

Soil, Monsanto and the Agribusiness Giants: Conning the World with Snake Oil and Doughnuts

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In their rush to readily promote neoliberal dogma and corporate-inspired PR, many government officials, scientists and journalists take as given that profit-driven transnational corporations have a legitimate claim to be custodians of natural assets. There is the premise that water, food, soil and agriculture should be handed over to powerful and [wholly corrupt](#) transnational corporations to milk for profit, under [the pretence](#) these entities are somehow serving the needs of humanity.

These natural assets ('the commons') belong to everyone and any stewardship should be carried out in the common interest by local people assisted by public institutions and governments acting on their behalf, not by private transnational corporations driven by self interest and the maximization of profit by any means possible.

Concerns about what is in the public interest or what is best for the environment lie beyond the scope of hard-headed commercial interests and should ideally be the remit of elected governments and civil organisations. However, the best-case scenario for private corporations is to have supine, co-opted agencies or governments. And if the current litigation cases in the US and the '[Monsanto Papers](#)' court documents tell us anything, this is exactly what they set out to create.

Of course, we have known how corporations like Monsanto (and [Bayer](#)) have operated for many years, whether it is by [bribery, smear campaigns, faking data, co-opting agencies and key figures, subverting science](#) or any of the other actions or human rights abuses that the Monsanto Tribunal has [shed light on](#).

Behind the public relations spin of helping to feed the world is the roll-out of an [unsustainable model of agriculture](#) based on [highly profitable](#) (GM) corporate seeds and massive [money-spinning health- and environment-damaging](#) proprietary chemical inputs that [we now know](#) lacked proper regulatory scrutiny and should never have been commercialised in the first place. In effect, transnational agribusiness companies have sought to [marginalise alternative approaches to farming and create dependency on their products](#).

Localisation and traditional methods of food production have given way to globalised supply chains dominated by transnational companies policies and actions which have resulted in the destruction of habitat and livelihoods and the imposition of corporate-controlled,

chemical-intensive (monocrop) agriculture that [weds farmers and regions](#) to a wholly exploitative system of neoliberal globalization. Whether it involves the [undermining or destruction](#) of what were once largely self-sufficient agrarian economies in Africa or the devastating impacts of soy cultivation in [Argentina](#) or palm oil production [in Indonesia](#), transnational agribusiness and capitalism cannot be greenwashed.

Soil on a doughnut diet

One of the greatest natural assets that humankind has is soil. It can take [500 years](#) to generate an inch of soil yet just a few generations to destroy. When you drench soil with proprietary synthetic chemicals, introduce company-patented genetically tampered crops or continuously monocrop as part of a corporate-controlled industrial farming system, you kill essential microbes, upset soil balance and end up feeding soil a limited “[doughnut diet](#)” of unhealthy inputs (and you also undermine soil’s unique capacity for carbon storage and its potential role in [combatting climate change](#)).

Armed with their synthetic biocides, this is what the transnational agritech companies do. In their arrogance (and ignorance), these companies claim to know what they are doing and attempt to get the public and various agencies to bow before the altar of corporate ‘science’ and its [scientific priesthood](#).

But in reality, they have no real idea about the long-term impacts their actions have had on soil and its [complex networks](#) of microbes and microbiological processes. Soil microbiologists are themselves still trying to comprehend it all.

That much is clear in [this article](#), where **Brian Barth** discusses a report by the American Society of Microbiologists (ASM). Acknowledging that farmers will need to produce 70 to 100 per cent more food to feed a projected nine billion humans by 2050, the introduction to the report states:

“Producing more food with fewer resources may seem too good to be true, but the world’s farmers have trillions of potential partners that can help achieve that ambitious goal. Those partners are microbes.”

Linda Kinkel of the University of Minnesota’s Department of Plant Pathology is reported by Barth as saying:

“We understand only a fraction of what microbes do to aid in plant growth.”

Microbes can help plants better tolerate extreme temperature fluctuations, saline soils and other challenges associated with climate change. For instance, Barth reports that microbiologists have learned to propagate a fungus that colonizes cassava plants and increases yields by up to 20 per cent. Its tiny tentacles extend far beyond the roots of the cassava to unlock phosphorus, nitrogen and sulphur in the soil and siphon it back to their host.

According to the article, a group of microbiologists have challenged themselves to bring about a 20 per cent increase in global food production and a 20 per cent decrease in fertilizer and pesticide use over the next 20 years – without all the snake oil-vending

agribusiness interests in the middle.

Feeding the world?

These microbiologists are correct. What is required is a shift away from what is increasingly regarded as [discredited](#) 'green revolution' ideology. The chemical-intensive green revolution has helped the drive towards greater monocropping and has resulted in [less diverse diets](#) and [less nutritious](#) foods. Its long-term impact has led to soil degradation and mineral imbalances, which in turn have adversely affected human health (see [this report](#) on India by botanist Stuart Newton – p.9 onward).

Adding weight to this argument, the authors of [this paper](#) from the International Journal of Environmental and Rural Development state (references in article):

“Cropping systems promoted by the green revolution have increased the food production but also resulted in reduced food-crop diversity and decreased availability of micronutrients. Micronutrient malnutrition is causing increased rates of chronic diseases (cancer, heart diseases, stroke, diabetes and osteoporosis) in many developing nations; more than 3 billion people are directly affected by the micronutrient deficiencies. Unbalanced use of mineral fertilizers and a decrease in the use of organic manure are the main causes of the nutrient deficiency in the regions where the cropping intensity is high.”

(Note: we should adopt a [cautious approach](#) when attributing increases in food production to the green revolution technology/practices).

The authors imply that the link between micronutrient deficiency in soil and human nutrition is increasingly regarded as important:

“Moreover, agricultural intensification requires an increased nutrient flow towards and greater uptake of nutrients by crops. Until now, micronutrient deficiency has mostly been addressed as a soil and, to a smaller extent, plant problem. Currently, it is being addressed as a human nutrition problem as well. Increasingly, soils and food systems are affected by micronutrient disorders, leading to reduced crop production and malnutrition and diseases in humans and plants. Conventionally, agriculture is taken as a food-production discipline and was considered a source of human nutrition; hence, in recent years many efforts have been made to improve the quality of food for the growing world population, particularly in the developing nations.”

Referring to India, [Stuart Newton](#) states:

“The answers to Indian agricultural productivity is not that of embracing the international, monopolistic, corporate-conglomerate promotion of chemically-dependent GM crops... India has to restore and nurture her depleted, abused soils and not harm them any further, with dubious chemical overload, which are endangering human and animal health.” (p24).

Newton provides insight into the importance of soils and their mineral compositions and links their depletion to the green revolution. In turn, these depleted soils cannot help but lead to mass malnourishment. This is quite revealing given that proponents of the green

revolution claim it helped reduced malnutrition.

And Newton has a valid point. India is losing [5,334 million tonnes](#) of soil every year due to soil erosion, much of which is attributed to the indiscreet and excessive use of fertilisers, insecticides and pesticides. The Indian Council of Agricultural Research reports that soil is become deficient in nutrients and fertility.

The US has possibly [60 years](#) of farming left due to soil degradation. The UK has possibly [100 harvests](#) left in its soils.

We can carry on down the route of chemical-intensive (and [soil-suffocating, nutritionally inferior](#) GM crops), poisonous agriculture, where our health, soil and the wider environment from [Punjab](#) to the [Gulf of Mexico](#) continue to be sacrificed on the altar of corporate profit. Or we can shift to organic farming and agroecology and investment in indigenous models of agriculture as advocated by [various high-level agencies and reports](#).

The increasingly globalised industrial food system that transnational agribusiness promotes is [not feeding the world](#) and is also responsible for some of the planet's [most pressing political, social and environmental crises](#) – not least hunger and poverty. This system, [the capitalism underpinning it](#) and the corporations that fuel and profit from it are illegitimate and destructive.

These companies quite naturally roll-out their endless spin that we can't afford to live without them. But we can no longer afford to live with them. As the UN's special rapporteur on the right to food [Hilal Elver says](#):

“The power of the corporations over governments and over the scientific community is extremely important. If you want to deal with pesticides, you have to deal with the companies.”

As we currently see, part of 'dealing' with these corporations (and hopefully eventually their board members and those who masquerade as public servants but who act on their behalf) should involve the law courts.

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