

**Saving the earth
by letting the
grass grow**

In August 2022, a meeting of the Sustainability Standards Network held a panel discussion exploring the subject of regenerative agriculture.

The network is a collective of sustainability experts from NGO's, academia, and professional bodies working across a variety of sectors. They volunteer their time and knowledge to ensure standards contain future proofed sustainability guidance.



(L to R) Our chair, David Horlock in conversation with Max Boucher, Finian Makepeace and Richard Bramley.

Can soil and the microbes it contains save us from drought, floods, hunger and the other ravages of climate change?

If it's that simple, why isn't everyone doing it?

Panel chairman: David Horlock is the BSI's Managing Director - Global Food and Retail Supply Chains. Previous senior leadership roles have been with Intertek, Beta Nutrition, Bureau Veritas, SGS, Elders Agribusiness, Smith Kline & Beecham, and Rachid Fares. Richard has 30 years senior executive experience with 13 country directorships working across the agri-food, consumer products, healthcare, built environment and testing, Inspection, and certification sector.

Panellists: Finian Makepeace studied political science at UCLA. He is a renowned presenter, media creator, and thought leader in the field of regenerative agriculture and soil health. His dedication to Kiss the Ground's mission of "awakening people to the possibilities of regeneration", has motivated him to develop training programs, workshops, and talks designed to empower people around the world to become confident advocates for this growing movement.

Richard Bramley is Chair of the NFU's Environment Forum. He manages Manor Farm near York. That's 500 acres of combinable and root crops. In 2013, he was the winner of the RSPB Nature of Farming Award (Northern). He is a member of the Institute of Agricultural Management and a Chartered Environmentalist, actively involved with university research and education. Alongside his arable operations, Richard is involved in a diverse range of environmental work on his farm, virtually all of which he has provided on a voluntary basis.



Max Boucher is a Senior Manager, Research & Engagements, adds on the biodiversity and aquaculture workstreams for the FAIRR Initiative. Previously he spent eight years working at Bloomberg where he was an Equity Research Analyst covering consumer staples and consumer discretionary stocks; he later shifted his focus towards ESG and sustainable finance. Max began his career with Rio Tinto and Standard Life Investments Canada. He is a Chartered Financial Analyst and holds a graduate degree in finance from HEC Montreal.

This discussion was held online with an invited audience of sustainability experts. The meeting started with this two minute trailer for Finian Makepeace's documentary [Kiss the Ground](#).

The problem:

It is estimated by UN experts the world has sixty years left before our soils are so degraded they will become unproductive. A scary statement with growing evidence to support it.

There is widespread acknowledgement a major driver of the degradation is industrial farming with high chemical inputs, high turnover of crops for maximum profit and a reliance on a small number of crop species (leading to loss of species diversity).

This is a global problem, apparent on every continent; especially where climate change impacts are more severe. And yet, globally we produce enough food to more than meet the earth's needs.

Too much useable food is wasted either because buyers reject less than perfect looking produce, through rotting during transport or being binned when it passes its sell-by date, but mostly wasted by consumers who buy more than they need or can eat.

This latter is unique to areas where food availability is easy. The western diet model is not sustainable with its high-meat content (think cheap chicken and chips fast food). Sadly, this western model appears to be aspirational and is replacing healthier diets with seasonal and local produce losing out to mass-produced, globally transported ingredients and processed foods.

Success in the global agricultural sector was based on volume, then became economic (especially GDP). This needs to shift to a more holistic approach considering the social and environmental impact alongside the financial, with the latter re-focused on primary producers to boost local economies. Think Natural Capital.

Agriculture is losing experienced farmers either through retirement, suicide or lack of profits, and the sector is not attracting young workers. All of this is laying the foundations for a future food security crisis, currently amplified by obvious man-made land degradation and climate change, giving us a clear indication urgent action is needed.

The good news

There is ample scientific evidence, widely embraced, that regenerative agriculture or agri ecology is an answer to the issues raised.

Farming models using this approach have recorded success at small, medium, and large trials across different habitats on every continent. Improving soil quality, carbon capture, water retention and crop yields. All with no or much reduced chemical input and with a good economic return for the farmer.

Prescriptive attempts to improve agriculture have not worked, as every farm on every continent is different either due to soil type and local climates, the equipment available, knowledge of the farmers and water availability to name just five.



Regenerative agriculture is not *the* silver bullet. We also need to explore composting, agri-forestry, marine protection zones, and eco-system services.

Local engagement and local empowerment with those on the front line (producers/farmers/ranchers) is vital if change is to be successful.

Consumerism and the “western” style diet is a driver of harmful agriculture so if you are looking at changes to agriculture, you MUST ALSO look at changes to national diets (behaviour change) and reducing then eliminating food waste.

The consumerist approach of “cheapest is best” and continually driving down costs for consumers must be addressed. Partially through telling the story of “natural capital gains” in our perception of value when purchasing food at the shops.

NB – See German research on the real cost of meat - [Calculation of external climate costs for food highlights inadequate pricing of animal products | Nature Communications](#) suggesting prices would need to rise 40% for farmers to recoup costs of “conventionally farmed” beef or lamb. This is not regenerative farming but a similar hike in costs would seem reasonable.

Transparent and reliable metrics are required to avoid green wash when it comes to labelling of products and/or the recording of food production to clearly indicate produce grown on farms practicing regenerative agriculture or Agri Ecology techniques.

The Natural Capital created by regenerative agriculture/agri ecology is hugely important in this discussion because it builds global resilience while simultaneously driving down emissions (added value - worth paying more for).

Could a standard be a solution? We think so...

Any framework created for regenerative agriculture/agri ecology must allow flexibility to empower local producers. In some cases, it can be used to highlight that difference. ie think French terroirⁱⁱ and/or Appellation d'Origineⁱⁱⁱ.

Farmer to farmer sharing of knowledge, techniques (and maybe seed) should be encouraged within a framework of species conservation and habitat management, with people and climate at the centre of delivery.

Any standard should be "outcome oriented". Based on genuine metrics such as microbial/nutrient content of soil, water retention rates, yields and quality of produce plus measurements of river/water table quality, biodiversity and habitat types to prove to investors/purchasers they are getting a reliably accurate and full environmental, economic and social return on investments/purchases which can be traced and reflected in labelling.

Planning should be on a generational timeframe ie long term.

Any standard must be easily verifiable/certifiable, and checks conducted regularly for consumer confidence in the system.

Any standard should encourage continual improvement in land/habitat and the quality of "produce or goods".

Consumer trust and confidence are hugely important if this standard is to work effectively.

Any standard created for regenerative agriculture/agri ecology must be flexible enough to allow farmers to take control of changing circumstances and take risks when necessary, based on live monitoring data of their resources and understanding the options open to them.

The debate around livestock within agri ecology/regenerative agriculture (methane farts) must not be allowed to overshadow the enormous gains. If these farming practices are reducing carbon long term, then we should focus on that as an outcome. Methane has a far shorter life than carbon in our atmosphere. It does amplify the impact of Greenhouse Gases (GHG). Methane is produced naturally by rotting vegetation, wetlands and rice fields and from human/food waste.

When setting a standard, we must consider what happens to global producers supplying produce/goods to foreign markets if/when local supply cannot meet demand. How can they be supported through transition?

Any standard on regenerative or restorative agriculture must sit comfortably alongside existing standards and can be included as part of a suite of delivery. For example, we believe diversity and inclusion, equal rights, pay and engagement are critical. BSI have published an international standard on Diversity & Inclusion. **International Organization for Standardization (ISO), ISO 30415, Human resource management** — Diversity and inclusion. This provides a foundation for organizations wishing to create an inclusive workplace, optimizing all the benefits it can bring.

Queries raised by attendees outside of the meeting

- Should we take protein alternatives (lab grown mat/insects, etc) into account when establishing an agri ecology/regenerative agriculture standard?

From a nutritional perspective, lab-grown protein is not necessary as we are not seeing a protein deficit in middle or high-income countries which are the target markets for those products. Their role might sit more with filling a market niche for consumers who desire a product that tastes/looks/feels like animal protein and in theory has the same macro- and micro-nutrient profile.

In terms of dietary niche, it could also be relevant for consumers who want protein without the carbs often seen in other alternative proteins (by choice or for health reason ie diabetes)

It can also serve a transitional purpose for consumers who are not very familiar with vegetarian cuisine and where meat plays a cultural role.

- How can a standard protect against the vagaries of war or weaponizing of resources by a hostile country?

This is not easy in war torn countries. For agriculture to flourish there must be stability as a pre-requisite. COVID and Ukraine have clearly raised the important point of Food Security and Self Sufficiency. Without food security or self-sufficiency, you have no national security. Many governments around the world will be taking a close look at this. Generally, it is the responsibility of governments and civil society to ensure resources and infrastructure are in place for self-sufficiency, ie import substitution and local, seasonal produce.

- Some panel members touched on 'culture' and generational loss. Culture is how knowledge and processes are passed on. Education is important, but what sort of education and who is funding that education.

This should be a role embraced by agricultural agencies with a focus on applied science and education. The science exists, what is missing in the local grassroots education such as, cooperatives and farmers teaching farmers by demonstrating best practice, field days, group schemes, open farm weekends, and collaboration with government agencies and the private sector.

- Can we reduce methane emissions from livestock through either breeding or diet (biochar) and does this sit comfortably within a standard for regenerative agriculture/agri-ecology?

Better understanding of the role and creation of methane would certainly help. Work is already under way in this sphere to reduce emissions from livestock.

- No mention was made during the debate or in the comments on “agri-solar schemes”. Should solar energy be considered, especially when rotational” crop” systems are involved?

Agri-solar schemes are increasingly seen as another form of crop and could be referenced within any standard on regenerative agriculture but are not crucial to its success. They add long-term income once the short-term investment in infrastructure is met. There may be logistical or physical reasons why solar might work in some areas but not in others. It is probably best considered on a case-by-case basis.



Tim Webb. Sustainability Standards Network Manager. August 2022.

ⁱ An answer/solution. Alone it is not enough but deployed alongside other solutions it is wholly viable; for reducing and locking away carbon; managing water; feeding the world; restoring habitats and biodiversity. An August '22 report from the Sustainable Food Trust modelled how a UK-wide shift to regenerative farming would impact food production. It found fruit and vegetable production could double, pulses for human consumption could quadruple, and beef and lamb production could be maintained, while grain for animal feed, and the production of chicken and pork would fall. Under this scenario, the SFT said the UK would be able to maintain or even improve its current levels of self-sufficiency, providing we eat more healthily as a nation. A shift to regenerative agriculture is a key plank of net zero plans from businesses including Nestlé and Compass Group UK & Ireland, although questions remain around how it is defined. Even WWF are saying for the UK the most sustainable option is more cropping lands converted to natural pasture, more grass-fed meat and dairy products, less grain grown for animal feed and fed directly to humans, less grain fed meat [pork, chicken, beef]. Regenerative Agriculture systems are key.

ⁱⁱ Terroir is a French term used to describe the environmental factors that affect a crop's phenotype, including unique environment contexts, farming practices and a crop's specific growth habitat.

ⁱⁱⁱ Appellation d'Origine Contrôlée, or AOC, is a French food-labelling term that protects the style, ingredients, and origin of a product. Many of Europe's oldest food products are protected by similar designations, such as Italy's DOC (Denominazione di Origine Controllata), Spain's DO (Denominación de Origen) and the UK's PDO (Protected Designation of Origin).