Global Meatless Monday – for the Environment

The United Nations 2015 Climate Change Conference (COP21) set the goal of limiting 2050 global temperatures to less than two degrees Celsius above pre-industrial averages, a target widely recognized as inadequate for avoiding some severe consequences. But even with successful changes from energy and transportation sectors, this moderate goal cannot be met—unless we also decrease meat consumption. Along with many other environmental impacts, nearly 15 percent of global greenhouse gas (GHG) emissions are due to production of meat, dairy and eggs. In many countries, meat consumption is an indicator of wealth; consequently, as incomes rise, the intake of meat and dairy is also rising across the globe.

Greenhouse gases and climate

Meat production creates GHGs that contribute to climate change. These gases include methane production from animals, carbon dioxide from deforestation, and nitrous oxide from fertilizers. Livestock production contributes an estimated 14.5 percent of global greenhouse gas emissions from human activities, which is more than the entire transportation sector.[i] Ruminant animals, including cattle, produce methane (CH4) as part of their digestion. In fact, this process alone represents almost one third of the emissions from the agriculture sector. Reductions in meat consumption can have a profound effect on greenhouse gas emissions. Globally, eliminating meat for one day per week, for example, could reduce emissions by an estimated 1.0 Gigaton (Gt)[ii] to 1.3 Gt [iii,iv] per year relative to predicted scenarios based on current consumption patterns. Reducing emissions by 1.3 Gt would be equivalent to taking 273 million cars off the road, based on typical U.S. passenger vehicles.[v]

Fossil fuels

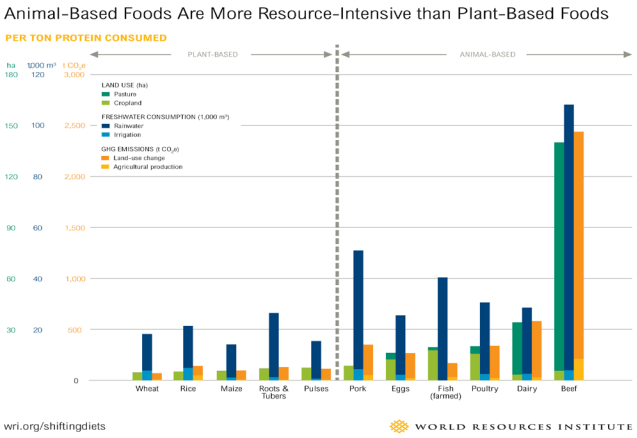
Producing meat uses more fossil fuels than producing plant-based proteins. The average global fossil energy input for all the animal protein production systems is 25 kilocalories (kcal) fossil energy input per 1 kcal of protein produced. This energy input is more than 11 times

Why go global?

Reducing our intake of animal products across the world can have positive global impacts: improved health, more stable ecosystems and climate, and safer food. The simple, easy-to-execute message of Meatless Mondays can foster collaboration—and create change—among diverse groups, ranging from nonprofit organizations, local institutions, and influential figures such as chefs, celebrities, and politicians. *Even a small change—like cutting meat from your diet once a week—can make a difference!*

What is Meatless Monday?

The goal of the **Meatless Monday Campaign** is to encourage people to refrain from eating meat one day a week. Meatless Monday seeks to reduce the prevalence of preventable illnesses and the environmental impacts associated with meat production and excessive meat consumption. Meatless Monday was originally promoted by the U.S. government during both World Wars by urging families to reduce consumption of key staples. It was reintroduced as a public health awareness campaign in 2003 by former ad man turned health advocate Sid Lerner, in association with the Johns Hopkins Bloomberg School and the Center for a Livable Future. Since 2003, Meatless Monday has grown into a global movement powered by a network of participating individuals, schools, hospitals, worksites and restaurants around the world.



greater than that for grain protein production. Beef production alone requires 40 kcal for 1 kcal of protein produced.[vi]

Water

The agriculture sector withdraws 70 percent of all fresh water globally, making it the largest water user, with livestock accounting for most of that use. The demand for water will continue to increase as diets in many developing countries shift from predominiantly starch-based foods to more meat and dairy in response to economic growth. Water is used in all stages of meat production from feed to care to processing. Based on one study, producing 1 kg of rice requires about 3,500 liters of water. In contrast, 1 kg of beef requires about 15,000 liters.[vii]

Water contamination

In developing countries, 90-95 percent of public wastewater and 70 percent of industrial wastes are discharged into surface water without treatment.[viii] In many cities within low- and middle-income countries untreated wastewater and polluted water are used for agriculture in urban and peri-urban areas.[ix] Manure also contributes to water quality degradation in many countries due to over-application and runoff from rain. Livestock excreta contains pollution in the form of nutrients (nitrogen, phosphorous, potassium), drug residues, heavy metals and pathogens. Runoff from the fertilizers and pesticides used to grow feed also contributes to water pollution.[x]

Land Use and degradation

Livestock is the world's largest human-related land user, taking up 30 percent of the Earth's entire land surface, including 33 percent of the global arable land for animal feed production. The global demand for meat increases the pressure to clear forests and valuable land for raising livestock and growing food, thus contributing to land degradation, deforestation and the accelerated loss of rainforests.[xi] A dietary shift toward less meat and more plants along with other strategies globally could double food production while greatly reducing the environmental impacts of agriculture.[xii]

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