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Challenges and Opportunities of Private Investments for Rangeland Restoration From Camel Value Chain: Towards Sustainable Rangeland Management





Introduction

- **Camels: Global Icons of Resilience**

Adaptability: Thrive in extreme climates (up to 50°C), reduce water stress.

Economic Role: Dairy (\$10B market), transport, and wool.

- **Tunisia's Camel Sector:**

Population: 238,000 heads (2022), concentrated in arid south.

Production Crisis:

Milk: 15,000 tonnes produced vs. 1,000 tonnes officially reported.

Meat: Collapse from 63,254 tonnes (2009) to 21 tonnes (2015).

Untapped Potential: Key to rangeland restoration and climate adaptation.





Why Rangelands?

54% of Earth's land is rangeland, 50% is degraded, risking \$300B/year in ecosystem services.

- Global Value:

Livelihoods: Sustain 2 billion people, including 500M pastoralists.

Ecosystem Services: 30% of global soil organic carbon, Habitat for 40% of terrestrial species

- Tunisia's Critical Role:

Coverage: 70% of territory classified as arid/semi-arid

Degradation: 65% of southern rangelands degraded, driving pastoral poverty

Economic Impact: Livestock contributes 15-40% of agricultural GDP in drylands





Why Regional Rangeland Investment Strategic Framework?

“To Link restoration investments to livestock value chains, generating financial, environmental, and social returns”

Framework Architecture

Local Actors:

- Camel cooperatives (e.g., Rjim Maatoug’s **5,000-ha management plan**).
- Training in **sustainable grazing** and milk value-addition.

Value Chain Integration:

- **Certification:** Traceability for premium markets (e.g., camel milk carbon credits).
- **Infrastructure:** Milk collection centers in desert hubs.

Investor Entry Points:

- **Blended finance:** Oil/gas firms (e.g., TotalEnergies) fund restoration for ESG compliance.
- **Returns:** 30% higher livestock yields + carbon revenue.

Experience In-practice: Tunisia’s pilot with ICARDA/IRA/OEP mobilizing **private investment for camel milk value chains**





Challenges Facing Rangelands?

- **Global Alarms:**

Degradation: \$300B/year possible ecosystem loss.

Climate Vulnerability: Droughts tripled since 2000.

- **Tunisia's Crisis:**

Resource Loss: Camel population dropped **49% (2004-2014)** due to pasture scarcity.

Systemic Barriers:

Policy: Unclear land tenure

Investment: No incentives for restoration; **<5%** of climate finance targets rangelands

Technical: Limited research on camel value chains.





Recommendations

- **Policy Integration:**

Adopt IGAD's **Regional Rangeland Framework** for land tenure harmonization.

- **Finance Innovation:**

Blended capital: Public funds de-risk private investments (e.g., \$50M Tunisia PPP for camel dairy).

Carbon markets: Monetize soil carbon (20t CO₂/ha sequestered via restoration).

- **Local-Global Synergy:**

Herders as stewards: Train cooperatives in **participatory rangeland management**.

Certified value chains: Camel milk/meat traceability for EU premium markets.

