Assessment of the socio-economic value of goods and services provided by Mediterranean forests

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In the Middle East and North Africa region, Mediterranean forests are and will be increasingly subject to anthropogenic pressures (emerging wood collection hearths, fires, agricultural conversion, land use change, overextraction of resources etc.) and climate change effects (rising temperatures, reduced rainfall, pest attacks, increased drought, increased fire frequency, shifts in phenology, etc.). In this region, forest administrations and managers have also to face significant technical and financial difficulties in sustainability managing Mediterranean forest ecosystems. Forest management strategies do not take the impact of climate change adequately into account as managers lack specific and operational knowledge. The value of the services provided by the ecosystems must be better recognized.

In this context, a regional cooperation project “Optimizing the production of goods and services by Mediterranean forests in a context of global changes » has been funded by the French Global Environment Facility and implemented by Plan Bleu and FAO (Secretariat of the Mediterranean) over the period 2011-2016. The main objectives are to promote sustainable management of forest ecosystems by optimizing the production of goods and services (including carbon sequestration) and to explore funding opportunities through REDD+ mechanisms. The forests of the five partner countries cover a total surface area of almost 19 million hectares.

VULNERABILITY TO GLOBAL CHANGES IN THE STUDY AREA

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PROJECT COMPONENTS

C1: Produce data and tools regarding the vulnerability of forests and their ability to adapt

C2: Assess the socio-economic values of goods and services provided by Mediterranean forest ecosystems

C3: Improve modes of governance through participatory approach at territorial scale

C4: Optimize and value the role of Mediterranean forests in climate change mitigation (carbon sinks)

C5: Promote coordination and sharing of experience between Mediterranean stakeholders via the Collaborative Partnership on Mediterranean Forests

COMPONENT 2 METHODOLOGY

Mediterranean region state of the art methods and tools for the socio-economic assessment of the goods and services supplied by an ecosystem

- Regional report « Methods and tools for socio-economic assessment of goods and services provided by Mediterranean forest ecosystems »
- Methodological sheets

Assessment of the socio-economic value of goods and services supplied by forest ecosystems of the selected pilot sites

- Identification of the main goods and services (from maps produced with C1 and surveys conducted through C3)
- Identification of valuation methods
- Prospective analysis (climate change and management scenarios)
- Cost-Benefit Analysis

Regional perspective to the issue and generalization of the approach to the whole region

- Regional institutes workshop of all pilot site results (Oct 26 to 31st 2015)
- Regional report to be produced (Dec. 2015)

PRELIMINARY RESULTS EXAMPLES

Methodology - Düzlerçami Forest - Turkey

1- Goods and services identification

<table>
<thead>
<tr>
<th>Good/Service</th>
<th>Priority Level</th>
<th>Methods Considered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial wood</td>
<td>1</td>
<td>Market Price</td>
</tr>
<tr>
<td>Hunting and game products</td>
<td>2</td>
<td>Travel Cost</td>
</tr>
<tr>
<td>Carbon sequestration</td>
<td>3</td>
<td>Cost Based</td>
</tr>
<tr>
<td>Air quality regulation</td>
<td>4</td>
<td>Choice Experiment</td>
</tr>
<tr>
<td>Historical and educational services</td>
<td>4</td>
<td>Cost Based</td>
</tr>
</tbody>
</table>

2- Scenarios identification

- Base scenario: moderate recreation activities and moderate impacts of climate change
- Alternative scenarios: increased allocation of the forest area to recreation activities, and increases in fire risk, alterations of the growth rate of trees due to climate change

3- Cost Benefits Analysis

Ten years horizon - 40 years (chosen in coordination with the production-plan and 2052 climate change projections available)

Sensitivity analysis with several discount rates

PERSPECTIVES

Final results will be available the 1st semester of 2016.

All 5 components have the goal of improving sustainable forest management while optimizing goods and services production. The beneficiaries are populations of rural forest land, ecosystem managers and forest services in the countries concerned, and more broadly all Mediterranean countries that will benefit from lessons learned and valorization of the project.

This project has already strengthened the regional cooperation through the collaborative partnership for Mediterranean forest, producing numerous results such as the State of Mediterranean Forests 2013, the Strategic Framework for Mediterranean Forests, the Tlemcen Declaration, and has allowed the organization of the Mediterranean Forest Weeks.