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Padova
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Spin-off



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Valuing and financing forests for water

Alessandro Leonardi, CEO, Etifor | Valuing Nature

Global workshop on ecosystem-based adaptation in transboundary basins

Geneva, 30° April 2019



Content

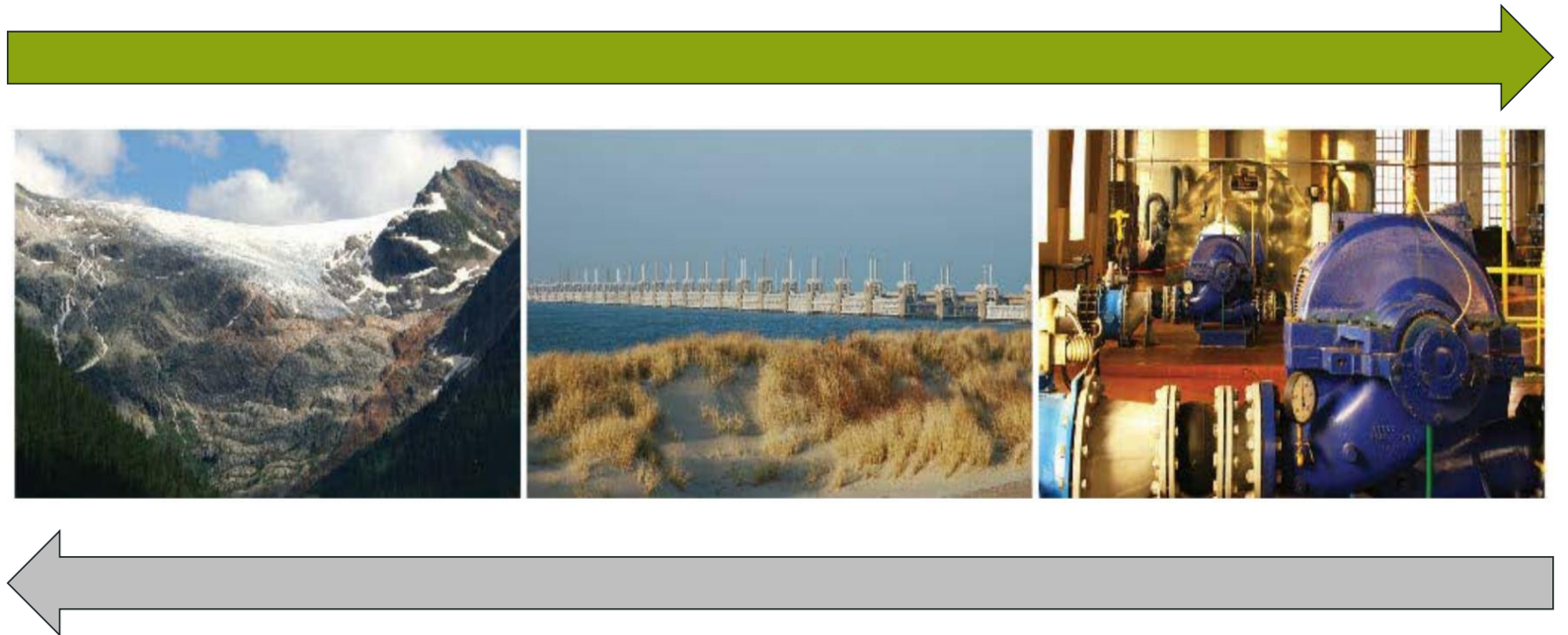
- Why valuing and paying?
- How to do and what to pay for?
- Examples
- Recommendations



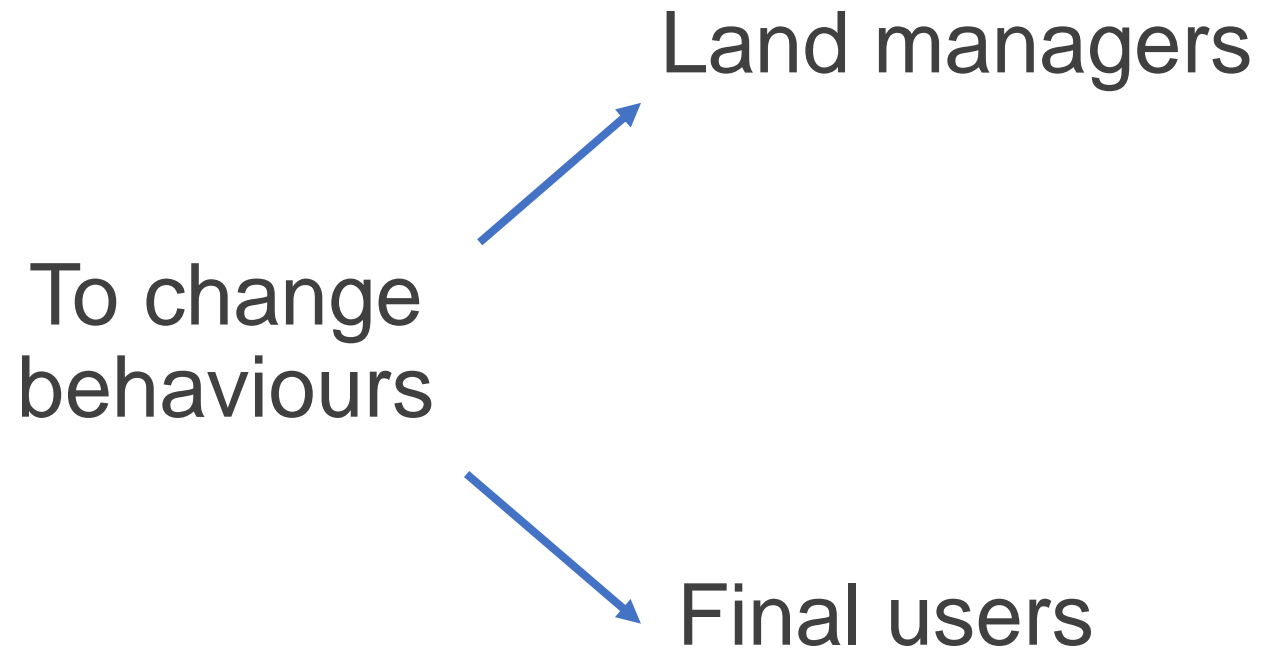
Why?

Climate adaptation need a mixed green-grey infrastructure approach

- Point vs landscape action
- Public purchase vs community landscape management



Why?



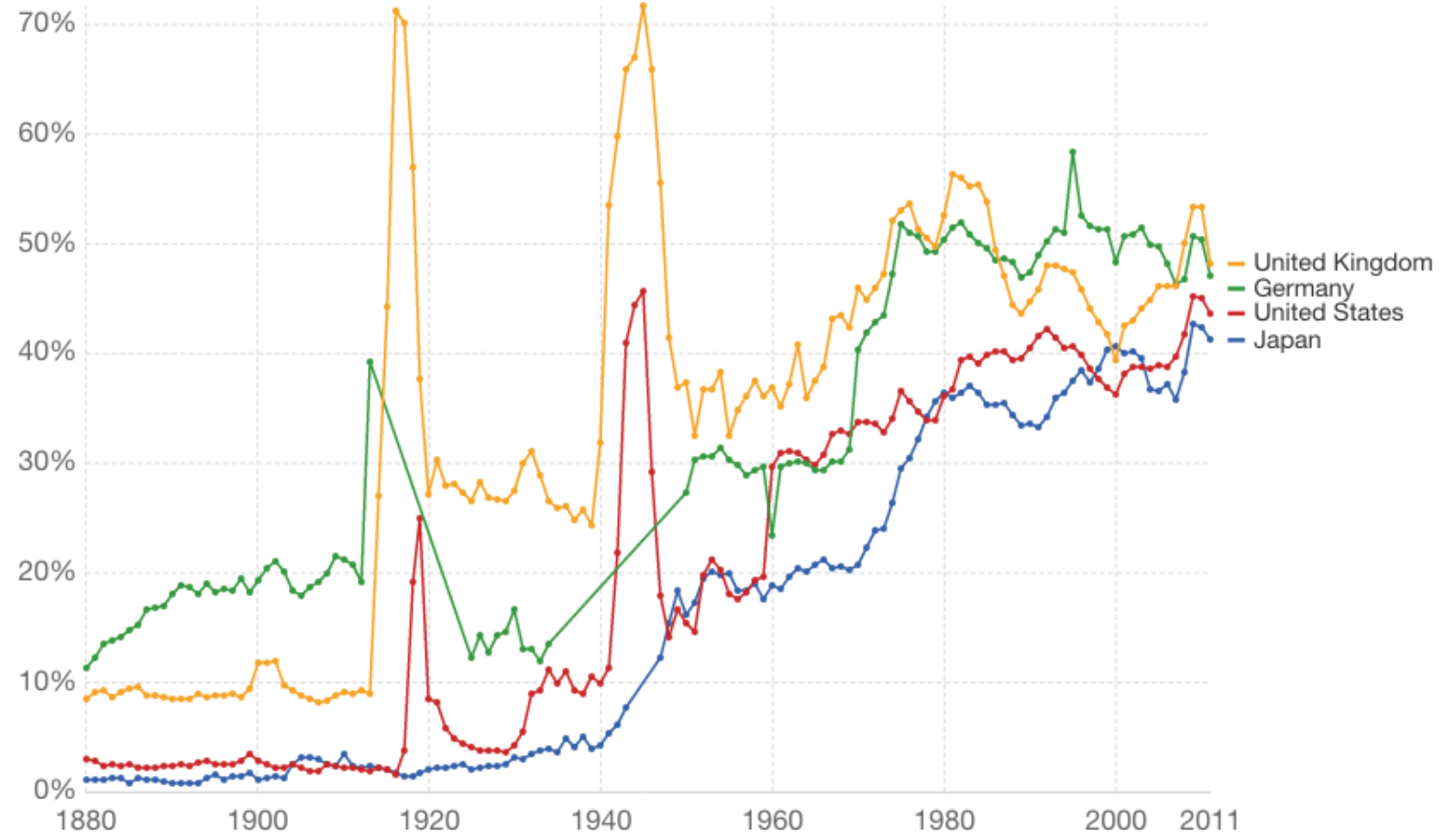
Why?

- Decreased public spending
- Post 2020 targets: \$100 billion/year of conservation measures
- Current: \$ 4-10 billion/year
- Need to involve the private sector

Dinerstein, 2019

Government spending (% GDP)

Total government spending, including interest government expenditures, as share of national GDP



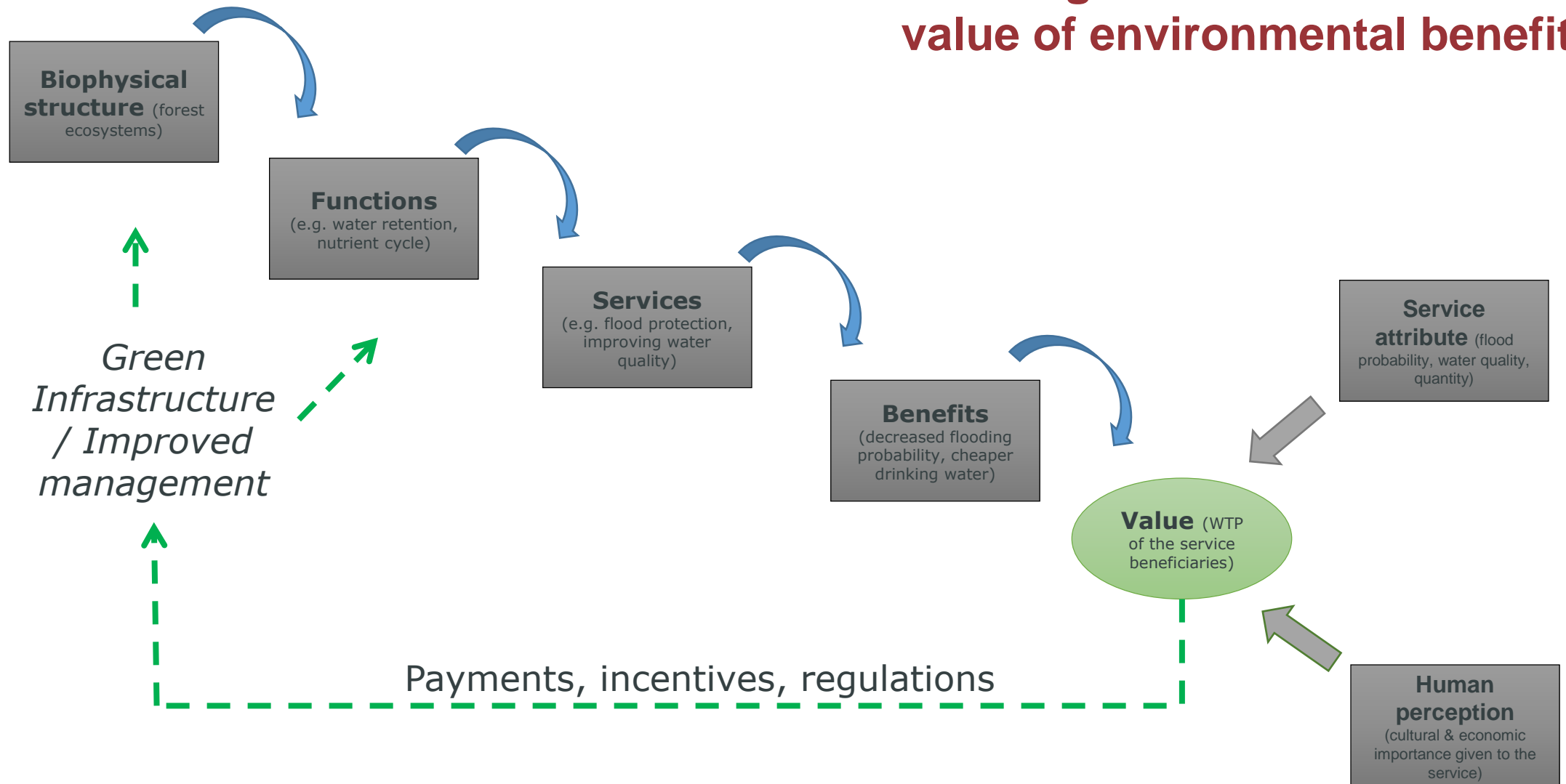
Source: IMF Fiscal Affairs Departmental Data, based on Mauro et al. (2015)

OurWorldInData.org/public-spending/ • CC BY-SA

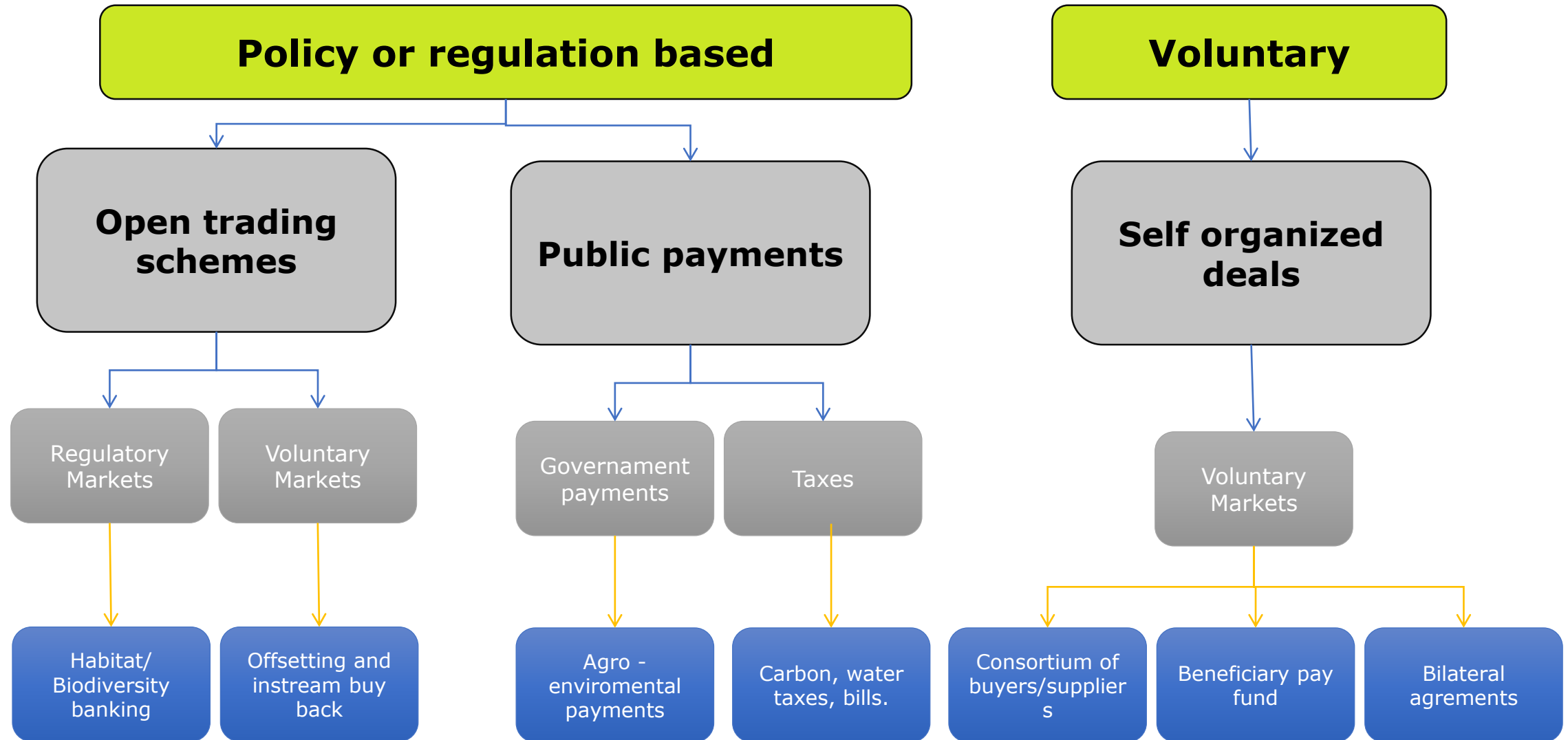


How

Translating in economic terms the
value of environmental benefits



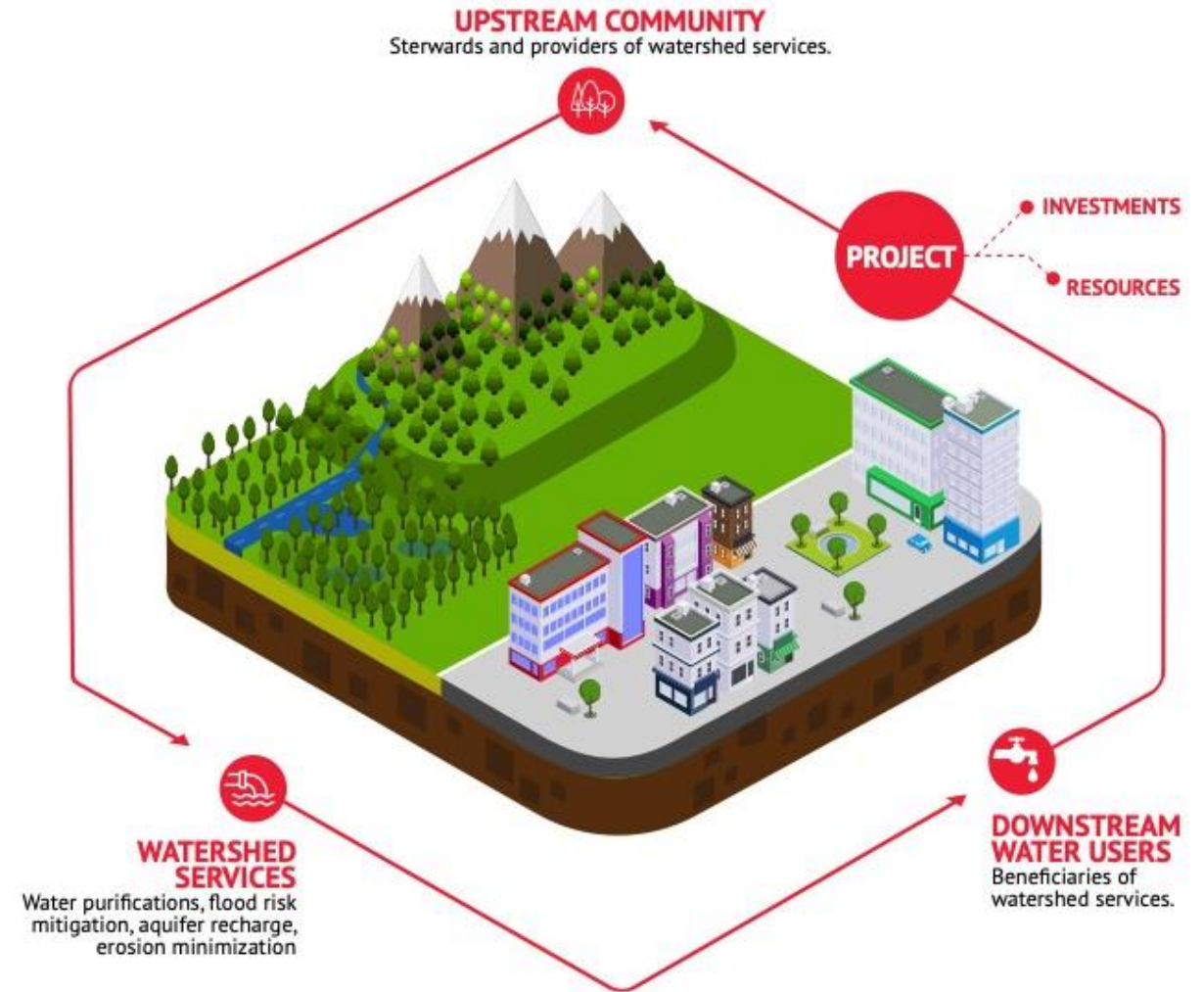
POLICY TOOLS



Payments for Ecosystem Services (PES)

Market-policy tools that allow:

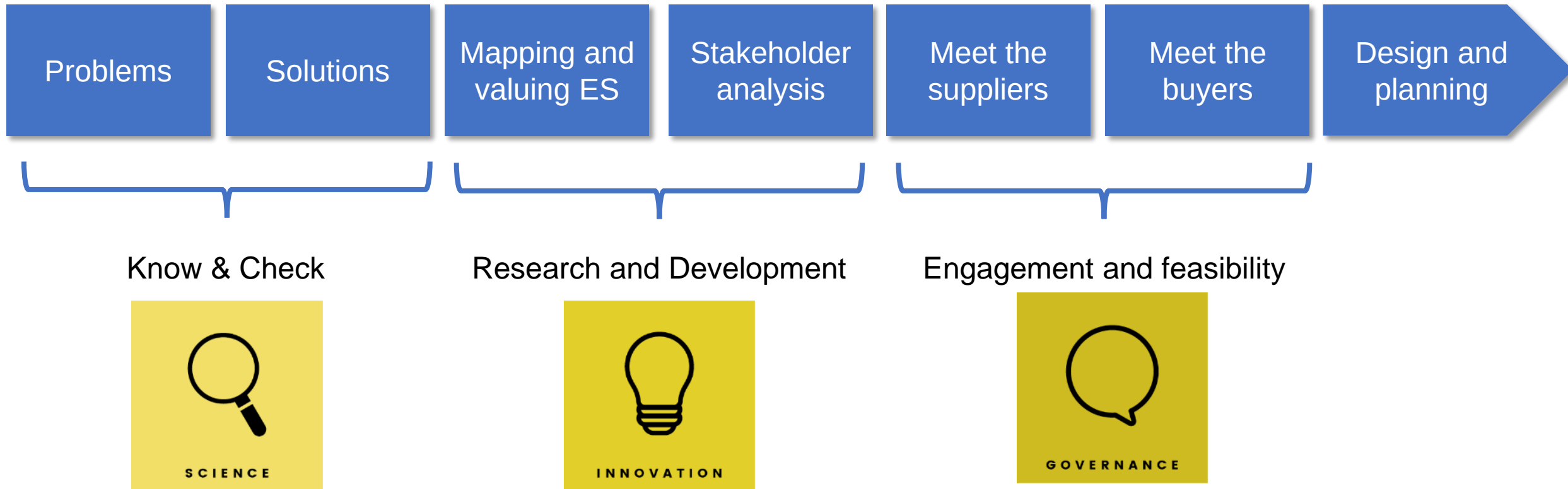
- **transfers** of resources between social actors, which aims to create **incentives**
- to **align** individual and/or collective land use decisions
- with the **social interest** in the management of natural resources



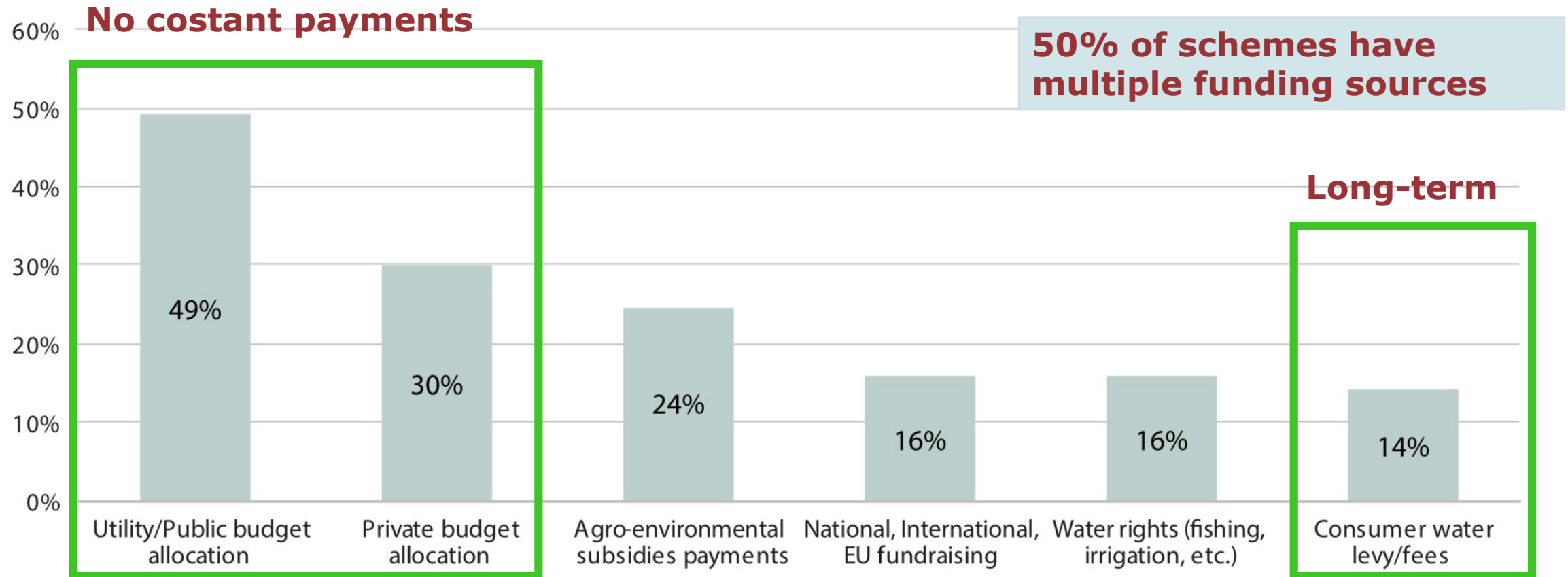
(Muradian et al., 2010).



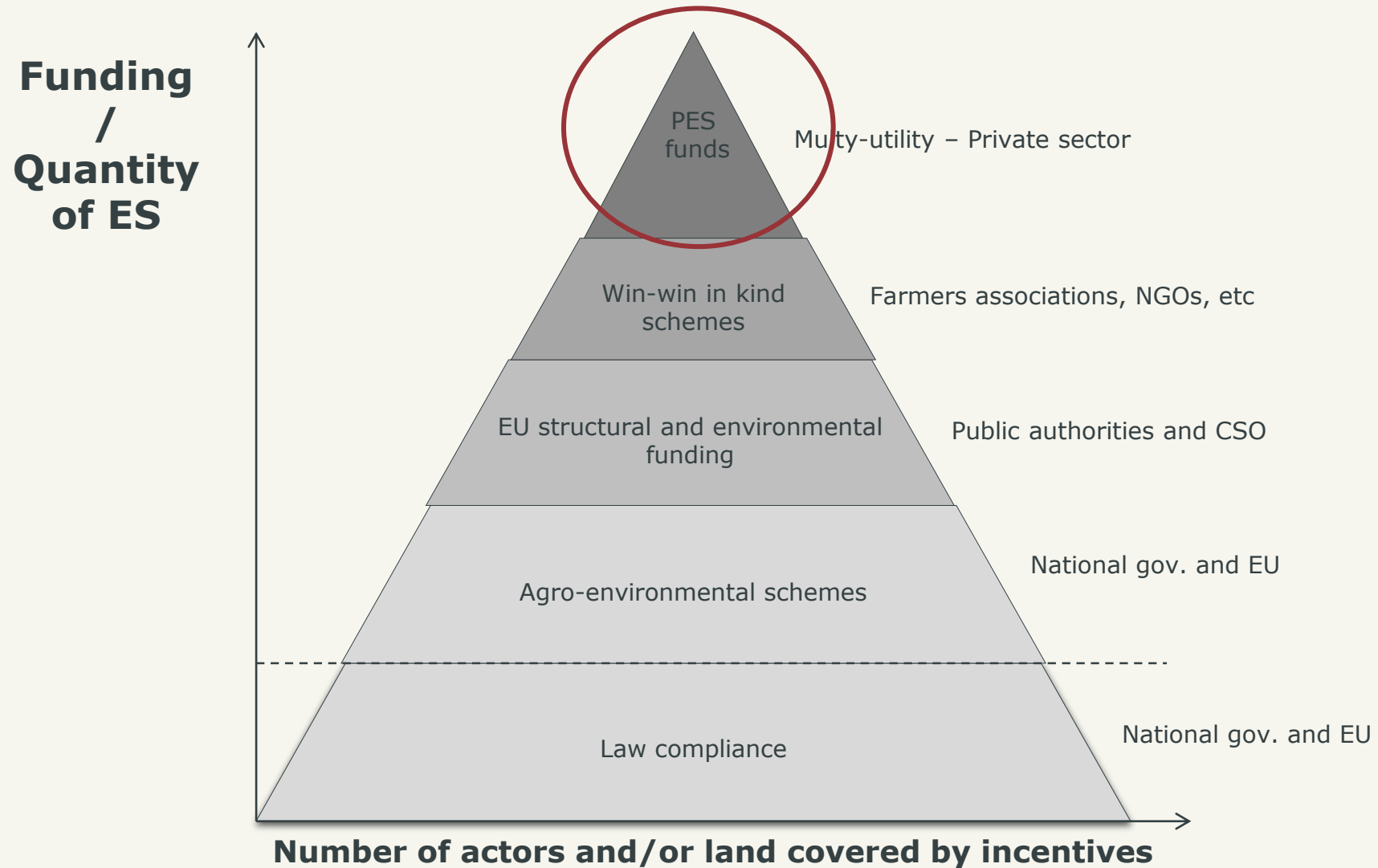
How



Frequency of funding sources



Integrated financing



Programme typologies	Sub-type	Major drivers	Main financing sources
Public – non-voluntary	Compensation for legal restrictions	Increase acceptance of legal restrictions through compensation of opportunity costs	Public budget allocation or scope taxes
Public regulated	Agri-environmental schemes	Public goods provision and partial cover of adoption of management practices	Common Agricultural Policy
	Public bilateral agreements	Local public goods provision	Budget allocation
	Water charge - public bilateral agreements	Investing on water quality. Charging customers for water related services via water charges	Scope taxes
	Regulated trading initiatives	Regulatory compensation	Compensatory trading schemes
Compensatory private initiatives	Trading initiatives	Standardized water footprint voluntary compensation	Compensatory trading schemes
	CSR offsetting	CSR water footprint voluntary compensation	Private sponsor
Private voluntary payments	Avoided impacts bilateral agreements	Avoid use of chemical inputs through paying for opportunity cost incurred (no associated benefits)	Private budget allocation
	Multiple benefits partnerships	Improve hydrological service provision through natural capital maintenance and improvement. Based on partnership model	Multiple sources and instruments
	User funded schemes	Charging final beneficiaries to invest on targeted hydrological services	Beneficiary pays fund
	Environmental benefits – bilateral agreements	Improve hydrological service provision through natural capital maintenance and improvement. Based on bilateral agreement	Private budget allocation

11 typologies of PES



Charges through water bill



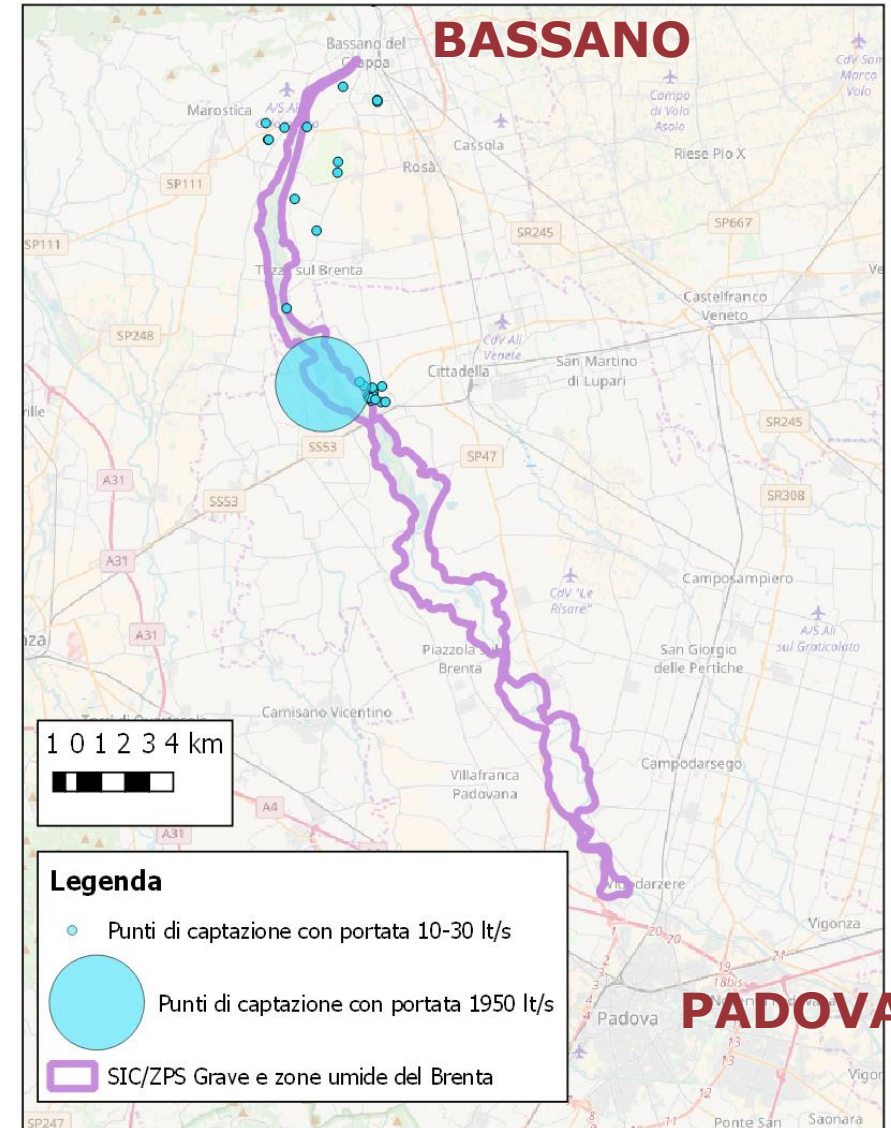
Multiple benefits partnerships

Example: Operational Group Brenta 2020



ETIFOR
valuing nature

- Brenta acquifer provides **65 Mln cm / year** of pure water, serving 20% of Veneto population
- Equal to **165 Mln € / year** (2,5 €/mc)
- Green Investments on water source protection from water utilities = **0 €**
- **How to internalize Green Infrastructure costs in water sector/bill?**



Gruppo Operativo Brenta 2020



Fondo europeo agricolo per lo sviluppo rurale: l'Europa investe nelle zone rurali

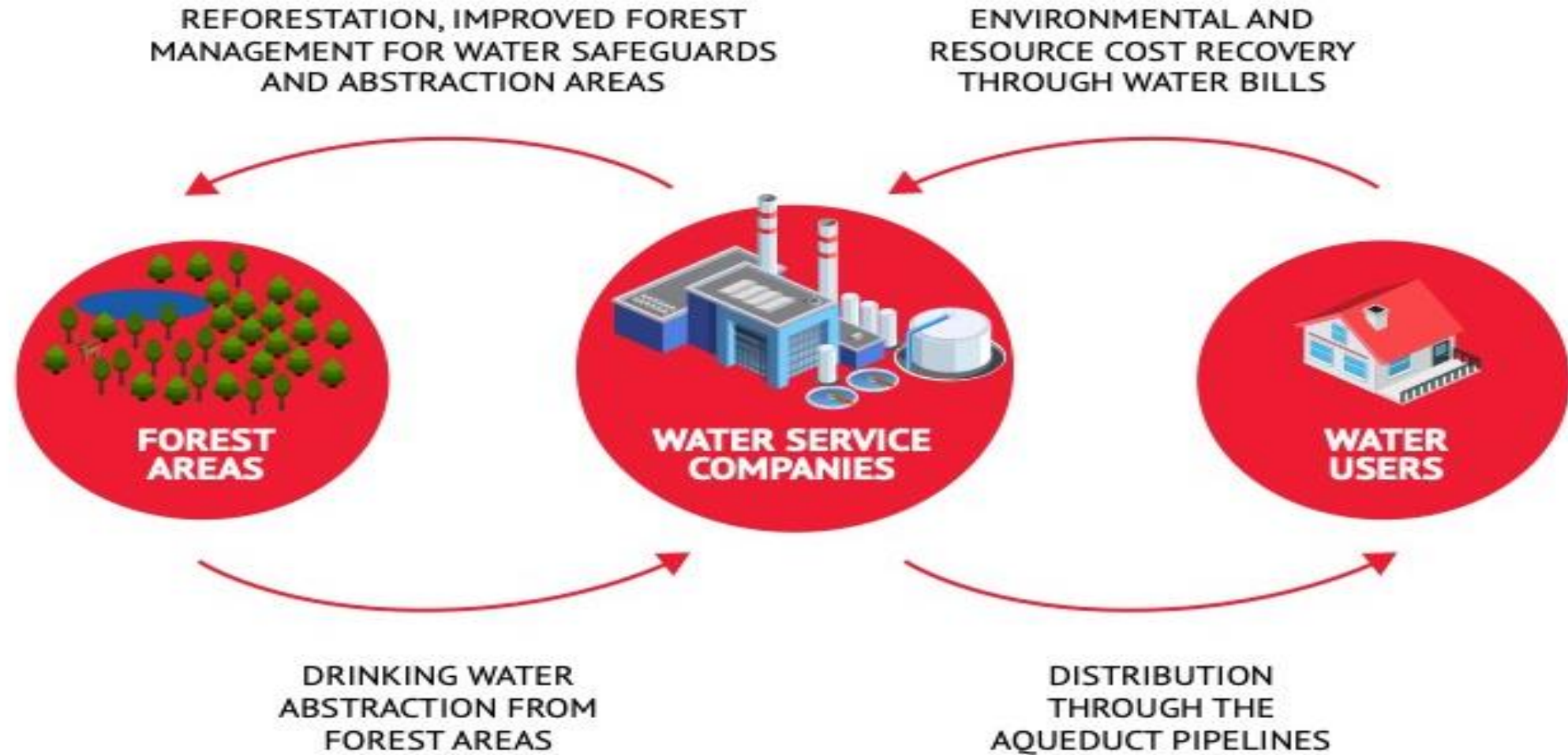


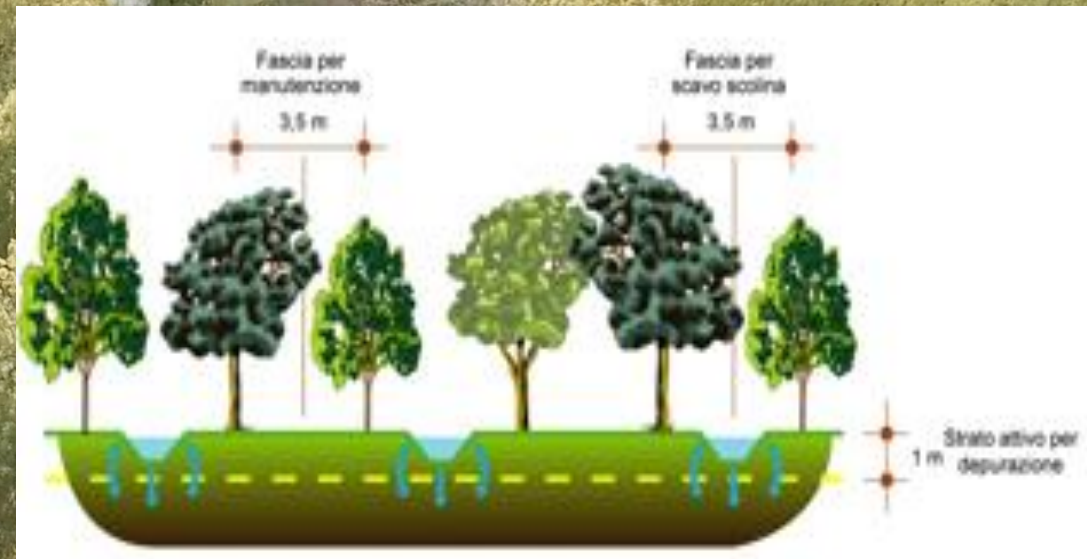
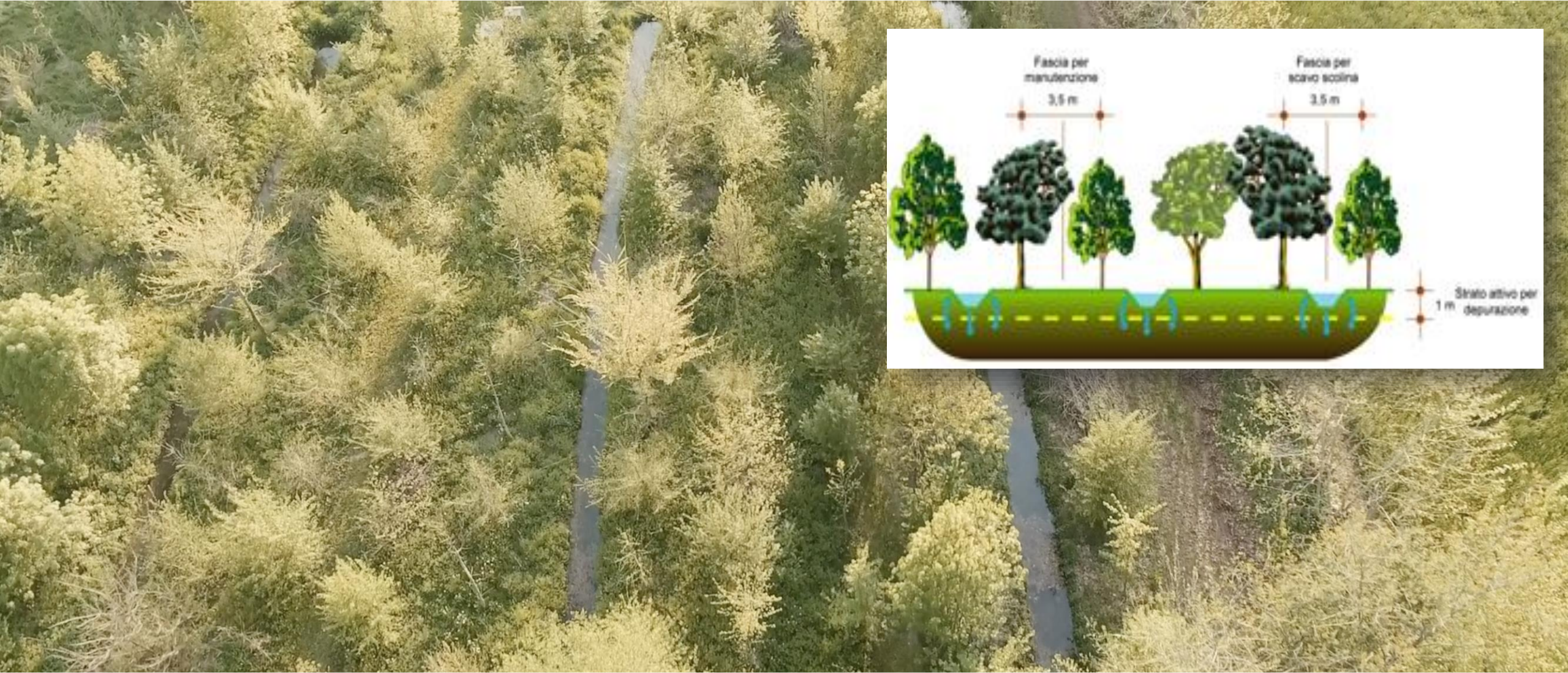
REGIONE del VENETO



PSR
Veneto
2014-2020

Water bills and the ERC (art. 9 WFD)





Forest infiltration areas to increase water table of the Brenta River Basin



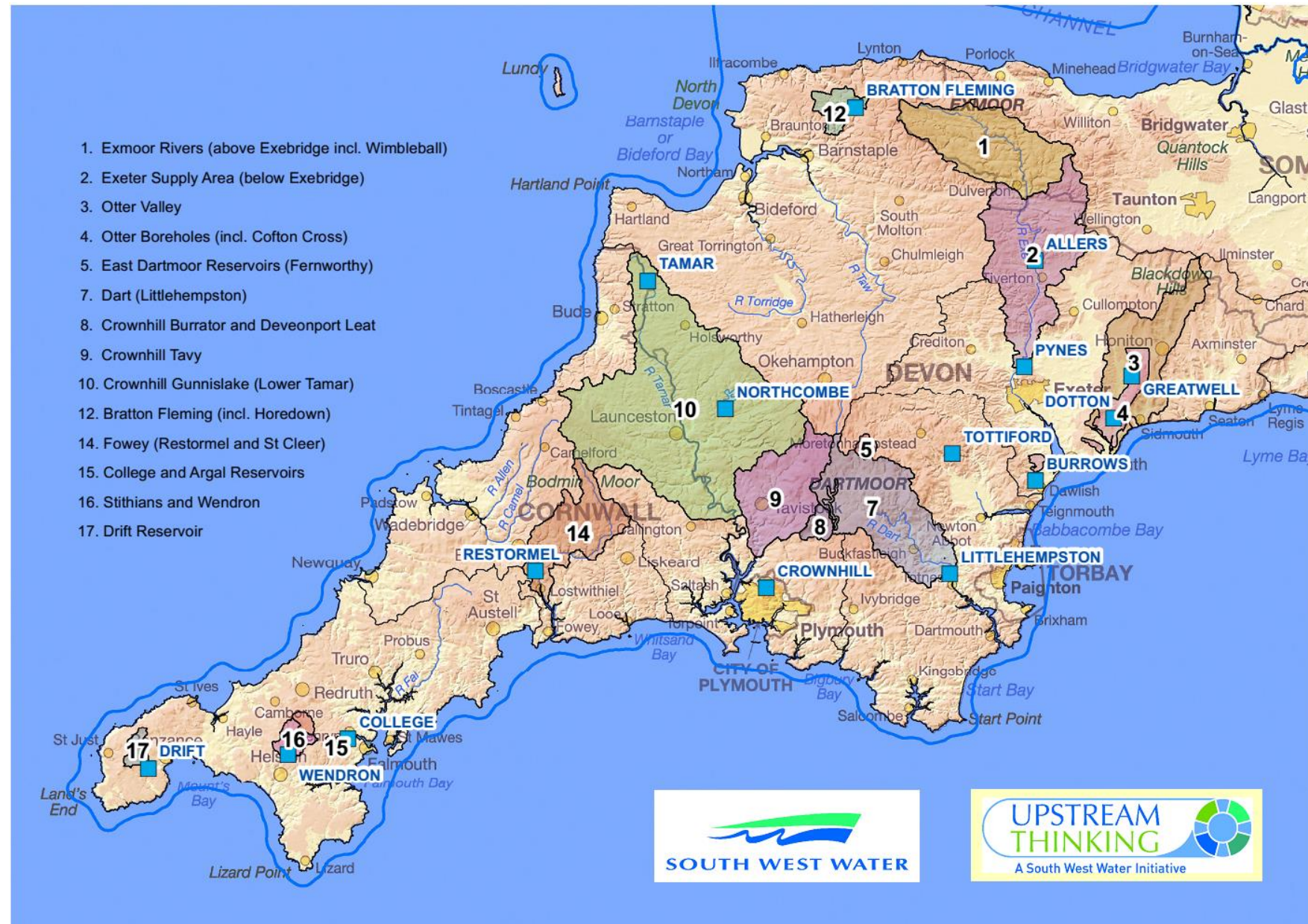
Improved FM to avoid erosion and dam sedimentation (IT and FR)



Forest management for Resilience to Wildfire in water catchments in Colorado (US)

Upstream Thinking (UK)

Umbrella: 10 schemes working in different ways to improve the health of upstream water sources, depending on local conditions: tenure, ecosystems, water issues, etc.





Food and Agriculture
Organization of the
United Nations

UNECE

Forests and Water

Valuation and payments for forest ecosystem services

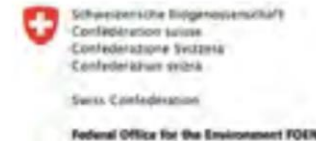


UNITED NATIONS

- Economics and governance of payment schemes with a practical view
- Case studies fact sheets
- The most complete and up to date database (177 active schemes)



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Creating an enabling legislative framework

- **Climate adaptation need a landscape approach**
- **PES tools are useful to align interests at landscape level**
- **No new policies or regulations!** But integration of existing ones
- **Vertical and horizontal integrations** of management bodies/structures
- Provision of technical advice platforms, promotion of best practices **and seed/start-up funding**

Marketing is the act of making change happen.
It involves creating **honest stories** – stories that resonate and **spread**
(Seth Godin, 2018)





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