

LA FORÊT EUROPÉENNE : ENTRE PASSÉ ET FUTUR



6 & 7
mai

colloque

FONDATION
Singer-Polignac

Identifying forest services: understanding their role and impacts

Davide Pettenella

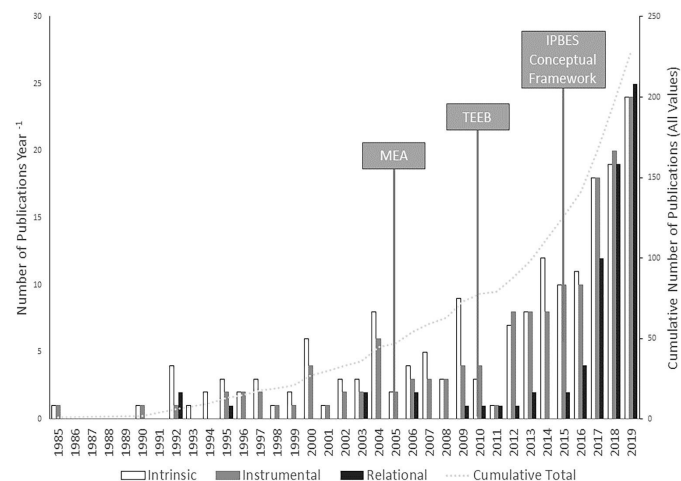


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An increasing attention towards the analysis of Ecosystem services and related supporting values

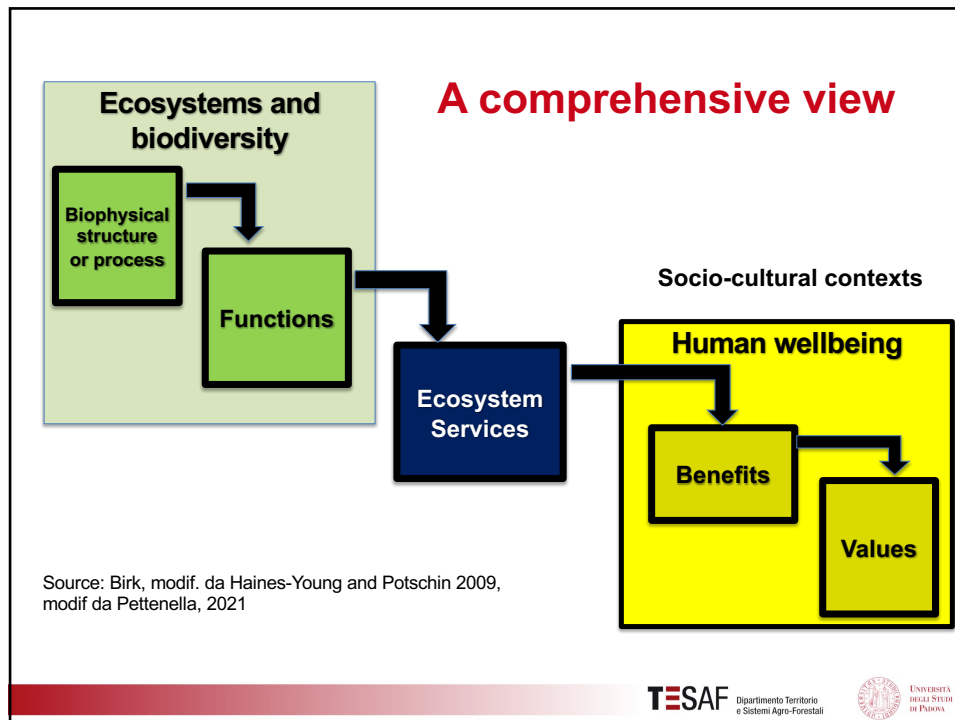


BioScience, Volume 74, Issue 1, January 2024, Pages 25–43. <https://doi.org/10.1093/biosci/biad109>
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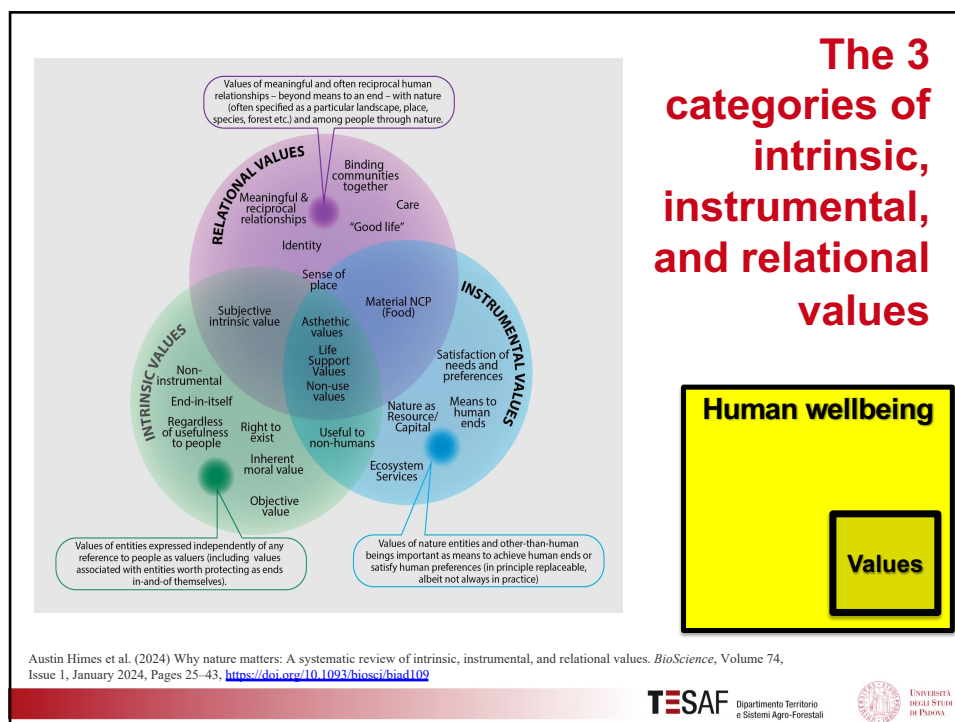
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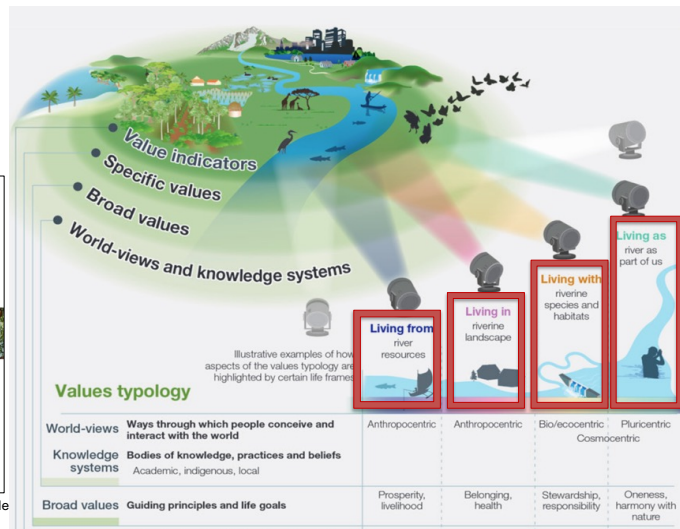
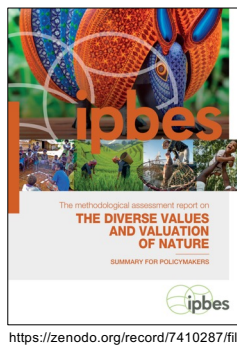


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«Living in harmony with nature»: from, in, with, as nature: 4 “life frames”



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Living from nature: The ability of nature to provide resources to support people's livelihoods, needs, and desires.

Reference values: prosperity, livelihood

Traditional forest products (wood, NWFP, water, ...)

... but also, Nature-Based Solutions

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Living in nature: the importance of nature as an environment for people's sense of place and identity.

Reference values: stewardship, responsibility



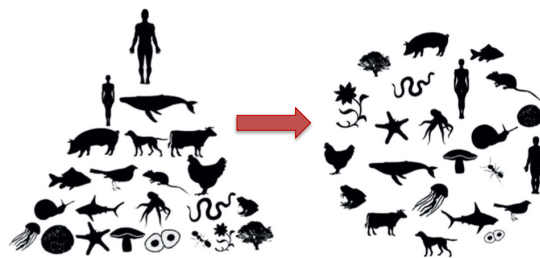
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Living with nature: the inherent right of every species to thrive regardless of human needs.

Reference values: protection, belonging, "One Health"



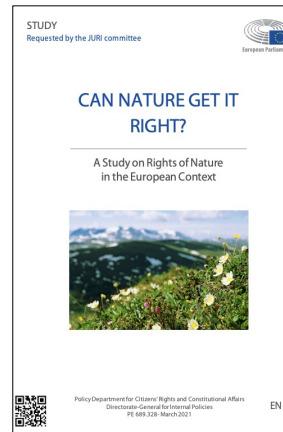
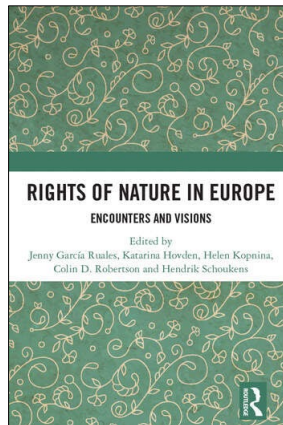
Fonte: C.Konijnendijk, D.Devkota, S.Mansourian, C.Wildburger (eds), 2023. Forests and Trees for Human Health: Pathways, Impacts, Challenges and Response Options. A Global Assessment Report. IUFRO, CFP.

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Recognising the rights of nature



[https://www.europarl.europa.eu/RegData/etudes/STUD/2021/689328/IPOL_STU\(2021\)689328_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/689328/IPOL_STU(2021)689328_EN.pdf)

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Living as nature: the natural world as a physical, mental, and spiritual part of oneself.

Reference values: oneness, harmony,
"One Earth"

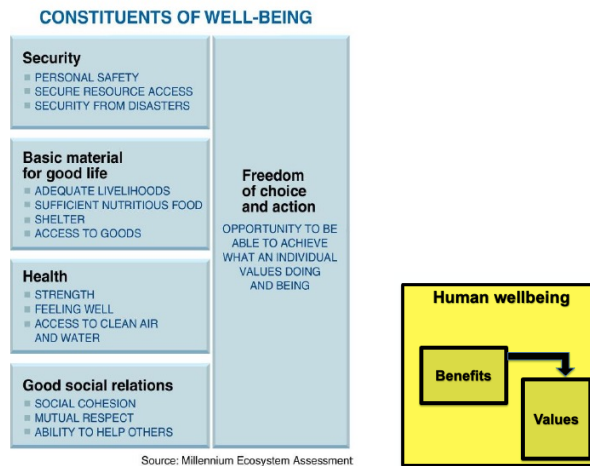


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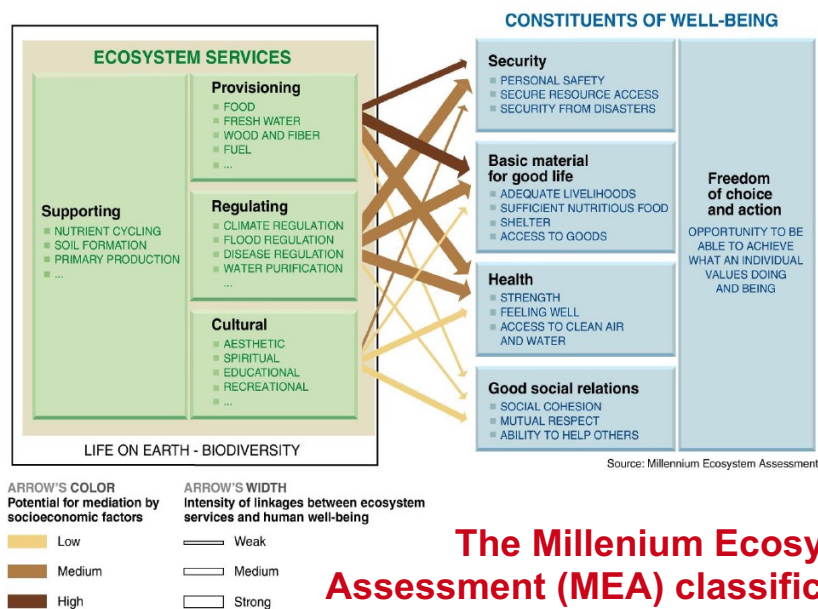
The Millenium Ecosystem Assessment (MEA) classification: the benefis



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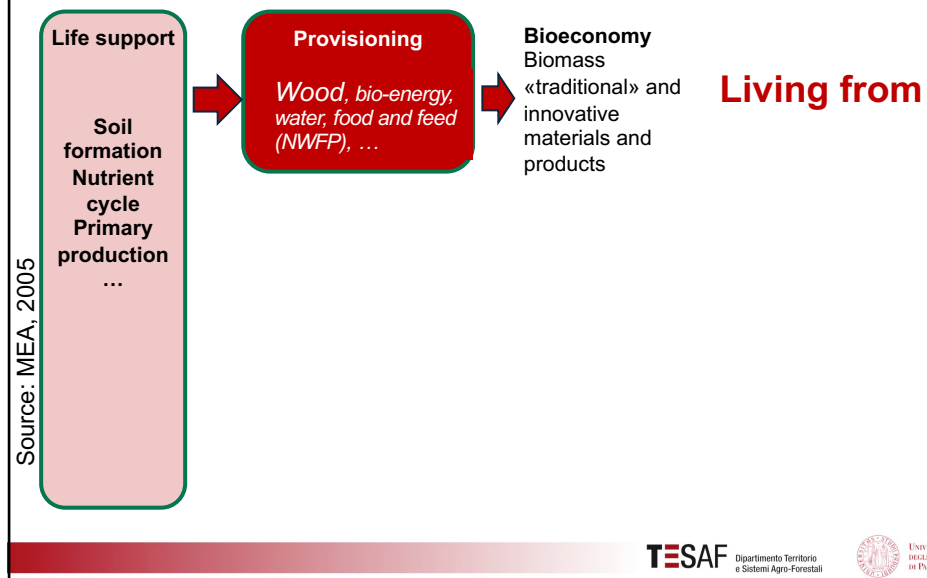
The Millenium Ecosystem Assessment (MEA) classification of Ecosystem Services

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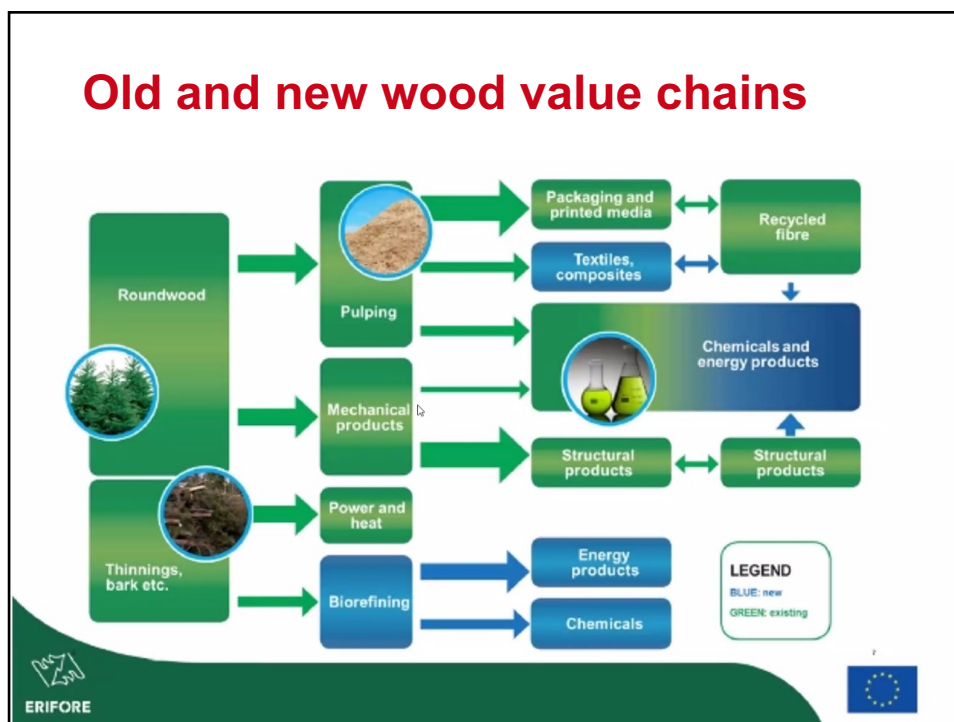
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Ecosystem Services in the forestry sector



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Old and new wood value chains

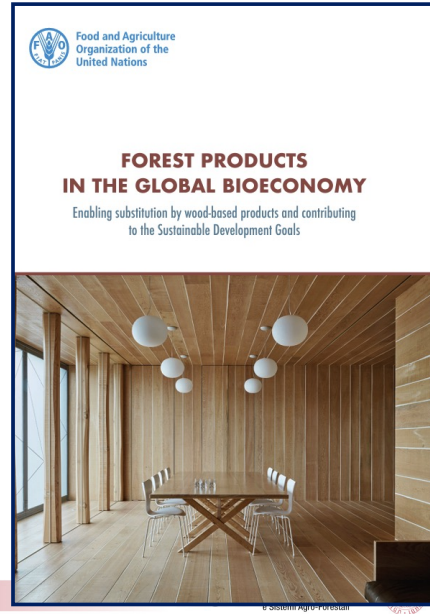


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5 new products for the bioeconomy

(excluding the energy use of biomass)

Source: FAO, 2022



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5 new sectors for the bioeconomy

(excluding the energy use of biomass)

- Engineered wood products

Cross-Laminated Timber (CLT or X-LAM): +37% annual growth (2014-20), NLT, glulam, CLT, MPP, LVL, ...



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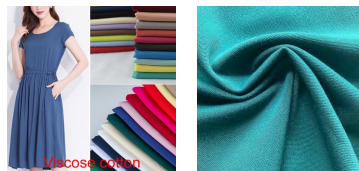


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5 new sectors for the bioeconomy

(excluding the energy use of biomass)

- Engineered wood products
Cross-Laminated Timber (CLT or X-LAM): +37% annual growth (2014-20),
NLT, glulam, CLT, MPP, LVL, ...
- RCF (Recycled Cellulose Fibers) or MMCF (ManMade Cellulose Fibres);
biotextiles: viscose, Lyocell, Tence, Modal, ...

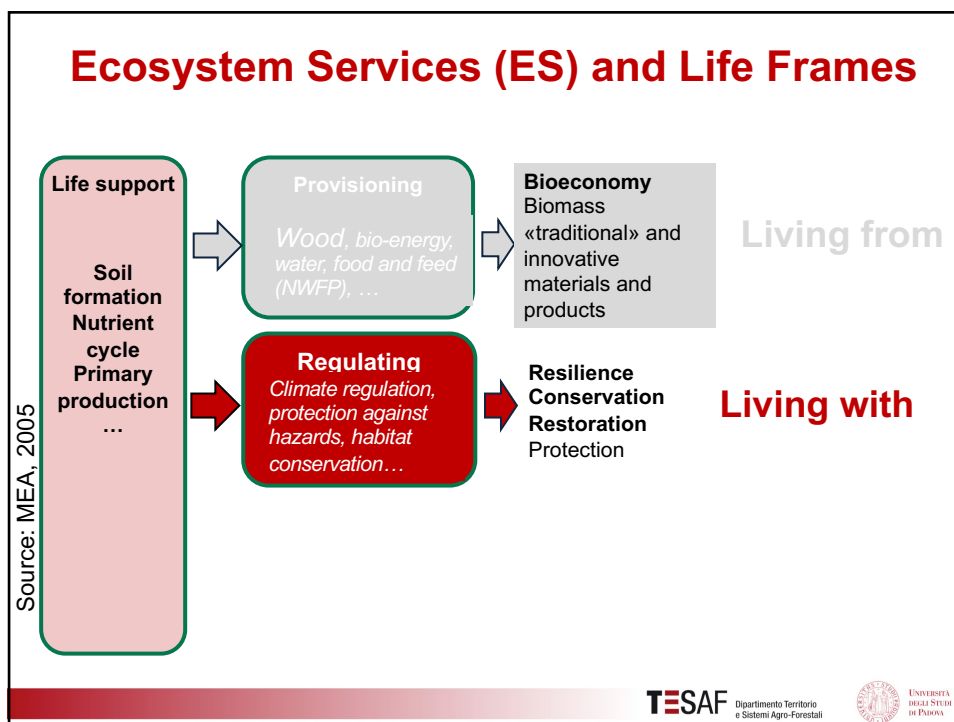


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- Panels, foams and insulants  
- Bio-plastics and PWC (Plastic-Wood Composite)  
- Packaging (see new regulations forbidding single use plastic containers in EU by 2030) 

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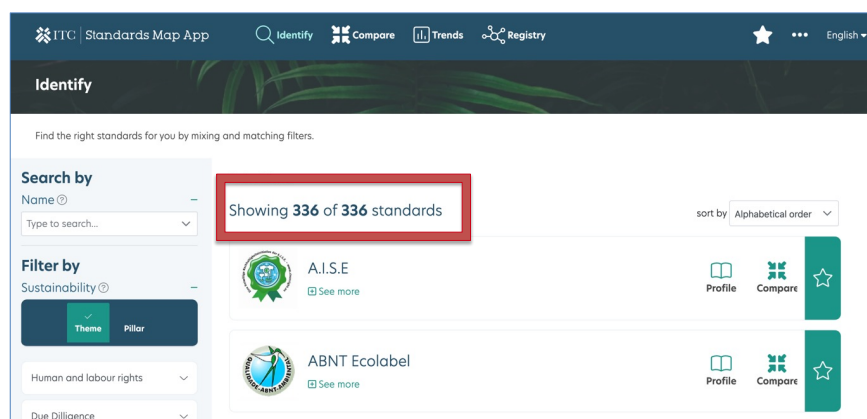


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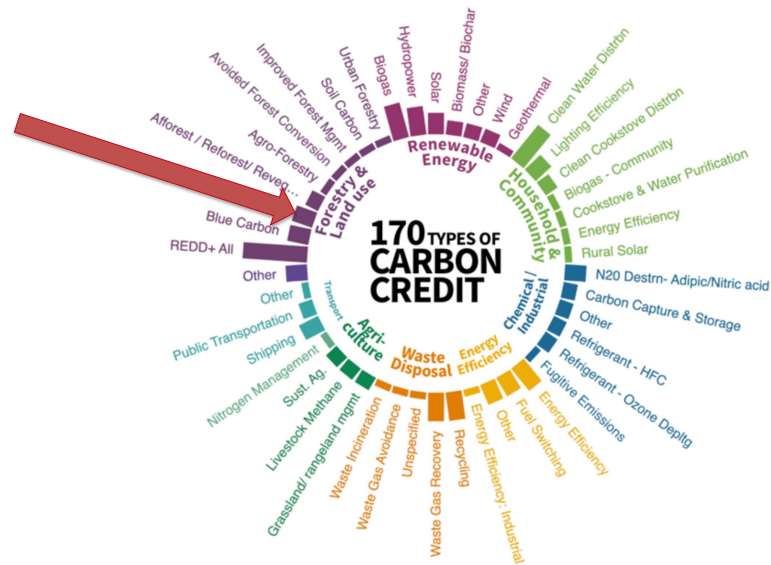
New markets for the regulating services

- Market based mechanisms
 - Payments for environmental services
 - Standards, labels and certification schemes
 - SFN, LCA, traceability, social aspects, ...
 - Credits generation

Standards map (International Trade Centre www.standardsmap.com)



Carbon credits typologies



Source: Ecosystem Marketplace, 2022

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Not only carbon, but also biodiversity, peatland, water, bio-climate, sustainability, ... standards

UK Government Endorsed Standards

(as at 05.09.23)

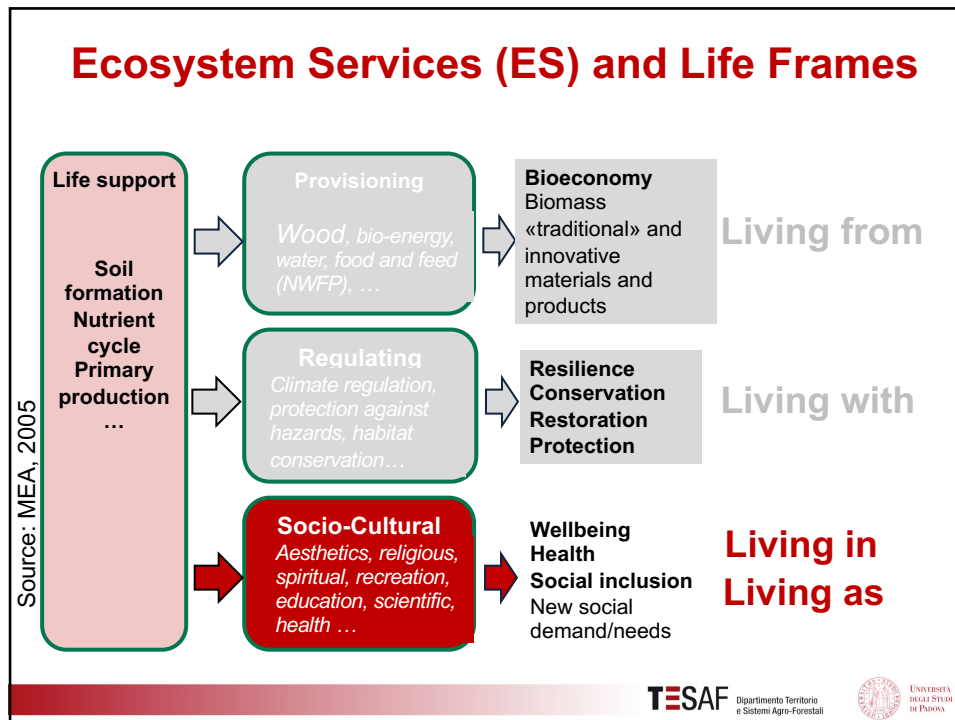
Ecosystem Service Market	UK Government Endorsed	Relevant Metric
Woodland carbon	Woodland Carbon Code*	WCC Carbon Calculator
Peatland carbon	IUCN Peatland Code**	PC Emissions Calculator
Biodiversity net gain	To be confirmed***	Biodiversity Metric (v4.0)

<https://finance.earth/wp-content/uploads/2023/08/Full-Nature-Markets-Principles-October-2023.pdf>

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At least 3 sources of undervaluation of socio-cultural services

- Some components are **not assessed**
- In advanced economies wild forest products **picking** is considered a provisioning service, while it is **a socio-cultural one**
- The real economic **impact** is often **down-stream** the socio-cultural services supply

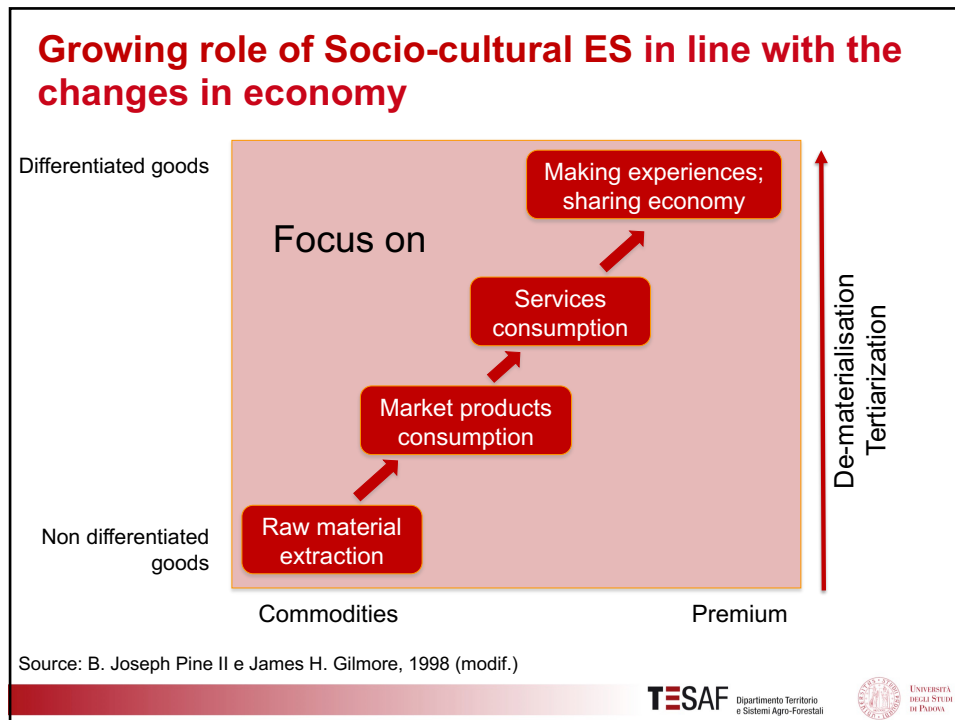
Impacts of socio-cultural services development

The new activities:

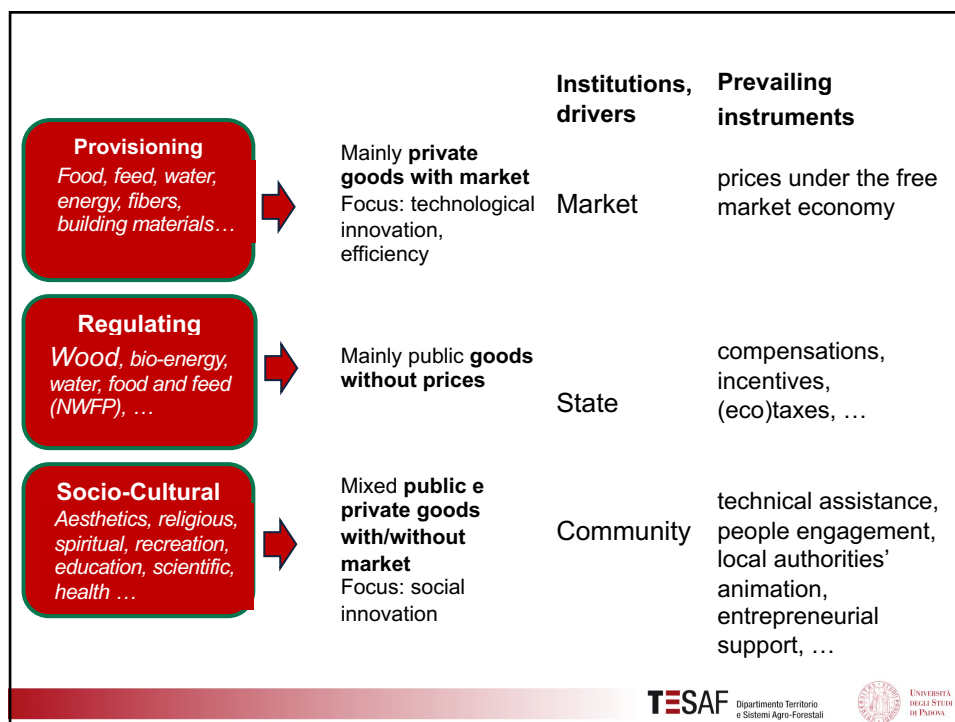
- they meet the needs of emerging citizens that the welfare state is often unable to satisfy
- they are linked to new expertise (→ new job opportunities)
- they are able to activate new financial sources (SRI)

For implementing these activities, the private (social) sector is far ahead of the traditional forestry sector, their leaders and their way of thinking and deciding on the use of forest resources

SRI: Social Responsible Investments



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A simplified view of ES and the role of the State

	Agents	Prevailing instruments	Some leading policies
Provisioning	Market (State)	prices under the free market economy	Circular bioeconomy policy
Regulating	State (market)	compensations, incentives, (eco)taxes, ...	Biodiversity & Climate policy
Socio-Cultural	Community (State, market)	people engagement, technical assistance, local authorities' animation, entrepreneurial support, ...	One health policy

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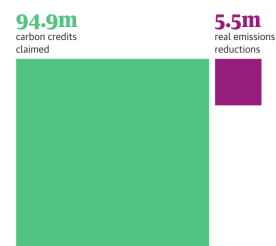
New initiatives to give value to forest-based ES: a lot of market failures

The Guardian

Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows

Based on a new analysis at least 90% of Verra's rainforest carbon credits do not represent real emission reductions

Each credit is equal to one metric tonne of CO₂ equivalent



The investigation found that:

- Only a handful of Verra's rainforest projects showed evidence of deforestation reductions, according to two studies, with further analysis indicating that 94% of the credits had no benefit to the climate.
- The threat to forests had been overstated by about 400% on average for Verra projects, according to analysis of a 2022 University of Cambridge study.
- Gucci, Salesforce, BHP, Shell, easyJet, Leon and the band Pearl Jam were among dozens of companies and organisations that have bought rainforest offsets approved by Verra for environmental claims.

<https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>

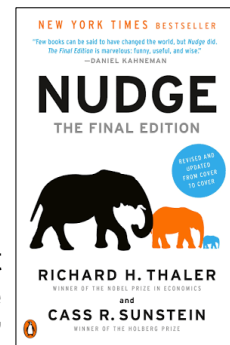
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Public institutions define the **frame rules** (indicators, thresholds, procedures, institutional actors, M&V systems, ...) for managing environmental (forest) resources

An approach consistent with the principles of the “Nudges economics”



Innovative tools by civil society





Area of policy action	Private initiatives that have covered the areas of action
Supporting SFM	CoC standards by FSC, PEFC, Naturaland, Plockhugget, ...
Sustainable finance	GABV, FEBEA and INAISE networks' activities; Basel 1 and 2
Sustainable use of wood biomass	Better Biomass, ISCC, SBP, ... (see https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en)
Sustainability reporting	GRI, CDP, SASB, ISO 14001 EMS, SASCB, Carbon Trust Standard, Greenhouse Gas Protocol by the WRI and WBCSD,...
Carbon credits generation	National Schemes and private certification schemes and standards
Legal origin of farm and forest products and their CoC	GFP, Rainforest Alliance, RTRS, RSB, RSPO, SAN, SBP + already mentioned forest related organizations

The later initiatives by the State
↓

Area of policy action	Private initiatives that have covered the areas of action	The regulatory initiatives by the EU
Supporting SFM	CoC standards by FSC, PEFC, Naturaland, Plockhugget, ...	Closer to Nature Guidelines, Env. Claims and label Directive
Sustainable finance	GA ad	Sustainable finance package: ESG rating, Taxonomy
Sustainable use of wood biomass	Be htt ent	REDII and REDIII
Sustainability reporting	Gl SA Gr an	CSRD (Corporate Sustainability Reporting Directive) and NFRD (Non-Financial Reporting Directive)
Carbon credits generation	Na cer	CRCF – Carbon Removal Certification Framework Regulation
Legal origin of farm and forest products and their CoC	GFP, Rainforest Alliance, RTRS, RSB, RSPO, SAN, SBP + already mentioned forest related organizations	EUTR – European Union Timber Regulation EUDR – European Union Deforestation and forest degradation Regulation



The critical point:
the State is a
ruler or also a
new player?

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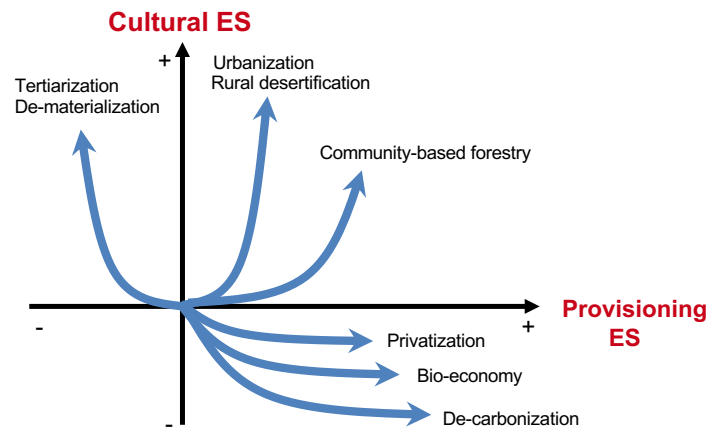
Opposite trends: need for finding compromise solutions

Urbanization Rural desertification	↔	Neo-ruralism «Soft» economy, de-growth
Tertiarization De-materialization	↔	Bio-economy (bio-based tech. devlpmnt) and de-carbonization
Community-based forestry	↔	Privatization and State forests enterprises
Financial and market globalization, global supply chains	↔	Nationalization, SRI and Impact investments at local level short value chain
Multi-functional forestry Integrative forest mngmnt	↔	Sustainable intensification Segregative forest mngmnt

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Diverse options with different trade-offs between ES



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