

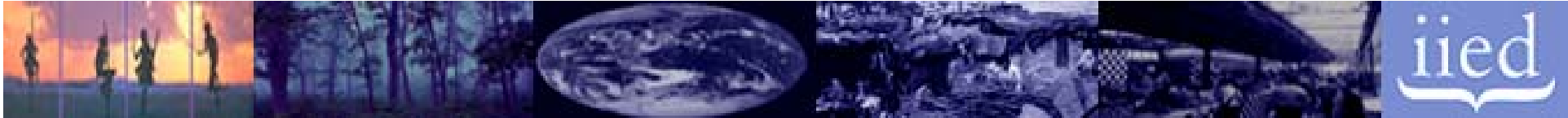
A review of payments for watershed services

NORAD

October 2006

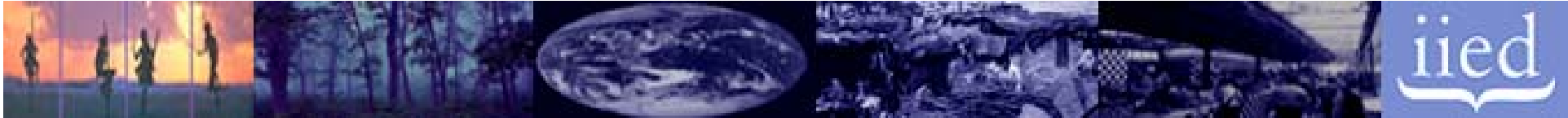
Ivan Bond





Introduction

- Millennium Ecosystem Assessment (MEA)
 - ✓ Severe degradation of ecosystems
 - ✓ Loss in goods and services
 - ✓ Land use change
- Water
 - ✓ Specific MDG – reduce by 50% by 2015
 - ✓ Basic need of 20 to 50 litres a day
 - ✓ Directly related to public health
 - ✓ 1.1 billion no access to safe water
 - ✓ Climate change will exacerbate
- Poverty
 - ✓ 1.2 billion people living on less than US\$1.00 per day
 - ✓ Poverty is not static



Market based incentives

➤ Disillusioned with

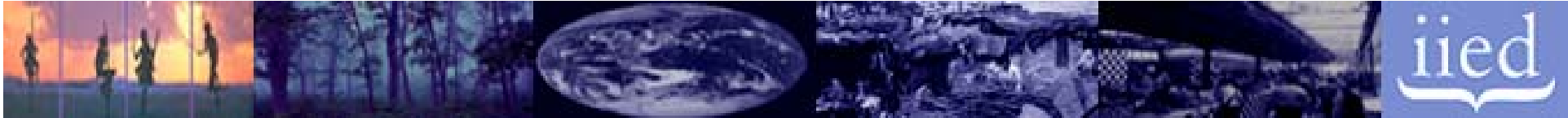
- ✓ regulatory approaches to natural resource management
- ✓ central planning of development

➤ Alternatives provided by

- ✓ The potential role of rural communities
- ✓ The market as a mechanism to allocate resources

➤ Built on

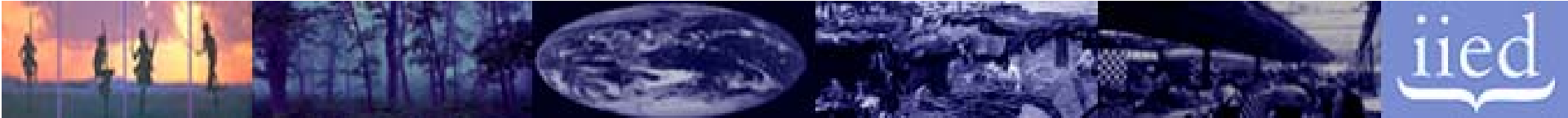
- ✓ The experience of the integrated conservation and development (ICDP)
- ✓ The ongoing experience of community conservation



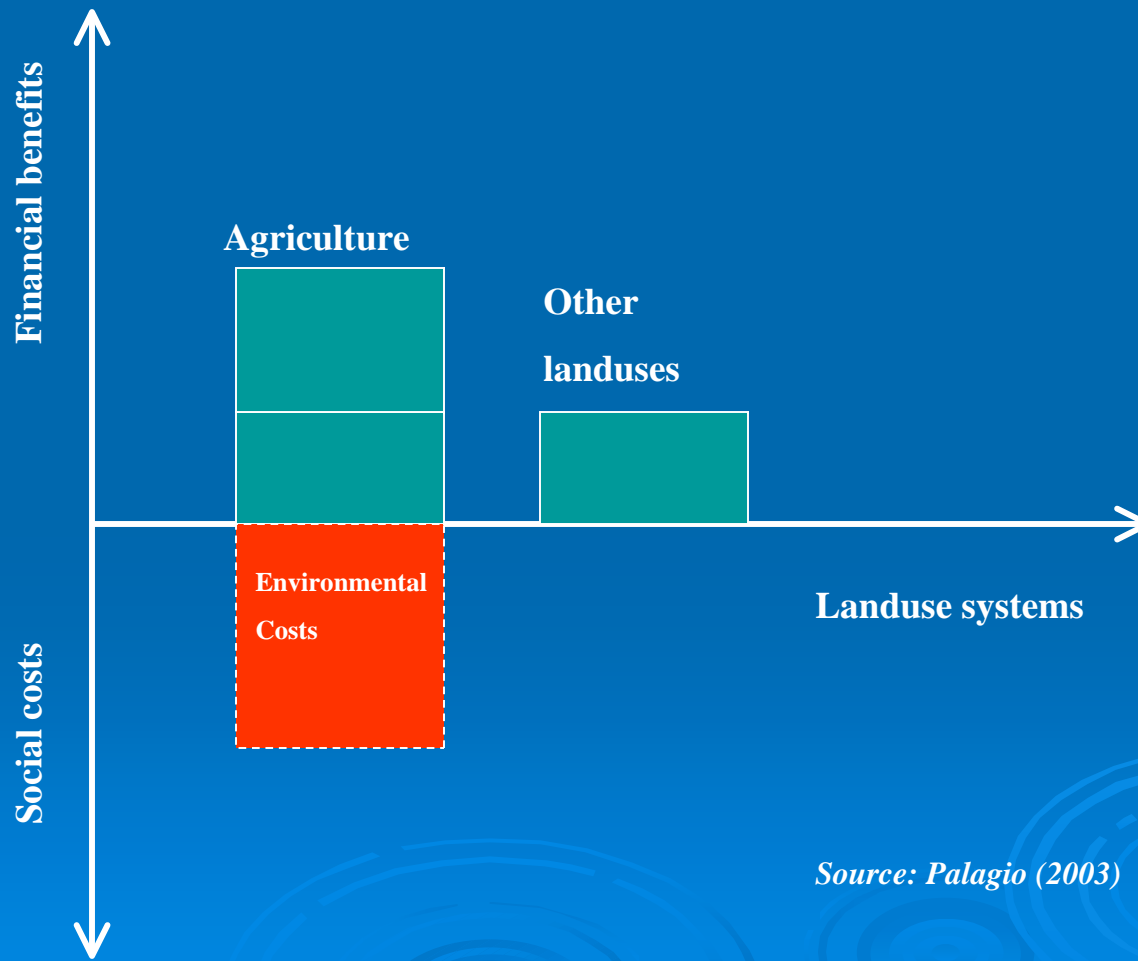
How are payments for watershed services (PWS) different?

➤ A working definition

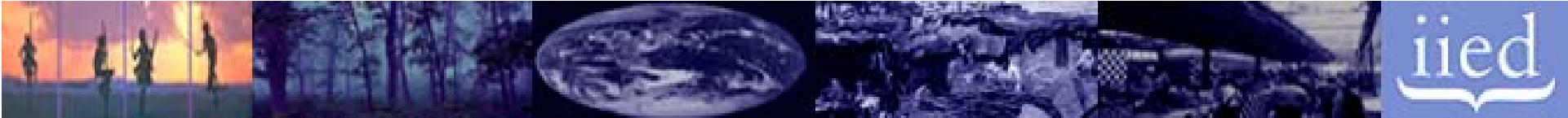
- ✓ A ***voluntary*** transaction where,
- ✓ A ***well defined ecosystem service*** (or landuse that is likely to secure that service)
- ✓ Is being ***bought*** by a minimum of one buyer
- ✓ From atleast one ***provider***
- ✓ If and only if the provider secures the service (***conditionality / contingency***)



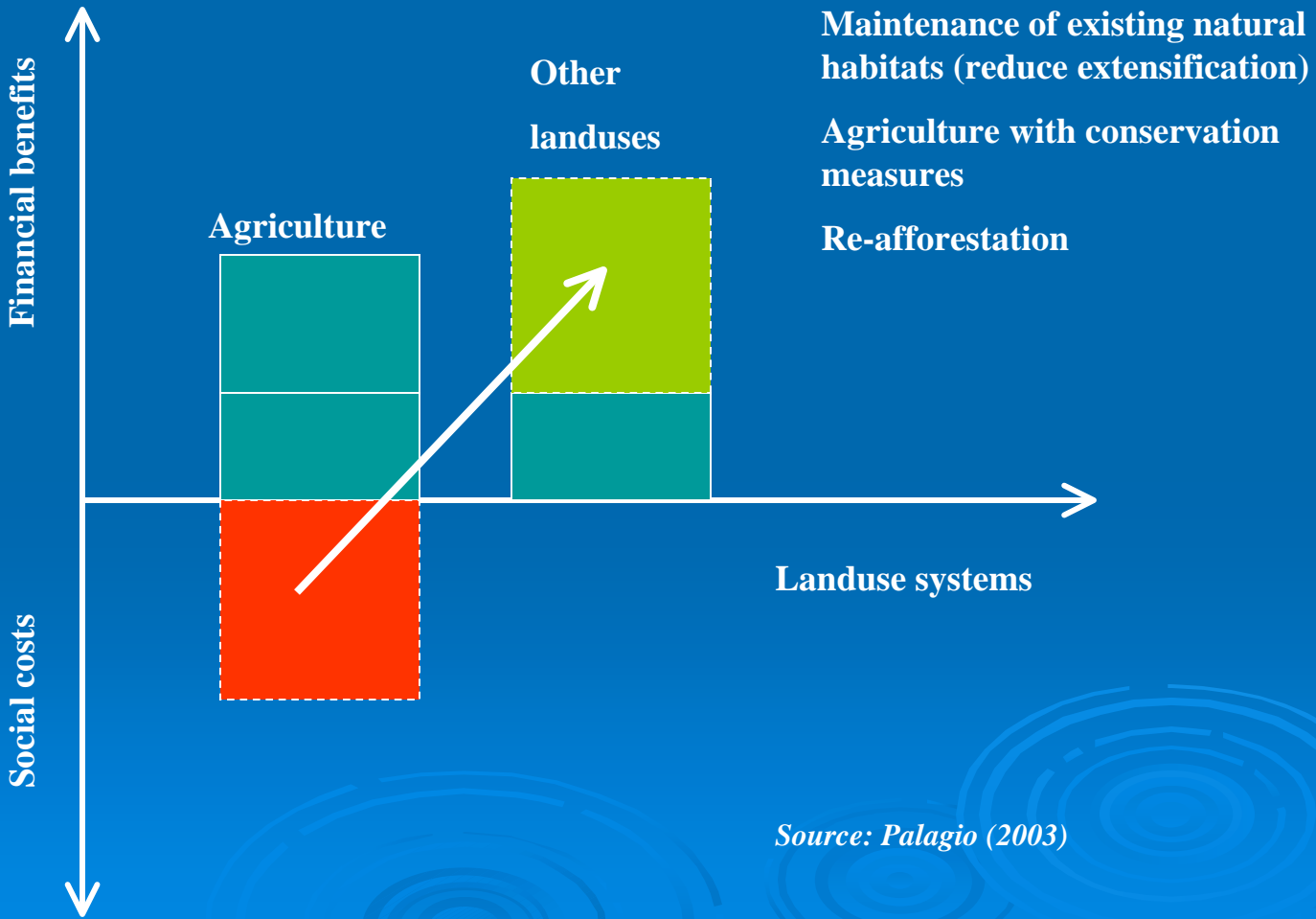
Current landuses cause external costs



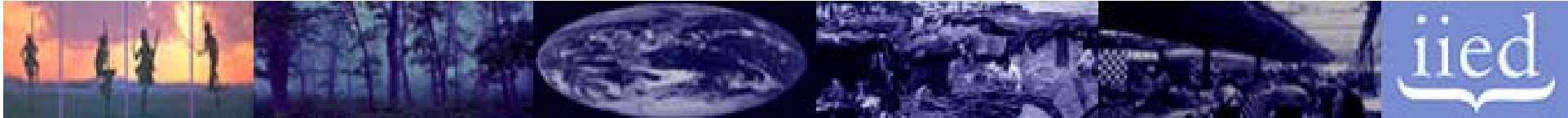
Source: Palagio (2003)



Internalising the costs



Source: Palagio (2003)



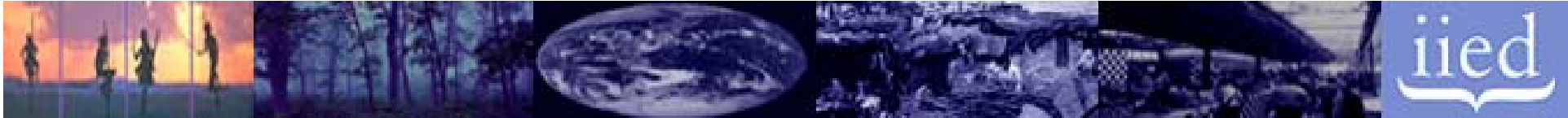
Who are the buyers?

- National governments
 - ✓ China 'sloping lands conversion programme'
 - ✓ South Africa 'working for water programme'

- Private companies
 - ✓ Nestle, Vittel Valley France

- Water utilities / municipalities
 - ✓ City of New York

- 60% of the payments are from private sector.



What is being bought?

➤ Water

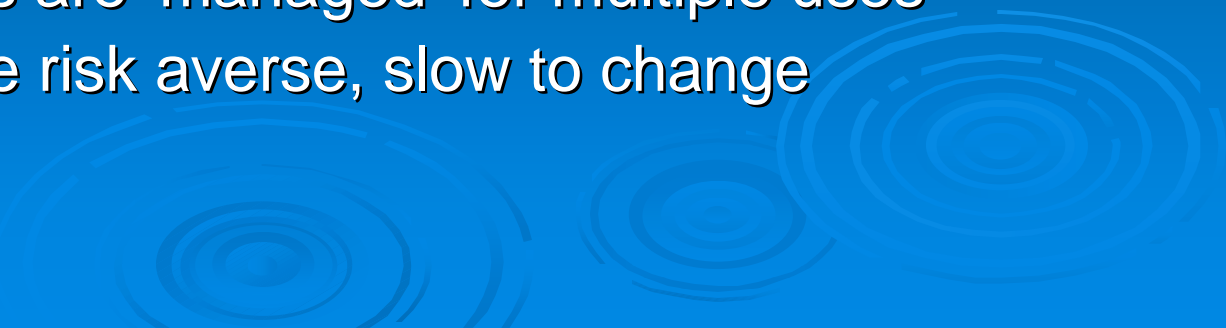
- ✓ Changes in water quantity
- ✓ Changes in water quality
- ✓ Evenness in water flow

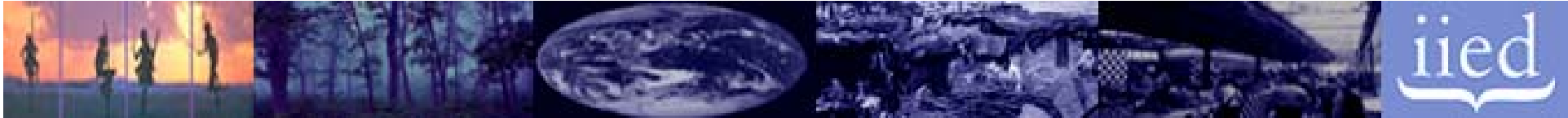
➤ Myths

- ✓ Trees do not 'bring' rain

➤ Challenges

- ✓ Complex ground –surface water hydrology
- ✓ Landscapes are 'managed' for multiple uses
- ✓ Farmers are risk averse, slow to change

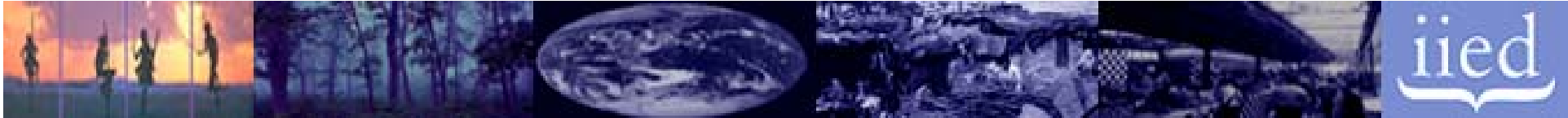




Who are the sellers?

- Large scale commercial farmers
 - ✓ Landowners in New York State
 - ✓ Land holders in Vittel Valley France
 - ✓ Some landholders in Costa Rica

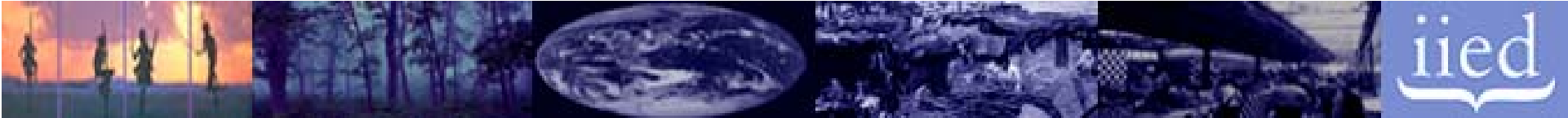
- Small scale commercial farmers
 - ✓ Landholders in Bolivia (Los Negros)
 - ✓ Landholders in Honduras (Jesus de Otoro)
 - ✓ Land holders in El Salvador (Yamabal)



PWS mechanisms are complex

Category	2002	2006
Proposals	16	9 abandoned 3 still proposals 4 progress
Emerging	25	11 abandoned 14 progress

Just under 50% of programmes appear to have failed

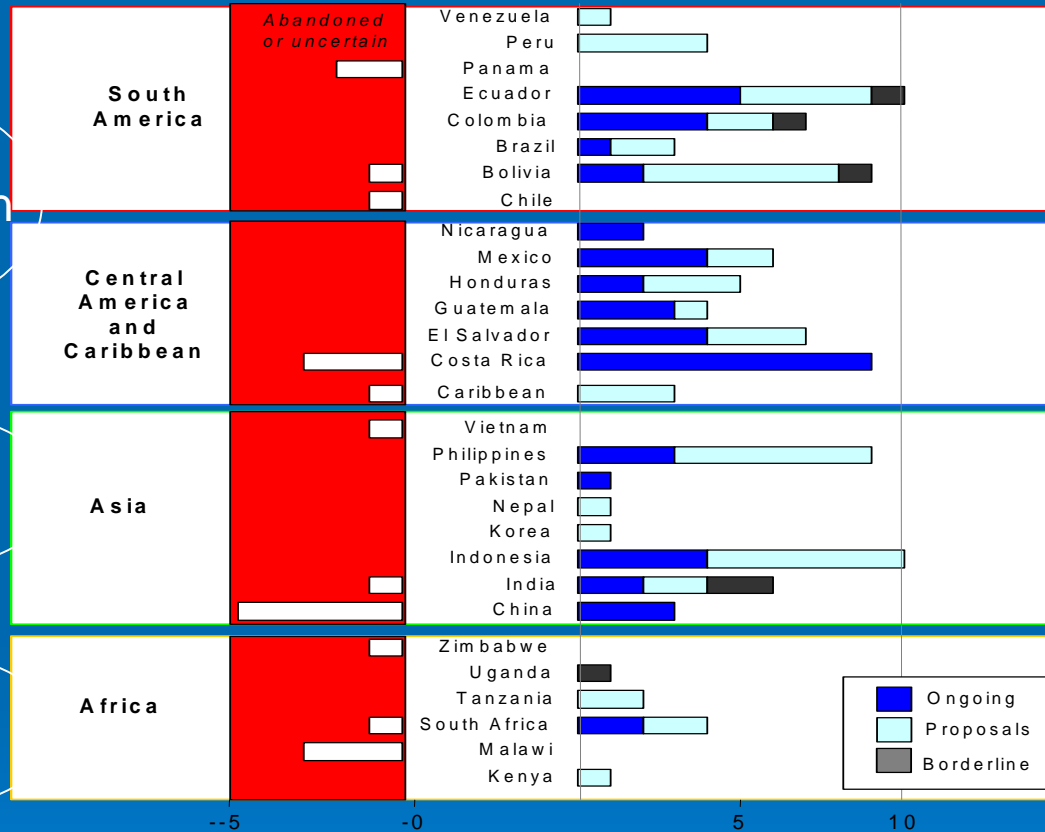


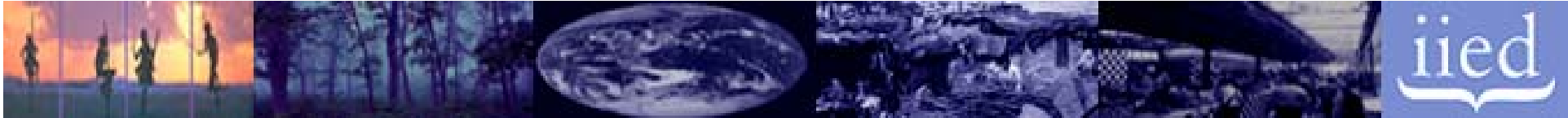
Where are PWS mechanisms being used?

Implementation

Researching

Discovering





Poverty: direct and indirect impacts

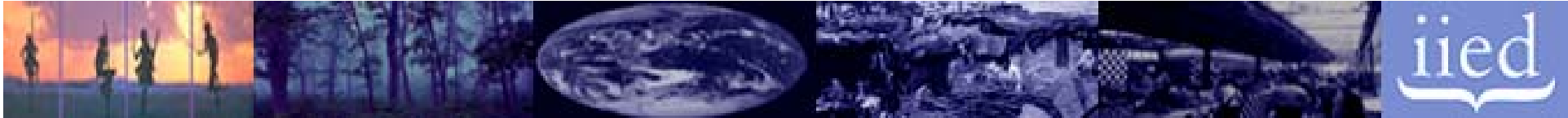
➤ Direct benefits

- ✓ Financial transfers
- ✓ Other in-kind benefits

➤ Indirect benefits

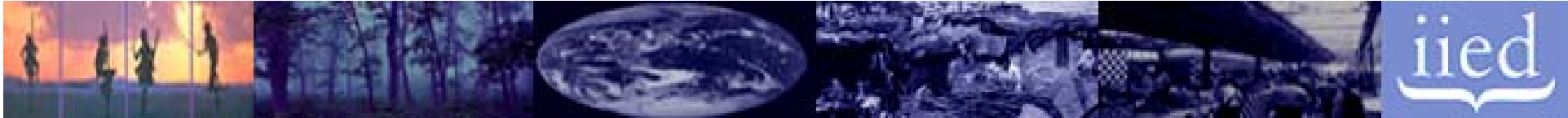
- ✓ Formalisation of property rights
- ✓ Training and education
- ✓ Strengthening of organisations and institutions
- ✓ Improved access to environmental resource

In-direct impacts > Direct impacts



What are the environmental impacts?

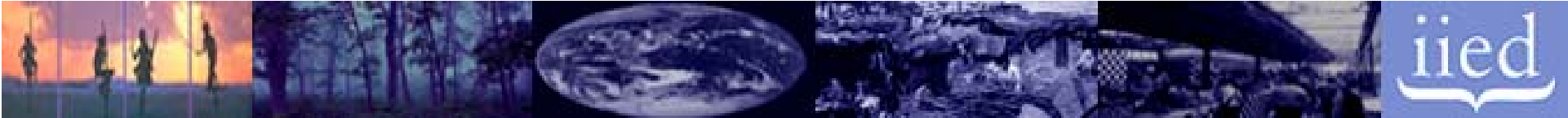
- Precise statements difficult because:
 - ✓ Uncertain relationships
 - ✓ Landuse thresholds
 - ✓ Limited monitoring / baseline
 - ✓ Additionality and issue
- Perception that positive impact on landuse and water.
- But .. there is a window of opportunity at low to moderate rates of landuse change.



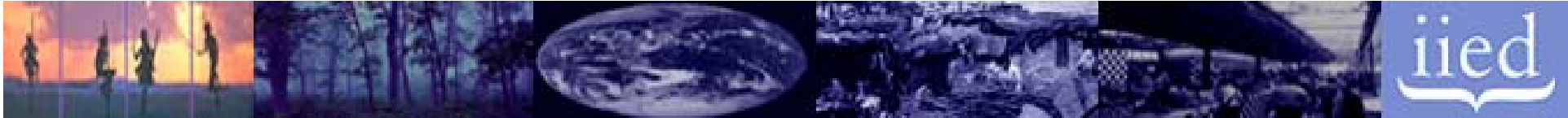
Why are payments for ecosystem services contentious?

- Commodisation of basic human right, namely access to clean water
- Markets alienate the landless rural poor
- Social engineering
- Conservation is a moral choice!



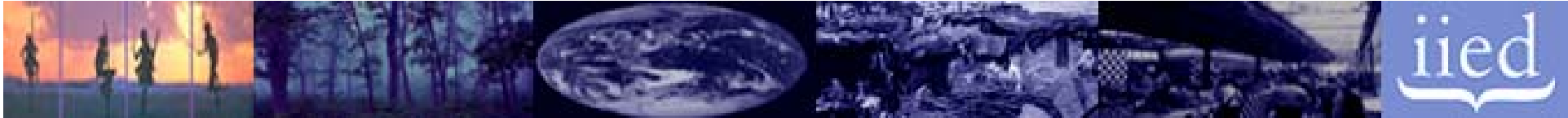


Developing markets for watershed protection services and improved livelihoods.



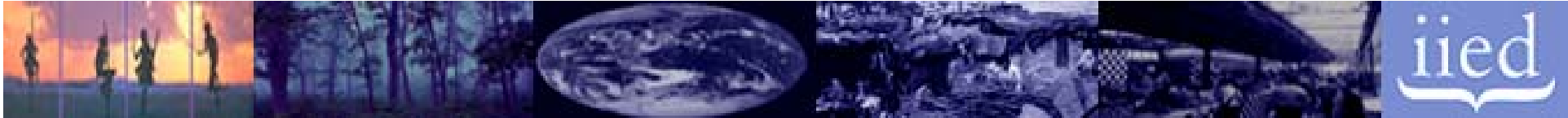
What are the origins of this project?

- Silver Bullet or Fools Gold? A global review of markets for forest environmental services and their impacts on the poor (Landell-Mills and Porras, 2002).
- Identified 4 four emerging markets
- Reviewed 287 cases
- Key questions about the evolution, format and function of environmental service markets and their impact on poor people.



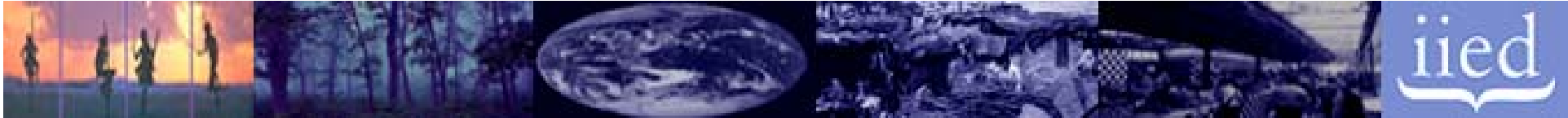
Diagnostic Studies (2001/2)

- First stage in analysing the context, problems and opportunities in Caribbean and three other countries (India, Indonesia and South Africa).
- Key issues that emerged were:
 - Little evidence of markets
 - But problem for which market-like solutions appropriate
 - Substantial technical challenges
 - Addressing poverty likely to be complex
 - Recommendation to complement existing activities



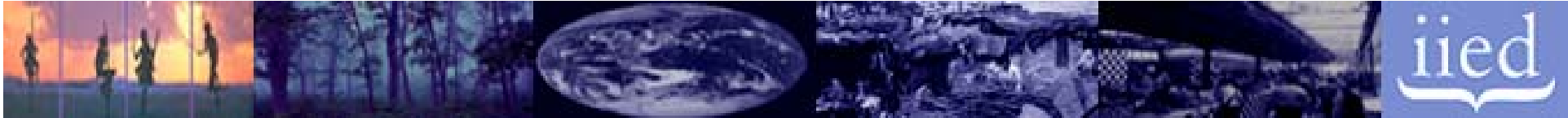
Project outline

- **Goal:** “to promote the maintenance of watershed services that support local livelihoods”
- **Purpose:** “to increase understanding of the potential role of market mechanisms in promoting the provision of watershed services for improving livelihoods in developing countries”
- **Key parameters:**
 - DFID funded
 - 3 + years (start date: 09/03)



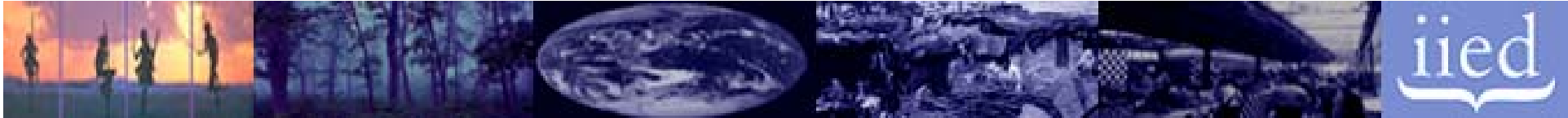
Project outputs

- **Output 1:** Action learning processes for the development of equitable market mechanisms for watershed services supported in four countries.
- **Output 2:** Diagnostics plans and preparedness established in two further countries wishing to adopt market mechanisms for watershed protection.
- **Output 3:** Knowledge of market mechanisms improved through networking, development of guidance and dissemination with other countries and institutions.



Output 1: Action learning

- Caribbean, Indonesia, India and South Africa
- Action learning definition – “*actively engage and learn from the process*”
- Indicative activities
 - Developing a core research team
 - Selecting sites for action learning
 - Landuse – hydrology & livelihoods studies
 - Learning groups
 - Supporting research and documentation



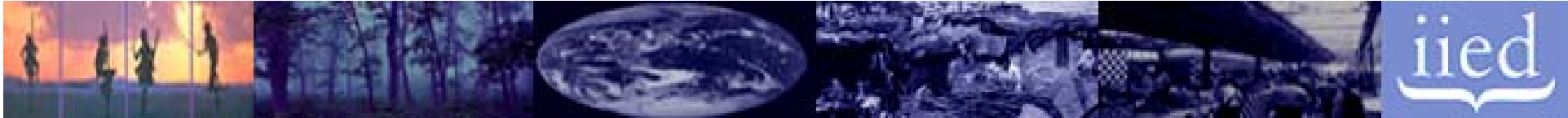
Output 2: Diagnostic countries

China

- ✓ Government major buyer of environmental services
- ✓ At least six major programmes
- ✓ Working hypothesis – not financially sustainable

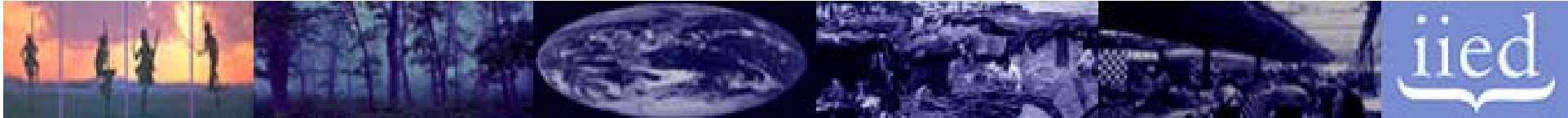
Bolivia

- ✓ Commodisation of services politically sensitive
- ✓ Working hypothesis - Will decentralised initiatives flourish in Bolivia
- ✓ Work team network and supporting site level



Output 3: Networking, communication and dissemination

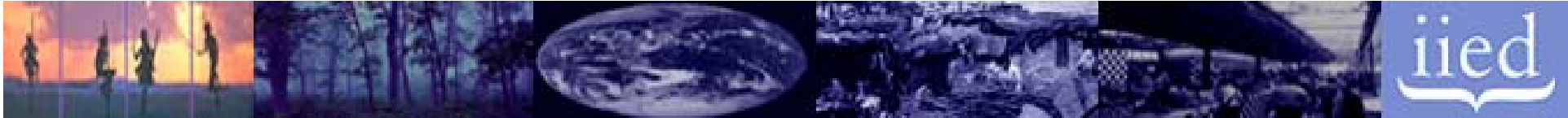
- Shed Loads –
- Partner websites –
- Flows –
- Workshops -
- Other meetings – Katoomba, UNEP, RUPES
- Case review –
- Project advisory group –
- Costa Rica Study tour -



PWS – the promise and potential, lessons learned from project:

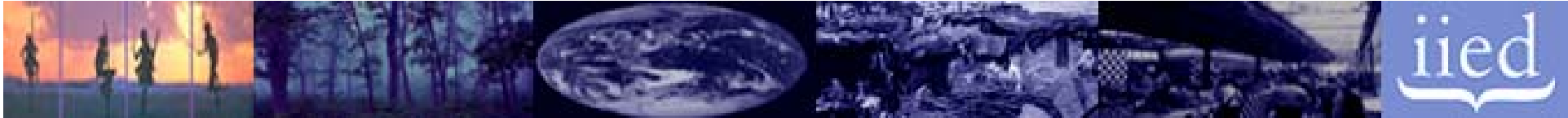
1. Payments and payment mechanisms
2. Poverty and livelihood impacts
3. Environmental impacts
4. Role of government
5. Transaction costs





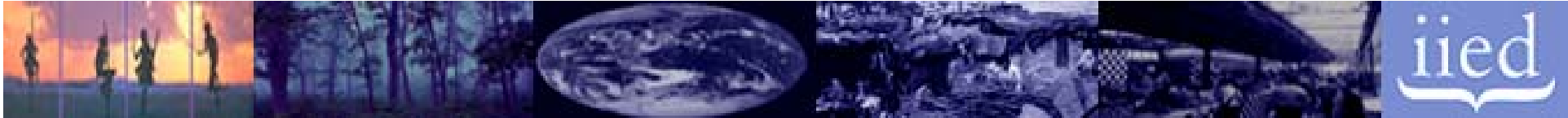
1. Payments and payment mechanisms

- Variety of policies and tools in place – dynamic situation
- Direct payments – project focus
 - Kuhan – material and labour exchange
 - Cidanau and Brantas – small payments
 - Los Negros – bee hives
- Work in progress
 - Bophal
 - Ge-Selati



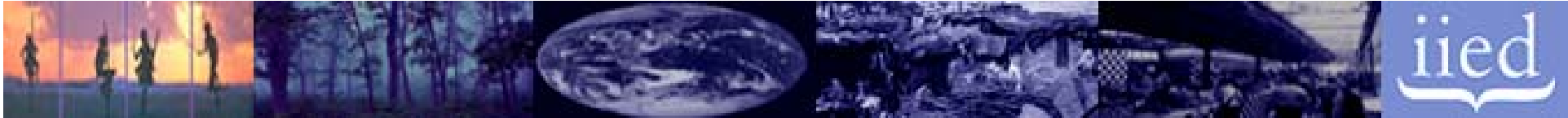
2. Poverty and livelihood impacts

- Major constraints
 - poor are often landless
 - poor often suffer from insecure tenure
 - complex landuse systems in which there are very few “simple” solutions leading to high transaction costs
 - Little evidence to support the idea that PWS anti-poverty
 - Some evidence to support contribution to livelihoods
 - Major benefit – indirect contribution to governance



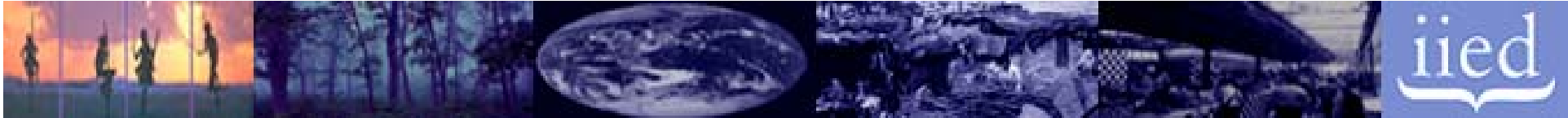
3. Environmental impacts

- Landuse and water relationships highly complex
- Generally very difficult to establish causal relationships (data and skills)
- Potential to abuse perceived landuse – water relationships (Lombok)
- Ge-Selati – tangible evidence of potential
- Assessment of environmental impact of prototype payments premature



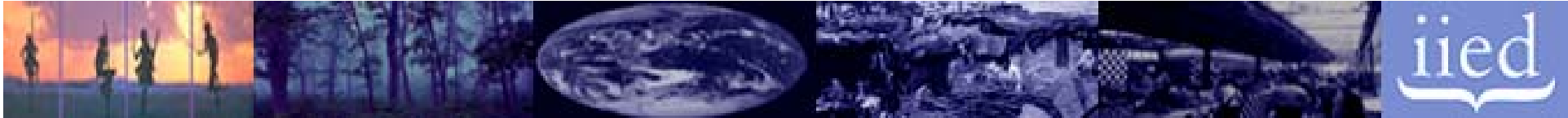
4. Role of government

- PWS – complex policy and legal frameworks
- Scale important -
- Government as a buyer – China (incentives, coercion & contradiction)
- Government as a facilitator (data, skills, extension services, revenue)
- Political will – critical ingredient (Costa Rica)



5. Transaction costs

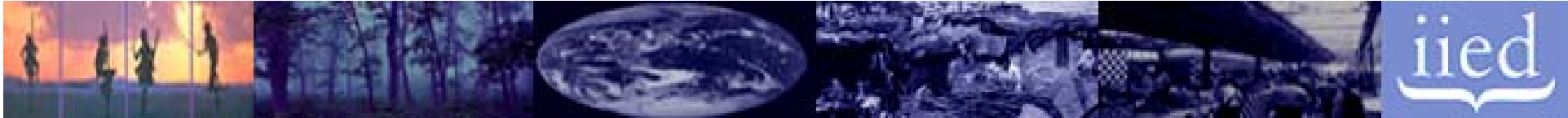
- Highlighted as a major hurdle
- Complex instruments operating in complex landscapes
- Uncertain physical relationships and new ways of operating – increase costs
- Trust and cooperation – potential to reduce costs
- Monitoring and evaluation – long-term costs or use proxy indicators



Summary

- Growing interest in payments for ecosystem services.
- Attractive nexus for landuse – water - poverty
- In developing countries rhetoric has not been matched by reality



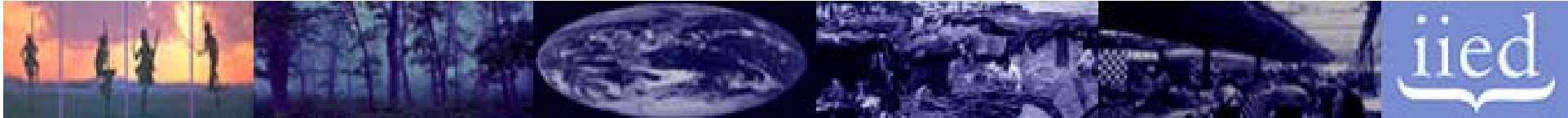


Summary (cont)

➤ Why?

- landuse – water relationships complex
- landscapes – multiple objectives
- water crises – immediate responses
- willingness & capacity to pay – limited
- causes of poverty – multiple
- limited skills and models





Summary (cont)

- What role for PWS?
 - micro level opportunities
 - national level opportunities
 - platform for negotiation & complement to other forms of engagement.



Thank you

