

What's happening with seeds in the global South?

Key Learning 1: “Corporate” or “industrial” seeds and seed systems represent a perfect distillation of the essence of contemporary colonial capitalism

According to [AFSA's and GRAIN's research](#), small-scale farmers supply 80-90% of all seeds planted in Africa which sprout to life generation after generation producing food which feeds more than 80% of the peoples in sub-Saharan Africa. Such provision is achieved by “farmer-managed seed systems” (FMSS), also described as “indigenous”, “peasant”, “community-managed”, “local” and “informal” seed systems, which produce biodiverse and ecologically resilient seeds for delicious, nutrient-dense, and culturally valued foods. These “farmers’ seeds” consist of local and traditional varieties, with inherent and resilient genetic diversity embedded in the seeds which makes them most adaptable to rapid climate change. Such capabilities are thanks to the inter-generational care, dexterity, experiential wisdom and ingenuity of the farmers and seed custodians, who have mostly been women up to now.

Consequently, farmers’ seed practices are “highly diverse, sophisticated and based on a rich cultural heritage and traditional knowledge of local communities shared across generations” (AFSA & Grain 2018: 27). Because FMSS are primarily decided and controlled by small-scale farmers, operate as a social-solidarity economy and are often collectively managed, using, for example, community seed banks, they remain culturally appropriate, practical, innovative and inclusive. In FMSS systems, seeds are understood as a common good to be shared freely and exchanged openly and are valued as lives and ancestors. Seeds remain free to co-create ~~agro-biodiversity~~ **agricultural biodiversity**^{#1} and adapt to localised effects of climate change in partnership with their seed custodians. Seeds and communities of small-scale farmers remain the primary team to ensure our human right and nutrition.

In stark contrast, the World Bank frames Africa as “the ‘last frontier’ in global food and agricultural markets’. The spread of uniform industrial seed is a key tool to dispossess small-scale farmers and impose corporate control over Africa’s heart-beating food systems. Corporate or industrial seeds represent a monocultural distillation of the destructive and exploitative “**extract-own-profit**” process of colonial capitalism. Accumulate capital, create unhealthy dependencies and concentrate power.

#1 Feedback from Patrick Mulvany working with CAWR and Agroecology Now

“When editing, I’ll always change this term to ‘agricultural biodiversity’ - as, apart from the term agrobiodiversity being captured by corporate researchers etc., it highlights the importance of the CULTURAL dimension of this vital sub-set of biodiversity.”

A. Exploitative extraction:

Oligarchic agribusinesses, with most headquarters in Western countries, fund industrial seed companies and universities, such as Wageningen, to pay biotech scientists to **extract** genetic resources from indigenous farmers’ seeds across the world – an act of biopiracy. The plants’ genes typically originate from the lands of the peoples that many Western nations enslaved, colonised. The extraction of foreign genetic resources is the first part of a neo-colonial practice which persists to this day. Unhealthy dependencies are reproduced while corporate-sponsored biotech innovations sustain the evasion of compensation and legally required ‘benefit-sharing’. This is made possible by capital and resource-intensive technology, inaccessible to most global South countries, which rapidly synthesises new combination of genes and creates commercial industrial seeds.

These industrial seeds, either hybrid or genetically modified (GM)^{#2} are designed and engineered to be non-renewable so the Southern farmer must buy them every growing season from mostly Western and some other ‘advanced industrial centres’, e.g. Japan. Such seeds only deliver higher yields in the short-term when planted in monocultures in combination with toxic, often [carcinogenic](#), agrochemicals, typically owned and sold by the same mega-merged corporations selling the seed, e.g. Bayer-Monsanto. Furthermore, the alleged higher yields depend on importing irrigation systems, which is a major issue in Africa where most agriculture is rain-fed. To access these irrigation systems, most farmers must take a loan and become indebted.

Industrial seeds are only resilient and adapted to industrial agrochemicals (fertilizers, herbicides, and pesticides) which pollute the environment and massively contribute to greenhouse gas emissions. They create the conditions for super weeds and resistant pests to evolve. Colonial corporations create the conditions for this evolution and then profit from this by synthesizing, patenting and marketing ever more toxic chemicals as (false) solutions that cause more harm to human and planetary health. It takes decades to scientifically prove the destruction and [finally win law suits for compensation](#).

“Since we began using hybrid/improved seeds, which are treated with chemical fertilisers, and pesticides, our health has deteriorated”

Ethiopian farmer, AFSA & GRAIN report 2018: The real seed producers

#2 Feedback from Katie Sandwell, Amsterdam, working with Transnational Institute (TNI)

“Hybrid seeds do not usually “breed true” - they are not suitable for saving and re-using, because the next generation usually does not retain their beneficial traits. GM seeds, on the other hand, can be saved and re-used, so companies use the force of law to prevent farmers from doing that, e.g. by suing farmers whose seeds are found to contain GM traits. Hybrid technology is a lot older going back to the 1920s or before, and is only possible for certain kinds of plants. Seed corporations definitely want to engineer GM seeds to be non-reuseable, by introducing so-called terminator genes, but a massive international campaign in the 1990s and early 2000s has resulted in a global ban on the use of terminator genes – a nice social movement success, at least for the meantime!”

B. Legalising appropriation:

Once the industrial seeds become genetically distinct and sufficiently uniform they are legally transformed into a commodity which grants the “creators” or biotech pirates commercial rights to **own** and exclusively sell ‘their’ industrial and corporate seeds. Patents and Intellectual Property Rights (IPR) are the legal means through which free farmers’ seeds and collective genetic heritage are transformed from a common good/community resource into private property under corporate control. The industrialised seed becomes the private property of a corporation or company who flex their financial and legal muscles to institute themselves as the sole beneficiaries of future seed sales. To get an impression of the scale of the corporate take-over, 10 seed corporations profit from and control [above 75% of the global seed trade](#) (Monsanto, DuPont and Syngenta represent 53%). In 2009 Monsanto sold 90% of genetically modified (GM) seeds in the world. Such power concentrations are unhealthy for all and directly prevent the realisation of food sovereignty.

C. Self-profit maximisation:

The injustice of extracting indigenous and peasant’s agricultural biodiversity without compensation via benefit-sharing is compounded by the legal protection that a uniform industrial seed is given at the expense of natural farmers’ seeds. This means farmers can be sanctioned for saving, sharing and selling industrial seeds as well as their own traditional and local varieties unless they go through unnecessary processes of patenting them, applying for Breeder’s Rights or registering them as “Quality Declared Seeds”. The processes are expensive, but more importantly, are not suited to inherently biodiverse seeds. As most farmers cannot access nor afford these processes their heritage seeds and practices become illegal. The illegality and risk of sanction generates fear and coerces farmers to buy industrial seeds. This evidences that the primary goal for agribusiness corporations is to maximise self-profit via exclusion. Such unjust strategies intentionally create favourable conditions for the corporate monopolisation of seeds.

This colonial capitalist thirst for monopoly control disempowers all farmers, particularly indigenous and peasant women from the global South, who should be credited and rightly compensated for being custodians and co-creators of the majority of the agricultural biodiversity which exists today. This agricultural biodiversity is the actual insurance of our future food and nutrition security. Monopoly power means research and development concentrates on creating a few GM varieties of a few crops, prevents alternative products and business models entering seed economies and enables big increases in the prices for seeds. Whereas peasants safeguard and dynamically manage many varieties of a huge number of crops (up to 7,000), food industrialists direct most efforts to half a dozen industrial commodities (rice, wheat, maize, soya, oilseed rape, and other cereals/pulses/oilseed crops). It’s estimated we have already lost ¾ of the varieties of agricultural seeds globally. Depending on a handful of non-renewable industrial seeds in

extensive monocultures is a breeding ground for disaster. Monocultures are more vulnerable to epidemics of pests and diseases. Capital accumulation and concentration of power is deadly and unsustainable.

The longer-term consequences of industrial seeds with their dependence on toxic agrochemicals is that the soil is effectively pillaged of fertility and contaminated while local ecosystems and biodiversity are destroyed. Farmers lose their power to freely select, save, share and re-use seed and become indebted needing to input more foreign agrochemicals to sustain yields year after year. Eventually, most are forced to sell their land to the same giant agribusiness which coerced them to buy these unsustainable inputs. This is a text book tactic for land grabbing. Sadly, it is [not uncommon for indebted farmers to end their own lives](#). Others are often left with no other option but to work precariously on corporate monoculture plantations which were formerly their much cherished ancestral lands.

The fight is clearly on to determine the kind of food systems that Africa and other regions in the global South and beyond really need. One based on diversity, autonomy and the regeneration and innovation of sophisticated territorial knowledges, practices and resources? Or one based on uniformity, agrochemical dependencies, indebtedness, destructive plantations and corporate foreign control?

We know that African farmers and Africans have consistently stated that Farmer-Managed Seed Systems work, and there is consensus from the agroecology movement that farmers/peasants must be at the centre of decision-making and listened to.

Recommended Learning Materials:

- For a comprehensive report on the situations and issues of seeds in Africa:
The real seed producers: Small-scale farmers save, use, share and enhance the seed diversity of the crops that feed Africa. Alliance for Food Sovereignty in Africa and GRAIN (2018).
<https://www.grain.org/e/6035>
- \$2 billion verdict against Monsanto is third to find Roundup caused cancer. The New York Times (2019). <https://www.nytimes.com/2019/05/13/business/monsanto-roundup-cancer-verdict.html>
Also recommend Dark Waters (2019) film that dramatises Robert Bilott's case against DuPont
- To understand corporate efforts to monopolise seed and destroy agricultural biodiversity:
Who will control agricultural inputs, 2013?* Etc group, monitoring power, tracking technology and strengthening diversity.
<http://www.etcgroup.org/sites/www.etcgroup.org/files/CartelBeforeHorse11Sep2013.pdf>
*Visit www.etc.org for update after several mega-mergers and name changes.
- Seeds of suicide and slavery versus seeds of life and freedom by Vandana Shiva, Aljazeera.
<https://www.aljazeera.com/indepth/opinion/2013/03/201332813553729250.html>