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Opinion

W.F.P.'S Nobel Prize, The Pandemic, & Our Emerging Existential Food Crisis

Scott M Lacy*

Associate Dean, College of Arts & Sciences, Fairfield University Faculty Chair, Community Engaged Research Executive Director, African Sky, USA

***Corresponding author:** Scott M Lacy, Associate Dean, College of Arts & Sciences, Fairfield University Faculty Chair, Community Engaged Research Executive Director, African Sky, USA.

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The way we make food shapes the world we live in. And if that's the case, by reverse logic, our 21st century lives are a collective indictment of an unjust global food system. Historic levels of inequality, poverty, and hunger pervade our lived experience despite centuries of experiments in search of political, economic, and even scientific solutions to alleviate all this suffering on a macro-level.

That is not to say that all of our previous experiments were mistakes, not by a long shot. In fact, our species has a remarkable history of adapting our food system to the dynamic and precarious balance between population growth and our lived environment, the planet. Specifically, the long arc of our Homo sapiens history reveals two existential food crises that may help us better understand our 21st century challenges to feeding the planet.

Our species' first existential food crisis led to the development of agriculture. For 99.8% of our 7 million years as upright walking apes, our human ancestors relied on forms of hunter-gathering to produce food, but some 12,000 years ago, Homo sapiens started the journey that takes us from protoagriculture to industrial farming, not to mention sedentary living. The hunter-gatherers among us roll their eyes at the question of whether or not our present day socio-economic inequalities, , are actually rooted in our food system; the anthropological record reminds us that global inequalities and world hunger were possible only after the agricultural transformation seeded surplus into civilizations, and all that comes with them. Foraged aspersions aside, the development of agriculture - from domestication to industrialization - was a human response to our species' first existential food crisis: climate change and population pressures rendered untenable the widespread continuation of the food system we had relied on for millions of years. Paleopathology and nutritional studies reveal significant costs for this transition, but with populations and ecologies increasingly out of sync, our ancestors reinvented our food system by domesticating plants and animals.

Into the 20th century, exponential population growth and ecological limits brought Homo sapiens into our second existential food crisis. Facing a world out of balance in which our food system could not keep up with exponential population growth, scientists worked with farmers and governments to do what our early agricultural ancestors did—they reinvented our food system. Humanity created a new form of agriculture that sought to produce more calories in a bounded ecosystem that was already tragically over-exploited. As it was with the development of agriculture, the 20th Century re-invention of agriculture came with sobering costs for humanity and the planet on which we live, but our choices were limited and the threat of widescale starvation and hunger was significantly reduced or delayed. The coming of age of scientific plant breeding and cultivation strategies bought us time just as we were running out, which is why pioneering plant breeder Norman Borlaug received the Nobel Peace Prize in 1970.

So here we are 50 years later, in the age of quantum computing and CRISPR, world hunger is on the rise yet again, and we're nosediving into our species' third existential food crisis. Literally 50 years after Borlaug received his Nobel Peace Prize for helping

find new paths to feeding our planet, just this month the World Food Programme received the Nobel Peace Prize for its heroic contributions staving off a 3rd existential food crisis. Created in 1961, the WFP has worked to end world hunger and has been distributing over 15 billion rations annually.

The 12,000-year-old experiment we call agriculture emerged as an innovative yet compulsory adaptation to widespread ecological disruptions to the food system we upright walking apes had depended on for nearly 7 million years. But today, we're facing a much more daunting existential food crisis plagued by extreme weather events associated with climate change as well as the rise of prolonged conflict zones across the globe. The good news is that despite ubiquitous ecological and socioeconomic disruptions, we create more than enough calories to feed the planet, so we'll need to reconsider how and why we create this unequal surplus. The bad news is the that as a barometer of progress toward our Sustainable Development Goal of eradicating hunger and poverty by 2030, the WFP dashboard shows us a harrowing road ahead. Our emergent existential food crisis was on our horizon years before the COVID-19 pandemic further destabilized our food system, but as a result of this global health crisis the WFP projects that the number of acutely hungry in the countries where it operates could increase 82% in the.

So, as we celebrate the WFP Nobel Peace Prize, let's remember that it was bestowed this honor not only because of the billions and billions of rations it has already distributed, but as we look into the ambiguities of the immediate and long-term future, WFP also earned this distinction because, if it can find the additional $5 trillion it requires to get emergency food assistance to an unprecedented 265 million people, it like no one else can get this job done. But the third existential food crisis on our horizon requires much more than emergency assistance.

As we work through this pandemic and an exacerbated food crisis, all of us with our hands and minds in the soil and food baskets, let's focus on new opportunities to collaborate and build entirely new food systems that yield not only ample and nutritious calories, but one that re-seeds civilizations with our common humanity.

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Conflict of Interest

No conflict of interest.