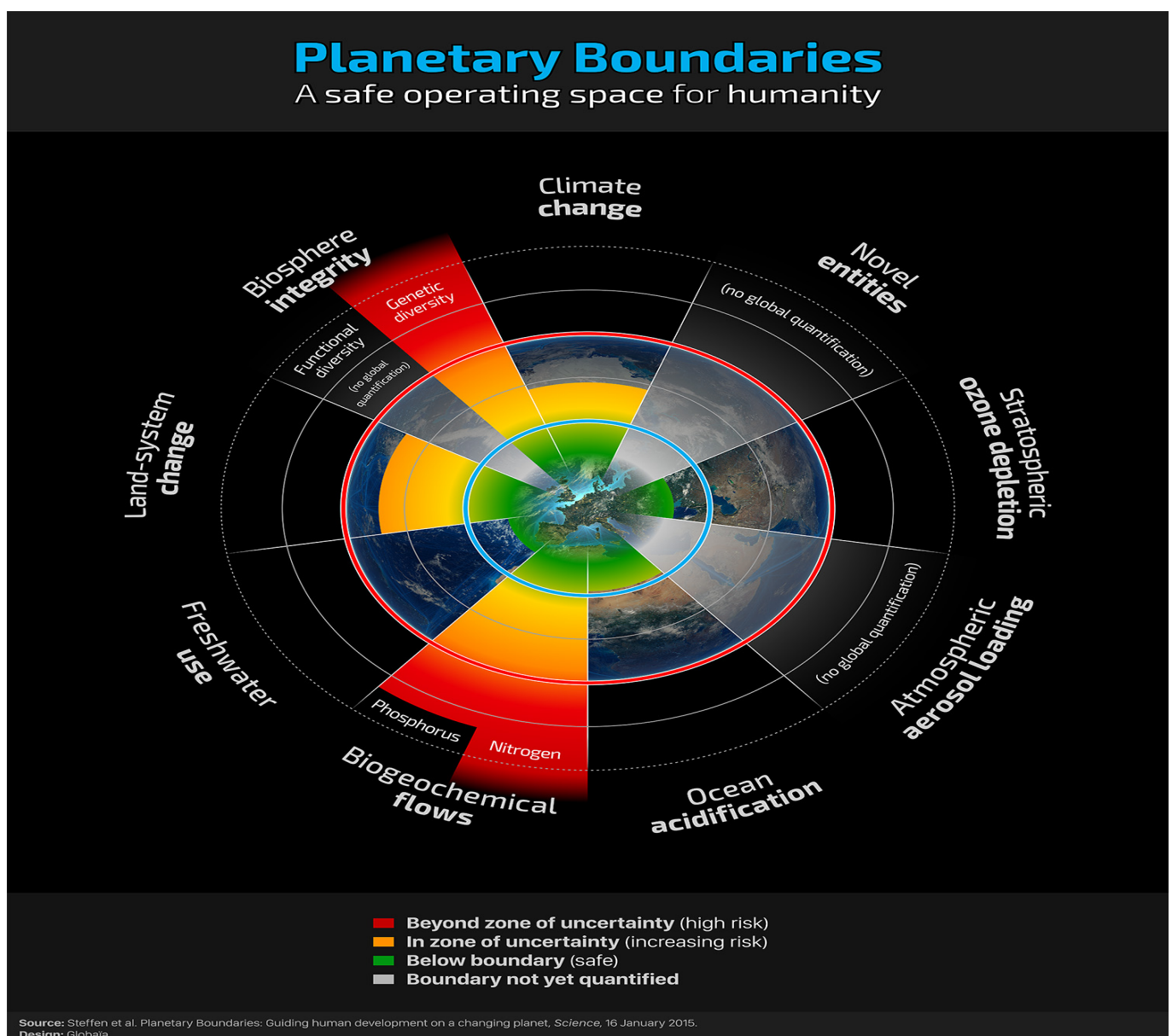


Introduction

Modern agriculture uses 42-61% (IPCC 2019) of the earth's ice free land mass – that's larger than all of Europe and Asia combined and it is responsible for over 70% of the freshwater usage. Food production is the largest driver of species loss and conversion of natural habitats.

- Nearly 21% of all fossil fuels are used by the global food system.
- Agricultural expansion is responsible for 80% of deforestation worldwide.
- In 2019, there were approx. [70bn](#) animals slaughtered for 7.5 billion people.

Planetary boundaries is a concept involving [Earth system processes](#) which contain environmental boundaries, proposed in 2009 by a group of Earth System Scientists. The group wanted to define a "safe operating space for humanity" as a precondition for sustainable development since human society is now the main driver of global environmental change. "Transgressing one or more planetary boundaries may be harmful or even catastrophic due to the risk of crossing thresholds that will trigger non-linear, abrupt environmental change within continental- to planetary-scale systems."









The EAT-Lancet Commission 2019, Healthy Diets from Sustainable Food Systems

“Unhealthy diets are the leading cause of ill health worldwide, 800 million people are currently hungry, 2 billion malnourished and a further 2 billion people overweight or obese”.....“Global food production threatens climate stability and ecosystem resilience. It constitutes the single largest driver of environmental degradation and transgression of planetary boundaries. Taken together the outcome is dire. A radical transformation of the global food system is urgently needed. Without action, the world risks failing to meet the UN Sustainable Development Goals and the Paris Agreement.” – EAT Lancet Commission Report, 2019.

At global, regional and national levels the food system and the food we eat is the leading cause of human illness and ecosystem and biodiversity loss. The Lancet Commission Study makes it very clear that without a food system transformation human society will be unable to live within the ecological safe operating space as defined by the **planetary boundaries**. The report calls for “nothing less than a new global agricultural revolution.” To achieve this the commission evaluated which diets and food production practices together will enable achievement of the Sustainable Development Goals and the Paris Agreement. The overall goal of the report is to develop global scientific targets for both **sustainable food production** and for **healthy diets**.

Defining a Sustainable Food Production System

According to the report: “Interacting biogeophysical systems and processes in the Earth system, in particular between the climate system and the biosphere, regulate the state of the planet. The Commission focuses the six boundaries effected by food production.

Earth system process	Control variable	Boundary (Uncertainty range)
Climate change	 GHG emissions	5 Gt CO₂-eq yr⁻¹ (4.7 – 5.4 Gt CO ₂ -eq yr ⁻¹)
Land-system change	 Cropland use	13 M km² (11–15 M km ²)
Freshwater use	 Water use	2,500 km³ yr⁻¹ (1000–4000 km ³ yr ⁻¹)
Nitrogen cycling	 N application	90 Tg N yr⁻¹ (65–90 Tg N yr ⁻¹) * (90–130 Tg N yr ⁻¹)**
Phosphorus cycling	 P application	8 Tg P yr⁻¹ (6–12 Tg P yr ⁻¹) * (8–16 Tg P yr ⁻¹)**
Biodiversity loss	 Extinction rate	10 E/MSY (1–80 E/MSY)

*Lower boundary range if improved production practices and redistribution are not adopted.

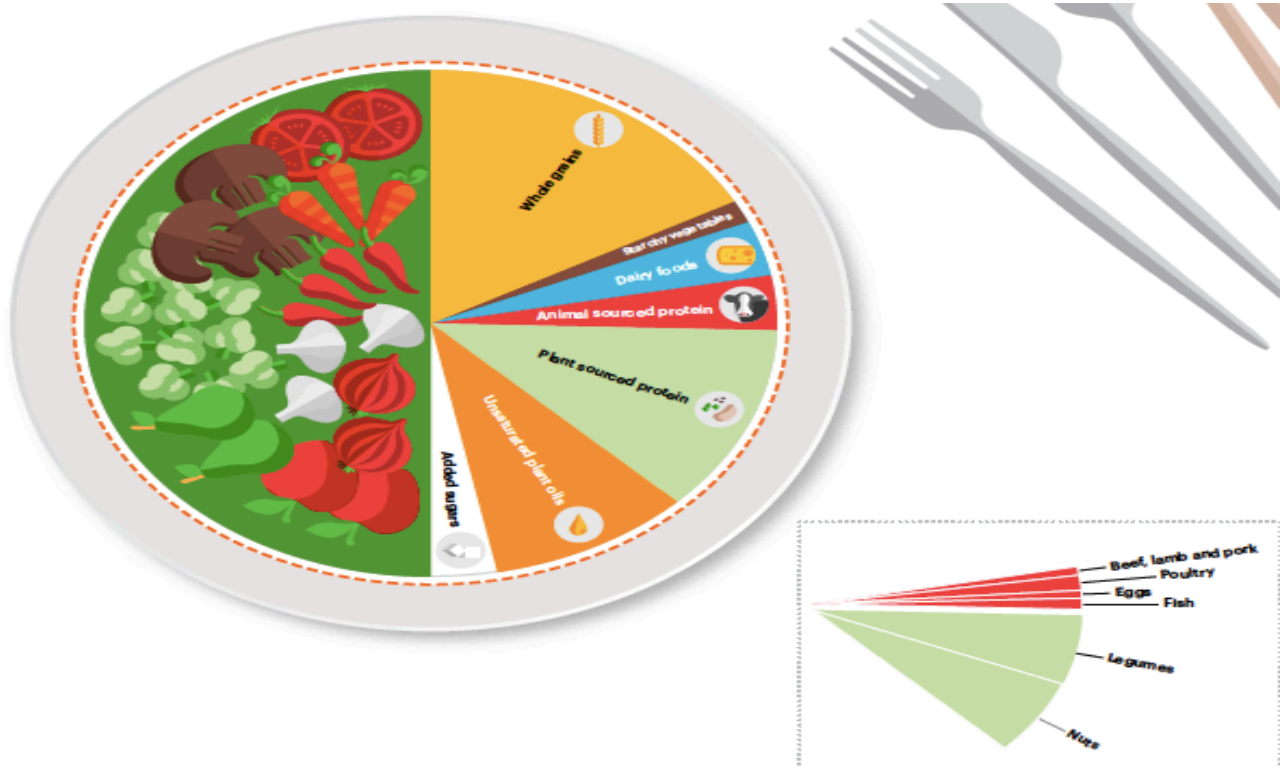
**Upper boundary range if improved production practices and redistribution are adopted and 50% of applied phosphorus is recycled.

For each of these, the Commission proposes boundaries that global food production should stay within to decrease the risk of irreversible and potentially catastrophic shifts in the Earth system. These planetary boundaries for food production conceptually define the upper limit of environmental effects for food production at the global scale.”

Defining a Healthy Sustainable Diet

The report outlines how “staying within the environmental safe operating space for food systems requires a combination of substantial shifts toward mostly **plant-based** dietary patterns, dramatic reductions in **food losses** and waste, and major improvements in **food production practices**.” The transformation to healthy diets will require substantial dietary shifts which are presented in the **Planetary Health Plate**.

“A planetary health plate should consist by volume of approximately half a plate of vegetables and fruits; the other half, displayed by contribution to calories, should consist of primarily whole grains, plant protein sources, unsaturated plant oils, and (optionally) modest amounts of animal sources of protein.” EAT Lancet Commission Report, 2019. The planetary health plate states that animal products have to be minimised or eliminated completely. Globally, these dietary recommendations require red meat and sugar consumption to be cut by half, while vegetables, fruit, pulses and nuts should double.



Europeans should eat 77% less red meat and 15 times more nuts and seeds. The Commission concluded that dietary changes from current diets toward healthy diets are likely to result in major health benefits. This includes preventing approximately **11 million deaths per year**, which represent between 19% and 24% of total deaths among adults.



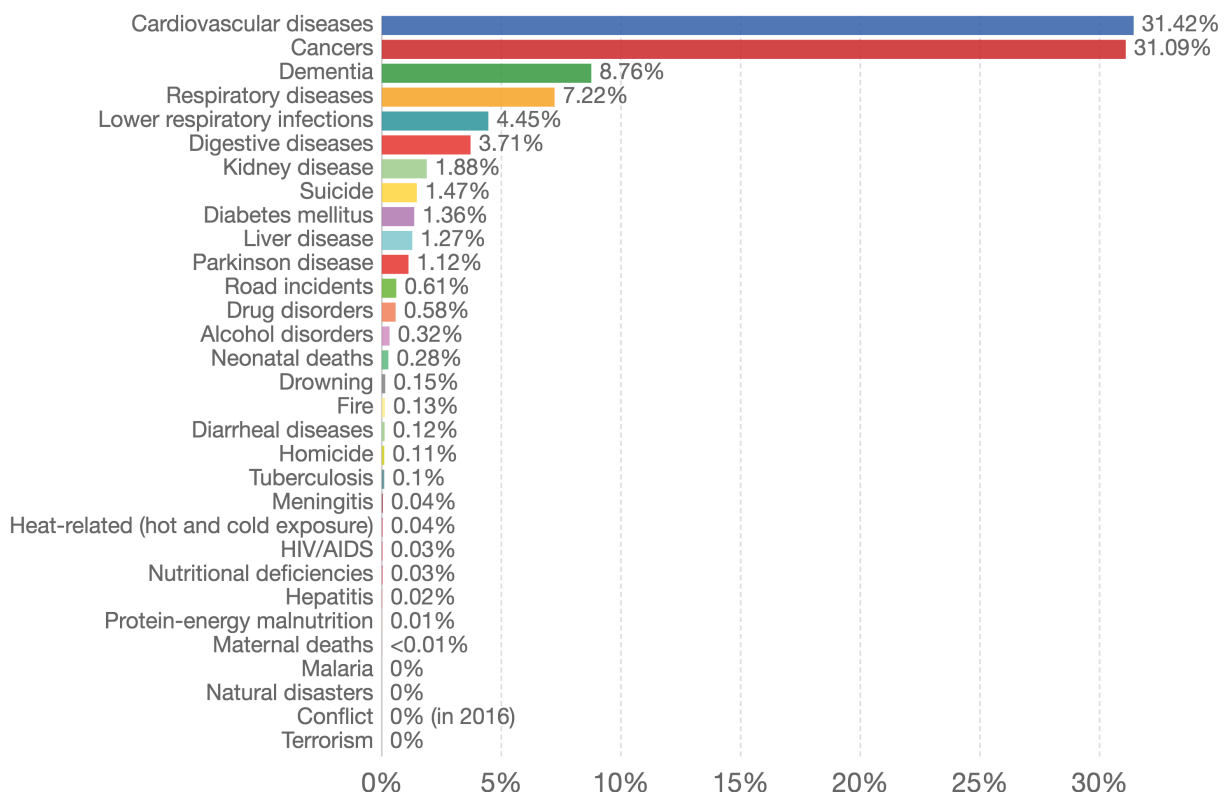
On Making Healthy Food Choices Easier - The North Karelia Case Study.

This case study shows how its possible to create healthy cultural norms – effectively creating a preventative health care system. The Blue Zones are five regions in the world where people live the longest and healthiest lives. People in the Blue Zones never read labels, counted calories, or went on a diet. Yet they all managed to eat a nearly perfect whole food plant based diet without thinking about it. They lived in an environment where fresh fruits and vegetables are affordable and readily available all year round. Sodas, chips, sweets, and cheap meat products were not available or pushed by advertising. Their homes were set up in a way that made it easy to prepare plant-based foods for the table and they had time honoured recipes and the cooking skills to make their food taste great. Their faith based organisations supported selecting, preparing, and eating the right kind of foods. Doing things that helped them maintain a healthy weight, stay connected, and keep physically active weren't just choices – they represented a shared way of life. It turns out that whether you live a short life or a long one is more a function of your society and culture than the quality of your GP or local hospital.

Share of deaths by cause, Ireland, 2017

Data refers to the specific cause of death, which is distinguished from risk factors for death, such as air pollution, diet and other lifestyle factors. This is shown by cause of death as the percentage of total deaths.

Our World in Data



Source: IHME, Global Burden of Disease

CC BY

Realising that creating healthy cultures means making changes in lifestyle and environment and not just in menus, Dan Buettner found only one large-scale public health intervention success story in the North Karelia Region of Finland. Here is the story of how an innovative group of young scientists and public health workers developed a grass roots strategy that resulted in significantly improved health and well being across the population. **Over thirty years these changes reduced heart disease by 80% and cancer by 60% among the 170,000 population.** Imagine if we could do the same for Cork which has a similar population and similar causes of death as shown above.

Finland's Successful Preventative Health Care Project

"In the sixties national and international surveys were being taken to assess the state of public health around the world. North Karelia, a region of farmers and lumberjacks, was found to have the highest rate of heart disease in the world. Butter and tall glasses of milk had found their way into every meal, fried pork or meat stew was served for dinner together with butter and bread. Vegetables were considered food for animals. Although the quality of their meat and dairy products were a source of regional pride they were having a major negative impact on peoples health and life expectancy."

Knowing that it is far more intelligent and cost effective to prevent disease than to cure it, the Department of Health funded a **five year preventative health project** in the region. Recent scientific findings in epidemiology had shown that the number of people who die of heart disease was directly proportional to the average **blood pressure** of the whole population and that for every percentage point you lowered **cholesterol** in a population you lowered heart disease by two percentage points. The project was based on the understanding that the more animal products people consumed the higher their intake of fats and cholesterol and therefore the higher their rate of heart disease. So they aimed to replace animal products with healthier plant foods.

They realised that the only way to cure North Karelia of heart disease was to change the local culture. Instead of adopting a top down approach they worked with local health care systems and community organisations to encourage people to adopt a low fat wholefood plant based diet; they set up **surveys** to capture people's health information; they worked with a local women's organisation and with several clubs to spread the message; they held afternoon **longevity parties** where a member of Puska's team would give a talk on the link between saturated fat and heart disease. In addition to this they gave locals a recipe book that added vegetables to traditional dishes and organised local cooking classes, which worked much better than countless leaflets.

They recruited 1,500 people (mostly women) as **community ambassadors** to work as opinion leaders. These opinion leaders encouraged people to replace saturated fat with fruits and vegetables and to reduce salt consumption and to give up smoking and to talk to their friends and spread the word. They spoke at churches, community centres and schools and established cooperatives to grow and process local fruits. They had two slogans "Face to face communication" and "Common interest". You have to be honest and work with people on the same level. They also started to lobby food producers. At first the powerful dairy industry fought back taking out ads criticising the project. But this sparked a national debate on the relationship between dairy fat and heart disease. At the end of the five year period they had reduced the heart attack rate among middle aged men by twenty five per cent. Mortality from all cancers dropped by ten per cent. After thirty years the average life expectancy had jumped by ten years.

The key lessons that had led to the success of the North Karelia intervention includes;

- **Focus on the Ecology of Health** - Don't talk about individual responsibility but focus on making long term changes in the local culture.

- **Allow different solutions to emerge for different people and places** – Don't try to impose one solution everywhere. Constantly re-evaluate and fine-tune the strategy to improve on outcomes. Provide a menu of evidence based goals people can choose from.
- **Work with local health systems** – people listen to their doctors and nurses.
- **Make relentless effort** – sustained continuous long-term effort rather than a short-term surge.
- **Find charismatic leaders**
- **Community Ownership** – when people see they have a health problem they are willing to change.
- **Bottom up and top down** – the team worked with people to identify what needed to change in their diet and then worked from the top down on the food policy level to change the food culture.
- **Measure** – the team vigilantly measured a range of population risk factors throughout the project to ensure they had solid stats to show that their strategy had worked.
- **Start small, go big** – Once North Karelia proved this approach worked, Finland's national health system instituted a nationwide program.

Measures of Success Achieved in North Karelia

- Decline in smoking from 50% of the population to 20%
- In a region of dairy farms consumption of high fat milk dropped from 70% to less than 10%.
- 60% of households now cook with vegetable oil instead of butter.
- Less than 5% of households use butter on bread.
- Salt intake dropped by 20%.
- Vegetable consumption increased 300%.
- Average cholesterol level dropped 20%
- Deaths from heart disease dropped by 85%.

In Okinawa or Sardinia centuries of cultural evolution had led to a long healthy lifestyle. But North Karelia has managed to manufacture a healthy culture that has given a ten year boost to people's life expectancy. Seeing this Dan Buettner was convinced that you could do the same elsewhere. In Part 3 we outline how these programs were introduced in the US.



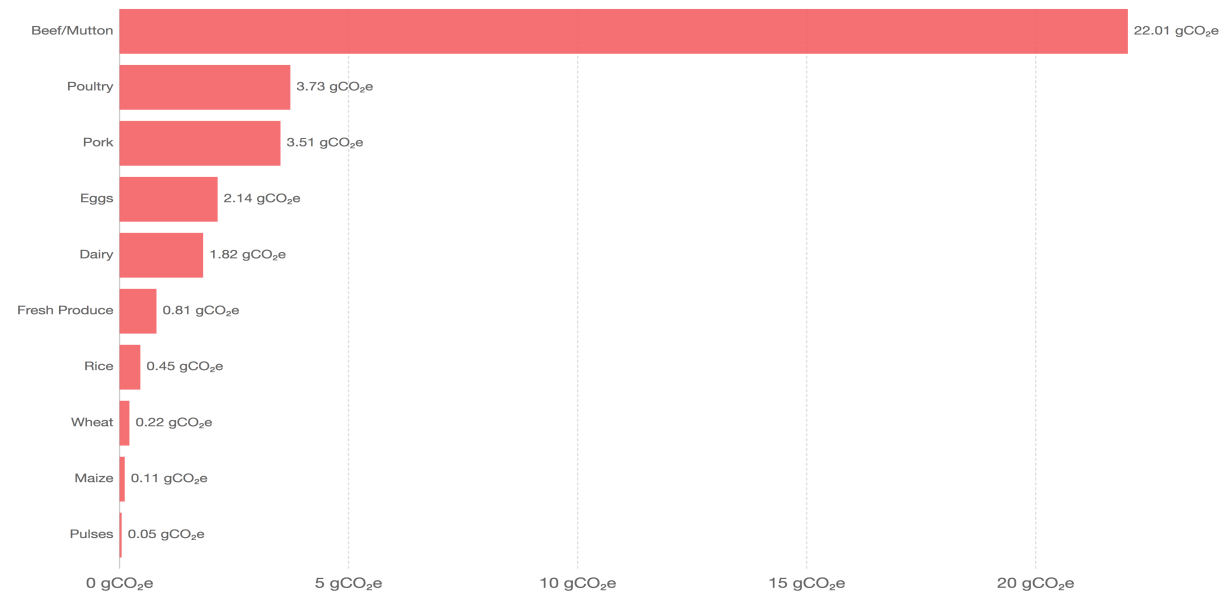
Eating for a Cool Planet

According to the IPCC 2019 Special Land Report Agriculture (deforestation, methane and fertilisers) is responsible for 24% of green house gas (GHG) emissions. "If emissions associated with pre-and post-production activities in the global food system are included, the emissions are estimated to be 21-37% of total net anthropogenic GHG emissions." The [EU](#) Commission roadmap calls for an 80% reductions in GHG emissions by 2050 and a 30% reduction (relative to 2005) by 2030. Ireland has the [second](#) highest per capita emissions in the EU. On average, each Irish person is responsible for emissions of 12 tonnes of greenhouse gases annually. Ireland emits more GHG than the poorest 400 million people in the world combined. **Irish Agriculture is responsible for 33% of our GHG emissions.** Different foods have different emissions as shown below.

Greenhouse gas emissions per kilocalorie of food production

Average greenhouse gas emissions per kilocalorie of food production, by food type measured in grams of carbon dioxide equivalents (CO₂e) per kilocalorie. Average values are based on a meta-analysis of studies across 742 agricultural systems and over 90 unique foods.

Our World in Data



Source: Environmental footprint by food type (kcal) - Clark & Tilman (2017)

OurWorldInData.org/meat-and-seafood-production-consumption/ • CC BY-SA

Action!

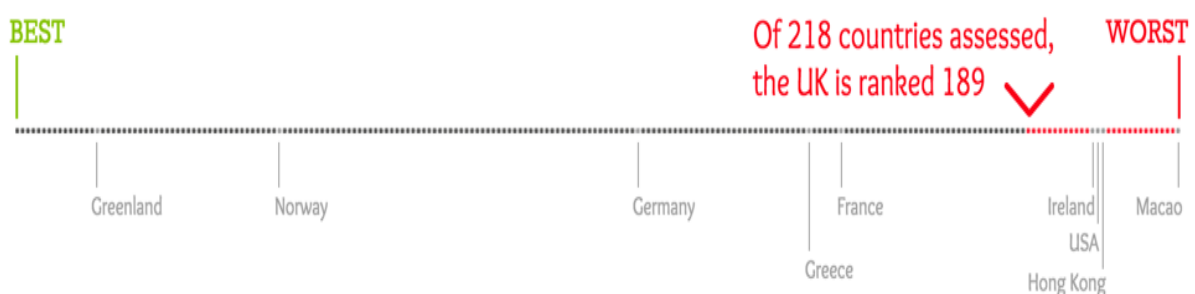
The goal is to eat fewer meals with meat and dairy over the next week. Gather household members and discuss this action with them, encouraging them to join you in trying out some

Why act?

Eat to Reduce Land Use and Restore Biodiversity

In Ireland, agricultural land accounts for 67% of the country's landmass. Peatlands and wetlands cover almost one-fifth of the country, while forested areas cover only 12% of the country. Our agricultural land cover is too high with the European average being 42%. The forested land in Ireland is way too low with the European average being 34%. In [Ireland](#) 81% of agricultural area is devoted to pasture, hay and grass silage (3.67 million hectares), 11% to rough grazing (0.48 million hectares) and only 8% to crops, fruit, and horticulture production (0.38 million hectares - (over two thirds of the grain is fed to animals)). So over 95% of Irelands agricultural land is used for the production of meat and dairy. For this reason Ireland has one of the lowest 'Biodiversity Intactness Indexes' in the world.

Biodiversity Intactness Index



Action

Gather household members and discuss eating fewer meals with meat and dairy over the next week.

Action!

Look for opportunities to substitute plant based ingredients for meat and dairy.

Action!

Look through cookbooks for tasty vegetarian recipes.

Action!

If you want to take this action even further consider a 21 day vegetarian or vegan trial.

Why act?

Organic Farming or Conventional Farming

Did you know its healthier to eat organic food? Organic means the food has been grown without pesticides or artificial fertilisers. Pesticides are used to kill insects or moulds but they often kill beneficial insects and effect birds, fish, and other species. Organic food is still more expensive than conventional sometimes so do the best you can within your budget.

Action!

All supermarkets sell organically grown food and they are usually clearly marked. Look for the Organic Trust, IOFGA, Demeter, or UK Soil Association symbols. Start to replace different items each week. The prices of organic foods have been coming down for example 500g of organic whole wheat spaghetti is just €0.99, a litre of organic soy milk is €1.25 and 750g of organic carrots cost €0.89 (all Tesco). Eat, be healthy, and support a healthier planet!

Why act?

It's a Fair Crop

Many of the food we buy such as coffee, tea, sugar, chocolate, bananas, oranges, etc. come from third world or developing countries. At times developing countries have used trade to exploit the people and environment of developing countries. With a little thought and care we can shift this balance by buying products that improve the lives, working conditions, and environment of the people in these countries. In short we can promote fair trade.

Action!

Look for the Irish fair trade logo on tea, coffee, chocolate, orange juice, bananas, at your local supermarket. The Fair Trade Network promotes the sale of fairly traded goods (see website).

Why act?

Grow it Yourself

In more traditional societies even today most of the food is grown locally. Food is woven into the fabric of community life and the celebration and gratitude for the gifts of the earth formed a central part of people's daily life. Food connected people to the land and the soil and the forest as wild foods make up an important part of traditional people's diets. GIY is a global movement of people who grow their own food. When people grow their own food they gain a deeper understanding of food, called 'food empathy' which acts as a lever to a healthier lifestyle. There are 50,000 people involved online and in the community, supported by the GIY foundation, which runs campaigns and events to inspire and support people to grow their own. But there are millions of people just growing it themselves. You can start with potatoes that are starting to sprout or get some seeds from a local supermarket.

Action!

Start a small herb or vegetable garden. Join a Grow it yourself group. Investigate if there are any allotments in your area. You can also plant bee friendly plants in your garden as many bee species are declining in Ireland and internationally. (see Maria Spivak's TED talk)



Why act?

Processed foods

Most processing outside the home needs heating and cooling and many finished products are also refrigerated. Processed food also tends to be much higher in added fat, sugar, and salt. They also use more packaging and are higher in food miles. So it's much healthier and environmentally friendly to cook from scratch at home.

Action!

When you prepare your shopping list this next week notice what proportion of foods are processed. Try to replace one or two items each week with the original ingredients.

Why act?

Home cooking or eating out

When we choose our own food we can control the ingredients. We can choose appropriate portion sizes and reuse leftovers. Fast food restaurants also come with loads of single use packaging. Food waste per person from restaurants is more than double the amount of food we waste at home.

Action!

How many times a week do you eat out or get a fast food take away? If at times you meet friends at a restaurant next time organise a potluck where everyone brings a dish to the party.

Why act?

Farmers markets

Supermarkets are very convenient as they allow one stop shopping. They tend to be competitive in price but often this drives down the price paid to the farmer who grows the food and often you get more than you need. When you shop at farmers markets you are supporting local farmers and producers.

Action!

There are farmers' markets in Douglas Village, Mahon Shopping Centre, The Coal Quay, Bishopstown, Ballincollig, and the English Market.

Why act?

Packaging

Packaging needs like aluminium cans, steel tins and glass need large amounts of energy for their manufacture. Plastic packaging is made from fossil fuels. Packaging is used to keep food fresh and also as advertising. However it creates lots of waste.

Action!

Notice how much packaging you get with your grocery shopping. Try to minimise the packaging you take home from your next shopping trip.

Why act?

Eat Seasonal Foods

For centuries we largely ate seasonal foods. Soft fruits, courgettes and salads in summer and apples and pears, root veg, leeks, squash and cabbage in winter. Grain and legumes, onions and potatoes could be stored for use all year round. Jams and pickles could also be eaten out of season. Today it is normal for foods to be imported out of season

Action!

Learn which foods are seasonal and then choose your fruit and veg to match the seasons. Learn simple ways to store different foods – jams, pickles, etc.

Why act?

Eat with family and friends

Eating has traditionally been a community and family activity that helped maintain social connections and people's well being. Today people are busier and families are no longer eating together as frequently as they did in the past. Its very important to keep this cultural tradition strong which helps strengthen our families.

Action!

Notice if there are meals where the members of your household are not sitting down to eat together. Discuss the benefits of eating together. Encourage your family to eat breakfast and the evening meal together as often as possible. Avoid eating in front of the TV or computer screen.

⇒ Organise a Street Feast - Street Feast is a day of local lunches across Ireland hosted by you and your neighbours. They can be anywhere really — out on the street, in a local park or in your front garden. There are lots of good reasons to have a Street Feast, but it's really just a great excuse to eat great food, celebrate your local community and meet new people who live near you.

<http://streetfeast.ie/>

Why act?

Food System Change

“Food poverty” is defined as the inability to have an adequate and nutritious diet due to issues of affordability or accessibility. One in ten households in the Republic of Ireland (ROI) are experiencing food poverty. The cost of healthy food is a major contributing factor in people's inability to access a healthy diet. Food poverty is multidimensional. It encompasses both the lack of access to a

nutritionally adequate diet and the consequential impact on health and social participation. Among the barriers to a healthy diet are competing pressures within a limited household budget and the unavailability of local stores that stock an adequate range of healthy foods.

"**Food sovereignty**", a term coined by members of [Via Campesina](#) in 1996, asserts that the people who produce, distribute, and consume food should control the mechanisms and policies of [food production](#) and [distribution](#), rather than the corporations and market institutions they believe have come to dominate the global food system. It also encompasses the right of peoples to healthy and culturally appropriate food and their right to define their own food and agriculture systems. The phrase "culturally appropriate" signifies that the food that is available and accessible for the population should fit with the cultural background of the people consuming it.

The **right to food**, and its variations, is a [human right](#) protecting the right for people to feed themselves in [dignity](#), implying that sufficient [food](#) is available, that people have the means to access it, and that it adequately meets the individual's [dietary](#) needs. The right to food protects the right of all human beings to be free from [hunger](#), [food insecurity](#) and [malnutrition](#).

Action!

Redirect Food System Subsidies for Nature and Healthy Foods

Globally over €500 billion are paid in farm subsidies. The vast majority are for unhealthy food items with only an estimated 1% for environment. Tell your local politician that this is important for you.

Why act?

Food Waste

Despite one in ten Irish people experiencing food poverty we waste over **one million tonnes** of food each year. Around 1/3 of this comes from households where each person is throwing out about 80kg of food waste each year which adds up to over **300,000 tonnes of food waste**.

Factories and Production	Distribution and Restaurants	Consumers
450,000 tonnes	370,000 tonnes	300,000 tonnes

This does not even include waste from Agriculture and Fisheries! The meat industry alone produces a further 500,000 tonnes of waste animal based products! The fishing industry produces an estimated 10-15% of by catch and a 2018 FAO report estimated that 35% of the wild catch is wasted. While some of this food waste cannot be avoided the majority of it could be saved if we managed our food better. And this would save us all some money!



In general, there are 3 types of food waste thrown out:

- **60%** is **avoidable food waste** like plate scrapings, leftovers, gone off fruit and veg, passed its date perishables, etc. This is the main area where people can save money and just requires a bit more awareness of how best to manage our food
- **20%** is **potentially avoidable food waste** like bread crusts, potato skins, etc. These that are often related to habits and though changing can be hard it is possible
- **20%** is **unavoidable food waste** like chicken bones, banana skins, peelings, etc.

Obviously there will **always be some food waste** but, by initially focusing on the first 2 types of food waste, we could cut our food waste, and the money we spend on it, by up to 80%!

Food Waste – What's the financial cost?

Nationally cost estimates range from one to three billion euros. Domestically food waste is costing Irish householders €700 each year. Despite the ongoing roll out of brown bins across the country a large proportion of our wasted food still ends up in landfills where it has significant local environmental impacts. But long before we even buy our food there are a whole load of other environmental costs associated with getting our food into our trolleys.

What are the environmental costs?

The environmental costs of food waste for Ireland are huge. In Ireland we generate about two million tonnes of food waste each year. But when you consider the global food supply system you see the true scale of the problem. The [UN Food and Agriculture Organisation \(FAO\)](#) calculates that 1.3 billion tonnes of food is wasted each year, directly contributing to food shortages, water stress, biodiversity loss, and increased greenhouse gas emissions. This means that, after America and China, **food waste is the 3rd largest contributor to global greenhouse gas emissions** with 3.3 billion tonnes of CO₂ a year. How does this effect the environment?

- **1.4 billion hectares of land**, which is equivalent to 28 per cent of the world's agricultural area or 200 Irelands, is used to produce food that is then lost or wasted.
- **30% of the freshwater** used globally produces food that is ultimately wasted.
- The economic losses associated with food loss, excluding seafood, are estimated to be **€550bn a year**. And the global population is growing.

What Causes Food Waste?

- **Eating meat and fish** – inefficient conversion generates by far the most food waste
- **Advertising** – encourages unnecessary purchases
- **Purchasing too much food** – special offers and loss leaders

- **Leftovers** – too much food prepared or put on the plate
- **Passed its use by date** – dairy, meat and fish which wasn't used on time
- **Passed its best before date** – bread and other staples that go off in the cupboard
- **Gone off food** – fruits and vegetables



Action!

Five Steps to Prevent Food Waste

For 1 week, try to plan meals and shopping properly. Start by checking your fridge, freezer and store cupboard. Then, before you go shopping, make a list so you don't buy things you already have. If shopping for a family get the kids to help and suggest what meals they'd like to have that week. Then you can work out a weekly meal plan.

Step 1. Awareness – Know Your Food Waste

To stop food waste first become aware of what and how much you throw out.

1. **Separate your food waste** – measure your food waste in a separate container
2. **Record your waste** – to remember the food you throw out, make a note of it.
3. **Identify the reasons** - If you know what and why you throw out, you can try to stop it.

Step 2. Planning

Good planning makes life easier, saves you money and reduces food waste.

1. **Know your cupboard** – before you go shopping always know what you already have.
2. **Make your meal plan**
3. **Write your shopping list** - save time, money and help you stop food waste!

Step 3. Shopping

1. **Before – be prepared** - Have your shopping list and don't shop on an empty stomach!
2. **During – be strong** - You have your list, stick to it and beware, bargain buys often go to waste. Read the below poster How to Survive the shopping battleground.
3. **After – how much have you saved?** Shorter receipts? Check out the savings.

Step 4. Storage

Make the most of what you've bought and give your food a good home

1. **Store it right** – knowing the right place for the right food is half the battle.
2. **Use it right.** Don't get caught out, know your dates and use your friends, the fridge and freezer.
3. **Make it last.** Learn new ways to save and preserve your food.

How to survive the SHOPPING BATTLEGROUND

Your mission, to get in and out of your store without overspending and over-filling your fridge. Good luck and Stop Food Waste!

GOING IN



Outside creep slowly past the **OVERSIZED SHOPPING TROLLEYS**

The larger the trolley, the more you'll spend so grab a basket instead.



Once inside watch out for the **FRESH SMELL SENSORS**

Fresh smells like bread & flowers create a temptation which leads to over spending.



Budget and beat the **ATM MACHINE**

Set a budget before you go to the shop and try to keep a running tally.

IN THE STORE



Know your enemy... **THE SAMPLE STATIONS**

Use the free samples to your advantage. Eat these at the beginning of your shop to avoid hunger driven purchases.



Show no mercy to the **END CAP DISPLAYS**

These displays, like special offers, don't always mean a good deal. **BE WARY!**



Avoid being trapped in... **THE CENTRE ISLES**

General merchandise and canned goods are located here to draw in the shopper and expose them to nonessential items. Stay focused on your list!



Be calm when the **SHOP LAYOUT CHANGES!**

Shelves changing position is done because if you don't know where the items are, you'll end up spending more time in the shop.

GETTING OUT

Get in and get out of **THE BACK-OF-SHOP-TRAP**

Dairy, eggs, meat, snacks and bottled goods are usually at the back of the shop so you see more than you need to.



Know what they want you to see **THE SCIENCE OF SHELF LAYOUT**

TOP – Smaller and gourmet brands don't have the budgets to pay for better placement.

MID – Here you tend to see higher-priced items or items with the highest markup.

Kid's eye level – Specifically located with kids appeal. If possible, leave the children at home.



FoodWaste.ie



Keep the blinkers on and **AVOID CHECKOUT BUYS!**

This is the one of the most profitable areas in a shop. Put your blinkers on when you are in line and get out of there!



EXIT!!!

Step 5. Cooking & Serving

Now to the tastiest part of stopping food waste – the eating part. Bon Appetit!

1. **Proper Portions** – An overloaded plate leads to an overloaded bin – **know your portions.**
2. **Serving and reuse** – Learn about the magic art of the loaves and fishes!
3. **Random Recipes** – Learning cooking skills is very important.

Books available at Cork City Library and Suggested Websites and Talks

Mindful eating, Mindful life : Savour every moment and every bite by Hanh & Lilian Cheung, 2011.

The pocket guide to wild food by Paul Peacock, 2008.

The kind diet, feeling great, losing weight and saving the planet by Alicia Silverstone, 2011.

The China study, the most comprehensive study of nutrition by Campbell and. Campbell, 2008.

The Reverse Diabetes Diet, by Dr Neal Barnard, 2007.

Reducing food's environmental impacts through producers and consumers, Poore and Nemecek, 2018.

EPA Food Waste Website <http://www.stopfoodwaste.ie/>

Food Cloud helps businesses redistribute their food waste to charities <http://food.cloud/>

Bia Food Initiative Cork redistributes food to people in need. <http://biafi.ie/>

Grow It Yourself Cork Group http://www.giyinternational.org/giy_groups/group/2728

Irish Fairtrade Network <http://www.fairtrade.ie/>

Organic Republic, Cork's Leading Organic Box Scheme <http://www.organicrepublic.ie/>

Organic Food Certification in Ireland http://www.organicguide.ie/organic_certification

Farmers Markets <http://www.bordbia.ie/consumer/aboutfood/farmersmarkets/Pages/default.aspx>

On food and cultures where people live long healthy lives <https://www.bluezones.com/>

Vegetarian Society of Ireland <http://www.vegetarian.ie/>

The Irish Vegan <http://irishvegan.ie/>

Vegan Sustainability Magazine <https://vegansustainabilitymagazine.com/>

Website set up by Paul McCartney and his family www.meatfreemondays.com/

Physicians Committee for Responsible Medicine www.pcrm.org

Vivienne Campbell's teaches how to forage for and use wild herbs. www.theherbalhub.com

Foraging for sea vegetables at www.theseagardener.ie

Climate Friendly Food Website www.climatefriendlyfood.org.uk

Dan Buettner https://www.ted.com/talks/dan_buettner_how_to_live_to_be_100

Jonathan Foley http://www.ted.com/talks/jonathan_foley_the_other_inconvenient_truth

T Stuart http://www.ted.com/talks/tristram_stuart_the_global_food_waste_scandal?language=en

Maria Spivak https://www.ted.com/talks/marla_spivak_why_bees_are_disappearing?language=en

I WILL DO THIS ACTION	YES/NO	ACTION TAKEN	COSTS SAVINGS
Discuss these agriculture and food actions with the rest of your household			
Cut down on meat, fish, dairy products, and eggs but especially processed meats and red meat			
Try out one new vegetarian recipe			
Join the meat free Mondays campaign			
Try out the www.pcrm.org 21 day vegan challenge			
Cook with beans or lentils or veggie sausages or burgers			
Try delicious dairy alternatives like soya milk, coconut milk, almond or hazelnut milk			
Cook your own food from scratch			
Eat foods that are in season			
Cook and eat two meals a day with family			
Learn how to store and preserve foods			
Organise a potluck with friends or neighbours.			
Gather some wild foods			
Go to a farmers market			
Read a book on nutrition			
Avoid air freighted foods			
Avoid excess food packaging			
Start a small herb or vegetable garden			
Join a local GIY or allotment group			
Eat organic			
Purchase fair trade food products			
Buy Irish whenever possible			
Calculate how much food you waste in a week			
Reduce Food Waste			
Compost your food waste			
Prepare a meal plan with the whole family			
Prepare a shopping list			
Study How to survive the shopping battleground			
Thank you for participating in this course. You can find links to other resources and further information from each session at www.cef.ie/projects/greenerliving/			