Mauritania Technology Fosters Tradition (TFT)

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1. Presentation of TFT, Overview

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• Objective and character
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• Scales and stakeholders
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Location, environment and people

• Location
  – SE Mauritania, near town of Aïoun

• Environment and ecology
  – Semi desert and ephemeral wetlands
  – Isohyet for 400 mm precipitation moves south

• People
  – Mostly Maure and Haratins/Black Maure, some black Africans
Objective and character

- **Objective**
  - Document and formalize traditional property- and use-rights to resources, specifically rangelands, together with local people, and through using GIS/GPS and ICTs

- **Character**
  - Not investment, but research-cum-action
Approach

- Area assessment (survey)
- Identify land-use (interviews)
- Codify in local languages, translate into Arabic and French
- Establish a legal rural registry
- Set up new local and national co-management institutions
- Create GIS maps, publish on Internet
Output

• Body of trad. knowledge pertaining to natural resource management. Available in print form in relevant languages and on the Internet
• Institutional and legal reform
• Decrease in the amount of conflicts
• Dissemination elsewhere in the Sahel
• World Bank policy paper
Stakeholders

Users and beneficiaries at various scales:

**Global** - Donors, Law com., Sahel countries

**National** - Donors, Govt., Public sector

**Regional** - Courts, Donors, Regional adm.

**Local** - Donors, Farmers, Herders, Trad. leaders
Partners

National:
• Government

International:
• CBNRM Net
• GLIN (and NASA)
• GTZ
• World Bank
2. Analytical framework

Law and legal paradigms:

• Legal pluralism
  – Trad. law, Islamic law, French law
  – Problems of application and coexistence

• Characteristics of codes
  – Written and unwritten
  – Roles of interpretation, translation and use
  – Applicable to a certain area/scale of society/culture
Power and empowerment

How to address power – and achieve empowerment – follows from the methodological approaches chosen:

- Ethics - knowledge be used by whom and for what?
- Consensus-building, Consultation, Governance, Involvement, Participation, Transparency, etc.
- Trad. knowledge as means and goal
- Scaling of knowledge bottoms-up approach
Institutions and institutional analysis

• Understood both as organizations and in the sense of institutional economics
• Facilitates and constrains the flow of knowledge and data between scales
• Important for understanding and assessing power and empowerment
Legal paradigms in Mauritania

Legal paradigms and relations:

- Roman (R)
- French (F)
- Islamic (A)
- Maure (M)
- Trad. (T)
Knowledge systems in Mauritania

Knowledge systems and relations:

- Western knowledge (W)
- French knowledge (F)
- Arab knowledge (A)
- Maure knowledge (M)
- Trad. knowledge (T)

![Diagram showing the relationships between Western, French, Arab, Maure, and Trad. knowledge systems.](image-url)
What is knowledge?

- Sum total of a culture’s accumulated experience, incl. transfer, views on itself, the environment, and relationships with the environment
- Knowledge and culture
  - Knowledge is part and parcel of culture
Knowledge management

Aspects of managing knowledge within and between scales:

• Dimensions
  – With whom to share, what to share, how to share

• Tasks
  – Collection, evaluation, categorization, storage, retrieval, dissemination, as well as production of new knowledge
3. Drivers and trends

Drivers:
- Population increase
- Desertification
These trends are partly overlapping, and the causalities are complex:

- Ecological system under stress
- Deforestation
- Decentralization and role of the State
- Diminishing role of traditional law
- Privatization
  - Of land (fencing)
  - Of water (dams, access to wells)
Trends, II

- Change in production systems
- Absentee pastoralism/agriculture
- Sedentarization
- Valuation of land
- Infrastructure developments
- Increase in conflicts
- Increased focus on biodiversity – RAMSAR
4. Property and use rights

The property rights system has to be understood through the role of pastoralism in history:

• Reciprocal adaptation between pastoralism and environment
• Immigration, wars and rulers
• The French colonial legacy
Characteristics

• A system well adapted to the specific characteristic of the local ecosystems

• Emphasis on making resources available to those that need it

• A non-equilibrium system
  – Availability of water – when, where, how long, and how much determine the operation and productivity of the system
• The trad. property rights system was a common property system for the original users, members of the Maure tribe Ould Nacer, Faction Abdel Wahab
• Lack of a fit between the trad. system and today’s situation is growing
• Today’s situation can be characterized as open access
5. Methodology, Overview

- Character of operation determines the methodological approach, the bundle of methods used, and their sequencing
- Adapted to purpose and location
Methodology

• Mix of qual and quant
  – Focus groups, interviews, surveys, ICTs, GIS/GPS, satellite imagery

• Participatory Research Mapping (PRM)
  – Local people help identify research issues and collect data
  – Elements: (1) socio-economic survey, (2) toponymy survey, (3) resource use survey, (4) property and use rights
6. Data, Overview

• PRM ongoing since May 2004
• Focus on two wetlands (Oum Lelli and Sawana) and one village (H. Tadreissa)
• Satellite imagery
• Toponymy and resource use
• Agricultural and gathering production
### Agricultural produce: quantities

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Quantité totale (kg)</td>
<td>12.854</td>
<td>3480</td>
<td>3037</td>
<td>1275,5</td>
<td>0</td>
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<tr>
<td>Quantité vendue (kg; argent famille)</td>
<td>3040</td>
<td>1230</td>
<td>742</td>
<td>101</td>
<td>0</td>
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<tr>
<td>Quantité vendue (kg; argent exclusivement femme)</td>
<td>360</td>
<td>240</td>
<td>160</td>
<td>100</td>
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<tr>
<td>Quantité consommée (kg)</td>
<td>3717</td>
<td>700</td>
<td>562</td>
<td>682</td>
<td>0</td>
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<td>Quantité conservées (kg)</td>
<td>4639</td>
<td>1063</td>
<td>1490</td>
<td>292,5</td>
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<td>Quantité donnée en aumône (kg)</td>
<td>419</td>
<td>90</td>
<td>78</td>
<td>100</td>
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<td>Quantité donnée en zakat (kg)</td>
<td>679</td>
<td>157</td>
<td>45</td>
<td>0</td>
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<td>Autre (kg; spécifiez)</td>
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<td></td>
<td></td>
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<td>50</td>
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</table>
### Gathering of forest products: quantities

<table>
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<tr>
<th>Product Category</th>
<th>Quantité collectée par année</th>
<th>Quantité vendue</th>
<th>Produit forestier</th>
<th>Quantité collectée par année</th>
<th>Quantité vendue</th>
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</thead>
<tbody>
<tr>
<td>Jibjib (kg) [084]</td>
<td>2670,5</td>
<td>1062,5</td>
<td>Maru riz Mauritani (kg) [090]</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Azz (kg) [085]</td>
<td>1270</td>
<td>100</td>
<td>Plantes médicaux (kg) [091]</td>
<td>1782</td>
<td>1105</td>
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<tr>
<td>Bois de chauffe (m³) [086]</td>
<td>6050</td>
<td>3800</td>
<td>Salaha (kg) [092]</td>
<td>1036</td>
<td>815</td>
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<tr>
<td>Bois de construction (m) [087]</td>
<td>778</td>
<td>550</td>
<td>Tilba ndiri (kg) [093]</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Charbon (kg) [088]</td>
<td>46500</td>
<td>33100</td>
<td>Autre (spécifiez) [094] Touga</td>
<td>540</td>
<td>415</td>
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</table>

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7. Conclusions

Code Pastoral

An example of modern law-making:

• National law on nomadism/herders, initiated by local NGOs, supported by GTZ/World Bank

• Characteristics: Participatory process followed, Based on Sharia/trad. law, Good language that is easily understood, Conflict resolution mechanism

• TFT aims to implement it in its project area, and emulate its drafting methodology
On each scale three operations are involved in dealing with knowledge:

• Interpretation
  – Analysis of incoming knowledge/data

• Transformation
  – Adaptation to present scale

• Translation
  – Enabling transfer to next scale
Scaling legal paradigms, II

Data, Information, Knowledge

Interpretation

Input/Output

Transformation

Translation

A scale
Next steps

• Data collection continues
  – Quant - extend to Chlim
  – Qual – on conflict: causes and implications
• Prepare maps
• Build collaboration, locally and internationally
• Extend partnerships, international