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valuing nature

 Padova  
University  
Spin-off

 UNIVERSITÀ  
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XXV IUFRO World Congress 2019  
Session D5a: Improving forest management certification: from the development of  
ecosystem services certification to ensuring better impact assessment  
Curitiba, 01<sup>th</sup> October 2018

**Certifying forest-based ecosystem services: results  
from the world-first application of the FSC ecosystem  
service procedure in Italy**

Alex Pra, Federico Pinato, Lucio Brotto, Mauro Masiero, Davide Pettenella  
ETIFOR – Padova University Spin-off

## Outline:

- 1) Forest certification beyond timber
- 2) The FSC® Ecosystem Services Procedure
- 3) Insights from the world-first application in Italy
- 4) Final considerations

## 1) Forest certification beyond timber

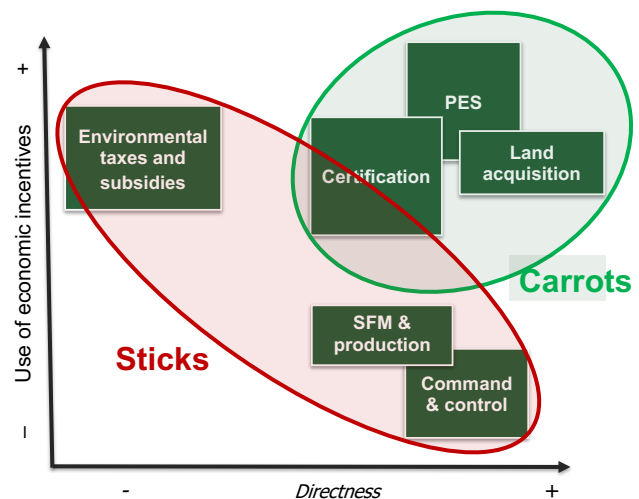
- 2) The FSC® Ecosystem Services Procedure
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## Ecosystem services: need for incentive mechanisms



Source: [www.teebweb.com](http://www.teebweb.com)

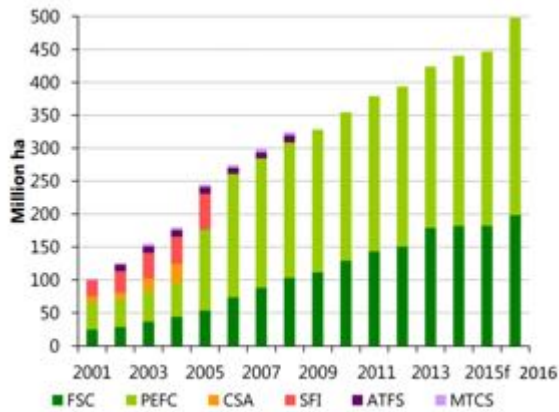


Source: Wunder (2006) modif.



## Forest certification: moving beyond timber

Cumulative forest area certified, 2001-2016



Source: FAO, FSC, PEFC

<https://www.ecosystemmarketplace.com/>



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## FSC ES: from implicit to explicitly certified services

**Biodiversity conservation**



**Carbon sequestration and storage**



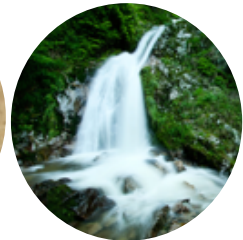
**Recreational services**



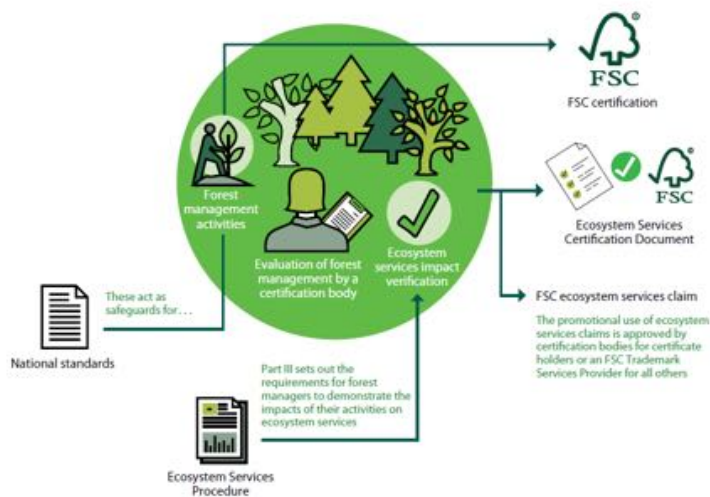
**Soil conservation**



**Watershed services**



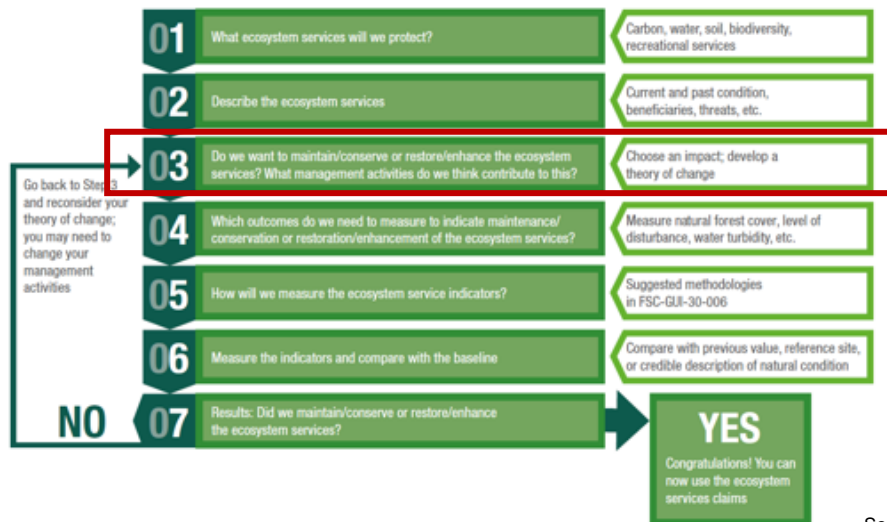
## The ES Procedure within the FSC system



Source: FSC International



## Seven steps towards ES claim

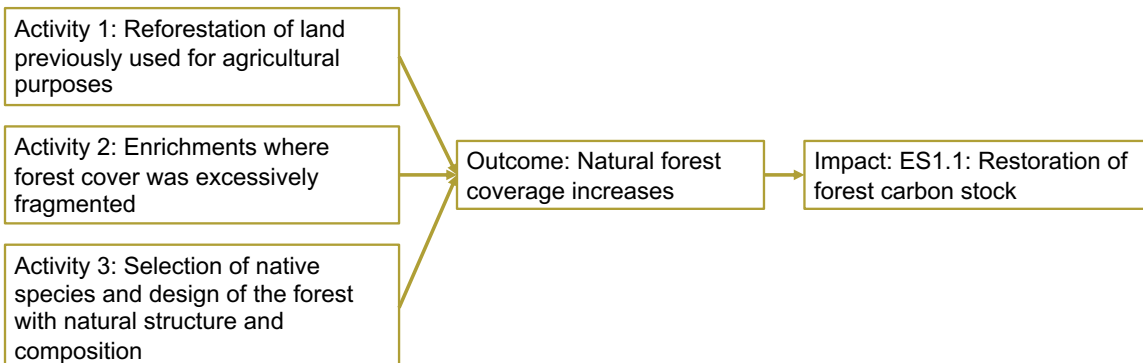


Source: FSC International

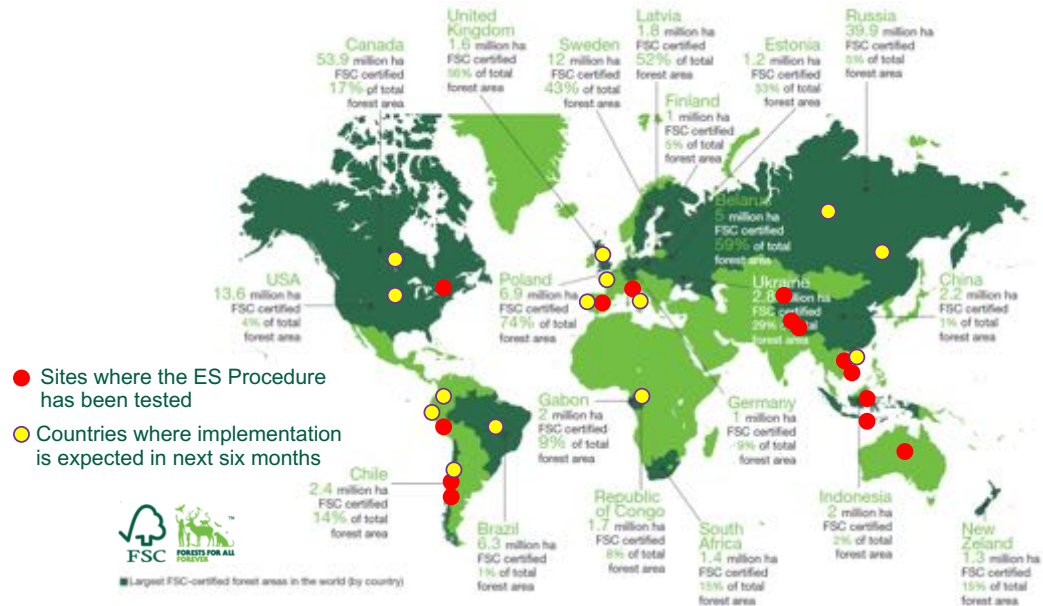


## Theory of Change: an example

**“(...) a chain of results over time that shows how an organization expects its activities to contribute to a desired impact”**



## Applications of the procedure at global level



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## World-first FSC ES certification for all the 5 ES

### FSC PRESS RELEASES

This section includes the latest press releases issued by FSC International.

#### WALDPLUS FULFILLS IMPACT VERIFICATION FOR 5 ECOSYSTEMS SERVICES

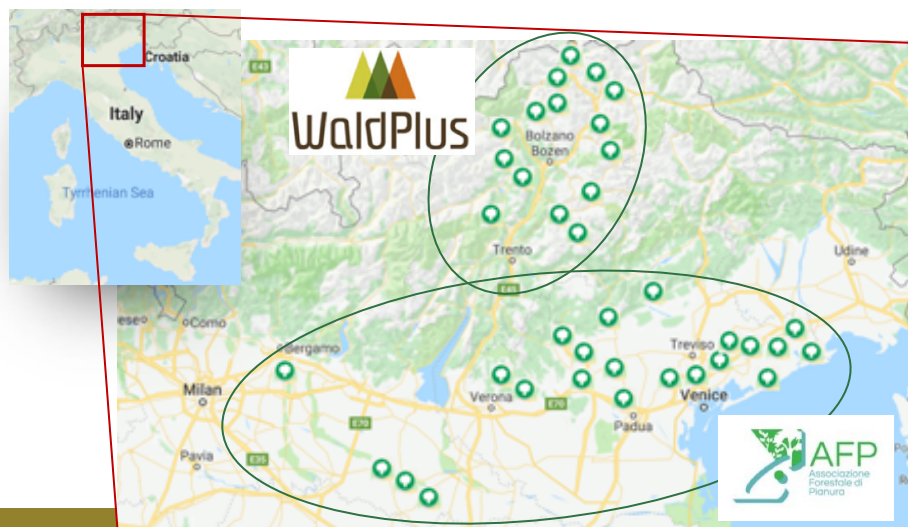
Wednesday, 27 February 2019



Rome, 27/02/2019 - Italy became the first country in the world to receive a Forest Stewardship Council ecosystems services (ES) verification fulfilling all five environmental components that make up these services.



## Waldplus and Lowland Forest Association: the largest Italian FSC smallholders certification group



## A diversity of forest types



## Verified ES and management activities

ES	List of verified ES	Management activities
<b>ES1: Biodiversity conservation</b>	ES1.1: Restoration of natural forest cover	<ul style="list-style-type: none"> <li>• Reforestation of natural forest cover</li> <li>• Restoration on forest land without forest cover</li> <li>• Selection of local species and planning of natural forests</li> </ul>
<b>ES2: Carbon sequestration and storage</b>	ES2.1: Conservation of forest carbon stocks	<ul style="list-style-type: none"> <li>• FMP implementation of unplanned forests</li> <li>• Thinning to make forest structure stable and permanent</li> <li>• Support for the conversion of agricultural land into permanent forests</li> <li>• Forest improvements through thinning in order to reduce felling and wildfire risk</li> <li>• Ordinary cuts with extraction of sustainable quantities</li> <li>• Facilitation of regeneration by planting trees</li> </ul>
	ES2.2: Restoration of forest carbon stocks	<ul style="list-style-type: none"> <li>• Reforestation on agricultural land</li> <li>• Restoration on forest and without or with low level of forest cover</li> <li>• Forest management operation on natural reforestation</li> </ul>
<b>ES3: Watershed services</b>	ES3.4: Restoration of the capacity of watersheds to purify and regulate water flow	<ul style="list-style-type: none"> <li>• Planting activities on agricultural land and related management activities</li> <li>• Water channelling, during the non-irrigated months, from external areas to the internal one</li> </ul>
<b>ES4: Soil conservation</b>	ES4.1: Maintenance of soil condition	<ul style="list-style-type: none"> <li>• Restoration on forest land without forest cover</li> <li>• Reforestation on agricultural land</li> </ul>
	ES4.3: Reduction of soil erosion through reforestation/restoration	<ul style="list-style-type: none"> <li>• Restoration on forest land without forest cover</li> <li>• Reforestation on agricultural land</li> </ul>
<b>ES5: Recreational Services</b>	ES5.2: Restoration or enhancement of areas of importance for recreation and/or tourism	<ul style="list-style-type: none"> <li>• Maintenance of paths</li> <li>• Infrastructures and equipped areas</li> <li>• Preparation and installation of information signs</li> <li>• Thinning and forest improvements to increase close-to-nature form and stability of forests</li> <li>• Events organization</li> </ul>



## Sales of ES: For what? How?



Restoration of degraded, damaged or abandoned forests



Creation of new green areas, urban forests and Forest Infiltration Areas



Green infrastructures alongside bike roads and touristic and recreational areas



## To whom? Why?



Companies (green marketing and CSR)



Companies (supply chain improvement)



Public bodies



Responsible and impact investors



Individuals



## Transparency: the FSC database

<https://info.fsc.org/>

FSC INTERNATIONAL   SMALLHOLDER PORTAL   STAKEHOLDER PORTAL   NEWSROOM   RESOURCES   EVENTS	English
2018-12-27-AUS4-004076 ES4.3 Soil erosion AFF - Annex A.pdf	Ecosystem Services Certification Document (available on Website)
2018-12-27-AUS4-004076 ES4.3 Soil erosion POS - Annex A.pdf	Ecosystem Services Certification Document (available on Website)
2018-12-27-AUS4-004076 ES5.2 Recreation - Annex A.pdf	Ecosystem Services Certification Document (available on Website)
2018-12-27-AUS4-004076M164 general data with verified impacts.pdf	List of participating sites/group members/FMUs (available on website)
2019-06-22-AUS4-004076 M035 Rilevi.pdf	Public Summary Report (available on website)
2019-07-11 Rapporto Pubblico di rinnovo.pdf	Public Summary Report (available on website)
2019-07-11-AUS4-004076 M164 dati generali generali data.pdf	Public Summary Report (available on website)
<b>ANNEXD_informazioni finanziarie ES_july_2019.xlsx</b>	<b>Supplementary File (available on website)</b>
RTFM-202-12 SLIMF Waldplus 004451 S1 FINAL v1.xlsx	Public Summary Report (available on website)
RTFM-202-12 SLIMF Waldplus 004451 S1 FINAL.xlsx	Public Summary Report (available on website)
RTFM-202-12 SLIMF Waldplus 2014 MA FINAL (Translated Italian).xlsx	Public Summary Report (available on website)
RTFM-202-13a SLIMF Waldplus (004451)_2017 S3 FINAL 3CARs.xls	Public Summary Report (available on website)
RTFM-202-13a SLIMF Waldplus (004451)_2017 S3 FINAL.xls	Public Summary Report (available on website)
RTFM-202-13a SLIMF Waldplus 004451 2016 S2 FINAL v1.xls	Public Summary Report (available on website)
RTFM-202-13a SLIMF Waldplus 004451 2016 S2 FINAL.xls	Public Summary Report (available on website)



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## Final considerations

- ES certification can attract new **actors** e new **markets**
- It can potentially **overcome** some of the **barriers that PES markets face**:
  - Reducing **transaction costs**
  - Improve **communication** and increase **transparency**
- From performance-based to **system-based** certification → A step-wise approach?
- Will this be a case where the **private sector** functions as a **catalyzer** and **anticipates public institutions** initiatives?
- Does the FSC ES procedure promote a **segregated** or **integrated forest management**?



## Padova University spin-off

Office @ AGRIPOLIS CAMPUS



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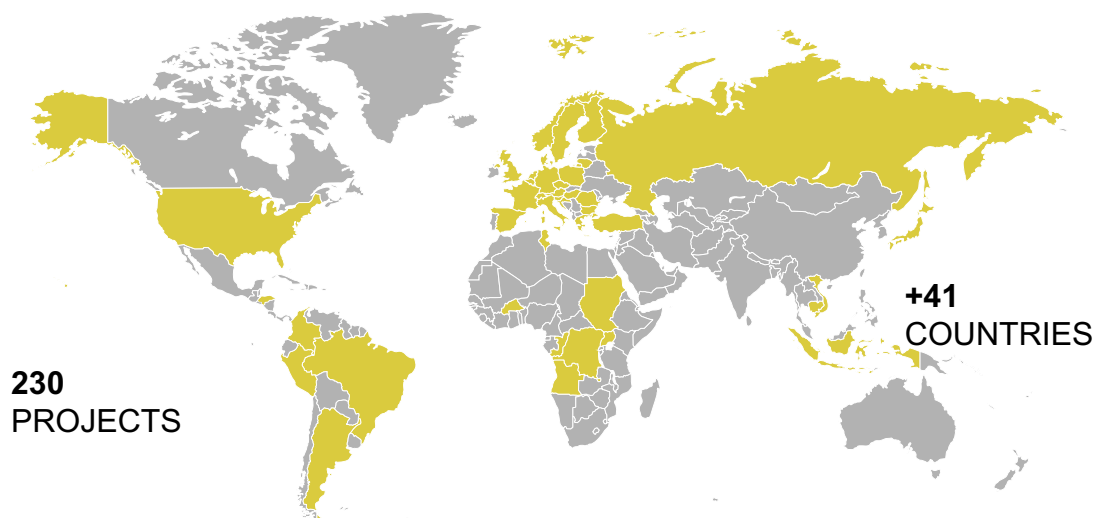
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# ETIFOR restores harmony between humans and nature



## EXPERIENCE





## Forest Management Auditing

The book, co-edited by Etifor's authors, outlines the market-based tools that are required to ensure corporate social responsibility in the forestry sector.

For forest managers, auditors and project developers.





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