

Meat Contributes to Climate Change, UN Study Confirms

by Megan Tady

Dec. 7 – The typical American diet adds significantly to pollution, water scarcity, land degradation and climate change, according to a United Nations report released last week.

Written by the UN's Food and Agriculture Organization (FAO), the report is the latest research linking meat-eating with environmental destruction. According to the FAO, the arm of the UN that works on worldwide hunger-defeating initiatives, animal farming presents a "major threat to the environment" with such "deep and wide-ranging" impacts that it should rank as a leading focus for environmental policy.

The report calls the livestock sector a "major player" in affecting climate change through greenhouse-gas production. The FAO found that the ranching and slaughter of cows and other animals generates an estimated 18 percent of total human-induced greenhouse-gas emissions globally.

Greenhouse gases – such as methane, carbon dioxide and nitrous oxide – are linked to global warming. Livestock emit methane and other greenhouse gasses through excrement and belching. The FAO estimates that cow manure and flatulence generate 30 to 40 percent of total methane emissions from human-influenced activities.

As demand for meat grows, the report explains, so does the need for pasture and cropland, making deforestation an additional concern; currently, according to the report, the livestock sector occupies 30 percent of ice-free land on the planet. Extensive grazing also takes a toll on arable land.

The livestock sector also contributes to water depletion; currently, the livestock sector accounts for 8 percent of human water use globally. Animal wastes, antibiotics and hormones, as well as chemicals from tanneries and pesticides from feed crops, also contaminate water supplies. Henning Steinfeld, an author of the report, said in a press statement that "urgent action is required to remedy the situation."

While the report gives a global picture of meat production, sustainable-food advocates say the US is leading the world in harmful meat-eating habits and industry practices. From 2000 to 2002, consumers in the United States ate on average approximately 38.5 million tons of meat per year, second only to China, according to the FAO analysis. In those same years, the United Kingdom consumed nearly 5 million tons of meat each year, Brazil nearly 15.5 million tons and Uganda 308,647 tons.

North America had one of the highest methane emissions from livestock manure management in the world in 2004, according to the report. Methane is more readily produced when manure is managed in a liquid form, such as in holding tanks or lagoons commonly used in North America. Additionally, the US is a leader in CO2 emissions from the burning of fossil fuels in the manufacture of nitrogen fertilizer used to grow food for livestock.

But the National Cattleman's Beef Association, a beef-producer trade group, told *The NewStandard* in a written statement that "animal agriculture in the United States contributes minimally to the production of total greenhouse gases." The Association pointed to an Inventory on Greenhouse Gas Emissions reported by the US Environmental Protection Agency. It shows agriculture, including non-livestock activities, accounted for 6 percent of national greenhouse-gas emissions in 2004. By comparison, the EPA reports that the transportation sector accounted for approximately 27 percent of total US greenhouse gas emissions.

But **Dawn Moncrief**, director of the **Farm Animal Reform Movement**, a national food-education organization, said that not only are US consumers harming the environment through their appetite for meat, but American food choices are being exported to other countries.

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"[The US sets] the example, which a lot of the world is trying to follow," Moncrief told *TNS*. "[Meat consumption is] partly being exported by our corporate interests who are pushing it as a lifestyle because they're making money in it." Often serving as a status symbol, meat is becoming a staple in diets of countries that, prior to industrialization and Western cultural influence, ate far fewer animal products.

According to FAO, world meat production is expected to double by 2050. In March 2006, the Department of Geophysical Sciences at the University of Chicago released a study that compared the differences in greenhouse-gas emissions caused by various plant- and meat-based diets. Researchers found that the difference between a red-meat diet and a vegan diet – in terms of greenhouse-gas emissions – equaled the difference between driving a sedan and driving a sport-utility vehicle.

"These results clearly demonstrate the primary effect of one's dietary choices on one's planetary footprint, an effect comparable in magnitude to the car one chooses to drive," the report concluded.

Despite such alarming findings, the FAO report stopped short of suggesting more people adopt plant-based diets; instead it advocated for technological solutions and changes in farming policies. "It's not like [the UN is] going to advocate a vegan diet, but they could say, 'A plant-based diet would get you [closer to sustainability],' " Moncrief said.

Among the remedies, the UN suggested investing technology that already exists, including soil-conservation methods, feeding methods that reduce livestock's gas emissions, and improved irrigation and manure management systems.

Adopting these changes "with a sense of urgency," wrote the FAO, can "make a very significant contribution to reducing and reversing environmental damage."

The report also noted the economic importance of the livestock sector to global populations; work with livestock contributes 40 percent of global agriculture Gross Domestic Product and employs 1.3 billion people worldwide.

But Moncrief said simply altering agriculture practices without changing consumers' food consciousness and habits will not lead to true sustainability, in terms of either environmental health or feeding the growing population. "They talk about the problems, but then they refuse to advocate a reduction of meat as part of the solution," Moncrief said. "We just think we're going to be able to outsmart our way out of this."

Moncrief said educating consumers about their food choices is essential. "We need to get organizations who are working on food-policy issues, like the UN and the USDA, to at least come out and say, 'Here are the health benefits, here are the environmental benefits'" to reducing meat consumption, Moncrief said. "If we could get these governmental and quasi-governmental agencies to come out and say it, that would be a good first step."

Gidon Eshel, assistant professor of physical oceanography and climate and co-author of the University of Chicago report, echoed Moncrief's concern.

Eshel told *TNS*: "It is probably not a bad idea to suggest unambiguously that if more people used less animal products in their diet than they do today, we [would] be able to sustain a larger number of people on earth for an indefinite period of time, or afford those who are here a better lifestyle."

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