

Section A.

- i. *Keywords*
Agriculture, Agroecology, Commons, Land reform, Systemic change
- ii. *Transformational Adaptation in the context of environmental change*

Adaptation to environmental change has long been in the vocabulary of academic literature (O'Brien, 2012). However, the speed and scale of environmental change, and the vulnerability of some systems indicates that incremental adaptation – doing more of a familiar approach that responds to climate risks and events (Kates *et al.*, 2012) – is not sufficient - rapid, deep, transformational adaptation (TA) is needed across multiple sectors simultaneously to respond to climate risks while addressing underlying drivers of vulnerability, as summarized in Figure 1 (Shi and Moser, 2021).

Despite this, there is no common understanding of TA – it means different things to different actors, at different scales; what needs to be transformed and why is often unclear; with outcomes that can be positive, negative, deliberate or unintentional (O'Brien, 2012). This report distinguishes between 'transformative' – an action leading to change; and 'transformational' – the process itself and its outcomes, as these terms are often used interchangeably (Vermeulen *et al.*, 2018).

As TA is a polysemic concept, Feola (2015) suggests retaining conceptual plurality to allow for definition disparities – Deubelli and Mechler (2021) suggest TA is on a spectrum beginning with incremental change, with a long-term, anticipatory agenda focusing on deep, system-level change; Kates *et al.* (2012) posit that TA measures should be large scale, novel to a region or system, and transform places. Warner *et al.* (2019) suggest that in reality TA is often a range of smaller, local adaptations, so at the global scale transformation occurs as myriad smaller steps. Regardless, TA requires a paradigm shift that challenges and disrupts values and worldviews (O'Brien, 2012).

Lidskog and Sundqvist (2022) suggest that although transformative change is agreed to be needed by the Intergovernmental Panel on Climate Change, and the Conference of the Parties (COP) global discussions, these changes amount to little more than a sum of government policies and mostly technological solutions that provide no concrete pathway for the fundamental social transformations that must accompany them.

Outcomes and the value of the COP process are contestable due its glacial pace of incremental change and consensus policy, easily derailed by states with vested interests resulting in weak statement language and little real progress (Masood, Tollefson and Irwin, 2022; Stoddart *et al.*, 2023). However, critical successes at COP 28 including the Global Stocktake (or UAE Consensus) and a pledge to transition away from fossil fuels, despite reservations about the hosts, also saw Agriculture officially on the agenda (Waskow *et al.*, 2023).

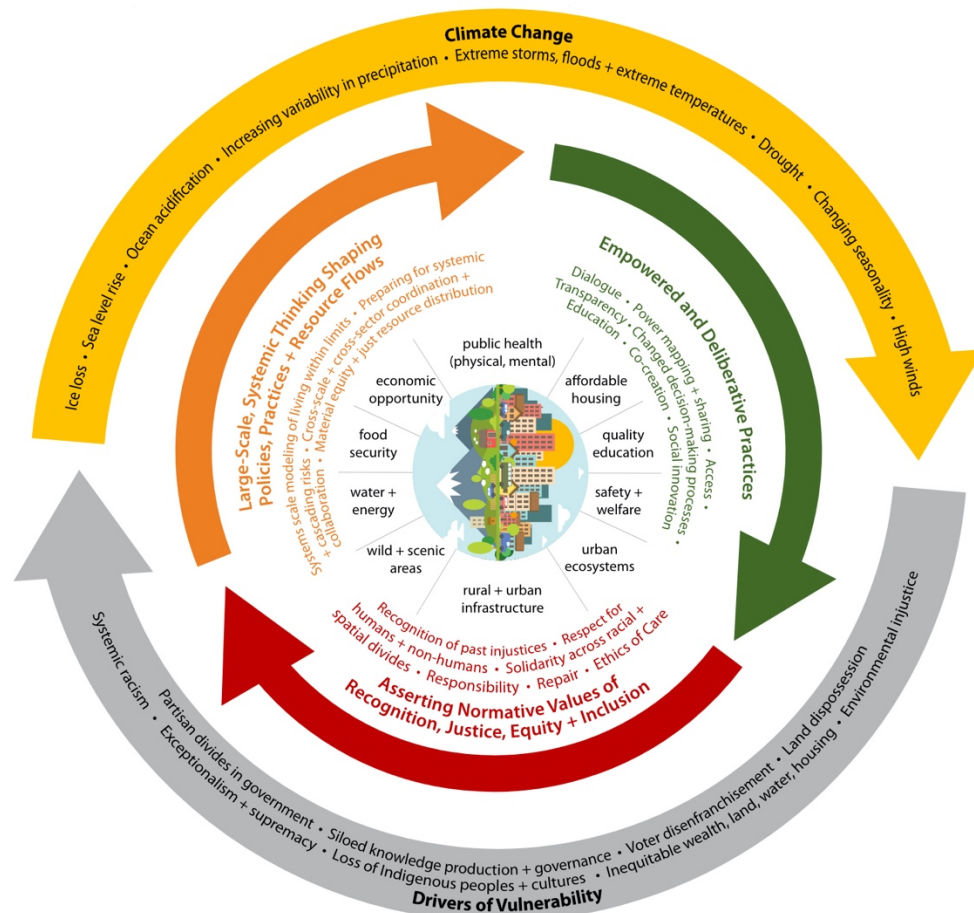


Fig. 1 *Framework for Transformative Adaptation*. Responding to climate risks (yellow) by addressing drivers of vulnerability (grey), systemic thinking is needed for adaptation across scales, sectors, and hazards (orange). This requires deep deliberation (green), assertion of values (red) and transformative thinking at material, relational, and mindset levels in all areas to avoid repeating past unsustainability and injustices. Source: Shi and Moser (2021).

iii. *Characteristics of Transformational Adaptation approaches:*

1. Mitigation and adaptation interventions simultaneously, dynamically adjusting alongside sustainable development (Moser *et al.*, 2019)
2. Whole-system thinking (Deubelli and Mechler, 2021) using leverage points to effect system-wide or multi-system change (Shi and Moser, 2021)
3. Learning from and challenging the effectiveness of current and past systems, imbalances of power and social injustice to build future adaptive capacity (Robinson *et al.*, 2023)
4. Utilising tipping points to create large, novel, self-sustaining change accelerated by positive feedback loops (Lenton *et al.*, 2022)
5. Cross-disciplinary approaches across Social, Technological, Environmental, Economic and Political spheres (STEEP) (WEF, 2023) and holistically integrated pairings in Social-Ecological-Technical Systems (SETS) (McPhearson *et al.*, 2021)

iv. *A new Land Commons to facilitate the implementation and expansion of agroecological farming in England*

Industrialised agriculture systems are acknowledged to contribute to climate change, food inequality and insecurity, labour injustices, biodiversity loss and soil depletion (IPES-Food, 2016; HLPE, 2019; IPCC, 2019), and require systemic transformation. Agroecology, a cross-disciplinary approach, aims to address many of these issues by combining locally adaptable, ecological farming practices (McPhearson *et al.*, 2021), a social movement rebuilding local food economies based on solidarity, equity, regional culture and history, and leveraging indigenous and scientific knowledge (Calo *et al.*, 2023). The principles of agroecology are summarised in Figure 2, many are compatible with commons principles.



Fig. 2 *Principles of Agroecology*, Coopération Internationale pour le Développement et la Solidarité. Source: Anderson and Anderson, (2020)

Commons are unique, living systems of social self-organisation, addressing needs independently of the state or market. None are a utopia, but all share similar patterns of collective management through social processes (Bollier and Helfrich, 2019). Agrarian societies have historically used spaces and resources like communal grazing pasture to make their livelihoods (Smaje, 2020). A resource might be in private ownership with its usage determined by a community for the benefit of all (Ryan, 2013). A commons is “*a resource + a community + a set of social protocols* (Bollier, 2014, p.15)”, based upon the premise that humans have the natural capacity to co-operate, participate and share (Ryan, 2013). Modern examples of commons include Community Supported Agriculture, open-source software, and Cecosesola in Venezuela, a federation of grassroots organisations which sets its own prices for produce outside the market (Bollier and Helfrich, 2019).

The focus of this report is the creation of a new Land Commons, following proposals by the Stroud Commons group, supported by measures taken by state actors at local and national level to facilitate the implementation and expansion of agroecological farming in England.

Section C.

Half of England is owned by less than 1% of the population (Shrubsole, 2019), and the UK has the most unequal distribution of land in the world (Wach, 2017). The dominant property ownership model leads to deep inequalities on the basis of wealth, class, gender and race, and underpins agrarian capitalism inhibiting agroecological transitions (Calo *et al.*, 2023; Wach, 2023).

Access to land, housing on or nearby and insecure tenure are cited as major barriers to aspiring small-scale farmers (Nourish Scotland, 2017), and inflated land prices – often due to land speculation (Monbiot *et al.*, 2019) – are not consistent with real small-scale farming incomes (Wach, 2017). A new commons model for land ownership and stewarding, supported by enabling political and economic factors could be instrumental in achieving transformational change.

Commons and enclosure in England

Common land in England was defined as private property affording third parties the use of natural produce from the land via legal access rights (Winchester, 2022). Typically ‘manorial waste’ outside cultivated farmland, it provided landless tenants with essentials such as fuel (Winchester, 2022) and the basis of an independent livelihood (Fairlie, 2009). These rights underpinned the use of common land until late in the twentieth century (Winchester, 2022).

The most important was the common of pasture - the right to graze animals, often managed by ‘stints’, limits to curb overstocking (Rodgers *et al.*, 2010). Others included turbarry – the right to cut peat or turf; estovers – the right to take wood; and piscary – the right to fish (Winchester, 2022).

The majority of common lands in England were enclosed between 1760 and 1860 through Parliamentary acts with most rights removed (Winchester, 2022). The effect on the agrarian economy, population and livelihoods of the rural poor was profound (Winchester, 2022), and a landless labour class, first rural, then urban, became the proletariat of the new capitalist economy fueled by the Industrial Revolution (Smaje, 2020).

Privatisation of public land has continued into the present, justified in part by an article published in 1968 by ecologist Garrett Hardin, entitled “The Tragedy of the Commons”. It suggests common resources are ripe for mismanagement, exploitation and exhaustion due to individualism at the expense of the community (Bollier, 2014; Smaje, 2020), unless owned and managed by government or private property rights mechanisms (Villamayor-Tomas and García-López, 2018). Conversely, economist Elinor Ostrom’s research and design principles, summarised in Table 1, contributed to the reestablishment of the commons in contemporary academic thought by consistently showing that resources can be managed successfully by self-organising groups (Villamayor-Tomas *et al.*, 2022).

<i>Principle</i>	<i>Description</i>
1A User boundaries	Clear boundaries between legitimate users and nonusers must be clearly defined
1B Resource boundaries	Clear boundaries are present that define a resource system and separate it from the larger biophysical environment
2A Congruence with local conditions	Appropriation and provision rules are congruent with local social and environmental conditions

2B Appropriation and provision	The benefits obtained by users from the resource, as determined by appropriation rules, are proportional to the amount of inputs required in the form of labor, material, or money, as determined by provision rules
3 Collective-choice arrangements	Most individuals affected by the operational rules can participate in modifying the rules
4A Monitoring users	There are mechanisms to supervise the appropriation and provision levels of the users
4B Monitoring the resource	There are mechanisms to supervise the conditions of the resource
5 Graduated sanctions	Appropriators who violate operational rules are likely to be sanctioned in proportion to the severity of the violation
6 Conflict-solving mechanisms	Appropriators have access to low-cost conflict resolution mechanisms
7 Minimal recognition of rights to organize	The rights of appropriators to self-organize are not challenged by external governmental authorities
8 Nested enterprises	Appropriation, provision, monitoring, enforcement, conflict resolution and governance activities are organized in multiple layers of decision making

Table 1. *Institutional Design Principles (after Ostrom, 1990, as adapted by Cox et al., (2010)).* Source: Villmayor-Tomas and García-López (2018).

A new Land Commons

Bringing land back into community stewardship via an interstitial commons parallel to, or symbiotically with the state (Ryan, 2013) would be a fundamental step forward in providing access to land for agroecology.

Private property rules rely on alienability – the right to sell land – in a market that favours large, often institutional investors, based on purchasing power and potential profit, excluding many on the basis of wealth, class, gender and race (Oldham, 2022). Speculative inflation, due to location desirability rather than improvements to the land or its dwellings, has caused land values to increase exponentially, with no penalty for leaving land idle, housing empty, or use-change from agricultural to residential (Monbiot *et al.*, 2019).

A new Land Commons would utilise a mutual credit mechanism (a collaborative credit accounting framework) (Slater and Jenkin, 2016; Fleischman *et al.*, 2020), to buy parcels of land without accruing debt by selling inflation-proof vouchers (Mutual Credit Services, no date) denominated in land area, at a discount to investors. Inalienable, with strong asset locks, the land would be under Land Commons stewardship and rented to tenants (also Commoners), who would pay for rights to use the land in a way that supports and expands the vision of the Commons. Vouchers could be sold by investors, including to tenants, to realise a return on investment (Darby, 2023; Green, 2023).

Overlapping, small-scale usage Rights and Responsibilities would be decided upon by all Commoners, potentially varying between locations, creating a land use ecosystem with Commoners' responsibilities to the land and each other forming strong material interdependence, a resilient, meaningful basis for communities to build adaptive capacity (Green, 2023).

A new Land Commons would be nimble, with legal and regulatory mechanisms developed to work within the parameters of the capitalist paradigm in a minimal way - legally viable, difficult to subvert by legislative change, and allowing non-essential decisions to be developed democratically by and between Commoners (Green, 2023).

A diversity of peer governance approaches will likely be necessary (Green, 2023), and could include Sociocracy – nested, circular groups with double linking for multi-directional networking (several members existing in both smaller and main groups), and decision-making by consent (Owen and Buck, 2020); deliberative democracy – a mode of citizen engagement valuing the process of collective decisions made by and for citizens, with outcomes for the common good (Flinders and Curry, 2008); and an evolving, recursive organisational form responding when needed to structural transition in the direction of its vision and according to its ethics (Green, 2023).

The Land Commons would be nested in a larger Commons socio-economic system (Wall, 2017), and could be federated horizontally with Commons in other locations, each group retaining its autonomy but enabling sharing of knowledge, and the ability to trade (Darby, 2023).

Enabling factors

There are a multitude of enabling factors that could facilitate the flourishing of a new Land Commons.

Better support for planning officials to understand agroecological farming, and when living on-site is essential, could enable small-scale farmers to create viable enterprises within strict ecological guidelines, following Wales' One Planet Development Policy (Wach, 2017). Developing locally relevant plans with councils could release land for agroecology (Wach, 2017), and saving or re-creating County Farms could provide equitable access (Monbiot *et al.*, 2019). A new Land Commons working with grassroots movements such as Land In Our Names on justice and reparations could increase access for racialised groups (Wach, 2023).

Stopping use-change of agricultural buildings by removing Class Q Permitted Development Rights would protect agricultural ties (Monbiot *et al.*, 2019). Large landholders could be encouraged to release a percentage of land to create affordable smallholdings (CPRE, 2016). Subsidies that lock out small-scale farmers leading to consolidation and increasing speculative accumulation could be revised (Monbiot *et al.*, 2019). Working with government could open a pathway to the state being a symbiotic contributor by adjusting policies, rather than an arbitrator (Russell *et al.*, 2023).

Pre-emptive Community Right to Buy could unlock tracts of land from entrenched ownership patterns and challenge power dynamics (Calo *et al.*, 2023). In Scotland, this has been strengthened to allow communities to buy unused properties or land for sustainable development, even when it isn't market available (Wach, 2023), and could be further supported by Compulsory Sale Orders (Pollard, 2018).

Increased gift or estate taxes could stop land automatically passing down to children upon death (Smaje, 2020), and a Land Value Tax, proposed by many as a solution to speculation, would discourage land from being left idle, encouraging improvement or circulation back into the market, lowering land prices and reducing inequalities (Wightman, 2013).

Implementing a new Land Commons and creating collective agreements within inherently social relationships will be complicated and challenging, with a high level of energy required to maintain them given the need for ongoing and majority consent (Smaje, 2020). As an iterative process there

will be constant adjustments, as the Commons adapts to new patterns and events. Building and maintaining a common resource runs counter to capitalist investment culture, and there may be attempts to re-enclose or co-opt it (Green, 2023), and attempts to subvert its decentralising force through media, regulation, and taxes. Starting locally then federating horizontally could ensure Commons groups are harder to attack and disable (Darby, 2023).

Commoning is a transformational process, with a long-term agenda of emergence and systems change beginning at a local, relational level using novel mechanisms (Green, 2023). Like agroecology, it promotes life within the earth's carrying capacity, tackling growth feedback loops that exacerbate social and ecological crises (Bollier and Helfrich, 2019), with the potential to accelerate rapidly through replication (Green, 2023). It nests humans in a larger whole, allowing meaningful relationships and co-creation that transcend ideological binaries (Bollier and Helfrich, 2019; Green, 2023), fostering resilience and organisational skills that can help communities weather crisis and disruption (Darby, 2023).

Section D.

i. Conclusion

In order to transform food systems in the UK, a radical dismantling of the dominant narrative of private property ownership is fundamental to allow access to land for agroecological farming, especially for small-scale producers and new entrants. Globalised, industrial agriculture is failing to meet the nutritional, social and cultural needs of millions of people worldwide, contributing to environmental systems breakdown. This report has shown that bringing land into common stewardship via a new Land Commons, supported by measures implemented by the state at both local and national level could lead to transformational change in the food and farming sector in England, reducing inequality, improving wealth distribution and access, and protecting and enhancing wellbeing and biodiversity.

ii. Implications of the report's findings

There is a wealth of both academic and grey literature on the history of the commons, and many examples in literature and in practice of modern commons projects in most spheres, ranging from co-operative farming to credit commons. The new Land Commons proposed by this report is emergent, so although there is extensive literature on other types of commons and their implementations there is little as yet in this area.

iii. Further Research

Further research, data collection and impact analysis will be necessary to chart the development of a new Land Commons following proposals by the Stroud Commons group, especially regarding the novel application of its economic model, funding the first land purchases, and the development of community agreements and peer governance, to create a transparent model for replication. Continuing empirical research is necessary to support the understanding of agroecological farming and its co-benefits, and how access to land in England is vital to allow it to flourish.

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