**World Food Production Also Having Big Effect on Climate Change**

**世界粮食生产对气候变化影响重大**

Most of the efforts aimed at reducing climate change center on reducing the use of fossil fuels. But a new study warns that pollution caused by the world’s food production system is also a major driver of rising temperatures on the planet.

大多数旨在减少气候变化的努力都集中在减少化石燃料的使用上。但一项新的研究警告称，世界粮食生产系统造成的污染也是地球气温上升的主要驱动力。

The study found that if the world food system stays on its current growth path, it will produce nearly 1.4 trillion metric tons of greenhouse gases over the next 80 years.

研究发现，如果世界粮食系统保持目前的增长方式，未来80年它将产生近1.4万亿公吨的温室气体。

That pollution is expected to come from fertilizers used in agriculture, mismanaged soil, food waste and methane gas released from cows and other animals. Other causes include land-clearing operations and deforestation.

这种污染被认为来自农业中使用的肥料、土壤管理不当、食物垃圾及奶牛和其他动物释放的甲烷气体。其他污染源还包括土地清理和森林砍伐。

Researchers from the University of Minnesota and the University of Oxford in Britain led the study, which recently appeared in the publication Science.

来自明尼苏达大学和英国牛津大学的研究人员领导了这项研究。该研究最近发表于《科学》杂志。

The researchers predict that even if fossil fuel emissions were halted now, emissions from the world food system would make it impossible to reach current international climate change targets. They say that emissions from food production alone could push world temperatures past 1.5 degrees Celsius by the middle of this century and above 2 degrees Celsius by the end of the century.

研究人员预测，即使现在停止化石燃料的排放，来自世界粮食系统的排放也将使其不可能达到目前国际气候变化的目标。他们表示，单是粮食生产的排放量都能导致到本世纪中叶全球气温升高超过1.5摄氏度，到本世纪末将超过2摄氏度。

A main goal of the 2015 United Nations Paris Agreement on climate change is to keep rises in the Earth’s temperature during this century to between 1.5 to 2 degrees Celsius. The U.N. has said that in order to stay below the 1.5 Celsius level, emissions must fall at least 7.6 percent each year through 2030.

2015年联合国气候变化巴黎协议的一个主要目标是在本世纪将地球温度的上升保持在1.5到2摄氏度之间。联合国表示，为了保持在1.5摄氏度以下，到2030年排放量必须每年至少下降7.6%。

The new study calls for immediate “improvements in farming practices, as well as changes in what we eat and how much food we waste,” to help reach the Paris Agreement goals.

这项新的研究呼吁立即“改进耕作方式，同时改变我们的饮食方式和食物浪费”以帮助实现《巴黎协定》的目标。

Jason Hill is a professor of biosystems engineering at the University of Minnesota. He helped lead the study. He said in a statement that the research clearly demonstrates that food has a much greater effect on climate change than is widely known.

杰森·希尔是明尼苏达大学的一名生物系统工程学教授。他领导了这项研究。他在一份声明中称，这项研究清楚地表明，食物对气候变化的影响比人们所熟知的要大得多。

Hill also noted that fixing the problem would not require the world’s population to completely stop eating meat. “The whole world doesn’t have to give up meat for us to meet our climate goals,” he told the Associated Press. “We can eat better, healthier foods. We can improve how we grow foods. And we can waste less food.”

希尔还指出，解决这个问题并不需要世界人口完全停止吃肉。他告诉美联社：“全世界不必为了实现气候目标而放弃食肉。我们可以吃得更好更健康。我们可以改进我们的种植方式。我们可以减少食物浪费。”

The researchers say such efforts are achievable and can also lead to many other improvements beyond controlling climate change. These include making humans healthier, reducing water pollution, improving air quality, preventing animal extinctions and improving farm profitability.

研究人员表示，这是可以实现的目标，而且除了控制气候变化它还能帮我们在其他方面做出改进。比如使人类更健康，减少水污染，改善空气质量，防止动物灭绝和提高农场盈利能力等等。

The study makes the following predictions:

研究预测如下：

A nearly complete change to a plant-rich diet around the world could cut nearly 650 billion metric tons of greenhouse gases.

如果全世界都转向素食的饮食习惯，那将可以减少近6500亿吨温室气体的排放。

If almost everyone ate the right number of calories based on age - around 2,100 calories a day for many adults - it would reduce emissions by about 410 billion metric tons.

如果每个人都能根据年龄摄入正确的卡路里含量——多数成年人每天摄入约2100卡路里——那么就可以减少4100亿吨的排放量。

If farming could reduce carbon levels - by using less fertilizer, managing soil better and doing better crop rotation - it would cut greenhouse gases by nearly 540 billion metric tons.

如果农业作业能够通过减少化肥的使用、更好地管理土壤和更好地轮作来减少碳用量，那将能减少排放近5400亿公吨的温室气体。

And if people wasted less food - at home, in restaurants or by getting it to people in poorer countries – emissions could be cut by about 360 billion metric tons.

如果人们在家及外出就餐时都能减少食物浪费或者把食物送贫穷国家的人，那么温室气体排放量可以减少3600亿公吨。

I’m Bryan Lynn.

布莱恩·林恩报道。

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