PAYMENTS FOR ECOSYSTEM SERVICES:POLICY-RESEARCH INTERFACE

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Introduction

Payments for Ecosystem Services (PES) is a new type of subsidy that aims to protect ecosystem services by providing an economic incentive to land managers to adopt land use or management practices favourable to the protection of ecosystem services and biodiversity.

PES can also be referred to as a market-based instrument or a market for ecosystem services.

PES encompasses a diversity of mechanisms ranging from voluntary compensation schemes to non-voluntary compensation schemes. Forest maintenance or agro-silvopastoral practices in Central America are examples of voluntary compensation while reforestation in countries like China and Vietnam are examples of non-voluntary compensation schemes.

Two key concepts of PES are that payments made must secure an environmental service that would not have been produced anyway in the absence of those payments, and payments for the service are defined on performance based criteria that must be met by the providers or sellers. Wunder (2007) terms these as *additionality* and *conditionality.*

PES in Operation

PES is now being adopted in developing countries.

One such case of this is the *Simanjiro PES Agreement in* Northern Tanzania.

Location of the Simanjiro plains, the key wildlife-migration area east of Tarangire National Park, village boundaries, and area under the payment for ecosystem services agreement in Terrat village. Also shown are the 10% and 50% kernal home ranges for the migratory zebra and wildebeest in the Simanjiro plains relative to agricultural land cover.

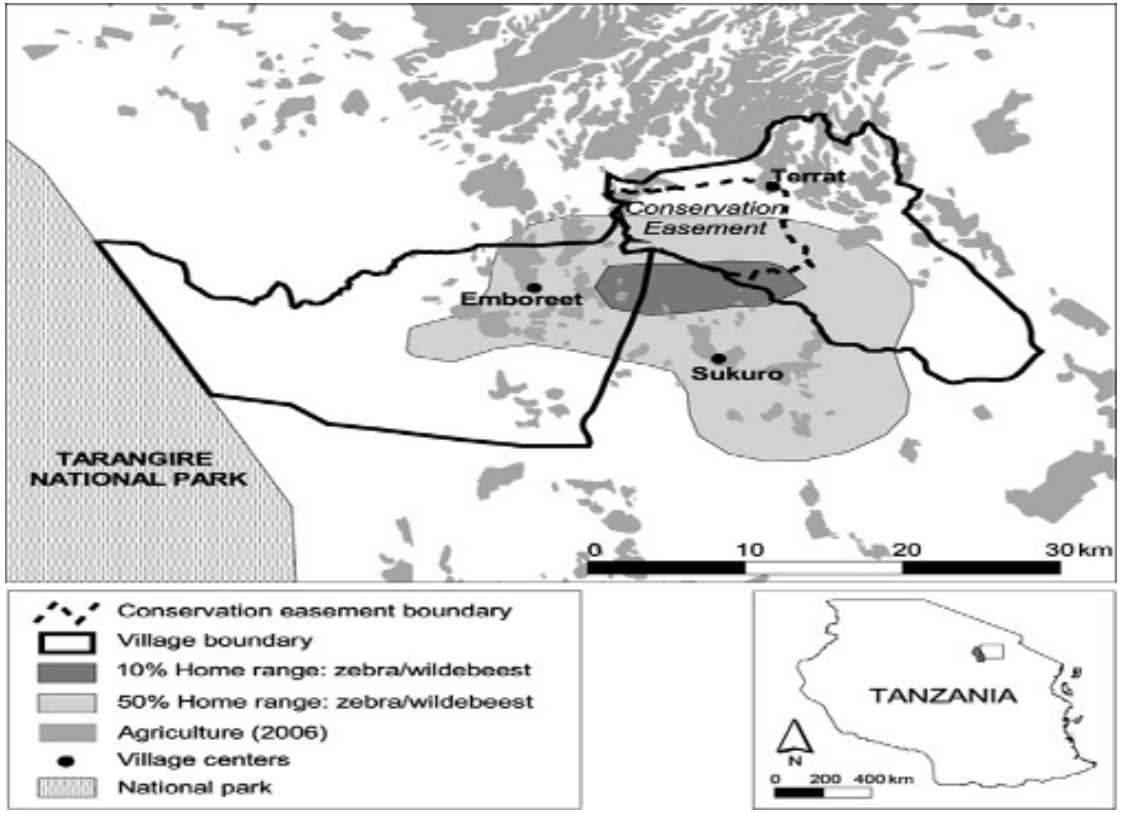

Fig.1

Simanjiro region in Northern Tanzania is a wildlife tourist area. There are three major villages which encamps the Simanjiro plains on which the wildlife graze. Traditional farming practices degraded the grazing land and thus affecting the wildlife habitat.

Although the Tanzania National Parks(TANAPA) spent US$152,353 during a 6-year period 2000–2005, including an average of US$6540/year in Emboreet village on community projects designed to generate local support for conservation this did not result in any land being specifically protected for wildlife because these revenues were given to communities as an unconditional form of park-revenue sharing.

In 2005 a consortium of tourist companies entered into a contractual agreement with Terrat, (one of the three major villages which encamps the Simanjiro plains) to not cultivate, establish permanent settlements, burn charcoal and hunt in the 9300-ha of the plains that were designated as the concession or “easement” area. The agreement provided for an annual payment by the companies of approximately US$4500.

The Terrat easement has been formally in place for about 5 years. It provides a simple formal mechanism for the village to maintain critical habitat on the Simanjiro plains and financial incentives that help prevent illegal use of wildlife in the area.

The other major villages in the area have expressed interest to join this scheme. This would mean expanding coverage to include nearly 75% of the plains and indicates the potential for scaling up this PES framework to cover all the key habitat area over time.

Towards Policy Development for PES

Policy is generally defined as “a coherent and agreed statement of how an organisation proposes to focus on its future mission; it sets out the nature of intended actions or inactions, and sets the boundaries within which these will take place” (Selman 2000).

Voluntary and private sector organizations policies will reflect the ways in which they aspire to innovate and meet the expectations of consumers, members, trustees and shareholders.

Currently, environmental policies in most countries do not include the issue of PES. There is a need to encourage PES policies.

There is a growing change in conservation policy. PES schemes offer a direct, and possibly more equitable, method for achieving environmental outcomes than other approaches by altering private incentives to induce desired outcomes. The socioeconomic, environmental, and political contexts in which policies are implemented, together with policy design, influences the outcomes of PES schemes as shown in figure 2

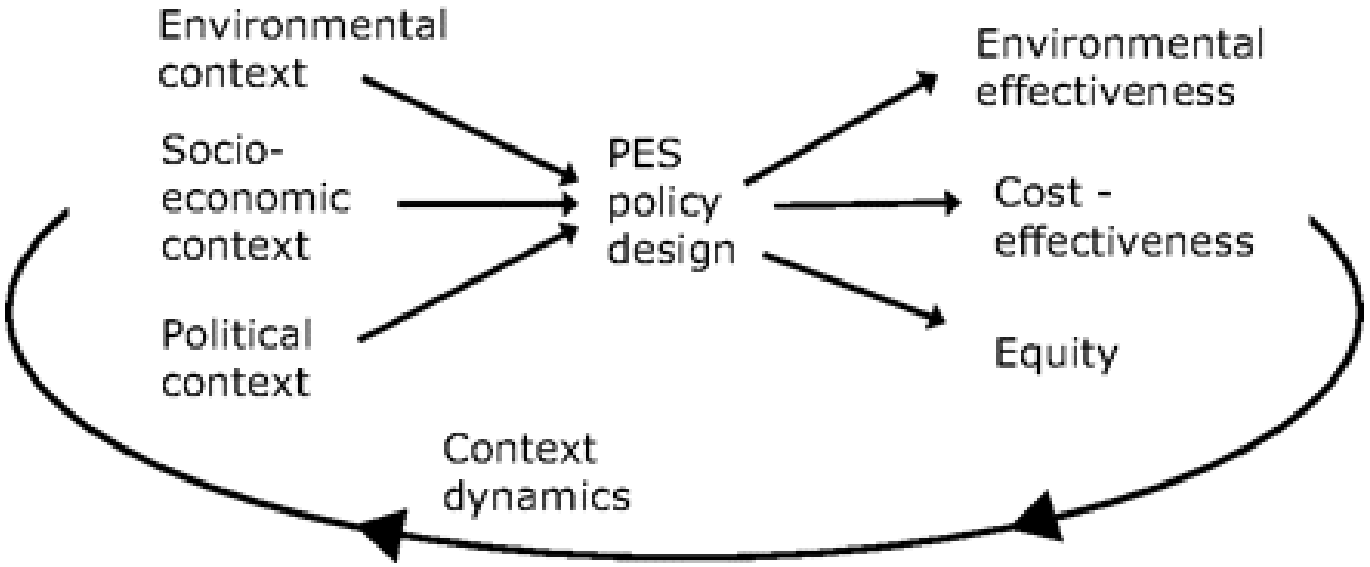

Figure 2. Context interacts with PES policy design to determine outcomes.

Environmental Context

The properties of the ecosystem under consideration influence how a policy should be designed and what type of outcomes should be expected. Also the properties of the ecosystem service(s) being targeted in a PES scheme will interact with policy design to influence policy outcomes.

Socio-Economic Context

The price of goods and services, the social system and resource distribution may influence the impacts of a policy.

The attraction of incentive-based instruments for attaining environmental goals is their potential to be cost-effective compared with command-and-control solutions. PES schemes have the potential to simultaneously direct payments toward the poor and toward the lowest cost providers of desired ecosystem services as t the poorest providers are also those with the lowest opportunity costs and the highest service provision potential.

Political Context

Preferences for PES policy may be determined not just by economic interests, but also by broader political concerns. Political considerations are also likely to change the shape of these policies during implementation.

Research for PES

PES initiatives particularly in the less developed countries are generally being undertaken with insufficient scientific information on the status of biodiversity (what is being lost and at what rate), extinction of animal and plant species, resource degradation (especially land degradation) and the ecosystems that might need restoration.

To generate this restoration, governments and private sector organisations should encourage research to clearly establish the ecosystem goods and services potentially available in their counties.

There are five key areas on which research should be conducted:

•Identification of biodiversity and ecosystems in danger of extinction, or undergoing degradation or might need restoration/rehabilitation.

•Sensitization and education of local communities about the potential of PES to improve their livelihoods

•Identification of “buyers” and “sellers” in areas that need interventions .

•Government support (including country environmental policies) to PES activities.

•Capacity building for development and implementation for PES initiatives.

Policy-Research Interface

Policy is usually developed by government institutions (in a participatory manner) involving all the key stakeholders. While research is more demand driven and usually implemented by the private sector in collaboration with institutions' of higher learning. However, although the findings of research feed into the policy development process, research is also guided by policy.

PES is a new approach to environmental conservation. Unlike the conventional approaches to conservation which are regulatory and top-down, PES is incentive oriented and provides for free interaction among the different parties. It therefore needs different policies to guide its operation.

Polices should rely on research findings that provide adequate information about the state of health of the ecosystems. PES policies should also be developed based on research findings.

Hence the interface between policy and research is by and large symbiotic.

The interface between research and policy could be conceptualized as shown in the figure below:

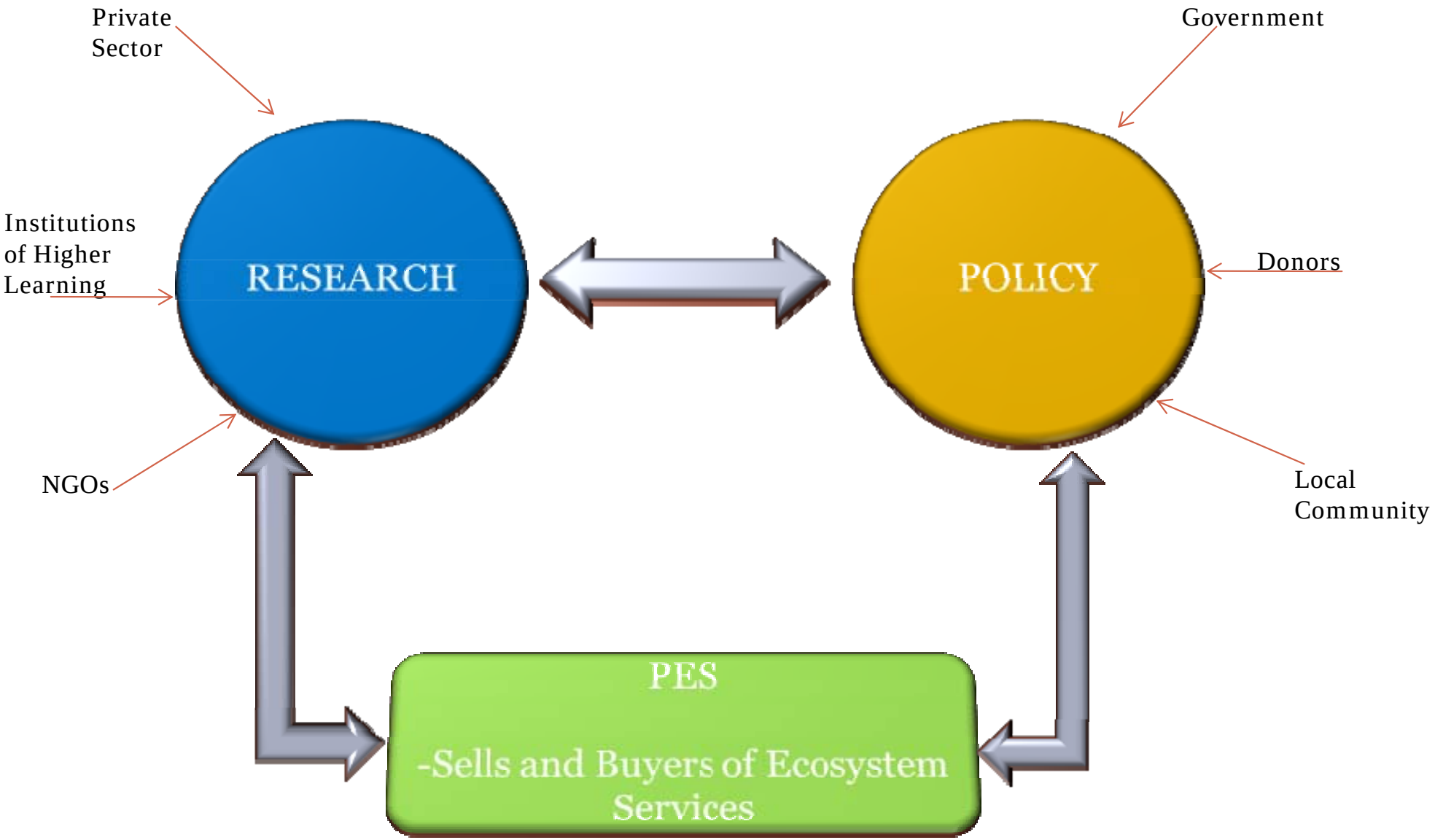

Fig. 3: Research-Policy Interface

Thank You For Your Attention