Can We Grow Enough Food for Everyone to Eat a Healthy Diet?

When trying to comprehend the size of the whole Earth, it can seem enormous. According to the conclusions from a Canadian study, Earth is actually quite small when considering the human population's eating habits. These researchers used the US Department of Agriculture (USDA) recommendations for people in the US and calculated how much food and land would be needed to support the entire world if they were to adopt these same recommendations. These researchers found that the number of farms needed exceeds the current number of farms we have today.

"The data shows that we would require more land than what we have if we adopt these guidelines," says ecologist Madhur Anand from the University of Guelph in Ontario. "It is **unsustainable**."

Using their calculations, the researchers figured out that if the USDA guidelines were applied to the whole world the human population would need an additional area of land about the size of Canada to farm in order to feed everyone.

Now the USDA recommendations that were used in this calculation were designed for people living and eating in the US and not the entire world. Some wonder if future recommendations should have a more global perspective, especially since the amount of **arable land**, land that can be used to grow crops, is limited.

Currently, 38% of Earth's land is used for food production. The other 62% of Earth's land is used for urban development, is forest land, or can't be used for agriculture because of soil and/or climate conditions.

Since there is no extra land to expand farming, any real solutions to address this problem will need to be made by being more **efficient** with the land that is currently being used for farming.

Unfortunately, the problem is only getting worse for our current food system. The United Nations estimates that by 2050 Earth will need to produce 70 percent more food in order to keep up with an increase in global demand.

The team's research also looked at the impact of these food system stresses both at a global and national level. They found that some countries would be severely affected more than others.

"One of the 21st century's great challenges is to develop diets that are both healthy for our bodies and **sustainable** for the planet," explains one of the team, food security researcher Evan Fraser.

According to these researchers there need to be some shifts in what kinds of foods are being recommended, and these recommendations should consider how producing the food impacts the environment.

"We need to understand human and environmental systems in a coordinated manner," Anand explains.

Research is showing that based on the current and growing population the world can no longer think about human health by meeting nutritional needs and the environmental impacts of our food system as two separate issues. These issues are intertwined, and can no longer be ignored as food system decisions are being made.

"This is one of the first papers to look at how the adoption of Western dietary guidelines by the global population would translate into food production . . . and specifically how that would dictate land use and the fallouts of that," says Anand.

While research is ongoing, the problems aren't going away. There is still a lot of work ahead to address the issues with our current food system and the decisions being made about it.

Source:

Dockrill, Peter. "There Is Not Enough Land on Earth to Support the Diet Recommended by Authorities." *ScienceAlert*, August 14, 2018.