

Which diet will help save our planet: Climatarian, flexitarian, vegetarian or vegan?

August 15 2022, by Mark Maslin



Credit: AI-generated image ([disclaimer](#))

The food we consume has a massive impact on our planet. Agriculture takes up [half the habitable land](#) on Earth, destroys forests and other ecosystems and produces a [quarter of the world's greenhouse gas emissions](#). Meat and dairy specifically accounts for around [14.5%](#) of

global greenhouse gas emissions.

So changing what we eat can help reduce [carbon emissions](#) and promote sustainable farming. But there are several "climate-friendly" diets to choose from. The best known are the completely plant-based [vegan](#) diet, the [vegetarian](#) diet, which also allows eggs and dairy, and the [pescetarian](#) diet, which also allows seafood.

There are also "[flexitarian](#)" diets, where three quarters of meat and dairy is replaced by plant-based [food](#), or the [Mediterranean diet](#) which allows moderate amounts of poultry, pork, lamb and beef. Deciding which diet to choose is not as simple as you might expect.

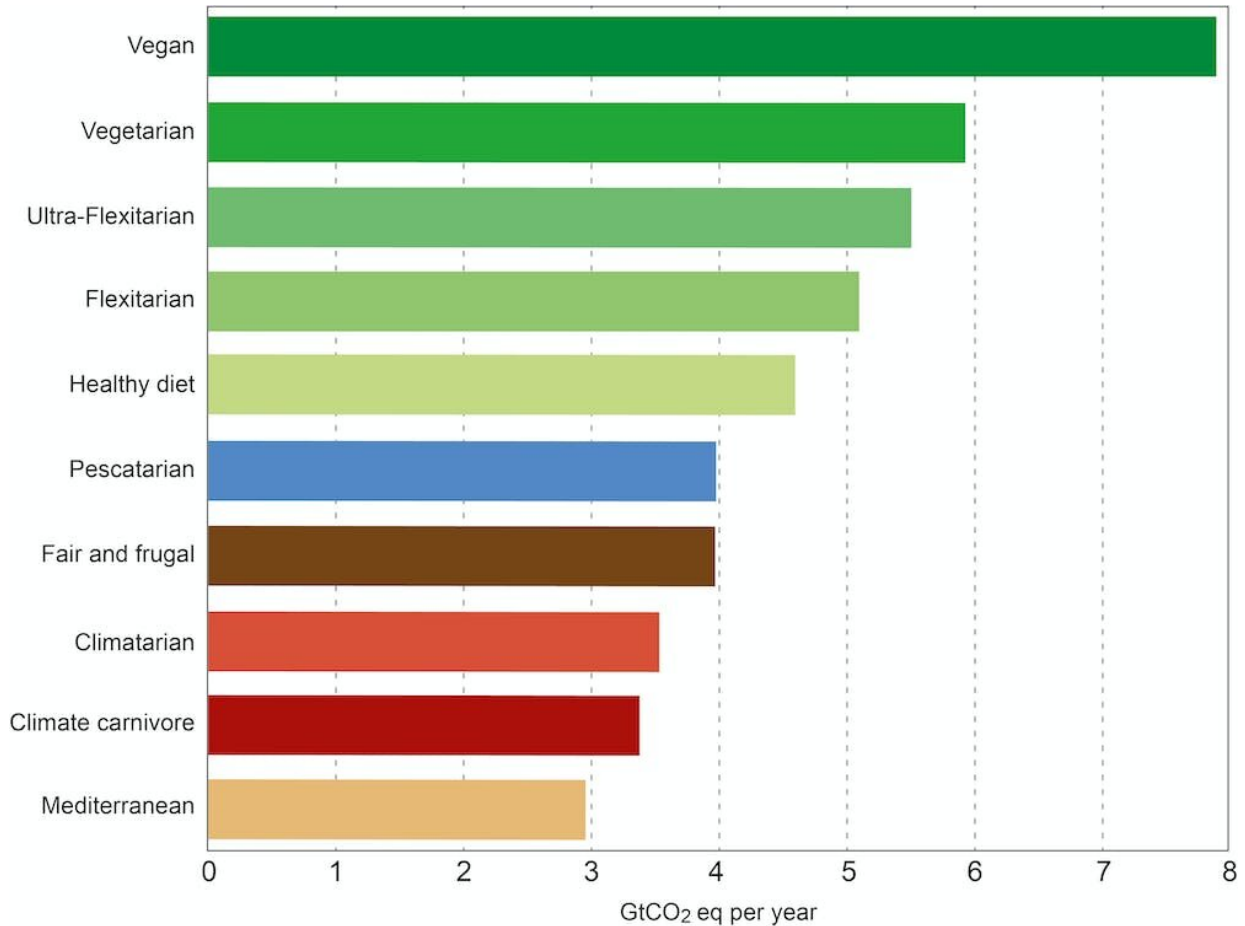
Let us start with a new fad: the climatarian diet. One version was created by the not-for-profit organization [Climates Network](#), which says this diet is healthy, climate friendly and nature friendly. According to the publicity "with a simple diet shift you can save a ton of CO₂ equivalents per person per year" ("equivalents" just means methane and other greenhouse gases are factored in alongside carbon dioxide).

Sounds great, but the diet still allows you to eat meat and other high emission foods such as pork, poultry, fish, dairy products and eggs. So this is just a newer version of the "climate carnivore" diet except followers are encouraged to switch as much red meat (beef, lamb, pork, veal and venison) as possible to other meats and fish.

The diet does, however, encourage you to cut down on meat overall and to choose high-welfare and local meat where possible, while avoiding [food waste](#) and choosing seasonal, local foods.

So saving a ton of carbon dioxide is great but switching to vegetarianism or veganism can save even more. A western standard meat-based diet produces about [7.2 kilograms of CO₂ equivalent per day](#), while a

[vegetarian diet](#) produces [3.8 kg](#) and a vegan diet [2.9 kg](#). If the whole world went vegan it would save nearly [8 billion tons CO₂e](#) while even a switch to the Mediterranean diet would still save 3 billion tons. That is a saving of between 60% and 20% of all food emissions as which are currently at [13.7 billion tons](#) of CO₂e a year.



How much CO₂e (in billions of tonnes, or Gt) would be saved if the whole world switched to each of these diets. Credit: Terms as defined by CarbonBrief. Data: IPCC, Author provided

Water and land use

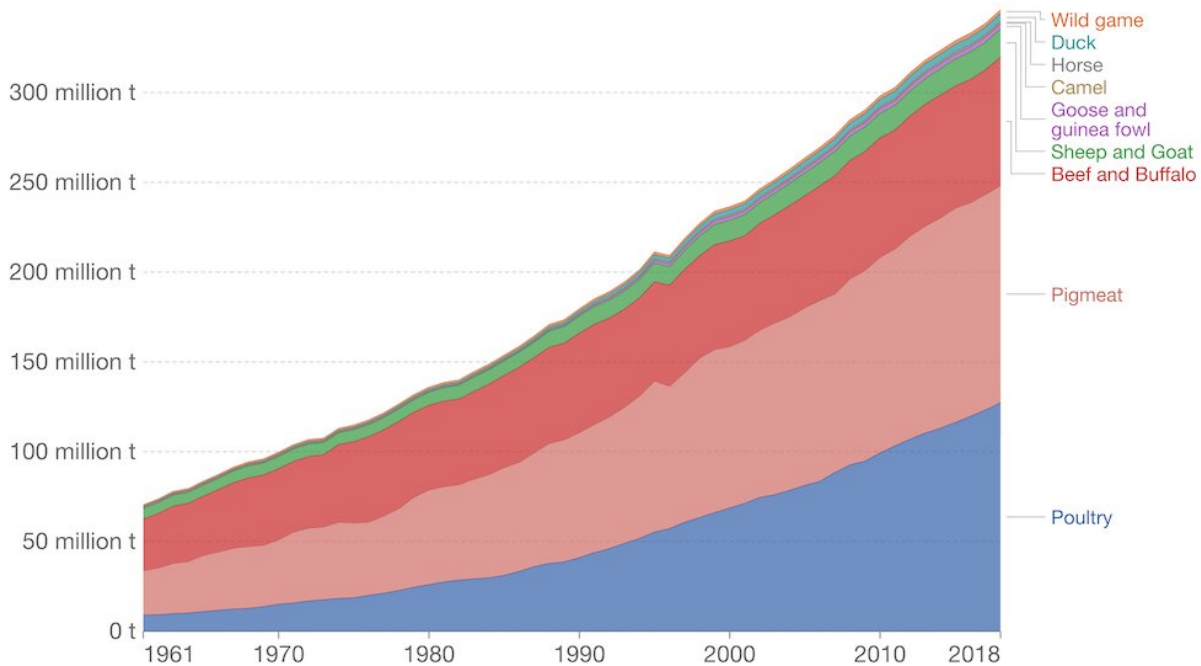
To [save our planet](#), we must also consider both water and land usage. Beef, for instance, needs about [15,000 liters of water](#) per kilo.

Some vegetarian or vegan foods like [avocados](#) and [almonds](#) also have a huge water footprint, but overall a plant-based diet has [about half the water consumption](#) of a standard meat-based diet.

A global move away from meat would also free up a huge amount of land, since billions of animals would no longer have to be fed. Soya, for instance, is one of the world's most common crops yet almost [80% of the world's soybeans are fed to livestock](#).

The reduced need for agricultural land would help stop deforestation and help protect biodiversity. The land could also be used to reforest and rewild large areas which would become a natural store of carbon dioxide.

Meat production by livestock type, World, 1961 to 2018



Source: UN Food and Agricultural Organization (FAO) OurWorldInData.org/meat-production • CC BY
 Note: Total meat production includes both commercial and farm slaughter. Data are given in terms of dressed carcass weight, excluding offal and slaughter fats.

Poultry production has almost doubled this century, as chicken has raced ahead of pork and beef. Credit: [Our World In Data / data: FAO, CC BY-SA](#)

(Mostly) healthier

A plant based diet is also generally healthier. Meat, especially highly processed meat, has been linked to a string of [major health issues](#) including high blood pressure, heart disease and cancer.

However, meat, dairy and fish are the main sources of some essential vitamins and minerals such as calcium, zinc, iodine and vitamin B12. A strict [vegan diet](#) can put people at risk of deficiencies unless they can have access to [particular foods](#) or take supplements. Yet both specialist

food and supplements are too expensive for many people around the world and it would be hard to scale up supplements production to provide for billions of extra people.

So a climatarian or flexitarian approach means there are fewer health risks and also allows people to still exercise choice. One [study](#) suggests a move to a global plant-based diet could reduce global mortality by up to 10% by 2050.

Nine animals per person per year

One of the issues that seems to be lacking in many food discussions is the ethical dimension. Every year we slaughter [69 billion chickens, 1.5 billion pigs, 0.65 billion turkeys, 0.57 billion sheep, 0.45 billion goats, and 0.3 billion cattle](#). That is over nine animals killed for every person on the planet per year—all for nutrition and protein which we know can come from a [plant-based diet](#).

So what is the ideal global diet to reduce [greenhouse gas emissions](#), reduce habitat destruction and help you live longer? Well I suggest being an "ultra-flexitarian"—a [diet](#) of mostly plant-based foods but one that allows meat and dairy products in extreme moderation, but red and processed [meat](#) are completely banned. This would save at least 5.5 billion tons of CO₂ equivalent per year (40% of all food emissions), decrease global mortality by 10% and prevent the slaughter of billions of innocent animals.

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