

# ANNUAL MEMBERS FORUM MEETING 2025



Agroecology and  
Safe Food System  
Transitions

## Agroecology and resilience what's your perspective?

Fergus Sinclair on behalf of the task force

1 April 2025

Mar 20, 2025

Comment, Nature

### Food systems are the missing ingredient from the COP30 menu

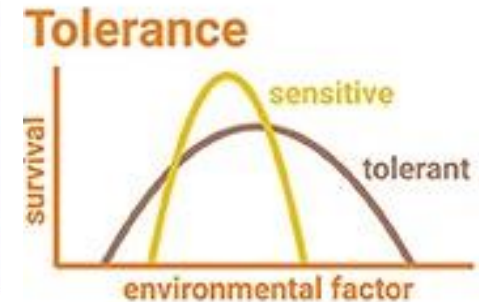
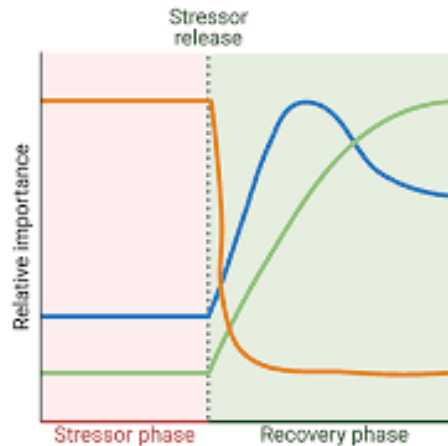
Despite making the Amazon the stage for this year's UN climate summit, Brazil has stayed silent on the food system crisis, the top driver of its deforestation



<https://www.climatechangenews.com/2025/03/20/food-systems-are-the-missing-ingredient-from-the-cop30-menu/>

# Resilience

Capacity of a system (e.g. a farm or livelihood, or a watershed or community) to withstand or recover quickly from stresses and shocks (flood, drought, salinisation, covid). Not just staying the same or bouncing back to an original state, but having **the ability to maintain core functions and identity** while undergoing change and adapting to new conditions.



# Resilience is important with respect to:

1. climate change (droughts, floods, higher temperatures, fires, landslides, changing pest and disease patterns)
2. economic forces (fluctuations in input costs / access to inputs, fluctuations in product prices)
3. social and political forces (conflict, regulations, policy change)
4. health (local human disease outbreaks, pandemics, pollution / contamination incidents)
5. other (please specify)

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## 4 FOOD SYSTEM

### 3 LANDSCAPE

### 2 FARM HOUSEHOLD

### 1 FIELD



## Field



Farmers' fields, forest plots, fish ponds or other individual production areas and the agroecological practices that are used in them. Agroecological practices at field level are often the focus of research and promotion activity, farmer interest and discussion about agroecology and resilience.

An agroecological practice is a set of components (e.g. crops, soil, animals, trees) managed for a specific purpose or set of purposes (e.g. mulching – covering soil to protect plants and soil, conserve moisture and suppress weeds).

Different levels of specificity: agroforestry may include many different tree species integrated on farms in different places interacting with different crops and livestock.





## Field level Resilience strategies



- a) **Diversity** (increasing the number and functional diversity of productive species)
- b) **Water management** (planting basins, bunds, irrigation, alternate wet and drying, contour planting, weather information)
- c) **Soil management** (erosion control, harnessing biological nitrogen fixation, biofertilisers, mulching)
- d) **Integrated pest management** (biopesticides, companion planting, natural predators)
- e) **Livestock management** (integration on fields, exclusion from fields (protection from livestock damage), provision of fodder, use of manure)
- f) Other – please specify



## Farm / livelihood



Farms, forests, fisheries or other production units under specified management. Farms are often managed by households or families.

It is often not useful to separate farming from other aspects of household activity because there are so many interactions amongst activities and it is the resilience of overall livelihoods that matters, not just the agricultural part of the livelihood.

Even if a strategy increases resilience at a field level it may not do so at a farm level because of interactions with other livelihood components with which there may be trade-offs or synergies.



## Farm / livelihood Resilience strategies



- a) Diversification (increasing the number and evenness of products / farm enterprises; species portfolio management including agroforestry; adding value through processing / marketing)
- b) Integration (tree-crop-soil-livestock integration, including biomass transfer and recycling; rice-fish culture )
- c) Collective action (engaging in joint ventures with other farmers; labour sharing, collaborative farming; collective processing and marketing of community scale)
- d) Water management (water harvesting and storage (ponds, diverting water from roads etc)
- e) Livestock management (controlling animal movement on the farm; provision of fodder on farm; use of manure as fertiliser)
- f) Other – please specify







Geographically delineated areas comprising many individual land management units (farms, forests, fisheries etc). Landscapes may be defined in many ways and be of different sizes, for example in relation to watersheds, habitat types or administrative units.

Local landscape units (typically about 10-1000 km<sup>2</sup>) are the scale at which ground level decisions about change in land use are made and at which many ecosystem services initially manifest (e.g. water regulation, pollination, conservation) and so may be managed.

The existence of value generated at landscape level may change the viability of options at farm and field level. For example a water fund at a watershed (landscape) scale may pay farmers to establish and/or maintain contour hedgerows, making this practice more attractive at farm and field levels than it was previously.



## Landscape / community Resilience strategies

- a) Develop **inclusive landscape governance structures**, involving relevant stakeholders to negotiate and manage synergies and trade-offs amongst provision of ecosystem services across landscapes (multistakeholder platforms).
- b) Develop **payment for ecosystem service** (PES) mechanisms to monetise (or otherwise reward) farmers and other land / water users at field and farm level for delivering ecosystem services at landscape scale (carbon credits, biodiversity credits, water funds).
- c) **Value network upgrading**, including collective processing, recycling and marketing facilities to capture more value from farm production locally and develop rural enterprises that provide employment for young people. Participatory Guarantee Systems (PGS).
- d) Other – please specify



## Food system



Whole food systems from production through to consumption, including input supply and food loss and waste. This includes all processes and infrastructure involved in feeding a population: growing, harvesting, storing, processing, packaging, transporting, marketing, consumption, distribution, and disposal of food and food-related items.

**Foodscape boundaries can be drawn for populations defined by administrative units (counties, districts, provinces, nations) that will have imports and exports of food and other agricultural products that affect the resilience of food security.**

The properties of food systems at national level are heavily influenced by national regulations and policies, the behaviour of consumers, food retail corporations and input suppliers.



## Food system Resilience strategies



- a) Develop **interministerial processes** that can ensure policy coherence across sectors (agriculture, forestry, environment, water, health, energy) and scales (linking national policy through sub-national structures to inclusive landscape governance, enabling PES mechanisms and PGS).
- b) Develop **inclusive digital information systems** accessible through simple apps by farmers and other food system actors (weather forecasting, pest and disease notification, market price information)
- c) **Reconfigure research, education and rural advisory services** to facilitate collective action across institutions to address real world problems at farm and landscape scales
- d) Foster greater **connectivity between producers and consumers**, including measures to **reduce food loss and waste**, allow consumers to express preferences for healthy, sustainably and equitably produced food.
- e) Develop mechanisms to **address market failures** in food value networks
- f) Other – please specify



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## NOW OVER TO YOU!

<sup>1</sup>0=not important; 1=important but should not be included in this exercise; 2=important for this exercise

<sup>2</sup>from 0-10 where 0 = not relevant; 5=of some relevance; 10=highly relevant

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### Field level feedback

#### Statement of the definition of resilience

What should be removed?	What should be modified?	What should be added?

#### Scoring of resilience dimensions

<sup>1</sup>0=not important; 1=important but should not be included in this exercise; 2=important for this exercise

Dimension	Score <sup>1</sup>	What should be removed from the list in brackets?	What should be added to the list in brackets?
climate change			
economic forces			
social and political			
health			
		Overall dimension	Specific examples
other			

#### Statement of the definition of field level

What should be removed?	What should be modified?	What should be added?

#### Scoring of resilience strategies

<sup>2</sup>from 0-10 where 0 = not relevant; 5=of some relevance; 10=highly relevant

Dimension	Score <sup>2</sup>	What should be added to the list in brackets?	Do you have examples where a specific strategy has been effective?
Diversity			
Water man.			
Soil man.			
IPM			
Livestock			
Other			