

# Stream 3:Transforming livelihoods through agroecological approaches with trees and forests

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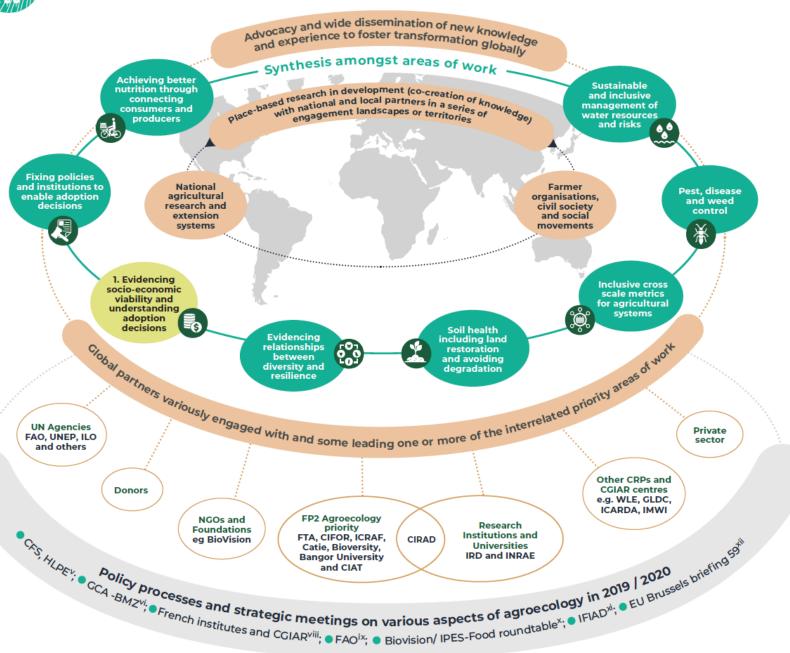


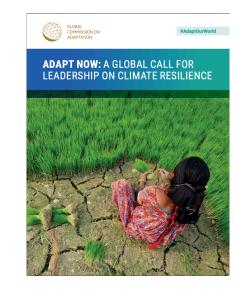
# Transformative Partnership Platform on agroecological approaches to building resilience of livelihoods and landscapes













communes. Adjustion is done by scientists working closely with farmers and other stateholders to contract contract, contracted as students to present professions as they are experienced body stater than through propring central professional calculates that the size is the local program of the facility and the professional calculates that can be contracted to the size of the contraction of

climate signals. Current market failures (for example not contring polition nor valving the maintenance of oil original candro, and pervense policy controller (for example subsidior) used of failler failures and predicted) contrible to militage superint decisions for farmers and other food system actors to adopt agrocological approaches despite their benefits for climate resilience.

Approaching manifests at field, firm and fundscape scales, for which different markets of agricultural performance are relevant

metrics for agriculture will require innovation in both public and private (value chain) sector governance.

There is extensive experience of agroecological practices contributing to addressing specific climate change effects, s

### out this paper

nis paper is part of a series of background papers commissioned by the Global Commission on Adaptation to Inform s 2019 flagship report. This paper reflects the views of the authors, and not necessarily those of the Global Commission Adaptation.

Suggested Citation: Sinclair, F., Wezel, A., Mbow, C., Chomba, S., Robiglio, V., and Hanrison, R. 2019. "The Contribut of Agroecological Approaches to Realizing Climate Resilient Agriculture." Rotterdam and Washington, DC.

# Agroecological principles

HLPE 2019. Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome http://www.fao.org/3/ca5602en/ca5602en.pdf

Sinclair, F., Wezel, A., Mbow, C., Chomba, C., Robiglio, V., and Harrison, R. (2019). The contribution of agroecological approaches to realizing climateresilient agriculture. Background Paper. Global Commission on Adaptation. Rotterdam.

https://cdn.gca.org/assets/2019-12/TheContributionsOfAgroecologicalApproaches.pdf

### RECYCLING

Preferentially use local renewable resources and close, as far as possible, resource cycles of nutrients and biomass.

### **INPUT REDUCTION**

Reduce or eliminate dependency on external inputs.

### SOIL HEALTH (3

Secure and enhance soil health and functioning for improved plant growth, particularly by managing organic matter and by enhancing soil biological activity.

### ANIMAL HEALTH (4)

Ensure animal health and welfare.

### **BIODIVERSITY** (5)

Maintain and enhance diversity of species. functional diversity and genetic resources and maintain biodiversity in the agroecosystem over time and space at field, farm, and landscape scales.

Enhance positive ecological interaction, synergy, integration, and complementarity among the elements of agroecosystems (plants, animals, trees, soil, water).

### **ECONOMIC DIVERSIFICATION**

Diversify on-farm incomes by ensuring small-scale farmers have greater financial independence and value addition opportunities while enabling them to respond to demand from consumers.

### CO-CREATION OF KNOWLEDGE

Enhance co-creation and horizontal sharing of knowledge, including local and scientific innovation, especially through farmer-to-farmer exchange.

### **SOCIAL VALUES AND DIETS**

Build food systems based on the culture. identity, tradition, social and gender equity of local communities that provide healthy, diversified, seasonally, and culturally appropriate diets.

Support dignified and robust livelihoods for all actors engaged in food systems, especially small-scale food producers. based on fair trade, fair employment, and fair treatment of intellectual property rights.

### **CONNECTIVITY** (11)

Ensure proximity and confidence between producers and consumers through promotion of fair and short distribution networks and by re-embedding food systems into local economies.

### **LAND AND NATURAL RESOURCE GOVERNANCE**

Recognize and support the needs and interests of family farmers, smallholders, and peasant food producers as sustainable managers and guardians of natural and genetic resources.

### **PARTICIPATION**

Encourage social organization and greater participation in decision-making by food producers and consumers to support decentralized governance and local adaptive management of agricultural and food systems.





# Incremental and transformational transition levels

LEVEL 5

Build a new global food system based on participation, localness, fairness and justice

LEVEL 4

**Fransformation** 

Reconnect consumers and producers through the development of alternative food networks

LEVEL 3

Redesign agroecosystems

LEVEL 2

Substitute conventional inputs and practices with agroecological alternatives groecosystem

LEVEL 1

Increase efficiency of input use and reduce use of costly, scarce or environmentally damaging inputs

PARTICIPATION LAND AND **FAIRNESS** NATURAL RESOURCE **GOVERNANCE** SOCIAL VALUES AND DIETS CONNECTIVITY CO-CREATION OF KNOWLEDGE **ECONOMIC** DIVERSIFICATION RECYCLING SYNERGY ANIMAL BIODIVERSITY HEALTH SOIL INPUT HEATH REDUCTION

**FAO Elements** – entry points

**HLPE Principles** – characterisation and analysis

Wezel A, Gemmill Herren B, Bezner Kerr R, Barrios E, Gonçalves ALR and Sinclair F (2020). Agroecological principles and elements and their implications for transitioning to sustainable food systems. A review. Agronomy for Sustainable Development (in review).

Wednesday 16 September 13:00-14:30 UTC (90 mins)

Session 1 – Transforming livelihoods through agroecology: incremental

transitions



Tuesday 22 September 13:00-14:30 UTC (90 mins)

Session 2 – Transforming livelihoods through agroecology: towards transformation



**Eduardo Somarriba** Overview incorporating asyncronous presentations / posters

**Ric Coe.** Principles for R and D supporting forests, trees and agriculture **Leigh Winowiecki.** Employing a farmer-centered approach to scale land restoration in East Africa and the Sahel: understanding what works where and for whom using planned comparisons

**Endri Martini.** Innovations in agroforestry extension for scaling-up the adoption of non-timber forest products (NTFPs) domestication in Indonesia

# Discussion

Concluding remarks by Michael Quin Patton, keynote speaker

**Yanxia Li** Overview incorporating asynchronous presentations / posters

**Todd Rosenstock.** What can doughnuts tell us about the value of forests and trees?

**Valentina Robiglio.** Agroforestry Concessions in Peru – Effective compliance comparisons

**Dayu Soraya.** Green growth plan and strategies for the pristine and indigenous landscape of Papua, Indonesia

# **Discussion**

Concluding remarks by Rachel Bezner Kerr, keynote speaker