



nederlandse zuivel organisatie

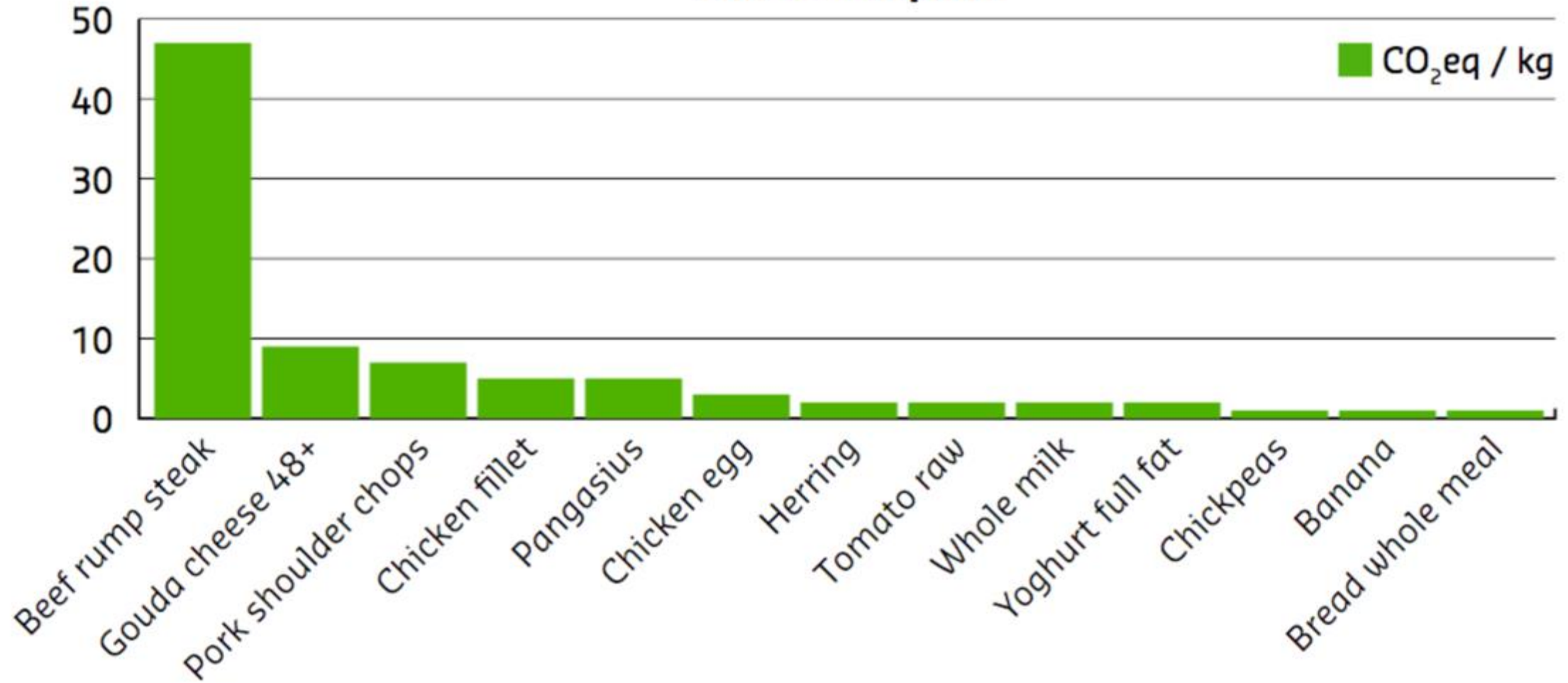
Sustainable diet and lifestyle

Dr. Stephan Peters – NZO

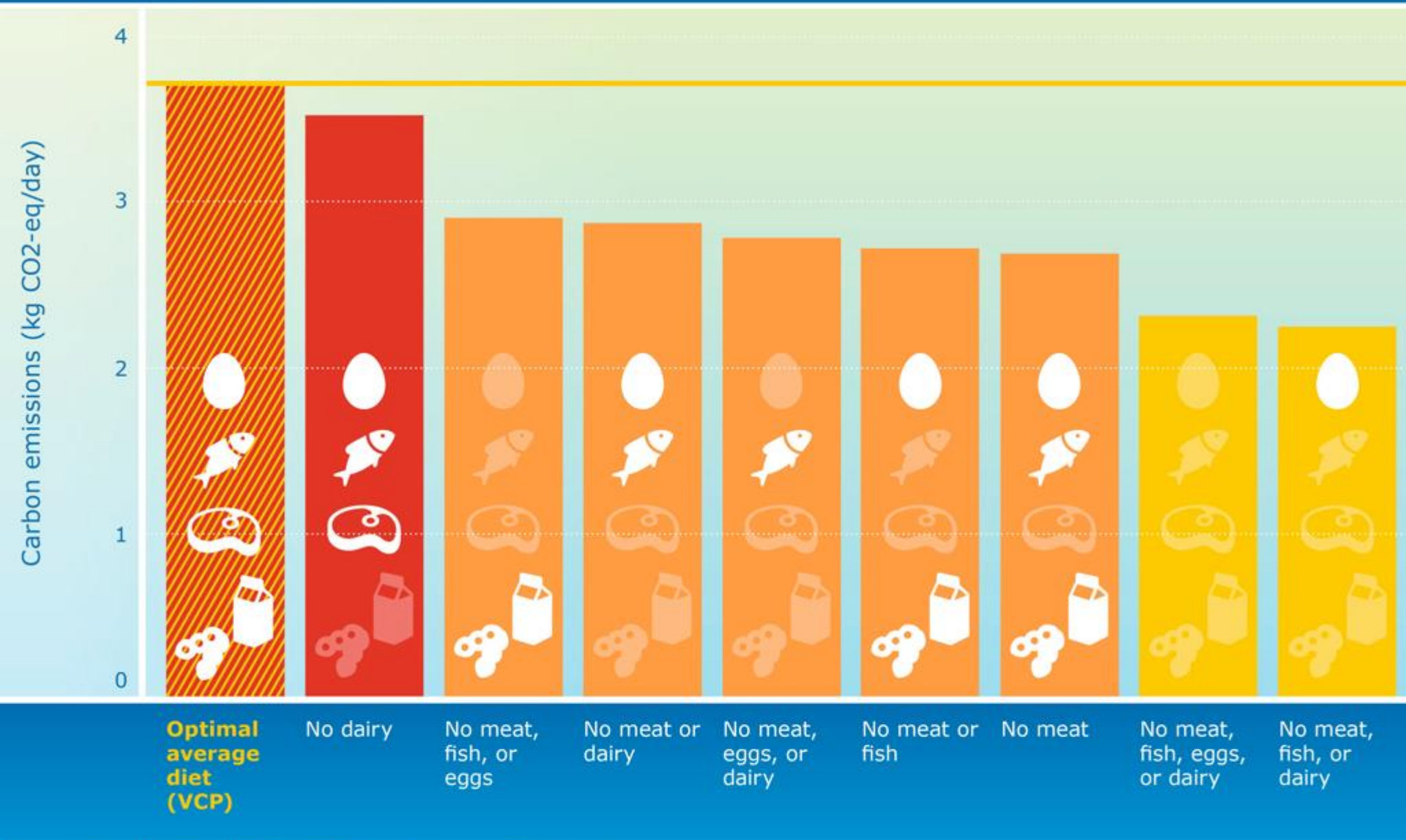
Less animal – more plant-based?



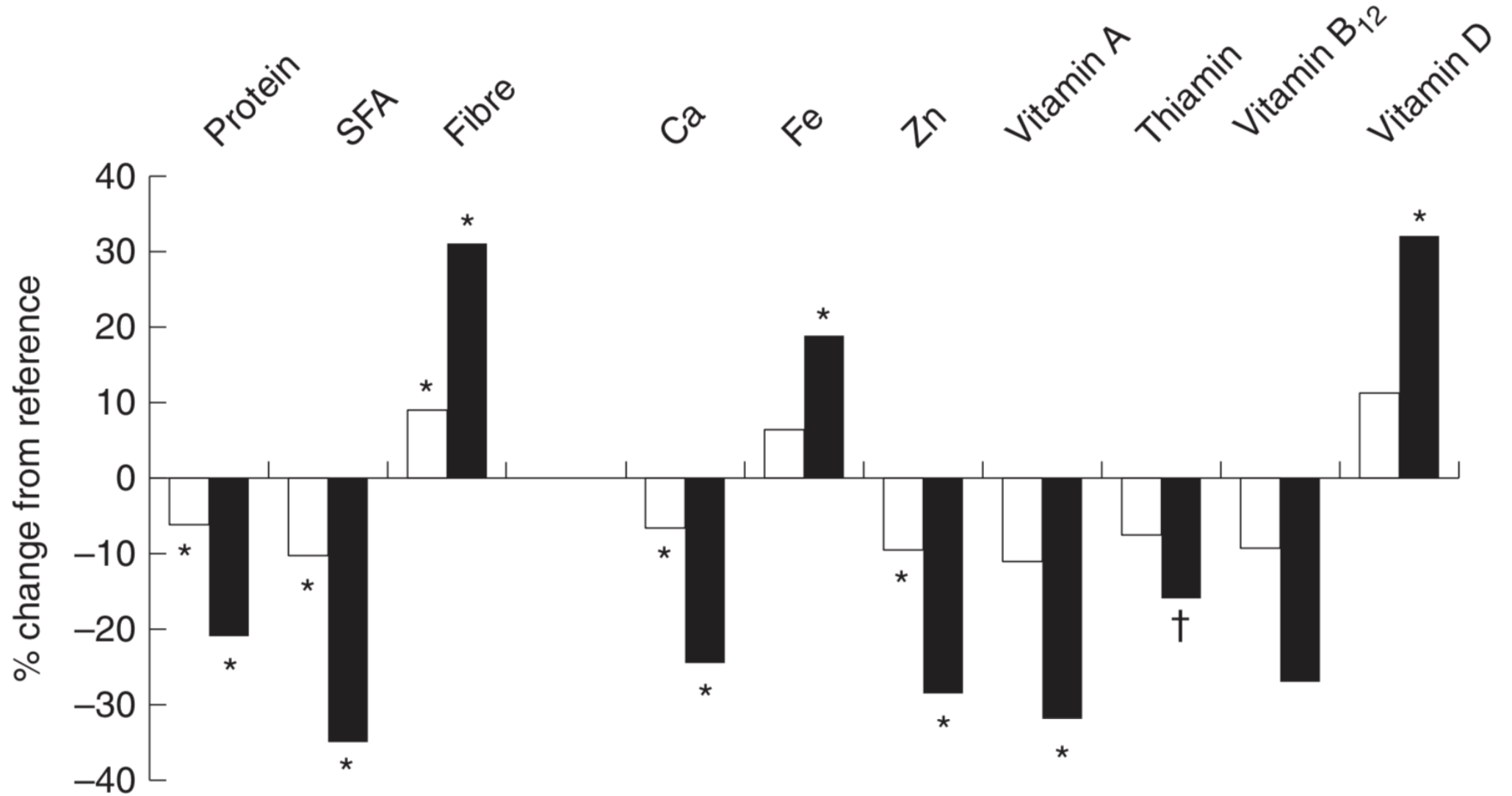
Carbon footprint



EFFECTS ON CARBON EMISSIONS FROM LIMITING ANIMAL-BASED FOOD GROUPS IN OPTIMALISED DIETS COMPARED TO THE AVERAGE DIET



Source: calculations with Optimeal® done by www.nutrisoft.nl





NUTRI *soft*

nutritional software solutions



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CARBON FOOTPRINT OF VEGETARIAN DIETS WITH AVERAGE, EXOTIC OR LOCAL FRUITS AND VEGETABLES

4,5
4
3,5
3
2,5
2
1,5
1
0,5
0

Average
vegetarian



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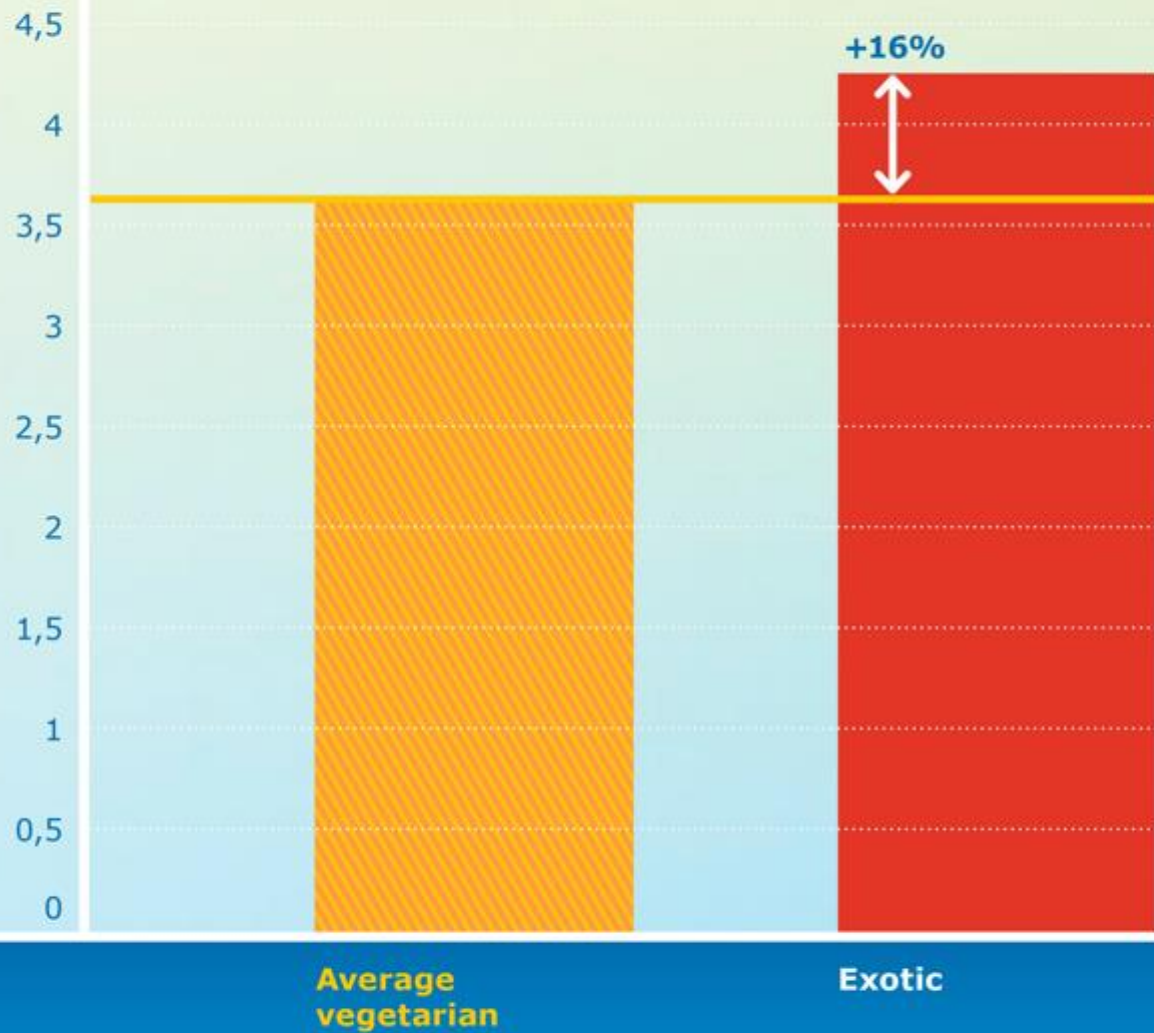


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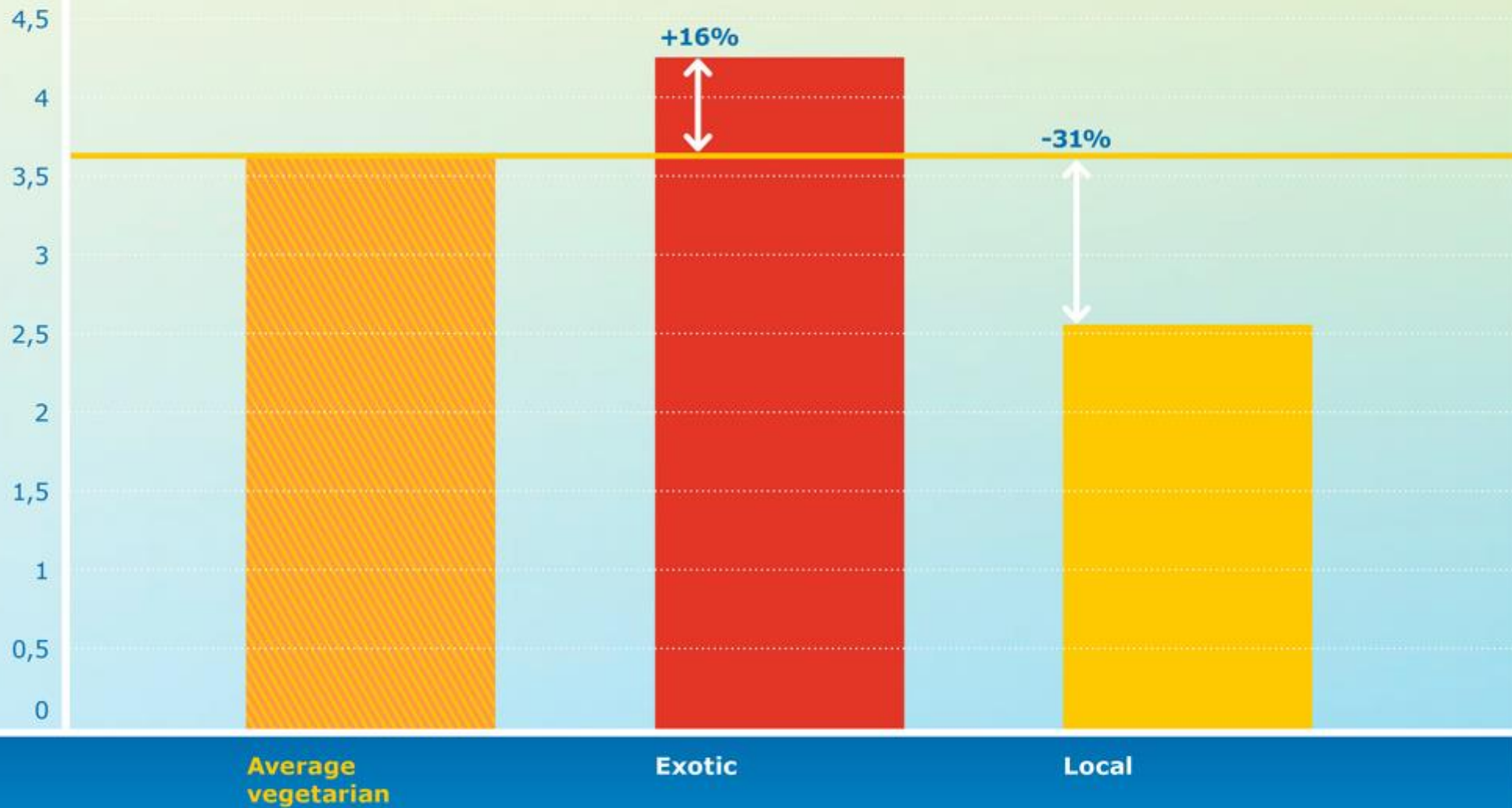


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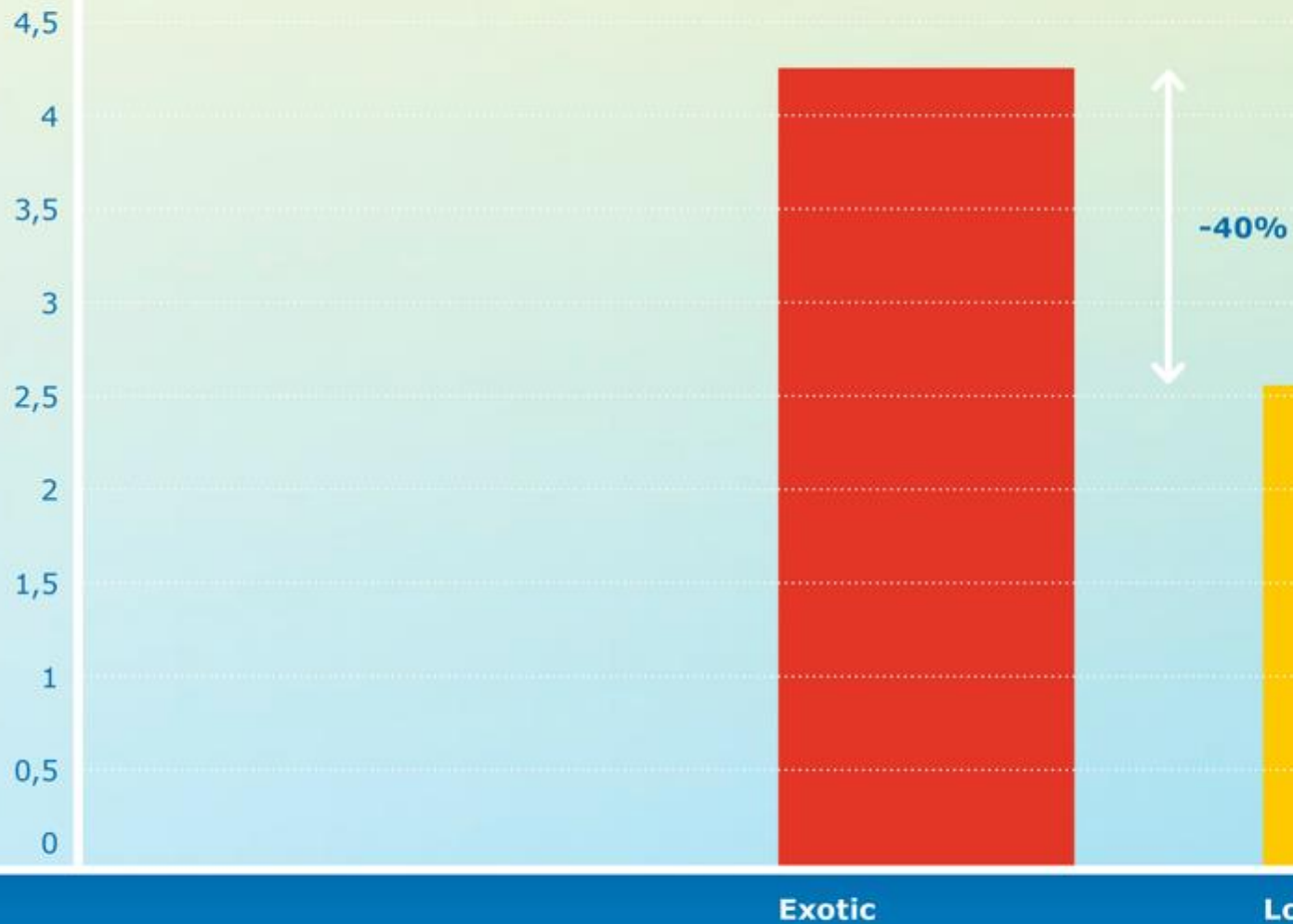


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CARBON FOOTPRINT OF VEGETARIAN DIETS WITH AVERAGE, EXOTIC OR LOCAL FRUITS AND VEGETABLES



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Sustainable and healthy diet: Conclusions (Dutch situation)

- Eat less calories and according to food-based dietary guidelines
 - Eat less confectionary products and other extras
 - Eat less red meat (especially imported red meat)
 - Eat more whole grain products
 - Eat vegetables and fruits according to recommendations and as local as possible
 - Keep dairy intake at current level
 - Drink less softdrinks and alcoholic beverages
- EAT A LESS ANIMAL AND MORE PLANT-BASED DIET IS NOT THE RIGHT PARADIGMA
DECREASING ENVIRONMENTAL FOOTPRINT**



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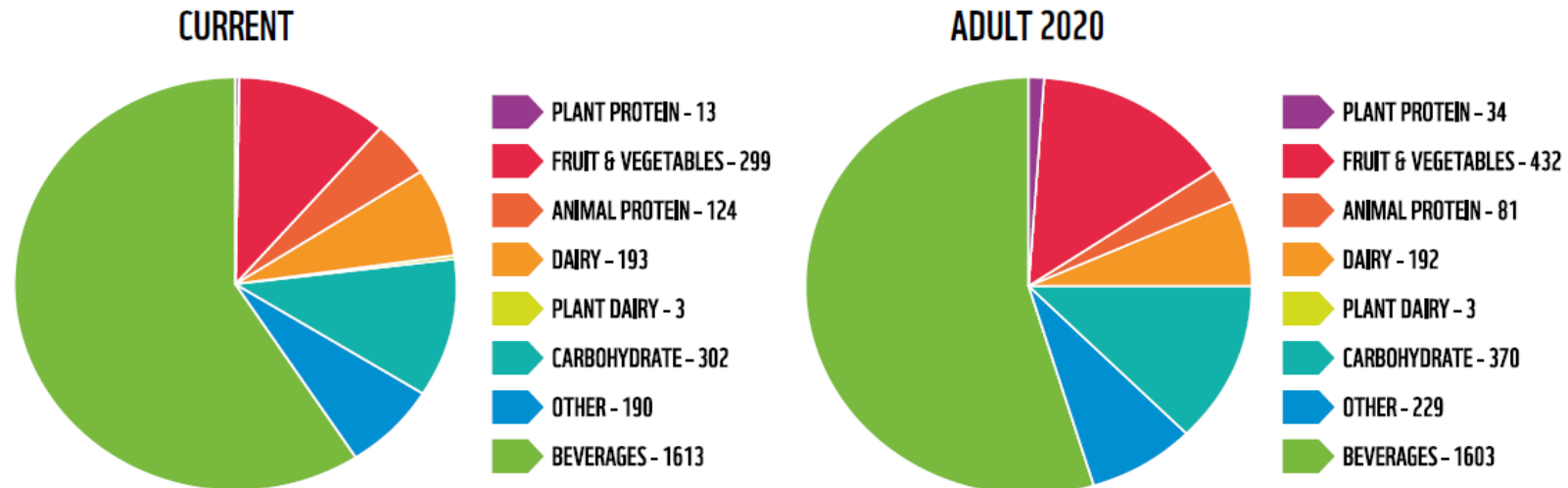
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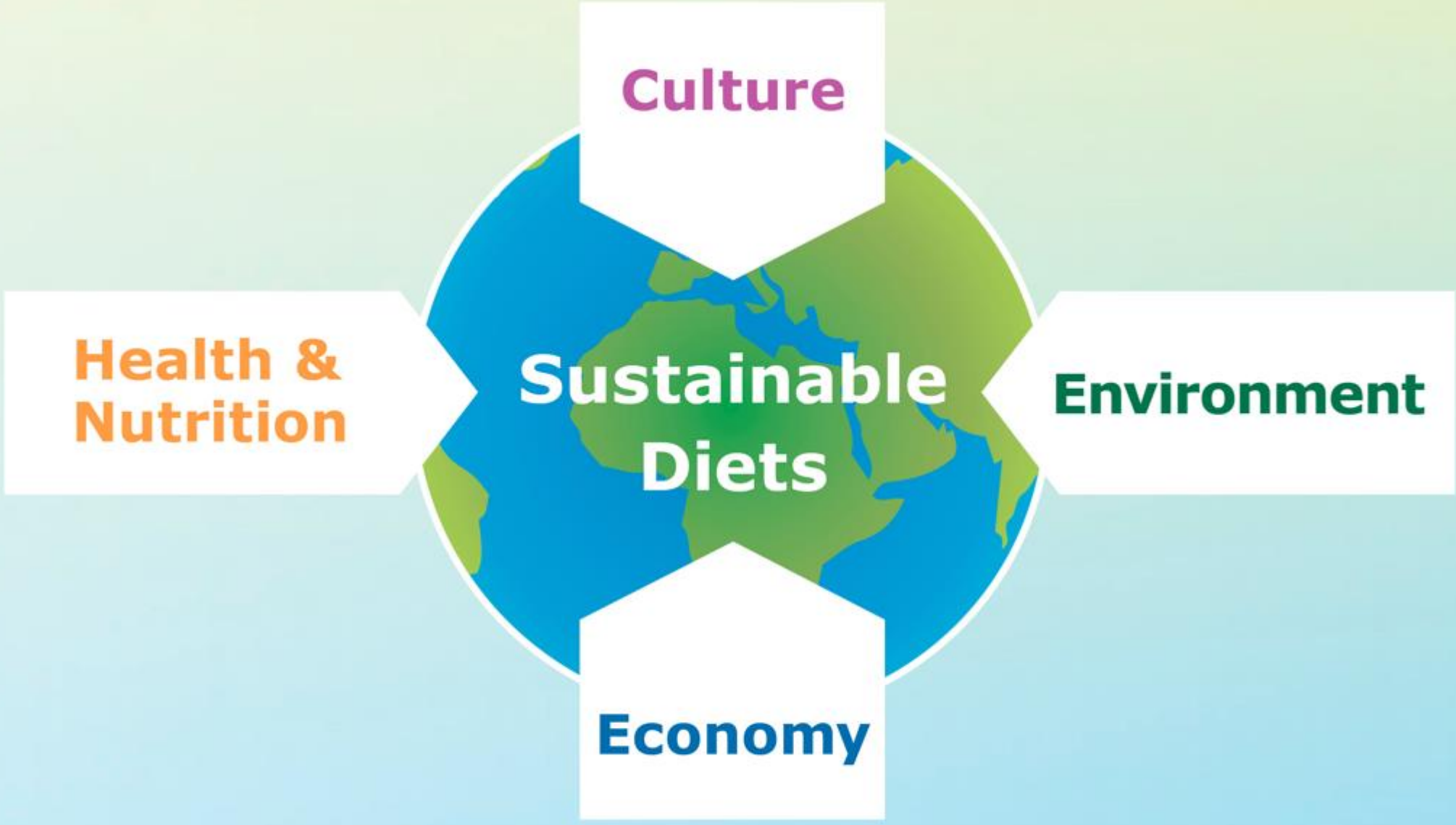
Optimeal©

“Dietary changes needed by 2020 (and 2030) in order to keep the average global temperature rise well below 2 degrees”

The Livewell Plates for UK adults: diet that is sustainable – looking at carbon, water and land – affordable and in line food preferences in the UK.

Provides the required amount of calories as well as meeting all national nutrient requirements and the food-based dietary requirements of the Eatwell Guide.





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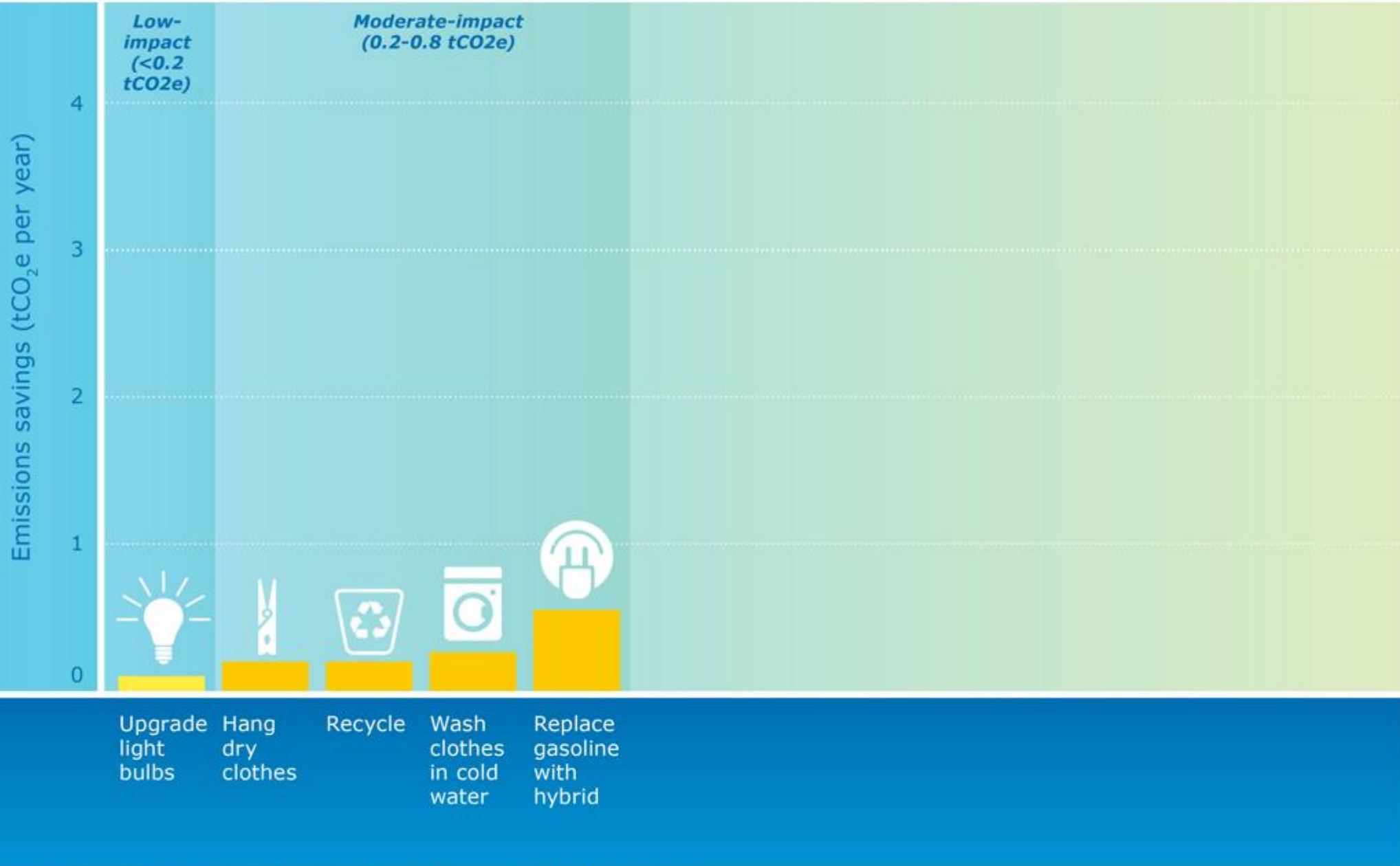


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A COMPARISON OF THE EMISSIONS REDUCTIONS FROM VARIOUS INDIVIDUAL ACTIONS



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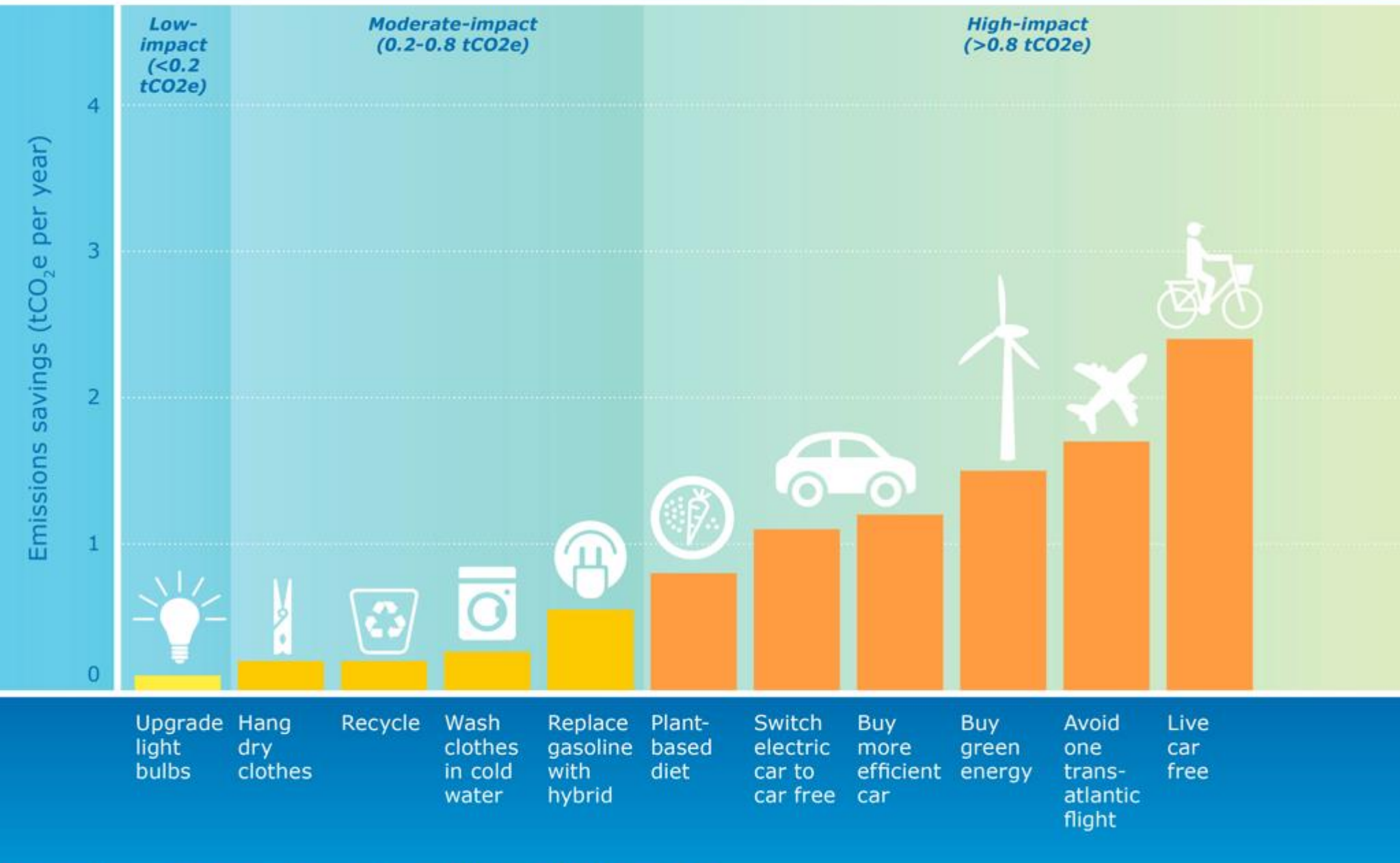
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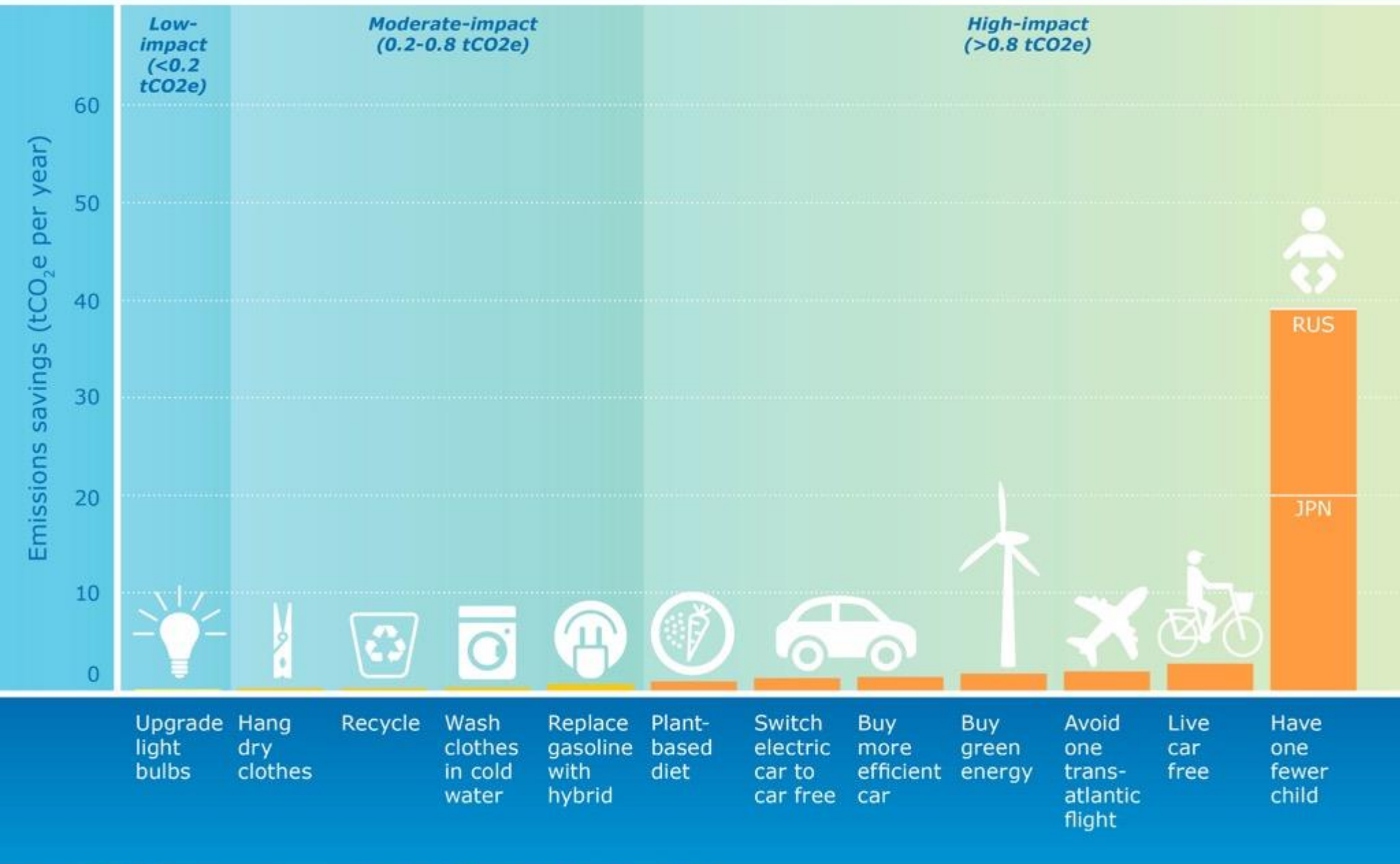
Source: <http://iopscience.iop.org/article/10.1088/1748-9326/aa7541>

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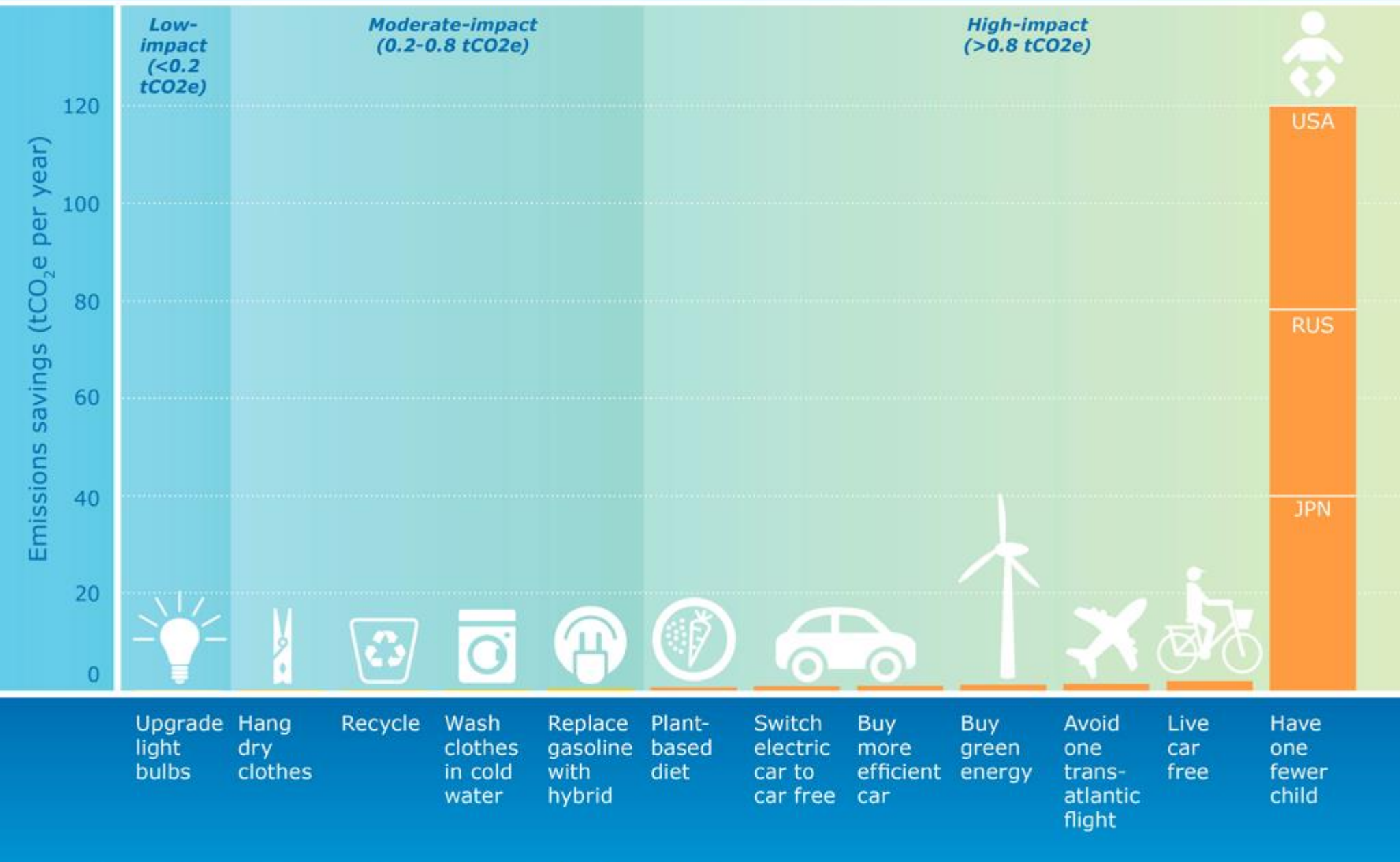
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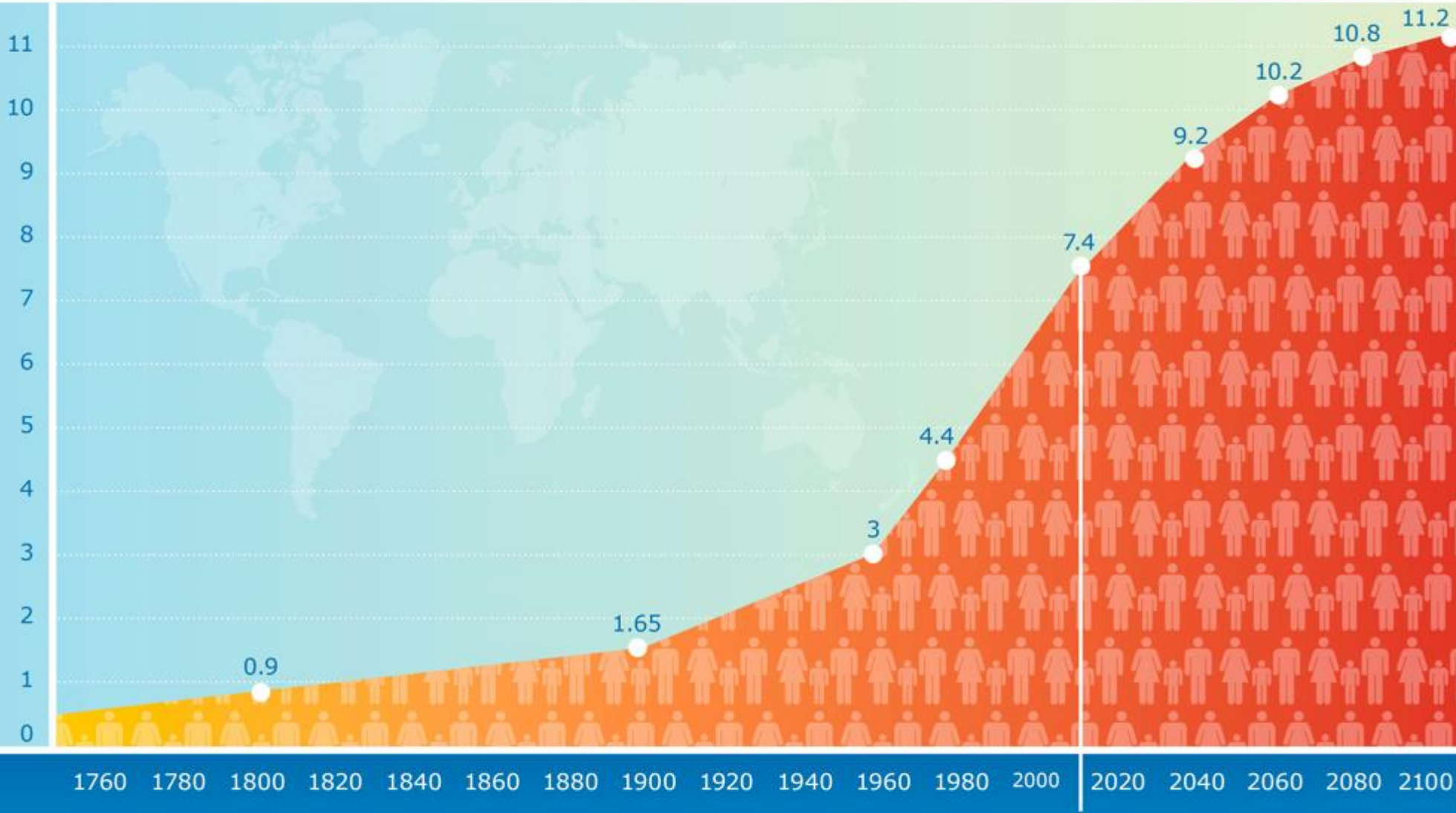
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WORLD POPULATION GROWTH, 1750-2100

World population count in billions



2015 Projection
(UN Medium Fertility Variant)



SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	



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CONCLUSION

- EAT A LESS ANIMAL AND MORE PLANT-BASED DIET IS NOT THE RIGHT PARADIGMA
DECREASING ENVIRONMENTAL FOOTPRINT



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- EAT A LESS ANIMAL AND MORE PLANT-BASED DIET IS NOT THE RIGHT PARADIGMA DECREASING ENVIRONMENTAL FOOTPRINT
- TOTAL LIFESTYLE DETERMINES ECOLOGICAL FOOTPRINT



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- GOING VEGAN IS NOT HEALTHY AND VEGANS CAN HAVE A HIGH ECOLOGICAL FOOTPRINT



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- DAIRY PLAY ESSENTIAL ROLE IN SDG'S

1. End poverty

2. Zero hunger

3. Good health and well-being



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CONCLUSION

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- SUSTAINABILITY IS COMPLEX AND MULTIDIMENSIONAL: WE HAVE TO WORK ON ALL ASPECTS!

Our Food in the Anthropocene: Healthy diets from Sustainable Food Systems

The EAT-Lancet Commission on Food, Planet, Health



Extended Data Table 5 | Food-based dietary recommendations for healthy, more plant-based (flexitarian) diets

Food item	minimum level		maximum level	
	g/d	serving	g/d	serving
wheat			A total of up to 860 kcal/d for energy balance for all staple crops	
rice				
maize				
other grains				
roots				
legumes	50	1/2		
soybeans	25	1/4		
nuts & seeds	50	2		
vegetables	300	3-4		
fruits	200	2-3		
sugar			31	5% of energy
palm oil			6.8	1
vegetable oil			80	1/3 of energy
beef			A total of 14 g/d for all red meat	
lamb				
pork				
poultry			29	1/2
eggs			13	1/5
milk			250	1
shellfish	A total of 28 g/d for all fish and seafood			
fish (freshwater)				
fish (demersal)				
fish (pelagic)				

The recommendations include recommended minimum and maximum intakes expressed as weight or calories, and servings. Fish and seafood can be replaced by plant-based foods (legumes, soybeans, nuts and seeds, fruits and vegetables) in vegetarian diets. Units are g or kcal per day.



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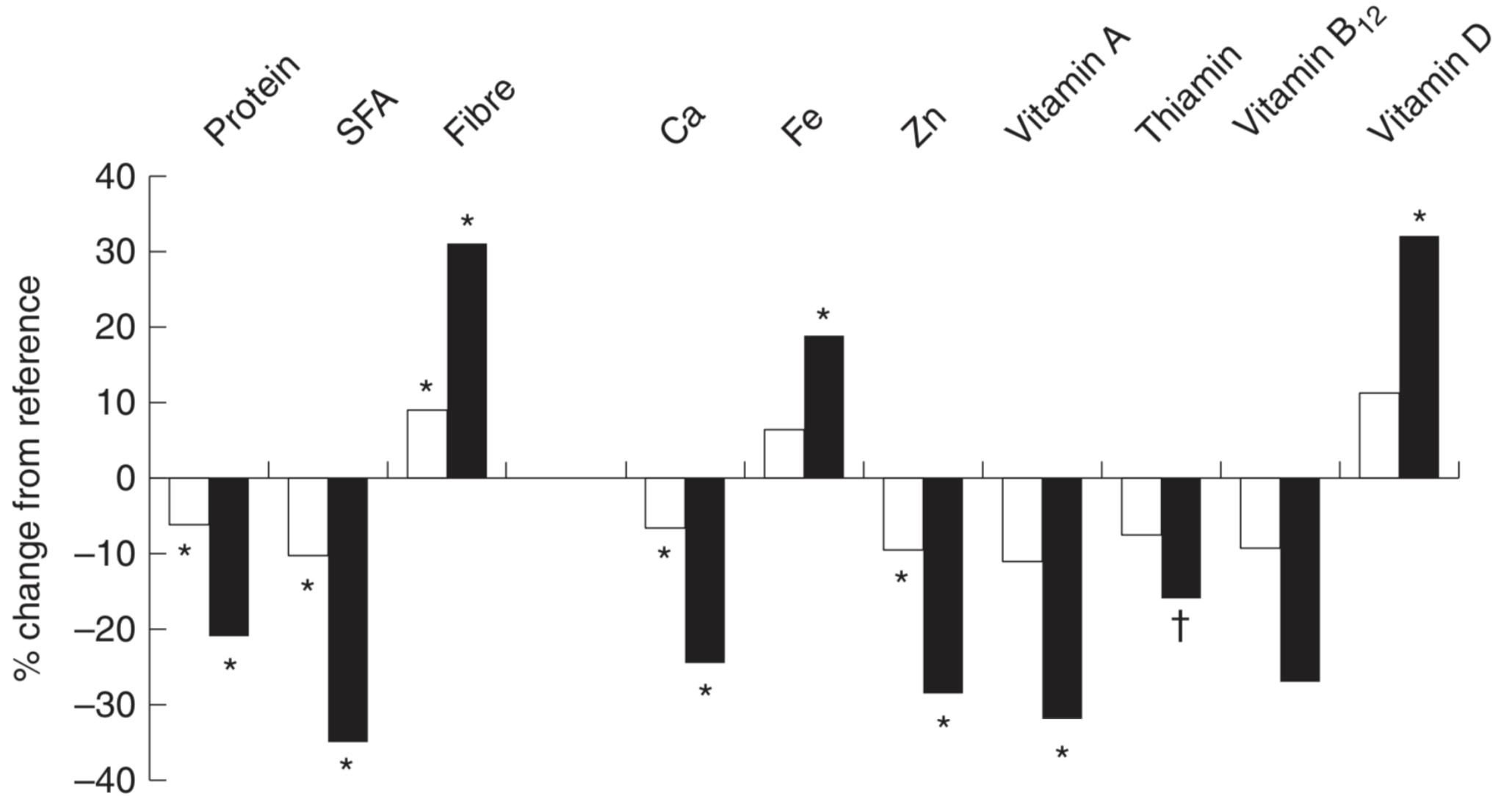


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Nutrient	Flexitarian diet intake	Recommended intake
Vitamin B1	0.83 μg	1.1 μg minimum
Vitamin D	1.1 μg	3.3 μg minimum
Calcium	708.78 mg	1000-2500 mg
Selenium	48.74 μg	50-300 μg
Iron	11.68 mg	15-25 mg



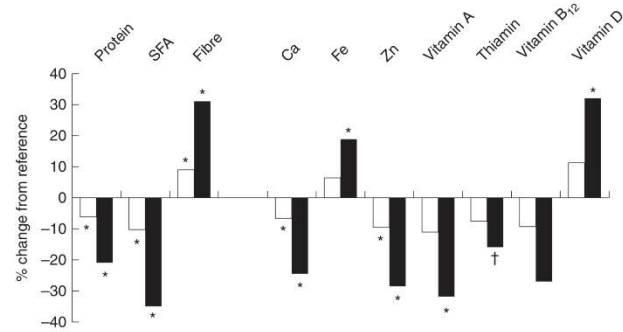
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MAIN CONCLUSION

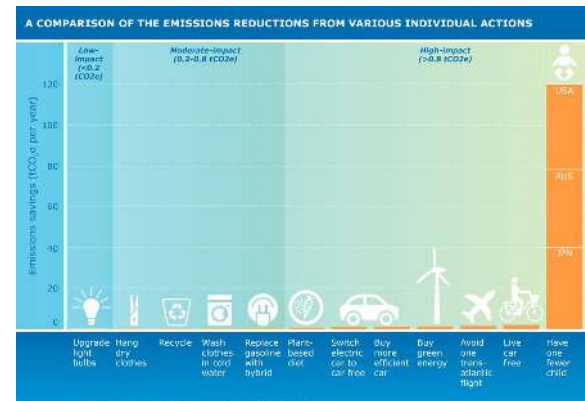
- SUSTAINABILITY AND SCIENCE: THIS IS EMERGING/DEVELOPING
- SUSTAINABILITY IS COMPLEX AND MULTIFACTORIAL
- THERE IS CONSENSUS ABOUT THE PROBLEM
- THERE IS NO CONSENSUS ABOUT 'DEFINITION OF SUSTAINABILITY'
- THERE IS NO CONSENSUS ABOUT SOLUTIONS

- SUSTAINABLE DIET
 - Healthy
 - Environmentally friendly
 - Economically feasible
 - Culturally acceptable

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Thank you!



Source: <http://dx.doi.org/10.1088/1748-9326/aa7541>

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