

THE VISION & **Way Forward**



**HUMAN ECOLOGY
PROJECT**
THE PERSONAL IS PLANETARY

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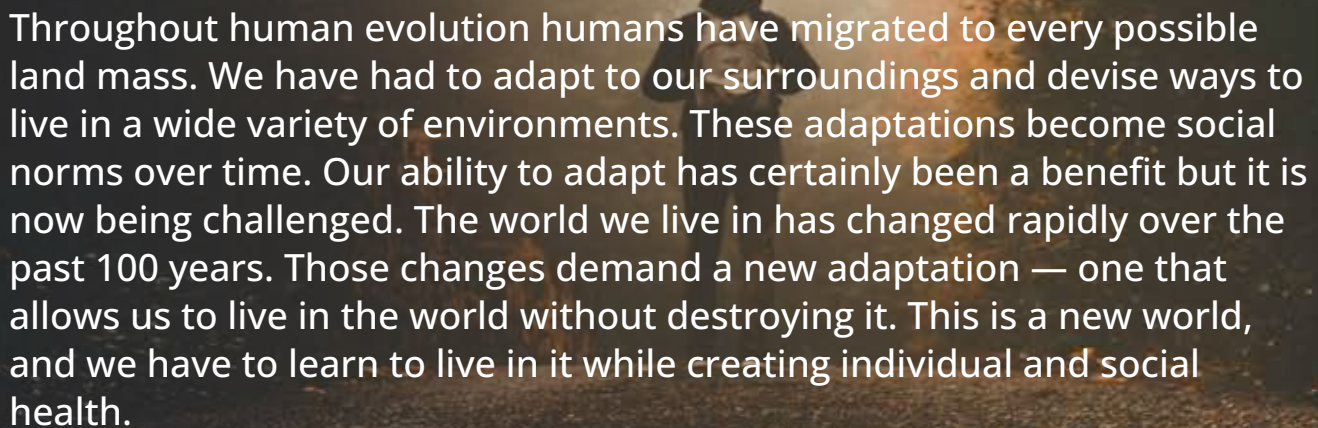
The Human Ecology Project is dedicated to illustrating the connections between human actions and their effects on individual health, society, animals, and environmental impact. The unifying factor is the food we eat.



A close-up photograph of two hands, one larger and one smaller, shaking in a firm grip. The hands are positioned at the top of the page, with the larger hand on the right and the smaller hand on the left. The background is a soft, out-of-focus light color.

This is a **Human Ecology Project Workbook**

We hope you can find a group of friends and watch the video together and discuss the issues presented in it. We have supplied some questions to get the ball rolling if you need them, and supplied a full text of the video with references to some studies and articles if you want to carry your studies deeper.

A photograph of a person walking away from the camera on a paved path. The person is wearing a dark jacket and a backpack. The path is lined with trees, and the scene is bathed in a warm, golden light, suggesting a sunset or sunrise. The background is slightly blurred, focusing attention on the person.

Throughout human evolution humans have migrated to every possible land mass. We have had to adapt to our surroundings and devise ways to live in a wide variety of environments. These adaptations become social norms over time. Our ability to adapt has certainly been a benefit but it is now being challenged. The world we live in has changed rapidly over the past 100 years. Those changes demand a new adaptation — one that allows us to live in the world without destroying it. This is a new world, and we have to learn to live in it while creating individual and social health.

Remember: The Personal Is Planetary

WATCH THE VIDEO: THE VISION AND WAY FORWARD

https://www.youtube.com/watch?v=8YLJYo_NJqQ&t=1s

The Human Ecology Vision

Marlene and I conceived of the Human Ecology Project in 2008 while living in Spain. We felt that the connections between the food we eat, and the impact of those choices were being ignored. We felt compelled to contribute to the growing social awareness of the power of food.

We believe that food choices are one of the most powerful ways that individuals can contribute to a healthy planet. We started working to integrate our experience and insights into a comprehensive

approach to nutrition — one that speaks to the ways that health, agriculture, sustainability, social justice and animal rights are intimately connected.

Unfortunately, the problems that existed then are still in place and even worse than before. There continues to be confusion about what we should be eating and how those decisions affect the world we live in. ***The Human Ecology Project*** exists to help clarify those issues. Let's start at the beginning.



Every form of life on the planet depends on its ability to harvest energy from its environment. Nothing generates its own life independently.

All animals both human and non-human are dependent on plants.

Plants take basic elements from the outside world and bring them into their bodies, where they are converted to starches and proteins and vitamins that can be used by the plant, or by the animal that eats it. This process is the source of all muscle, fat, blood, bone, and nervous system.

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Those changes demand new adaptations that allow us to live in the world without destroying it. This is a new world, and we must learn to live in it while creating individual and social health.

Since 1960 the world population has soared from 3 billion to 7.8 billion.¹



¹ <https://www.macrotrends.net/countries/WLD/world/population-growth-rate>



This increase has contributed to serious stress to human society and then rippled out into the environment with tragic consequences. We have simply not paid attention to the damage we have done.

We have treated resources of the planet as if they were infinite and have consumed them at an increasing rate, we now sit at the tipping point. The decisions we make in the next few years will determine if life on planet earth survives.^{2 3} What we eat is central to these problems.

There are several issues that point to the deep connection between the ecological crisis and our food supply.

They describe the impact of the modern food system on:

- the air we breathe,
- the water we drink,
- the soil that is the source of our food,
- the oceans that are the origin of life,
- the forests and grasslands that enliven the air and
- the diversity of plant and animal life that we are contained within.

This is being pulled apart through human activity and it must stop. Let's look at just a few of the major areas of damage we create.

2 <https://news.climate.columbia.edu/2021/11/11/how-close-are-we-to-climate-tipping-points/>

3 <https://grist.org/climate-tipping-points-amazon-greenland-boreal-forest/>

The Food Industry

The food industry does not want us thinking about the environmental impact of our diet any more than they want us knowing what's in it. The Dietary Guidelines for America have always shown the power of the big businesses to dictate government policy on nutrition.⁴ From its inception the food industry has always called the shots.

The food system is wasteful, destructive to the environment and produces products that are harmful to health. Because of its massive economic power, it is allowed to operate according to its own rules and is subsidized in its pursuit of profit.^{5 6}

The systems that produce the world's food supply are heavily dependent on fossil fuels.⁷ Vast amounts of oil and gas are used as raw

materials and energy in the manufacture of fertilisers and pesticides, and as cheap and readily available energy at all stages of food production: from planting, irrigation, feeding and harvesting, through to processing, distribution and packaging. The industrial food supply system is one of the biggest consumers of fossil fuels and one of the greatest producers of greenhouse gases.⁸



4 <https://blog.ucsusa.org/karen-perry-stillerman/big-food-companies-spend-big-money-in-hopes-of-shaping-the-dietary-guidelines-for-americans/>

5 <https://www.statista.com/outlook/cmo/food/worldwide>

6 <https://www.statista.com/forecasts/1243605/revenue-food-market-worldwide>

7 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2935130/>

8 <https://www.newscientist.com/article/2290068-food-production-emissions-make-up-more-than-a-third-of-global-total/>



5 6

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Global warming can have the pronounced and immediate effect of exacerbating existing environmental threats to agriculture, many of which are caused by industrial agriculture itself. Environmental degradation, water shortages, salination, soil erosion, pests and disease all pose serious threats to our food supply and are made worse by climate change.

Regardless of the volumes of scientific studies proving the harmful effects of eating a diet of meat, eggs, and dairy,^{9 10 11} governments and even some environmental groups continue to pull focus away from the extensive damage and waste of resources of using animals as food. Consider the resource of land.

The planet is mostly water, only 29% is land.

Of that land 71% is habitable and the rest is taken up with barren spaces such as deserts and glaciers and exposed rock. Over half of the habitable area is dedicated to agriculture, but only 20% of that agriculture is used to feed humans, the rest is fed to animals. This wasteful use of precious land is mirrored in water use as well.^{12 13}

9 [https://www.cell.com/cell-metabolism/fulltext/S1550-4131\(14\)00062-X](https://www.cell.com/cell-metabolism/fulltext/S1550-4131(14)00062-X)

10 <https://www.theguardian.com/science/2014/mar/04/animal-protein-diets-smoking-meat-eggs-dairy>

11 <https://www.futureoffood.ox.ac.uk/article/half-of-the-worlds-habitable-land-is-used-for-agriculture>

12 <https://www.theguardian.com/news/datablog/2013/jan/10/how-much-water-food-production-waste>

13 <https://bbia.org.uk/71-per-cent-eu-agricultural-land-used-feed-livestock-says-greenpeace-report/>

Water

Water is essential for life, and we are wasting and polluting it. Again, animal agriculture is a prime culprit. It takes 49 gallons of water to produce a single glass of milk.

Few realize the massive amount of water needed to raise animals for slaughter.

It takes more than 2,400 gallons of water to produce just one pound of meat. Only 25 gallons of water are required to grow one pound of wheat.¹⁴

We live on a planet that is 70% covered by water, only about 1% is drinkable.¹⁵ The coming 50 years will be marked by constant conflict over the rights to waters in rivers, lakes, and underground aquifers. The human impact on water extends to the oceans as well.

14 <https://www.peta.org/videos/meat-wastes-water/>

15 <https://education.nationalgeographic.org/resource/earths-fresh-water>



The Ocean

The ocean covers over 70 percent of the Earth's surface. It produces more oxygen than the world's rainforests and absorbs carbon dioxide. This is done by the tiny microscopic plants that live on the ocean surface. The ocean transports heat from the equator to the poles, regulating our climate and weather patterns and is home to over 300,000 species of life. Now the oceans are dying.¹⁶

What went wrong? The waste from human carelessness and the plastic waste of the fishing industry have served as a threat to all sea creatures.

More important is the runoff of waste discarded in rivers and streams or the chemical runoff from fertilizers used primarily to grow feed for animals.

This toxic cocktail makes its way to the sea creating dead-zones in the oceans. There are now 400 such dead zones which kill all fish and aquatic life. The largest of these is in the Gulf of Mexico and is the size of New Jersey.¹⁷ This damage can be reversed through better control of farming methods and regulations on water clean-up.¹⁸

The death blow to the killing of the sea is the fishing industry. With very little control, the industry scours the sea pulling up all life and simply discarding the dead it doesn't want back to waters.¹⁹

Most people don't really think about the way our food is produced and the harm it causes to the world at large. It is essential that the study of nutrition includes the actual cost in terms of environmental and cultural sacrifice of the food we eat. It is also essential that the government subsidies of the dairy, meat and milk industries stop so that these foods reflect their actual cost. This awareness calls out to be addressed urgently given the ill effects that our food choices create. We need to make an ethical standard for nutrition. The **Human Ecology Project** supports a way of eating that is built on respect for all life.²⁰

16 <https://www.nhm.ac.uk/discover/will-the-ocean-really-die.html>

17 <https://education.nationalgeographic.org/resource/dead-zone>

18 <https://www.scientificamerican.com/article/ocean-dead-zones/>

19 https://assets.wwf.org.uk/downloads/bycatch_paper.pdf

20 <https://sustainablefoodtrust.org/articles/the-real-cost-of-food/>

The Anthropocene Extinction

The belief that we are superior to other life-forms encourages us to use the natural world according to our desires and whims. After all, we have dominion over all living creatures according to some religious mythologies. As we pull away from any physical interaction with nature, we fortify those dangerous beliefs that lie at the foundation of our most destructive actions.

We raise and kill 80 billion land animals and one trillion fish, each year. These non-human beings are raised to never fulfil their life, to enjoy the company of their kind, to breed naturally and raise their young. All are killed when they are juveniles and have finished their initial growth spurt. A veal calf is killed in between 1 and 24 weeks, expected life span — 15 to 20 years. Chickens are slaughtered at about six weeks, if left alone they would live to about eight years. Our brutal disregard for life should weigh heavily on us. ¹⁸



21 <https://www.farmtransparency.org/kb/food/abattoirs/age-animals-slaughtered>



Human Ecology Project

This is just a sample of some of the issues that we will examine in detail in future:

- Human Ecology Project Videos and Human Ecology Workbooks.

Those presentations will always include practical advice on making a positive difference in the world and reversing the effect of the problems we face.

This is the greatest challenge ever encountered by humanity. It is something we cannot negotiate our way out of. We will not be saved by governments or science or technologies. The most powerful solutions are at hand and do not need new inventions or more study. We will only succeed in creating a sustainable and healthy world if we all engage in bold action that is rooted in our daily life. We need your help in getting the message out.

So here we are, sharing with you our life's work, our passion for a healthy world for humans and nonhumans alike. We are all in this together so please join us in service for a healthy world.

Possible Discussion Topics

- 1. Why did protein become the focus of Western Nutrition?**
- 2. How urgent is the need for a complete change of diet from animal source to vegetable sourced food?**
- 3. What is the best way to communicate the harm of the modern food system?**
- 4. Will making imitation meats, dairy and fish products solve the dietary issues we face?**
- 5. How would your knowledge of the amount of water used for various foods affect your choices?**
- 6. What ways can we use to educate more people about the crisis in personal and planetary health?**

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Registered Charity Number 1201615 (UK)

Email: billandmarlene@humanecologyproject.com

www.humanecologyproject.com