

Regional Conference on the Economics of forest ecosystems and biodiversity in the MENA region

Economic evaluation of forest goods and services in Tunisia: Study Case

Tunisia; 28 -29 june 2011

Youssef SAADANI, Forests General Directorate - Tunisia
ysaadani04@yahoo.fr



**Ministry of Agriculture &
Environment - Tunisia
General Directorate of Forests**

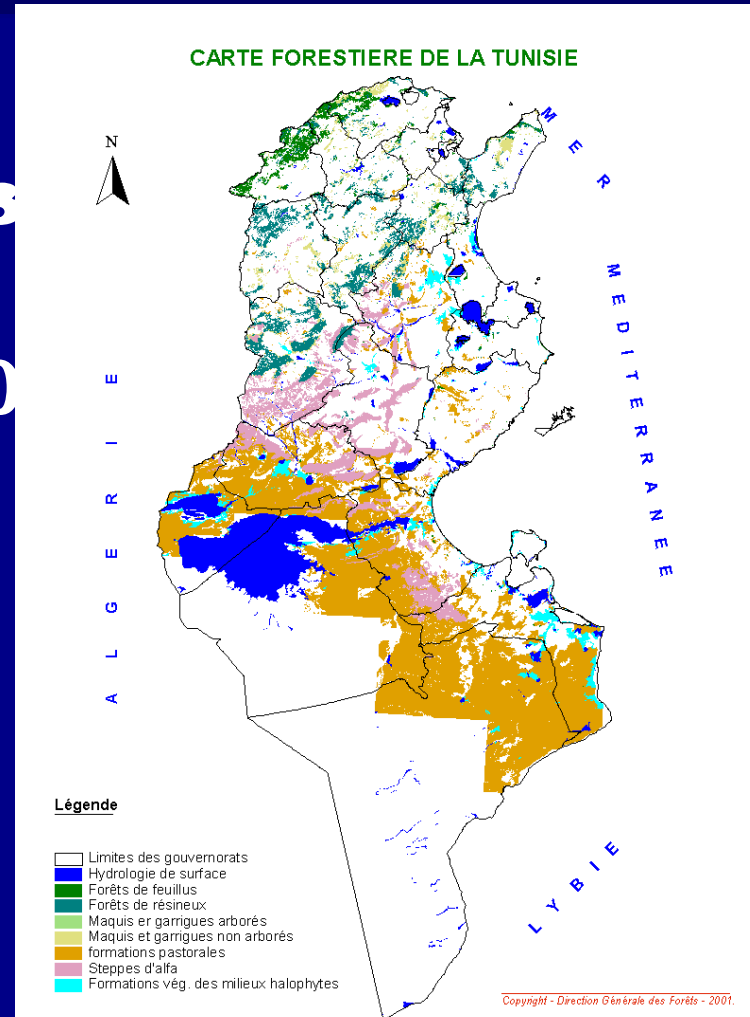


Report plan

- 1. Forest sector : Some indicators**
- 2. Importance of the forest sector**
- 3. Forest sector Financing**
- 4. Goods and services of the forest sector**
- 5. Economic study value of the forest area
in Tunisia : Study case**
- 6. Perspectives and orientation elements**

Tunisia-Some development indicators

- **Surface area of 16 million ha (1 / 3 culture land , 1/3 of forests and rangelands and 1/3 of the desert)**
- **The GDP of 5350 DT (4000 \$)**
- **34.2% of rural population**
- **10% Forest-population & 24 % Rural population**
- **Average annual expenditure per person is of 1161 DT (900 \$) in the rural areas (2005).**



The Tunisian forests Problems

- **high pressure on forest areas: 90 to 100 inhabitants / km²; almost more than 2 times the national average ;**
- **Difficulties of regeneration and maintaining forest cover ;**
- **Weak or lack of involvement of users in forest management compromise its sustainability ;**
- **Forest population showing socio-economic indicators of the weakest in the country;**
- **Difficulties of maintaining the funding of management work.**

Four principals complementary roles



Social-Economic



Production



Protection



Recreation

Estimates of direct values of forest products

The values in MTD

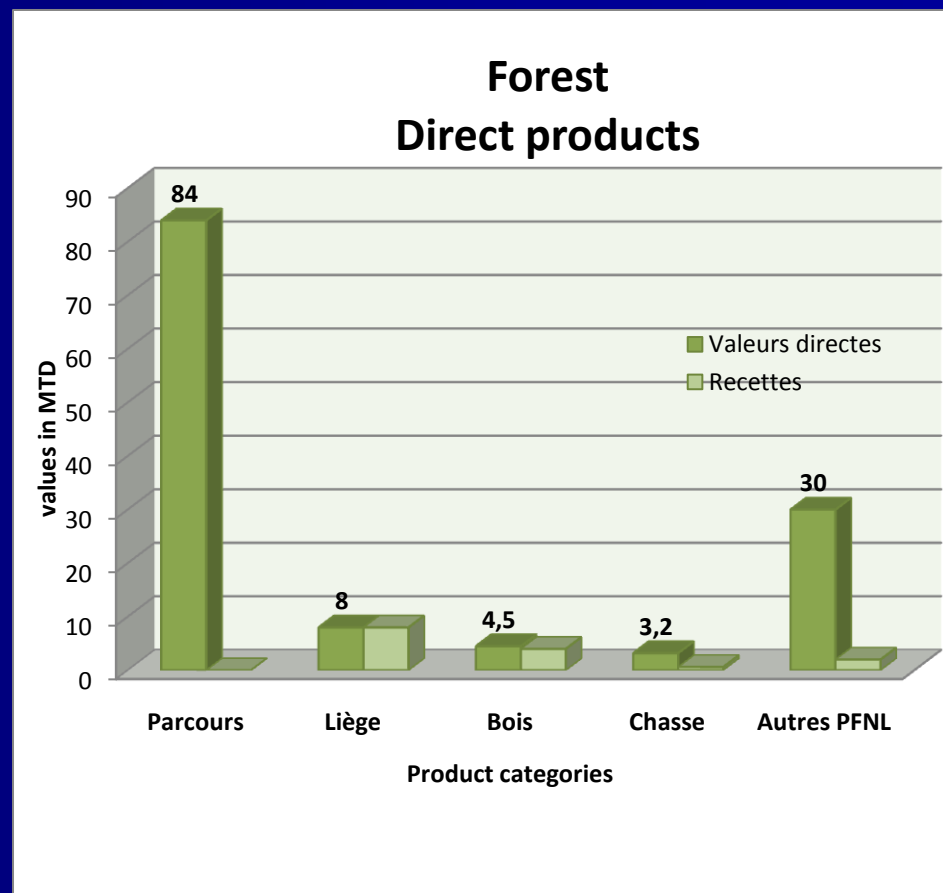
- ❖ **Pasture *** 84
- ❖ **Wood** 4.5
- ❖ **Hunting*** 3.2
- ❖ **Cock** 8
- ❖ **Other non-Timber**

Forest Product* 30

Total : 129.7 MTD

Direct revenue : 14.2 MDT

* Estimation



Forest sector's contribution to the national economy

- ❖ **80%** coverage of the needs of industry panels;
- ❖ **14%** in the national energy balance;
- ❖ **Over 7 million** working days annually;
- ❖ **17%** of the national livestock produced by the forest rangeland;
- ❖ Weak contribution of timber (less more 10%) .
- ❖ **0.4 à 1.25 %** of GDP
- ❖ **3.4 à 10 %** of agriculture GDP

Incentives / Encouragement of investment in the forestry sector

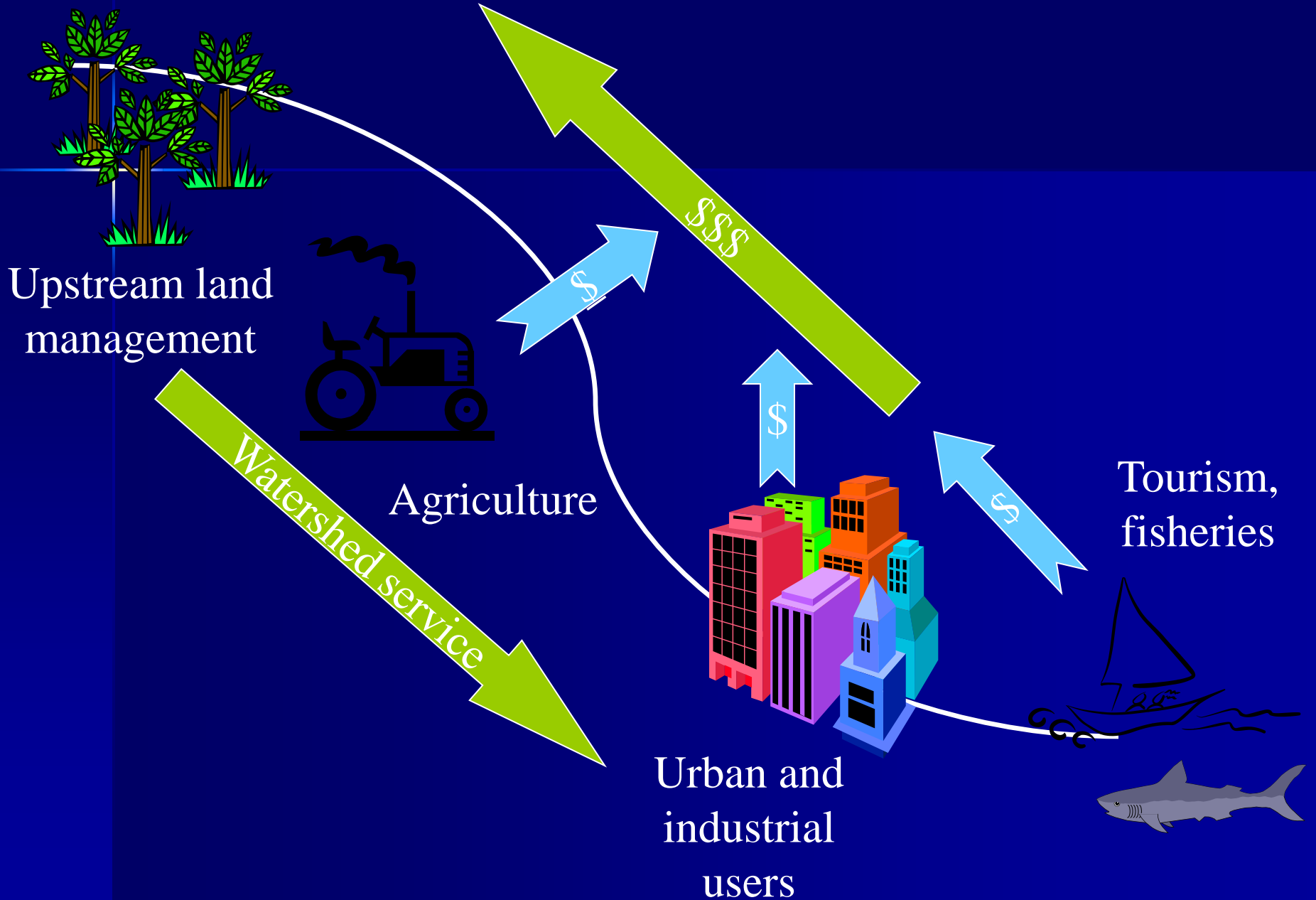
- 1. Agricultural Investment Code :**
Subsidies from 30 to 50% for new forest plantations and pastures, acquisition of forestry equipment with grace periods of 1 to 10 years.
- 2. Forest concessions (law 2005) :**
Exemption of development groups of the rental charge.

Sector Funding

	Prevision	Realisation	%
10 ème Plan (2002-2006)	318.5	235.7	74
11 ème Plan (2007-2011)	453	205.5*	45
Total Funds	771.5 (909)	441.2**	57

- * statements after arbitration
- ** 48% of the strategy-cost (909 MTD)

Why aren't natural resource values taken into account ?



Goods & Services of Tunisian forests : Difficulties in evaluating

Direct products Direct market goods	Indirect products Indirect goods / Services
<ul style="list-style-type: none"> • Wood (all categories) 	<ul style="list-style-type: none"> • Water conservation and soil • Carbon sequestration
<ul style="list-style-type: none"> • NTFP (non-Timber Forest Product) 	<ul style="list-style-type: none"> • Biodiversity • Recreation/ Ecotourism
<p>Usual price (market) Substitution price</p>	<p>Case Study / Extrapolation Modeling</p>
<ul style="list-style-type: none"> ▪ 160 MTD (FRA, 2005) ▪ 152 MTD (Daly, 2005) ▪ 96 MTD (INS, 2002) <p>Domaine revenue : 14 MTD</p>	<ul style="list-style-type: none"> ▪ 30 MTD; Conservation values ▪ 300 MTD; Recreation & carbon sequestration (available stock) <p><u>Source</u>: Linking National Forest Programmes to strategies to reduce poverty, Working Paper from FAO, 2007</p>

How can economic evaluation help ?

- Assesses whether a management intervention is worthwhile
- Identifies the winners and losers from current resource use and management
- Identifies the potential winners and losers from a management intervention
- Identifies trade-offs and win-win solutions
- Identifies potential sources of financing for conservation

Evaluation study of goods and services of the Tunisian forest

Objectives: To sensitize decision-makers at different levels of importance and different roles of forests and their contributions to the national economy.

Approach: Case Study of representative forest landscape (different ecosystems).

Means: Mobilization of a pool of experts working in multidisciplinary teams

Action: Continuous coordination and no hurrying
(Period)

Tunisian Case Study

Partners: Support Mechanism of FAO maintain to National Forest Programs (NFP).

Approach: Choice of two sites "representative"
(Watershed of Barbara and Siliana)

Multidisciplinary team: 07 experts in different domains (Economic, Socio économique, Watersheed, finance)

Schedule: 12 months of work (1-12/2011) with restitution / periodical validations

Economic value of Tunisian forest :

Outstanding items

- Harmonization of approaches to valuation of goods and services direct and indirect;
- Development scenarios for the payment of environmental services (PES);
- Calculation of cost and sale of major forest products (wood, cork, including **NTFP**).

Public / Private Partnership: Forest concessions



hunting

Reforestation



Forest Nursery





Thank you for your attention