

# Argan orchards to preserve the argan natural forest

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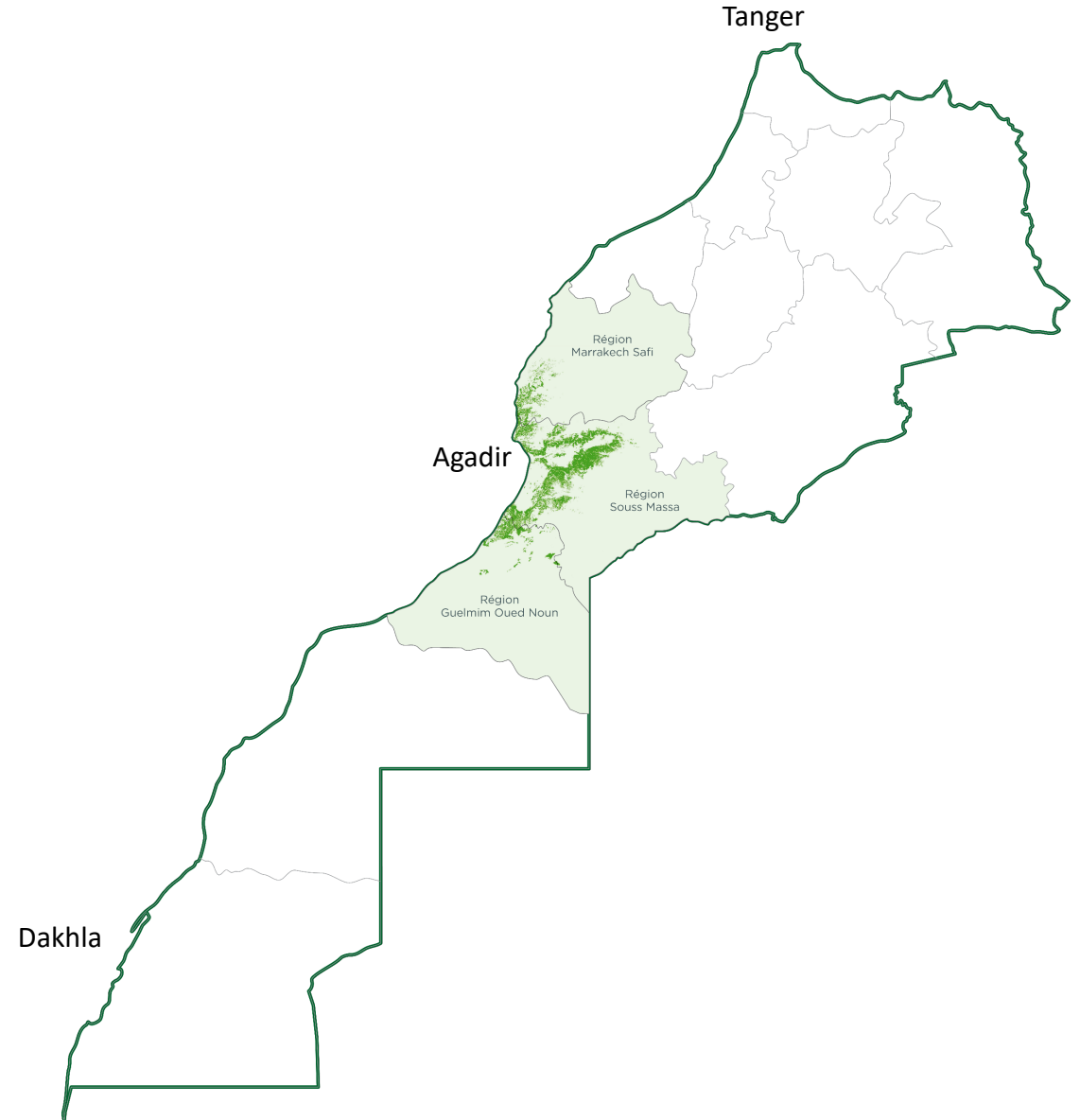
National Agency for the Development of Oasis and Argan Areas

Morocco



# Argan Biosphere Reserve

- *Argania spinosa* an endemic specie
- 830.000 ha
- +3 million inhabitants
- A Biosphere Reserve since 1998
- A GIAHS since 2018
- 11 Ecosystems
- Rich Biodiversity with high endemism (1240 plant species, 660 Animal species)
- High agricultural farming system **diversity** (agro-sylvo-pastoral) mainly on terraces
- great economic interest as it is a multipurpose
- A sector with **multiple uses**
- A **corridor against desertification**





# Biodiversity in the Argan Biosphere

## Forest biodiversity

Forest: 1 436 784 ha  
23% share of the national forest

Agricultural land: 787 361 ha  
9% share of the national Ag Land

## Agricultural biodiversity

### Flora: 1240 (142 endemic)



Euphorbia officinarum subsp.



Dracaena draco subsp. ajgal



Genista ifniensis



Convolvulus trabutianus



Lavandula rejdalii



Hesperolaburnum platycarpum

### Fauna : 660 (25 endemic)



Ibis chauve - Geronticus eremita



Huppe fasciée Upupa epops



Gazelle dorcas: Gazella dorcas



Gazelle cuvier: Gazella cuvieri



Ecureuil de Barbarie  
Atlantoxerus getulus



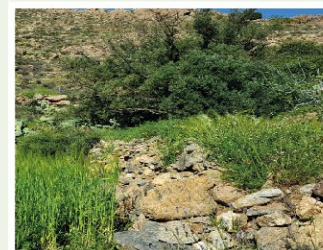
Nyctere de Thebaïde:  
Nycteris thebaïca

### Main crops :

Barley  
Legumes  
Citrus

Almond  
Argan  
Saffron

Cactus pears  
Olive trees  
Aromatic & Medicinal Plants









# Options

**Combining forest restoration and agricultural landscape rehabilitation:**

1. Restoring forest
2. Planting argan orchards on private land
3. Practicing adapted farming system with alley cropping « argan+Aromatic and Medicinal Plants - AMP »



**Refarming** abandoned agricultural land and terraces

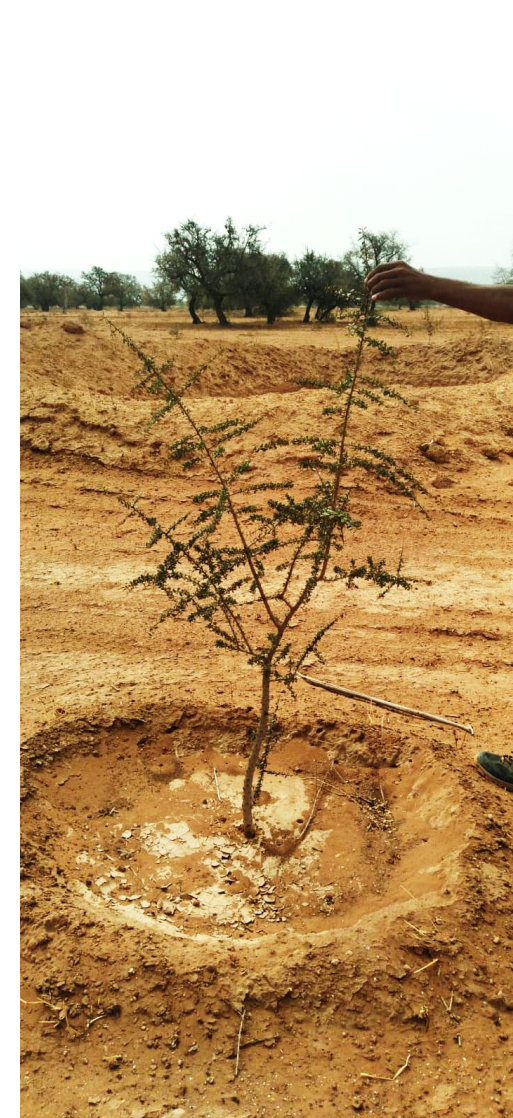
**Alleviate** anthropic **pressure** on natural forest

Improve **Carbone** sequestration

Improve resilience



Green Climate Fund project 50 M USD with 20% Cof.





# Arganiculture

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- Participatory approach
- Agreement with more than 50 NGOs representing the 5000 direct beneficiaries
- Planting **10.000 ha of argan** orchards (90% already established)
- within 2.000 ha as alley cropping (argan trees+ Aromatic and Medicinal Plants- AMP)
- 50 planted sites in the 8 provinces of the argan area

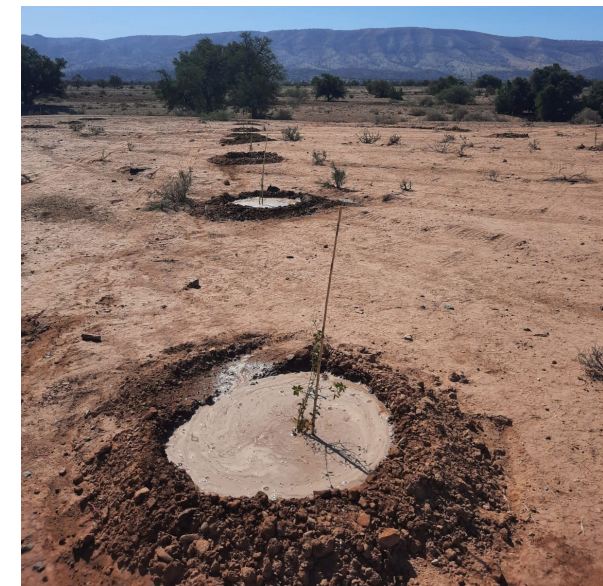




# Arganculture

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- Argan seedlings and most of the AMP Species are selected from the natural forest
- Improved nursery production technics
- Adapted cultivation techniques:
  - 200 trees/ha
  - Supplementary irrigation (for the first 36 months)
  - Rainwater harvesting
  - Mulching
  - Organic fertilization (compost)
- Process of On field scientific research to improve technical production package
- Beneficiaries' capacity development and on field Training





# Main results

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Started 2017:

- Planting 10.000 ha of argan orchards (90% already established)
- within 2.000 ha as alley cropping (argan trees+ Aromatic and Medicinal Plants)
- 50 planted sites in the 8 provinces of argan area











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# Lessons

- Provide evident beneficial actions in terms of mitigation and adaptation to climate change
- Local population benefit with a direct impact on NDC implementation
- Demonstrate effective participatory approach and coordination among various actors and stakeholders involved in every process
- Demonstrate coordination of policies and sectoral measures
- National capacities to sustain the results





Thank you

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