



# **SMOKE & MIRRORS WITH BOBZ**

**Examining competing framings of food system sustainability: agroecology, regenerative agriculture, and nature-based solutions**

# SMOKE & MIRRORS WIBBLES

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## Detailed Report

This brief is based on discussions between Institute of Development Studies (IDS) researchers Lídia Cabral, Elizabeth Rainey, Dominic Glover, and the IPES-Food Working Group. It draws on a background study by the IDS researchers, which investigated the uses of agroecology, regenerative agriculture, and nature-based solutions in three global policy spaces and by 16 private and public funding entities and identified the history and evolution of the three concepts through a bibliometric analysis. The background study can be accessed here : [www.ipes-food.org/pages/smokeandmirrors](http://www.ipes-food.org/pages/smokeandmirrors)

## Global Governance

This report is part of a short briefing notes series on global governance and corporate capture, building the case for more transformative and inclusive food system governance.

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# KEY MESSAGES



- Agrifood corporations, international philanthropic organizations, and some governments are **using the term nature-based solutions to 'hijack' the food system sustainability agenda**, often bundled with problematic and unproven carbon farming and carbon offsetting schemes in partnership with major conservation groups.
- **The UN Food Systems Summit, Convention on Climate Change, and Convention on Biological Diversity are recent discursive battlegrounds** where these terms, particularly nature-based solutions, were and continue to be road-tested and used by these actors and supportive member states to legitimize pathways that stray little from the status quo.
- In these global governance spaces, **nature-based solutions is a weakly defined and depoliticized concept** that ignores inequalities of power and wealth that lock in unsustainability in food systems. This proposed solution falls short of the deep, structural, transformative change required to make the global food system truly sustainable in multiple dimensions—ecological, social, and economic.
- **Agroecology, and in some uses regenerative agriculture, offer a more inclusive and comprehensive pathway toward food system transformation because they connect social and environmental aspects of sustainability**, address the whole food system, is attentive to power inequalities, and draws from a plurality of knowledges emphasizing the inclusion of marginalized voices. Agroecology is the only concept among the three that has attained clarity and conceptual maturity through a long process of inclusive and international deliberation.
- Despite its transformative potential and conceptual maturity, agroecology is not used as an overarching framework for food system change in the three governance spaces studied here, nor are its multiple dimensions systematically referenced. Though references to agroecology have become more widespread, there are growing concerns that emerging global policy spaces and influential development actors are stripping the term of its political dimensions. **Powerful, agenda-setting actors are pushing back against agroecology as ideologically contentious** or deploying it interchangeably with other terms as merely another tool in a toolbox of alternative solutions.
- In order to advance the sustainable transformation of food systems, policy actors, observers, and advocates in global governance spaces on food, climate, and environment should: (1) **Foster inclusive deliberation in global policy spaces**, consistently challenging ideas and concepts that disregard entrenched power differentials. (2) **Strive to use terms consistently across different fora**, ensuring that broadly agreed definitions, principles, and practices are carried forward between policy spaces. (3) **Promote awareness and clarity of proposed food system solutions**, rejecting those that exploit ambiguity instrumentally to favour business as usual.



# 1

# INTRODUCTION

There is widespread consensus on the need to make food systems more sustainable, but how to pursue that objective is subject to much debate. In recent years, terms such as 'regenerative agriculture' and 'nature-based solutions' have gained popularity within global governance and international development spaces and among agrifood corporations. These terms add to a growing collection of concepts and ideas that are often used as bywords for sustainable development in discussing the future of food systems, including sustainable agriculture, climate-smart agriculture, nature-positive food production, sustainable intensification, conservation agriculture, zero-carbon agriculture, holistic resource management, and so on.

The meanings and usefulness of these terms are contested in policy spaces and academic spheres.<sup>1</sup> The competition among alternative food system approaches and terminologies reflects not only a battle for ownership and clout but reveals fundamentally distinct understandings of sustainability and diverging views on what scale of transformation is needed to make food systems sustainable. The terms used in these spaces are often contested precisely because they have real effects and material consequences. Yet, these contestations are not always obvious. They are sometimes deliberately concealed through the use of different terms as if they were interchangeable. Concepts can also be watered down until they can be used to imply almost anything positive or 'sustainable'.

In policy spaces, where lobbyists, activists, policymakers, funding agencies, and development organizations mingle, terms can acquire enduring meanings and associations, shaping thought and action – making it crucial to consider who invokes these terms, when, and how. This policy brief, and the background study it draws on, arose from our concern that a narrow set of actors, interests, and visions are driving debate, shaping policy, and marshalling funding streams for food systems. In this process, the more encompassing and transformative understandings of sustainable development, which include social justice and ecological concerns, can be obscured by more narrowly defined visions of food system change.<sup>I</sup> Because resources follow policy signals, the material risk is that funds move away from the structural transformation of food systems and into so-called alternatives that maintain the unsustainable status quo.

This policy brief explores three key terms, *agroecology*, *regenerative agriculture*, and *nature-based solutions*, considering their origins, evolution, and how they are used to frame discussions on the future of food systems. We look specifically at how these terms are deployed in three prominent global policy spaces – the UN Food Systems Summit in 2021 (UNFSS), the UN Climate Change Conference in 2021 (COP26), and Part One of the Conference of the Parties to the Convention on Biological Diversity COP15 in 2021 (CBD).<sup>II</sup> All three are global, high-level summit events with extensive lead-in processes and negotiations that took place over the course of 2021-2022. We also analyze the usage of these three terms in other policy and funding spaces (e.g., corporate sustainability schemes and development initiatives).

The choice of governance spaces reflects the fact that the UN climate and biodiversity conferences increasingly address food systems. However, these spaces have been criticized for being exclusive and more favourable to the ideas of corporate actors, prompting calls for further investigation. Food system sustainability narratives advanced at these conferences and in funding spaces are significant and could influence the UN Committee on World Food Security (CFS), the foremost global, intergovernmental platform for the development and endorsement of policy recommendations for global food security. Although not studied in detail here, the CFS, and notably its High Level Panel of Experts, has been a key arena for mainstreaming agroecology, albeit with significant and ongoing contestation (see Section 2).

**“ In policy spaces, terms can acquire enduring meanings and associations, shaping thought and action. ”**

<sup>I</sup>The IPES-Food report “From Uniformity to Diversity” outlines the type of food system paradigm shift required. IPES-Food, ‘From Uniformity to Diversity: A Paradigm Shift from Industrial Agriculture to Diversified Agroecological Systems’ (International Panel of Experts on Sustainable Food Systems, 2016), [http://www.ipes-food.org/images/Reports/UniformityToDiversity\\_FullReport.pdf](http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf).

<sup>II</sup>Research on the use of these terms at CBD ended before Part Two of the event, which will take place in December 2022, and was therefore confined to lead-up documentation and materials.

## BOX 1

### Three key summits affecting the future of food systems

The **United Nations Food Systems Summit (UNFSS)** was organized by the UN Secretariat in New York and took place virtually on September 23, 2021.<sup>III</sup> Our analysis considered the preparation stage, the July 2021 pre-Summit event (which aimed to ‘take stock of the progress made’ through public input processes and ‘lay the groundwork’<sup>2</sup>), the Summit itself, and the post-Summit stage (when outcome documents and declarations were published).<sup>IV</sup> The Summit comprised several linked events and generated statements from member states describing their commitments to building ‘pathways’ to sustainable food systems. These communiques added to other statements submitted to the pre-Summit forum and posted on the UNFSS website.<sup>3</sup> Post-Summit, the UN Secretary-General gave an overview and summary of the event,<sup>4</sup> which describes the principal takeaways and themes covered. It appears that, beyond this document and member-states statements, there are no concrete summaries of goals or reports available.<sup>V</sup>

The **United Nations Climate Change Conferences** are yearly conferences held by the United Nations Framework Convention on Climate Change (UNFCCC). They are the formal meeting of the UNFCCC Parties (Conference of the Parties, COP) to assess progress in dealing with climate change. The 26<sup>th</sup> conference took place in Glasgow, Scotland, in November 2021 and is known as COP26. The study reviewed documentation and statements related to Mitigation, Adaptation, Finance, and Collaboration goals. Four food and agriculture-related initiatives connected to the Mitigation Goal were also analyzed: (i) the Global Action Agenda for Innovation in Agriculture (also known as the #ClimateShot); (ii) the Forest, Agriculture & Commodity Trade (FACT) Dialogue; (iii) the Policy Action Agenda for a Just Transition to Sustainable Food and Agriculture; and (iv) the Independent Review on the Economics of Biodiversity, led by Professor Sir Partha Dasgupta.<sup>6</sup> In addition, the study considered contributions to the debate put forward by the Koronivia Joint Work on Agriculture, an initiative created in 2017 under the UNFCCC to account for the vulnerabilities of agriculture to climate change and advance approaches to address food security.

The **fifteenth Conference of Parties to the Convention on Biological Diversity (CBD)** is a two-stage event unfolding between 2021 and 2022. Part One was a hybrid event in October 2021, held in Kunming, China, with virtual participation (postponed from 2020 due to the Covid-19 pandemic). Part Two will take place in person in December 2022 in Montreal, Canada. The Conference aims to “convene governments from around the world to agree to a new set of goals for nature over the next decade”.<sup>6</sup> The Post-2020 Global Biodiversity Framework, as the main outcome of the 2022 Conference, will lay out plans for addressing biodiversity loss from 2022-2030 in order to meet the CBD Parties’ Vision of ‘Living in harmony with Nature’ by 2050.<sup>7</sup> Detailed discussions of targets and terms related to biodiversity are taking place as part of ongoing meetings of the Open-ended Working Group; discussions on food systems relate to agricultural biodiversity.

III The UNFSS was the result of a partnership between the UN Secretariat and the World Economic Forum agreed upon in July 2019.

IV The process began with contributions from UN member states and other participants (between December 2020 and May 2021), which were organized into a sequence of Discussion Starter Papers, Public Fora and Synthesis Reports. From there, Solution Clusters were created to thematically refine and organize the discussions, and Levers of Change were used as cross-cutting themes to further categorize and prioritize the submissions.

V Canfield, Duncan, and Claeys (2021) confirm that ‘...the outcomes and goals of the Summit, as well as the decision-making process were never clearly defined’ (p. 185).



Credit: Soumya Sankar Bose - Agroecology Fund Global Learning Exchange 2020 - India

# THE EMERGENCE AND CONTESTED DEFINITIONS OF TERMS



## 2.1 AGROECOLOGY

Agroecology has its origins in Indigenous Peoples' food systems that span the globe. Indigenous Peoples' food systems preserve and enrich their ecosystems and are interconnected with language, traditional knowledge, governance, and cultural heritage. The first recorded academic use of agroecology concerning agriculture dates to the first half of the 20<sup>th</sup> century and is connected to pest management and soil biology concerns.<sup>8</sup> Until the 1960s, agroecology was purely a

scientific discipline. With environmental movements emerging through the 1960s, agroecology became part of a broader conversation on finding alternatives to industrial, chemical-intensive production systems. This alternative agriculture movement, closely connected to the nascent organic movement, marshalled critical agronomists to question their discipline's foundations and consider the ecological and social consequences of input-heavy farming.<sup>9</sup> Ideas about 'natural ways of farming' also gained ground.<sup>10</sup> Agroecology embraced normative imperatives to protect natural systems and considered sustainability and the social distribution of benefits in agricultural production.<sup>11</sup> It gradually spread beyond the scientific community and became a social movement.<sup>12</sup>

Agroecology further strengthened as both a science and a movement throughout the 1990s, as the environmental agenda gained momentum, particularly in the USA and Latin America. Higher education programmes in agroecology were established in Europe and the USA.<sup>13</sup> In Latin America, throughout the late 1980s and 1990s, agroecology developed a basis in practice. Scientists and practitioners worked with farmers to improve indigenous farming methods, including adapted soil fertility management and agrobiodiversity conservation, as alternatives to the Green Revolution paradigm of corporate-controlled technological packages.<sup>14</sup>

As participatory methods in agricultural extension gained ground,<sup>15</sup> interactions between scientists and farmers emphasized inclusive knowledge systems and horizontal learning rather than top-down approaches to technology diffusion and innovation. The *campesino a campesino* (peasant-to-peasant) methodology emerged in Cuba and contributed to the formation of a grassroots movement for agroecology, which spread globally through the transnational peasant alliance *La Vía Campesina*.<sup>16</sup>

By the 2000s, those referring to agroecology were increasingly focused on the whole food system, connecting production with processing, distribution, and consumption.<sup>17</sup> This widening scope was also visible among social agrarian movements, including the transnational food sovereignty movement, culminating in the 2015 International Forum for Agroecology held at the Nyéléni Center in Sélingué, Mali.<sup>18</sup> As shown in Figures 1 and 2, agroecology has consistently appeared in peer-reviewed literature, demonstrating the breadth and depth of academic research and interest in the potential of agroecology for food system transformation. As an ecosystem and human rights-based approach focused on the whole food system, the Intergovernmental Panel on Climate Change (IPCC) considers agroecology a “transformative climate change adaptation approach” for food system resilience.<sup>19</sup>

Agroecology’s long history as a science, movement, and practice has been accompanied by much contestation, leading to a call for researchers to be explicit in defining agroecology when they use the term.<sup>20</sup> Its meaning and scope, however, continue to diverge across communities of knowledge and practice.<sup>21</sup> One area of dispute concerns the relation and balance between its technical and political dimensions. Various authors have

**“ Agroecology embodies a science, a practice, and a social movement and entails a profound rethinking of food systems. ”**

warned about the danger of co-optation and the loss of agroecology’s more transformative elements.<sup>22</sup>

In 2018, following a 4-year consultative process, an FAO framework laying out the ‘10 elements of agroecology’ was a milestone in bringing agroecology into mainstream policy debate and establishing a holistic version of it that included social justice components.<sup>23</sup> This conceptual maturity was consolidated the following year when the High Level Panel of Experts (HLPE) of the United Nations Committee on World Food Security (CFS) translated these 10 elements into a set of 13 operational principles to guide agroecological food system transformation (see Box 2).<sup>24,VI</sup> The vision of agroecology embodied in the 13 principles effectively converges with the comprehensive framing of sustainability that is now commonplace in academic literature and social movement discourse, i.e., combining environmental with human and social dimensions (seeing them as interlinked),<sup>25</sup> considering trade-offs between ecological and equity goals, accounting for both planetary boundaries and human needs,<sup>26</sup> and rooted in transformative approaches to innovation that include a diversity of knowledges and interrogate the distributional impacts of preferred innovations and policy solutions.<sup>27</sup>

Driven by a heterogeneous but cohesive network of scientific and social movement experts, this comprehensive vision of agroecology has gained further recognition in formal governance spaces – notably FAO processes<sup>28</sup> – although this has not occurred systematically (see Section 3). Agroecology has thus come a long way in its evolutionary process. It embodies an alliance of science with practice and a social movement. For most of today’s proponents of agroecology, it entails a profound rethinking of food systems centred on a merging of distributive justice with environmental soundness.

VI The policy convergence process kicked off by the HLPE report was not without controversy and culminated in policy recommendations that were eventually rejected by the Civil Society and Indigenous Peoples’ Mechanism (CSIPM) tasked with facilitating the engagement of these groups with the CFS. See ‘CSM Positioning on the CFS Policy Recommendations on agroecological and other innovative approaches’, <https://www.csm4cfs.org/csm-positioning-on-the-cfs-policy-recommendations-on-agroecological-and-other-innovative-approaches/>.

FIGURE 1

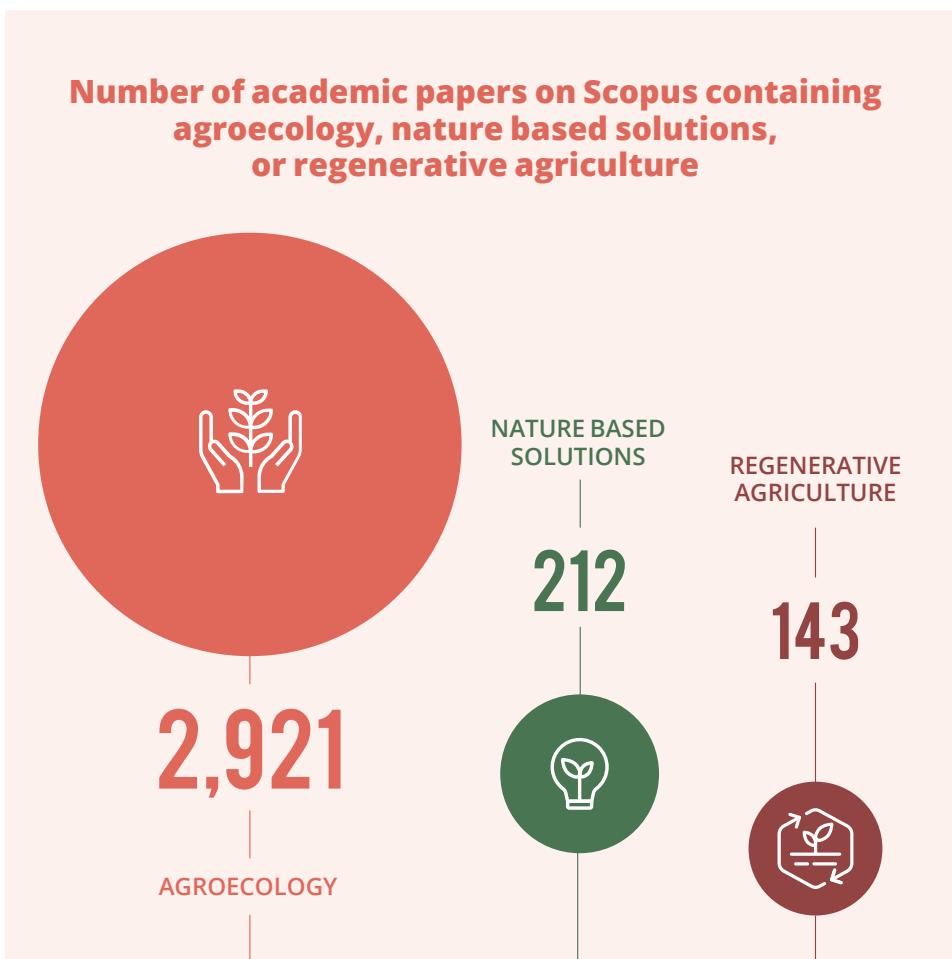
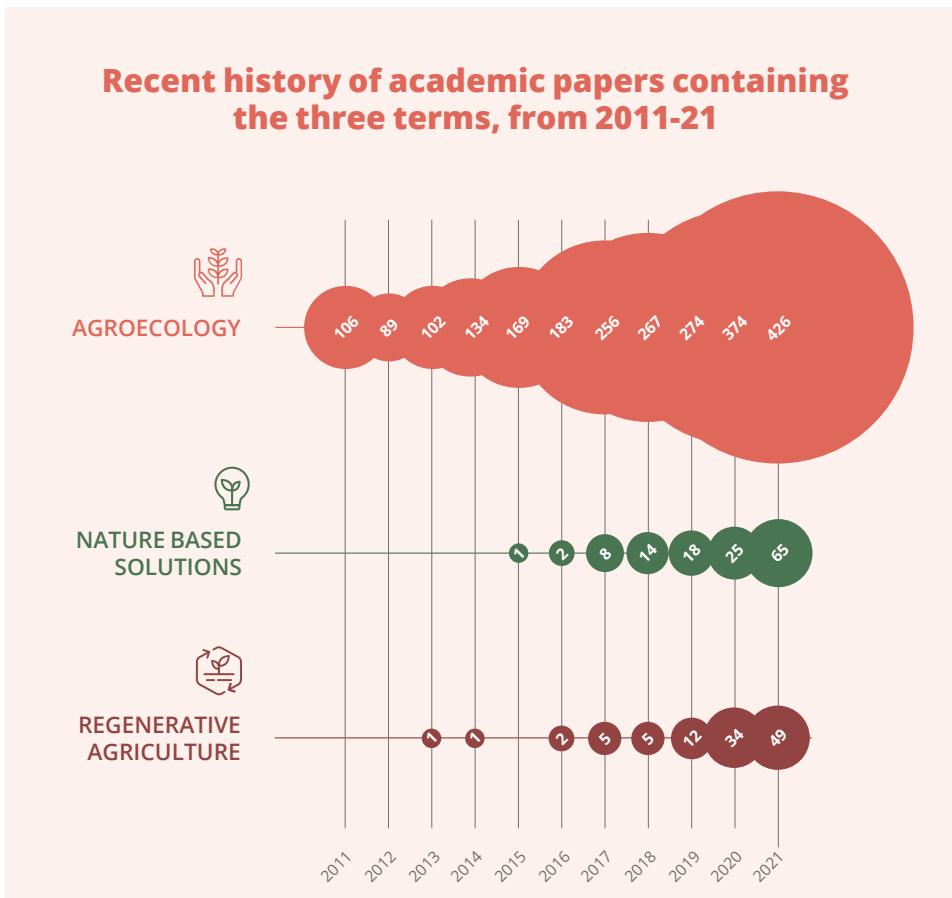


FIGURE 2



## Bibliometric analysis

An analysis of the frequency of occurrences of agroecology, nature-based solutions, and regenerative agriculture in academic literature offers additional insights into the breadth of research on agroecology and its relative popularity over time. This analysis was carried out by retrieving papers related to the terms from a reputable global database for peer-reviewed literature published in English.<sup>vi</sup> The documents analyzed contained the terms in the title, abstract, and keywords and were restricted to relevant results from the fields of agriculture, farming, and food. Figures 1 and 2 show that agroecology has by far the highest number of publications, but Figure 2 shows the recent rapid expansion of the other two terms, particularly nature-based solutions.

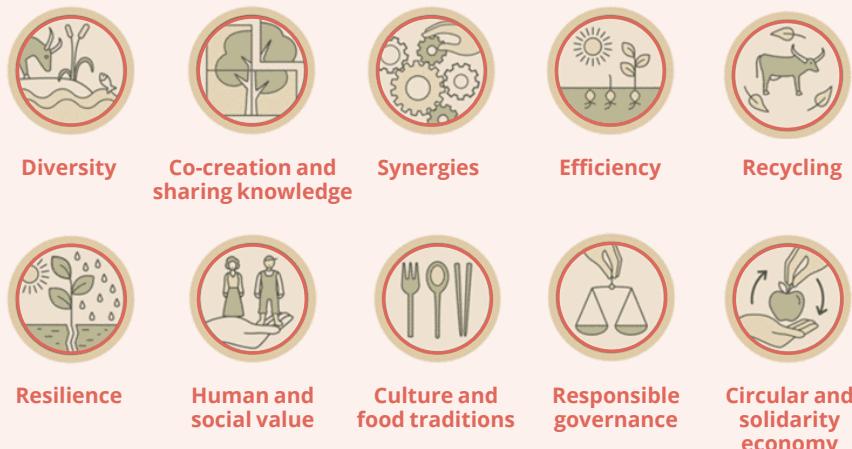
<sup>vi</sup> This language caveat is important as, for example, agroecology means different things depending on the context where it is applied – more of a science in Germany, a set of practices in France and a combination of science, practice and movement in Brazil, in other Latin American countries, and across Africa.

BOX 2

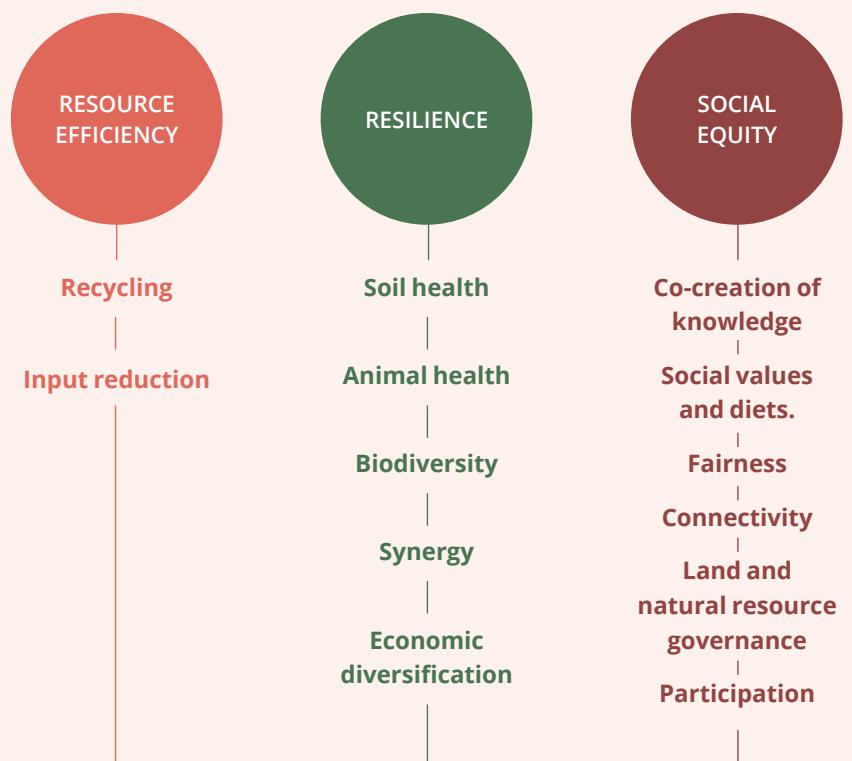
## The 10 elements and 13 principles of agroecology

The 10 elements emerged through a four-year regional and international consultative process; designed to be inclusive and deliberative, the process recognized and included the views of small-scale food producers as well as consumers. The FAO explains that the 10 elements of agroecology represent a ‘fundamentally different’ approach to sustainable development, empowering producers and communities by emphasizing ‘co-creation of knowledge, combining science with the traditional, practical and local knowledge of producers’.<sup>29</sup> The 13 principles (clustered into three groups) are aligned with the 10 elements of agroecology adopted by the 197 FAO Member States in December 2019.

### 10 Elements of Agroecology



### 13 Principles of Agroecology





## 2.2 REGENERATIVE AGRICULTURE

The concept of regenerative agriculture was born alongside the organic revolution in the USA, which emerged as part of the 1960s counterculture movement and the environmental awareness prompted by Rachel Carson's *Silent Spring*.<sup>30</sup> The term 'regenerative organic' was coined in the early 1980s by the Rodale Institute,<sup>31</sup> which claims to operate the world's longest-running side-by-side organic versus conventional farming system trial.<sup>32</sup> Richard Harwood, an agronomist who directed the Rodale Institute, elaborated on the scientific basis of regenerative agriculture, highlighting three fundamental principles: (1) interrelatedness of all parts of a farming system, including the farmer and farm family; (2) biological balances in the system; and (3) the need to maximize desired biological interactions while minimizing the use of materials and practices that disrupt those relationships.<sup>33</sup>

The scientific framing of regenerative agriculture is comparable to agroecology and part of the same backlash against industrialized farming. Yet, the term remained somewhat under the radar until the 2010s, when it began to be picked up again (see background study). In 2012, a paper published by Christopher J. Rhodes in *Science Progress* reengaged with the soil science behind regenerative agriculture. It argued that regenerative agriculture offers "potentially the means to provide food and materials [...] and address the wider issues of carbon emissions, and resource shortages".<sup>34</sup> It showcased the Rodale Institute's farming system trial and highlighted the benefits of regenerative agriculture, compared with high-input farming, in terms of lower energy use, greater carbon sequestration, and soil regeneration. A report published by the Rodale Institute offered similar evidence. It claimed that regenerative agriculture presented "a down-to-earth solution to global warming"<sup>35</sup> – although some of these claims are contested and seen to exaggerate the potential of regenerative agriculture to sequester greenhouse gas emissions.<sup>36</sup>

Regenerative agriculture has been gradually brought into global debates by US and international organizations and practitioners.<sup>37</sup> Regeneration International was established in 2017 as a non-profit organization with a mission to "promote, facilitate and accelerate the global transition to regenerative food, farming, and land management for the purpose of restoring climate stability, ending world hunger, and rebuilding deteriorated social, ecological and economic systems".<sup>38</sup> Its

**“ The appeal of regenerative agriculture is likely due to its emphasis on the regeneration of natural resources – a strong but simple concept likely to speak to many food system actors. ”**

definition of regenerative agriculture emphasizes soils and carbon while highlighting biodiversity, ecosystem health, resilience, human health, and nutrition.<sup>39</sup> Many regenerative agriculture proponents, including Regeneration International, include agroecology as a form of regenerative agriculture.<sup>40</sup>

Compared to agroecology, regenerative agriculture remains less studied. A systematic literature review concluded that the term is typically used to refer to environmental dimensions of sustainability (related to soil health, resource management, climate change alleviation, nutrient cycling, and water management and availability), while socio-economic issues tend to be less emphasized, more generally defined, and lack a framework for implementation.<sup>41</sup> The appeal of regenerative agriculture is likely due to its emphasis on the regeneration of natural resources – a strong but simple concept likely to speak to many food system actors.<sup>42</sup> However, this relative narrowness may also reflect a failure to credit Indigenous Peoples food systems that prefigured its practices, and the fact that the movement has been fronted almost exclusively by white males from the Global North.<sup>43</sup>

As will be explored in Section 3, leading food manufacturers and retailers are now redefining regenerative agriculture through proliferating corporate sustainability schemes – sometimes using the term interchangeably with 'carbon farming' and 'no-till' agriculture, often watering it down in the process. Nonetheless, some foundations, development agencies, research funders, and farmers' organizations that have adopted the language of regenerative agriculture do include social justice in their strategies, suggesting that a battle over the future of regenerative agriculture is well underway – and the die is not yet cast.



## 2.3 NATURE-BASED SOLUTIONS

Nature-based solutions is a much newer term than agroecology and regenerative agriculture. It is also different in that it is used across diverse fields, but most typically in reference to climate change mitigation through carbon offsetting mechanisms and carbon markets.<sup>44</sup> Oil and gas corporations are among the most prominent promoters of nature-based solutions, using the term to promote emission offsetting projects like tree plantings, forest protection, and ecosystem restoration in partnership with major conservation groups.<sup>VIII</sup> The International Union for Conservation of Nature (IUCN) is one of nature-based solutions' major champions in policy and practice.

Explicit connections with agriculture, farming, and food are more recent. Like in the energy sector, nature-based solutions for food systems typically refer to carbon offsetting, carbon markets, and carbon farming (see Box 3), as well as biodiversity conservation schemes.<sup>45</sup> The term's breadth of use has led to confusion on what precisely constitutes a 'nature-based solution'. However, commonly agreed definitions were advanced in the remit of COP26 (see Section 3). Further progress was made at the UN Environment Assembly in March 2022 to define nature-based solutions in the following terms: "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, and resilience and biodiversity benefits".<sup>46</sup>

As with regenerative agriculture, there has been a rapid increase in the use of nature-based terminology in scientific literature and high-profile policy spaces in recent years. Corporations, foundations, and major conservation groups (including The Nature Conservancy and WWF) regularly refer to nature-based solutions. A 2020 report by the World Economic Forum (WEF) advocated for significant shifts in thinking about the value of nature and for new, highly profitable business models enabled by 'Fourth Industrial Revolution technologies'.<sup>47</sup> It sees these as having "the potential to accelerate this shift towards a nature-positive development path and unlock nature's value while minimizing resource use".

The IPCC also refers to nature-based solutions, but with a note of caution: the body has warned that poorly planned nature-based solutions can increase competition for land and water, reduce food security, fail to provide enduring greenhouse gas mitigation solutions, and do more harm than good.<sup>48</sup>

To summarize, there is some common ground between agroecology, regenerative agriculture, and nature-based solutions. All three terms are underpinned by a view of agroecosystems as potentially self-sustaining, circular systems that may be balanced internally following principles that are ecological in a scientific and technical sense. However, in practice, the terms are used in a variety of ways, and often superficially (see below). The reduction of external inputs is also a common concern. These shared themes can be traced back to the emerging environmental movement of the second half of the 20th century, which began to influence agricultural research and practice from the 1980s onwards, in the aftermath of the first Green Revolution.

**“ Poorly planned nature-based solutions can increase competition for land and water, reduce food security, fail to provide enduring greenhouse gas mitigation solutions, and do more harm than good. ”**

VIII See, for example Shell, who partners with The International Union for the Conservation of Nature and The Nature Conservancy on "nature-based" carbon offsetting projects for reforestation, ecosystem restoration, and carbon farming. <https://www.shell.com/energy-and-innovation/new-energies/nature-based-solutions.html#iframe=L3dlYmFwcHMvMjAxOV9uYXR1cmVfYmFzZWRFc29sdXRpb25zL3VwZGF0ZS8>.

### BOX 3

## Carbon markets, carbon offsets, and carbon farming: the reality behind the rhetoric

Both regenerative agriculture and nature-based solutions are often invoked in the context of carbon farming, carbon offsetting, and carbon market schemes. Carbon farming is often used as a synonym for regenerative agriculture,<sup>IX</sup> or closely articulated alongside it,<sup>X</sup> in discussions on soil carbon sequestration. Governments and corporations are throwing their weight behind ‘carbon farming’ – with the European Commission highlighting its value as “a new source of income for land managers”.<sup>50</sup> Research by GRAIN found that most carbon farming programmes worldwide are led by or connected to multinational agribusiness corporations such as Yara and Cargill, are generally located in large-scale commodity production zones, and focus almost entirely on rotations with cover crops and reduced or no-tillage – often requiring the use of broad-spectrum herbicides.<sup>51</sup> Farmers’ organizations and civil society groups have criticized carbon farming programmes for failing to achieve sustained carbon emission reductions or removals, increasing the concentration of land ownership, entrenching the power of large agrifood corporations, and excluding farmers who have already invested in building healthy soils.<sup>52</sup> Furthermore, the latest IPCC report on climate change mitigation concluded that there is no one-to-one relationship between industrial sources of emissions and less scientifically certain soil carbon sequestration such that carbon farming “cannot fully compensate for delayed action in other sectors”.<sup>53</sup>

Carbon farming is closely linked to carbon markets and offsets - which are being rolled out in a range of sectors, allowing polluters to continue to emit while other actors undertake some emission reductions or removals to ‘offset’ the first party’s emissions. Carbon markets are central to the vision of nature-based/regenerative agriculture promoted by the American agricultural technology company Indigo Ag. Since 2019, the firm has generated carbon credits by measuring the carbon that farm fields have in their soil and selling these credits to companies looking to reduce their carbon footprint.<sup>54</sup> Two of the leading buyers of these credits are Barclays and JPMorgan Chase, among the top banks financing fossil fuel extraction around the world, including projects planned or under development by ExxonMobil, BP, and Total.<sup>55</sup>

But as described above, there are also differences. **The agroecology movement’s quest for environmental restoration and sustainability is inextricable from its pursuit of social and cultural well-being, inclusion, equity, and justice.** This includes an emphasis on the plurality of knowledge, which is unique to agroecology. **Definitions of regenerative agriculture and nature-based solutions tend to have a more limited scope**

in that they refer primarily to natural systems and environmental restoration and preservation. Human and social dimensions are treated as largely exogenous, typically appearing in the narrow guise of economic performance metrics.

IX According to the Carbon Cycle Institute, carbon farming is synonymous with the term ‘regenerative agriculture’ when that term is explicitly rooted in an understanding of the underlying system dynamics and positive feedback processes that actually make a regenerative’ upward spiral of soil fertility and farm productivity possible”. In Carbon Cycle Institute. “What is Carbon Farming?” Accessed March 13, 2022. [www.carboncycle.org/what-is-carbon-farming/](http://www.carboncycle.org/what-is-carbon-farming/).

X Cargill, for example, argues that its carbon farming programmes support regenerative agriculture. See Cargill, ‘Regenerative Agriculture’, <https://www.cargill.com/sustainability/regenerative-agriculture>.

Another very salient difference is **the historical depth of scholarship, practice, and activism that underpins agroecology as a science, practice, and movement**,<sup>49</sup> which has led through strenuous efforts to an institutionalization of agroecology under the FAO's '10 elements' and the HLPE's '13 principles'. These constitute a precise definition of agroecology and provide guidelines for sustainable agriculture programmes and yardsticks by which they can be measured and held accountable. Regenerative agriculture and nature-based solutions lack this degree of penetration and acceptance by international and technical advisory bodies and social movements. However, it is worth noting that none of the three terms have been systematically adopted by mainstream scientific bodies (e.g., academies of science).

In the next section, we consider how these terms are used in global governance spaces on food, climate, and biodiversity, asking to what extent these usages reflect their existing meanings in literature and discourse and whether the terms are being reframed through these Summits and to what end.

#### BOX 4

### Other terms and approaches present in food system debates

Alongside regenerative agriculture, agroecology, and nature-based solutions, there is a vast (and growing) array of terms to describe food system transformations in global policy and development spaces.

Some terminology, like 'sustainable agriculture', is used to broadly describe environment-focused practices. Others, like 'carbon-neutral', 'zero-carbon', or 'climate-smart', have a narrower scope, focusing primarily on reducing carbon emissions in production systems. These concepts are sometimes described in expansive terms, like the AIM for Climate view of 'climate-smart agriculture' as an integrated approach to address global hunger and climate change, but overall offer much narrower visions of sustainability.<sup>XI</sup>

Another distinct category exists to describe agricultural intensification through sustainable means. Language like 'sustainable intensification', 'sustainable productivity', and 'precision agriculture' reflect an interest in increasing yields and/or scaling up production systems while simultaneously limiting impacts on the natural environment.

Even more niche terms – like 'biobased technologies', 'ecosystem-based approaches', 'conservation agriculture', 'circular' systems, and 'agriculture that supports biodiversity' – further emphasize the natural (rather than human) elements of food systems.

XI See DeSmog's investigation into AIM for Climate, an initiative led by the United States and the United Arab Emirates greenwashing industrial farming practices as 'climate-smart' agriculture: <https://www.desmog.com/aim4c/>

# 3

## HOW ARE THESE TERMS USED IN GLOBAL POLICY AND FUNDING SPACES?

It is worth noting at the outset that getting food systems meaningfully onto the high-level global biodiversity and climate agendas remains challenging. There has been little space dedicated to food systems at climate COPs in particular – with COP27 (in November 2022) marking a significant departure in dedicating a day to ‘adaptation and agriculture’.

Where food systems have been given airtime in biodiversity and climate policy spaces, discussions have remained very generic. Indeed, when food systems were discussed during COP26’s two days dedicated to

‘Nature and Land Use’, the Conference favoured the term ‘sustainable agriculture’. Even in COP26’s Forest, Agriculture, and Commodity Trade dialogues (FACT), there is scant reference to specific food system visions, with none of the three terms featuring in the most prominent FACT documents or the Output reports for Africa or Asia.<sup>56</sup> Similarly, agriculture-related events surrounding the CBD made little to no use of agroecology, regenerative agriculture, nature-based solutions, or any other specific terminologies: ‘sustainable agriculture’ was the preferred term in a July 2021 two-day Global Dialogue on the Role of Food and Agriculture vis a vis the post-2020 framework.<sup>57</sup>

In this context, the UNFSS was seen by many as a welcome and long overdue opportunity to put food and farming in the global spotlight – although even in this dedicated space, the question of how to talk about food systems remained fraught. When it comes to global food system governance, the reformed CFS engages with a full vision of sustainability, combining environmental and social dimensions, and is regarded as one of the best examples of inclusive global policy-making.<sup>58</sup> Its reduced role in the UNFSS does not bode well for food system transformation. It raises concerns about the excessive influence of corporate interests in global food system governance (see below).

Nonetheless, in zooming in on these governance spaces, it was possible to identify several mentions of the three terms in focus here – agroecology, regenerative agriculture, and nature-based solutions – and to observe patterns in how they are used and to what effect in the different fora. Examples of how these terms are used in funding spaces – from donor-led agri-development programmes to corporate sustainability schemes – are also provided below to give a fuller (although by no means exhaustive) picture of how food system narratives are developed and deployed. The key findings from across these settings are highlighted below, and detailed extensively in the background study.



## 3.1 NATURE-BASED SOLUTIONS

The term nature-based solutions was very prominent at the UNFSS, contentious in some negotiations at COP26, and has gained a foothold in CBD – where it is being heavily promoted by some parties and strongly opposed by others in ongoing negotiations towards the post-2020 Global Biodiversity Framework.

### UN Food Systems Summit

Nature-based solutions was a prominent framing at the UNFSS – although the term ‘nature-positive’ was preferred in earlier stages of the Summit.<sup>XII</sup> Agroecology was primarily positioned as a type of nature-based solution, emerging as a ‘game-changing solution’ under this track (see below).<sup>XIII</sup> Across Summit literature, ‘nature-based’ and ‘nature-positive’ were used as generic prefixes in conjunction with a range of topics – suggesting that the terms are being used in a loose and aspirational way and perhaps to mask the specific and highly-critiqued approaches (e.g., carbon offsets – see Section 2) being promoted by a number of proponents of nature-based solutions. For example, Summit documents and processes referred, among other things, to nature-positive food systems; nature-positive agriculture; nature-positive approaches, practices, and solutions; nature-positive inputs; nature-positive production/production systems; nature-positive innovation, knowledge, and technology; nature-positive financing and business models; nature-positive supply chains; and nature-positive pathways for development. The term was also used in some places to label specific

production systems, such as nature-positive livestock and nature-positive insect farming.<sup>59</sup>

Furthermore, the framing of nature-based solutions evolved substantially through the Summit – likely due to pressure from those more hostile to the term. Although there is no guarantee that the more comprehensive framings will be used systematically hereon, by the end of the Summit, working definitions had shifted substantially from a concept linked mainly to environmental sustainability goals to a concept also encompassing food provision and healthy nutrition goals (see Figure 3).

### 26th UN climate change conference (COP26)

Although none of the three terms had much currency at COP26, with little space granted to food and agriculture at the Summit, some member states objected to the use of the term for its lack of clear definition and principles.<sup>60</sup> Efforts were made in specific tracks of COP-related work to advance common understandings of what the term implies. Notably, a section of the Dasgupta Review on the Economics of Biodiversity discusses recommendations and support for nature-based solutions. It provides a broad but fairly comprehensive definition: “Action to protect, sustainably manage and restore natural or modified ecosystems while simultaneously providing benefits for human well-being and biodiversity”.<sup>61</sup> However, references to nature-based solutions were eventually dropped from the Glasgow Climate Pact, the final outcome document of COP26 negotiations.<sup>62</sup>

XII The analysis conducted for the background study found few instances of the term nature-based, although one appeared (perhaps surprisingly) in the Secretary General's Chair Summary and Statement of Action on the Summit. In that summary, one of the five primary Action Areas was identified as 'Boost Nature-based Solutions', deviating from the preferred use of 'nature-positive' in most of the Summit's documentation.

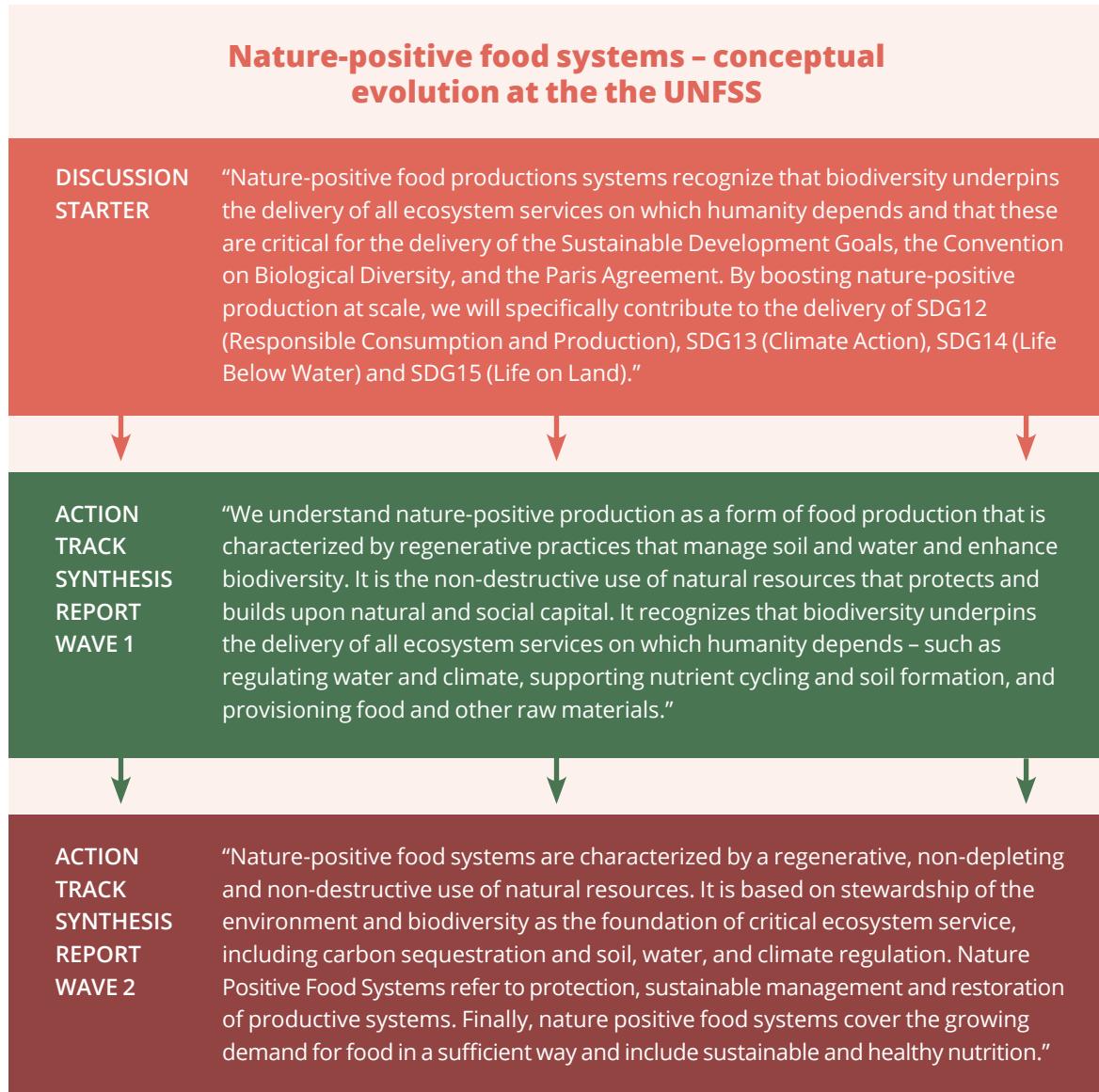
XIII Between December 2020 and May 2021, Summit organizers put out a public call for 'game-changing propositions' for food systems, which they assessed and consolidated into a number solution clusters under Action Tracks and presented during the Pre-Summit and Summit, see <https://foodsystems.community/game-changing-propositions-solution-clusters/>.

## **15th conference of parties to to the Convention on Biological Diversity**

Overall, the terms 'biodiversity', 'ecosystem[-based] services', and 'sustainable agriculture' were used when discussing food and agriculture in Part One of the CBD. However, nature-based solutions was mentioned in a footnote in the Conference's high-level statement (the Kunming Declaration). Furthermore, nature-based solutions featured considerably in Working Group discussions about the formulation of biodiversity targets. Here references to nature-based solutions have not been linked exclusively to agriculture but have occurred generally concerning climate change policy responses, particularly regarding Target 8 on mitigation/adaptation. Echoing COP26 negotiations, the term was considered controversial, and its inclusion in conference deliberations was disputed.

In meetings on the formulation of the biodiversity targets, several member state delegations pushed forcefully for nature-based solutions to be used in place of 'ecosystem-based approaches' while others wished to include both and/or expand the terms.<sup>64</sup> Several delegations pushed back against any mention on the basis that nature-based solutions were "outside the scope of the Convention".<sup>63</sup> A comment by the Namibian delegation further reflects the controversy: "If the term [nature-based solutions] *[sic]* is reintroduced into the text please...add, in brackets, [carbon colonialism] as an alternative understanding of this contentious concept, which has not been agreed in the CBD".<sup>64</sup> Including the term as a footnote in the Kunming Declaration reflects these divisions. It will be important to monitor whether and how these divisions feature in the adaptation of the post-2020 Global Biodiversity Framework in Part Two of the Conference in 2022.

FIGURE 3



Sources: <sup>65</sup>

XIV The inclusion of nature-based solutions was supported by Australia, Chile, New Zealand, Norway, the UK, and Switzerland; China and Mexico proposed 'nature-based solutions with ecosystem-based and human rights approaches', and the EU put forward 'nature-based solutions with social/sociocultural and environmental safeguards and ecosystem-based approaches'. Convention on Biological Diversity, 'COP15: Report by the Co-Leads of Contact Group 2, Targets 1 to 8: "Reducing Threats for Biodiversity"', 7 September 2021, 29, <https://www.cbd.int/doc/c/630c/b3b6/123a8b952cf5995dd584d18c/wg2020-03-cg-02-report-en.pdf>.



## 3.2 AGROECOLOGY

Agroecology – a term given formal substance through the FAO and HLPE – was much less invoked in all three fora. Both in UNFSS and COP26, agroecology does not seem to be a distinctive or clearly defined concept but tends to be used as a general descriptor alongside other terminology while featuring strongly and holistically in parallel work tracks and summit-related mobilizations.

### UN Food Systems Summit

Insufficient attention to agroecology and food sovereignty was among the reasons why hundreds of civil society groups boycotted the UNFSS, and its outcomes remain highly contested. Although all three terms appear throughout the UNFSS Scientific Group's 'Science and Innovations for Food Systems Transformation and Summit Actions' report,<sup>xv</sup> agroecology is most often used in the UNFSS documentation to describe and support 'nature-positive' terminology. Many and sometimes varying descriptions of agroecology as a means of creating sustainable food systems can be found in the list of proposals under Action Track 3: Boost Nature-Positive Production – with a number of calls for investment in agroecology, some focusing on bringing businesses on board, and one contributor stressing the importance of defining agroecology.<sup>66</sup> Even when placed in its own category in the Summit process, agroecology was often coupled with regenerative or nature-positive agriculture. The term was also linked to discussions on Indigenous Peoples food and knowledge systems, which were also Summit themes.<sup>67</sup>

There are instances throughout the UNFSS where agroecology was used with more depth and articulated not only as a pathway to environmental sustainability but also to social cohesion, reduction of inequalities, and empowerment of local communities and their knowledge systems. These perspectives were given brief prominence when a session on agroecology was added to the pre-Summit following criticism of the agenda from governments and civil society groups.<sup>xvi</sup>

However, agroecology remained peripheral in high-profile statements and outcome documents. The terminology eventually favoured by the UNFSS Advisory Committee, particularly nature-positive and nature-based solutions, reflected the degree to which corporations and other powerful actors were able to shape the UNFSS agenda.<sup>68</sup>

In the wake of the Summit, a holistic vision of agroecology, rooted in the 13 principles, has been taken forward by the Agroecology Coalition – representing a direct response to highly divergent visions of agroecology and an effort to further institutionalize its holistic vision in negotiations on the future of food systems.<sup>xvii</sup>

### 26th UN climate change conference (COP26)

Agroecology was largely absent from the main business of COP26, where the UK presidency unveiled a set of climate-smart food system investment pledges,<sup>69</sup> and was mentioned only once in the FACT dialogues. Agroecology did feature more prominently in a workshop report produced by the UNFCCC's Koronivia Joint Work on Agriculture.<sup>xviii</sup> References to agroecology in this workshop used comprehensive and commonly agreed definitions – including social and ecological components. As such, several participants agreed that agroecology is the best approach to a new food production system<sup>xix</sup> because it aims to achieve "adaptation, resilience and mitigation objectives while also contributing to biodiversity conservation, food security, nutrition, and social objectives in an integrated manner".<sup>70</sup> While this represents the first time that agroecology has been negotiated in UNFCCC processes, agroecology has yet to be included in the final texts developed through the Koronivia process. This likely reflects geopolitical barriers to adopting any bold food system reform vision. It may also speak to the lack of shared and mutually defined terminologies and thus extreme caution from governments.

XV This report was meant to provide a framework and scientific evidence that participants could access and reference in making their suggestions and commitments. The terms appear relatively equally throughout, and reference to other research on them (most notably agroecology) is also present. Like the rest of the Summit, the report includes a dedicated section to 'Boost Nature Based Solutions and Production', which features many papers on these topics. UNFSS and The Scientific Group, 'UNFSS: Science and Innovations for Food Systems Transformation and Summit Actions'.

XVI Ten countries signed a letter to the UN Deputy Secretary General and the Special Envoy, demanding that a session on agroecology be added to the agenda of the pre-summit in Rome.

XVII For more on the Agroecology Coalition: The coalition for the transformation of food systems through agroecology, see <https://agroecology-coalition.org/>.

XVIII The workshop series brought together representatives of intergovernmental organizations – including the FAO, IFAD, and UNEP – parties to the Convention, the private sector, civil society, research organizations, and representatives of farmers.

XIX Participants supportive of agroecology in the Koronivia workshop included representatives of environmental NGOs, the Africa group, the Least-Developed Countries, and the EU, while the US and India were among the parties opposed to its inclusion.

## **15th conference of parties to to the Convention on Biological Diversity**

Agroecology received no mention in the CBD's most important outcome document to date, the Kunming Declaration. It featured almost exclusively in meetings on Targets 1-10 (mainly Target 10), related to the sustainable management of agriculture, aquaculture, and forestry.<sup>71</sup> Agroecology featured strongly in these negotiations, with several member states and international organizations proposing its incorporation in the formulation of biodiversity targets.<sup>xx</sup> It would appear that references to agroecology in the CBD context were in line with the 13 principles, though not consistently. Some invoked agroecology as a set of practices, others framed it as a more holistic alternative to monoculture production systems (and their reliance on agrochemicals), and others linked it to agrobiodiversity and Indigenous Peoples food systems.<sup>72</sup>

## **Funding spaces**

In funding spaces, agroecology is sometimes used as a stand-in for climate-smart agriculture, reflecting a strong emphasis on its environmental and climate-re-

silience components in donor circles – but also a loose discursive approach that fails to differentiate agroecology from more narrowly-focused terms. For example, a World Bank youth inclusion programme in Morocco includes a pilot to promote agroecology to improve climate resilience, whereby farmers receive support to adopt climate-smart practices, with agroecology effectively equated to climate-smart agriculture. However, there is considerable movement in this space, with several funders adopting a more comprehensive vision of agroecology. Swiss agri-development programmes regularly refer to a systemic vision of agroecology.<sup>73</sup> Germany's development agency (BMZ) also advocates for agroecological approaches to achieve "a socially just and ecologically sustainable transformation of agricultural and food systems".<sup>74</sup> Although less visible in high-level documents, agroecology features in a number of the European Commission's regional and national-level partnership frameworks. Several philanthropic donors already refer extensively to agroecology and use it as a framework to guide funding choices – but the Gates and Rockefeller foundations are notable exceptions (see background study).



## **3.3 REGENERATIVE AGRICULTURE**

Regenerative agriculture is, perhaps surprisingly, the least prominent term in the policy spaces discussed here. It has yet to be mentioned in the preparatory meetings leading up to the CBD. At the UNFSS and COP26, it was used irregularly, without any specific definition, and loosely alongside other terminology (including agroecology). Regenerative agriculture is nonetheless increasingly prominent in corporate-led sustainability schemes, where it is subject to often-detailed but rarely comprehensive or consistent definitions – and has become a catch-all term for practices focused on soil conservation and greenhouse gas mitigation. The term is also gaining currency among bilateral and philanthropic donors, for whom it serves primarily as a generic descriptor of sustainable agricultural practices.

### **UN Food Systems Summit**

Like agroecology, regenerative agriculture often appeared in UNFSS material as a generic descriptor or, in some cases, as part of the definition of nature-positive solutions. The term is sometimes used interchangeably with 'sustainable agriculture'.

### **26th UN climate change conference (COP26)**

Regenerative agriculture was rarely referenced in the main business of COP26. However, as a spin-off of the climate summit, the World Business Council for Sustainable Development (WBCSD), a global business platform bringing together over 200 international companies, announced *Regen10*. *Regen10* is promoted as "an ambitious collective action plan to scale regenerative food production systems, worldwide, in a decade... By 2030, it is hoped that over 50% of the world's food can be produced in a way that drives positive outcomes

XX Parties that put forward agroecology include Bolivia, the EU, and Switzerland, as well as conference observers Friends of the Earth and the Global Youth Biodiversity Network.

for people, for nature, and for climate".<sup>75</sup> This spin-off initiative underlines the growing currency of regenerative agriculture in business circles. It may also speak to the status of regenerative agriculture, for those actors, as a branding strategy and sustainability catch-all rather than a comprehensive framework for food system change (see below & Section 4).

## Funding spaces

Regenerative agriculture is developing a strong foothold in funding spaces. Like agroecology, regenerative agriculture is starting to appear in some of the European Commission's regional and country-level programming. The term is being more systematically taken up by other donors – but often interchangeably with other framings. For example, under its Feed The Future (FTF) initiative, USAID promotes 'climate-smart and regenerative agriculture', 'sustainable intensification', 'business models that value and account for natural resources', 'nature-positive impacts', and 'sustainable productivity'.<sup>76</sup> Similarly, the World Bank includes regenerative agriculture (alongside precision farming and conservation agriculture) under the umbrella of climate-smart agriculture.<sup>77</sup> Climate-smart agriculture – defined as "an integrated approach to managing landscapes [...] that addresses the interlinked challenges of food security and accelerating climate change" – absorbs more than half of the Bank's agricultural funding.<sup>78</sup>

## Agrifood corporations

Leading agrifood corporations are strongly pushing forward the narrative on regenerative agriculture. Nestlé, Pepsico, and Archer-Daniels-Midland (ADM), for example, have announced plans to implement regenerative agriculture 'at scale'.<sup>79</sup> Similarly, Walmart's CEO has announced: "We want to play an important role in transforming the world's supply chains to be regenerative".<sup>80</sup> Corporate 'regen' initiatives – often undertaken in partnership with the Nature Conservancy and other conservation groups – are tightly connected to environmental sustainability concerns, such as deforestation, carbon emissions, soil degradation, and biodiversity loss. Social dimensions of sustainability rarely feature in connection to regenerative agriculture (although the same corporations may have separate initiatives on child labour, gender, etc.).

Furthermore, a whole range of disparate pledges tend to fall under these 'regen' schemes, suggesting that for many agribusinesses, regenerative agriculture represents an opportunity to repackage existing commitments rather than a comprehensive framework for food system change. GHG mitigation is often highlighted. For example, under the banner of regenerative commitments, Syngenta aims to reduce operational carbon intensity by 50% by 2030, while pledging to implement regenerative agriculture to achieve its "Net Zero Roadmap". Meanwhile, Walmart promises to have numerous deforestation-free products in its supply chain by 2040 (e.g., palm oil, beef, and soy) – and counts projects on sustainable seafood monitoring and integrated cattle ranching among its commitments to regenerative agriculture.<sup>81</sup> Arguably, these pledges are being made without requiring any fundamental changes to their business models. For example, Syngenta's commitments to regenerate the environment in its "Good Growth Plan" sit alongside a continued focus on reducing (but not eliminating) agrochemical residues in crops;<sup>82</sup> Nestlé positions regenerative practices alongside carbon offsetting projects as the effective justification for plans to continue to expand sourcing of high-emitting dairy, meat, palm oil, and soy commodities.<sup>83</sup>



# 4

# CONCLUSIONS



- **The three terms – agroecology, regenerative agriculture, and nature-based solutions – have common roots but distinctive evolutionary trajectories.** Having been through an inclusive process of political legitimization, resulting in the international adoption of key elements and principles, agroecology has reached the furthest in conceptual maturity and definitional clarity. Regenerative agriculture and nature-based solutions lack this

degree of penetration and acceptance by international and technical advisory bodies; in particular, they lack approaches for addressing power differentials in food systems. Despite successful efforts to reach international agreement on what agroecology means, uses and interpretations continue to vary across communities of knowledge, policy, and practice.

- Narratives deployed in global governance spaces on food, climate, and environment shape how policy actors think about and respond to global food system challenges. Terms used in these spaces acquire meanings and associations, revealing the state of play vis à vis emerging narratives and discourses.

**Our investigation into the UNFSS, COP26, and CBD reveals considerable contestations in lead-up negotiations around the inclusion of terms on the agenda and in final outcome documents.**

- There is a growing collection of terms incorporating sustainability concerns into food systems. Though not entirely new ideas, regenerative agriculture, and nature-based solutions, alongside the more established term agroecology, are terms that are quickly gaining traction in global policy and funding circles. Across governance fora and broader policy debates, **various terms are used loosely and interchangeably, and discussion often remains on a generic, aspirational level**. Allowing the terms to co-exist and be used interchangeably with fluid meanings – rather than contrasting and confronting them directly – appears to be a deliberate strategy. Global Summits can and arguably *should* serve to build shared understandings and definitions around terms, requiring the similarities and differences between them to be openly considered and the competing visions they represent to be thoroughly scrutinized.

- **Nature-based solutions is increasing in currency across governance spaces, despite growing concerns over its lack of commonly agreed definition and principles** (or perhaps *because* of this fluidity). Civil society groups have already warned that fossil fuel majors and agribusinesses are using nature-based solutions to greenwash their activities and continue expanding core developments (and net emissions) while engaging in carbon offsetting.<sup>84</sup> The examples above confirm that nature-based solutions is often being referenced in similarly disingenuous ways in the food system, biodiversity, and climate governance spaces studied. Across these Summits, discourse rooted in nature-based solutions (and myriad spin-off terms) keeps the focus on vague aspirations – the *type* of solution we need – rather than specific approaches and guiding principles. The breadth and fluidity of the term allows the perpetuation of an ‘all of the above’ approach to food system change and equates isolated technologies and

practices with fleshed-out paradigms like agroecology (and, to a lesser extent, regenerative agriculture). Indeed, a framing around nature-based solutions may keep highly critiqued approaches firmly *in place*.

- In principle, the codification of agroecology in the FAO’s ‘10 elements’ and the HLPE’s ‘13 principles’ makes agroecology much more tractable and measurable. But despite its conceptual maturity, **agroecology is not used as an overarching framework for food system change in the three governance spaces studied here**, nor are its multiple (social and ecological) dimensions systematically referenced. Though references to agroecology have become more widespread, concerns that emerging global policy spaces and influential development actors are stripping the term of its breadth seem justified. A more holistic agroecological vision appears to be present when supportive governments and civil society groups are able to take the initiative and push it forward in select spaces, as seen in specific stages of the Koronivia process and UNFSS Track 3 (and the Agroecology Coalition that emerged from it). However, these spaces may risk becoming parallel realities, and a form of consolation prize for agroecology, allowing the term to be aired with little impact on final texts and outcomes.
- The lumping of disparate terms may reflect a lack of depth in engagement with distinct concepts. Alternatively, it could be a **deliberate effort to subsume agroecology under a framing of sustainability where political dimensions (concerning distribution, justice, and voice) are intentionally overlooked**.<sup>xxi</sup> Peter Rosset and Miguel Altieri warned some years ago that “[t]here is no better way to appease the demands of social movements and deflect their defence of agroecology – as an alternative to hegemonic capitalism – than to capture, co-opt and suppress its anti-systemic content”.<sup>85</sup> Many advocates contend that agroecology, as an explicitly political concept, is more challenging for international negotiators to grapple with. The suggestion by a high-profile individual that agroecology threatened to entangle the UNFSS in ideological battles is illustrative of such fears.<sup>86</sup> However, some of the barriers may be semantic rather than substantive. While the Kunming Declaration does not refer to agroecology, arguably, it is in debates over the post-2020 Global Biodiversity Framework that an agroecological vision rooted in the 13 principles has the greatest traction.

<sup>XXI</sup> It is worth noting that civil society organizations and social movements aligned with the ‘food sovereignty’ agenda criticized the UNFSS as a space that co-opted agroecology and other ‘transformation narratives’ used by their movements. See Canfield, Duncan, and Claeys, ‘Reconfiguring Food Systems Governance’.

- **The enthusiasm for regenerative agriculture among corporations and funders is not yet translating into global governance spaces**, where the term is used rarely and superficially. This may reflect the fact that other terms like nature-based solutions and climate-smart agriculture are already being deployed in those spaces in a way that frames food system change in relatively limited terms (with primacy to environmental dimensions, especially GHG mitigation, and a clear role for market-based solutions). The low profile of regenerative agriculture in governance fora may be a relief to those who fear that, in these spaces, the term would simply be co-opted and used as another way to dilute commitments. However, as seen with nature-based solutions, multilateral spaces can sometimes be used to forge commonly agreed (and more comprehensive) definitions.
- Although not studied in detail here, **there are major challenges in establishing more inclusive global governance spaces**. The differential power of actors to influence these processes clearly impacts which framings of sustainability are advanced. There is a real danger that the terms used to express aspects of sustainability can be manipulated and distorted by powerful stakeholders and vested interests. Compared to UNFSS and COP26, the CBD appears to be a potentially promising space to advance transformative perspectives on sustainability, with the scope to robustly confront different visions. But as the process evolves and lobbying efforts step up, it will be important to monitor whether and how these discussions and concepts feature in Part 2 of the Conference in 2022. There are also promising developments in some donor-led spaces and programmes – with more inclusive processes and greater attention to agroecology.

# RECOMMENDATIONS

Seeking to strengthen transformative perspectives on food systems in global governance spaces, this policy brief addresses the following recommendations to policy actors, advocates, and observers in global governance spaces on food, climate, and environment, including state delegates working on the international level:

- **Deliberation is required between distinct and competing ideas and priorities while recognizing that food systems and food system governance are pervaded with power imbalances** that marginalize the interests of peasants, smallholders, indigenous populations, and other social groups. Depoliticizing the sustainability debate and ignoring matters of justice, distribution, and rights will only serve to further entrench unequal power dynamics and create splintered/parallel loci of governance. The UNFSS demonstrated this vicious cycle. Avoiding a repeat requires truly participatory global governance processes, through which a more comprehensive conceptualization of food systems problems and solutions can be undertaken at the outset.
- **Business as usual through nature-based solutions, as expressed at the UNFSS, should be rejected.** In the absence of consistent and commonly agreed definitions, and in light of the risks of greenwashing, the term should be treated with scepticism if it continues to be deployed in food, biodiversity, and climate governance spaces.

- Discussion on the future of food systems will be enriched if actors use terms consistently across different fora, ensuring that broadly agreed definitions are carried forward between governance spaces and subjected to further refinement through those iterations. **Being clear about principles, goals, and practices will help to build bridges between similar concepts and highlight differences where visions diverge.**
- Regenerative agriculture is a term at a cross-roads. Highlighting the principles it shares with agroecology – building on steps already initiated in parallel to the UNFSS – can help to reclaim regenerative agriculture from corporate co-optation and reinfuse it with conceptual clarity. When terms are imbued with meaning through transparent and inclusive processes, the coexistence of different transformation pathways – with their own framing, emphases, and communities of practice – can become a source of strength in the quest for food system transformation.

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