



EUROPEAN FOREST INSTITUTE

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**Reflections of a Sociologist on
Market-based instruments and Payments for
Environmental Services in forestry: a real solution?**

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Economics – 18th century moral philosophy

Why is there social order?

Jeremy Bentham – “greatest good for the greatest number of people over the long term” – collective utility and intergenerational fairness

John Stuart Mill – “how individual actions naturally lead to social outcomes based they are based upon individual empathy and understanding”

Mandeville – *Parable of the Bees* – why all members can act from greed and selfishness, but collectively produce a community and social order.



KEY CONCEPTS as related to economics –

Self-interest, Utility

Individual – level of analysis and target of policy instrument

“RELEASE OF ENERGY” – Hurst (legal realism)

SOCIAL AND COLLECTIVE VALUES

Why should losers agree to lose? Consent to lose – policy.

Tradition of Collective Action – necessary for this policy instrument to be likely to be successfully.



WHAT NOT DISCUSSED?

PROPERTY RIGHTS –

MATTER – yes, but in what way?

Economic markets based on individual activities

COMMON PROPERTY RIGHTS – a little

- How might CPR systems lead to desired conditions and outcomes?
- CONFLICTS - winners and losers, BUT 'social functions of conflict' – creation of identity, boundaries, diversity, difference – essential for society (Coser, Social Functions of Conflict, 1956 – based on Simmel 1894)
- NORMATIVE
 - What is valued, how value is created, who should get what, when, where, and how.



SCIENCE POLICY INTERACTIONS

PROBLEM – INTELLIGIBILITY

INTERACTIONS – create shared understanding

What kind of communication processes create understanding and intelligibility?

To be intelligible a new idea needs to either map onto an old framework or to create a new framework.

Ability to use a new idea evidence of understanding and intelligibility.

Once water free, now pay. So once biodiversity free, now pay.

CAN SCIENTISTS STRUCTURE A PROBLEM FROM A POLICY PERSPECTIVE SO THAT NEW IDEAS ARE ACCESSIBLE?



Science Policy Interactions

POLICIES ARE EXPERIMENTS. TEST, CHANGE, TEST, CHANGE,.... CONTINUOUS LEARNING

MEXICO example–

Shows how the role of the policy makers can enhance the effectiveness and adaptability of policy instrument –

Shows how this adaptive process can create community capacity for thinking and doing new things

METSO – how create capacity for anticipatory action by numerous actors in the direction of a desired set of future conditions via 10 year contracts for leasing biodiversity benefits from the forest.

Bargaining to define the value of the lease. And use knowledge of forest system to identify value contribution of each lease.



METSO - Finland

- LANDOWNERS HAVE STRONG CONSERVATION VALUES – BIDDING REVEALS THEM AND MAKES THEM OPERATIVE IN TERMS OF ACTION. ‘participatory processes’
- CREATION OF COLLECTIVE ACTION THROUGH AN INSTITUTIONAL MECHANISM FOR -
 - TWO WAY COMMUNICATION:
 - LINK SOCIAL VALUES WITH INDIVIDUAL VALUATIONS
 - LINK INDIVIDUAL VALUES WITH SOCIAL VALUATIONS



CONTEXT IS EVERYTHING.

In each example, the historical, social, cultural, physical context was the basis of the definition of the ‘problem’.

Ask first – what are people already doing, what would they like to do if they could, what do they hope to avoid doing?

Bo – capacity to lose voluntary and altruistic behavior from narrowly conceived solutions threatens the very strength of civil society.

Putnam – “Bowling Alone”



Putting PES into Practice

- What land users do affects multiple other actors.
- Externality and impact only goes in one direction – how provide a signal between users as to what others value?
- Design – based upon knowledge of the systems – scientific identifying marginal costs/benefits ok, but how much actually generated from specific actions?
- Identify needs and monetary payments – but how get money to create the desired outcomes?



MUSHROOMS

ROLE and IMPORTANCE OF NETWORKS IN NWFP AND PES
innovation, entrepreneurial capacity, dynamic, contractual
coordination – mutual trust

Network – intentionally formed groups of SMEs – geographically
close, undertake actions, agreement

Social factors affect both the nature of the networks and the likelihood
of them forming. Degree of formalization of network and the degree of
organization – classify types of networks.

LOOSELY COUPLED - STRONG COORDINATION
STRONG MULTIPLIER EFFECTS!



FORVALUE project – experience in Europe with PES

What kinds of mechanisms used in Europe?

Public – taxes, subsidies – *most frequently used*

Public/private – contracts, tradable permits and cap and trade – *forest owners interested in this kind of contracting*

Private – purchase, lease, donations, certification, etc. – *depends on the goods/services*

STRONGER ENGAGEMENT OF OWNERS, USERS, AND PUBLIC

WHY?????



Theoretical Concepts of Market Based Instruments

Rationale for MBIs

- Market failure in the context of Public Goods
- Institutional failures in provision of Public Goods
 - ‘iron triangles’ of interest complexes lead to persistence of policy and ‘policy failures’ (political science)

What is a Public Good? When is something a Public or Private Bad?



Portugal – Avoidance of Public ‘Bads’ and Provision of Public Goods

Permanent Forest Fund in Portugal – part of Forest Policy Frame Law in 1996

- Fires in 2003 – all kinds of forests burned and also within cities – everyone affected
- Activities – broad range from research to forest management – and creation of ZIFs and concern with provision of forest public goods
- Create increased capacity for collective organization – grouped management of private forests
- Funding process itself lacks transparency and accountability – how bring the capacities of a market into a policy instrument?



Definition of Payments for Environmental Services - PES

1. Voluntary
2. Well defined – environmental service or land use condition
3. Willing Buyer
4. Willing seller/provider
5. Conditionality – if and only if the ES continuously secures ES provision



Legality and PES

Move from self-interest – polluter pays – PES meet objectives that are social benefits – costs born by society

but ASSUMES – basic legal framework and compliance/enforcement capacity

CRITICAL CAPACITY – (law and economics field)

Why so often ignored in forest context EXCEPT for framework legislation?

Question: because of a lack of understanding of law as a socially constructed dynamic that shapes society and environment?



Policy Instruments

PES = integrated environmental tax and subsidy

- Agreements
- Information
- Regulation
- Economic
 - Wunder – classification of instruments –
 - PES– high economic incentives and high direct conservation results – integrated environmental tax and subsidy
- Green Auctions and Leases – Finland
- **HOW SIMPLIFY THE PROBLEM SUFFICIENTLY TO DEVELOP AND APPLY AN ACTUAL POLICY INSTRUMENT?**



Theoretical Considerations – related to the question of what kind of order and society will we create?

- Functions of the Environment -
resources, sink for waste, amenity values, life support system
- Sustainable use – consumption not greater than supply, waste not overwhelm the system
- Market based – clearance in the market
- Polluter pays
- Coase – assign property rights – when should victims pay?

POWER



Forests and economic functions

- **Amenity values – use and non-use**
- **Sink for wastes**
- **Natural resources**
- **Life support system**

What is missing in this conception of a forest values that might affect the design and implementation of a policy instrument?



CATEGORIES of PESs

USER FINANCED – small scale, single service, single buyer, seldom side objectives, focused

WHEN- multiple users, free riding incentives, high start up costs,

THEN

GOVERNMENT FINANCED – large scale, many services, state acts as ES buyer, multiple side objectives, less focuses

WHEN – uniform payments, non-targeted, ‘money for nothing’ without additionality (protected without payment),

THEN

What happened to common property and society?



PESs address hard conservation trade offs – ‘civic environmentalism’

1. Beneficiaries – winners and losers
2. Spatial – benefits in one place and costs in another
3. Service type – provisioning and other services
4. Temporal – benefits now and costs later
5. Not tool for everything – but a ‘strategic sub-set of ES’ most in need of environmental finance
 1. Products not services
 2. Externalities
 3. Only credible threat for externality payments
 4. Only most valuable get payments



Not use PES systems UNLESS -

- Cost of provision exceeds benefits
- Altruistic provision would NOT be negatively affected by putting into market culture
- Information – sufficient to predict outcomes
- **Trust essential between providers and users** – (not fear that this a way of taking away land or property rights)
- Land stewards need rights of exclusion in order to be a service provider



START FROM THE PROBLEM – THE PEOPLE USING THE SERVICES

NATURE OF THE ECOLOGICAL SYSTEM –

EG., WATER FLOWS DOWNHILL

EG., CARBON INTO GLOBAL ATMOSPHERE

AND SOCIAL!!

ECO-SOCIAL SYSTEMS WITHIN ECO-REGIONS

POTENTIAL FOR PAYMENTS TO BE AN EFFECTIVE INSTRUMENT IS BASED UPON THE LOCAL SPECIFICs OF EACH SITE AND VERY CAREFULLY TARGETED TO WHERE ACTUAL BENEFITS CAN BE ACHIEVED FOR PRECISE SERVICES DESIRED



How create payment systems?

1. Up front costs paid by donor/government ...
2. Payments to service providers – who, how much, how long...
3. Transaction costs of running the system – paid by beneficiaries

If easy to identify users,

 If users are organized,

 If there are few users,

 If there are well defined benefits,

THEN payment systems can work.



Lessons learned by the World Bank so far – www.worldbank.org/environmentaleconomics

Not universal solution, tailor to situation, what specific service
Start with DEMAND side, monitor Effectiveness in generating the
service desired,

Flexible mechanisms – uncertainty and complex systems –
adaptive

Have a large range of mechanisms so can mix and match to
specific situations

Be prepared to Change along the way!



GOVERNANCE of MBIs and PESs – *SYSTEMS of GENERATIVE POLITICS*

- *Generative politics – what kinds of resilience strategies might be created by creating a ‘community of inquiry’ through ‘civic science’?*
- *Knowledge Organization – re-presentation, loss, exclusion, inequality, creation – create intelligibility and understanding*
- *Science-Policy Integration – networks for connection among dispersed actors over space and time – create social capacity*
- *Inequality – institutionalized in policy and science – fairness through difference – conflict and difference essential for society*
- *Security and Trust - create a new legal mechanism and actors to create sufficient predictability for security of future-oriented action?*