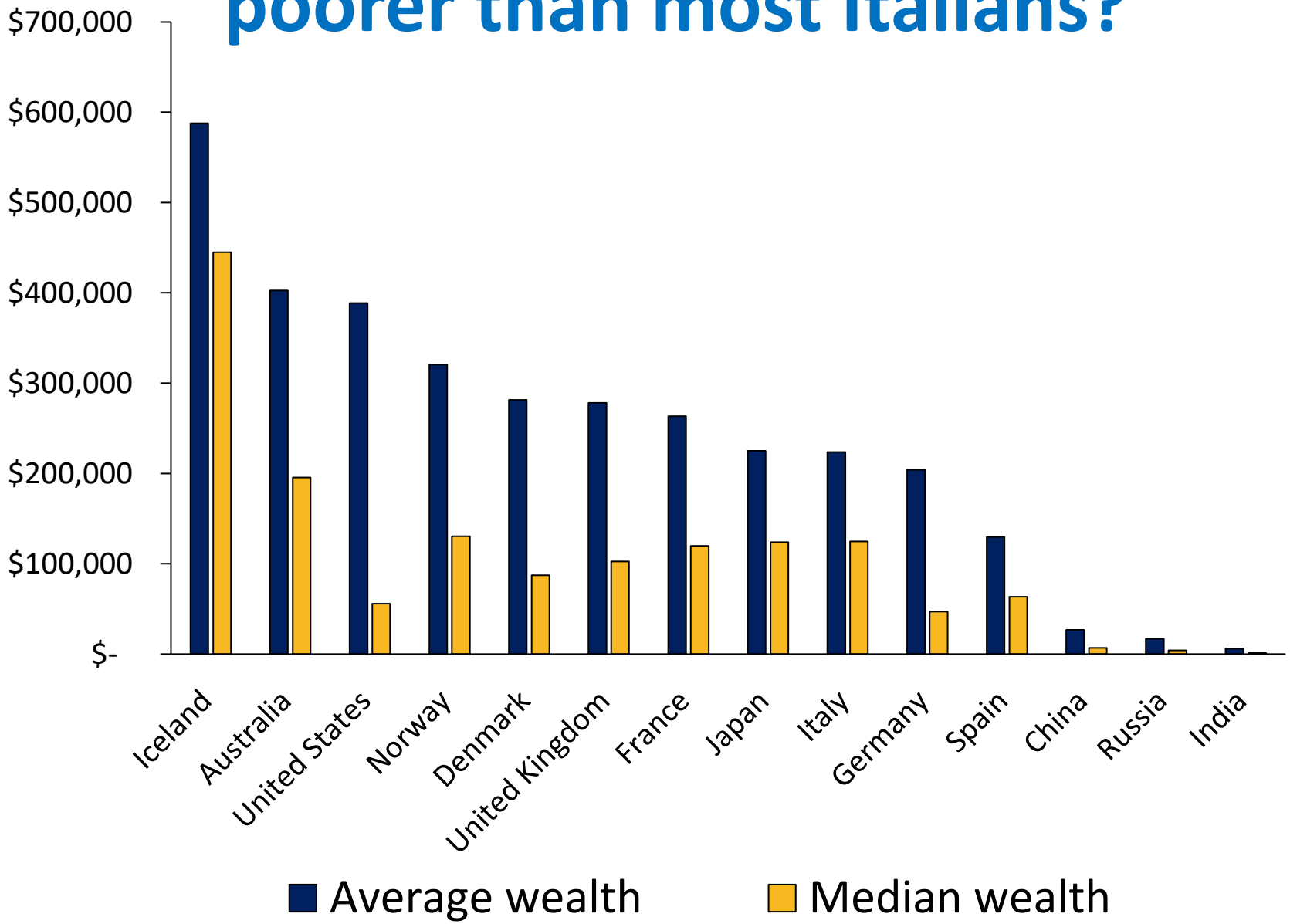
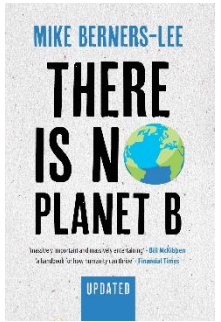




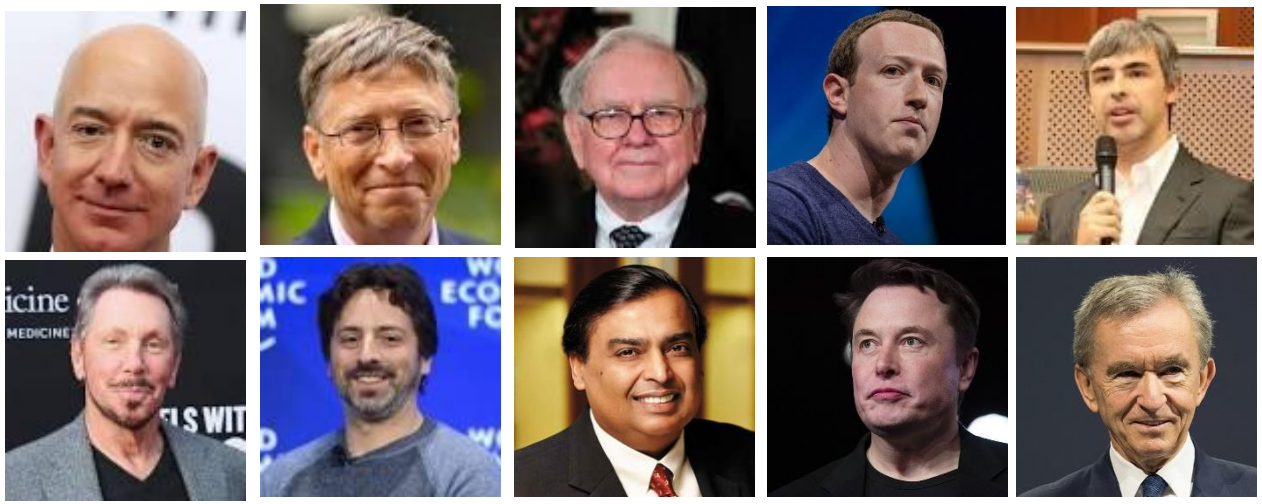
Why are most Americans so much poorer than most Italians?

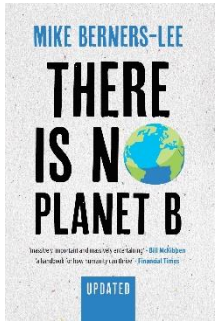




The ten wealthiest Americans could quadruple the wealth of the poorest half of Africa

- and still be billionaires





There Is No Planet B:
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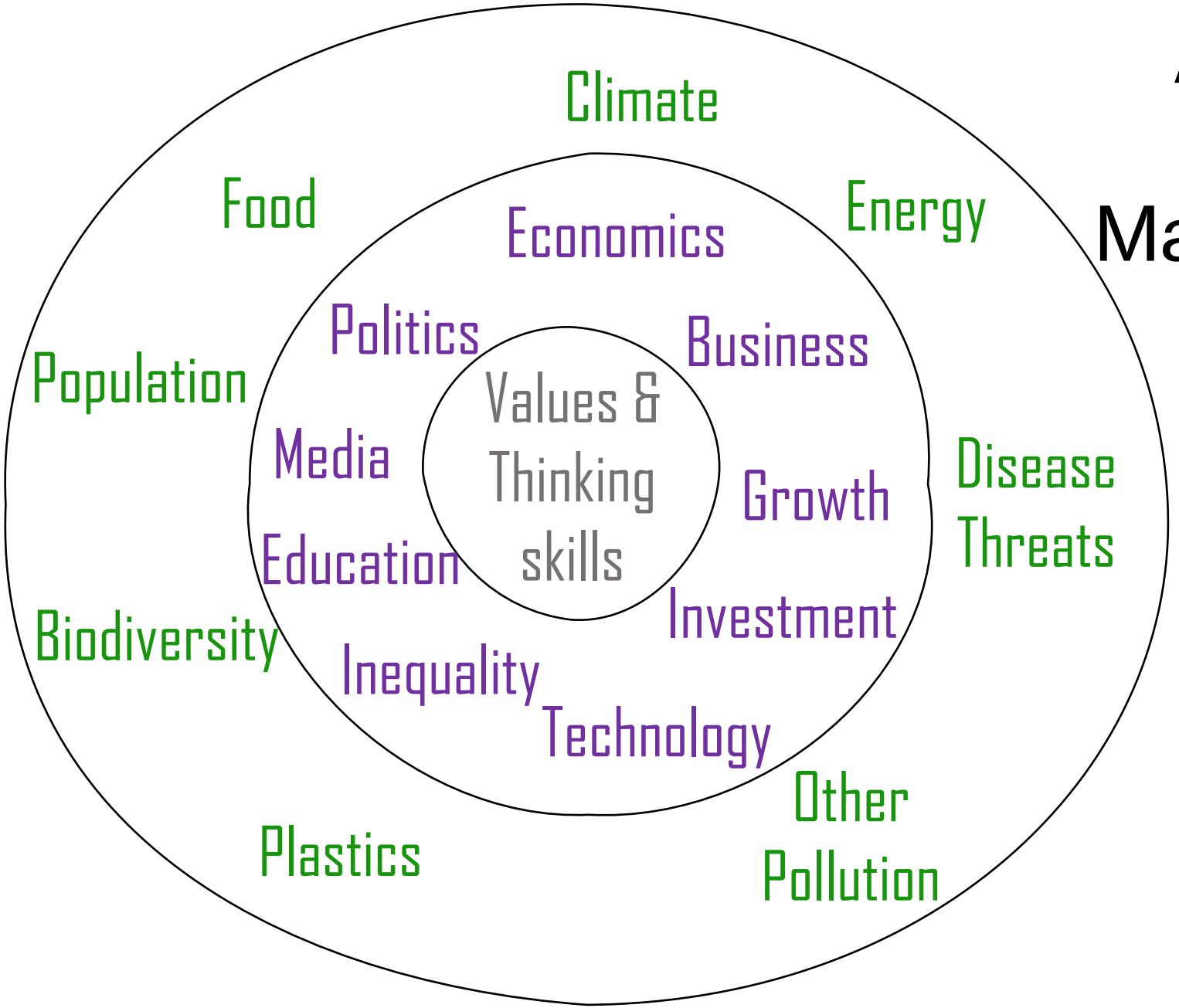
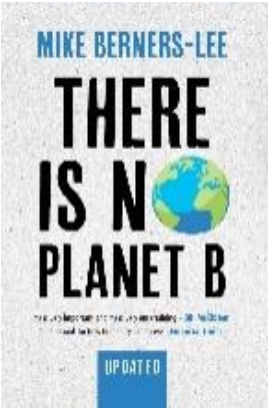
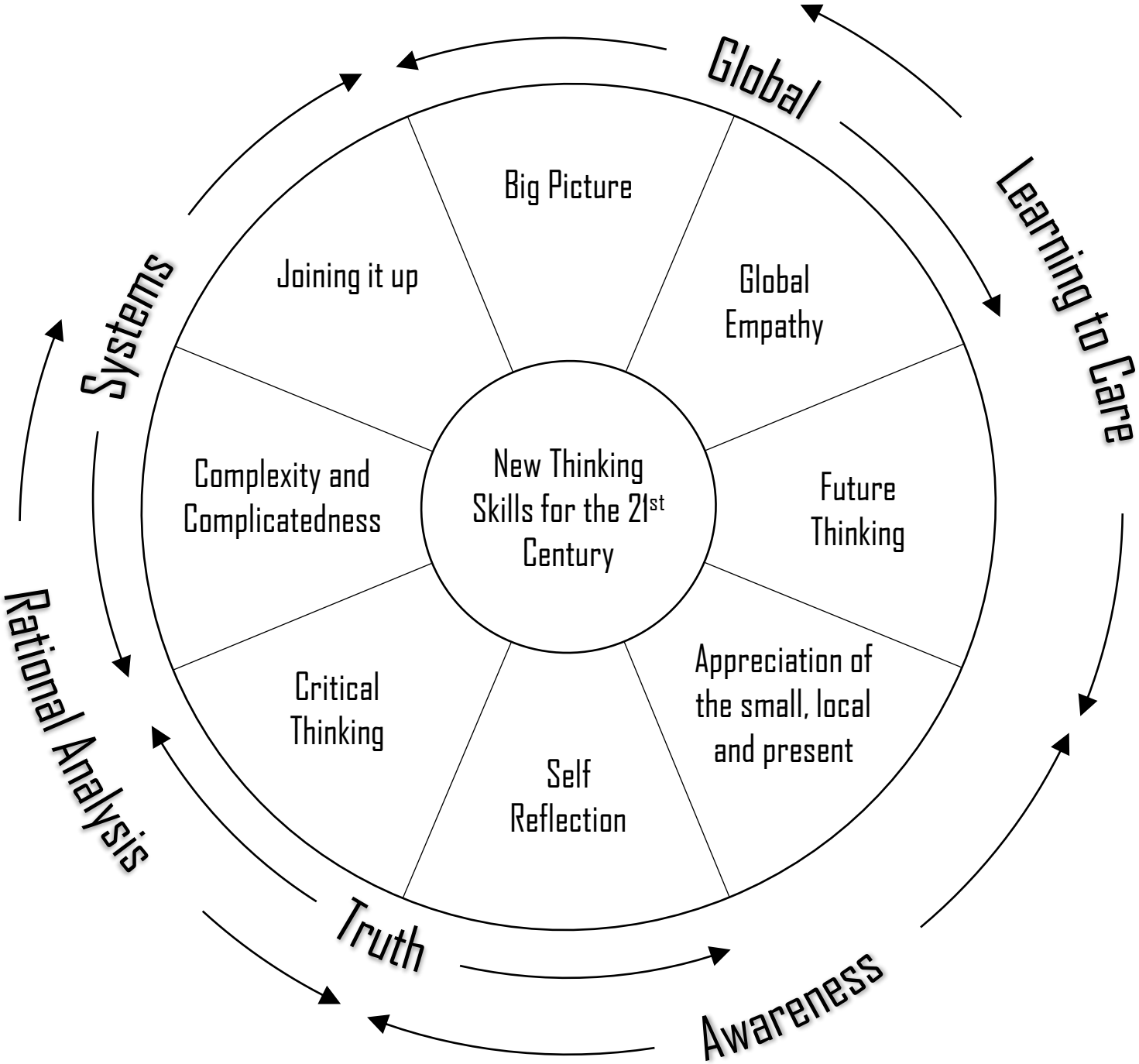
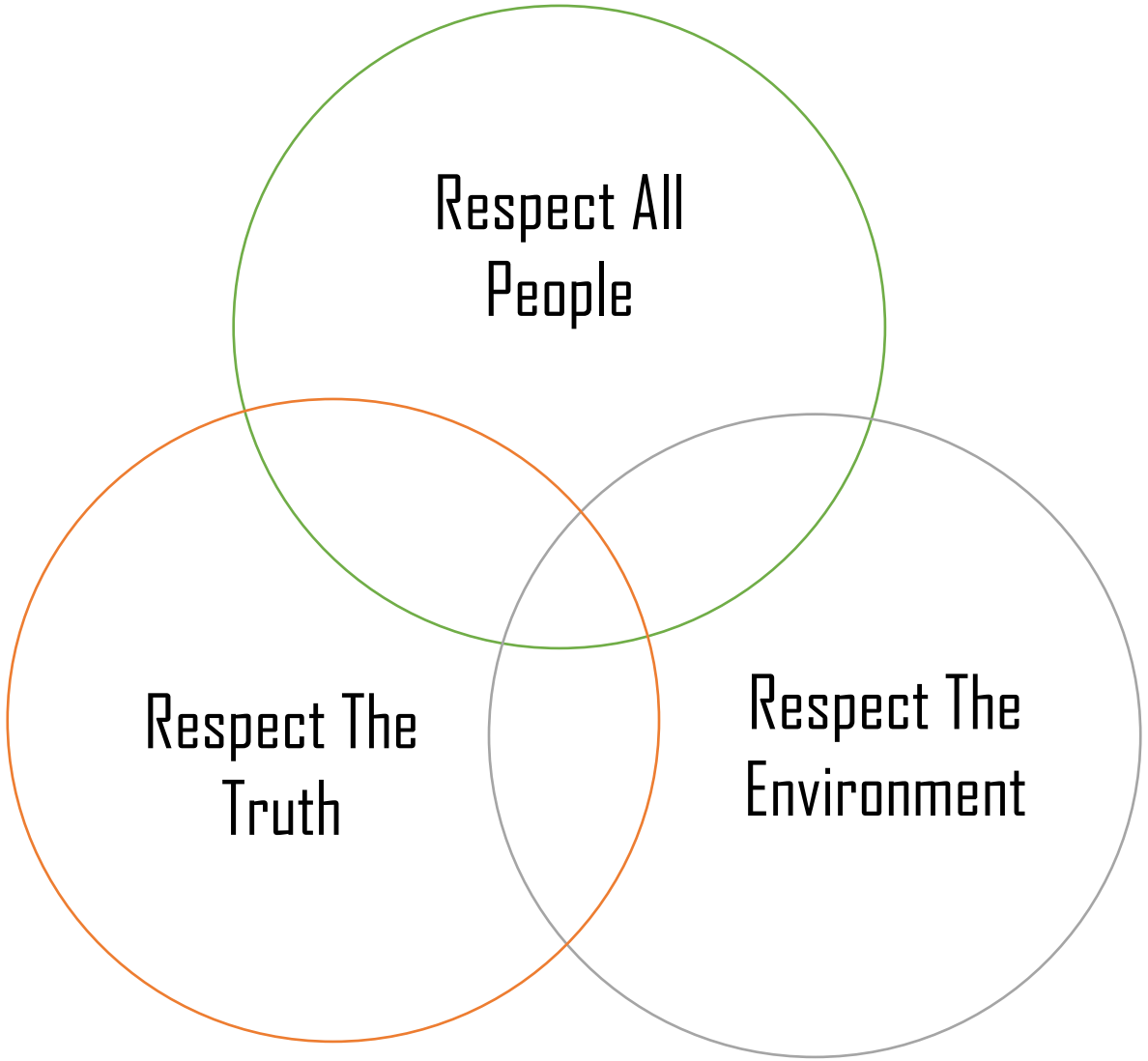




Eight new thinking skills for the 21st Century





Three values we can no longer live without





We now ***have*** to do better than this …







The Guardian
BBC NEWS
sky NEWS
FREE METRO
itv NEWS at TEN
THE Sun
2 FREE TICKETS
WORTH UP TO £120
WINE UPS CANCER 9%
Truth and Trust
THE TIMES
Get your coat
Anna Murphy's autumn selection
FINANCIAL TIMES
NEWS PROVIDER OF THE YEAR
Daily Mail
The lovesick hijacker
Passenger seized plane to see ex-wife
Everybody out!
The essential daily

A race between tipping points

When it's all so global, what can *we* do?

Imagine

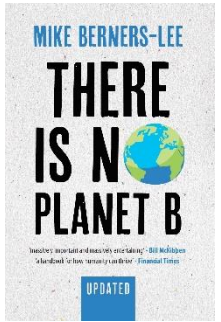
Influence

Insist

Role model

Develop thinking skills and values for the Anthropocene

Protest?



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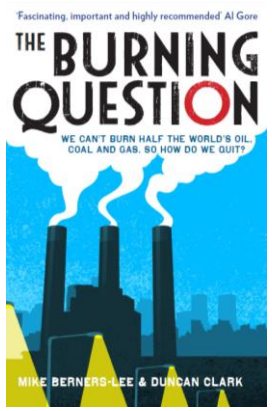
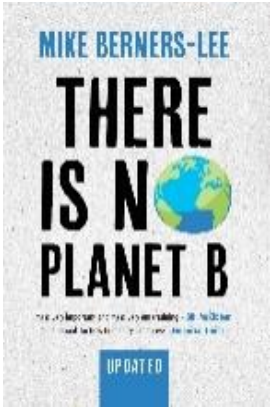
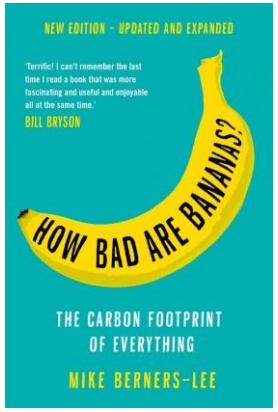
Thank you for listening
Questions?







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