You are probably eating genetically modified food and do not know it. As much as 80% of all processed food in the US is genetically modified. Genetically modified food is when genetic material (DNA) has been altered in a way that does not occur naturally by mating and/or natural recombination. The objective is to develop plants to improve resistance to plant diseases caused by insects or viruses, or increased tolerance toward herbicides or drought. Genetic modification has created much controversy. Agriculturists have been cross-breeding (hybridizing) plants since Mendel began cross breeding garden peas in 1856, but GM is a different 20th century invention.

The World Health Organization (WHO) declared food safety as this year’s theme for World Health Day (April 7, 2015). What is in your food? Where do the ingredients come from? Is your food safe from food-borne pathogens? “Food production has been industrialized and its trade and distribution has been globalized,” says WHO Director-General Dr. Margaret Chan. These changes introduce new opportunities for food to become contaminated with harmful bacteria, viruses, parasites or chemicals.

Over 200 diseases are caused by food-borne pathogens. It is estimated that two million deaths occur every year from contaminated food or drinking water. Because of fast and modernized transportation food that is produced and processed at one place may become contaminated, but affect the health of the consumer located at the other side of the globe. It is essential to maintain high standards at all stages of the food chain. It is unbelievable and shameful that the US Congress is proposing to reduce funding money to monitor food safety especially of food imports. Thousands of people in the US have been sickened in past years by tainted peanut butter, spinach, eggs, and melons. Each year roughly one in six get sick, 128,000 are hospitalized, and 3,000 die of food borne illnesses.

Corporate control of our food system is increasing. Power over soil, seeds and food sales is ever more tightly held, and farmland in the global south is being snatched away from local farmers by speculators. Just four companies control at least three-quarters of the international grain trade. In the US, by 2000, just 10 companies account for half of US food and beverage sales. At the last estimation there are more than 7 billion people on earth today and there is enough potential food available. By mid century 2050 the world population is estimated to reach 9 billion and increase of 2 billion. Will there be enough food to accommodate these extra 2 billion? How much more food will be needed?

Studies have shown that what is important is not so much the number of extra people but what kind of diet these people will demand. In fact, changes in diet will likely be the dominant driver of future food demand. The reason is simple: while population is projected to grow by 2 billion between now and 2050 there are already about 3 to 4 billion who are getting richer—mainly in China, India, Brazil and some other countries for example. That means 3 to 4 billion more people eating more meat and dairy products, as well as other rich foods, putting tremendous pressure on
the global food system. Researchers suggest that roughly one-third of future food demand may come from population growth and two-thirds may come from increased wealth and richer diets.

The need for more land has led to land grabs in Africa by big corporations with terrible consequences for small farmers. For example consider Flora Chirimi and her five children in Xai-Xai Mozambique. One morning, big tractors came and plowed up her banana trees, her corn, her beans, sweet potatoes and cassava. In a short time her plot, which fed her five children, was taken over by a Chinese corporation building a 50,000-acre farm. All this with the blessing of the Mozambique government, which has a history of neglecting local farmers right to land in favor of large investments. Property rights are frequently ignored. This results in an increasing number of countries becoming dependent on food imports.

Given the need to satisfy the requirements of feeding the increase of 2 billion by 2050 the use of genetically modified food will become essential. It will allow farmers to boost their yield, making crops live through drought or temperatures and resist disease. GM foods have inspired an enormous amount of anxiety about their safety. Something about genes terrifies people. In fact, this method is just as safe as the plant breeding we have been doing for many years. Major scientific societies, including the National Academy of Sciences as well as the World Health Organization have concluded that GM crops are safe to eat. A recent survey by the Pew research center show great gaps in beliefs and understanding between scientist and the public. Examples are the safety of GM foods, climate change and the misunderstanding and misinterpretation of early childhood vaccination.

Many countries require labels for GM foods including China, Russia, Japan, Australia and the European Union. Why is the European Union anxious about GM foods? Part of the reason is safety, but mostly it is the tradition of Food Sovereignty, the idea that nations should have the control over their food and enable them to feed their own people.

Monsanto’s patented GM “Roundup ready” seed is not only more costly but through natural cross-breeding lead to preventing farmers from saving their non-GM seed for subsequent crops. European countries, particularly the French, do not want to be beholden to an international corporation. Several cases concerning Monsanto seeds have come to the US Supreme Court. Supreme Court judge Clarence Thomas did not recuse himself even though he had been a Monsanto Attorney. Shameful.

Monsanto seeds make it difficult for small farmers to compete. We believe that patents are important as they promote innovation, but they should be better balanced with the possible social and economic side effects.

A different model than the big business domination of the global food system including local initiatives and food sovereignty at Food First (www.foodfirst.org) and Global Justice Now (www.globaljustice.org.uk).