

***PESFOR-W User Manual & Action
Plan workshop aims & structure
& Woodlands for water
Payments for Ecosystem Services
schemes***

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1) User Manual Developing woodlands for water PES

- any refinements/improvements you would suggest?

2) Action Plan Developing woodlands for water PES

- to create incentives across Europe for targeted tree planting to reduce agricultural diffuse pollution of watercourses to deliver water quality goals
 - What elements would you suggest including
 - Your own national (e.g. Belgian) contexts?
 - Wider European/international contexts?
 - What are the key barriers?
 - how can they be overcome?

Next steps:

- Potential location(s) for pilot(s)?
- Research needs, scoping a proposal & funding options?

9h30-9h45	Welcome & Introduction to the aims and structure of the workshop, & examples of existing Woodlands for Water PES schemes (Gregory Valatin)
9h45-10h15	PESFOR-W COST Action User Manual steps & approach (Tom Nisbet)
10h15-11h	Discussion of User Manual & potential refinements (all)
11h-11h10	Coffee break
11h10-11h30	Next steps: approach, potential location(s) for pilot(s), possible research needs - developing an 'Action Plan' (all)
11h30-11h45	Wrap-up

- **If you wish to ask a question, use 'chat'**
- **If you wish to speak, use 'raise hand'**
- **Switch your microphone off when not speaking**
- **Does anyone object to the workshop being recorded?**



Research network (Oct 2016-April 2021) aiming to improve Europe's capacity to use Payments for Ecosystem Services (PES) to achieve Water Framework Directive (WFD) targets & other policy objectives through incentives for planting woodlands to reduce agricultural diffuse pollution to watercourses.



Economics

Landscape Architecture

Social science

Geography

Forestry

Hydrology

Agriculture

Ecology

Climatology

Natural science

Geochemistry

Biochemistry

Engineering





COST Countries:

- Bosnia and Herzegovina
- Bulgaria
- Czech Republic
- Croatia
- Estonia
- Hungary
- Latvia
- Lithuania
- Luxembourg
- North Macedonia
- Montenegro
- Poland
- Portugal
- Romania
- Serbia
- Slovakia
- Slovenia
- Turkey
- Austria
- Belgium
- Denmark
- Finland
- France
- Germany
- Greece
- Ireland
- Italy
- The Netherlands
- Norway
- Spain
- Sweden
- Switzerland
- United Kingdom

Near Neighbour Countries:

- Morocco
- Jordan
- Tunisia
- Ukraine

International Partner Countries:

- China
- Japan
- New Zealand

International organisations:

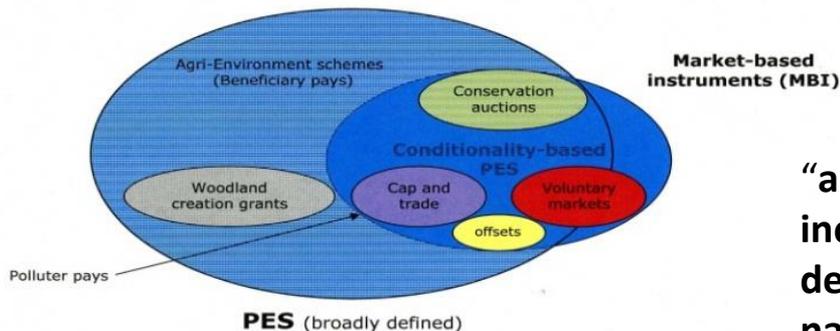
- European Forestry Institute
- UNECE/FAO



- 1) **Characterize & evaluate governance models**
- 2) **Evaluate environmental effectiveness of targeted woodland planting**
- 3) **Forests for water PES Case Study repository**
- 4) **User Guidance** on quantifying the effectiveness of tree planting to reduce diffuse pollution



Payments for Ecosystem Services (PES):



“a transfer of resources between social actors, creating incentives to align individual and/or collective land use decisions with the social interest in the management of natural resources” (Muradian *et al.*, 2010).



Woodland for Water PES defined as:

- (i) transfer of resources between at least 2 actors;
- (ii) transaction **explicitly targeted at improving water-related services;**
- (iii) payment for actions related to trees either:
 - primarily for water services; or
 - for bundled (including water) services



NB includes land purchase for water protection where tree planting reduces the market value of land

Denmark: Land purchase & afforestation:

- E.g. Odense municipal water company:
 - reducing risks of future **pesticide contamination of groundwater**
 - targeting protection of most sensitive areas for groundwater recharge
 - purchases nearby **land & swaps with local farmers**
 - secures **permanent land use change to forests** (legal change)
 - **ownership** of protected land **transferred to a partner organisation**
 - **for less than market value** of agricultural land
 - (i) Municipality** for tree planting as an area for local **recreation**
 - (ii) Social enterprise for Timber production + recreation access**
 - Lower land cost strengthens business case for afforestation
 - (ii) State forest agency for Timber, recreation+**
 - Lowers costs of land purchase for afforestation
- Creating **‘water forests’**

Rennes (local authority), France :

- Purchase & afforestation of 71.5 ha to reduce nitrate pollution
 - costs €6300/ha (€14700/ha including land purchase)
- Comparison over 10 years:
 - **Protection costs** (including agricultural measures):
 - €0.16/m³ (1/4 due to woodland planting)
 - **Costs avoided:**
 - €1.50/m³



Case study of Rennes

An efficiency indicator of this approach:





Tree planting for water quantity & quality

+ other benefits (**Bosco Limite, Italy**):

- Pilot project initiated by Etifor (spin-out company of University of Padua)
- **increasing water infiltration to groundwater**
- landowner paid by multiple organisations for different ecosystem services
 - **Including carbon**
 - 2.5 ha of woodland planted
 - example of 'stacking' & higher farm income than previously under agriculture



Baden Forest & Müller AG, Switzerland

- after hurricane Lothar (1999) destroyed large areas of a 500 ha forest
- the community made a contract with the local **brewery** Müller AG to restore & manage water protection forest zones
 - payments of about 10000 CHF (€8800) per year
 - five year contracts

Waidhofen drinking water protection zone (river Ybbs catchment, Austria)

- **reducing risks to water quality**
 - chemical
 - sediment
- **Pilot project:**
 - forest owners to be paid annually by the local government for implementing best practices
 - **30 forest owners (1069 ha)**
- **part of Interreg project PROLINE-CE**
 - **led by Austrian Federal Ministry of Sustainability & Tourism**





Land Management (reducing animal stocking density, **tree planting**, forest management ...):

Vittel, France (Nestle Waters):

- local farmers contracted to adopt practices to reduce pollution of groundwater
 - **additional land provided to farm rent free**
- **persuading local farmers to plant trees challenging:**
 - many have devoted much of their working lives to removing trees to increase agricultural production.



Spatial Repository - Payments for Ecosystem Services (Forests for Water) - COST Action CA15206 PESFOR-W

This database includes interesting case studies on water-related ecosystem services provided by forest- and tree-related ecosystems. Explore case studies by clicking on the dots, or select case studies using the drop-down fields. Clicking on the dot links to a webpage with more information. To return to the full dataset, users have to unselect the selected case, or press ESC.

Case study name in English

(All)



Type of ecosystem/s targeted by the case study

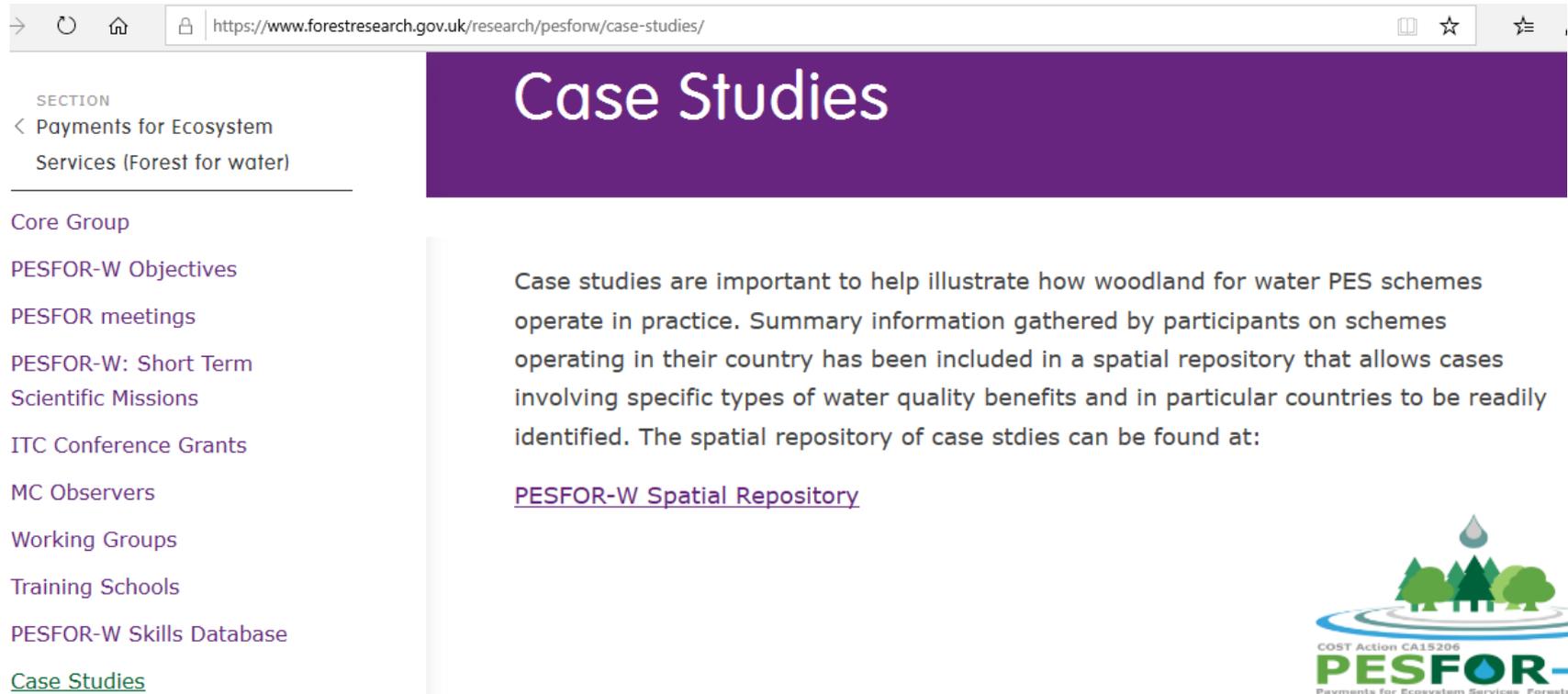
(All)

Specific water benefit/s generated by the case study

(All)



<https://public.tableau.com/profile/rik.de.vreese#!/vizhome/SpatialRepository-PaymentsforEcosystemServicesForestsforWaterCOSTactionCA15206PESFOR-W/Spatialrepository>



SECTION
< Payments for Ecosystem Services (Forest for water)

Core Group

PESFOR-W Objectives

PESFOR meetings

PESFOR-W: Short Term Scientific Missions

ITC Conference Grants

MC Observers

Working Groups

Training Schools

PESFOR-W Skills Database

[Case Studies](#)

Case Studies

Case studies are important to help illustrate how woodland for water PES schemes operate in practice. Summary information gathered by participants on schemes operating in their country has been included in a spatial repository that allows cases involving specific types of water quality benefits and in particular countries to be readily identified. The spatial repository of case studies can be found at:

[PESFOR-W Spatial Repository](#)



<https://www.forestresearch.gov.uk/research/pesforw/case-studies/>



Final months (to mid-April 2021):

- **Stakeholder workshops**
 - to test the **User Guide** with practitioners prior to launch
 - Suggestions for elements to include in an **Action Plan** on developing woodlands for water PES schemes
- **Submitting journal articles** (incl Cost-Effectiveness Analysis)
- COST Innovators' Grant proposal (to run activities across Europe for further 12 months from Nov 2021)
 - » Towards a **Woodland Water Code?**
- **Final conference online: 17th-18th March 2021**



Payment for Ecosystem Services:
Forest for Water
Final Conference
17-18 March 2021
online

The aim of the PESFOR-W COST Action is to synthesize knowledge, provide guidance and encourage collaborative research to improve Europe's capacity to use Payments for Ecosystem Services (PES) to achieve Water Framework Directive (WFD) targets & other policy objectives through incentives for planting woodlands to reduce agricultural diffuse pollution to watercourses.

17th-18th March 2021

This event is organized by **EFI (European Forest Institute)** on behalf of **PESFOR-W**.
For further details and registration, contact rik.devreese+pesfor@gmail.com





COST Action CA15208 "Payments for Ecosystem Services (Forests for Water)"

Final Conference (Online)
Programme 17th March 2021

Plenary and Management Committee

08⁰⁰ – 08³⁰: Joining & testing out connections
 08³⁰ – 09¹⁵: Welcome & Overview by the Action's Chair: Dr. Gregory Valatin, Forest Research, UK
 09¹⁵ – 09³⁰: Keynote address - Woodlands for water PES: overcoming barriers to their development (Dr. Sven Wunder, European Forestry Institute)
 09³⁰ - 09⁴⁵: Questions and answers
 09⁴⁵ - 09⁵⁵: Virtual field tour
 09⁵⁵ - 10⁰⁰: break
 10⁰⁰ - 11⁰⁰: User Manual and the finalizing the Action Plan
 11⁰⁰ - 11¹⁵: Tea/coffee break
 11¹⁵ - 13⁰⁰: Management Committee meeting

Programme 18th March 2021

Stakeholder Meeting

08⁰⁰ – 08³⁰: Joining & testing out connections
Plenary:
 08³⁰ – 09¹⁵: Welcome & Overview by the Action's Chair: Dr. Gregory Valatin, Forest Research, UK
 09¹⁵ – 09³⁰: Keynote address: Woodlands for water PES – a practitioner's perspective (Dr. Alessandro Leonardi, Efflor, Italy)
 09³⁰ – 09⁴⁵: Keynote address: Woodlands for water PES – water and forest interactions in Europe (Dr. Nitai Zai, European Environment Agency)
 09⁴⁵ – 10¹⁵: Keynote address: Woodlands for water PES – a policy perspective (Tamas Szediak, DG Agriculture and Rural Development, European Commission)
 10¹⁵ – 10³⁰: Questions and answers
 10³⁰ - 10³⁵: Tea/coffee break
 10³⁵ - 10⁴⁵: Governance & Design of Woodlands for water PES (WG1)
 10⁴⁵ - 10⁵⁵: Environmental Effectiveness of Woodlands for water PES (WG2)
 10⁵⁵ - 11⁰⁵: Cost-Effectiveness of Woodlands for water PES (WG3)
 11⁰⁵ - 11¹⁵: Communication & Dissemination of Woodlands for water PES (WG4)
 11¹⁵ - 11³⁰: User Manual on developing Woodlands for water PES
 11³⁰ - 11³⁵: Action Plan on developing Woodlands for water PES

Questions and answers + Feedback
Final words

