

# Food, health and climate

Why it is absolutely necessary to reduce  
our consumption of meat and other  
animal products

(Pre-print edition)

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**into**

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# PREFACE

The world is on the verge of the greatest change in human nutrition since the Neolithic Revolution, the beginning of agriculture and animal husbandry, which occurred about twelve thousand years ago.

In our own time, humanity will shift from a diet rich in meat and other animal products to diets consisting mostly of plant-based foods, with much of the remaining food being produced by new technologies we have never seen before.

These new technologies will be able to grow meat with compositions and textures identical to that of traditional meats—but coming from cell cultures rather than animals. These new technologies will even be able to produce some future food from water, air, and solar electricity—finally offering lasting liberation from the threat of famine during wars and other major disasters.

This revolution is already happening. According to Global Data—a company that collects economic information for hundreds of very large companies—almost two thirds of people on the planet plan to abandon meat, or at least to shift to a much more plant-based diet. Most of them live in Asia, but the trend is also strong in the United States and Europe.

This great change has not become a practical reality yet, though. For instance, in the United States, only about thirty million people have really started to move towards a vegan or plant-based diet, less than ten percent of the population.

However, the new food revolution is happening, with historically unprecedented speed, in our attitudes, values, and intentions. As you begin to follow these developments, you will encounter near-daily reports of large retail outlets, leading fashion brands, powerful media corporations, major cities, or even whole countries making significant new moves in this direction.

This book is about why this new food revolution is necessary and how it could solve all of our most serious and pressing global problems. *All* of them. At once.

No, I'm not joking.

In the following chapters, I will demonstrate that if we can manage to reduce our consumption of meat and animal products, the whole problem of global warming, which appears so overwhelming and nearly impossible to solve, is likely to just... kind of... melt away, as if it had never existed.

Something similar will happen to hunger, malnutrition, and fresh water shortages as well. To the sinking of estuaries and river valleys. To the pollution of lakes, rivers, groundwater, and shallow seas. To the depletion of forests, fish, and wild animal populations.

We will no longer need to worry about the Sixth Extinction, the permanent disappearance of millions or tens of millions of animal, plant and fungal species, from our planet. Forever. Nor about the merciless destruction of rainforests, coral reefs, mangrove forests, wetlands, grasslands, seagrass meadows, and other endangered biotopes.

We will live confident in the knowledge that future generations will be able to treat diseases with antibiotics and that they will have effective cancer cures. Even our risk of getting cancer in the first place will become smaller and we will not have to worry so much about new pandemics caused by novel influenza, corona, Nipah or Ebola viruses.

And perhaps above all, we will sleep better at night knowing that animals are no longer being mistreated to produce our food.

Food is also a cultural issue, connected to innumerable different traditional cultural, social, and socioeconomic values. However, these values constitute a web so enormously varied and so different in each country—and to some extent even in each locality—that I make (almost) no effort to deal with it in this book. I needed to keep it under a million pages!

Which is just to say that I do understand that food is not only about nutrition and health, or about ways to fight global warming or water pollution. But while acknowledging this, I also feel obliged to point out that food-related aspects of culture have never been permanent. They have always been in flux, changing according to the circumstances, and they will continue to do this in our own time.

In practice, I am trying to present what I think may be the hundred or so most important reasons for favoring plant-based food. Many of these arguments or cultural genes (“memes”) are ancient and well-known. Some are more recent but foreign to most people. Maybe thirty or so—mostly related to climate and water issues—may be entirely new. These new or at least potentially new but relevant viewpoints may be the most important reason for you to read this book.

These days, I am a professional science and science fiction writer, but I have also had a very wide-ranging career spanning numerous health care, health

education, tree planting, and renewable energy projects in different parts of the world, including Europe, South Asia, Southern and Eastern Africa, and Indonesia. Through this work I have had the privilege of meeting some absolutely brilliant and inspiring people, whom I consider my most important teachers, perhaps above all in India and Kenya. I hope that the richness of this experience will be reflected in the analyses presented in this book.

In Hanko, Finland  
January, 2022

# 1.

## FOOD AND HEALTH:

### What do we really know?

In conversations about food, many men continue to claim that a diet rich in meat is the natural, original human diet, because human beings are predators.

Their argument sounds convincing, but there's one small problem with it: it has no basis in reality. Just a quick glance in the mirror is enough to show that this idea that is cherished by so many simply isn't true.

People do have one characteristic typical of predators, namely that our eyes point straight ahead instead of being located on opposing sides of our heads like in large grass-eating mammals. But this is because humans are primates. Primates have forward-looking eyes like predators because the species that came before us spent tens of millions of years climbing trees. In the world of tree climbing, the stereoscopic vision afforded by two forward-facing eyes is just as beneficial as it is for predators, but for slightly different reasons. For a predator, the essential thing is to be able to estimate very accurately the distance to your prey. For a primate jumping from one branch to another, distance estimation is at least as important, because otherwise you end up on the ground, with potentially deadly results.

But if you forget our forward-facing eyes and look at your mouth, your teeth, and your fingernails, does anything you see suggest that humans are predators? Predators live by attacking other animals and killing them. If you think about a typical predator mouth, it is almost always a long split with sharp rows of teeth on their side for slicing or crushing flesh, tendons, and bones. Think about the jaws of dogs, wolves, or large feline predators, and you'll understand what I mean. If you look at your own mouth in the mirror, it isn't a predator mouth at all. It's just a little hole that could never fit around the neck of a large prey animal no matter how hard you stretched. Human mouths are the mouths of fruit and berry eaters. A gob meant for shoving full of berries and fruit and nuts and edible roots using the unique and magnificent hands of a primate.

If you don't believe me, do little experiment. Empirical knowledge is critical,