



**NATAE**  
North African Transition  
to AgroEcology

# Day 1

- **Agenda Presentation NATAE** (Mélanie Requier-Desjardins)
- **Agroecology in the North Africa** (Rachel Bezner Kerr)
- **MEDAE Network Presentation** (Mélanie Requier-Desjardins)
- **Panel Discussion PAFO** (Aimable Twagirayezu)
- **Agroecology ACDD-OSS** ( Abdelbasset Hamrouni)
- **Presentation Cross Visit Side Event NATAE**



# NATAE : FOSTERING **AGRO-ECOLOGICAL** TRANSITION IN NORTH AFRICA

THROUGH **MULTI-ACTOR** DESIGN, EVALUATION  
AND **NETWORKING** (2022-2026)



**NATAE**  
North African Transition  
to AgroEcology

## The conference objectives and the Agenda

Mélanie Requier-Desjardins

29/01/2025

Regional Conference on Agroecology: Science and Policy  
29-31 January 2025, Tunis



Funded by  
the European Union

Project funded by

Schweizerische Eidgenossenschaft  
Confédération suisse  
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Swiss Confederation

Federal Department of Economic Affairs,  
Education and Research EAER  
State Secretariat for Education,  
Research and Innovation SERI

Funded by the European Union under Grant Agreement no. 101084647. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them. For the associated partner in the NATAE project, this work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI).



## Global objective

**to develop a methodology to foster agroecological transitions in North Africa**

## Specific objectives

**1. to provide a comprehensive understanding of agroecology with the identification of promising AEP combinations and their local perceptions in North Africa**

**2. To assess the multidimensional benefits of AEP, conditions means tools and support to AE transitions**

**3 To broaden consumers and value chains base : market access strategy for smallholders, enhanced consumer demand for agroecological products**

**4. to set up a multi-actors Mediterranean network on agroecology fostering knowledge exchanges through communities of stakeholders at different scales**

**5. to empower key stakeholders in charge of policy elaboration and higher education**

## TUNIS REGIONAL CONFERENCE TOPICS

# Context : NATAE project



## Horizon Europe Research and innovation on agroecological transitions

Multi-actor  
project



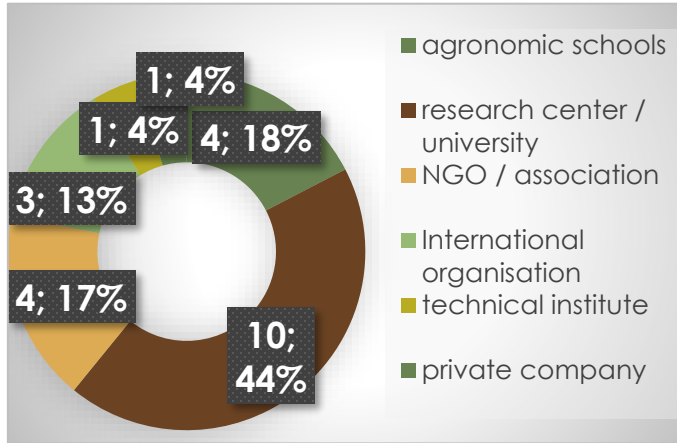
7 living labs and 5 replication labs  
in 5 North African countries



7M€  
Budget



48  
Months



23 partners



5 main agrosystems



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Research and Innovation SERI

## Context : NATAE objectives and conference Agenda

## NATAE Global Objective Supporting agroecological transitions in North Africa

## NATAE specific Objectives

## Conference sessions



Understanding the  
context of agroecology



**Launch** : Pr Rachel Bezner Kerr (Cornell U.) : An introduction to agroecology in the NATAE region as a hot spot of climate change



International  
Network setting up



**Agroecology in Action** : insight from the MEDAE network / MEDAE presentation (CARI) and international multiactor panel



Empowering in the  
fields of policy and  
education



**Session 1** : Agro-ecology, Policy and Education Integration to enhance adaptation to climate change, national and regional perspectives

- Introductory keynotes (INAT and CIHEAM-IAMM)
- Working groups sessions

**Session 2** : Agroecology at international scale : introductory keynotes (IUCN) and multiactor panel



Enlarging incl.  
consumers and  
value chains



**Session 3** : Going further, linking agroecology with food systems G. Vlontzos (UTH), F. Ameer (CREAD) and multiactor panel

# Conference Agenda and multi actor participation

## TWO STRATEGIC SESSIONS

**High level roundtable: Policy and public education strategies for accelerating the agroecological transition**

**Session 4 : Scaling-up and Mobilizing Funding to Advance Agroecology : introduction (APIA) and Panel Session of Funders**

Diversity of participants from North African countries and international cooperation :

Public administration leaders,  
Scientists and higher education representatives,  
Civil society organisations,  
International organisation representatives,  
Private sector  
Farmers, funders, students

....

Multi actor panel concept to launch dynamic exchanges  
Promotion of further exchanges with the audience  
Hybrid conference : welcome to online participants, please use the chat



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Education and Research SAE  
State Secretariat for Education,  
Research and Innovation SERI

## Main → to put forward evidence and raise awareness .....

Advancing agroecology as a core solution to North Africa's food security and environmental challenges.

- To foster high-level dialogue among leaders in science, policy, and practice to drive agroecological transformation,
- To bridge the gap between international frameworks and local policies,
- And to promote sustainable, inclusive food systems.

## Specific .... Through wide multi actor participation, panels and working groups

- To facilitate Multi-Actor Collaboration and promotes exchanges of experiences
- To support the Agroecological Transition in education and public policies
- To showcase Real-World Solutions and Best Practices
- To enhance the recognition of Agroecological Practices and knowledge co creation through the MEDAE Network



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- **Regional Policy Recommendations for Agroecology:** Formulation of comprehensive regional policy recommendations aimed at mainstreaming agroecology across national agricultural and environmental strategies
- **Strengthening Regional Networks:** Establishment and promotion of a regional multi-actor network (MEDAE) working towards bridging gaps between research, policy, and practical applications, with the aim of scaling up agroecology across the region.
- **Integration of Agroecology in Research, Education and Training:** Initiating the inclusion of agroecology in research projects and the curricula and of agricultural and environmental programs
- **Financial Mechanisms for Agroecological Implementation:** Identification and development of sustainable financial mechanisms to support the implementation of agroecological practices, focusing on national and regional investments rather than relying solely on international cooperation



- **NEXT STEP : NATAE SECOND POLICY AND SCIENCE CONFERENCE ON AGROECOLOGY, MONTPELLIER, SEPTEMBER 2026**
- **What can be done in-between?**
- ➔ **Ideas, projects, and initiative sharing and launching are mostly welcome**

### NOTE A CHANGE IN THE PROGRAMME

- **Closing insight session facilitated by Fatou Mar (session 6)**
- **Will be replaced by a feedback over the Tunisian NATAE cross visit in Siliana living lab facilitated by INAT Mehdi ben Mimoun and Inès Zouari with testimonies from the cross visit participants**

# Conference complete Agenda

## DAY 1

- *Opening ceremony*
- *Conference launch : Pr Rachel Bezner Kerr / An introduction to agroecology in the NATAE region at a hot spot of climate change*
- *Agroecology in Action : insight from the MEDAE network / MEDAE presentation and international multiactor panel*
- *Side-event & Cocktail Dinner*

## DAY 2

- *High-level round table : Policy and public education strategies for accelerating the agroecological transition*
- *Session 1 : Agro-ecology, Policy and Education Integration to enhance adaptation to climate change, national and regional perspectives*
  - *Introductory keynotes (INAT and CIHEAM-IAMM)*
  - *Working groups sessions*
- *Session 2 : Agroecology at international scale : introductory keynote (IUCN) and multiactor panel*
- *Session 3 : Going further, linking agroecology with food systems : introductory keynotes (UTH and CREAD) and multiactor panels on awareness campaigns and food systems*

## DAY3

- *Session 4 : Scaling-up and Mobilizing Funding to Advance Agroecology : introduction (APIA) and Panel Session of Funders*
- *Session 5 : Key takeaways and synthesis : reporting over the working groups session*
- *Session 6 : Closing insights*



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Enjoy the conference!



**NATAE**  
North African Transition  
to AgroEcology

[www.natae-agroecology.eu](http://www.natae-agroecology.eu)

# Thank you!



Leibniz-Zentrum für  
Agrarlandschaftsforschung  
(ZALF) e.V.



**WAGENINGEN**  
UNIVERSITY & RESEARCH



Centre  
d'Action et de  
Recherches  
Internationales



INSTITUT NATIONAL AGRONOMIQUE DE TUNISIE  
UN PÔLE D'EXCELLENCE



Sociedade Portuguesa de Inovação



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA



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# Agroecology in the North African region as a Hot Spot of Climate Change

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Professor Rachel Bezner Kerr

Department of Global Development

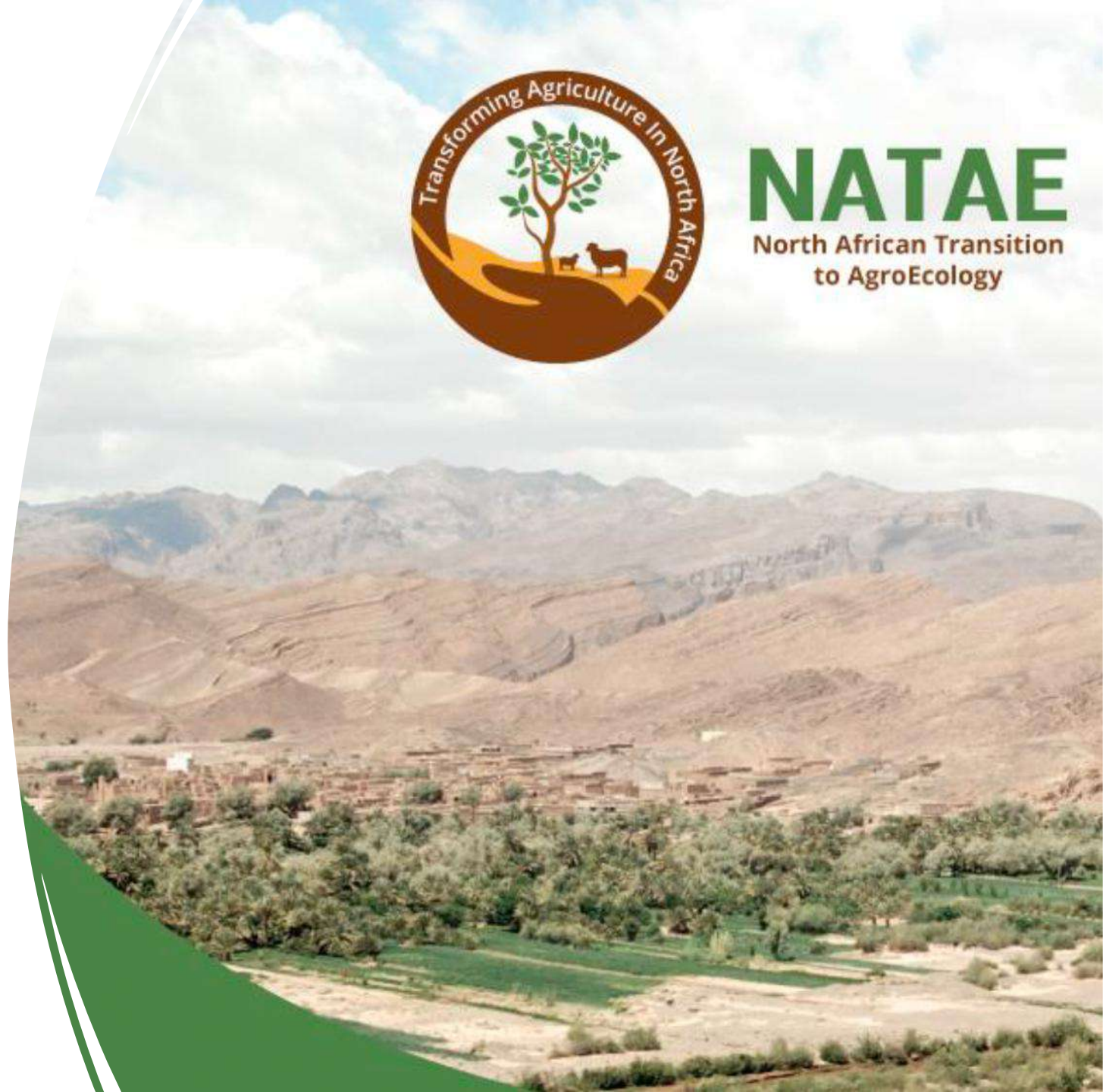
Cornell University

Regional Conference on Agroecology:  
Science and Politics

Tunis, Tunisia, January 29, 2025

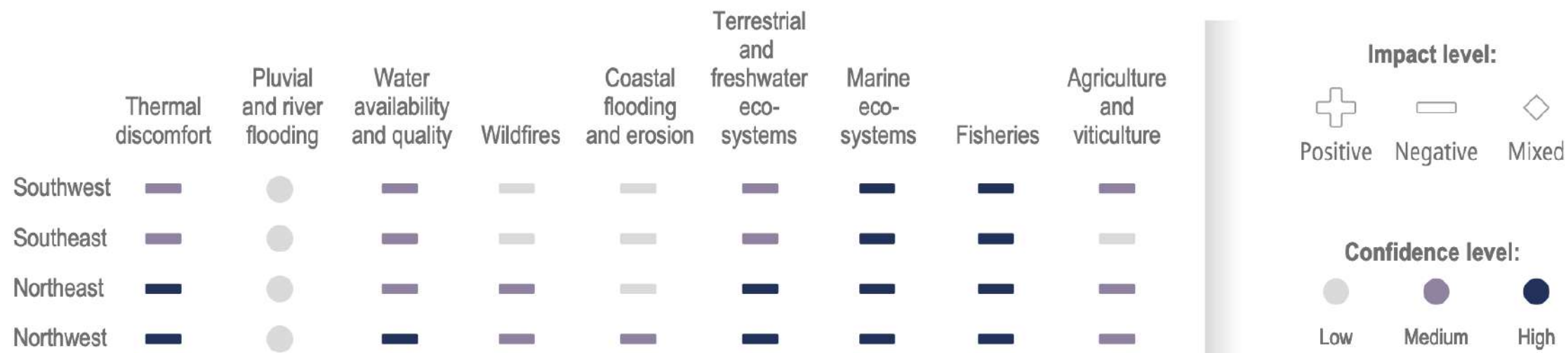


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# Observed Climate change impacts: Mediterranean region and North Africa

## Attribution of observed impacts of climate change in the Mediterranean region



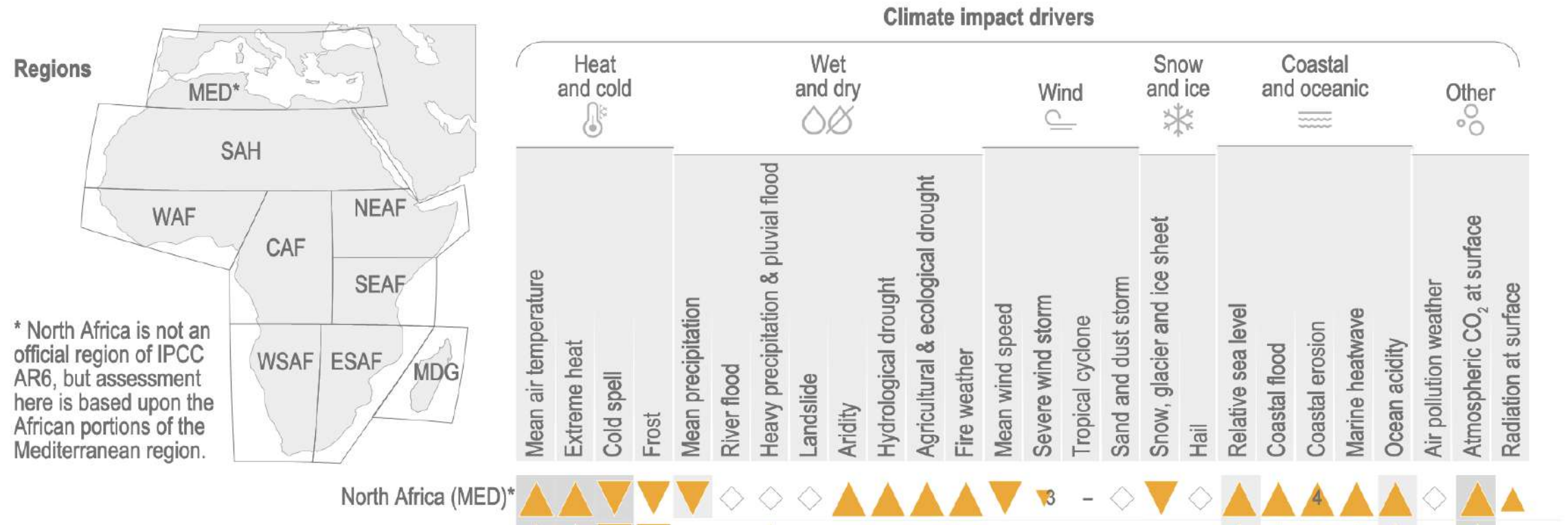
**Figure CCP4.5 | Attribution of observed impacts of climate change in the Mediterranean region (see SMCCP4.1 for supporting references).**

Source: Ali, E. et al. 2022: Cross-Chapter Paper 4: Mediterranean Region. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 2233–2272, doi:10.1017/9781009325844.021.



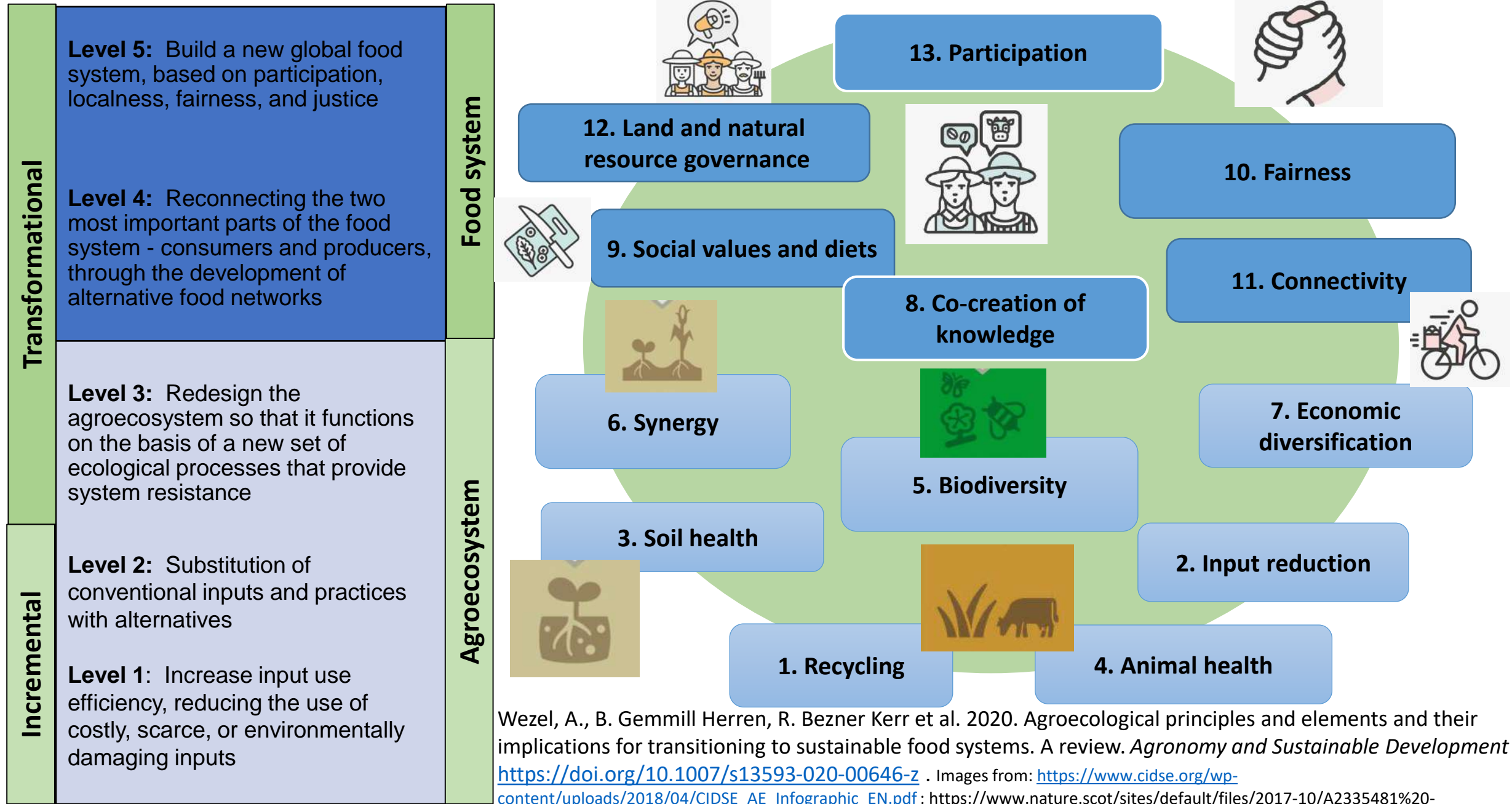
# Projected change in Climate Impact Drivers

## Summary of confidence in direction of projected change in climate impact drivers in Africa



Source: Trisos, C.H., et al., 2022: Africa. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1285–1455, doi:10.1017/9781009325844.011.

# Food system transformation level and agroecological principles



Wezel, A., B. Gemmill Herren, R. Bezner Kerr et al. 2020. Agroecological principles and elements and their implications for transitioning to sustainable food systems. A review. *Agronomy and Sustainable Development* <https://doi.org/10.1007/s13593-020-00646-z> . Images from: [https://www.cidse.org/wp-content/uploads/2018/04/CIDSE\\_AE\\_Infographic\\_EN.pdf](https://www.cidse.org/wp-content/uploads/2018/04/CIDSE_AE_Infographic_EN.pdf) ; <https://www.nature.scot/sites/default/files/2017-10/A2335481%20->



# Participatory & equitable learning approaches key component of agroecology

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- Drawing on Indigenous knowledge systems & practices, participatory action research, co-creation
- Farmer-led schools, grassroots farmer-to-farmer networks and social movements;
- Attention to social inequity in food system & need for democratic governance in food system to address systemic inequities.







Agroecology, ecosystem-based management in fisheries, & other approaches that work with natural processes support food security, nutrition, health & well-being, livelihoods, biodiversity, sustainability and ecosystem services. These services include pest control, pollination, buffering of temperature extremes, and carbon sequestration and storage (*high confidence*). (IPCC WGII AR6 2022, SPM C2.2)



# Agroecology as Climate Change Adaptation: Silvopastoral systems

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- *Synergies*: Provide shade and other health benefits for livestock; increase crop + animal productivity
- multipurpose benefits e.g. tree crops as source of income, manure improves soil health
- carbon sequestration
- *Tradeoffs* –requires capacity-building, may need new infrastructure, markets.



# Agroecosystem Diversification

- Multiple spatial & temporal patterns e.g. mixed planting, intercroops, crop rotation, diversified management of field margins, agroforestry, integrated crop livestock systems;
- Improves regulating and supporting ecosystem services such as pest control, soil fertility and health, pollination, nutrient cycling, water regulation, buffering of temperature extremes, yield stability and reduced risk of crop loss





# Synergies with Agroecosystem Diversification



- Crop diversification reduces **sensitivity to precipitation variability, yield losses** under drought (*high confidence*)
- Example: study in Canada compared diversified rotations vs corn, found **significant positive yield impacts, yield stability** and **increased soil organic carbon** under both RCP4.5 and RCP8.5 by 2100.
- Variable impacts depending on crop combination, agroecosystem;
- Rigorous assessments of adaptive gains and potential trade-offs still need to be conducted across socio-ecological contexts.

Photo source: <https://u.osu.edu/growingfranklin/2018/10/14/fall-cover-crops-for-soil-health/>

(Jarecki et al., 2018, cited in IPCC Chp. 5: 746)



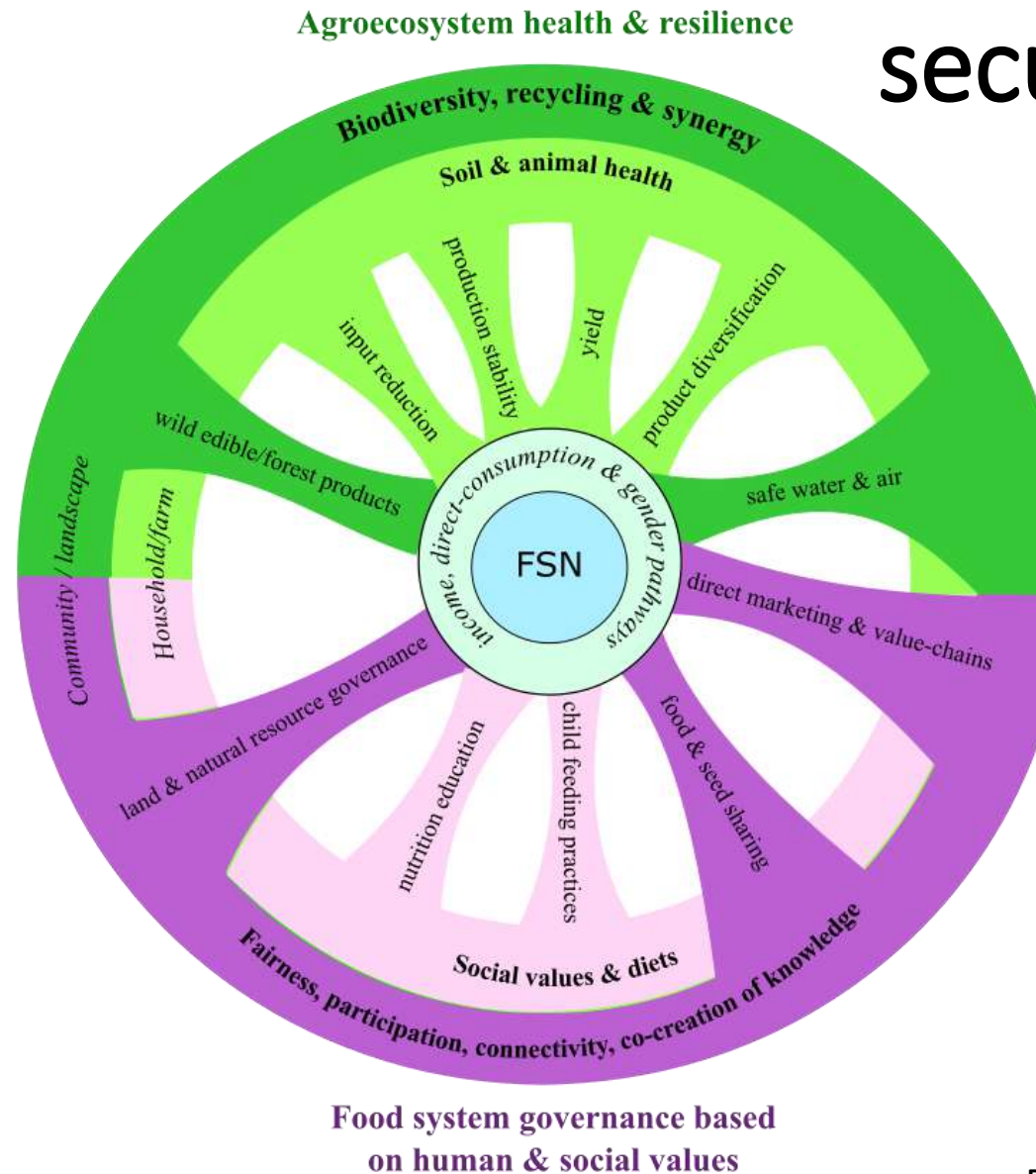
# Example of Agroecology beyond the Farm Gate

- Support for capacity-building in **agroecology** and **farmer cooperatives**
- **Public procurement** of regional and local food production;
- Homegrown **school foods** strengthens child health & nutrition and provides stable income for smallholders.



# Can agroecology impact food security & nutrition?

- Reviewed evidence 1998-2019
- 11,771 articles screened; 56 selected
- 78% found evidence of positive outcomes
- More complex agroecological systems (e.g. crop diversification, farmer-to-farmer networks) more likely to have positive food security & nutrition outcomes.



	No. of agroecological components	Cases with positive outcomes	Cases with negative outcomes	Cases with mixed outcomes	Cases describing category (n = 55)
Agroecology	Simple				
	1	14	0	6	20
	2	14	1	3	18
	3	8	0	1	9
Complex	4	7	0	1	8

Bezner Kerr, R. et al. 2021. Can agroecology improve food security and nutrition? A review. *Global Food Security* 29. <https://doi.org/10.1016/j.gfs.2021.100540>



# Case Studies: Participatory Research on Agroecology with African Smallholders

Research Question: Can agroecological methods be used to improve food security, nutrition, livelihoods and well-being of smallholder African households?



6000 households in Malawi, pre-post / control

400 households in Malawi, highly food insecure, 20 villages, Pre-post design



588 households in Tanzania, pre/post and delayed intervention, cluster randomized trials



500 households in Malawi, pre/post and delayed intervention design



# Agroecological Farmer Experiments

## 5. Biodiversity

## 1. Recycling

## 3. Soil health

## 6. Synergy



- Agroforestry (fruit & leguminous trees)
- Double intercropped legumes (pigeonpea, groundnuts)
- Compost and intensive animal manure application
- Crop diversification e.g. sorghum, finger millet, cowpea.
- Farmer-to-farmer learning, exchange and farmer experimentation.





# Agroecological practices significantly improved food security and dietary diversity

Increase in **food security** and **dietary diversity** in all research studies. **Crop diversity, compost application** & participation in agroecology positively associated with food security.

**In Malawi: women's dietary diversity higher for those in participatory agroecology intervention**

**A household was 32% less likely to be severely food insecure per additional food crop grown.**



 **In Tanzania: Agroecology households 8.04x more likely to intercrop; 1.38x more likely to use sustainable soil health practices**

**Children in agroecology households 1.48x more likely to have minimum acceptable diet**

Kangmennaang, J. et al. 2017. Impact of a participatory agroecological development project on household wealth and food security in Malawi. *Food Security* 9: 561-576 Madsen, S., et al. . 2021. Explaining the impact of agroecology on farm-level transitions to food security in Malawi. *Food Security* Santos, M.V., R. Bezner Kerr, et al. 2021. A nutrition-sensitive agroecology intervention in rural Tanzania increases children's dietary diversity and household food security but does not change child anthropometry: results from a cluster-randomized trial. *Journal of Nutrition*. Owoputi et al. 2022. Does Crop Diversity Influence Household Food Security and Women's Individual Dietary Diversity? A Cross-Sectional Study of Malawian Farmers in a Participatory Agroecology and Nutrition Project. *Food and Nutrition Bulletin*. 43(4):395-411.

# Gender relations matter for agroecology impacts



In Malawi, farmers who **discussed farming with their spouse** were 2.4 times more likely to be food secure & have diverse diets.

Agroecological interventions **increased women's autonomy in decision-making.**



In Tanzania participation in peer-to-peer agroecology intervention increased odds of **men doing household tasks** and reduced odds of **women's depression**

Kansanga, M. M., et al. 2024. Can gender transformative agroecological interventions improve women's autonomy? *Agriculture and Human Values*.  
Santoso, M.V., et al. 2021. A nutrition-sensitive agroecology intervention in rural Tanzania increases children's dietary diversity and household food security but does not change child anthropometry: results from a cluster-randomized trial. *Journal of Nutrition*.  
Cetrone, H. M. et al. (2021). Food security mediates the decrease in women's depressive symptoms in a participatory nutrition-sensitive agroecology intervention in rural Tanzania. *Public Health Nutrition*.; Bezner Kerr, R., et al. 2019. Participatory agroecological research on climate change adaptation improves smallholder farmer household food security and dietary diversity in Malawi. *Agriculture, Ecosystems and Environment* 279: 109-121.



7. Economic  
diversification

9. Social values and  
diets

# Longer term change: Agroecology transitions to improve food security, income & land use



- Two years after intervention, 90% of surveyed participants (n=600) using agroecological practices;
- Significant link between # of agroecology practices and likelihood of becoming **food secure** and with **higher income**;
- Farmers participating in farmer-to-farmer learning activities significantly more likely to practice agroforestry, composting, mulching and legume intercrops;

Kangmennaang, J., et al. 2017. Impact of a participatory agroecological development project on household wealth and food security in Malawi. *Food Security* 9: 561-576. Kansanga, M., et al. 2020. Determinants of smallholder farmers' adoption of short-term and long-term sustainable land management practices. *Renewable Agriculture and Food Systems*. 36(3), 265-277. doi:10.1017/S1742170520000289

## Intensive agriculture vs. agroecological agriculture



Figure Cross-Working Group Box BIOECONOMY.1 | Left: High-input intensive agriculture, aiming for high yields of a few crop species, with large fields and no semi-natural habitats. Right: Agroecological agriculture, supplying a range of ecosystem services, relying on biodiversity and crop and animal diversity instead of external inputs, and integrating plant and animal production, with smaller fields and presence of semi-natural habitats. Credit: Jacques Baudry (left); Valérie Viaud (right), published in van der Werf et al. (2020).

## How to support Agroecological Transitions?

- Barriers include political, technological, financial and knowledge-based;
- E.g. subsidies can prevent adoption of diversified crop rotations;
- Supportive policies and market measures can support transition e.g. payments for ecosystem services, public procurement, local and regional market support, capacity-building and training.



# Acknowledgements, Thank You & Questions

## ***Research Collaborators:***

- Cornell University
- Soils, Food & Healthy Communities
- Western University, Canada
- Mzuzu University, Malawi
- Lilongwe University, Malawi
- Chancellor College, Univ of Malawi
- Würzburg University, ,Germany
- Norwegian Institute of Bioeconomy (NIBIO)
- IPCC Chapter 5 team and fellow authors of SPM



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McKnight Foundation, CCRP  
Global Affairs Govt of Canada  
Daniel & Nina Carasso Foundation  
Atkinson Center, Cornell University

## **For More Information:**

[www.ipcc.ch](http://www.ipcc.ch)

[rbeznerkerr@cornell.edu](mailto:rbeznerkerr@cornell.edu)



# MEDAE network

## Multi-actor network on agroecology in the Mediterranean



*The MEDAE network emerged as part of the NATAE project [2022–2026] funded by the European Union under the Grant Agreement no. 101084647. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.*

## MEDiterranean multi-actor network on AgroEcology

### HISTORY

- **NATAE project** - North African Transition to AgroEcology [Horizon Europe 2022 - 2026]

<https://www.natae-agroecology.eu/>



- **22 partners** from around the Mediterranean (research institutions, technical institutes, high-level educational bodies, international organizations and NGOs)
- Aims to demonstrate that agro-ecological approaches, adapted locally to the diversity of farming systems, can offer adequate solutions to the challenges of food systems in North Africa.
- 7 living labs and 5 replication labs (oases, mountains, cereal plains, peri-urban areas, irrigated valleys) in Mauritania, Morocco, Algeria, Tunisia and Egypt.



MEDAE: Create a multi-stakeholder knowledge and capacity-building community; broaden and continue exchanges and collaborations beyond and after the NATAE project.

**Registrations open since October 2024**

## MEDiterranean **multi-actor** network on AgroEcology



**ORGANIZATIONS** with different statuses, disciplines and scales of action

Board A Technical, education and research institutes	Board B Development organizations	Board C Territorial stakeholders	Board D Political organizations and individual experts
<ul style="list-style-type: none"><li>• Research institutes</li><li>• Technical institutes</li><li>• Universities</li><li>• Agronomic high schools</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• NGO's</li><li>• Development stakeholders</li><li>• Networks on agroecology</li><li>• ....</li></ul>	<ul style="list-style-type: none"><li>• Producers organizations</li><li>• Consumer organizations</li><li>• Private sector</li><li>• ....</li></ul>	<ul style="list-style-type: none"><li>• Local authorities</li><li>• Decentralized governmental institution</li><li>• International organizations</li><li>• Individual expert</li></ul>

- ✓ A systemic vision of agroecology; from production to distribution and consumption
- ✓ A cross-functional understanding of the challenges of agroecological transition
- ✓ Acting at complementary levels and in complementary roles
- ✓ Speak with a stronger, unified voice

## MEDiterranean multi-actor network on AgroEcology



Mediterranean countries/regions: similar ecological and socio-economic challenges

CLIMATE  
CHANGE

SECHERESSE



URBANIZATION

PRESSURE ON  
NATURAL RESOURCES

...



Members are not necessarily from  
Mediterranean countries

## MEDiterranean multi-actor network on AgroEcology



Mediterranean countries/regions: similar ecological and socio-economic challenges

The principles of agroecology can provide diverse and multidimensional solutions for sustainable food systems across the Mediterranean.



! Members are not necessarily from Mediterranean countries

## OBJECTIVES



**Objective 1 :** Stimulate **collaboration and the exchange** of information, knowledge, solutions and experience between professionals involved in the agroecological transition in the Mediterranean.

→ Knowledge transfer accelerator: exchanges between stakeholder, peer-to-peer learning, capacity building, etc. (webinars, training, question-and-answer sessions, case study presentations...)

## OBJECTIVES



**Objective 1:** Stimulate **collaboration and exchanges** of information, knowledge, solutions and experience between professionals involved in the agroecological transition in the Mediterranean.



Webinars

Publications

Position papers and policy briefs

Technical datasheets

Other resources

2024

### Example: series of webinars

What are the prospects for supporting the deployment of agroecology in public policies in North Africa?

Quelles sont les perspectives de soutien au déploiement de l'agroécologie dans les politiques publiques en Afrique du Nord ?

(realized on 26/11/2024)

Agenda (EN)

Agenda (FR)

Summary (EN)

Synthèse (FR)

Presentations (EN / FR)

Watch (FR)

2023

How to enhance the role of women in mountain agroforestry systems in North Africa?

(realized on 24/10/2023)

Watch (FR)

How can we promote the development and marketing of agro-ecological products in peri-urban areas?

(realized on 09/11/2023)

Watch (FR)

Between traditional and scientific knowledge, how can we improve the resilience of peri-oasis systems?

(realized on 23/11/2023)

Watch (FR)

Climate change: a catalyst for the agro-ecological transition of cereal crops in North Africa?

(realized on 07/12/2023)

Watch (EN)

Watch (FR)



## OBJECTIVES



**Objective 2 :** Give a strong, unified voice to all stakeholders involved in the Mediterranean agro-ecological transition

→ **Political and scientific advocacy**

### Example:

- **Webinar :** « Prospects for supporting the deployment of agroecology in public policies in North Africa » (Nov 26, 2024)
- **Side event** at COP 16 UNCCD, Riyad : « Securing food systems in North Africa: prospects for supporting the deployment of agroecology in public policies » (Dec 4, 2024)
- **Policy briefs and position papers** (encouraging AE transition in public policies in North Africa; integration of AE in education ; AE as a way to mitigate drought in oasian systems)
- ...

## REGISTRATIONS

- **As an organization : registration to the network**

<https://www.medae-agroecology.eu/become-a-member/>

- Step 1. Designate a focal point and sign a letter of appointment (by the organization).
- Step 2. Read network framework documents
- Step 3. Fill in the online registration form

We will get back to you to validate the registration within one month



**Join a sharing community on Mediterranean agroecology**



**Increase political representation and influence**



**Increase your visibility**



**Access to financing and projects**



**Access information**



**Contribute to network activities and decisions**



**Member  
benefits**



## REGISTRATIONS

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- Step 2. Read network framework documents
- Step 3. Fill in the online registration form

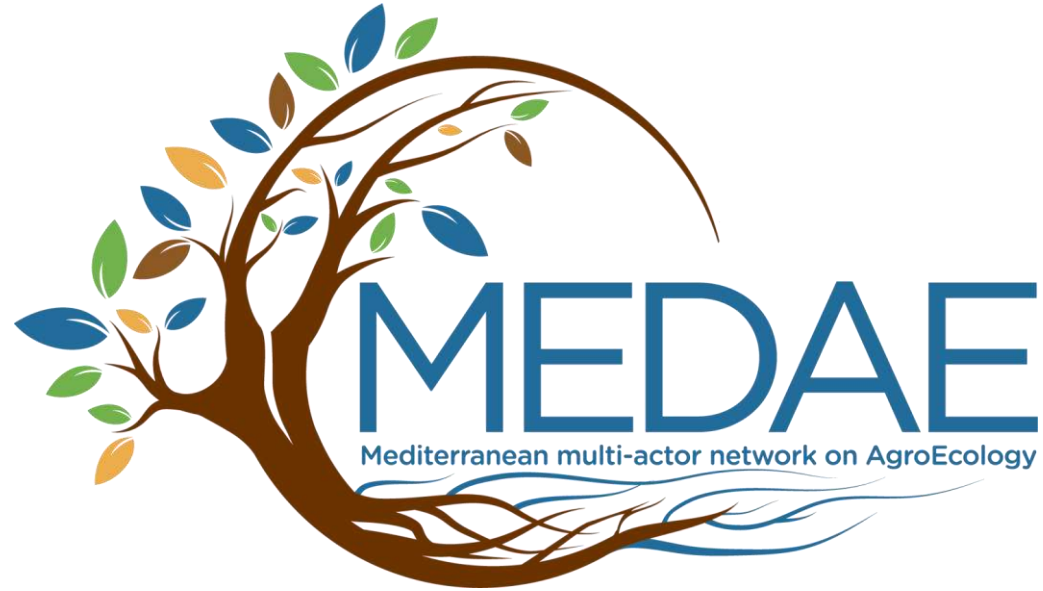
We will get back to you to validate the registration.

- **As an individual** : subscribe to our newsletter

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Keep up to date with news (webinars, events, publications...)





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المنظمة الإفريقية للفلاحين

## **PANEL DISCUSSION**

**“LEARNING FROM OTHER REGIONS AND NETWORKS: INITIATIVES, INSIGHTS, AND PATHWAYS FOR CONNECTION.”**

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**Tunis, Wednesday, 29 January 2025**



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The Pan-African Farmers' Organization (PAFO) is a continental organization with a membership base composed of Regional Farmer's Networks. Its Constitutive Assembly was held under the sponsorship of the African Union in Lilongwe, Malawi, from October 27 to 29, 2010. PAFO is recognized as the representative body of African farmers' organizations at the highest continental level.



Eastern African Farmers Federation (EAFF)

Plateforme Régionale des Organisations  
Paysannes d'Afrique Centrale (PROPAC)

Réseau des organisations paysannes et de  
producteurs de l'Afrique de l'Ouest (ROPPA)

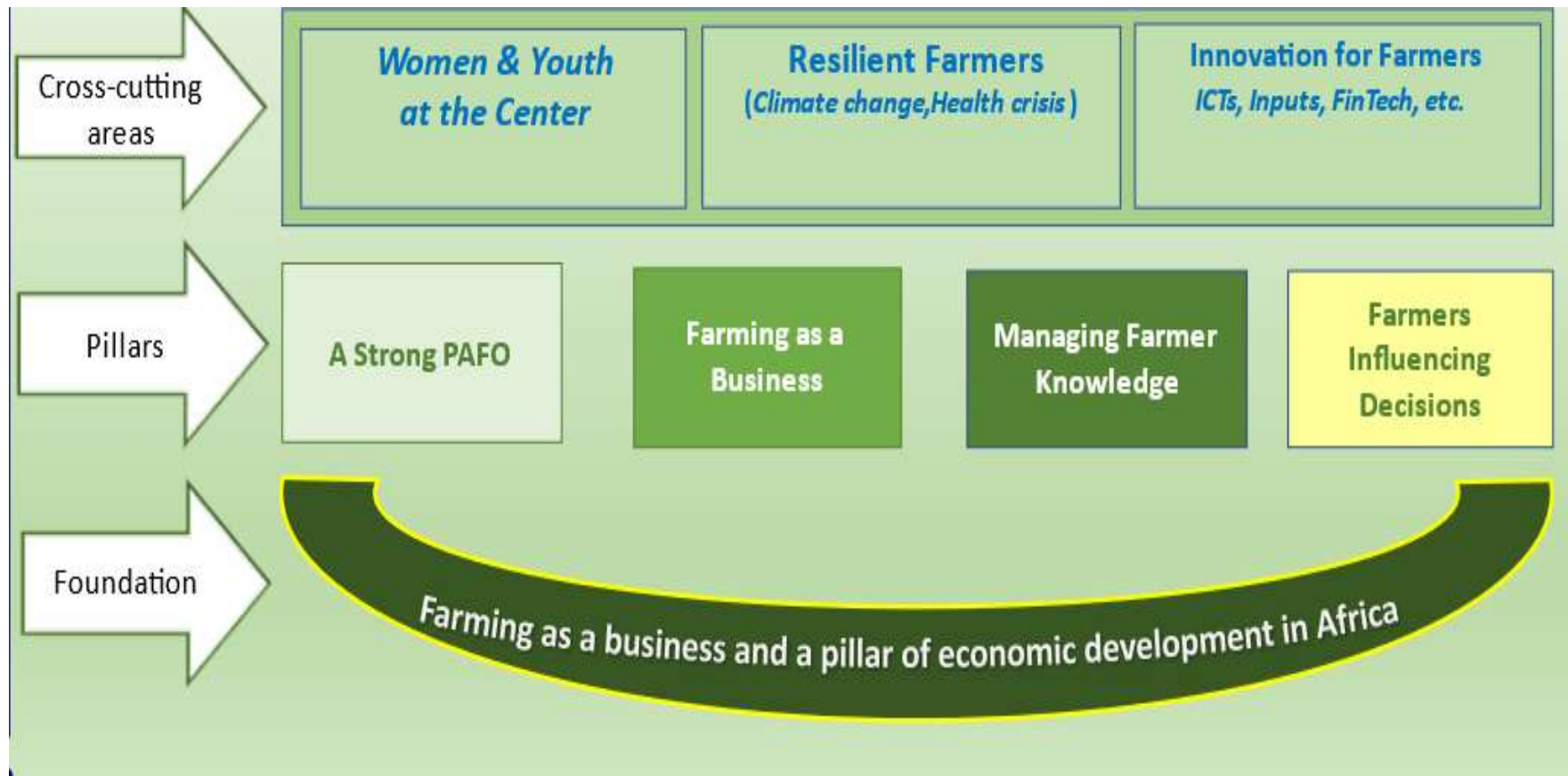
Southern African Confederation of Agricultural  
Unions (SACAU)

Union Maghrébine et Nord-Africaine des  
Agriculteurs (UMNAGRI)



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### PAFO Strategy (2021-2025)







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Exploration of initiatives, experiences, and success stories from other regions and networks, offering valuable insights and practical pathways to foster collaboration, knowledge exchange, and stronger connections for advancing agroecology and sustainable practices.



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1. POLICY: a) Put in place agroecology 1 strategy, now under review to update it. 2) Submitted independent Memorandum to AUC ahead of Post Malabo

2. GOVERNANCE- Elaborated Statutory documents (Establishment in 2010-2014 and recently reviewed: Current, Approved in Ivory Coast, 12-14 December 2024

3. ADVOCACY-Conducting studies/Position papers. On 10 Jan 2025, PAFO organized a side event along Kampala Heads of states and governments Summit , advocacy missions

4. IMPACT-Implementation of FO RI Program and other initiatives. Some them are: Exchange platform, peer to peer, attend COP, established MIS, 5 workshops on various thematics, Webinars e.g: 06 December 2024 (Webinar on Seeds)

5. MEL- Gather members success stories and publish

6. COMMUNICATION & KNOWLEDGE-Organize Knowledge management events and peer to peer sessions



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شكراً  
SHUKRAN







# **Regional Conference on Agroecology: Science and Policy Tunis January 29–31, 2025**

**Agroécologie: des Initiatives associatives  
dans les Oasis**

**Abdelbasset HAMROUNI  
ACDD Gabès Tunisie**



# Les Oasis en Tunisie

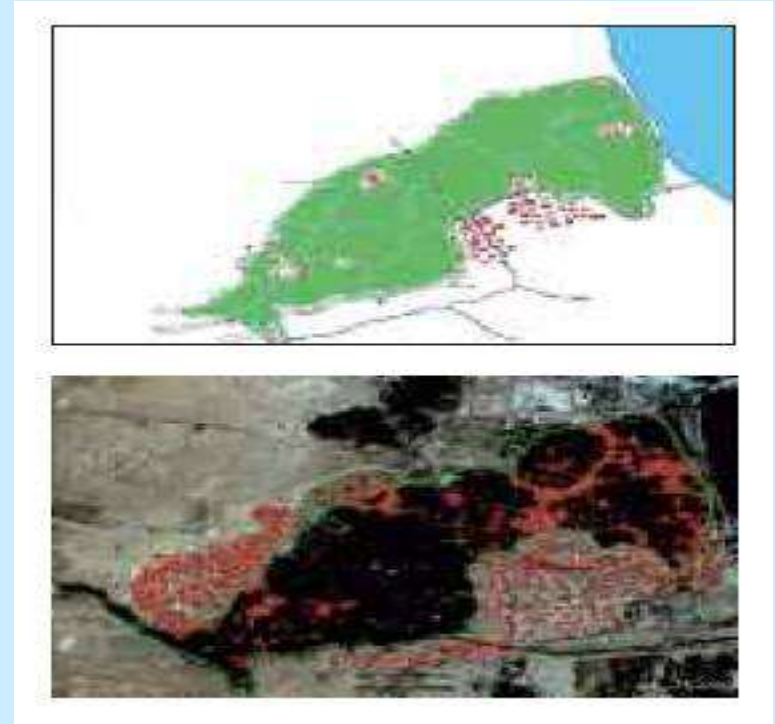
Superficie totale : 45000 ha

- 9% des périmètres irrigués et 1% de la superficie agricole totale
- effectif en palmier dattiers: > 5 Millions
- 3 types d'oasis:
  - \* Littorale (Gabès) 7000ha
  - \* Continentale (Kebili, Tozeur,) 37600ha
  - \* De Montagne (Tamaghza, ..) 400ha
- 126 oasis traditionnelles (18000ha patrimoine de l'humanité) et 141 oasis modernes (palmerais: usines à dattes monoculture) .
- 60 000 parcelles pour 55000 exploitants (Sup Moyenne bien < 1ha par oasisien).
- l'agriculture oasisienne 10 % de la population Tunisienne.
- Les oasis: environ 10 millions de journées de travail
- Production dattes : 150000T/an
- Export dattes: environ 100 Millions € /an (10% des exports agricoles)



# Problématiques Générales des Oasis

- **Ecologique** : Changements Climatiques, Désertification, Ressources Naturelles (eau, sol, semences, biodiversité,...), Déchets végétaux (60Kg/pied,...)
- **Economique**: Dissociation agriculture-élevage, Rentabilité, Ouverture Marché
- **Sanitaire**: maladies, parasites,..
- **Social** : Morcellement par transmission d'héritage, jeune- travail agricole, construction anarchique,..
- **Culturel**: Savoir faire local, Patrimoine (hydraulique, Medina,..)





# Economie d'eau

- Aménagement des parcelles (dimension des planches, nivellement,..)
- Réseau d'irrigation dans la parcelle
- Réseau de drainage (BP-FAO)
- réseau d'irrigation principal ( ouvrages, vannes, gestion des fuites)
- Production - Pompage : W Renouvelable
- Gouvernance de l'eau: solution IT El Guettar
- Mode d'irrigation plus économe
- Choix de cultures plus résilientes
- Introduction « difficile » du semis en ligne
- Eaux pluviales; Eaux N. conventionnelles (185 l/s en été et 800 l/s en hiver (CRDA Kebili 2017)





# Le compostage

- Valorisation des déchets végétaux
- Amélioration de la fertilité des sols
- Une meilleure économie d'eau à la parcelle
- Une agriculture durable : production et en qualité
- Economie verte et circulaire ( unité de compostage)
- Promotion de l'agriculture biologique





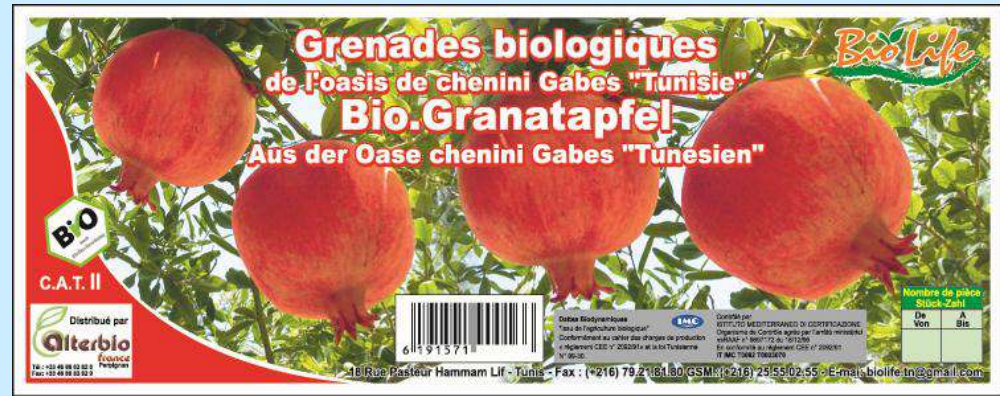
# Pratiques agroécologiques de Traitement des Cultures





# Valorisation des produits oasiens

- Labellisation des produits
- Certification Biologique
- Agriculture biodynamique
- Artisanat : palmes, jonc, roseau
- Produits de terroir
- Menuiserie à base de bois de palmier
- Etc..





## Sécurité Alimentaire: Gestion durables des semences locales

- Groupe de paysans semenciers
- Production de semences locales
- Coordination avec les institutions ( banque des gènes, centre de recherches,...)
- Echange et troc inter-oasiens
- Des Cultures saines et plus résilientes
- Adhésions à des dynamiques et réseaux de semenciers





## Agroécologie : Contraintes et Défis !

- Vulnérabilité de l'écosystème Oasien aux Changements Climatiques : Biodiversité, cultures, précipitation, intrusion marine dans la nappe, Incendies, maladies et ravageurs palmier.. (aggravé par l'impact sur l'économie (tourisme))
- Adhésion non satisfaisante des paysans aux pratiques de l'agroécologie (AE) :compostage, semences locales,..
- Manque de vulgarisation efficace en faveur des l'AE
- Manque de politique et mesures d'encouragement des investisseurs notamment les jeunes dans l'AE
- Les Contraintes économiques et financières subit par les paysans :la production, la rentabilité, marché,
- Les ressources Naturelles avec l'eau comme un facteur déterminent
- Une capacité et un Rôle de la société civile à renforcer en continue pour assumer sa responsabilité dans la sauvegarde et le Plaidoyer des oasis
- Le RADDIO un acteur incontournable pour le DD des oasis au Maghreb et en Afrique
- La prise de la relève des jeunes dans la sauvegarde des oasis est bien inquiétante !!
- Un rôle de la femme oasienne à renforcer et à promouvoir







**Merci pour votre attention**

# برنامج الحزام الأخضر لدعم التنمية والتأقلم بالنظم البيئية لمنطقة السباسب بتونس الوسطى

(استصلاح وتهيئة الأراضي من أجل الحد من التصحر  
وأثار الجفاف وتنمية محلية مستدامة)

حدث جانبي على هامش مؤتمر الفلاحة الإيكولوجية  
29 جانفي 2025



# أمثلة لمبادرة الحزام الأخضر

## الحزام الأخضر بإفريقيا

- تهدف المبادرة التي انطلقت منذ سنة 2007 إلى إحداث فسيفساء من النظم البيئية الخضراء والمنتجة في منطقة الساحل والقرن الأفريقي.

- تم تصميم هذا الجدار في البداية كحزام طويل بعرض 15 كيلومتراً يعبر القارة الأفريقية بأكملها لمسافة 7800 كيلومتر ويمر عبر 11 دولة، ومن المفترض أن يربط هذا الجدار داكار (السنغال) بجيبوتي؛ وسيمثل هذا حوالي 117000 كيلومتر مربع، أو 11.7 مليون هكتار.





# الحزام الأخضر بالصين

حوالي 3000 كلم

انطلاق المشروع 1978

أكثر من 30 مليون هكتار تمت غراستها



# أمثلة لمبادرة الحزام الأخضر

## الحزام الأخضر بالجزائر

- منذ 1970 أطلقت الجزائر مشروع الحزام الأخضر من خلال تشجير رواق بعرض 20 كلم وطول 1500 كلم من الحدود التونسية إلى الحدود المغربية (حوالي 3 مليون هكتار) - تعرض المشروع لبعض الصعوبات،

- تم سنة 2007 إعادة إحياء هذا المشروع لإنجازه إلى أفق 2030

# مبادرة برنامج الحزام الأخضر من أجل التنمية بتونس

## الأهداف البرنامج:

سيمكن هذا البرنامج من تحقيق نتائج ملموسة بحلول عام 2030، من أجل:

- استعادة ما يقارب 260 ألف هكتار من الأراضي المتدهورة ومن خلال ذلك توفر مخزون من الكربون.
- خلق فرص "العمل الأخضر" في المناطق الريفية
- تحسين ظروف حياة السكان المحليين
- الوقاية من ظهور بعض أشكال التصحر، بما في ذلك العواصف الرملية والترابية؛



# مجالات تدخل البرنامج:

سيعمل البرنامج على تشجيع الاستثمارات في خمسة مجالات:

**المجال 1:** استعادة الأراضي، وتعبئة المياه، والإدارة المستدامة للنظام البيئي.

**المجال 2:** زيادة قدرة النظم الزراعية والنظم البيئية على مواجهة تغير المناخ والجفاف واعتماد الطاقات المتجددة.

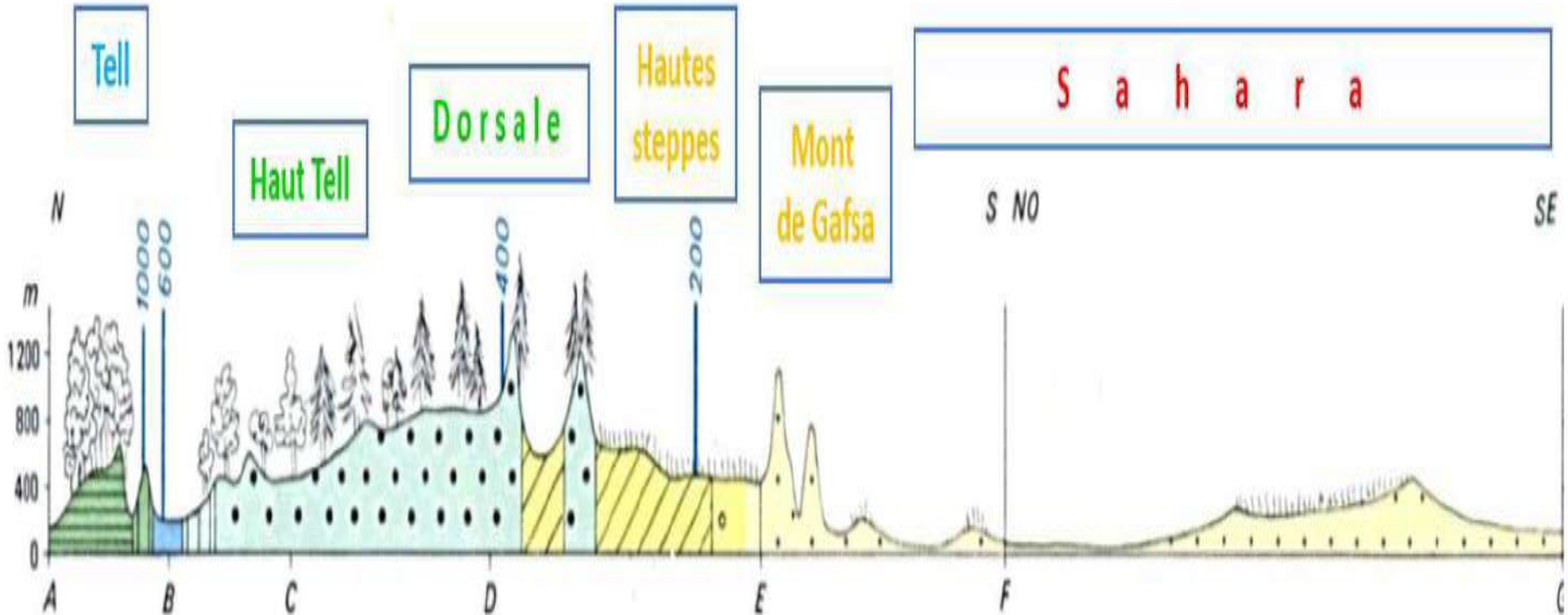
**المجال 3:** الاستثمار في المستغلات الصغرى والمتوسطة وتعزيز سلاسل الانتاج المحلية والنهوض بالصادرات

**المجال 4:** تحسين الإطار الاقتصادي والمؤسسي للحوكمة الفعالة والاستدامة والاستقرار والسلم الاجتماعي.

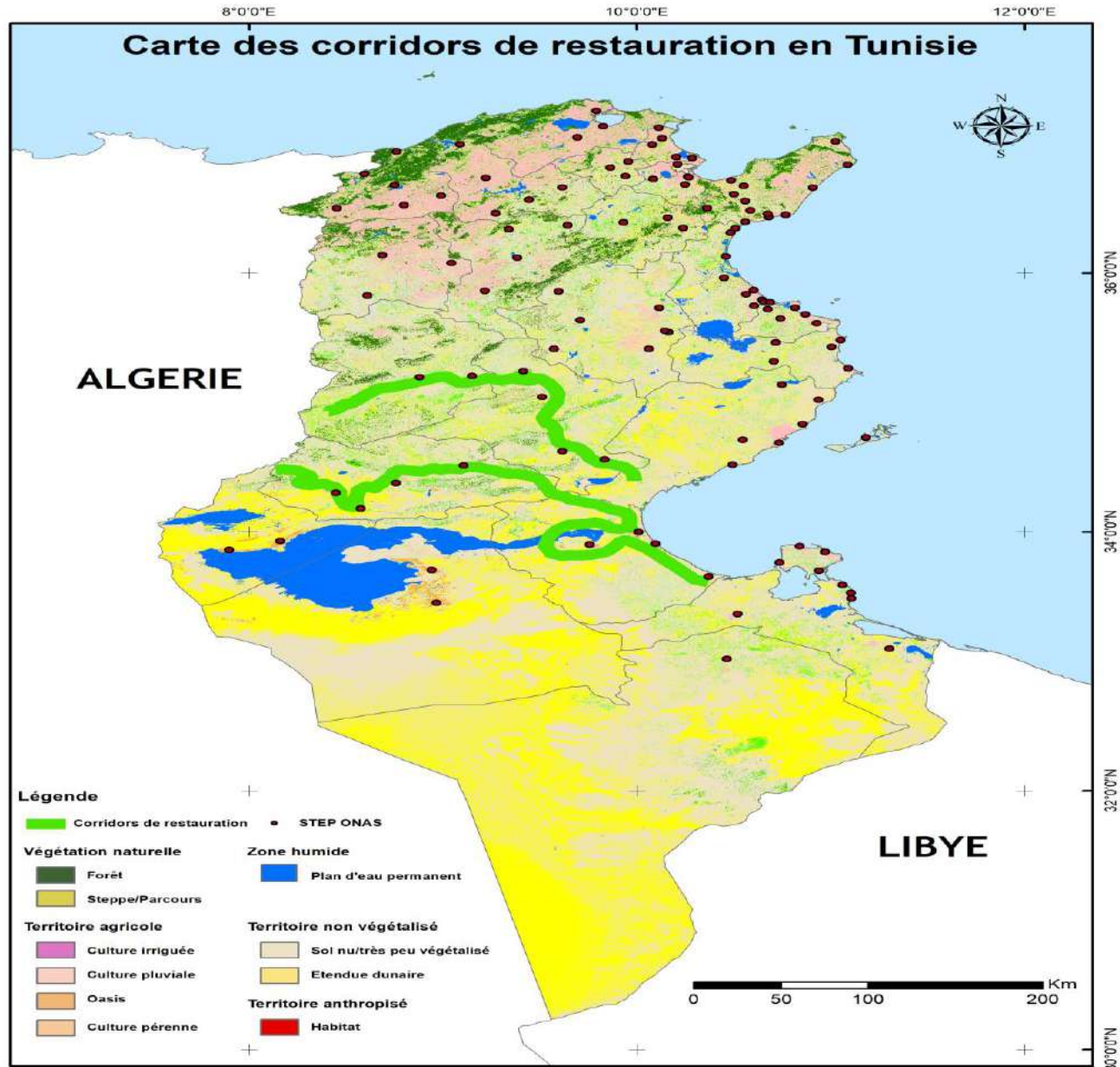
**المجال 5:** بناء القدرات.

# مناطق تدخل البرنامج

- سيغطي البرنامج مساحة تبلغ حوالي 260.000 هكتار (وسط تونس، بدءًا من الحدود التونسية الجزائرية إلى الساحل الشرقي: يبلغ طولها حوالي 130 كم وعرضها 20 كم).



# الموقع الجغرافي







مع الشكر