

Market Systems Development opportunities

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Agroecology

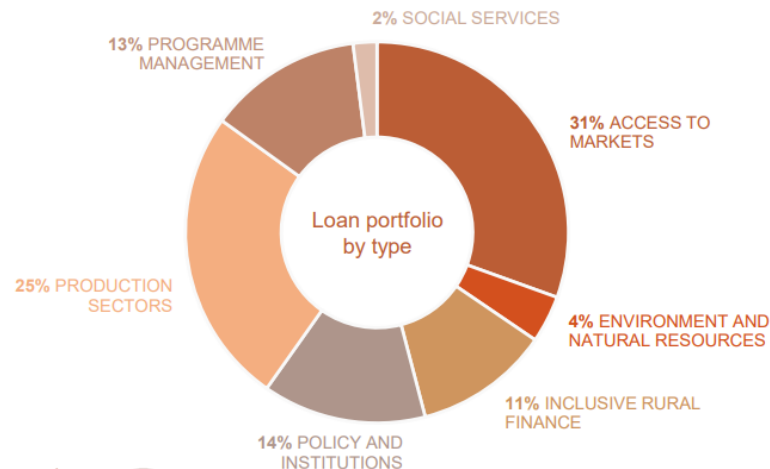
25.07.2024

 ILIFAD | FIDA



IFAD overview

- Specialised agency of the UN *and* development finance institution
- Only one focusing on rural economies and food systems
- **Loans and grants** through governments for agriculture and rural development projects (> \$24bn in 46 years)
- Member State pledges & private borrowing on capital markets (AA+) & supplementary funds



40%
climate
finance



35%
gender
transform



60%
nutrition
sensitive

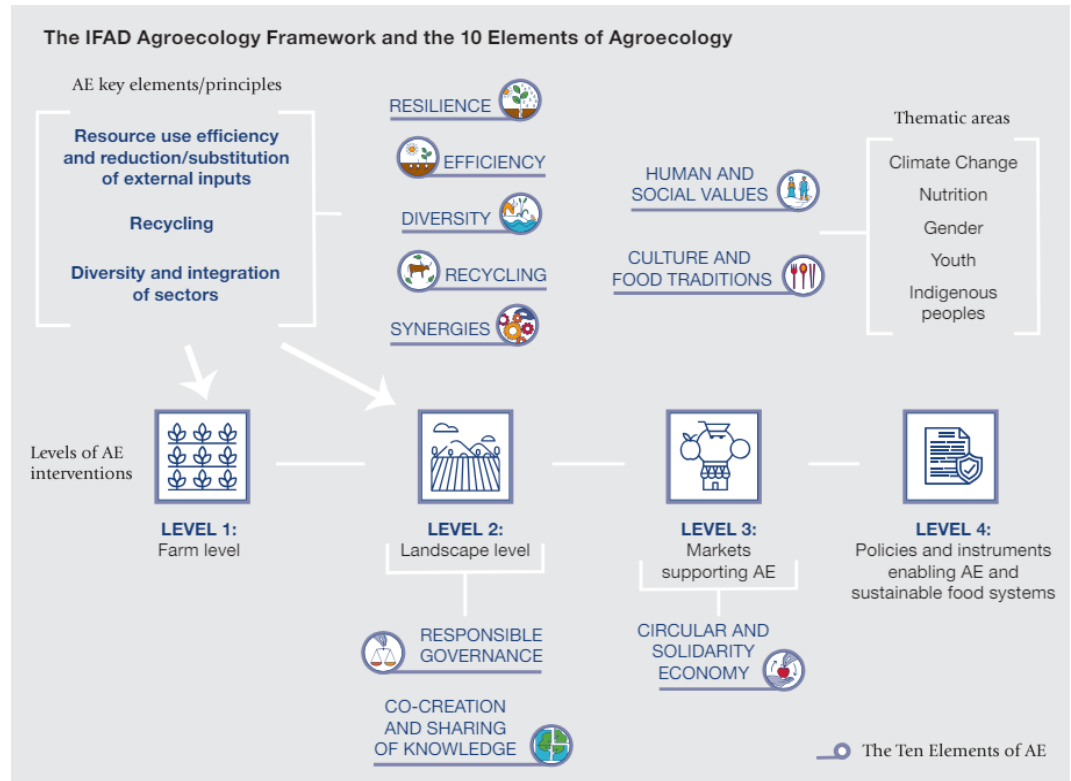


60%
youth
sensitive



Agroecology

- Agroecology as **transition pathway** towards sustainable food system. Not dogmatic approach requiring full transformation in Y1.
- 10 principles adopted by FAO Council
- System made of:
 - Diversity of crops and animals
 - Recycling of nutrients, water, biomass, energy
 - Reduced input needs (not organic)
 - Increased participation, fair access to resources and benefit redistribution (social)



Agroecology interventions



Level 1

Farm

- Water management and soil erosion control; Integrated soil fertility management; Integrated pest, disease and weed management; farm animal welfare and nutrition management; diversification and integration of sectors in crop-livestock-fish systems; **Farm and household level renewable energy**



Level 2

Landscape land-use planning, governance and co-creation

- Participatory land-use planning; building/strengthening community institutions for natural resource governance; community-owned research and learning agenda; **use of traditional knowledge**

Landscape and shared resource management

- **Community and local seed systems; community gardens and cultivation** rangeland/pasture and fodder management; community forest and woodland management; land and water management in farming landscapes **weather monitoring for climate change adaptation actions; community renewable energy**



Level 3

Value addition

- Food processing; safe storage; **labelling and community-supported guarantee systems**

Access to markets

- **Access to differentiated markets; innovation organising supply and demand; infrastructure and physical spaces for farmers markets; public procurement of agroecological produce**



Level 4

Enabling policy

- **Participatory mechanism for policy dialogue; institutional strengthening for formulation; implementation and M&E of agroecology-enabling policies and instruments**

Enabling regulations

- **Food safety and nutrition; agrochemicals and animal drugs; seeds and plant genetic resources**

Enabling instruments and services

- **Support to research and extension institutions; credit lines and insurance products, incentive systems; climate change and GHG information systems and services**



Agroecology vs other agricultural practices

Practice	Focus	Typical attributes
Agroecology	Systemic integration of biodiversity, local knowledge, and social equity for sustainable farming	Polyculture, cover crops, rotations, livestock integration, local knowledge, recycling, govern.
Organic agriculture	Natural inputs and processes, avoiding chemicals	Organic manure, compost, natural predators and other biocontrol
Climate-smart agriculture	Climate adaptation and mitigation practices integrated to productivity goals	Conservation tillage, cover crops, IPM, precision technology, renewable energy
Conventional/“green revolution” agriculture	Maximising productivity and efficiency through chemical inputs and technology	Intensive farming, chemical input use, monoculture, GMOs, intensive irrigation
Conservation agriculture	Soil health enhancement and crop productivity through minimal soil disturbance, crop rotation and permanent soil cover	Permanent soil cover, crop rotations, minimal soil disturbance, crop species diversification, organic matter
Regenerative agriculture	Enhancing soil, water and biodiversity health through agriculture practices	No/reduced tillage, cover crops, rotation and diversification, organic inputs

Key differences of agroecology

- Systemic approach, beyond farm production only – integrating Levels 1 to 4
- Social participatory structures
- Not about 0 inputs – efficient and reduced use
- **Globally accepted definition**

Myths, challenges and opportunities for MSD

Criticism	Rationale	Discussion	Opportunity for MSD
Cannot feed the world	Reduced crop productivity/yields	<ul style="list-style-type: none"> • Yield/crop – Yield/ha – Land Equivalent Ratio • 286 agroecological projects review - yields average ↑ 79% • Yield stability ↑ • Feed v. nutrition 	<ul style="list-style-type: none"> • Consumer/demand change • More diverse input subsidies
Cannot be profitable	Struggle to compete in markets, higher input costs for bio-inputs	<ul style="list-style-type: none"> • 1.3% decrease crop production and 14% income loss in developed economies without subsidies • Soil degradation • True costs • Reduced costs • Increased stability 	<ul style="list-style-type: none"> • Market access, transport, visibility, labelling etc • Jobs for local bio-input production • Support transition • Change subsidies and incentives • Benefit sharing



Myths, challenges and opportunities for MSD

Criticism	Rationale	Discussion	Opportunity for MSD
Too much land	Reduced yields incentivise expansion	<ul style="list-style-type: none"> • Land restored (increased biomass and carbon capture) • Total yields increase per ha • Intensification principles apply 	<ul style="list-style-type: none"> • Adapted machinery • Bio-inputs and diversified seeds development
Labor intensive	More manual labour, more time, more knowledge	<ul style="list-style-type: none"> • True! • Employment creation - not all on farmers • GiZ brief on agroecology and job creation 	<ul style="list-style-type: none"> • Service providers • Research, education and extension systems (adaptive and participative) • Digital innovations for youth



Regenerative v. conventional – impacts by 2040

Economic impacts

- 13% production in SSA
- 5m jobs across SSA
- \$70bn Gross Value Added SSA

Food security

- 13% ↑ per capita consumption
- Up to 15% ↓ household food expenditure
- 16% increase daily per capita calorie intake

CC Adaptation

- 20% increase SOC
- >6 Gt CO2 sequestration potential
- 30% erosion reduction

From Regenerative Agriculture: An opportunity for businesses and society to restore degraded land in Africa ([IUCN, 2021](#))

Examples of these interventions in IFAD portfolio

1. [Vietnam. Public-Private-Producers-Partnership \(4P\) model](#)
2. [Kenya. CASP and bio-inputs providers under e-voucher scheme](#)
with gradual beneficiary contribution requirements to ease transition
3. [Malawi & Madagascar. Productive alliances](#)
4. [Kenya. PES through Water Fund](#)
5. [Recipes for Change Initiative](#)

See Annexes



Lessons learned

- **Profitability of on-farm v. off-farm inputs**

- **Impact assessment [Lesotho SADP \(2011-2020\)](#)** - Substantially higher use of organic fertilisers among horticulture producer
- When organic fertilizer are self-produced, **higher profits**. Profits still negative when self-produced organic fertilizers associated median-market price, profits are negative
 - *Support bio-input markets, meantime encourage on-farm production*

- **Landscape approaches**

- **KCEP-CRAL (2015-2024)** - Push-and-pull practices not scaled - brachiaria seeds unavailability, or quantity too large, no vegetative propagation
- Millet at risk of birds if grown by one only
- [Verified Sourcing Area model](#)

Market signals for agroecology reform

Global policy & regulations

- [Global Biodiversity Framework Target 10](#)
- EU CAP reform
- WTO discussing ag subsidies reform
- [Taskforce on Nature-related Financial Disclosures \(TNFD\)](#) and the [Task Force on Climate-related Financial Disclosures \(TCFD\)](#)

National policies

- [France Agroecology Plan](#)
- [Brazil's Agroecological Policy](#)
- [India's Zero Budget Natural Farming \(ZBNF\)](#)
- [Tanzania National Ecological Organic Agriculture Strategy](#)
- [Kenya National Agroecology for Food System Transformation Strategy](#)

Many more in process

Markets

- Demand growing – majority purchased AE products in the last month
- Across globe, consumers willing to pay (20-30% more)
- Looking in *standard* markets too

Research and knowledge

EU Joint Research Centre - [Mapping the contribution of agroecological transitions to the sustainability of food systems & Agroecological practices supporting food production and reducing food insecurity in developing countries](#)



Resources for you

- [Agroecology Investment Guide](#) – what, why, how
- [ACE: Agroecology Check for Enterprises](#)
- [B-ACT: Business Agroecology Criteria Tool](#)
- [Business case for private sector engagement in agroecology](#)
 - Success factors, threats, barriers, opportunities
 - Yield gap discussion
 - Profitability track record
 - Why is it not implemented more broadly?

Thank You

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25 July 2024



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Annexes



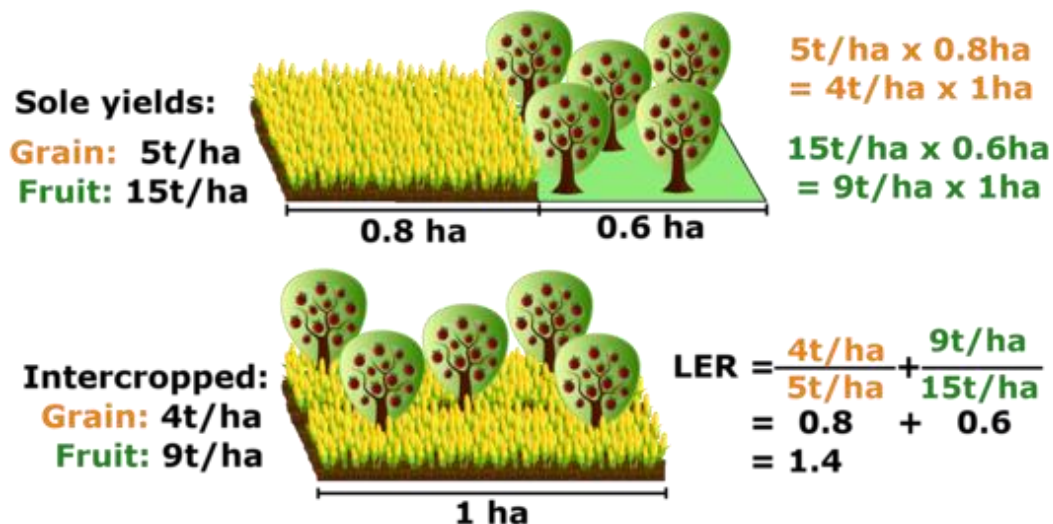
Land Equivalent Ratio example

LER > 1 = yield advantage

LER < 1 = yield disadvantage

LER = 1 No yield advantage

Bearing in mind intercropping brings benefits beyond yields (reduction in input costs, increased biodiversity, etc)



Viet Nam AMD (2013-2020) Public-Private-Producers-Partnership (4P) model

- Betrimex provides agricultural inputs (e.g., organic fertilizers, bioplat protection) quarterly, offers training services, conducts, quality verification and enters into long-term agreements with the producers (including the purchase of 100% of the produce at a fair price), as part of their commitment to support the producers to make the transition into organic certified production
- Producers commit to supplying their production to the company as per agreed conditions.
- Project supports by providing a matching grant and acts as a liaison between the company, farmer organizations and local authorities.
 - Betrimex had expanded organic material zone to 184 ha with the participation of 336 households. 322 farmers were included, out of which 69 were women
 - Farmer income increased by an average of 183%
 - Total of 731 jobs created



Kenya KCEP-CRAL (2015-2024) – CASP and e-voucher scheme

- E-wallet on card at selected bank connects input providers and buyers
 - Bio-fertiliser companies and Conservation Agriculture Service Providers (land preparation, pest control...) trained through project
 - CASP and companies linked to e-wallet voucher alongside other inputs and services (chemical, insurance, ...)
 - Beneficiary cash contributions triggers access to e-wallet goods and services (gradually increasing beneficiary contribution, until graduation)
- Awareness raising to encourage selection of bio-inputs in e-wallet
 - Sustainability: Beneficiaries report calling upon CASP once graduated from e-wallet, but reverred to other inputs due to national and county subsidies

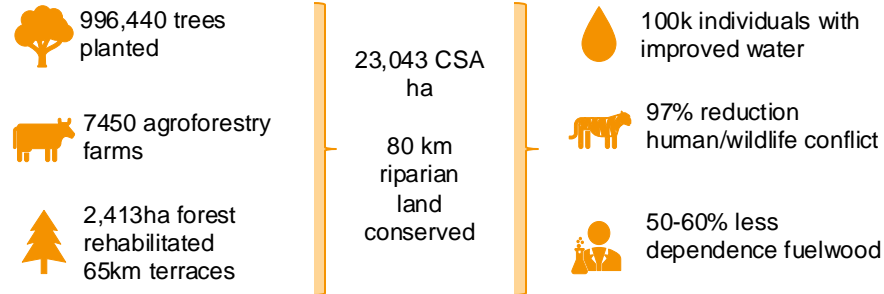
Malawi SAPP2 and Madagascar – AE Productive alliances

Agroecological Productive Alliances three core agents: (i) a group of producers; (ii) one or more buyers; and (iii) market enablers (here, the project)

1. Market study on demand, outlets, location (short circuits)
2. Formation or mobilization of producer associations
3. Buyer-producer association alliances, including business plan for meeting buyers' requests and support identification of AE products
4. (Producer-input provider alliance)
5. Market enabler supports production through TA, packaging, marketing etc
6. (PGS system to verify (peer inspection and support network))

Kenya (2012-2022) - Upper Tana Catchment Natural Resource Management

- First of its kind water fund in Africa
- Sustainable financing mechanisms **from downstream users for upstream** natural resource management
- Empower local communities to **sustainably manage natural resources** for improved water, climate resilience, food and income (**217,000** households - 56% women; 13% youths)
- Endowment fund: 1.5 M USD | Business case: **1:2 return**



Recipes for Change

- Collection of recipes across projects
- Linking farmers to consumers
- Meals from neglected and indigenous crops

<https://www.ifad.org/en/web/latest/recipes-for-change>

