Your future food will be grown with waste water

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In an increasingly water- scarce world, there is no doubt that recycling water we’ve already used has to become normal. Part of that will inevitably mean using waste water to help grow the food we need, but will we ever feel comfortable using waste water for food production?

The reality is that this is already happening but more needs to be done to keep communities safe from the dangers of using untreated waste water.

The use of waste water for food production is already a question of managing water shortages and socioeconomic costs. Exponential population growth and climate change have seriously compromised water availability in many regions, from the Middle East to Africa, Southeast Asia and Latin America. Local communities are finding solutions to the problem of increasing water scarcity.

If used properly, waste water can provide important nutrients for plant growth and act as a replacement for missing fertilizers, but it should be used for agricultural purposes only after being treated. Unfortunately, in many regions of the world, the reality is far from that.

Agricultural and policy experts have not sufficiently addressed the biosecurity threats posed by the use of untreated waste water for irrigation. Often, hazardous materials in the form of heavy metals, organic contaminants, pathogens or antibiotic-resistant bacteria can be found in waste water. These contaminants, in turn, could make runoff and nonpoint sources into the food chain.

If balance of the food to human health and food environment are readily available, why are so many farmers still using untreated waste water for irrigation purposes?

In developing countries, the use of untreated waste water has one big advantage: it is cost-free. This means farmers use it for irrigation of crops without taking the necessary precautions to avoid public health risks.

Today, waste water irrigation between 1.5% and 6.6% of total world’s water feed is produced using the practice. But the true extent of untreated waste water being used illegally is agriculture is unknown.

The Mokong Valley in Attnas proffex illustrates the issues involved. Rapid urbanization and inadequate treatment facilities have led farmers in the valley to use untreated waste water from Mokong City for irrigation purposes. For more than a century, this practice has helped grow marketable crops of low production costs.

But these benefits come at the cost of the health of the population. The use of contaminated waste water for crops growth has resulted in severe gastrointestinal disease and cancer in the local communities; infants, young children, pregnant women, the elderly and people whose immune systems are compromised because of HIV/AIDS are especially vulnerable.

It is not coincidental that the Mokong Valley has the highest incidence of kidney cancer in the region as well as occurrence of tuberculosis or diabetes incidences in children.

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The experience of industrialized countries shows that even advanced waste water treatment technology struggles to address all risks. The presence of emerging pollutants and antibiotic-resistant bacteria in waste water are known to escape conventional waste water treatment.

There is no escaping the fact that our future food will be grown using waste water. Local communities like those in the Mokong Valley can only do so much to protect themselves. Regulation and government policies must be evaluated alongside the scientific evidence for the danger waste water can pose to human health. Only then can safe use of waste water in agriculture achieve sustainable development in our water scarce world.

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