Veganomics

Why veganism makes economic sense

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What is veganism?

Veganism is a lifestyle based on the rejection of the exploitation of animals. Vegans don't eat meat, fish, eggs or dairy and don't consume products with animal-based ingredients.

The word vegan was coined by Donald Watson (1910-2005), founder of the Vegan Society, who argued:

"We can see quite plainly that our present civilisation is built on the exploitation of animals, just as past civilisations were built on the exploitation of slaves, and we believe the spiritual destiny of man is such that in time he will view with abhorrence the idea that men once fed on the products of animals' bodies." (Vegan News, no 1, November 1994).

Why a veg(etari)an diet?

There are four different motives for excluding animal products from the plate:

- Animal rights – the ethical principle that animals are not ours to eat;
- Health issues – plant-based diets can provide the necessary nutrients and even be healthier than omnivorous diets (ADA and DC, 2003)
- Religious or spiritual beliefs – the vegan philosophy was partly influenced by the ahimsa principle (no violence to all living things), which we find in Jainism, Budhism and Hinduism.
- Environmental concerns – ingesting nutrients from vegetable products is more environmentally-friendly than ingesting the same nutrients from animal products.

The economic/ecological impact of animal products production

- About 18% of anthropogenic greenhouse gas emissions are attributable to the livestock sector (Steinfeld et al., 2006).
- At the individual level, changing from a omnivore to vegetarian diet reduces the carbon footprint by 1.5 tonnes of CO2eq, about the same reduction one achieves by changing from an SUV to a hybrid (Eshel and Martin, 2005).
- Eating 1kg of beef is worse for climate change than driving for three hours while leaving the lights on at home (Ogino et al, 2007).
- To produce 1 kcal of plant protein we need 2.2 kcal of fossil fuels, while the production of 1 kcal of meat protein requires 4 to 57 kcal of fossil energy (Pimentel and Pimentel, 2003).
- Cattle ranching is the biggest driver of deforestation in the Amazon, with almost 80 per cent of deforested areas being used for pasture (Greenpeace, 2009). In recent years, deforestation driven by soy production, used in animal feed, is also a major concern.

- About 30 per cent of the land surface occupied by livestock was once habitat for wildlife. About 37 per cent of terrestrial ecoregions identified by the Worldwide Fund for Nature and 65 per cent of global hotspots identified by Conservation International are negatively affected by livestock. For all its negative impacts on the environment, probably livestock production is the main threat to biodiversity (Steinfeld et al, 2006).
- In 2008, 32 per cent of marine fish stocks were overexploited, depleted or recovering and 53 per cent were fully exploited (FAO, 2010). If fishing continues to increase at current rates, by 2048 world fisheries reserves will have collapsed (Worm, Boris et al, 2006). Overfishing also leads to species extinction due to bycatch.
- Aquaculture can have a negative impact on biodiversity due to the escape of fish from farms and the subsequent mixing or competing with wild fish, the pollution of the surrounding water and the destruction of nursery areas that support ocean fish. It is also not clear to what extension it can be an alternative to fishing, given that most farmed species are carnivorous fish, which has to be fed with wild fish caught in the oceans (Naylor et al, 2000).

- About 8 per cent of anthropogenic global water consumption is attributable to the livestock sector. It is likely that this sector is the greatest contributor for the problem of water pollution, due to the discharge of animal waste, the usage of chemicals in the plantations dedicated to animal feed and the release of antibiotics (Steinfeld et al, 2006).
- It takes 500 liters of water to produce a kg of potatoes, 2,000 liters to produce a kg of soy, 3,500 liters to produce a kg of broiler chicken and 100,000 liters to produce a kg of beef (Pimentel et al, 1997). Producing 1 kg of vegetable protein requires about 100 times less water than producing 1 kg of animal protein (Pimentel and Pimentel, 1996).

- Considering the full lyfe cycle, the livestock occupies about 70 per cent of the cultivated surface and 30 per cent of the total surface of the planet (Steinfeld et al, 2006).
- Cultivating vegetable product for human consumption is more efficient than cultivating the same products for animal feed, in terms of the ratio output in kcal/input in kcal: 4.15 for soy, 1.1 for apples, 0.2 for milk and 0.01 for lamb (Eshel and Martin, 2005).
- About 1/3 to 1/2 of all vegetable food produced is destined to feeding animals. In the case of soy, the percentage reaches 90 per cent (Goodland, 1999).
- There are no data on the livestock contribution for soil erosion worldwide, but in the US this figure is at 50 per cent (Steinfeld et al, 2006)

Veganism makes economic sense since it is a more efficient means of feeding the world.

Meat, eggs, dairy and fish production are only economically viable at a large scale due to the fact that the livestock and fishing sectors don't pay their external costs and are usually heavily subsidized. Organic and sustainable production can help to reduce the environmental footprint of an omnivore diet, but it isn't a feasible option for many, as the products are very expensive.

Eating animal products from sustainable small-scale farming is a half-step towards the right direction, if it is accompanied by a reduction in the amount of animal products consumption. Still, this doesn't solve the other objections to eating animals, namely those related to ethical concerns.

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