

Now's the time for a diet change

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Pacific Ecologist 18 Winter 2009

www.pacificecologist.org

Millions of people around the world are hungry and without access to clean water while livestock consume grain, water and land for the meat market, reports **Alyn Ware**. A change from meat eating to a vegetarian diet, besides having health benefits, will help solve the world's hunger problem, reduce much unnecessary suffering inflicted on animals bred to be killed for food, and reduce the heavy environmental costs of meat production.

Many of us have been involved for years in an unhealthy activity which pollutes our waterways, depletes our natural resources, erodes our lands, contributes to climate change, inflicts unnecessary suffering, violates the rights of others, is violent and a key contributor to global hunger. We put up with it, being hoodwinked into thinking it is natural, a part of our culture, or because we are too lazy to change, or we refuse to believe the evidence in front of us. Like an alcoholic who refuses to see there is a problem, we continue pretending there's no problem and sink deeper into the quagmire. To borrow from Barack Obama's successful US Presidential campaign: It's time for a change. This practice that is so damaging is eating meat. Here are some facts:....

Unhealthy diet for humans

Meat is very difficult for humans to digest. Carnivores, like dogs and cats, have short digestive systems and fairly acidic digestive juices suitable for breaking down meat quickly before it putrifies. Herbivores have much longer digestive systems and more alkaline digestive juices suitable for breaking down vegetables, fruits and grains.

Humans are traditionally classified as omnivores which can eat both meats and vegetarian foods. Yet the human system is better designed for vegetarian diets than a meat based one. We have a long digestive system in which meat can putrify, and over time this can lead to colon cancers. The acid required for meat digestion also can cause stomach problems.

The American Dietetic Association reports: "Vegetarian diets offer a number of nutritional benefits, including lower levels of saturated fat, cholesterol, and animal protein, as well as higher levels of carbohydrates, fiber, magnesium, potassium, folate, and antioxidants such as vitamins C and E and phytochemicals. Vegetarians have been reported to have lower body mass indices than non-vegetarians, as well as lower rates of death from ischemic heart disease; vegetarians also show lower blood cholesterol levels, lower blood pressure and lower rates of hypertension, type 2 diabetes, and prostate and colon cancer."¹

Farming deadly pathogens

The practice of commercial factory farming which is responsible for most of the meat production in the developed world, adds additional health risks to humans. These risks arise from a concentration of animal waste in the immediate environment, the increased prevalence of animal disease arising from crowded conditions in factory farms, unnatural feed given to farmed animals, and the increase of antibiotic-resistant bacteria arising from the over-use of antibiotics to prevent such animal disease. Bovine spongiform encephalopathy (Mad cow disease), H5N1 Avian Influenza and more recently H1N1 (Swine Flu) are all believed to have originated from factory farms. ²

Factory farms typically cram animals – particularly pigs and chickens - into tiny cages where they can hardly move and are fed antibiotics and artificial food while living on top of their own wastes. These conditions provide ideal conditions for viruses to evolve. The animals have no fresh air or sunlight to bolster their immune systems and, suffering severe stress are very susceptible to diseases. Dr Greager of the Humane Society of the U.S., says: "If you wanted to create global pandemics, you'd build as many of these factory farms as possible. That's why the swine flu development isn't a surprise to those in the public health community. In 2003 the American Public Health Association called for a moratorium on factory farming because it saw something like this would happen."

Polluting our waters

Meat farming results in pollution of waterways through run-off from fertiliser use and stock effluent. According to the US Environmental Protection Agency, over 200 manure discharges and spills from U.S. animal farms between 1990 and 1997 killed more than a billion fish. Animal feedlots can contaminate nearby well water with high nitrate levels, which have been linked to miscarriages in humans as well as “blue baby” syndrome in infants.

The livestock business is among the most damaging sectors to the earth's increasingly scarce water resources, contributing among other things to water pollution, eutrophication and degeneration of coral reefs.

UN Food and Agricultural Organisation
November 2006

In New Zealand, effluent and fertilizer run-off from dairy and meat farms are responsible for algae and weed blooms and oxygen depletion which choke rivers and lakes and deplete fish stocks. This also leads to increased E-coli bacteria in waterways which threaten the health of any humans or animals drinking or swimming in affected waterways. A survey of New Zealand Regional council officials, responsible for water quality ranks agriculture as the number one source of water pollution in New Zealand, above industry, forestry, human sewage.³

Depleting natural resources

The human demand for meat has led to hundreds of millions of acres of forest being cleared to make way for land for grazing. According to the UN Food and Agricultural Organisation, 30 percent of the earth's entire land surface is now used for meat production. In the United States, grazing has contributed to the demise of 26% of federal threatened and endangered species. In Latin America, 70 percent of former Amazon forests have been turned over to grazing.⁴ This is hugely depleting our earth of forests including the many thousands of living species that dwell within them. Tragically, our unhealthy meat eating habit has destroyed the lives and livelihoods of thousands sustainable tribal people, living in Amazonian regions and continues to do so.

Pass up one hamburger, and you'll save as much water as you save by taking 40 showers with a low-flow nozzle.

Ed Ayres
World Watch Institute

Crops require far less land. Frances Moore Lappe estimates it takes 18-20 times more land to produce meat than it does to produce the equivalent protein sustenance from food crops.⁵

Meat farming also consumes huge amounts of water and fossil fuels. In the United States it takes 441 gallons to produce one pound of beef, compared with 14 gallons for a pound of wheat. According to Cornell ecologist David Pimentel, meat production uses 10-20 times more fossil fuel consumption than food crops per pound.⁶

Eroding our lands



Erosion from farming

In New Zealand, large tracts of forest have been cleared for meat and **dairy farming**. Removing tree roots in hilly areas destabilises the land and leads to slips, reducing the capacity of the land to produce, and adding silt to our waterways, further damaging them. Land has also been cleared for horticulture. However, hilly areas are usually cleared for stock not crops, making meat farming a more significant cause of erosion.

In the United States, over 25% of topsoil has been lost to agriculture. About 80% of this is related to meat production, either in land for grazing or from grain production for animal feed.⁷

Contributing to climate change

Climate change and cows

One ton of methane has the global warming potential of 23 tons of carbon dioxide. A single dairy cow produces the equivalent of over 1.5 metric tons of carbon dioxide.

(*Meat: Now It's Not Personal*. World Watch Institute. 2004, July/August
<http://www.chooseveg.com/global-warming.asp>)

According to the United Nations Food and Agriculture Organisation, the livestock sector generates more greenhouse gas emissions at 18 percent, as measured in CO₂ equivalent, than all the cars, trucks and airplanes in the world combined.⁸ Each cow in NZ generates as much waste as 14 people, ref (Jay & Morad, 2007), so the waste output of the national dairy herd is equivalent to that of a staggering 73 million humans. The burden of dealing with the natural wastes of 73 million people is very hard for New

Zealand's population of around 4.23 million to imagine.⁹ According to Dr. Rajendra Pachauri, head of the Nobel Prize-winning United Nations Intergovernmental Panel on Climate Change, a change in diet would have more effect than switching to a hybrid car.

Inflicting unnecessary suffering

Meat eating cannot avoid inflicting suffering on animals. In factory farming, the suffering begins at birth and continues until death. On other meat farms, animals may have a reasonable life on the farm but suffer the cruel fate of slaughter, which if you have visited a slaughter house you will know is a terrible thing to happen to a sentient being.

Contributing to global hunger/violating rights

Whose rights are violated by meat-eating? Firstly, the rights of humans. We have a right to life and a right to the basics of life such as food and water. Millions of people around the world do not have access to clean water or sufficient nutrition. These rights are denied while livestock are consuming grain, water and land. This grain could be used to feed the hungry and the water could be used for those who do not have water, and the land could be used to produce food for the hungry.



Pigs in a factory farm

Secondly, meat-eating denies the rights of animals. Do animals have rights? Philosopher Peter Singer answers Why not? Animals are sentient beings like humans. They have feelings and very likely emotions. Some say animals don't have the same intelligence as humans. But this is a tricky yard-stick. Some dolphins, chimpanzees and dogs have demonstrated an intelligence greater than some intellectually disadvantaged or brain-damaged humans. If we use mere intelligence as a yard-stick we would have to give intelligent people more rights than less intelligent people, and we would have to give dolphins, chimpanzees and dogs greater rights than intellectually disadvantaged humans. This kind of thinking thankfully lost favour early last century.

Another argument for not extending rights to animals is the belief they have no soul. Yet there is no scientific proof of a soul, or any real difference between humans and animals on criteria which could be linked to a soul. Criteria have been suggested such as altruism which can be found in some animals (dogs and dolphins for example) and though altruism can be attributed to some humans it can be observed to be somewhat lacking in others. Singer says those who opposed the extension of human rights to women and to people of colour in the 20th Century, used most of the same arguments, such as lack of a soul, which are now being used by those saying animals have no rights. In claiming animals have rights does not mean they should have all of the same rights as humans. The right to vote, for example, is not applicable to animals. It means animals have at least the same basic rights to life, habitat and freedom from the deliberate infliction of suffering by human beings.

Violence of killing

With a few possible exceptions, e.g. euthanasia, killing is **violence**. It could be argued killing is sometimes justified to prevent a greater harm from occurring. Thus the United Nations Charter permits use of force by a country in self-defence, if they have been attacked, or attack is imminent, overwhelming and unable to be prevented by any other means. Mahatma Gandhi believed in most cases, killing is unjustified even if the desired ends are justified. He said the means must be consistent with the ends. Yet even he said violence would be justified against a madman shooting people randomly in a village.

Eating meat requires the killing of animals. If we apply non-violence principles to meat-eating, it could be possible to justify this practice only if there are no other alternatives that would prevent a greater harm, such as human starvation. This could be true in some regions and situations. However, for the most part, humans could survive, and in fact do thrive, without killing animals for food. Consequently, many ethical and religious paths as well as leaders of peace and non-violence advocate vegetarianism as a way of practising non-violence and in helping to develop a less violent world.¹⁰



A tasty vegetarian dinner...

Ready to change? It's not hard

I used to love cooking and eating meat and thought the idea of being a vegetarian was crazy. But as a vegetarian I am healthier than before and feel better about walking more lightly on the planet (although I could do more in other areas as well). Nowadays there is so much variety in vegetarian foods that it's very easy to have a rich, exciting diet without eating meat.¹¹

¹ 1. See: www.eatright.org – and position papers at www.chooseveg.com

² See: World Health Organisation *H5N1 avian influenza: timeline of major events*:

http://www.who.int/csr/disease/avian_influenza/Timeline_09_03_23.pdf

Dr Michael Greager, *Bird Flu: A Virus of Our Own Hatching*, <http://birdflubook.com/g.php?id=5>

³ <http://www.seakeepers-nz.com/RIVERS/riverpol.html>

⁴ UN Food and Agriculture Organisation, *Livestock a major threat to environment*, November 2006.

<http://www.fao.org/newsroom/en/news/2006/1000448/index.html>

⁵ *Diet for a Small Planet*, Ballantine Books, 1971, 1975, 1982, 1991

⁶ Relative Fossil Fuel Usage, David Pimental, <http://www.chooseveg.com/conservation.asp>

Sustainability of meat-based and plant-based diets and the environment, David Pimentel and Marcia Pimentel, Department of Ecology and Evolutionary Biology, Cornell University, Ithaca, NY.

<http://www.ajcn.org/cgi/content/abstract/78/3/660S?ct>

⁷ *Selling Out Their Future*, <http://www.goveg.com/worldHunger-sellingOutFuture.asp>

Joni Seager, *The State of the Environment Atlas*, Penguin Books 1995. <http://fliiby.com/file/22104/4wiyeulvk2.html>

⁸ *Rearing Cattle Produces More Greenhouse Gases Than Driving Cars*, *UN Report Warns*, UN News Centre, 29 Nov. 2006.

<http://www.un.org/apps/news/story.asp?NewsID=20772&Cr=global&Cr1=environment>

⁹ *Society & Natural Resources*, Volume 20, Issue 5 May 2007, pages 469 – 478 Mairi Jay and Munir Morad.

¹⁰ See www.famousveggie.com

¹¹ For more info see www.chooseveg.com