By: Florence Reed, Founder + Director of Sustainable Harvest International



With the war in Ukraine, the global food crisis looms large, given that Ukraine is a major global exporter of both wheat and chemical fertilizers. The FAO is now warning that nearly 200 million will face acute hunger due to the conflict compounded by other factors such as climate change and the Covid-19 pandemic. Some are arguing that we must abandon climate objectives in order to feed the planet. But beware the false dichotomies pushed under the banner of wartime expediency. Not only can we feed the planet and mitigate climate change, we must do both if we hope to survive.

The crisis in Ukraine reveals the folly of a global food system where a few staple crops are produced in a select few countries. The crisis in Ukraine reveals that now more than ever, we must embrace a food system grounded in local agroecology.



Juan Francisco Segura of the El Limón community in Panama is one of over 3,000 farmers who have partnered with SHI since 1997 to transform and heal their land through agriculture.

There are those who are repeating a tired myth promoted by the agrochemical industry that we need agrochemicals in order to feed a hungry planet. It's a myth that's been long debunked by numerous scholars. Of course, the agrochemical companies and their apologists have a profit motive to make us believe we can't produce enough food without synthetic fertilizers and pesticides. This is simply untrue and ignores the fact that conventional farming degrades land, pollutes water, kills wildlife, and is responsible for about a third of global greenhouse gas emissions. Chemical-dependent agriculture is a fossil fuel hungry industry and contributes disproportionately to making our planet unlivable.

The recent rise in food prices is buoyed by increased fertilizer, energy, and transport costs. These are costs that are very limited or non-existent on small-scale, organic agroecology farms. Meanwhile, using less than 25% of the world's agricultural resources, according to some estimates, small farmers feed more than 70% of the world's population.



SHI provides personalized technical assistance and group workshops on topics including the creation of biofertilizers so farmers can replace costly and harmful agrochemicals while still ensuring a productive harvest.

Although agrochemical apologists often point to the case of Sri Lanka as proof that organic farming fails at the scale needed to feed the planet, they ignore how an ill-planned, sudden ban on agrochemicals was not accompanied by adequate training in low-cost, organic agroecology alternatives. I'd suggest looking instead to the example of India, where there are 835,000 certified organic farms including those practicing Zero Budget Natural Farming (ZBNF). A 2022 study of organic farming in India found "that there is no short-term yield penalty when adopting ZBNF in small scale farming systems compared to conventional and organic alternatives." Similar results were published in The Lancet in April 2022. As the name

implies, this is a no-cost system relying on ecological processes to produce the same yields as more expensive conventional systems.

More useful than individual stories of failure or success are broad studies. In one of the largest to analyze how agro-ecological practices affect productivity in the global south, researchers at the University of Essex in England analyzed 286 projects in 57 countries. Among the 12.6 million farmers who were transitioning toward organic agroecology, researchers found an average yield increase of 79 percent across a wide variety of crop types.

After 50 years of conventional, chemical-dependent agriculture, nearly a billion people around the world are still going hungry. Tragically, 70% of them live in rural areas where they could be growing more than enough food to feed themselves and others with organic agroecology. Trying to grow that food with agrochemicals kills their land over time, pollutes their water sources and often leads to insurmountable debts that cause many farmers in India and elsewhere to commit suicide.

Some might say my rose-colored glasses are too thick if I believe we can feed the 9 billion people on this planet without big ag, petrochemicals, and GMOs.



Demetrio Martínez of the Membrillo community in Panama graduated from SHI's multi-year training program in 2013 and continues to farm organically, providing healthy food options for his family and local community.

But maybe the naysayers haven't visited places like Harvest for the Hungry Garden in Santa Rosa, CA where over 20,000 pounds of organic produce is grown annually on a ¾ acre lot to feed local people who are food insecure. Maybe they haven't visited the thousands of farms in Central America whose successes I've had the privilege of witnessing first-hand over the past 25 years. Before beginning work with Sustainable Harvest International, the families working these small farms weren't able to grow enough to feed themselves on land degraded by burning and agrochemicals. The adoption of a variety of organic agroecology practices has allowed them to produce plenty of healthy food for themselves and others while regenerating rather than further degrading the natural environment. They're showing us how we can have a healthy planet and eat all the food we want from it too.

It's time to focus on scientific and effective approaches that can feed the planet. Those approaches are based in local ecology, not imported chemicals. Let's stop indulging the lies of the agrochemical industry.



Sustainable Harvest International (SHI), a US-registered 501c3 organization, provides regenerative agriculture-focused technical assistance to smallholder farming families in support of improving their diet, income, and health, while simultaneously reversing soil degradation, protecting water sources, increasing biodiversity, sequestering carbon and stabilizing the climate. Over the past 24+ years, SHI has helped over 3,000 families in four countries successfully adopt regenerative agroecology practices, including the planting of 4 million trees on nearly 30,000 acres of previously degraded land.

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