A SOIL-FIRST APPROACH TO SECURITY

ØISTEIN THORSEN

Øistein Thorsen is the chief executive of FAI Farms.

'By 2080, we might have run out of soil – the foundation of all life on Earth. Where the fall of Egypt and Rome took millennia of bad soil management, modern Western civilization, and the global food chains we rely on, might collapse in decades. Against this backdrop it is not hard to imagine how the loss of such a strategic resource – soil – will emerge as a geo-political, international security issue, more important than oil.'

Our collective challenge to nourish ourselves in a changing climate, is often misdiagnosed as big food's responsibility to 'feed the world' through increased intensification of an extractive form of agriculture. The pressure of this 'responsibility' is channeled from financial and commodity markets, to corporate board rooms, and eventually down to farmers in the form of new requirements stipulating how to produce more, with less.

For over a century the dominant assumption of conventional agriculture has been that we can produce more by reducing complexity. This reductionist and extractive mindset is not only putting our food system at risk, but our entire civilization as we know it. Soil erosion and water depletion is happening at an alarming rate and is costing us an annual $400 billion globally. With 1.9 billion hectares of degraded topsoil worldwide, that's an area the size of China and the US combined, the world could run out of topsoil within 60 years (Project Drawdown).

It's worth repeating this oft-cited fact: by 2080, we might have run out of soil – the foundation of all life on Earth.

In his seminal book *Dirt, The Erosion of Civilizations*, David R. Montgomery described our planet as 'an oasis in space rendered hospitable by a thin skin of soil that, once lost, rebuilds only over geologic time.' Against this backdrop it is not hard to imagine how the loss of such a strategic resource – soil – will emerge as a geo-political, international security issue, more important than oil.

This should not come as a surprise. It has been in the making for 7000 years. In the late 1930s, American soil scientist W.C. Lowdermilk traveled across Europe, North Africa, and the Middle East to investigate the role of agricultural practices and soil erosion in the rise and fall of civilizations. Lowdermilk, like Montgomery, traced the roots of demise of great civilizations, from ancient Egypt, Babylon and Jordan, the Mayan Kingdom and the Roman Empire, to topsoil erosion and degraded soil fertility.

The introduction of more and more intensive practices, technology and inputs has only accelerated this process of degradation. Where the fall of Egypt and Rome took millennia of bad soil management, modern Western civilization, and the global food chains we rely on, might collapse in decades. The IPCC says unequivocally that human activity in the last 150 years has caused irreversible impact on our planet. Due to human-induced environmental impacts, globally, species are going extinct at 1000-10,000 times the ecologically normal 'back ground rate'. These drastic losses in biodiversity are reducing the resilience of ecosystems and their ability to cope with ecological

shocks, like increasingly frequent extreme weather events caused by climate change.

Alan Savory has said, 'The greatest danger to humanity is our inability to manage complexity.' To reverse the trend of degeneration, food industry executives and financiers have a responsibility and unique opportunity to support regeneration. In the European Union, for example, 40% of agricultural land is influenced by the purchasing practices of the top 10 fast moving consumer goods companies (FMCGs) and major retailers. Regeneration is the practice of aligning agriculture with natural principles. By putting life at the centre of every act and decision we are learning how to live and grow better food in ways that are more productive, safer and more resilient.

Nicole Masters suggests the logical place to start this process is to 'no longer treat soil like dirt.' Instead, she says, 'we must take a soil-first approach to regenerate landscapes, restore natural cycles, and bring vitality back to ecosystems.' Project Drawdown demonstrates that if we could just regenerate a quarter of the already degraded farmland globally, we stand to generate massive returns on our investment: 14.1 gigatons of combined emissions impact, $1.3 trillion in financial returns and 9.5 billion tons of food.

But like the solution itself (soil regeneration) the implementation of the bold action needed must come from the ground up. To avoid the pitfalls and limitations of 'sustainable', 'organic' and other initiatives before it, corporate leaders must first listen, in order to find the best ways to mobilise their resources in support of farmer and broad-based community action. This includes creating what the Ellen MacArthur Foundation calls 'a new collaborative dynamic with farmers.' From the Arctic to the Amazon, indigenous people are leading the way in ecological restoration and climate resilience. While we are all indigenous to the Earth, we must take inspiration from those who recognize their indigenousness, and the fact that we belong to the world, not the world to us.

The goal of regenerative agriculture is not to establish another certification scheme, a differentiated or premium market. Rather, it is to bring about greater understanding of the fact that the health of the ecosystems where we live is the foundation of our own health. Thus, for improved soil health to realise its full potential – to heal nature and secure our place within it – regenerative practices must become the new conventional agriculture.

When farmers see the benefits on their balance sheet, adoption at scale and replication will grow naturally – farmer to farmer. Unfortunately, we don't have time to wait for natural transition – instead food businesses, supported by governments, must show leadership. In this new brave world, the role of corporate food chains will not be to make commitments on others' behalf, but rather to show through practice that they can support life-centric de-commodified supply networks that nourish people and nature.

As daunting as this may seem for corporate leaders under pressure to deliver quarterly earnings, it is important to stress that regeneration and re-alignment with nature is not a radical idea that corporations can chose to ignore. It is necessary, logical, rational, reasonable, and natural.

As Chief Luther Standing Bear, Sicangu and Oglala Lakota Chief, said, 'man's heart away from nature becomes hard; lack of respect for growing living things, soon leads to a lack of respect for humans too.'