

Frederic Gaspoz on Agriculture and Climate

According to the Food and Agriculture Organization (“FAO”), world agriculture must undergo significant changes in order to meet the related challenges of achieving food security and responding to climate change. For Frederic Gaspoz, the most important factor in the world economy is the rise of emerging economies and their convergence with developed economies. There is a growing middle class in the emerging world, with growing spending power. As low-income people enter the middle class, they change their diets and take in more calories. Frederic Gaspoz explains that income growth makes for more meat consumption, which is good for grain, because one needs a lot of grain to grow cattle and pigs. In addition, agricultural commodities are used for biofuels, which removes supply from the market for food. Frederic Gaspoz mentions that the US federal ethanol mandate results in more than 30% of the US corn production being used for ethanol.

Projections based on population growth and food consumption patterns indicate that agricultural production will need to increase by at least 70 percent to meet demands by 2050. Most estimates also indicate that climate change is likely to reduce agricultural productivity, production stability and incomes in some areas that already have high levels of food insecurity. Therefore, Frederic Gaspoz thinks that developing climate-smart agriculture is thus crucial to achieving future food security and climate change goals. Frederic Gaspoz discusses some of the key technical, institutional, policy and financial responses required to achieve this transformation. There are many institutional and policy options available to promote the transition to climate-smart agriculture at the smallholder level. In the U.S., annual consumption of meat is 130 kilograms (286 pounds) per capita. In the European Union it is about 100 kilos. In China it is 55 kilos, and it was 39 kilos 10 years ago. In India it is at only seven kilos, so there is a long way to go. Frederic Gaspoz mentions the example of Taiwan: in 1980 Taiwan was at a development stage similar to China's today. Since then, Taiwanese meat consumption per capita has doubled from 43 kilos to more than 90 kilos. By 2030, China's meat consumption could be 85 to 90 kilos.

It takes about six kilos of grain to produce one kilo of beef. It also takes 4,000 gallons of water. On the supply side, available land is diminishing. The situation is compounded by La Niña, a weather phenomenon that cools the Pacific, disrupting harvests. Frederic Gaspoz combines that with volcanic eruptions in Eastern Russia, that affect the Arctic, leading to more flooding in Southeast Asia and Australia. It will lead to stronger monsoons in India and droughts in Latin America, Russia and the Ukraine, and potentially the Northern U.S. Frederic Gaspoz shows that world population will grow from the current 6.7 billion to 9 billion by 2050.

The FAO has established a number of key measures for the implementation of a “climate smart” agriculture. For Frederic Gaspoz, this is a good start, the main elements being:

- Adopting an ecosystem approach, ensuring intersectoral coordination
- Investment in filling data and knowledge gaps
- Support to enable smallholders to make the transition to climate smart agriculture
- Consistency between agriculture, food security and climate policies
- Combining financing from public and private sectors

In conclusion, Frederic Gaspoz mentions that while poverty reduction and sustainable development remain core global priorities, yet climate change must urgently be addressed.

Frederic Gaspoz