Payments for environmental services (PES) from tourism

- A realistic incentive to improve local livelihoods and sustain forest landscapes in Viet Nam's northern highlands?

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TRANSFORMING LIVES AND LANDSCAPES

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Foreword and Acknowledgements

"We cannot solve our problems with the same thinking we used when we created them."
(Albert Einstein)

Carrying out this research project has been a challenging and long journey that has taken me through the academic world of environmental and social sciences, through forest covered Limestone Mountains in the North of Viet Nam and the library and country office of the World Agroforestry Centre in Hanoi (ICRAF) – and one might rightfully wonder what a tourism researcher is doing next to a colleague who is working on Germplasms, but it does hopefully make sense after reading this report.
Personally I took off with the idea of finding possibilities to tackle the dilemma in which especially the domain of tourism constantly ends up; namely that people's collective actions often deplete the very environments that they actually depend upon. This can partly be attributed to the working of the world's neo-classical economic system which drives the unsustainable exploitation of natural and human resources (i.e. cheap labor forces), while government budgets and NGOs have been paying for making up for these market failures. The private sector, though, is mostly free-riding on these efforts because the economic system fails to integrate the real environmental and social costs of its activities. To me it seems obvious that the root causes for both poverty and nature degradation are to be found in the nature of the prevailing economic system and we need to think about new ways to integrate the real value of goods and services into these systems. This claim is not at all revolutionary; moreover it is increasingly the content of much academic discourses amongst sociologists and advocates of ecological and environmental economics. As an increasingly famous concept coming from this domain, payments for environmental services (PES) might offer a valuable point of entry for finding a long-term solution also within the tourism industry.

To the same extent as tourism relies on the existence of sound natural environments, I relied on so many people for carrying out this research and would herewith like to take the chance to thank them all! I start where this research journey started and give my gratitude to Beria Leimona for setting me up with the ICRAF fellowship for the generous financial and organizational support during my fieldwork in Viet Nam. In the same breath I thank my supervisor at Wageningen University, Prof. dr. René van der Duim for his patient discussion of my initially diverse ideas and proposals for thesis topics, his valuable comments via e-Mail once I was in the field and his guidance in finalizing the report.
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Apart from these individuals, I want to express my deepest gratitude to the villagers in Ba Be who participated in interviews and focus group discussion, the whole Post Hotel family and staff, as well as the interviewees in Ba Be, Bac Kan, Hanoi, Lam Dong and Saigon. Thank you for your time!
Far from the fieldwork experience in Viet Nam the support of my family and friends has been my constant driving force during this sometimes tiring and exhausting process of research and writing. An especially big thank you to Anne, Alissa and Aafke for bearing with my ups and downs, for encouragement and distractions! To Michi, who put all his efforts into making a scientific document look as fancy as possible! And to Steffi and Tuan, those two persons linking the experience in Viet Nam with the life back home; thanks for visiting me here and there and living beautiful moments together in Viet Nam, maybe in Morocco and hopefully this fall in Germany!
Last, and thus far from least, I want to thank my brother and my parents for their unconditional support and the soothing assurance of having a place to always come back to; and a very special thank you to my father, from whom much of my view on life and these writings draw its inspiration!

Once more to all of you: xin cam o'n!

Kira de Groot, Wageningen, July 2011

Abstract

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Payments for Environmental Services (PES) described as an arrangement where beneficiaries of the environmental services, for example downstream water users, hydro-power plants or tourism businesses, provide direct economic incentives to local land stewards for the maintenance of forest ecosystems and the associated environmental services such as watershed conservation, biodiversity, carbon sequestration and scenic beauty. Although tourism is by many PES advocates identified as a major user of environmental services, an extensive review of publications and existing PES programs confirmed that so far neither much academic information nor practical experience is available on the interface of PES and tourism. Therefore, this thesis combined a theoretical discussion of basic concepts with an empirical analysis of the current PES practices in Viet Nam, one of the first countries worldwide who applies a PES policy that regulates payments from tourism. The PES schemes were considered in terms of a policy arrangement. This policy arrangement approach (PAA) emphasized how PES arrangements entail a new way of steering in the environmental policy domain and require and foster fundamental changes between state, private sector and civil society relationships. The main challenge in implementing tourism-related PES schemes lies in the appropriate design of the institutional framework. This thesis developed such a framework for the specific case of Ba Be National Park. It describes how payments from tourism can be bundled with payments from hydro power plants and flow into a locally established PES fund from which payments are then dispersed to contracted local land stewards. Bundling of payments increases the chances to reach payment rates that are high enough to make a significant contribution to improving local livelihoods. Individual contributions from tourism are in the pilot schemes still comparably small, but once measures to up-scale the schemes and to include mainstream and high-end tourism are taken, tourism-related PES can be a promising sustainable financing mechanism for conservation.

Keywords: Payments for Environmental Services (PES), tourism, Policy Arrangement Approach (PAA), Viet Nam, Ba Be National Park, local livelihoods, conservation

Acronyms

CIFOR	Center for International Forestry Research
DARD	Department of Agriculture and Rural Development at province level, Vietnam
DoNRE	Department of Natural Resources and Environment at province level, Vietnam
Ecotourism	Environmentally and Socially Sound Tourism
ES	Environmental Services
FAO	Food and Agriculture Organization of the United Nations
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (German Development Cooperation)
GoVN	Government of Viet Nam
HH	Household
HS	Homestay
ICRAF	World Agroforestry Centre (International Center for Research in Agroforestry)
ICDP	Integrated Conservation and Development Project
IUCN	International Union for the Conservation of Nature
IFAD	International Fund for Agricultural Development
MARD	Ministry of Agriculture and Rural Development at national level, Viet Nam
MoNRE	Ministry of Natural Resources and Environment at national level, Viet Nam
NGO	Non-government Organization
NP	National Park
PAA	Policy Arrangement Approach
PES/RES	Payments/Rewards for Environmental Services
PPC	Provincial People´s Committee, Viet Nam
PRA	Participatory Rural Appraisal
RUPES	Rewarding the Upland Poor for Environmental Services (an ICRAF program for PES in Asia)
SOE	State Owned Enterprise
UNDP	United Nations Development Program
VBSP	Vietnam Bank for Social Policy
VND	Vietnamese Dong
WTP	Willingness-to-pay

Lists of figures, tables and boxes

Table of Contents

1 Introduction

Natural forest ecosystems provide abundant environmental services upon which all life depends and from which people derive crucial benefits at the very local level, in terms of daily livelihood activities or at the very global level in terms of entire industries or societies. These benefits of environmental services can come in form of rather tangible examples such as food, fuel, climate regulation or flood control or rather intangible benefits in from of nature's cultural services such as the enjoyment of wildlife or natural landscapes for recreational purposes. Ironically however, and following the Millennium Ecosystem Assessment (MEA 2005), it can be adopted as a fact that human actions have led to a serious decrease of sound natural environments, depleting valuable ecosystems and its life-support services upon which civilization itself depends. This in turn can be attributed to the fact that in current societal and neo-classical economic systems the real values of natural ecosystems are undervalued until adverse effects of disturbing them become apparent (Costanza *et al.* 1997; TEEB 2010); often only afterwards actions to mitigate already happening negative impacts are taken.

Decades of research and practice have been devoted to find ways for conserving and preserving natural ecosystems. Traditional approaches originally focused on the mitigation of the problem by creating protected areas or other use-restricting laws imposed by the government (Ferraro 2001). Following the renowned Brundtland Report in 1987 and the Rio Conference of 1992 conservation gradually headed towards more people oriented conservation (Bulte *et al*. 2008b; Brundtland 1987; Neefjes 2000; Fisher *et al.* 2008). Consequently the discourse in developing countries focused on alleviating poverty in order to protect the natural environment – a shift that resulted in the creation of so-called integrated conservation and development projects (ICDPs) whereby indirect incentives provided to local communities are thought to redirect labor and capital away from environmentally degrading activities (Ferraro 2001; Wunder 2005). In this context, (eco)tourism or community based tourism were increasingly seen as a possibility to offer rural residents an alternative livelihood to e.g. degrading agricultural activities or hunting. This shift in attention from mere damage-control to tackling the cause of the problem can generally be seen as a valuable step into the right direction and has certainly led to some successful initiatives.

The success of such in-direct development-based conservation approaches is, however, disputed as critics often question the effect it has on actual local land-use change and thus the overall effectiveness for conservation (Adams *et al.* 2004; Ferraro 2001; Fisher *et al*. 2008; van der Duim 2010). Based on such critique, many debates have called for a "new conservation paradigm" (Wunder 2005:1) which more directly and conditionally links the additional income to nature conservation. Amongst the most prominent of such direct conservation initiatives are payments for environmental services (PES). This concept emphasizes the economic value of the above described benefits of nature to humans. PES schemes can be described as a voluntary transaction where a well-defined environmental service is bought by a buyer (i.e. actors who benefit from its provision), if and only if the provider (i.e. local land holders) secures the provision of the service (ibid.). It is thus based on an apparently simple logic: those who benefit from environmental services should reward or compensate those who are providing and conserving these services. For local land holders providing environmental services usually means that they have to refrain from environmentally harming activities on their land. The obvious problem in modern economies is however that it is "generally more attractive for land managers to convert their land to alternative uses such as agriculture rather than maintain it in its natural state" (Bond *et al.* 2009:iv). The PES-incentive of offering payments for the environmental services that are provided is thought to make conservation or sustainable use a feasible alternative to other market-driven productive land uses. So far, state actors or other civil society organizations were the ones who created incentives or

imposed laws and market regulations to prevent environmentally harmful activities. Industries who depend to a large extend on natural environments, such as the tourism industry, have for a long time been 'free-riding' on the efforts of those actors. The PES concept, however, takes a different approach in asking individuals and private companies who benefit from environmental services to pay for their (the future) provision. Literature on PES has identified the following four environmental services of forest landscapes which qualify for the creation of PES schemes (Wunder 2005):

a. carbon sequestration;
b. biodiversity;
c. watershed functions; and,
d. scenic beauty.

Examples of existing schemes exist mainly in the form of payments for carbon sequestration where factories or airlines pay farmers in the tropics for planting and maintaining additional trees or in form of payments for watershed functions where downstream water users pay upstream farmers to maintain a high forest quality against soil erosion and flood risks. User-led PES schemes that reward the providers of biodiversity services and scenic beauty are hardly to be found. Both services are obviously highly relevant for tourism activities and many writings on PES mention tourism as an important possible payee for environmental services (Hawkins *et al.* 2010; Wunder *et al.* 2008). This argumentation is furthermore supported by the immense growth of the tourism industry in general and nature-based tourism specifically (UNWTO 2011), which can if poorly managed also - ironically again - lead to the degradation of the very environments on which the tourism industry itself depends.

1.1 Setting the Stage

Surprisingly, from the praxis and from the domain of tourism studies so far there are very few approaches to integrate tourism and PES and evidence from existing schemes in the field is assumed to be undocumented or in very initial stages. While literature on PES repeatedly mentions the potentially high importance of payments from environmental services for tourism, explicit approaches that somehow relate to the domain of PES and tourism are limited to writings from Biénabe & Hearne (2006), who focused on exploring tourist's willingness to pay for biodiversity conservation and scenic beauty in Costa Rica; a study by Nelson *et al.* (2010) who describe a community-based tourism program in Tanzania in terms of a PES scheme; and a report by Landell-Mills & Porras (2002) who presented a general study on markets for forest environmental services that includes one chapter on markets for scenic beauty. An integrated approach to the role of tourism in PES has been undertaken by Zellmer (2010:10), who therein concludes that "although the tourism and recreation industry has so far not been highly involved in the PES schemes per se, it did benefit considerably from the improved environmental services provided by the programs paid by other users or the government". Thus in the tourism arena, the financial costs are usually not born by the user (i.e. tourism businesses) directly but through governmental agencies or international donors investing in conservation projects in the area – which is a typical result of the above mentioned market failures.

While PES arrangements have gathered widespread interest as direct conservation incentives and schemes are in practice throughout some developed countries, experience and operational examples in tropical, low-income countries – especially others than Latin America – are still limited (Bulte *et al.* 2008b). Interestingly, in South-East Asia the Government of the Socialist Republic of Viet Nam (GoVN) has over the last years seriously considered market mechanisms as a tool for conservation. Consequently, in 2008 Viet Nam was the first country in the region to officially issue a pilot policy on PES (GoVN 2008). This *Decision 380* regulates payments for all four forest environmental services from hydropower, water supply and tourism companies. Since then, two

pilot PES schemes have been set up in two pilot provinces from which experiences have been used to formulate and issue *Decree 99*, the final PES policy which came into effect nationwide from January 2011 onwards (GoVN 2010a). The GoVN has actively promoted this new policy as an effort to reduce both deforestation and poverty rates in rural areas and also explicitly included the payment for ES from tourism businesses and individuals that rely on forest landscapes. Therefore, Viet Nam presents an ideal case study for this research.

The fieldwork for this empirical case study in Viet Nam has been conducted under a fellowship grant of the World Agroforestry Centre (ICRAF) whose research program on 'Rewarding the Upland Poor for Environmental Services' (RUPES[1]) is carried out in Southeast Asia and Africa. Within this program ICRAF is developing a PES scheme in and around Ba Be National Park in Bac Kan (Figure 1), one of Viet Nam´s poorest mountain provinces.

Figure 1: Map of case study area in Viet Nam (source: IFAD 2008)

Bac Kan is located in Viet Nam's northern mountains and mostly known for Ba Be National Park, which was established around Viet Nam´s largest natural fresh water lake and hosts about 30.000 national and international visitors every year. In addition to external agencies and hotels in the surrounding towns, two communities living in the core zone of the park are involved in tourism activities through offering homestays and boat tours. Poverty rates in and around the park are especially high amongst upstream and upland communities as they are struggling with the restricted use of natural resources due to conservation measures. As an alternative income to current environmentally destructive activities, ICRAF is exploring possibilities to establish a PES scheme that rewards upstream villagers for the provision of scenic beauty and watershed services.

[1] See Appendix A for more information on the RUPES program

1.2 Problem Statement

Based on the introductory elaborations above, tourists and tour operators can be described as major beneficiaries of environmental services. However, only rarely are those local land holders who provide the services directly rewarded by this user group. Although writings on ecosystem services repeatedly mention tourism as an important mechanism to create payments, few systematic approaches to analyze links and design of such arrangements are documented. Furthermore, when looking at literature emerging from the field of tourism, a discussion on the PES concept is basically still absent. Thorough theoretical and empirical considerations on how to settle tourism within PES arrangements in general, and in ICRAF's pro-poor context, specifically, are thus yet to be explored.

1.3 Aim of the research and guiding questions

The aim of this research is to gain insight into the possibilities of integrating tourism into PES arrangements and to identify institutional and political requirements for the functioning of such a pro-poor PES scheme in Viet Nam. The outcome of this study will thus be two-fold:

- To enhance scientific knowledge about the relation of PES and tourism.
- To contribute to the development of a specific framework and recommendations for ICRAF on the integration of tourism into the pro-poor PES scheme in Ba Be National Park, Viet Nam.

In order to fulfill the overall aim of the study, the following three general questions will guide the research:

1. **What is the relation between PES and tourism?**

2. **How is tourism integrated in existing PES pilot schemes in Viet Nam?**

3. **How could a pro-poor PES arrangement be set up locally in Ba Be, Viet Nam?**

These questions serve as the initial point of departure of the research while the theoretical approach outlined in Chapter 2 will inform the development of more concrete sub-questions; which are presented in Chapter 2.6 to enable a more concrete analysis.

1.4 Wider significance

In line with the two-folded outcome of the study, also two different dimensions of relevance are apparent. On the one hand there is a **scientific relevance** of the study, which is derived from its aim to fill the gap in analytical approaches to the PES concept in the tourism literature. In arguing that the tourism industry is to take responsibility for the future existence of those resources it relies upon, the study touches on broader scholarly debates on the dichotomy of modern economy and ecology. In doing so it relates to the discourse on the valuation of nature and the integration of externalities in current economic systems. Instead of looking at tourism's negative impacts on the environment as an isolated problem, it points to general market failures in neo-classical economic theories, where the general undervaluation of environmental services is thought to be the cause of negative environmental impacts. Scientifically relevant is also the methodological approach where the study combines the use of the Policy Arrangement Approach (PAA), a relatively new analysis tool from the domain of environmental policies, with the Sustainable Livelihood Framework (SLF). Thereby the PAA is thought to shed light especially on political dimensions, a dimension often criticized to have been neglected in past SLF approaches.

The **empirical relevance** is derived from the integration of a case study done in collaboration with the international research organization ICRAF. Importantly, for implementation of its PES scheme ICRAF Viet Nam cooperates with a local IFAD[2] project team in Bac Kan to whom preliminary results of this study have been communicated in workshops and a training manual. The final results of the case study will furthermore form part of ICRAF's final advisory report for future PES design in Ba Be.

1.5 Outline

After the introduction at hand, Chapter 2 follows with theoretical considerations outlining the basis of the PES concept itself and a description of the chosen analytical approach to the research questions. These thorough theoretical considerations by means of the Policy Arrangement Approach and the Sustainable Livelihood Framework lead to the formulation of more specified sub-questions that further operationalize the analysis and are presented at the end of Chapter 2. The subsequent Chapter 3 gives an account of the methodologies that were used for data collection. In line with the three main research questions, Chapter 4 provides a comprehensive discussion on a general approach to the interface of tourism and PES, while Chapter 5 deals with the institutional and political analysis of the experiences with tourism-related PES arrangements in Viet Nam during the two year pilot phase. After these insights into Viet Nam's overall PES arena, Chapter 6 moves to the very local level to analyze interrelationships of PES, local livelihoods and local institutions in Ba Be National Park, the area where ICRAF is currently working on designing a scheme. Chapter 7 will then - based on the findings of the fieldwork and a thorough livelihood analysis - propose a framework for the integration of payments from tourism in the PES scheme in Ba Be. This chapter also discusses and presents the specific recommendations for the design in Ba Be. The final Chapter 8 then takes a step back to critically reflect on the main findings and its relevance for the general discussion on PES and tourism, as well as on the overall analytical approach of this study.

[2] International Fund for Agricultural Development

2 Theoretical Considerations

Answering the research questions at hand could be done in many ways and without strong analytical tools that generate a series of directions for a research, it would run the risk of getting lost in data and mere descriptions of realities. It has come clear from the introductory chapter that the analysis will take place on two different scales: on a more general, global and national level and in form of an instrumental case study at the very local level in one of Viet Nam´s northern mountainous provinces. Consequently, this chapter provides two analytical lenses that do justice to these two different scales and that structure the research. Before doing so and to introduce the reader to the PES concept, which is a major object of analysis, the first part shortly describes its origin and main characteristics.

2.1 Payments for Environmental Services: a brief sketch

Payments for Environmental Services are – not only for Viet Nam – still an innovative method in the domain of environmental policy and natural resource management; they are "part of a new and more direct conservation paradigm, explicitly recognizing the need to bridge the interests of landowners and outsiders" (Wunder 2005:1). The PES concept is not a simple or one-fits all solution and is, from outsiders as well as users and advocates seen as a contested concept that has been interpreted differently at different levels and in different contexts. This chapter therefore aims at giving an overview of the most important issues and introduces some key PES terms which will be used throughout this report.

As already shortly mentioned in the introduction, the PES concept is based on the dilemma that many services and benefits that humans derive from nature are taken for granted; these environmental services are therefore not sufficiently represented in societal and economic valuations. As a reaction, PES schemes aim to internalize the costs and benefits of supplying the services (TEEB 2010; Landell-Mills & Porras 2002). In doing so, PES can be described as a "market-based approach to environmental management that compensates land stewards for ecosystem conservation and restoration" (Milder *et al.* 2010:1). In the past, a lack of such conservation incentives has commonly been addressed with a number of public policy instruments, such as taxes or strict regulations or the intervention of (inter)national conservation organizations. Compared to such initiatives, payments for environmental services are seen as an alternative, user-driven, sustainable financing mechanism for conservation (Swallow *et al.* 2009). A PES scheme can be described as an arrangement where beneficiaries (e.g. downstream water users, hydro-power plants or tourism businesses) provide direct economic incentives to relevant land managers for the maintenance of ecosystems and the associated environmental services (Bond *et al.* 2009; Nelson *et al.* 2010).

Amongst the proponents of PES different perspectives can be identified which are the content of many scholarly debates on the concept of PES. This refers to basic discursive discussions between the environmental economics and ecological economics paradigm (Muradian *et al.* 2010). Having its roots in environmental economics, Engel *et al.* (2008:664) for example defines it as "a voluntary transaction where a well-defined ecosystem service is bought by a buyer from a service provider if and only if the provider secures its provision (conditionality)". This approach is thought to emphasize the neo-liberal nature of PES that prioritizes economic efficiency and is therefore criticized by Farley & Costanza (2010:2060) to "force ecosystems into a market model". The latter perspective of ecological economics in contrast stands for an approach that is more sensitive to different sources of complexity that are embedded in PES; such as trade-offs between equity and efficiency, degrees of commodification of environmental services and the social embeddedness of

PES. As opposed to standard economic theory, ecological economics regards human-made capital and natural capital as fundamentally complementary; whereby natural capital and its derived goods and services form the basis for economic development (Berkes & Folke 1992).

Because the scope of this thesis does not allow a full-length debate on principles it is important to note that the presented viewpoints are based on a rather binary description of the PES arena for clarification of the discourse; of course there are positions in-between and borders are sometimes blurry. Nevertheless, it is still crucial to be aware of fundamental underlying assumptions as they often provide a rationale for the mechanism and the use of terminology with which PES schemes are implemented on the ground. These variations will also come clear in Chapter 2.3.1 where the use of different PES principles and criteria is discussed. As an important remark in the context of these discursive discussions it shall be noted that the point of departure of this research is not to 'force ecosystems into a market model' in order to 'capitalize on nature' but moreover the other way around, namely to adapt economic and societal institutions to the characteristics of natural ecosystems and thereby prioritizing ecological sustainability and just distribution. Having mentioned the mindset with which the PES is approached in this study readers interested in a thorough paradigmatic discussion of the PES concept are referred to elaborate writings elsewhere[3]. At this point the wider concept of ecosystem functions, goods and services, on which PES is based, will be described.

2.1.1 The concept of ecosystem functions, goods & services

Publications dealing with the benefits of natural ecosystems (Box 1) for human society date back to the 1960s and early 1970s, when the concept of ecosystem functions, goods and services emerged in the scientific discussions (King 1996). This concept basically describes how certain ecosystem functions provide ecosystem goods and services that are valued by humans; whereby the tangible benefits are referred to as goods (e.g. timber) and the intangible benefits are referred to as services (e.g. carbon sequestration). [4] A renowned publication on this matter by Costanza *et al.* (1997) points to the fact that it is not necessarily always a one-to-one correspondence: one ecosystem service can be the product of more than one ecosystem function and one ecosystem function can contribute to more than one ecosystem service. This will become clearer with the examples mentioned below. An important milestone for the incorporation of ecosystem services into national and intergovernmental bodies was the Millennium Ecosystem Assessment (MEA 2005) which brought together 1,300 scientists for several years and classified different *types* of environmental services:

Box 1 - What is an ecosystem?
An ecosystem is a dynamic complex of plant, animal, and microorganism communities *and* its non-living environment interacting as a functional unit. Humans are an integral part of ecosystems. Ecosystems vary enormously in size; a temporary pond in a tree hollow and an ocean basin can both be ecosystems. (MEA 2005)

- **Supporting services:** are most basic ecosystem processes that are necessary for the delivery of all other services. This refers to primary production and biochemical processes such as photosynthesis.
- **Regulating services** are the benefits that humanity obtains from the natural regulation of ecosystem processes. It refers to the natural regulation of the climate and the air quality. But also the relevance of forests in erosion control or water storage falls hereunder. Mitigation of effects from natural disasters (i.e. landslides, coral reefs relevance for tsunamis, pollination and its relevance for the agricultural sector etc.)

[3] For an overview of the discussion and attempts for reconciliation of contrasting views see Farley & Costanza 2010, Swallow *et al*. 2009; for elaboration on ecological economics approach see Muradian *et al* 2010, Berkes & Folke 1992; for an environmental economics perspective see Engel *et al* 2008; for a general account of environmental discourses see Dryzek (1997).

[4] In line with the context of the thesis the explanations focus on using examples from land-based forests. Other ecosystems relevant for PES could be e.g. oceans or mangrove forests.

- **Provisioning services** are the products or goods obtained directly from nature, such as wild foods, fresh water (which is also recognized in its own as a form of regulation and supporting service), fisheries, timber, natural medicines or fuels.
- **Cultural services** are basically non-material benefits that people derive from nature. These are spiritual and historic (cultural, historical and religious heritage), recreational (opportunities for travelling and recreation), aesthetic (attractive and aesthetic landscapes) and educational (opportunities for scientific, formal and informal education)
  Although such cultural services are compared to some other rather intangible and measurement of values is difficult, they might provide some of the strongest rationales for the conservation of nature.

While markets for 'provisioning' services are very common, markets for 'regulating', 'supporting' and 'cultural' services tend to be incomplete or missing; for cultural services reasons are to be found in its public good characteristics: non-rivalry in consumption and non-excludability (Swallow *et al.* 2009); which is why its costs are often not integrated in economic valuations but borne by governments or civil society actors. Relevant forest environmental services, in the sense of non-material, non-extractive benefits from nature (Wunder 2005), are usually termed to be

a. watershed protection;
b. biodiversity conservation;
c. atmospheric regulation (incl. carbon sequestration); and,
d. landscape beauty/aesthetic landscapes/scenic beauty (interchangeably used)

Once relevant environmental services have been identified and its benefits recognized thoughts about appropriate valuation methods bring the PES concept back into the picture.

2.1.2 Valuation of environmental services

The concept of PES is based on the economic valuation of environmental services. However, a value is generally defined as "the worth of a product or a service to an individual or a like-minded group in a given context" (Brown 1984 as cited in Lette & de Boo 2002). This shows the complexity of ES valuation and points to the fact that also when talking about PES there is more to it than a pure economic value that refers to the contribution of ecosystems to material prosperity and wealth; there are also

a. ecological values relating to ecological sustainability (e.g. maintenance of essential life support systems); and,
b. socio-cultural values relating to equity and cultural perceptions (e.g. nature´s importance for religion, indigenous cultures).

Many of these aspects are not (and probably never fully can be) represented in economic values, and especially traditional economic systems have so far mainly focused on environmental *goods* and failed to incorporate the economic value of many environmental *services*. Figure 2 sketches an economic valuation system that integrates all the different value types that exist for nature.

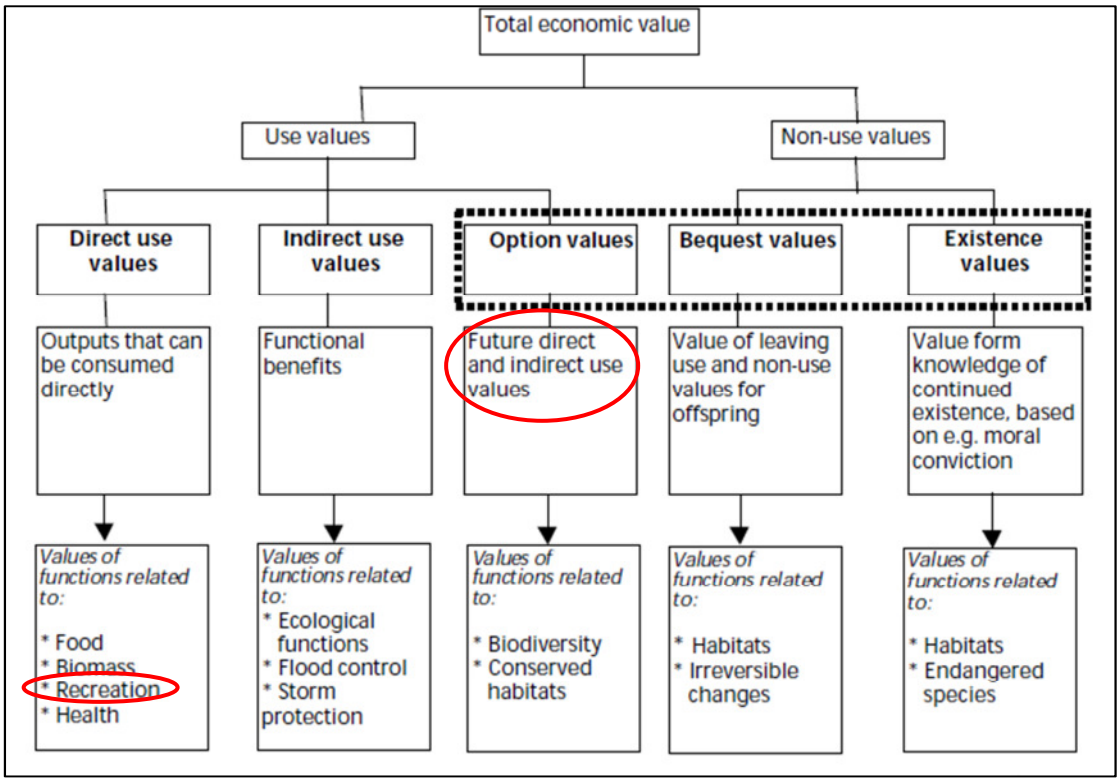

Figure 2: Economic values of nature
(Source: based on Munasinghe 1992 in Lette *et al.* 2002:13)

The authors of the table explain the different use value types as follows:

Direct use value: refers to the value assigned to goods and services from which the consumer directly benefits and which are traded in formal markets. In this context tourism is often attested a high direct use value that can also outweigh the value of other conventional uses, such as clear cutting, and thereby provide incentives for protection (Gössling 1999).

Indirect use value: denotes the benefits that are derived from functional services that the environment provides to support production and consumption

Option value: defines the importance that individuals give to conserve a natural resource for future use. This dimension is also relevant in terms of tourism; as Biénabe & Hearne (2006) have found that most tourists are willing to pay for maintain the future option to travel to natural areas.

Bequest value: denotes the benefit that an individual obtains from the knowledge that others may benefit from a resource at some point in the future.

Existence value: denotes the intrinsic value regardless of direct or future use purposes. Motivations for this value can e.g. be determined by religious, spiritual and cultural perspectives.

Measurement of non-use values is a challenging task, especially in the context of developing countries where short-term direct-use benefits often sway decision makers. The most common valuation methodology for is to measure the willingness to pay (WTP) of individuals and institutions. Once environmental services have been valued, ideally by a concrete WTP of benefitting actors, the next step is to design appropriate mechanism to channel payments to the providers of the services. This commonly referred to as PES schemes.

2.1.3 Appropriate payment and reward mechanisms

This chapter sheds light on traditional and new PES criteria which are used to describe in more detail how ES providers can be rewarded or compensated for the provision of services. Wunder (2005) defined PES by means of five fundamental criteria which have over the last years been the most commonly used, but are also the most restrictive. According to this definition a PES arrangement

(I) is a *voluntary* transaction,
(II) that works around a *well-defined* environmental service (ES) or a land use likely to secure that service
(III) with at least one ES *buyer,*
(IV) at least one *provider* of the service; and
(V) is based on the *condition* that payments are made only when the ES provider ensures the supply of the ES.

Criteria I, the voluntary nature of PES, distinguishes the approach from customary governmental command-and-control methods and stipulates that both provider and buyer take the decision to participate in PES schemes freely. Criteria II, III and IV imply that the service, or a land-use proxy, can be measured (e.g. tons of carbon that are sequestered or forest's water storage capacity) and clear provider-buyer relations can be identified. Once the provider-buyer relationship has been identified, their rights and obligations are stipulated in a formal contract. This contract can be with individuals, communities or any other party having legal land holder rights in the role of the provider and any individual, government, civil society organization or commercial entity that is benefitting from the service and consequently acts as the buyer. The conditionality-criterion separates PES from many other incentive-based, in-direct conservation approaches. These so-called performance payments (Ferraro 2001) require that the payment or reward will only be made if the provider actually does implement the agreed land use practice for conservation; whereby in more complex schemes rewards can also be agreed to rise or decrease according to the performance.

Concerning the source of financing two broad categories can be defined (Milder *et al.* 2010; Wunder *et al.* 2008): PES schemes can be (1) government or public sector financed, whereby government bodies or quasi-public agencies such as the World Bank act on behalf the service buyer. This is often the case in newly established PES schemes in order to secure financing for the initial phase with hopes to pass on the buyer-role to private sector companies at a later stage. These types of schemes often include side-objectives such as poverty reduction and are sensitive to changes in public policy. The other type of schemes are (2) user financed, whereby the users (e.g. water, energy and tourism companies, municipalities) pay for the service directly. Private sector buyers can either act voluntarily (e.g. out of an ethical imperative or to maintain a "green" brand image) or under regulatory obligations (e.g. cap-and trade schemes in Europe). These schemes typically relate to only one specific service, which are until now mainly either carbon sequestration or watershed conservation.

While the above criteria seem quite straight-forward, experiences in the field have shown that these formal rules are hardly met by most PES schemes and the strict criteria severely limit the number of working PES examples (Wunder *et al.* 2008; van Noordwijk & Leimona 2010). Discrepancies have often been observed between the PES criteria and practical use and many debates amongst scientists and practitioners have emerged, calling for a distinct approach also on the conceptual level. According to Muradian *et al.* (2010:1203), practitioners "become frustrated when trying to design and implement PES based on theoretically consistent but difficult-to-apply conceptualizations". Difficulties arise especially with intangible ES such as cultural and amenity

services, but Bond *et al.* (2009) also challenge the fundamental PES assumption that there can be a 'clear and well defined service'.

Furthermore, programs implementing PES in developing countries are confronted with the fact that the vast majority of people living in and around remote natural areas are likely to belong to the country´s poor, of which many strongly depend on forest resources for their living, but where land tenure is not always clear and people's skills might be insufficient for participation (Fisher *et al.* 2008; Neefjes 2000). Therefore, also PES policies and scientific approaches are needed that "take into account the diverse relationship between conservation needs, poverty reduction demands and consumptive demands of the world economy" (Hoang *et al.* 2009). While debates about the causal relationship of rural poverty and environmental degradation have been going on for decades, it seems at this point in time only realistic to say that local realities reflect both; rural poverty as a cause as well as an effect of environmental degradation and vice-versa and often it is necessary to address both in order to achieve either[5]. These complex inter-relationships are in this report referred to as poverty-environment dynamics. In terms of PES such poverty-environment interactions are a highly relevant issue, as payments usually focus on contracting rural land owners; the poor are likely to have no or unclear land rights, or only small plots of land and if not carefully planned and managed a PES scheme might even increase local inequity (Miranda *et al.* 2003, Leimona *et al.* 2009*).* In the light of this risk, Farley & Costanza (2010) note that the criteria established by Wunder might not only be unattainable, but also inappropriate. Apart from ethical reasons for a bias towards the rural poor, the concern should also be that, if environmental services are to be secured effectively, local support and adherence to the scheme is crucial. Therefore, the type of reward (cash and/or in-kind) should be based on local determinants that are more sensitive to the specific poverty context.

In short, ethical as well as practical reasons have led to a shift in perspectives in the application of PES in developing countries; a shift thus from maximized cost-efficient and effective natural resource management to aspects of equity, governance, and fairness of the schemes (Leimona *et al.* 2009). Consequently, criteria and principles have been redefined. Taking Wunder´s PES definition as a conceptual basis and incorporating lessons learned from the past few years on above mentioned difficulties with the strict definition, van Noordwijk *et al.* (2007) have developed the following set of characteristics, according to which a PES scheme should be:

(I) realistic;
(II) voluntary;
(III) conditional; and,
(IV) pro-poor.

These characteristics are linked to the three criteria effectiveness, efficiency and fair in stating that "rewards must be realistic, conditional and voluntary to be effective and efficient, and pro-poor to be fair" (van Noordwijk *et al.* 2007). Most notably this definition also uses the term 'rewards' instead of 'payments' and a review of literature and programs confirms the notion that advocates of pro-poor PES tend to use the term 'rewards' (RES) instead of 'payments' (PES). Table 1 describes these rather broad characteristics in more detail.

[5] For comprehensive discussions on linking livelihoods, poverty and conservation see e.g. Fisher *et al.* 2008 or Neefjes (2000)

Table 1: Alternative PES criteria and indicators (based on van Noordwijk *et al.* 2007; Leimona *et al.* 2009; Hoang *et al.* 2009).

Criteria	Indicators
Realistic	Benefits gained by both providers and buyers need to be tangible and sustainable
	The scheme brings additional ES protection that would have been threatened in the absence of intervention
	There must be sufficient values accumulating from ES for intermediaries to support development of the mechanisms
Voluntary	Contract is based on free and prior informed consent of both sides (ES providers and ES beneficiaries) on their rights and obligations
Conditional	Payments/rewards are made on a performance basis.
	Conditionality can be distinguished -at the level of input (Did people spend time to plant trees or patrol the forest?) -the condition of the forest (Are trees growing? Is waste/litter in the forest reduced?) -actual outcome in terms of environmental functions and services (Better water quality? Aesthetic appearance of forest?)
	Transparency is ensured to assess the conditions when payments/rewards are granted and when not
Pro-poor	It is made sure that payments also reach poor land users or ES providers
	Equitable impacts on all actors are considered
	Increased attention is paid to transparency and the roles of intermediaries

Also amongst this list, conditionality is seen as the key element to distinguish PES from taxes and subsidies and highly increases the effectiveness in terms of conservation successes. Meeting standards for voluntary requires strong effort in 'social mobilization' (Leimona as cited in Hoang *et al* 2009:95) because of challenges in terms of efficiency and fairness in delegation: on the one hand not everybody needs to be at all meetings and on the other hand there is the risk of elite capture and self-declared representatives. The most important amendment, as opposed to Wunder's criteria list, is the pro-poor characteristic. This criterion recognizes the complex poverty-environment interplay, and calls for PES institutions to be biased towards the poor stakeholders, also when considering trade-offs between efficiency and fairness (Leimona *et al.* 2009). In the design phase of a pro-poor PES, how ICRAF is developing it in Viet Nam, it should be taken into account that the less-well of are a group that is often at a disadvantage when it comes to having access and making use of relevant institutional arrangements (FAO 2011). This is probably also the main point where traditional, strict PES schemes have excluded or disadvantaged this group; which in the end led to the emergence of such alternative, broader set of approaches that have the enhancement of ES as a common goal and what Swallow *et al*. (2009) propose to call Compensation and Rewards for ES (CRES). Using this perspective, PES can be seen as a specific sub-category of CRES mechanisms. However, until now, most literature and practitioners stick to the use of PES, even if the scheme focuses on non-monetary, simply because this remains the most well-known term for the mechanisms.

Irrespective of the (ideological) approach that is chosen for a PES arrangement, it has come clear that appropriate institutional and political frameworks at national as well as local level are always a crucial requirement for the set up and management of the scheme (FAO 2011; Hoang *et al*. 2009; Javed 2009; Wunder 2005). Landell-Mills and Porras (2002) note in this context that, while evolving within existing institutional frameworks, with a variety of formal and informal rules and codes of conduct, PES schemes may at times reinforce existing institutions, and at others possibly replace arrangements that are not functioning effectively. The identification of providers, buyers and intermediaries as well as the establishment of appropriate and sustainable reward mechanisms thus requires innovative approaches that are anchored in the political arena through new policies and practices.

2.2 The policy arrangement approach

The policy arrangement approach (PAA) was developed as an analytical tool that helps to guide and inspire empirical research, especially – but not exclusively - in the environmental policy domain (Arts & Leroy 2006; Arts *et al.* 2006; van der Zouwen 2006; van Tatenhove 1999; van Tatenhove *et al.* 2000). In the light of PES, it is especially interesting because PAA´s inspirational base treats environmental problems as "fundamental and more encompassing issues of late modern societies" (Arts & Leroy 2006:5); it thereby neatly connects to the roots of the above described PES concept which was born out of a critique on market failures of modern economies. The consequence of considering PES schemes in terms of a policy arrangement is thus to be aware of the broader societal and political context and corresponding implications for day-to-day policy practices. This approach was also chosen because the two inter-connected concepts of institutionalization and political modernization, the two main sources of inspiration for PAA (Arts *et al.* 2006), are both also highly relevant for looking at PES arrangements, which requires the creation of a new institutional framework at different levels with a plethora of different actors. As it will come clear in this section, PAA enables such a concrete empirical analysis of multi-level and multi-actor processes without losing sight of important underlying discourses, rules of interaction and power relations; the last two dimensions being especially relevant when taking a pro-poor approach.

As mentioned above, the aim of this research is two-fold: on the one hand – as the integration of tourism in PES schemes is new and few scientific documentations exist – I aim to give an account of general considerations concerning the role of tourism in PES schemes, and on the other hand I intend to contribute practical advice to the development of a tourism-related PES schemes in Ba Be, Viet Nam. The policy arrangement approach does justice to these aims as it captures

(i) connections between every-day policy processes (local levels) and long-term developments;
(ii) the interaction between actor and structure;
(iii) the broader social and political developments that influence policy and
(iv) the role of structural variables like rules of interaction and power relations (Arts et al. 2006)

In doing so, the approach thus pays attention to organizational aspects of PES arrangements, i.e. rather daily practices at local level, as well as strategic and institutional aspects, i.e. rather long-term processes at national or global level. The PAA thereby emphasizes how these daily practices and long-term processes are mutually (re-)enforcing each other in creating certain temporal policy arrangements (Arts & Leroy 2006; van Tatenhove *et al.* 2000). In other words a **policy arrangement** can thus be defined as "the practice which emerges as a result of the interplay between the policy-making process concerning a specific nature area, and structural social and political processes" (van der Zouwen 2006:26). This definition entails the underlying concepts on which the PAA is based: institutionalization, political modernization and the interplay of actor and structure. On the one hand it implies that daily policy making practices and interactions among different agents – based on processes of **institutionalization** - gradually develop into more or less stable patterns; whereby these structures in turn also influence subsequent behavior. On the other hand it implies that - based upon the idea of **political modernization** – policy arrangements are not only seen as the result of strategic behavior but are also influenced by broader, contextual societal and political trends (Arts & Leroy 2006; van Tatenhove *et al.* 2000). As these theoretical concepts form the basis of the PAA they will be further explained in the following.

2.3 Political modernization and processes of institutionalization

It has come clear in Chapter 2.1 that the establishment of a PES scheme requires institutional changes at different levels and can be seen as a result of the emergence of new policies at international and national level. The PES concept is based on the dilemma that many services and benefits that humans derive from nature are in current social and economic valuations taken for granted. A PES arrangement thus entails as new way of steering in the environmental policy domain; and if taken seriously and traced back to ideological roots it clearly requires and fosters fundamental changes between state, market and civil society relationships. Such changes and innovations in the political arena are commonly referred to as political modernization.

Political Modernization

In general, the concept of political modernization refers to "structural processes of social change and their impact on the policy domain" (Arts *et al.* 2006:97). In other words it identifies how technological, economic, societal, political and epistemological changes (e.g. individualization, globalization, democratization) have an impact on our economic, societal, political and scientific institutions. In the past decades, these changes have been characterized by a shift from strictly state controlled to multi-actor, -sector and –level policy environments. This usually entails a less state-centric view of the role of the state in society and the opening up of the political sphere to non-state actors and changing relationships between state, business and civil society – a process that is commonly described as the shift from government to multi-level governance (Arts & Buizer 2009; Beeko & Arts 2010). Processes of democratization as they are currently - slowly and iteratively - happening in the Arabic world exemplify strong implications for changing state, markets and civil society institutions. Such changing power relationships, different ideas and practices on steering and policy between and within different subsystems are coming into being and manifest itself in new conceptions and daily practices of (multi-level) governance (Arts *et al.* 2006; van Tatenhove 1999).

Institutionalization

As a basic concept of sociology, institutionalization has been re-defined and differently applied many times over the course of sociological debates[6]. In terms of PAA this concept is defined as a "phenomenon whereby patterns arise in people´s actions, fluid behavior gradually solidifies into structures, and those structures in their turn structure behavior" (Arts *et al.* 2006:96). It thus refers to processes in which actors gradually develop more or less stable rules and patterns of interaction, problem definitions and policy approaches, which result in the emergence of specific structures and institutions. The policy arrangement approach thereby emphasizes the interplay of structure and stabilization, whereby institutionalization - no matter how stable it may seem at first – is an ongoing process of construction and deconstruction (van der Zouwen 2006). The constant interaction between actors and structures makes institutions subject to constant gradual changes. And, as indicated before, ecological economics - or its manifestation in PES arrangements – can be seen as one step towards an adapted global economic system, where existing societal and economical values are re-arranged. Such re-arrangments and changes in institutions happen in terms of formal (e.g. laws, property rights) or informal rules (e.g. codes of conduct, social norms and values) that guide our behavior and associated enforcement mechanisms.

[6] For an elaborate discussion of differing use of this term see e.g. Beck 1997 or Giddens 1990.

2.4 Four dimensions of analysis in PAA

In line with the elaborations above Swallow *et al.* (2010) considers PES mechanisms as institutional and policy innovations, where "theories of institutional change and policy diffusion are used to identify conditions under which [PES] mechanisms are likely to emerge and become functional". The PAA does so in understanding the continuously on-going institutionalization of PES arrangements as the (re-)shaping and (re-)structuring in terms of organization and substance. Further operationalizing this, Arts & Leroy (2006) suggest analyzing substance and organization of a policy arrangement in terms of four interrelated dimensions

- the *actors* and their *coalitions* involved;
- the *division of resources* between those actors, which determines *power* relations and level of *influence*;
- the *rules of the game*, both in terms of *informal* rules in interaction patterns or routines, and in terms of *formal* procedures for e.g. agenda setting and decision-making; and
- the prevailing policy *discourses* and entailing norms and values, definitions of problems and approaches to solutions of the actors involved, often manifested in programs, specific content of policy documents and the key terms used.

The first three dimensions thereby concern organizational aspects, whereas the latter discourse dimensions concerns substantive aspects. However, the dimensions are neither created nor acted out in a vacuum; moreover they are closely interrelated with the other three dimensions and broader processes of structural change. Delineating these different dimensions is essentially helpful for a concrete analysis and therefore visualized in Figure 3.

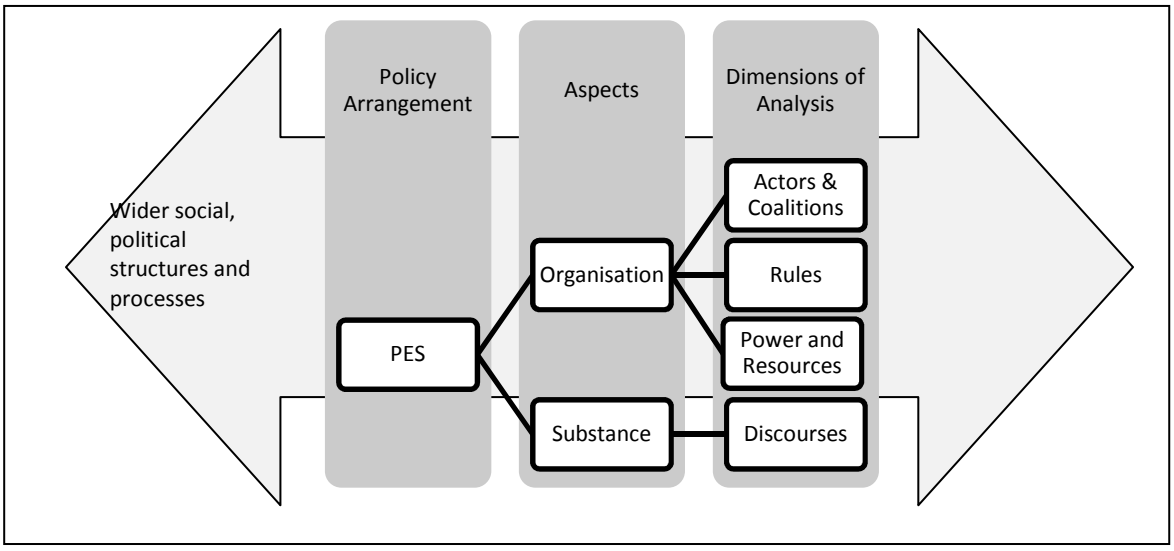

Figure 3: Operationalization of PAA (based on van Tatenhove *et al.* 2000:56)

Deconstructing PES arrangement in terms of these four interrelating dimensions of analysis also follows observations by Landell-Mills & Porras (2002:206), who - after an elaborate review of 287 PES(-like) initiatives in tropical countries - conclude that inevitably the appropriate arrangement for PES schemes "will depend on the local context, including existing institutions, power relations, history, and culture." The PAA addresses most of these factors, while history and culture will be more extensively thematized by means of the Sustainable Livelihood Framework in the subsequent chapter. When working with the four dimensions of a policy arrangement, it is crucial to point out that the dimensions do not just sum up but are inextricably interrelated; change in one dimension is likely to induce change in other dimensions, or be caused by it. This mutually influential relationship is visualized by van Arts *et al.* (2006) by means of a tetrahedron (Figure 4).

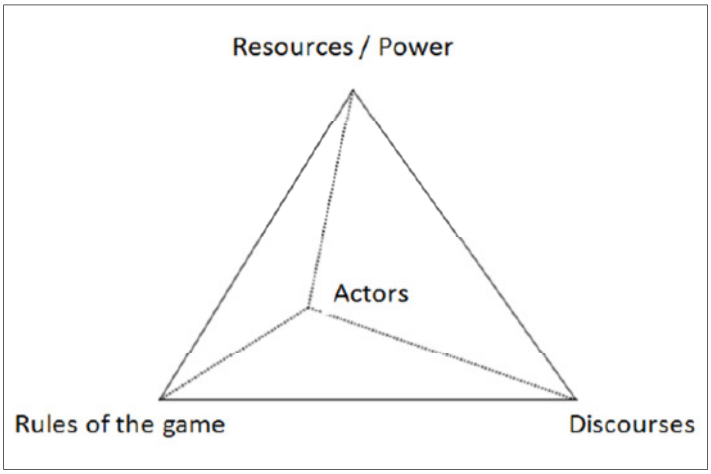

Figure 4: Interconnections of the four dimensions of a policy arrangement (Arts *et al.* 2006:99)

This figure visualizes how a change initiated from any of the four dimensions (can) lead to adaptations in the structure and organization of the arrangement as a whole. Additionally, the dimensions offer four different analytical perspectives from where to start the analysis. Depending on which perspective is taken as the entry point, different insights can be gained. The PAA perspective thus asks for the changes brought to a policy domain with the introduction of new concepts, such as PES; where rules and regulations are adapted, new actors will appear, different coalitions will be formed and power relations and access to resources is restructured.

2.4.1 Actors and Coalitions

The actor-perspective is considered the most tangible way to get an overview of the arrangement at stake (Liefferink 2006). It looks into roles and positions of the actors involved (or not involved) in a specific policy arrangement. An actor can thereby be an individual or a participating company, organization or institution. The PAA goes further than a mere stakeholder analysis in asking about the actor's position and level of influence in the policy process (van Tatenhove *et al.* 2000). Thereby the formation of coalitions plays a role. In the process of policy execution it is likely that certain actors have opposing or (more or less) shared interests and ideas on how to approach the issue. Those sharing the same beliefs might cooperate in coalitions to either support or challenge the dominant discourse or power relations and to achieve the desired objectives more efficiently (Liefferink 2006). But, coalitions can also be stopped due to inefficiency, ineffectiveness, or a lack of power and the success of a coalition also depends on how well they adapt to social and political changes. Due to the above described shift from government to governance, coalitions are increasingly formed e.g. amongst governmental bodies, civil society organizations or commercial agents. Understand how and why coalitions haven been or are likely to be formed gives insight into allocation of resources and decision making powers within a policy arrangement at hand.

2.4.2 Discourses

The discourse dimension asks for dominant interpretative schemes, defined as "collective frames that enable people to interpret the world and, subsequently, shape their actions" (Arts 2011:4). Identifying relevant discourse thus means looking at prevailing storylines within society as a whole, a certain political area, or amongst above identified actors of certain policy arrangement; a renowned example is the sustainability discourse which has gained popularity over the past years. Discourses in the context of PAA are relevant at two different levels. On one level (1) refers to "general ideas about the organization of society, particularly the relationship between state, market, and civil society" – or in other words "the preferred mode of governance" in the respective policy domain and (2) on a second level it "concerns ideas about the concrete policy problem at stake, e.g. about the character of the problem, its causes and possible solutions" (Liefferink 2006: 58). This

dimension does not require a full linguistic discourse analysis in the sense of the common distinct analytical tool, instead it looks at common 'narratives' that structures the actor's contribution to the arrangement at hand. This often becomes apparent in the use of certain terminologies. Identifying underlying discourses is relevant as it fosters understanding about a socio-cultural context in which the scheme is acted out. Different approaches to organizational aspects of PES schemes can be better explained. Furthermore, it highlights the importance of the terminologies used and its potential effect on e.g. local residents.

2.4.3 Rules of the game

The rules-dimension refers to "mutually agreed formal procedures and informal routines of interaction" (Liefferink 2006:56) that influence the organization of a policy arrangement. Basically, the rules determine the possibility for actors to access and participate in policy arrangements. As indicated by this definition and in relation to PES, I will distinguish between *formal rules*, as stipulated in laws and other policy documents, and rather *informal rules*, e.g. the criteria defined by Wunder (2005) and van Noordwijk *et al.* (2006). Informal rules are also likely to be relevant when considering the possibilities of the poor for PES participation and negotiations, as actors can draw on these rules to legitimize or disapprove certain behavior.

Furthermore, the rules-dimension is seen as a suitable perspective for "studying the influence of institutional change on particular policy areas" (Liefferink 2006:56). It thus also sheds light on the important question which changes are necessary to integrate tourism-related PES policies in existing institutions. The establishment of such schemes definitely requires institutional change; the question is in how far it correlates or dissociates with existing political but also local livelihood dynamics.

2.4.4 Power, Resources and influence

The actor dimension shows how stakeholders from a wide range of levels are usually involved in development and conservation programs; be it the non-state sector from the local farmer to the international NGO or from provincial governments to international multi-lateral donor organizations. In such policy arrangements it is obvious that different levels of influence and power relations exist and are thus especially crucial to take into account in an analysis of a pro-poor scheme. Following the PAA, power and influence are at hand referred to as the mobilization, division and (deployment of) access to resources (Liefferink 2006). Levels of influence and power are often grounded in differing (unequal) access to natural as well as social, political, human, physical and financial resources.[7] While the actor dimension provided for a description of *who* has less or more influence, the perspectives of 'power and resources' might be able to answer *why* certain power relations exist. By changing the distribution of resources to their advantage, actors attempt to improve their situation (ibid.); therefore, also rules and regulations (and who determines them) play an important role and it again becomes clear, how intrinsically inter-related the four dimensions are.

The core idea of this dimension is that actors are to a certain extend dependent upon each other for (access to) these resources in form of e.g. expertise, money, information or political legitimacy. But, as actors stem from a wide range of scale, these (inter-)dependencies are likely to be unbalanced. And as Carney (2003:36) notes "poverty does have many dimensions and causes, but one thing that most of the world´s poor have in common is a lack of power and influence". While this can be seen either as a cause, an aspect or an effect of poverty it is clear that any (PES) arrangement trying to involve the poor needs to address these issues directly.

[7] This refers to the people's livelihood assets as described by the Sustainable Livelihood Framework in Chapter 2.5.

It has come clear thus that for local residents to have a stake in policy arrangements is often a question of having access to certain resources. In the context of pro-poor PES, local people´s stake and livelihood assets is a crucial factor as people living in an area are the main drivers of local land use change (Bulte *et al.* 2008b). However, understanding the local context and livelihood dynamics is as essential as it is complex. Therefore, the following chapter introduces the Sustainable Livelihood Framework which has been developed and widely applied to facilitate a holistic understanding of local livelihoods.

2.5 At local level: combination with sustainable livelihoods framework

For the design of any pro-poor PES arrangement it is crucial to understand livelihood dynamics of those that (should) have the major stake within the arrangement; namely those local residents involved or affected by the scheme. The PES policy in Viet Nam targets especially rural areas in forest-rich provinces, such as Bac Kan. As mentioned above, this province is characterized by one of the nation´s highest poverty rates and especially in the Ba Be National Park area nature conservation and rural development policies have already been conflicting over years; not least because the complexities of local livelihood strategies have not been taken into account enough in policy planning and program design (Zingerli *et al.* 2002). Such relationships between the very local level of policy implementation and national (or international levels) of policy making, or in other words, the effects of certain policy arrangements on local livelihoods is highly dynamic and complex and reality goes of course beyond what can be represented in a framework. Nevertheless, the Sustainable Livelihoods Framework (SLF) has over the past years established itself as a reliable and very helpful analytical tool that strives for a holistic understanding of livelihoods and influential processes (Ashley & Carney 1999; Carney 2003; *Eldis* Database[8]; Petheram & Campbell 2010). All authors emphasize that the framework should not be seen as a universal solution and an all-encompassing, static model of livelihoods, but as a way of analytically thinking about complex local realities and the impacts of broader policies and processes on livelihoods.

The SLF focuses on people, the main factors that affect their livelihood strategies and the relationships among these factors; it thus "places people, particularly rural poor people, at the center of a web of inter-related influences that affect how these people create a livelihood for themselves and their households" (DFID 1999). At the center of the framework are the different livelihood assets and resources that people have access to and use in their livelihood strategy; these can e.g. include natural resources, education, technologies or networks of social support. As already shortly mentioned, despite its very local focal point this approach also recognizes the importance of transforming structures and processes, meaning institutions, policies and legislation that influence people´s access to assets and opportunities (Ashley & Carney 1999; DFID 1999). This inherit awareness of wider external influences thus significantly supports the logic of combining it with the policy arrangement approach.

It is important to note at this point that "[t]he livelihoods analysis does not have to be exhaustive to be effective" (DFID 1999:4). A full sustainable livelihoods analysis in the context of a PES scheme would require its own study and cannot be provided within the scope of this thesis. As the SLF has commonly been used at an early stage of work to design programs and projects (Carney 2003), a preliminary[9] village-level livelihood analysis aims to discover the most relevant aspects that play a role for the inclusion of tourism in the pro-poor PES arrangement in Ba Be. Thus, rather

[8] Detailed case studies using SLA in development-related scenarios and explanatory reading material can be found at www.livelihoods.org.

[9] Full livelihoods analysis could not be realized as a large-scale questionnaire necessary for representative data collection in the village has been delayed and results are yet to be analyzed by ICRAF Vietnam.

than giving a full account of all assets, vulnerability dimensions and policies that influence the local reality in Ba Be area, this study focuses on using the SLF to

(a) inform about a community´s capacity and (access to) livelihood assets that are relevant for participation in PES arrangements; and,
(b) foster understanding about possible changes a PES scheme can bring to local livelihoods (i.e. changing poverty-environment dynamics; alternative resource use).

The following two sections describe the above mentioned characteristics in more detail.

2.5.1 Livelihood assets

According to the SLF, local livelihoods depend on (access to) human, social, natural, physical and financial assets[10], which can be seen as building blocks that together enable people to pursue certain livelihood strategies. Those with more assets are more likely to have greater livelihood options with which to pursue their goals and reduce poverty. The assets are in the framework presented as a pentagon (Figure 5) to visually emphasize important inter-relationships between various assets (Ashley & Carney 1999); the figure shows on the right how the shape of the pentagon can be altered according to variations in people´s access to certain assets, whereby "those with more assets tend to have a greater range of options and an ability to switch between multiple strategies to secure their livelihoods" (DFID 1999:10).

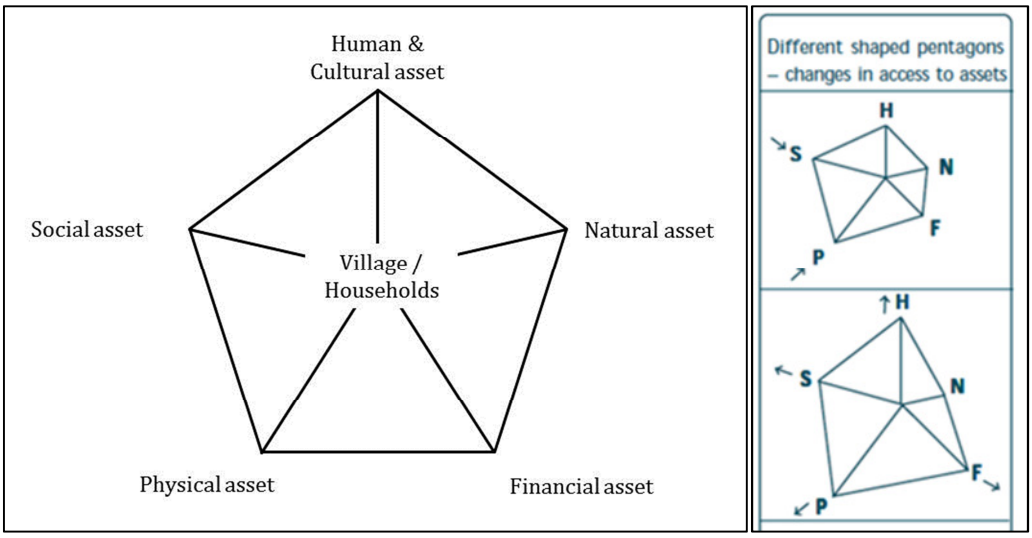

Figure 5: The five livelihood assets (adapted from DFID 1999)
(Explanatory note: the close to the center, the more reduced is this asset)

Apart from the original five assets, this study has retrospectively included the category of 'cultural assets' – defined as values, ethics, social preferences and perceptions within society. In doing so I follow Petheram & Campbell (2010) who found this amendment helpful in an earlier use of SLF for studying local people´s PES participation and adherence[11]. Moreover, own fieldwork has shown that the socio-cultural context in Vietnam requires paying special attention to above mentioned 'cultural' items. This study does however not treat it as a separate sixths asset in itself as it is seen to have very close links to 'social' and especially 'human' assets. This will also come clearer after the following descriptions of each asset (based on DFID 1999 and Carney 2003):

[10] In the literature also interchangeably referred to as human, social, … capital.
[11] Other studies have included ‚political asset' to refer to issues of power and influence. Here this category is found to be sufficiently covered in the dimensions of the PAA.

Human & cultural assets generally refer to the capacity to work and adapt. More specifically, the former refers to (traditional) knowledge, skills and education, environmental awareness, as well as nutrition and health; whereas the latter refers to values, ethics, social preferences that are culturally rooted, also e.g. in traditional knowledge and structures of ethnic minority cultures. Apart from being of intrinsic value to well-being of the individual (i.e. being healthy), human assets are also key to make use of other assets. Obviously the way knowledge is generated and transmitted (i.e. the human asset) has a close relationship with social assets; whereby a high level of social capital, such as being member in networks and organizations significantly adds to the human asset. (Traditional) knowledge systems and education are closely linked to certain values, ethics, social preferences and perceptions that guide local people´s lives and their interactions with the natural and socio-political environment. Linking it to human-environment interactions one could say that human-cultural assets also fundamentally determine how people use the natural asset (i.e. forest resources).

The **social asset** describes the social resources that people rely on in order to pursuit their daily livelihood activities. Social resources refer to people´s

- *networks and connectedness*, which can be either vertical, between patron and client or horizontal, between individuals who share the same interests and also relates to political capital as it increases people´s trust and ability to cooperate and enables access to wider institutions, e.g. political or civic bodies;
- *membership of more formalized groups* which often also means adherence to commonly accepted *rules, norms and sanctions;* and
- *relationships of trust and reciprocity* within communities and neighborhoods or with external organizations, such as companies or NGOs.

Strong social assets in general facilitate co-operation, can reduce transaction costs e.g. for PES implementation and also provides informal safety nets amongst the poor to cope with external vulnerabilities and shocks.

The **natural assets** refer to (environmental) services and benefits derived from natural resources such as land, soil, water, forests or fisheries. In the context of this study the asset is primarily used to describe the extent to which local communities or households rely on, have access to and use these resources for their livelihoods. Equally important in this study will be to consider in how far local actors are aware of their dependency on natural resources and their future existence; as this is likely to influence the participation in and understanding of PES.

The **physical asset** denotes the existence and access to basic infrastructure and producer goods that are needed for livelihood activities. The former refers to e.g. roads, sanitation, secure buildings, electricity and communication technologies; the latter includes tools and equipment such as seeds or fertilizers.

The **financial asset** draws on the financial resources that people have to support their livelihood strategies, such as savings, credit, and income from employment, trade, remittances or pensions. It is probably the most versatile asset, as is can be converted to other assets; and rightly or wrongly it can also be transformed to political influence and power. Access to financial resources is in development projects usually provided through in-direct measures (organizational, institutional or legislative). However in the context of strict PES arrangements this is different, as direct financial payments are made to the individual households. It is widely recognized that a mere improvement of financial assets is not the solution to all, because use of the money is a critical issue. Thus, when considering the mode of payment (cash or in-kind) an understanding of the use of the financial asset becomes highly relevant. And according to Leimona *et al.* (2009) one key requirement of pro-poor

PES design is the identification of reward mechanisms that match with people´s needs and expectations.

Thus, in order to identify appropriate mechanisms that enable a fair, efficient and effective participation of local land holders in the case study area, the different livelihood assets and dynamics will be looked at. Furthermore they will be used to assess the changes that a PES scheme can bring to each of the different asset dimension, and existing poverty-environment relations. Again, these assets - just as the forthcoming framework - should not be seen as static, neither as infallible but as a means of organizing the thinking about the dynamic nature of livelihoods and its external influences; the latter being the focal point of the next paragraph.

2.5.2 The SL framework linked to PAA

Rather than working only at the community level, the SL framework is seen as a helpful tool for "linking macro-level trends to the ground-level realities of everyday life" (Carney 2003). These macro-level trends are in DFID´s (1999) framework present in the *'vulnerability context'* (i.e. shocks, trends, seasonality) and '*transforming structures and processes'* (i.e. institutional and political environment). As shown in Figure 6, these macro-level trends on the one hand influence the extent of *access* to the assets which in turn also affect people´s *livelihood strategies*, i.e. the ways in which people combine and use their assets to achieve their objectives.

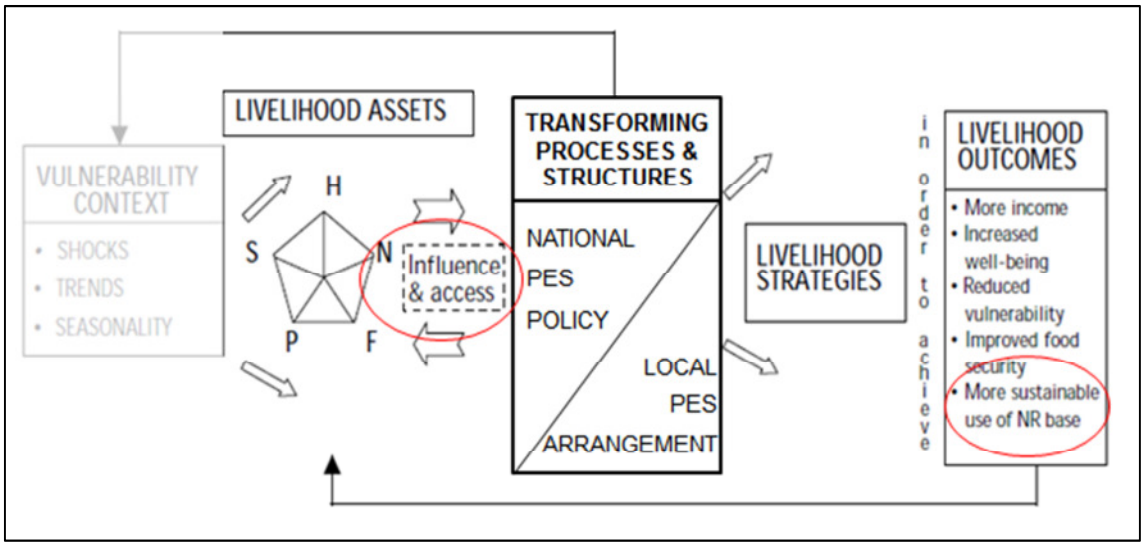

Figure 6: Adapted sustainable livelihoods framework (adapted from DFID 1999)

This adapted framework needs explanation. The vulnerability context is put to the background as the focus of this study lies elsewhere; its relevance in the real life context is however acknowledged by keeping the dimension included in the background. Special attention should be paid to the 'transforming processes and structures' box, which has been adapted to the context at hand. After a review of SLF studies, Carney (2003) referred to the 'processes and structures' dimension as a 'grey box' that practitioners have often criticized to be too broad and – as opposed to the micro-level asset pentagon - lacks detailed directions for analysis. Drawing on the elaborations of preceding chapters, one could say that the 'grey box' is in this thesis unpacked by means of the PAA. As indicated in the figure, there is a two-way relationship between 'assets' and 'transforming structures and processes', and it is this two-way relationship that precisely describes the two objectives of using SLF in combination with PAA. As mentioned above, the use is two-fold: on the one hand (a) it is about power, capacity, and access to resources of residents to participate and influence PES arrangements (and generally speaking the greater people´s asset endowment the more influence they can exert (DFID 1999)). On the other hand (b) it is about the influence such policies and arrangements have on local livelihoods; as they can in turn create assets or determine the extent of access. This two-way relationship is characterized by power, rights and governance structures;

dimensions which are easily overlooked in the SLF (Ashley & Carney 1999; Carney 2003), but are extensively addressed through the PAA.

Another point of attention is the circled *livelihood outcome* desired in the figure, as a 'more sustainable use of natural resources' is the key purpose of a PES scheme. Depending on the assets that people have, the existing structures and processes and the vulnerability context people choose different livelihood strategies that will lead to a subjective best livelihood outcome. This is exactly where national PES policies, which are manifested locally in new PES arrangements, are thought to provide the land holder with a financial incentive to choose for a non-harmful use of forest resource. Using the asset lens and terminology, this is supposed to be achieved through re-arranging resident´s livelihood assets. Especially in pro-poor schemes there is not only one entry point for the incentive, but several, such as giving official land titling to providers increases the natural asset or providing training to increase the human asset.

Clearly, the theoretical insights of these analytical chapters have helped to uncover some more detailed concerns that should be taken into account when looking at the inclusion of tourism in pro-poor PES arrangements. These can now be integrated in more detail into the guiding research questions.

2.6 Integrated and specified research questions

The theoretical and analytical considerations above have provided insight into the main issues at stake when studying the integration of payments from tourism in pro-poor PES arrangements. Consequently, the research questions given in Chapter 1.3 can be concretized as follows in order to guide a focused analysis.

1) What is the relation between PES and tourism?

- Which environmental services are relevant for tourism?
- What are existing PES(-like) arrangements where tourism plays a role?
- Who are providers and beneficiaries and which institutional arrangements are necessary for tourism-related PES schemes?

2) How is tourism integrated in existing pilot PES schemes in Viet Nam?

- How are pilot schemes integrated in the existing political context?
- Which role do state, market and civil society actors play?
- Which discourses are emerging in Viet Nam's PES arena?
- How do formal/informal rules and power relations characterize the PES arrangement?

3) How could a pro-poor PES arrangement be set up locally in Ba Be, Viet Nam?

- Who are providers and beneficiaries of scenic beauty/biodiversity in Ba Be?
- How do local livelihoods interact with PES policies and programs?
- Which local institutions need to be adapted or formed for the integration of payments from tourism?

In line with the two concepts, also the research questions pay attention to both, broader structural processes as well as day-to-day policy practices taking place on a rather local level. Although the outline of this report intents chronology with the order of the research questions, it should still be considered an iterative process during which both, general considerations of PES and tourism as well as the experiences during the empirical case study at local and regional level in Viet Nam have informed all parts of the thesis.

3 Methodological Account

All research relies on the collection of credible data. Consequently, this chapter aims to give a detailed account of how this study has been carried out. It serves the validity and reliability of the research and sheds light on the overall research strategy.

On the very basic level this study takes an interdisciplinary approach. It is grounded in the social sciences of tourism studies from where it looks at integrating a new concept emerging from the environmental sciences. The nature of the study will be exploratory, characterizing a situation where not much information is available about similar previous studies on the same issue. This, in line with the two chosen analytical tools, calls for a qualitative rather than a quantitative approach; which demarks a distinction on the broadest methodological level (Silverman 2010). The close relationship between the analytical tools and the research strategy became apparent in the previous chapter as the analytical thoughts informed the formulation of detailed sub-research questions.

The choice of concepts and the exploratory character of this research also provide the rationale for the inclusion of the instrumental case study (Smith 2010) in form of three months field work in Viet Nam. Thereby the main aim of an instrumental case study is to provide further insight into an issue or to revise generalization. A variety of methods for data collection were used, such as interviews, focus group meetings and participation in workshops, which, as a form of methodological triangulation, ensures taking into account different perspectives to improve reliability of the research (Silverman 2010). Since the PES concept is relatively new in the tourism arena, three months of fieldwork in Viet Nam have been crucial in order to interact with (1) stakeholders involved in PES design on the ground and (2) local residents living in/around the National Park for whom the PES scheme will be designed. Hereby, ICRAF Viet Nam provided me not only with essential infrastructural and financial support during the stay in the field office in Ba Be and also in Hanoi, but collaborating with this international research organization was also a pre-condition for choosing Viet Nam and receiving research permission for this country in the first place. Furthermore, ICRAF assisted in finding an interpreter for my research project. This was Mrs. Nguyen Bich Hanh, a female Vietnamese university graduate who stayed with me during the two month in Ba Be and without her data collection, especially at commune and village level, would not have been possible.

3.1 Secondary Data

According to O'Leary (2004), the use of secondary data describes the process of collecting, reviewing, interrogating and analyzing various forms of texts. Within this research secondary data has been gathered on two different scales: on a more general level e.g. in scientific journals, websites or (online) libraries and at a regional, local level in Viet Nam e.g. in terms of policy documents, such as statistics or communal/provincial strategy documents as well as project folders or conference proceedings. Many local documents were in Vietnamese and translated by the interpreter either fully or partly in focusing only on relevant paragraphs. The use of 'grey' or unpublished literature has been very valuable as few published material could be found on the relation of tourism and PES.

The classical initial literature review mainly concerned writings on the following broad topics (in no particular order): PES, environmental policy, community-based tourism, ecotourism, pro-poor tourism, tourism in Asia and Viet Nam, qualitative research design, political modernization theory, policy arrangement approach, and sustainable livelihood approaches. While this enabled initial theoretical understanding reading continued throughout the whole process because 'being in the field' brought up issues that needed more theoretical exploration.

3.2 Primary Data

Fieldwork in Viet Nam was carried out from October 20th 2010 until January 10th 2011. I spend two months in Ba Be National Park, Bac Kan province in the northern mountains; the area where a PES scheme will be set up in the course of 2011 by ICRAF in collaboration with local IFAD partners (see Appendix A for a large scale map). During these two months I travelled to Hanoi several times for a few days in order to work with staff at ICRAF´s head office and conduct interviews on institutional level with actors involved in the policy making process or its implementation. The last weeks of my stay I travelled to Saigon and Da Lat – the latter being the capital city of one of the two PES pilot provinces in central Vietnam – to conduct in-depth interviews with relevant actors at institutional levels.

Before going deeper into the different methods (for an overview see also Appendix B), a map of Ba Be National Park (Figure 7) is used to explain the rationale for selecting the three villages which are thought to act as pilots for a later PES scheme on larger scales across the whole region. The villages Bo Lu and Pak Ngoi (belonging to Nam Mau commune) and Leo Keo (belonging to Quang Khe commune) were selected for this pilot. Bo Lu and Pak Ngoi were chosen due to its location in the core zone next to the lake which permits villagers to offer homestays and other tourism services. Leo Keo is located upstream at the border of the core and buffer zone along the Leng River basin that passes through Nam Mau commune; as this river nurtures both the fields in Nam Mau Commune as well as the lake, behaviour and practices of upstream Leo Keo villagers are crucial for a functioning environment in Nam Mau. Using such upstream/downstream relations for establishing the PES rationale is what ICRAF refers to as a watershed approach.

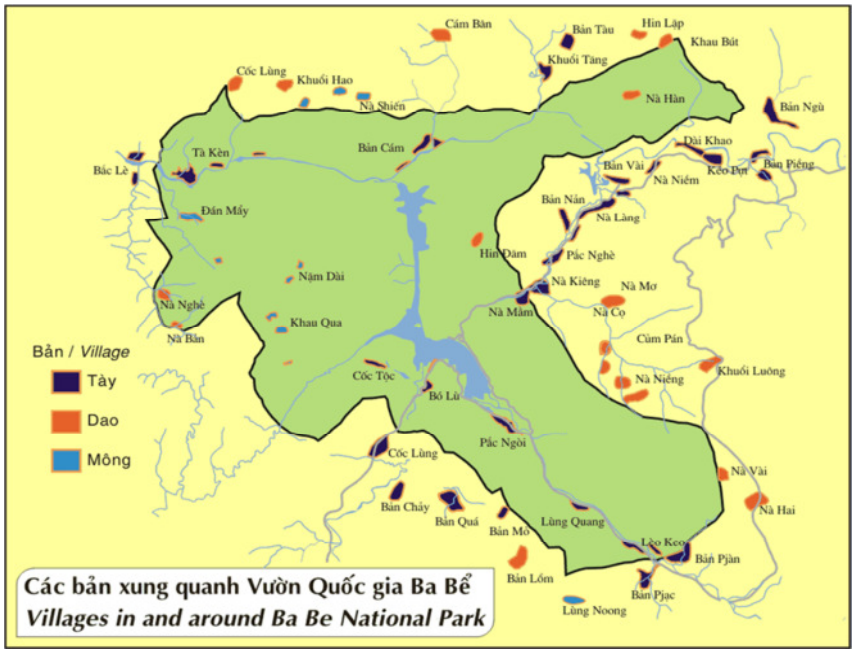

Figure 7: Map of villages in and around Ba Be National Park
(Source: Ba Be NP Operational Plan, 2005)

Originally a combination of my research with a base-line study conducted by ICRAF in form of an extensive questionnaire on socio-economic data was planned. This would have been especially relevant in order to get a representative overview of the household´s livelihood assets. In the course of time this questionnaire has been delayed and could therefore not be used to inform this research. Instead, I decided to focus on gathering local perspectives on poverty and livelihoods by means of focus group meetings and in-depth interviews. Furthermore local documents, such as the so-called 'socio-economic development plans and reports' (SEDPs), which exist at national, provincial, district, and commune level, have been consulted.

3.2.1 Semi-structured interviews

Interviewing can probably be seen as one of the most basic methods of qualitative research. But despite its seemingly straightforward nature, it is important to realize that it is much more complex than simply asking a question and taking notes – especially if people from different cultural backgrounds and different languages are involved. In line with these considerations, Silverman (2010) describes interviews as no naturally occurring data and thereby also points to the importance of the interview setting. Basic attributes such as race, gender, ethnicity class, and age of both interviewer and interviewee are likely to affect the interview process (O'Leary 2004). While this will be discussed in more general terms of the researcher's positionality in chapter 3.3, at this point the focus is on the practical issues involved in using this method. Semi-structured types of interviews were chosen; starting with some pre-defined questions but being reading to pursue any interesting tangents that may develop (O'Leary 2004) - a flexibility that is crucial for any exploratory study.

Semi-structured interviews were carried out with selected representatives from different stakeholders with the aim of gathering perspectives from all relevant actor groups. Interviews took place at different geographical locations as well as on different institutional levels (see Appendix B for a comprehensive list of interviewees according to place and level). Viet Nam´s political context required a careful approach, which is shown by the fact that first introductory meetings and interviews with village and commune leaders had to be held in Bac Kan and Ba Be to officially introduce me and the interpreter to the local authorities to legitimize our research activities. These meetings also offered a good chance to get an overview of the situation on the ground and - if we were lucky - the possibility to collect additional local policy reports. Through documents and early interviews certain key issues could be identified and in turn be particularly re-addressed in subsequent interviews and focus group meetings. Thus, information from the grass-root level continuously also informed the interview content for stakeholders at district, province or non-governmental institutional levels to see how these actors explained and interpreted the issue.

Before each interview, irrespective of the interview language, an English question checklist was created which guided and structured the interviews to a necessary extend. For interviews at national as well as provincial levels about the general PES concept different checklists were used depending on the affiliations of the interviewee (e.g. staff of a governmental agency or staff of international NGO). Usually in the course of the interview the questions were slightly adapted. If possible (i.e. when appropriate and permitted) the interview was taped in order to facilitate extraction of relevant information at a later point in time. One interview usually lasted between 1.5 and 3 hours. Most interviews, especially at local and provincial level were held in Vietnamese. In the beginning we tried to translate every answer immediately after it was given into English in order for me to understand. While this would of course be the ideal situation (as it enables me to react directly to what had been said) it turned out to be extremely time consuming and tiring for us as well as the interview partner. We found a compromise in the practice that Mrs. Hanh would try to make her notes during the interview in English. That way I could read what she had written the moment she wrote it down and if necessary I could return to some of her notes to pose a clarifying question. Afterwards, we integrated and transcribed both of our handwritten notes into an Excel file that also contains basic information such as place, date and duration of the interview. In total around 38 interviews were conducted; it is not a fixed number as some interviewed persons were met several times, due to either time limitations during the first meeting or new findings that needed further clarifications.

One key issue needing attention was the fact that sometimes the individual interview setting was found to make it difficult to obtain reliable information; many residents showed aloofness when it came to talking about any policy or institutional related topics. At this point it was decided to reduce individual interviews with residents at local level as they would probably not deliver much

additional information at local level. This method was much more useful at institutional levels. At local level I therefore decided to focus on group discussions instead. These allowed for more familiar and interactive settings for the analysis of the local livelihood context.

3.2.2 Focus group meetings using PRA tools

The just mentioned issue was not the only reason why using focus groups in order to collect data made sense. Both the policy arrangement approach as well as the sustainable livelihood framework emphasizes issues of power relations and unbalanced access to resources. Thus, in order to find out and understand resident´s personal view on their environment, institutions and on PES inquiry techniques had to be found that would trigger discussions and encourage participation in the deliberation process of the different social groups within one village. A related concern is expressed by Carney (2003) about the risk that, despite its underlying principle of participation, using the SLF can be very extractive, whereby information is gathered locally but often processed, and used, elsewhere. Over the past decades, such concerns have been addressed by means of so-called Participatory Rural Appraisal (PRA) methods (ibid.). Generally PRA tools capture local knowledge and perceptions and treat the residents more in form of research partners than research 'objects'. Focus group meetings (Figure 8) offer possibilities to gain insight from the interactions among participants; shades of meanings, areas of debates and disagreement can become apparent that are easily missed in personal interviews (Smith 2010), which thus requires the facilitator to pay close attention to what and how something is said during the discussions. Since ICRAF Viet Nam is very familiar with application of PRA tools I used the opportunities to receive training on what is called the Participatory Analysis of Poverty, Livelihood and Environment Dynamics (PAPoLD)[12]. This is a method that uses several PRA exercises to explore local people's perception on poverty, their use of different livelihood assets and perceived constraints for livelihood strategies. It thus helps to understand local livelihood context and identify poverty-environment relations. This method goes in line with the SLA, which also emphasizes multidimensional perspectives of poverty that encompass economic and non-economic aspects (Leimona *et al.* 2009). A comprehensive table in Appendix C outlines which exercises were used and how the specific results relate to human-cultural, social, natural, physical and financial assets within the Sustainable Livelihood Framework. The conventional PaPoLD exercises were supplemented by Venn Diagrams to capture local perspectives and perceptions of existing institutions. Venn Diagrams are a tool to map power distribution and relations among stakeholders; it asks people about their opinion and trust in certain institutions and the role it plays for their livelihood strategies (see Appendix D for an example of an original as well as transcribed Venn Diagram). Such maps come with the notes describing the discussions that were going on during the making. Appendix C shortly describes the different exercises and its focal points. For a detailed description of all steps involved

Figure 8: Leo Keo villagers during a focus group

[12] A specific research strategy that makes use of various PRA tools and has been adapted in Viet Nam by Hoang, M.H. and Pham, T.T. (2007). For more information see:
http://www.worldagroforestrycentre.org/sea/projects/tulsea/sites/default/files/inrm_tools/05_TULSEA_PAPOLD.pdf

in each exercise and a detailed discussion on its implications and usefulness for PES design see de Groot (forthcoming)[13].

In each of the three villages one focus group discussion with each 8-10 participants was carried out. All group meetings took approximately 4-5 hours and were held in the morning. Since the participants were mostly basic farmers who rely on the use of their time for income generation a small, appropriate monetary compensation was given. Participants were selected in consultation with the respective village and commune leaders and chosen according to the following criteria:

- 50% female, 50% male
- Spread among generations
- Spread among poverty classifications
- Certain income activities, (i.e. involvement in tourism).

The last criterion could of course only be applied for Pac Ngoi and Bo Lu, since the buffer zone village Leo Keo is not involved in any tourism activities. Each meeting was carefully prepared. Detailed preparation was in this context especially necessary because the discussions were completely facilitated by the interpreter in Vietnamese. It would have been impossible to translate everything that was said in the moment of the discussions. Luckily, a colleague from ICRAF administration department, Mrs. Pham Tan Loan, had by the time we conducted the focus group meetings arrived to the field office and offered her help to join the meetings for taking notes of everything that was said. This was not only necessary because of the language barrier, but also to be able to go back to the discussions after the meetings for the analysis. It should be added at this point, that the individual exercises are mainly a means to an end and not the end itself; interesting issues usually arise during the discussions of one exercise. A clear distinction should be made between a preliminary, raw output in from of tables and figures and a final outcome, which interprets the notes, tables and figures.

After the focus group meetings, data analyses and synthesis was carried out in two steps. A first step started usually on the same day of the focus group meeting. Then the flipchart papers that were produced in the morning (see Appendix D, Figure 1 for an example) were put on the wall in the office for all team members to see. The Vietnamese facilitators explained for each exercise how they perceived the discussions and together with the notes that were made during the exercises, we identified key issues. If necessary, documents or earlier interview notes were consulted to clarify some issues. A second step could be termed as the final data analysis and synthesis: after PaPOLD meetings were done in all three villages, the key issues that were identified in each village were looked at by means of the sustainable livelihood framework. Using this lens means that the raw output data (in form of rankings, tables etc.) and discussion notes were analyzed in terms of social-political, financial, natural, human and physical assets. Dividing data into these different dimensions minimizes the risk to overlook important issues. Once this was done, the existing or non-existing assets were weighed against their importance for PES participation; e.g. higher human asset in terms of environmental awareness of homestay owners is likely to foster acceptance of PES schemes amongst homestay owners. Findings on the different assets were put into an Excel file in order to later quickly find and look up the information.

3.2.3 Small questionnaire

This technique stands out from the others as it has quantitative characteristics. This small descriptive survey was used to gather data about the basic activities and income statistics of the homestays in Pac Ngoi and Bo Lu. Although the number of 24 questionnaires is quite small it does represent 100% of the target group. The data served mainly as a basis for having a rough estimation of how and how much tourism could contribute to the PES fund. I developed the questionnaire in

[13] This booklet will also be published in Vietnamese and distributed to local stakeholders in Ba Be – which can be seen as a small contribution to passing on the gathered information to the very local level.

English and it was translated and carried out by Mrs. Nguyen Bich Hanh with assistance from Mrs. Pham Tan Loan. The survey took place face-to-face at each homestay where the two interpreters assisted each interviewee if there was any insecurity about questions. The results were transcribed in English into an Excel file.

3.2.4 Participation

This section termed 'participation' refers to the valuable knowledge and information that was gained through personal participation in several workshops and office meetings in the ICRAF office in Hanoi as well as in the IFAD office in Bac Kan. Becoming part of the team helped a lot in understanding on-going processes and issues at stake; it provided interesting insights into different approaches to PES design on the ground. As opposed to data gathered in interview or focus group settings, information from participation can be referred to what Silverman (2010) terms 'naturally occurring data'. It gives valuable ideas about how stakeholders act outside research settings.

3.3 Positionality and reflections on the field work experience

Particularly qualitative methodologies are sensitive to interpretations and require a reflective approach. In doing so one acknowledges that data is always contextualized in specific settings, social processes or sets of experiences (Silverman 2010). Such complex 'politics of the field' became apparent frequently in dealing with official authorities in Vietnam´s restrictive social-political context, e.g. restricted access to documents and voice recorder not allowed. On the other hand, I also experienced the strictly structured political arena as helpful; e.g. for the organization of the focus group meetings it was always a clear process of first meeting commune, then village leaders. The latter would then inform the selected participants, who could be relied upon of coming or arranging replacement. Of course, there was the risk of the village leader to be biased towards selecting relatives or friends for the meetings, but since there was no other way of inviting the participants we paid attention to sticking to the selection criteria, which might diminish the risk of biased selection.

Recognizing that basically "all data collection methods can be 'contaminated' by unrecognized bias" (O'Leary 2004:180) calls for this chapter on the positionality of the researcher. Being aware that primary as well as secondary data is sensitive to interpretation aims at reducing the inherit risks as far as possible. It is thus not only primary data collection - where the presence of the researcher is crucial– that needs reflection. Also secondary data should be carefully analyzed, as the author´s bias influences text and conclusions as well. Positionality is not only about recognizing biases but about being aware how the presence of the researcher influences the research process. How relevant awareness about this is became very clear in one situation during an interview at district level: this day I brought my laptop to the interview (because the printer hadn't arrived to the field office yet), during the interview the woman was very cautious with the information she was giving but after we were finished and I shut down the laptop, she started talking very actively about some of the issues we had asked about before but only received what sounded like a standardized answer. The most crucial limitation was the fact most primary data methods had to deal with the language issue. Interview settings allowed for some flexibility and direct translations to some extent, but the situation was more difficult during the focus group meetings, where I had to rely on the questions that were prepared beforehand. I was lucky to have a very engaged and observant interpreter who was herself aware of the research objectives and could thereby identify important issues to further pursue during the group discussions with farmers. In general, I considered the PRA tools as very helpful especially in Viet Nam because they encouraged the participants to discuss sensitive topics more freely. For the integration of new beneficiaries from the domain of tourism in pro-poor PES-schemes, tools like the Venn-diagram are critical for disseminating stakeholders' relationships with and trust in local actors and institutions.

4 Payments for environmental services and tourism: initial approaches

It is obvious that intact natural landscapes not only support the ecological balance but also provide the basis for attracting vast numbers of people to travel around the globe. Tourism is often described as the world's largest industry; and while the overall tourism industry is already growing at 4.4% per year, ecotourism is reported to be growing at three times this rate (UNWTO 2011; Milder *et al.* 2010). Travel to natural areas is no recent phenomenon but over the past years the term ecotourism has established itself usually referring to "responsible travel to natural areas that conserves the environment and improves the well-being of local people" (TIES[14]). However, (not only) the local context in Viet Nam requires pointing to the fact that the term ecotourism is at times critically diverted from its intended use (see Box 2 in Chapter 5.4). Without entering these fundamental discussions on what deserves to be called ecotourism and what not, I focus on the underlying rationale for including tourism activities in PES schemes. According to Wunder (1999:5) "tourism directed towards natural forests can be viewed as another element within the array of 'non-timber forest benefits' … As an, in principle, non- consumptive use of the forest, it is a potentially well- suited element for conservation." Consequently, Looking at the four different forest environmental services that have been identified in Chapter 2.1., the most obviously relevant for tourism are thought to be biodiversity and scenic beauty as in the absence of these environmental services many (eco)tourism businesses would not exist or have significantly less income. I intentionally do not limit this discussion to ecotourism businesses only and instead point to the, maybe more indirect but still significant, relevance of these environmental services also for e.g. international hotel chains, international tour operators or airlines. This argumentation is supported by Wertz-Kanounnikoff & Rankine (2008) who also denote the overall tourism sector to be a major beneficiary of forest environmental services. Thinking beyond the scope of this thesis and of the tourism industry in general, it should not be neglected that the sector of course also strongly relies on the other two forest ES; whereby watershed services are highly relevant for the provision of (great amounts of) clean water and carbon sequestration in terms of the additional CO_2 emissions caused through air travel. Despite this obviously important role of all four forest environmental services for tourism, only the latter has already received considerable attention in so-called carbon offset projects[15]. For scenic beauty and biodiversity few user-led PES schemes exist and most tourism businesses are 'free-riding' on conservations efforts of NGOs or governments. Landell-Mills & Porras (2002:155) support this accusation and make a clear point in stating that "as governments' ability to subsidize the ecotourism business declines, new pressures for payment by tour operators have emerged". The use of the term 'subsidize' in this context points to the fact that PES can be seen as an opportunity for the tourism industry to take accountability for its own actions and needs.

A literature review confirmed that on the one hand much PES literature mentions tourism as an important factor, but few cases exist where a PES scheme actually receives money from tourism incomes. Notably also, and sometimes somewhat confusing, tourism and recreation are in some PES literature interchangeably listed with other ecosystem *services* itself. In order to facilitate a clear and unambiguous use Figure 9 presents based on readings and field work experience, a suggestion how key terminologies and concepts relevant for tourism-related PES can (and will in this thesis) be used.

[14] The International Ecotourism Society (TIES), http://www.ecotourism.org [28.01.2011]

[15] For readings on the relation of tourism and carbon offsetting see e.g. Bens (2010) or Gössling (2011).

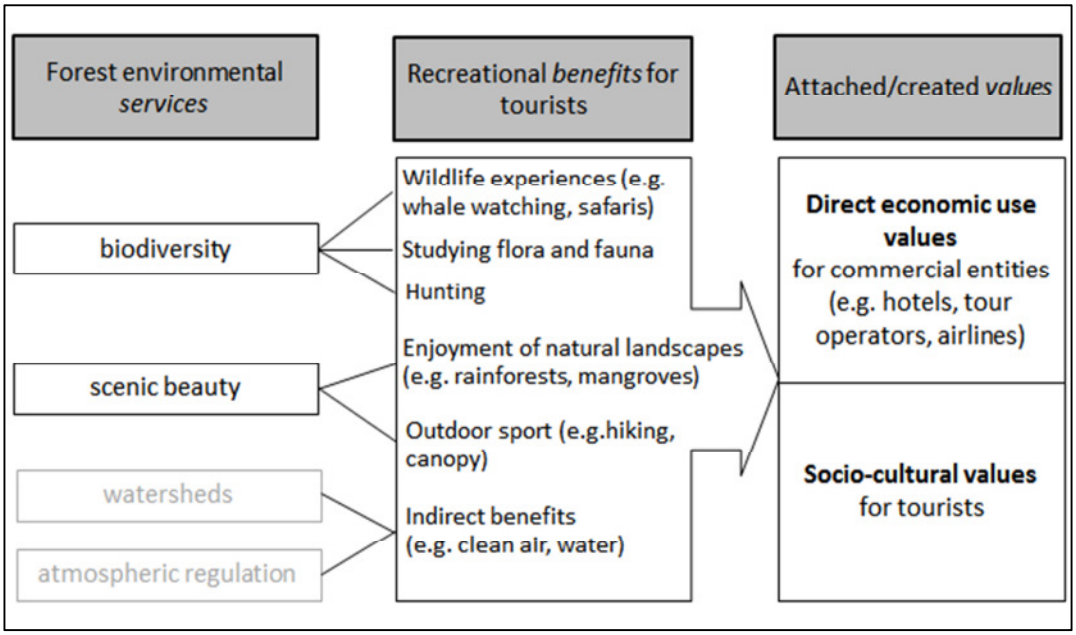

Figure 9: Key concepts for PES from ecotourism (note: listed benefits are not exhaustive)

What comes clear from this delineation is that biodiversity and scenic beauty are the two ES that provide direct socio-cultural values to tourists in form of recreation. In terms of tourism, travellers and visitors are willing to pay for these experiences to commercial entities who offer necessary facilities and services. I intentionally use 'offer' instead of 'provide', as this term is in the PES terminology reserved for land owners (i.e. local farmers/residents living in the visited areas) who are, by means of forest conservation, ultimately responsible for the provision of the actual *environmental service* in question. The phenomenon of tourism thus creates different value types for two different actor groups: a direct economic use value of ES for commercial entities and direct socio-cultural values of ES for the individual tourists. As described in the introductory chapter on the PES concept, values are subjective and depend on the different perspectives. Possible conflicting socio-cultural values are also reflected in the figure as e.g. one person may value hunting animals while others appreciate seeing and photographing animals in their natural habitat.

In terms of PES, especially the economic use value of commercial entities is relevant as it provides the rationale for encouraging the industry to integrate externalities. Putting it in PES terminology, tourism could thus be termed as a mechanism to maintain ecosystem services - but not as an ecosystem service itself. Biénabe & Hearne (2006:430) also point to the fact that "both biodiversity conservation and scenic beauty are especially difficult to properly characterize and delineate", therefore also the list given in Figure 9 should be handled with care and makes no claim to be complete but serves the purpose of clarifying the PES-rationale for tourism. Furthermore, in existing PES schemes the ES scenic beauty or biodiversity are – if included at all - hardly ever considered as single environmental services, but bundled with payments for watershed or carbon sequestration (Zellmer 2010). Such bundling refers to the practice that payments for watershed functions (e.g. by hydro power plants) or payments for carbon sequestration (e.g. by airline companies) are bundled and directed into the same fund and from there dispersed to the land owners. Bundling might also make sense for conservation purposes, as a situation can be imagined where instead of only focusing on high carbon sequestration, giving the ES scenic beauty and biodiversity more importance might also increase conservation successes. This is based on the premise that re-planted forests may serve well for carbon sequestration and watershed services but primary forests are likely to have higher biodiversity values (MEA 2005). In terms of tourism-related PES it can be suggested - but is subject to further research - that in the tropics natural forests are also likely to provide for a higher scenic beauty value as well.

It comes clear again that as current economic practices fail to make the above displayed connection between environmental services, its direct economic values (and its local providers), nature degradation is likely to continue. Individual land stewards who make economic decision are likely to choose to use their forest lands for economically viable activities (e.g. timber production, slash and burn agriculture); thereby endangering the existence of intact natural landscapes and biodiversity on which also (eco)tourism highly depends. Tourism as a high potential and responsibility to contribute to PES schemes which upgrades the value of ES in a land stewards economic decision. Having explained the central concepts relevant for tourism-related PES, the following chapter takes a next step in looking closer at possible implications of key PES terminologies which are inevitably used also for tourism-related PES arrangements.

4.1 Terminological discourses

A discussion on terminologies is relevant as the use of certain terms can trigger different political and ideological associations, which in turn influence how PES schemes are received by certain stakeholders and especially local residents. This chapter thus identifies possible implications that can be derived from the use of different terms – an important issue for any future tourism-related PES scheme, as according to Wunder (2005), the use of certain terminology can even influence whether the PES mechanism is implemented or not.

4.1.1 The 'P': Payments or Rewards?

The basic idea of PES schemes is to recognize the role and importance of rural land owners in providing environmental services and thus in conserving forest areas. Theoretically, recognizing 'something' can be done in many different ways:

- financial (e.g. cash, granting credit, tax abatements, higher prices for products); or,
- in-kind (e.g. official land rights, seedlings, education, training, social prestige, technical equipment, have more of a say)

Traditionally, the term *payment* for environmental services has established itself and originally refers to monetary transactions that are to be made to ES providers. However, as Chapter 2.1.3 showed, different actors using different PES criteria also adapt fundamental PES terminologies. Returning to these introductory critical comments on the neo-liberal nature of the PES concept and the poverty dimension shows how the term '*payments*' is slowly being replaced by the term 'rewards'. It can thereby be said that advocates focusing on effectiveness and efficiency of market-based mechanisms for solving environmental problems prefer to use the economic term 'payments', while advocates of fairness and equity dimensions tend to use the broader concept of 'rewards' (RES). What comes clear is an important iterative process where experiences on the ground shaped collective use of terminologies and which are likely to in turn determine future implementations. Those actors not familiar with the concept and hearing the term for the first time (i.e. local farmers) are according to van Noordwijk & Leimona (2010) likely to have differing associations: the term 'rewards' is found to emphasize the co-responsibility of farmers, while the term 'payments' is much more likely to trigger further economic interests of farmers. These considerations should especially be taken into account when a tourism-related PES scheme is newly introduced to remote areas.

4.1.2 The 'E': environmental or ecosystem services?

The concept 'payments for *environmental* services' is in the literature - and even more so in the praxis - inter-exchangeable used with 'payments for *ecosystem* services'. As opposed to the discussion above the differences seem to be much less explosive. According to Swallow *et al.* (2009) the main difference is the inclusion or exclusion of provisioning services (i.e. food, fiber, timber)

which are included when using the term ecosystem services and for which markets develop most readily. As opposed to, *environmental* services which usually mainly refer to the broader concept of regulating, supporting and cultural services and which are neglected in traditional market systems (ibid.). Taking this distinction as a point of departure it can in terms of tourism-related PES be suggested to preferably use the term 'environmental services'.

However, in Viet Nam many translations of policy documents and articles on PES use both, the term 'environmental' and 'ecosystem'. Additionally, interviewees confirmed the inter-exchangeable use of the term, and considered it not relevant for implementation. Therefore, and for consistency, I will stick to the use of environmental services.

4.1.3 The 'S': landscape beauty, scenic beauty or aesthetic landscape?

The 'S'-discussion is in this context used to elaborate on the issue of the differential use of 'landscape beauty', 'scenic beauty' or 'aesthetic landscape' – all of which are used across the literature to describe this forest ES most relevant in terms of recreational benefits. Based on the literature review, the term 'landscape beauty' is the most commonly used in articles, PES policies and project documents. Followed by 'scenic beauty' and occasionally 'aesthetic landscapes' or 'landscape aesthetics'. Although in the praxis no serious problems with this terminology have been documented, it might still be relevant to give these terms some thoughts as tourism-related PES schemes may gain in importance and attention in the future.

In the context of establishing pro-poor PES from tourism in tropical countries, eventually with a colonial past, the term 'landscape beauty' may trigger associations with neo-colonial concepts[16]. But potential future discussions concerning this issue are likely to be relevant rather for scholarly debates than on the ground praxis. Furthermore, 'aesthetic landscapes' or 'landscape aesthetics' are both terms that stand for different concepts elsewhere, e.g. in architecture and might cause confusion. In the forthcoming I therefore prefer to use the term 'scenic beauty' for two reasons: (1) it seems to be the least controversial of the terms at hand (2) it seems to best incorporate the cognitive values inherit in this environmental service, as "in shapes scenic beauty strikes us as magnificent, mysterious, grotesque, precarious, tranquil, secluded or elegant" (Quote from an Asian travel website[17]). It is hereby no coincidence that the quote is taken from an Asian website. It is done also to carefully debilitate above mentioned neo-colonialist criticism where preservation of 'landscape beauty' is equated with wilderness preservation; a very American-European idea (Neefjes 2000). It might be different elsewhere, but in Asia tourism is no longer dominated by western tourists as a great numbers of Asians travel within or to neighboring countries. Winter (2009), as an example of this discourse, gives a recent account of these discussions in 'Asian tourism and the retreat of Anglo-western centrism in tourism theory'. Although of course different conceptualizations of 'beauty' remain, presenting 'landscape beauty' as a purely westernized concept that is introduced to a country is a too simplistic critique of the term. Furthermore, and importantly, the line of argumentation in PES goes much further than the 'wilderness' idea as it clearly emphasizes the overall life supporting benefits of nature.

Concerning the discussions on biodiversity services, it is not so much the term that is disputed, but the measurement and conversion into so-called 'tradable equivalency units' and indicators for measurement (Milder *et al.* 2010). This problem is of course prevalent for all ES, but especially difficult to pin-point for both biodiversity and scenic beauty. The term 'tradable equivalency units' obviously subscribes to economic processes. However, as argued before, this study (as many other recent writings in this field) is not taking such a purely economic approach where the goal is to

[16] For renowned elaborations on tourism and post/neo-colonialism see e.g. Hall & Tucker (2004).
[17] http://www.chinavoc.com/travel/beprepaired/natural_s.asp [Accessed March, 25th 2011]

establish a pure functional 'market' for ES. Nevertheless, it is essential for monitoring to have indicators for evaluating the (changing) condition of a plot of land or forest area, therefore Table 2 shows examples of monitoring indicators for these two services:

Table 2: Examples of monitoring indicators for biodiversity and scenic beauty (Source: FAO 2011)

Environmental Services	Service Attributes	State indicator
Biodiversity	• Wildlife and nursery habitats	• Resident and endemic species (number) • Surface area per ecosystem type (ha)
Aesthetic and recreational services	• Landscape quality and features	• Stated appreciation • Recreational value (e.g. entrance fees (US$/visit) • Houses on lakeshore (number/km) • Visitors (number/year)

4.2 Demarcating tourism-related PES: a review of existing initiatives

An extensive review of PES literature as well as literature concerned with tourism and its potential for nature conservation and poverty alleviation showed that several accounts of PES-*like* schemes relating to tourism have been documented, but only very few 'true' PES schemes as such. In this context, functioning PES schemes in Costa Rica are the most relevant to mention; both due to its importance as a leading ecotourism destination and because it was one of the first countries to adopt PES schemes back in the 1990s (McNeely 2009). In one example from Costa Rica, several hotels take part in a PES scheme for watershed protection. For watershed services there is a close link between payment and service delivery and obviously the tourism sector depends on high quality and quantity of water. Therefore, since 2005 several hotels annually pay 45 US$ per hectare to local landholders and 7% of the scheme´s administrative costs (Pagiola 2008). However, also in Costa Rica "no generally accepted payment mechanism based on benefits people obtain from the provision of scenic beauty and biodiversity conservation had been developed" (Biénabe & Hearne 2006:337). In an analysis of these Costa Rican schemes, Zellmer (2010) attributes this absence to the intangible nature of biodiversity and scenic beauty compared to the rather tangible nature of watershed services. Relating to this, Pagiola (2008) finds the cause to be the high fragmentation of (scenic) landscape 'users', i.e. geographical dispersion of tourists and tour companies compared to easily identifiable water users, i.e. households, factories and hotels located in one specific area.

So far the most thorough account of what the authors call 'markets for landscape beauty' has probably been given by Landell-Mills & Porras (2002), who attested these markets great potential for contributions to nature conservation. It seems, however, that the focus of this study was more on general markets than actual PES schemes, which led to the integration of several tourism projects that would not fall under the PES concept as introduced above due to a lack of a contract between provider (groups) and beneficiary (groups) and no clear conditionality of the payments. Nevertheless, the study has provided a worthy basis which informed initial thoughts about the PES/tourism relation, which is visualized in Figure 10.

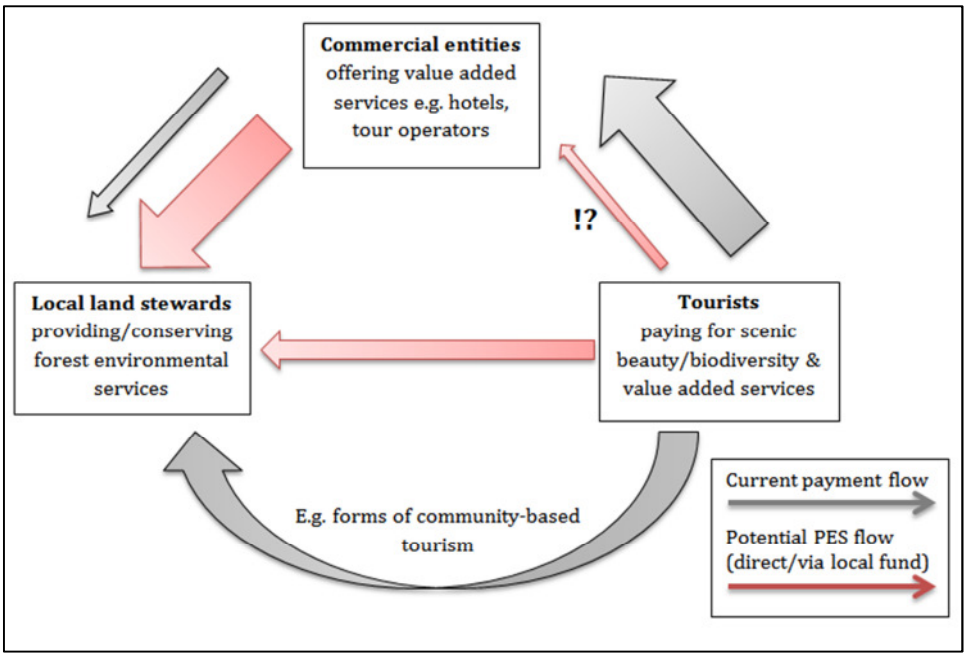

Figure 10: PES and tourism – a rough sketch (based on Landell-Mills & Porras 2002)

The different-sized grey arrows show the unbalanced flow of payments in the current tourism supply chain, where payments for scenic beauty/biodiversity tend to be embedded within the payment to commercial entities (Landell-Mills & Porras 2002). It is termed unbalanced because the majority of the payment from tourist paying for value-added services and scenic beauty/biodiversity, usually stays with the intermediary actors ('commercial entities') and is not passed on to those providing scenic beauty/biodiversity services. In some tourism arrangements, most notably in forms of community-based tourism, there is already a direct flow of payments between the visitors and local residents. The red arrows present the flow of potential PES payments when these are introduced to the current supply chain. Obviously, these payments are supposed to come foremost from commercial entities, who will usually also be the ones entering in a contractual PES agreement with local provider (groups). What might happen, however, is that commercial entities integrate the payments into their production costs and thereby thus pass on the PES-payments in form of higher prices to the end-user, i.e. the tourists (for discussion see Chapter 4.3.2). Cases of direct PES agreements between the provider and the tourist are also possible, but not very common. An example of an arrangement that has similarities with PES and where individuals obviously act as direct buyers has been identified by Zellmer (2010): the WWF program 'Adopt wildlife' offers individuals (most probably in western countries) the option to 'adopt' an animal or area of land in Africa, whereby the money paid for the adoption is claimed to be invested in the conservation. While in this case the beneficiary dimension can be compared to PES in the sense that it assigns a monetary value to biodiversity conservation and scenic beauty, it is unclear if and how local land holders, the actual providers of both, are involved in the arrangement. What is interesting about this scheme is the fact that the end-user (i.e. the tourist) acts as the direct contracting partner. Apart from this example some other PES-*like* existing arrangements where tourism (is thought to) contribute to conservation will be discussed.

4.2.1 Entrance fees to protected areas – a PES arrangement?

Up to now entrance fees to protected areas are probably the most common mechanism to directly generate funding for conservation through tourism. In theory, entrance fees can be seen as payments charged for the access to scenic beauty and biodiversity. In these cases the payment is much more directly associated with the ES in question than when paying for the provision of added services, e.g. tour guides or accommodation and it may stand to reason that in such cases entrance fees are an efficient mechanism expressing the willingness to pay for the provision of ES. But a

closer look at the different PES criteria reveals important differences: (1) mostly no significant proportion of park revenues is passed on to the local adjacent communities and (2) if payments or in-kind rewards are made, e.g. in terms of tourism revenue sharing programs, they are not linked to a clear conditionality criteria; which is a key characteristic of any PES arrangement. The fact that especially the criterion of conditionality is very relevant has been confirmed also in a study in Tanzania where national park revenues were spent in villages for community projects designed to generate local support for conservation. These investments did however "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" (Nelson *et al.* 2010:84).

At this point it is furthermore crucial to mention that PES schemes are of course not bound to protected areas. On the contrary; they are often seen as a way to also encourage nature conservation outside strictly controlled zones. Depending on the location of the scheme, the content of the contract will vary from strict conservation to sustainable use. According to Hoang *et al*. (2009), in and around protected areas where communities relying on natural resources for their livelihood are often faced with restrictive or prohibited use of forest areas PES is thought to have strong potential for mitigation the poverty-environment conflicts.

4.2.2 Community-based tourism - a PES arrangement?

Coming with the call for integrated development and conservation approaches has been a plethora of so-called community-based tourism (CBT) projects which are supposed to create alternative livelihood options and re-direct people's actions away from nature degrading activities. This overall conceptual aim has on the ground led to the emergence of different institutional arrangements that all use tourism in different ways. Especially the review of ES markets by Landell-Mills & Porras (2002:162) considers different CBT arrangements where "by developing their own tourism operations, local land stewards seek to bypass tour operators to capture willingness to pay for landscape beauty directly". Such a comparison with CBT did make sense in this case, as the authors dealt with the different institutional arrangements for the development of local 'markets for landscape beauty'. However, their study did not yet focus on PES arrangements as defined by Wunder (2005) and therefore lacks the PES typical dimensions of requiring contracts that stipulate the conditionality of payments. The fact that CBT arrangements as such have in the African context been classified by van der Duim (2011) into seven different categories[18] shows how complex and diverse CBT can be in itself. An in Namibia increasingly common form of CBT are so-called community conservancies where the communities form an institutionalized organization which "has a constitution, registered members, a committee and locally-agreed boundaries, to which the Namibian government devolves conditional consumptive and non-consumptive rights of use over the existing wildlife" (van der Duim 2011:15). In the case of direct negotiations, these rights are then in turn by lodge owners or tour operators 'purchased' from the community. There are also intermediary based CBT arrangements, where a local NGOs or international conservation organizations act as a third entity in-between the community and the tourism business. Such arrangements can, if the partner has a clear conservation mandate, be very similar to the institutional arrangement of a PES scheme as conditionality and monitoring can be stipulated in a contract and monitored by the third entity.

Apart from Landell-Mills & Porras (2002) two case studies from Africa have been found which also compare existing CBT programs to PES (no account of PES-like schemes related to tourism in Asia has been found). The recent case study by Nelson *et al.* (2010) considers a program in Tanzania which has intentionally been set up as a PES arrangement and where a consortium of 5 tourism companies has entered a contract with a local pastoralist village to conserve a key wildlife

[18] Categorized according to land ownership and management responsibility for resources as well as tourism (van der Duim 2011).

area in exchange for annual financial payments (for a detailed description of the case see Appendix E). Looking at the substance of this arrangement a clear PES discourse and terminologies are apparent and mark the point of departure (Nelson *et al.* 2010:82):

> *"Wildlife management in northern Tanzania suffers from a market failure whereby wildlife is economically valuable through commercial activities at the national level, but local communities lack rights to manage and benefit from wildlife. Consequently, villagers also lack sufficient incentives to support conservation and their actions and choices lead to wildlife declines, which is economically rational at the local scale ... Hence, the market as it is currently structured has failed to generate incentives for sustainable production of wildlife as a valued ecosystem service on community lands".*

Using the PES approach has of course influenced the program's organizational aspects; in the sense that there is a management board taking on the role as an intermediary between individual farmers (the provider of ES), the rangers (those who monitor) and the tour companies (direct beneficiaries). Furthermore, it oversees the use of the fund into which the consortium of tourism companies transfers the PES-payments. The fact that the village council has initiated a court against a farmer not adhering to the agreed land use change, shows how informal PES criteria of conditionality has been translated into formal regulations supported by law. The authors furthermore mention that certain farming activities were "explicitly allowed to continue because all parties agreed that such uses did not conflict with wildlife conservation objectives" (Nelson *et al.* 2010:83); which is the result of direct negotiations between the providers and beneficiaries for contract design. An interesting, and innovative key feature of this arrangement, is also the fact that "tour operators are paying for land in which they have no direct commercial interests, but which is still indirectly of value to their businesses as a result of the land's importance for wildlife" (ibid.: 79). In a concluding remark, the authors ascertain that PES negotiations have the potential to facilitate new collaborations and common ground in conflicts between community livelihood interests and conservation goals; mainly because the concepts provides a clear rationale and explanation why conservation of environmental services can be of advantage for the villagers.

The second case concerns the renowned CAMPFIRE program in Zimbabwe, which has in a former study by Frost & Bond (2008) been compared to PES arrangements due to its PES-like working mechanisms. As opposed to the case in Northern Tanzania the underlying philosophy of the CAMPFIRE program departs from the 'community conservation' paradigm but Frost & Bond (2008) attest its working mechanisms some key features of PES arrangements, whereby the main differences between CAMPFIRE and PES criteria have identified to be (Frost & Bond 2008):

a. Payments to groups/households are not fully *conditional* on implementing the agreed land use changes
b. Especially at household level participation in CAMPFIRE has not always been voluntary. They are largely involuntary participants in a much larger process
c. The objectives of CAMPFIRE are broader than the ideal PES transaction, which is purely concerned with securing the delivery of an environmental service through payments.

In a different study, Bond *et al.* (2009) state that the CAMPFIRE program strongly encouraged direct payments to households on the basis that they created the most tangible and direct link between people and wildlife. However, this could only be done in a very limited number of communities. Mostly the annual payments were made either to villages or ward CAMPFIRE committees who then used the revenue on behalf of the residents for other in-kind benefits, such as schools, clinics or irrigation pumps. This sheds light on another important discussion in the PES arena, namely in how far the allocation of payments can or cannot go directly to land holders. Many PES initiatives for carbon or watershed elsewhere also struggle with the feasibility of payment allocation to individuals. Paying individual smallholders, especially poor households, requires them to have clear

legal land rights – a situation that is hard to find in the reality of developing countries. Therefore, especially in terms of RES projects, it has come to be accepted that PES payments flow into a village fund that invests on behalf of the villagers. Although Frost & Bond (2008:778) state that CAMPFIRE fits best into the "PES concept of payments for landscape beauty" it seems to be biodiversity services (i.e. wildlife viewing, hunting) which received the most attention in program implementation.

Both case studies show that concerning the working mechanism, substantial and organizational similarities to PES arrangements exist. The crucial point that distinguishes PES from CBT - and which is also likely to be responsible for an eventual lack of effectiveness – is the conditionality criterion and often also the existence of a contract that stipulates the rights and responsibilities of both, providers as well as beneficiaries. Not for nothing this has been described by Wunder (2005) as the most innovative feature of PES vis-à-vis traditional conservation programs. Besides this key issue, it has come clear that any PES arrangement needs to develop the necessary institutions for managing payments, monitoring and enforcement; it needs to address issues of property rights and land tenure, ensure transfer of informal rules into administrative and judicial processes and provide education and training on the PES concept and contract negotiations.

This chapter thus compared PES schemes with similar existing institutional arrangements that use returns from tourism to finance conservation. On the one hand, this makes sense in order to gain insight into the detailed working mechanism of tourism-related PES schemes and where Nelson *et al.*'s (2010) and Frost & Bond's (2008) efforts of delineating the respective CBT programs to PES were particularly helpful. On the other hand, however, this delineation of PES and CBT harbors the risk of limiting the discussion on PES from tourism to such small-scale tourism programs. Creating this impression should be avoided as PES schemes inherit a particular potential to hold large-scale mainstream and high-end tourism accountable. Thereby the PES's ideological approach plays an explicitly important role as the PES paradigm incorporates a broader critique of the undervaluation of the benefits that respective stakeholders derive from the continuous provision of environmental services. Emphasizing this entrance point has the potential for creating long-term user-led financing of conservation. A way to organize the thinking about this and other above discussed issues around tourism-related PES is proposed in the forthcoming chapter.

4.3 Implications for the design of tourism-related PES

Based on the elaborations above, four main actor groups can be identified; namely providers, beneficiaries, intermediaries and facilitators. Most literature uses only the term 'intermediaries' for interchangeably referring to what is here split into 'intermediaries' and 'facilitators'. I explicitly make this distinction in order to point to the fact that the term **intermediaries** as it is used here refers to those actors who are an integral part of PES during the lifetime the scheme; i.e. local organizations or cooperatives, trust funds, management boards. Typical intermediaries are e.g. the entities that receive the payment from the beneficiaries and re-distribute it to the providers according to the PES contracts. If, thus, e.g. international organizations take on the role of this form of intermediary problems are likely to arise as these organizations usually have a limited project timeline. Therefore, it is important to either newly create special management boards (as it was the case in Tanzania) consisting of different *local* entities or if it exists assign an appropriate local organization or cooperative to take over this role. These intermediaries are accompanied by another actor group, who are here referred to as **facilitators**. Most commonly these will be e.g. international organizations that provide assistance in the design phase of the scheme, or the government who regulates and provides the legal basis for PES. The facilitator is especially in the initial phase relevant for assistance in scheme design but can also play a role later in terms of ensuring transparency of the scheme. It can thus be said that intermediaries and facilitators provide for an enabling environment for the contractual arrangement between providers and beneficiaries of ES.

The following Figure 11 visualizes these actor constellations, whereby the different colors point to the distinction of three main dimensions.

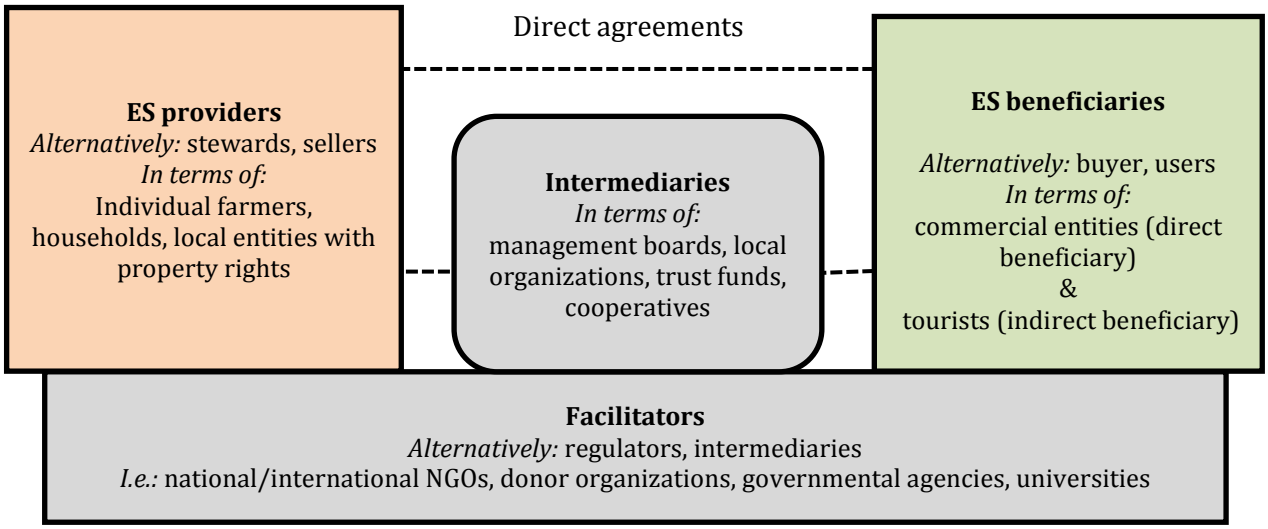

Figure 11: Relevant actors and actor constellations within a PES arrangement

Organizing the thinking about tourism-related PES into a provider dimension, beneficiary dimension and the enabling environment also helps to place the dilemma of the above CBT/PES discussion. This delineation gave detailed insight into characteristics of the provider dimension and the enabling environment, while the beneficiary dimension decides upon which type of commercial entity (e.g. CBT entities or international hotel chains) is integrated in the scheme.

Figure 11 also indicates the case of direct agreements, where the contract and financial payments are negotiated and transferred directly from the beneficiary to the provider. In terms of tourism-related PES schemes this would mean that the tour operator directly enters in a contract with a landholder, and importantly, directly delivers the reward (i.e. cash or in-kind) to the provider. Without the intermediary entity however, the monitoring of conditionality can pose a challenge. Having introduced this figure, it is important to acknowledge that neither the providers nor beneficiaries are to be seen as homogenous groups and in line with this the beneficiary dimension has already been divided into directly, economically benefitting commercial entities (i.e. ranging from small homestay owners to international hotel chains or tour operators) and tourists, who are in this context in the position of an indirect beneficiary. Before going deeper into a discussion of the beneficiary dimension, attention will be paid to important PES-characteristics of the provider dimensions.

4.3.1 Provider dimensions

As a first step relevant providers for scenic beauty/biodiversity need to be identified. The way to **identify relevant providers** is by looking at local poverty-environment relations and by identifying land use practices that countervail the provision of the ES in question. A next logic step comes to assessing the type of land use change that is necessary for improving ES provision. As learned from the PES scheme in Northern Tanzania it is thereby important to critically assess which existing land uses might be compatible with the conservation of biodiversity or scenic beauty. This particular PES scheme was considered so successful also because it found a way to formally safeguard some of the community´s existing land-use practices and concerns (Nelson *et al.* 2010).

The type and amount of payment that is necessary for farmers to adopt the necessary land use changes is commonly referred to in terms of **opportunity costs** (Wunder 2007) or the **willingness to accept (WTA)** the required land use change (Farley & Costanza 2010). The amount

should be high enough to be a real alternative to what would be gained with current, harmful, land uses (i.e. logging, hunting and other exploitative activities). This amount of course varies from locality to locality and needs to be assessed carefully, thorough e.g. rural appraisal methods as used by ICRAF (Hoang *et al.* 2009). Instead of strictly calculating the full economic value of the service itself, it is more realistic and helpful to have a clear idea about the opportunity costs of provider's conservation or restoration efforts (Wunder 2008). Defining what is needed for a farmer to induce a land use change cannot be a straightforward process, as land holders will of course seek the maximum level of payment if asked directly what is needed to compensate what is lost. Lately, the method of reverse auctioning (RA) has increasingly been used and gained popularity as a fair and transparent method for deciding the amount of payment (Rohit Jindal, personal communication)[19]. In short, RA invites several land holders to submit their bids (price/hectare/year) at which they are willing to enter into an ES contract. Bids are then accepted, starting with the lowest, until the budget is exhausted or the conservation target is met. Usually there are two rounds, in order to give farmers a possibility to re-adjust their bid. Training is provided beforehand in order to ensure a right understanding of the methods and involve poor farmers as well. The transparency of RA is said to avoid the manipulation of contract prices by providers. Some variants of PA also incorporate the value of the land parcel in the price setting i.e. primary/secondary forest; this is referred to as the K-factor. For further readings on this, reverse auctions or general assessments of opportunity costs see e.g. Hoang *et al.* (2009) or Zilberman *et al.* (2008). As learned from the PES scheme in Northern Tanzania relatively low opportunity costs can also be pivotal for the success of the scheme. In this particular case, the low opportunity costs could be traced back to the fact that existing land uses were recognized as being compatible with wildlife existence.

A third important characteristic of the provider dimension is the local framework for **land tenure** and village governance. Originally, 'strict' PES schemes were thought to deliver payments directly to land owners. As with CBT, problems of implementing PES in less developed countries have also often been traced back to unclear land rights (see e.g. Bulte *et al.* 2008a; Milder *et al.* 2010). In many countries, the land tenure system is unclear or under process; meaning that the allocation of land to individuals is in its early stages. Case studies from Asia reviewed by Leimona *et al.* (2009) showed that farmers are often worried about the government or influential companies taking their land rights away in the future (again). Such insecure land rights can lead to opportunistic use of resources (Frost & Bond 2008) and thus contravene PES intentions. The issue of unclear land rights has been one of the major reasons leading to the re-consideration of the strict PES criteria. In cases where land rights are unclear, practitioners have switched to using groups of farmers, villages or communities as the ones receiving the payments. In Tanzania for example, where villages or communities have a clear statutory and corporate form, they have the formal rights to be the contracting party on behalf of the individual farmers (Nelson *et al.* 2010).

Fourthly, there is the question of defining the **type of payment**. Generally, payments or rewards can either be monetary or in-kind; whereby monetary refers to cash money, transfers to a bank accounts,. exemptions from land-based taxes for those who adopt land changes, In-kind rewards can e.g. be the provision of tree seedlings, increased human and social capital through trainings and the establishment of supportive local institutions, strengthened tenure security, or various other types of recognition from government, or even infrastructural investments such as schools. Clearly, such in-kind benefits relate more to the programs using the language of 'rewards' for ES instead of PES. It is frequently reported from case studies in Latin America and Asia that especially in a context of poverty, participants have expressed preferences for non-financial benefits (Leimona *et al.* 2009; Porras *et al.* 2008). While in-kind rewards can be seen as the core agreement in a contract, they are often also seen as important 'co-benefits' *additional* to monetary payments. In

[19] ICRAF workshop April, 30th 2011, Hanoi

favor of in-kind benefits is e.g. the argument that they have the potential to "provide welfare at a collective action level that an individual would not be able to buy with cash in hand" (Leimona *et al.* 2009:87), furthermore in some contexts cash payments can be confused with a payment from a (powerful) entity that is buying the land itself (FAO 2011). On the other hand, and as mentioned above in terms of the program in Ecuador's Cuyabeno Wildlife Reserve, if rewards are made in-kind, it may be more difficult to ensure conditionality (Neef & Thomas 2009); e.g. once a school is build it would be unreasonable to destroy it again because some farmers did not adhere to the agreed contract. These are just some examples of the discussion on pros and cons of different types of payments. The case study in Viet Nam will shed more light on this when assessing how PES schemes can affect the different livelihood assets (Chapter 6).

A fifth issue to mention is the importance of local land stewards being already **familiar with the tour operators.** This has become apparent in the case in Northern Tanzania, where the community's familiarity with tourism businesses "made the easement proposal easily understandable in a legal and contractual sense and helped allay possible community fears about external agendas for wildlife conservation" (Nelson *et al.* 2010:12). In other words, the familiarity with tour operators ensured certain levels of trust which are relevant for contract negotiations between the providers and the beneficiaries.

4.3.2 Beneficiary dimensions

A PES approach requires **identifying beneficiaries** who benefit most from the provision of certain environmental services; now and in the future. It has come clear from the above that the demand side has direct and indirect beneficiaries: commercial entities and individual tourists, respectively. These two actor groups benefit in different ways; commercial entities make private profit (direct economic value of ES), while tourists spend this money for enjoyment (socio-cultural value of ES). When integrating tourism in PES schemes crucial decisions are to be made on which type of beneficiaries should and can be envisaged and as mentioned before one should look beyond the scope of CBT or small scale nature-based tourism and select sites where high end or mainstream commercial entities can be integrated in the scheme. Some airline companies are already paying for the provision of ES in terms of carbon compensation projects that invest in reforestation. So far not integrated in PES schemes are tour operators, (luxury) hotels and resorts which are located in natural areas and who certainly are beneficiaries of ES and thus important potential payers.

Once beneficiaries have been identified PES literature emphasizes the assessment of the beneficiary's **willingness to pay** (WTP) for the provision of ES. In terms of tourism-related PES a distinction should be made between the WTP of commercial entities and WTP of individual tourists. The tourists WTP for the direct (present) use value is obviously apparent in the fact that money is spend for recreational purposes in natural areas providing the ES in question. Access rights and hunting permits are seen to be the most direct method for capturing the WTP of the individual for scenic beauty and biodiversity. Landell-Mills and Porras (2002) note that looking at package tours makes it more complicated as scenic beauty and biodiversity are sold as part of a broader payment for recreational activities that includes value added services, such as accommodation and tour guides. This also still relates to WTP for direct use values where the ES are immediately 'consumed', while the question to address in PES schemes should rather be in how far the individual is willing to pay for future ES provision; i.e. the option, bequest and existence value. These dimensions have been addressed in case studies in Costa Rica and use methods such as individual preference and choice models (Biénabe & Hearne 2006). Interestingly, in this study, Biénabe & Hearne (2006:345) discovered that "there is a higher WTP for PESs that favor nature conservation in remote areas as opposed to PES that favor accessible areas. This demonstrates a commitment to nature conservation for its own sake and support the idea of a significant existence value assigned to Costa Rican tropical forests." The study thus generally concluded that tourists show a great WTP for future ES provision.

However, they also concluded that in some cases it might be better to make spatial differentiations between *accessible* areas more relevant for scenic beauty and more *remote* areas focused on biodiversity protection (Biénabe & Hearne 2006:340). Thus, while both of these ES are obviously relevant for many tourism activities it makes sense to assess clearly which area does indeed support attributes for biodiversity conservation benefits and/or scenic beauty benefits. This is relevant when communicating the PES rationale to tourists in order to tap into their willingness to pay as asking for payments for biodiversity in an area with little biodiversity values may not necessarily add to the credibility of the scheme.

Addressing the WTP of commercial entities should emphasize the underlying rationale of the PES concept which proves that investing in provision of ES saves cost in the long run; it minimizes the risk of having to paying for caused damage afterwards and increases the chances for future existence of the business as the environment they depend on is conserved. Tackling the problem of the free-rider mentality, however, means a fundamental change in current economic thinking and is doomed to be a long-term concern that will more often than not still be outpaced by individual short-term economic interest. Therefore, as we are still at an early stage of PES development, this line of argumentation can be supported – but not replaced - by the obviously changing behavior of consumers who increasingly demand more environmental responsibility of companies (UNEP 2011) and, as mentioned, increasingly demand travel to natural areas. Looking at it from a commercial perspective, conserving those natural areas would thus open up new business opportunities as well. The jury is still out to judge in how far commercial entities can be convinced of their need to pay for ES provision, especially as other entities such as governments and NGOs back out. In the two African cases discussed above it seems that tour agencies are willing to pay for the provision of the service. However, one important aspect has not been mentioned in the study of Nelson *et al.* (2010), namely in how far these commercial entities in turn pass on the cost of PES to the tourist in form of higher ticket or tour prices. This issue needs clear regulations in PES policies in order to prevent commercial entities from passing on an unbalanced share to individual tourists.

A third important issue especially for establishing tourism-related PES is the **communication strategy** towards beneficiaries. This refers to providing information to commercial entities as well as tourists about the rationale of the PES concept itself as well as about the working of the scheme. Clear communication is relevant in order to ensure transparency and appropriate use of PES funds, but also to raise environmental awareness of beneficiaries about the benefits that are usually self-evidently obtained from nature. Importantly, comprehensive information on the PES concept may in turn also influence the future willingness to pay.

4.3.3 Enabling environment

An enabling environment basically refers to the existence or establishment of an appropriate institutional and administrative framework for PES. According to Ferraro (2001), supportive policies, regulations, and organizations are decisive for success or failure of PES schemes. In the establishment of this framework, transparency should be seen as a key factor for maintaining credibility of PES mechanism. In line with this, Neef & Thomas (2009) note that a lack of trust between potential buyers and providers of ES is one of the most constraining factors in setting up PES schemes. High trust levels, as in the case in Northern Tanzania, can thereby not be taken for granted; usually they need to be gradually built up during design of PES schemes (ibid).

In order to create an appropriate framework informal PES criteria need to be transferred into formal administrative and judicial processes. This may require efforts covering different administrative boundaries, from different scales and domains of the public sector (FAO 2011). In order to collect and distribute funds locally, administrative bodies need to be assigned or newly created. Especially in cases where villagers are not formally registered or cannot operate bank accounts these bodies are a necessary feature. In the above figure such features are referred to in

terms of **intermediaries**. Since PES schemes are still in their early stages, the enabling environment strongly depends on what has here been termed **facilitators**; entities that provide assistance, funding and technical advice in setting up and managing the scheme. There is of course a blurry boundary between what is called facilitator or an intermediary, and it can and should not be seen as a strict distinction. There is, however, one essential point that justifies the distinction and which refers to the length of the engagement: facilitators are likely to have a temporary interest or mandate for the PES arrangement, while intermediaries are seen as an integral part of the PES scheme itself. In this sense it is essential for choosing intermediaries that are impartial and trusted by providers as well as beneficiaries; such management boards (as in the case of Tanzania) should always strive to include representatives of both, the provider dimension as well as the beneficiary dimension.

The criterion that has in the elaborations above again been identified as the core characteristic of PES is the **conditionality** of the payments. Importantly, conditionality concerns provider dimensions where the actual provision of the ES has to be secured; as well as beneficiary dimensions, where the actual flow of payments has to be secured. This requires reliable **monitoring of compliance** on both sides**.** Concerning monitoring, it is crucial to stipulate the expected changes of land uses and monitoring indicators in the formal contract to which the land steward agrees to comply. This contract forms the basis for continuous monitoring. Monitoring of compliance is the part referring to whether the required land use changes are actually made. But there is also another part of monitoring, as a PES scheme´s long-term survival depends on **environmental monitoring,** which observes if the land use change provides beneficiaries with the expected ES. The latter component of monitoring should rest on reliable scientific basis of land management options and ecosystem characteristics. While in complex schemes, monitoring uses geo-referenced satellite imagery, in smaller schemes this can be done through random field inspections (FAO 2011). No matter how clear the contract is, it is also important to be clear about the level of uncertainty that is remaining, i.e. direct causal relationships and time lags between land use change and actual improvement of the ES.

Obviously, such monitoring but also the creation or strengthening of administrative and institutional frameworks needs financial and human resources, commonly captured in the term **transaction costs** (TC). Literature mentions major TCs involved in PES to be e.g. costs of gaining information on ES providers and property rights, costs of stakeholder participation in negotiation processes, conflict management and costs of institutionalizing monitoring and enforcement (Leimona *et al.* 2009; Neef & Thomas 2009; Pham *et al.* 2008). These costs include monetary costs, as well as the value of time and labor spent for planning, coordination and motivation of stakeholders (Hoang *et al* 2009). TCs are central to the cost-efficiency (e.g. measured in TC per contract or per hectare) of PES schemes. Highest costs usually occur in the initial phase, e.g. for setting up adequate institutional arrangements, while subsequent years when the scheme is functioning require much lower costs. Thus, the more long-ranging a scheme, the more cost-efficient it is. However, and although average costs are decreasing over time, high TCs are according to Engel *et al.* (2008) still amongst the main constraints facing PES initiatives.

So far, a general concept for tourism-related PES has been discussed, focusing on PES being an effort to conserve important natural ecosystems. Throughout the world, however, a majority of the most bio-diverse and threatened lands are home to low-income and indigenous communities, who have been relying on these resources for their subsistence for many decades (Fisher *et al.* 2008;Milder *et al.* 2010; Neefjes 2000). The introduction of PES to these areas changes local livelihoods and as PES dynamics can strengthen or weaken conservation efforts they can also either reduce or intensify existing inequalities – a concern that will be done justice in the forthcoming chapter.

4.4 Poverty, PES and tourism

The complexity of local poverty-environment dynamics is often forgotten by those claiming the PES approach to be purely 'conservationist' (Wunder 2005). This critique and a societal discourse that makes the incorporation of poverty issues necessary to gain political legitimacy and civil society support for conservation (Fisher & Christopher 2007) led to the emergence of *pro-poor* PES schemes, as described in Chapter 2.1.3.. In short the amendment 'pro-poor' attests the program in question to be more sensitive to equity issues than 'conventional' PES initiatives. At a more general level, many debates concern the question in how far PES can still be an effective tool for nature conservation if poverty alleviation objectives are also included. After scientists have raised concern about moving away the focus of PES too far from conservation (Wunder *et al.* 2008) it seemed that the discursive development of PES was re-focusing on environmental conservation as the core element (Zellmer 2010). While this might be true for some cases, experiences in Viet Nam and interviews with international organizations, as well as the amount of recently published literature on PES and poverty, suggest differently (see e.g. Bulte *et al.* 2008a; Fagerstrom 2007; Landell-Mills & Porras 2002; Milder *et al.* 2010; Petheram & Campbell 2010; Pham *et al.* 2008; Wunder 2008; Wunder *et al.* 2008; Zilberman *et al.* 2008). Considering poverty aspects is especially also necessary in view of the upcoming case study on tourism-related PES in Viet Nam's northern mountains, a region where most smallholder farmers are economically, socially and politically marginalized. Therefore, some preliminary and general considerations are made in this chapter in order to ensure an appropriate focus on poverty aspect in the forthcoming analysis. From the perspective of tourism, PES could - especially in the context of developing countries - be seen as an effective way to channel income to disadvantages land holders without directly involving them in tourism activities. It can thereby be seen an interesting alternative to initiatives settling around pro-poor tourism or CBT – both domains that have been in strong critique because of possible negative socio-cultural impacts on remote communities (for an overview see e.g. de Haan & van der Duim 2008). As opposed to CBT integrating payments from tourism in PES, does not imply that tourism activities are immediately taking places in these villages (see Viet Nam case study).

Talking about PES automatically involves talking about local livelihoods and its many dimensions. Livelihoods are thereby defined as "the ways in which people make a living" and where poverty is thought of as a state of reduced or limited livelihood opportunities (Fisher *et al.* 2008:5).[20] One way to recognize multiple dimensions is by means of the sustainable livelihood approach (as describe in Chapter 2.5) as it frames livelihoods according to different assets that underpin livelihood strategies. After having described the characteristics of PES schemes, e.g. relevance of property rights or negotiation skills, it has come clear that adopting the asset perspective on poverty is useful for the creation of pro-poor PES schemes because it recognizes different parameters that determine the extent to which PES can profit or harm the poor.

A review of the literature on poverty and PES sheds light on some key issues that should also play a role for the design of pro-poor PES from tourism. Petheram & Campbell (2010) for example found that poor participants were generally open to the concept of PES and willing to be involved. However, it appeared that many would not have the necessary capacity and resources for involvement and were ill-equipped e.g. in terms of land rights or price negotiation skills. Depending on the local context, the PES design thus needs to incorporate assistance to raise the capacity of individuals and communities to participate in PES arrangements. Furthermore, there is mixed evidence in how far the financial benefits from PES have been significant for the participating households. On the one hand, Nelson *et al.* (2010) as well as Frost & Bond (2008) note the problem of having small amounts of payments. On the other hand, evidence from e.g. Costa Rica attests that "at least for disadvantaged regions, the relative size of income PES contributions seems likely to

[20] As opposed to the common monetary definition of an income below 2$.

have been quite significant" (Miranda *et al.* 2003:48). The argument, which has been confirmed in Viet Nam (Nguyen Thi Bich 2010; Tran Kim 2010), is thus that *because* the income level of this group is low, PES has the potential to make relatively significant contributions. Concerning the type of payment, most case studies from the literature have shown that for the poor, non-monetary rewards are at least as important as an increased financial asset. As a response to this, van Noordwijk *et al.* (2007) emphasize that pro-poor PES it is rather about "co-investment in assets", in which the payment itself is only part of broader benefits. In line with this, for the CAMPFIRE program, Frost and Bond (2008) questioned whether the small rewards alone could sustain wildlife-based land uses and constituted the program´s greatest achievement to be indirect: namely, the empowerment of communities to manage their own revenues and projects. This thus relates to an increase mainly in social-political and human assets. However, on the negative side, the authors mention evidence that in some communities benefits are captured and manipulated by elites to their individual advantage. It comes clear, that transparency and equity is crucial when talking about pro-poor PES.

In conclusion it can be said that most author´s reviewing the issue agree that PES initiatives do offer many potential opportunities for low-income land stewards in developing countries. However, Fisher *et al.* (2008:118) also note that "as with many institutions, also those relevant for the working of PES schemes, are not intrinsically aimed at benefiting the poor". Subscribing to this, most authors also point to the importance of creating or strengthening an appropriate (local) institutional framework and reward mechanisms that are biased towards disadvantaged stakeholders. In order to do so, local livelihood strategies, but also the wider structures and policies in which disadvantaged groups operate, need to be understood and appropriately developed. By means of the instrumental case study the former will be explored in Chapter 6, while the latter will be the primary concern of the following chapter.

5 Substance and organization of tourism-related PES schemes in Viet Nam

One might wonder about the fact that the Socialist Republic of Viet Nam[21] out of all countries is at the forefront of developing economic instruments for nature conservation and amongst the Asian countries the first to issue official national laws and policies on PES. Moreover, it also clearly regulates the payment for ES from (eco)tourism businesses.

Since the tentative opening of the country through the significant 'Doi Moi' economic reforms in 1986 (see e.g. Beresford 2008) it is a country in on-going change where the political opening led to a rather sudden arrival of foreign tourist and investments, through which Viet Nam's economy and industries experienced an important boost that significantly reduced the country's poverty levels in only a few decades. The drop in poverty rates from 58% in 1993 to just 10,6% in 2010 (CIA World Factbook 2011) exceeded the Millennium Development Goals and during the period from 1990 to 2009 Vietnam´s real GDP has outpaced other countries with an average growth rate of 7.32% (ibid.). While social benefits are undisputed, the sudden and fast growth of the Vietnamese economy has happened at the expense of vast natural resources and the abrupt political opening has caused mainly uncontrolled exploitation of natural, and particularly forest resources (Hoang *et al.* 2009). Viet Nam's originally rich biodiversity and vast natural forest areas have been declining rapidly over the past years; with forest cover dropping at an average rate of about 190,000 hectare per year during the period 1975 to 1990 (Bui Dung *et al.* 2004). Furthermore, government statistics show that forest habitat loss and hunting severely threatens the country's important biodiversity[22]. The general overexploitation of forests also has direct negative consequences for the local population, especially in the central and northern highlands which are very susceptible to soil erosion during heavy rains causing severe flooding several times a year (Castella & Dang Dinh 2002). Especially in central Viet Nam flooding is a serious concern which has in 2010 again caused much destruction and many deaths. On the other hand, the lack of watersheds leads to water scarcity for daily living activities and agriculture. Around 34 % of the Vietnamese population lives in forest areas depending on its resources and under difficult living conditions (Hoang *et al.* 2009). This is one reason why before 2001 the development strategies of the GoVN have been characterized by calls for rapid growth to quickly boost the country's young market economy also in remote areas. And although environmental sustainability has already been mentioned in the 'socio-economic development strategy' (SEDS)[23] for the 2001-2010 period, the government acknowledges in its most recent report that "the environment has been seriously polluted in many localities" and "the use of natural resources is not really sound or economically efficient" (GoVN 2011). As Viet Nam remains a country with high poverty rates in rural areas, the focus also for the new period, remains on growth – but with a stronger focus on sustainability.

In the new SEDS for the period 2011-2020 tourism, and especially also the development of tourism away from coastal regions, is deemed to be one of the most important sectors for the future development of Viet Nam's economy. The tourism sector is by 2018 projected to contribute 15% to Viet Nam's GDP and 12% to total employment (PATA 2011). Already in 2010, total international arrivals reached a record of slightly over five million visitors representing a growth of 34.8% to the previous year (ibid.). Apart from this development and with growing wealth levels within the country, there is also an important and rapidly increasing number of national tourists (VNAT 2011)

[21] Since its reunification in 1976 Viet Nam is one of 5 remaining communist countries governed by a highly centralized system dominated by the Communist Party of Vietnam (CPV).
[22] 28% of mammals, 10% of birds and 21% of reptile and amphibian species are endangered (Bui Dung *et al*. 2004).
[23] SEDS are periodic (5-10 years) strategy papers issued by the national GoVN and translated into provincial policies.

and in Ba Be NP, the case study area, 80% of the visitors are Vietnamese nationals. The GoVN explicitly recognizes the strong potential for tourism to deliver economic, social and political benefits and has for 2011 onwards for the first time designated tourism as an economic 'spearhead'. Policy documents on tourism also increasingly point to the need for more environmental awareness, but there is little evidence of efforts for sustainable development of the sector in reality. Concerning environmental sustainability Viet Nam's tourism sector seems to be far behind developments elsewhere around the world; pollution of beaches and rivers as well as large-scale constructions in natural areas can be observed obviously. The overall development remains driven by large scale investor interests, which characteristically focus on developments of high end resorts featuring e.g. casinos, golf courses, and other 'entertainment facilities'. In some cases these developments are even run under the term 'eco-tourism development' - which is clearly misusing the term (see also Box 2 in Chapter 5.4). The number of 'true' ecotourism or community based tourism projects is still limited, and efforts to establish environmental awareness or sustainability criteria in conventional mass-tourism projects seems non-existent. Since the mid-1990s IUCN and SNV have been the main actors amongst few who have been actively involved in the promotion of sustainable tourism, primarily in small-scale projects such as ecotourism development in Sa Pa (Allcock *et al.* 2003)[24]. When talking about ecotourism in Viet Nam one is inevitably talking about the central and northern highlands, where most of Viet Nam's natural areas and biodiversity is found. At the same time the uplands have also become hotspots of environmental degradation, where deforestation rates are among the highest in the world (Neef & Thomas 2009). Additionally, these remote rural regions are also amongst the country's highest poverty rates and the majority of the population lives on agriculture and forestry (Bui Dung *et al.* 2004). The causes of poverty in rural Viet Nam are manifold, but unfavorable geographical conditions, ethnic language differences, little access to information and education, misuse of natural resource and limited possibilities for shifting to non-farm employment are likely to be amongst the most significant factors (ibid.; IFAD 2008). In most upland provinces hunting, logging and non-timber forest products are important income sources for local farmers and a majority of upland farmers owning forest land decides to clear cut the forest in order to sell the timber or cultivate more lucrative or life supporting agricultural products (Hoang *et al*. 2009). In PES terminology, one could thus say that over the past decades in Viet Nam "forest values have just been applied to productive functions while its ecological and social benefits … have been neglected" (Hess & Thi Thu 2010). In general, environmental awareness and understanding of causal human-nature relationships is very low and consequently there has been little incentive and support for land owners to manage forests in sustainable way.

5.1 Environmental policy and political modernization in Vietnam

In this context and with the new SEDS period from 2011 onwards also the nationwide policy on PES came into effect. But before going deeper into the structures of the Vietnamese PES program, it will be helpful to take a step back to discuss wider processes that are considered relevant for the evolvement of the Vietnamese PES policy.

Looking at the situation with the lenses of political modernization sheds light on the transition of the Vietnamese forestry sector from centralized management of forests, with the core objective of a maximum extraction of natural resources, to a social forestry model that emphasizes environmental protection and social development for those living in and around forest areas (Hoang *et al.* 2009). Forest areas are thereby divided into three categories: (1) special-use forest which is strictly for protection of flora and fauna and managed basically as national parks or nature conservation areas, equivalent to IUCN categories I-IV ; (2) protection forest, which protects the

[24] In recent years SNV was also co-founder of the Responsible Travel Club Vietnam (http://www.rtcvietnam.org/). It is unclear in how far the network is still active or will be continued.

medium critical and less critical forest; and (3) production forest, which designates reforestation and agroforestry production (Wertz-Kanounnikoff & Rankine 2008). As the country's transformation from strictly command to social-market economy is an ongoing process, it is worthwhile noting that state-owned enterprises (SOEs) still dominate the economy and produce about 40% of GDP (CIA World Factbook, 2011). Similarly, also much forest land is, or until very recently was, officially state property that is leased to residents for use. During the past decades the GoVN has issued a number of programs and policies aimed at allocating forest land to organizations, households and individuals by means of legal land rights (*The Red Book*). This was, although as of today not clearly finalized everywhere, an essential early step towards creating favorable conditions for PES development. Officially integrating notions of PES structures in the political context started in 2004; most notably as an integral part of the National Forest Development Strategy for 2006-2020, which can be seen as the legal basis for PES in Vietnam (Thi Thu & Pancel 2009). This change in institutional arrangements, precedent to *Decree 99* - the final policy on PES - was crucial in order to encourage PES-like experiments and address the willingness to pay for environmental services at an early stage. Furthermore in 2003 – 2005 universities in Hue and Ho Chi Minh City conducted some early small-scale pilots on PES mechanism (Nguyen Hai 2009). The chronological list below shows the most relevant policies that have been issued and implemented over the past and paved the way towards the official PES policies (based on IFAD 2008; Nguyen The *et al.* 2007; Vu Thu *et al.* 2009):

- *Decree No. 02/1994/CP* - on forestry land allocation for organizations, households, and individuals for stable use.
- *Decree 661/Q-TTg* (7/1998) – on objectives, duties, policies and implementing organizations of the Five Million Hectare Reforestation Program (5MHRP).
- *Decree No. 163/11/1999* – on forest land allocation, lease and lending to organizations, households and individuals for sustainable and long term use.
- *Decision 178/8/2001* - on the beneficiary rights and obligations of households and individuals who have forests and forest land allocated, leased and lent.
- *Decision 106/2006/QD-BNN* - on Promulgating the Instruction on Management of Village Community Forests.
- *Decision 380/QD-TTg (4/2008)* - on the implementation of two pilot PES programs to be carried out by GIZ and Winrock International in two different provinces.
- *Decree No. 99/9/2010* - on the nationwide regulation of PES, incorporating findings from pilot provinces

Probably the most relevant program for today's PES context is the **Program 661**. With the goal of attaining sustainable development in the central and northern upland regions, this significant policy program is also referred to as the Five Million Hectare Reforestation Program (5MHRP). From 1998 onwards, the 5MHRP followed the objective of planting five million hectare of forest as well as to protect existing forests (Bui Dung *et al.* 2004). According to Neef & Thomas (2009:57), this land allocation program, which "included both agricultural and forest land certificates for individual farm households, provides a relatively sound basis for the establishment of PES schemes". Part of the program paid households for protection forest areas they were assigned to, thereby also explicitly aiming at reducing national poverty levels. However, it has often been criticized as a top down approach, without monitoring or clear conditionality, and although stipulated otherwise, residents only received VND 30,000 – 40,000 per ha per year; an amount too low to encourage true protection because HH also had to bear the transaction costs to get a contract (Bui Dung *et al.* 2004). It comes

clear thus that Viet Nam has already been using some of the economic and financial instruments needed for PES implementation. The GoVN's relatively high spending on this program did to some extend halt further decrease in resources. But, economic incentives – i.e. user led schemes - that support land owners to manage forest in a sustainable way are still missing and the high costs for social forest conservation have been a heavy burden for the government (Hoang et al. 2008; Hess & Thi Thu 2010). Consequently in April 2008 the GoVN issued the first policy (in the list above: *Decision No. 380*) exclusively focusing on payments for forest environmental services. It regulates the implementation of two regional pilot initiatives in Son La province in the Northwest and Lam Dong province in the Southeast of Viet Nam; in charge of these pilot programs were the international organizations GIZ and *Winrock International*, respectively. Experiences and lessons learned in these two provinces formed the framework for the development of the final PES policy, known as *Decree 99*.

It has come clear that earlier developments in Viet Nam's environmental policy arena have played a decisive role for future PES implementation. Most notably (as land tenure is a constant issue in PES schemes) earlier programs have aimed at allocating agricultural and forest lands to a number of HH and individuals for protection, reforestation or long-term use. However, while allocation of *agricultural* land has recently been completed, land and use rights of *forest land* remain disputed (IFAD 2008). When thinking about eligibility and participation of ES providers, it is important to understand how and by whom differently classified forest lands are managed.

5.1.1 Management of protected areas and land tenure issues

To start with it is interesting to look at the Constitution of Viet Nam according to which all forests "are under the ownership of the people, and the state on the behalf of the people manages the land and legally entrusts the management of the land to specific groups" (Hoang *et al.* 2010). Thus *in principle* this would mean that all people, as they are the owners of forests, would be entitled the benefits of 'their' lands. However, *in practice* organizational owners, both state and private, are compared to individual owners clearly advantaged in gaining access to forest benefits (ibid.). The government admits that theoretically allocation has been decided but in reality inconsistencies in the official land-use classification system and in its management remains[25] (Hoang *et al.* 2009). This is of course complicating the process of PES allocation to individual land owners and possible solutions are addressed and discussed intensively in workshops, government meetings and literature elsewhere[26]. This issue will not be further discussed at length here; instead it is relevant to shortly sketch out the different categories of land users, who are theoretically entitled to receive payment from ES. According to Viet Nam's land tenure system, there are eight different legal categories of land users (Hawkins *et al*. 2010):

1. State-owned companies (formerly state forest enterprises)
2. Management boards of protection forest
3. Management boards of special-use forest (mainly protected areas such as NPs)
4. Individual Households
5. Village communities
6. People´s Committees
7. Joint-ventures
8. Army

In 2008 more than 50% of natural forest is managed by state companies and management boards, 18.4 % by individual households and only 1% by communities. Regulations require FMBs and forest

[25] Some state authorities have unclear and overlapping competencies: while MARD is responsible for nationwide state management of forests, MONRE is responsible for nationwide State management of forestlands. Additionally to this confusion, both use differing definitions for certain land types (Wertz-Kanounnikoff & Rankine 2008).

[26] Literature on land tenure issues: Hawkins *et al.* 2010; Hoang *et al.* 2009; Hoang *et al.* 2010; IFAD 2008).

enterprises to allocate the management and protection of forest to communities and households (Hawkins *et al.* 2010). However, the authors continue, "[FMBs] may be reluctant to contract for forest protection, which involves sharing some State funding with forest protection contractors. Many Management Boards therefore maintain large areas of forest under their own control, rather than contracting with local people" (ibid.:9). This reluctance of FMBs presents the risk that revenues from PES will in these areas be captured and retained by these bodies. Important in the light of PES from tourism is also to note that FMBs, while operating with state funding, can additionally also "lease landscapes within their boundaries for ecotourism, and are entitled to the revenue from such leases" (ibid.:11).

Concerning effective conservation of special use forests face major challenges as enforcement is weak and residents have in many occasions been present in the area prior to the establishment of a protected area (Bui Dung *et al.* 2004). While over the past decades national policies have increased nominal forest coverage again (Hoang *et al.* 2010), it is the condition of the forest that is worrying: according to a report in 2008 by the UK-based Environmental Investigation Agency, Vietnam lost 51% of its remaining primary forest between 2000 and 2005; this ranks the country second worst in the world, and considerably worse than the third ranked country, Cambodia, with losses of 29% (ibid.). Thus, while forest coverage in general increased over the last decade, there is a severe decrease of rich and natural forest, whereby rich natural forests remain only in protection forest categories in remote areas with almost no road access. Viet Nam´s increased economic development and attention to poverty alleviation has furthermore cast light upon the fact that 85% of the country's protected areas are located in regions with average and high poverty rates, which makes them more likely to be illegally encroached (Hoang *et al.* 2009). A lack of alternative income, but also the demand for wildlife both from within Viet Nam and from China, fuels illegal use of natural resources and illegal hunting (Bui Dung *et al.* 2004). Therefore, land conflict between local, mostly ethnic minority inhabitants and park management is a serious problem in many NPs, likewise also in Ba Be NP. It is thus especially inside and adjacent to protected areas where the development of tourism-related PES arrangements could mitigate seemingly deadlocked situations.

5.1.2 Decree 99 – Policy on Payments for Forest Environmental Services

The Ministry of Agriculture and Rural Development (MARD) issued *Decree 99* in September 2010, regulating the nationwide implementation of PES schemes from 2011 onwards. For the initial phase the implementation is foreseen for 15 provinces (Winrock International 2011). The policy explicitly also legalizes payments for ES from tourism. And in doing so, Viet Nam is amongst the first countries in the world, following Costa Rica and Mexico (Hess & Thi Thu 2010)[27]. It is important to note that the policy is limited to *forest* environmental services, and therefore by Vietnamese actors sometimes referred to as PFES, but for the sake of consistency I continue to use the term PES vicariously. *Decree 99* lays the legal foundations for provinces to ask hydropower plants, water companies and tourism businesses to pay a certain percentage of their income to relevant ES-providers, i.e. land owners and forest protectors. Services explicitly recognized by the policy are 'water provision', 'aesthetic landscape', 'forest products', 'genetic resources', 'biodiversity' and 'prevention of erosion and flooding' (GoVN 2010a). The cost norms were set out at 20 VND/kwh for commercial electricity companies; 40 VND/m^3 for commercial water companies and between 0.5 - 2% of tourism revenue from "beneficiaries of forests or the ones that impact on forests" (GoVN 2010a: 23). The exact rate is to be decided by each provincial government, i.e. the Provincial People's Committee (PPC).

According to government official Nguyen Tuan Phu (as cited in Hoang *et al.* 2009) the PES policy has the following aims:

[27] Vietnam is also one of the nine countries identified for country programming under the UN-REDD program and for which the existing PES schemes can form a valid basis.

- Environmental: to protect and develop forests to secure their provision of services.
- Social: improve livelihoods for forestry workers and alleviate poverty in rural areas. This secures socio-cultural development and security especially in remote mountainous areas.
- Economic: assist Viet Nam in natural resource management and the stabilization of the energy and water supply sector. Through establishing a fund of payments from ES users governmental spending on Program 661 is reduced / replaced.

Decree 99 obviously addresses the three commonly mentioned pillars of sustainability, thereby trying to combine the goals of nature conservation with rural development goals. The Vietnamese PES policy can thus be seen as a result of an ongoing institutionalization of the sustainability discourse in environmental politics. Following first reviews of the pilot programs it can be suggested to add the political pillar of sustainability to encourage implementing the policy with principles of 'good governance'. Of course, in Vietnam this might be an even more sensitive issue than elsewhere, but also here over the past years there have been some developments pointing to a shift from, say, '*less* government to *more* governance'. Exemplified are such small tendencies e.g. in the fact that international organizations[28] and local universities had a major contribution to the development, design and formulation of the PES policies. Compared to past practices this is a remarkable change that has been brought to the policy arena with the PES concept and overall the commitment with which the government purses PES can be seen as courageous effort in the light of its political history and in the light of the innovative character of PES itself. The last target of this policy - the economical – sheds light on a major driving force behind the courageous efforts; namely the fact that PES payments are used as a financial relief of formerly high spending on forest protection and management. This rationale is obviously reflected through the considerable reduction of state investment in Program 661 which is reduced by nearly 50% from 2011 onwards (Hess & Thi Thu 2010). Considering the elaborations above on the expected positive development of Viet Nam's tourism sector, a MARD newsletter on PES notes that "substantial funds can be generated through tourism by introducing user fees for service provision" (MARD-Newsletter 2009). According to this document, challenges mainly exist in identifying a clear mechanism for allocating funds to land stewards and local communities. Other sources mentioned that the GoVN considers implementation of PES policies as a "difficult and complex undertaking as it is difficult to identify buyers and sellers of ES … and because it relates to several other policies also from different sectors and departments, e.g. on land and forest allocation and Department of Finance" (Government official, as cited in Hoang *et al.* 2009). The last part points out to what field work in Ba Be also revealed to be one of the main challenges for tourism-related PES; namely the required cooperation between the tourism department (DoSCT) and other departments, e.g. the Department of Agriculture and Rural Development (DARD). Both departments seemed not used to such horizontal cooperation at provincial level. This is a classical situation where political modernization (in this case the introduction of PES) brings new actors, i.e. the DoSCT, into the environmental policy arena, these 'new' and 'old' actors thus have to find out how, about what and with whom to communicate and cooperate, which will in turn induce change in formal but also informal rules. Accompanying and assisting such processes of change and stabilization should be a focal point for PES-facilitators.

As an interim conclusion it can be said that in Viet Nam building on already existing institutions was highly relevant for the overall successful development of PES so far. It has come clear that design, implementation and monitoring of PES requires formal changes in policies as well as informal changes in interaction patterns amongst different departments or amongst providers and beneficiaries. The question raised by the theoretical chapter on PAA on whether a shift from government to governance is happening, is especially difficult to answer in Viet Nam. The overall

[28] The most prominent at the moment are GIZ, Winrock International, ICRAF/CIFOR and IUCN.

political context[29] of the country does not allow saying in good conscience that 'there has been a shift from government to governance'. But, the introduction of PES might be a stepping stone for such broader structural changes in the future as the importance of creating local organizations and networks is underlined.

While the elaborations above mainly referred to general structures and process in Viet Nam's environmental policy arena, the following chapters concentrate on the analysis of more concrete aspects of substance and organization of PES arrangements evolving within these structures. The pilot programs in Lam Dong and Son La province can deliver valuable insights, whereby the following chapter pays special attention to the scheme in Lam Dong as is includes payments from tourism companies in Da Lat; one of the country's most popular mountain retreats in the central highlands.

5.2 Experiences with PES from tourism in Lam Dong Province

First of all, it shall be noted that information in this chapters is primarily based on personal interviews, presentations, and following publications evaluating the pilot schemes: Nguyen Chi & Hess (2010a); Nguyen Hai (2009); Nguyen Thi Bich (2010); Tran Kim (2010), Winrock International (2011) as well as government documents Announcement No:76 (GoVN 2010); DARD (2010); Decision-380 (GoVN 2008); Decree-99 (GoVN 2010a) and the PES Mid-term Evaluation Report (MARD 2010). The pilot programs have, according to the above sources overall been considered successful. Interviews with provincial government staff revealed that many other provinces and cities have shown interest in implementing the policy in the future. The pilot program in Lam Dong includes, next to a hydropower plant and water companies, also nine tourism businesses and therefore provides first experiences with tourism-related PES schemes.

The list below gives a summary of the main measureable results of the PES scheme in Lam Dong in terms of poverty alleviation and nature conservation (Winrock International 2011; Nguyen Thi Bich 2010):

- PES payments have been made to 22 Forest Management Boards, forestry businesses and 9,870 households (out of which 6,858 were ethnic minorities);
- the average annual payment per household was US $540-615, a rate four times higher than previous payments from governmental programs;
- the scheme has been applied to 209,705 hectares of forest land;
- depending on the commune, a 40-60% decrease in number of reported cases of illegal logging and wildlife poaching has been noted;
- an environmental monitoring system for evaluating the change in quality and quantity of ES has been installed; and,
- a significant increase of environmental awareness of participating companies and households has been reported.

In summary it can be said that the scheme has considerable positive outcomes in terms of poverty reduction and a significant reduction of illegal forest encroachment. The working mechanism of the scheme is shown in Figure 12 and additionally to the short description here, Appendix G also contains a table with the key characteristics of the scheme. One of the most important features is the explicitly for PES created **Forest Protection and Development Fund** (FPD Fund)**,** see **(1)** in Figure 12. In Lam Dong the FPD Fund has been created at provincial level under the management of DARD. It is the typical intermediary entity to which all buyers transfer the PES payments. In cases where

[29] E.g. no truly free and independent press, blocked social networks, one party politics.

the watershed overlaps two provinces, the payment goes via the **National FPD Fund (2),** who then transfers the money on to the provincial FPD Fund. The fund thus bundles the payments from several buyers for different ES before they are reimbursed to the providers. Such bundling of payments is very common and often recommended as it significantly reduces transaction costs. Concerning long-term transaction costs the PES policies regulates that from the total money collected from PES, no more than 10% can be used for the management costs of the FPD Fund. With these costs the fund is responsible for (i) training and capacity building for contracted households; (ii) meetings for exchanging experiences and lessons learned; (iii) communication of PES policy form commune to village level; (iv)establishing contracts; and (v) providing office equipment for PES activities.

In cases where local households are allocated land for protection from governmental **Forest Management Boards** (as the legal forest owner), another maximum of 10% can be kept by them for their administration costs. The remaining 90% or 80% will be paid quarterly to the **contracted households (3).** The providers have the free right to decide about the use of the money; to say it with the words of a government representative in an interview "they can buy food, a TV or their children's school books … it does not matter as long as all they effectively protect their forest area according to the established contract" (Government interviewee). In signing the contract, the provider - apart from refraining from environmentally harming activities himself - also commits to weekly patrols of his forest area against illegal encroachments by others. Responsible for monitoring of compliance of providers is the **Forest Protection Department** (FDP) who quarterly sends rangers to check on the condition of the allocated forest lands. These findings are in a so-called logbook reported back to the FPD Fund who can, if necessary, stop the payments to households who did not effectively protect according to their contract.

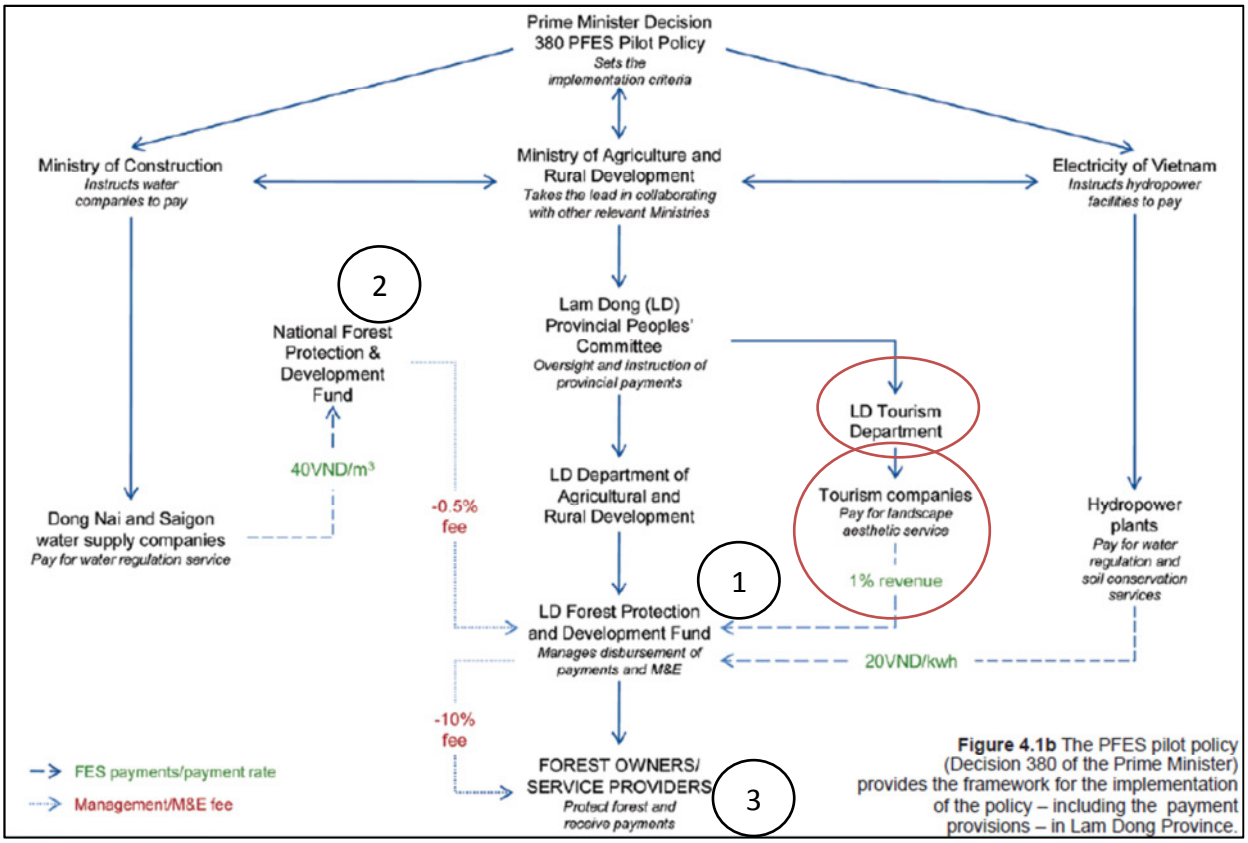

Figure 12: PES mechanism in pilot province, Lam Dong (source: Winrock International 2011)

The **rate of payment** for tourism businesses has been decided by the Lam Dong PPC to be 1% from the company's revenue. It should be noted that all payers were obliged to pay as it was stipulated in

Decision 380. The PES criteria 'voluntary' does in Vietnam at the moment thus not apply. Concerning the type of the involved nine tourism companies, they are either sites of attraction with entrance fees (e.g. waterfalls, Valley of Love) or service providers (e.g. cable cars). No accommodation business was included. *Decision 380* (and now also *Decree 99*) regulates the payments only for those companies who directly benefit or that impact on forest areas. For the future, hotels that are located inside or close to forests could thus be included. An interviewee at the DoSCT in Lam Dong mentioned the dilemma that "in reality probably all hotels also in the city of Da Lat benefit from the forest, because the nice, cool air and fresh nature in this mountain region is for most visitors the reason to come" but "it will be hard to prove that also city hotels should be included in the scheme" (interviewee). Concerning the payment itself, mostly the 1% was taken from entrance tickets (to e.g. the waterfalls, the cable car), but according to Lam Dong DoSCT staff in the future they will apply the 1% to the overall revenue which will increase payments because then also revenues from selling food and beverage or souvenirs are included. When asked why the low payment level - and not the maximum of 2% - was chosen, the DoSCT argued that like this the companies could slowly adapt to the payment. Interestingly the PES policy also explicitly allows the company to add the payments for ES into their production costs. According to the Lam Dong DoSCT this has not happened yet in the pilot scheme as the companies had not increased the price for the tourists. The interviewee adds, however, that this might change in the future and that it should be regulated that the company and the tourists share the costs. He goes on in saying that "if they include it in the production costs they have to explain it to the visitors why they have to pay for PES" and thereby points to the importance of providing detailed information on PES.

The crucial role of facilitators needs to be mentioned as extensive financial as well as technical assistance was provided by USAID and Winrock International, respectively. Furthermore, several individual consultants as well as IUCN have been involved for conducting studies or establishing the environmental monitoring system. In 2010 for example, an independent consultant conducted a study on the impacts of Lam Dong's PES scheme and perceptions and opinions of local households as well as the paying companies (see Tran Kim 2010). The main message coming from the providers was that PES payments played an important role in family cash income, therefore 72% of the surveyed HH consider PES as 'very important' and 23% as 'important'. Most HH used the payments for daily foods and expenditures. Generally there was strong agreement from the community for continuation of the scheme, which is not surprising actually, as the payments they received have been much higher than before under the governmental program. According to the study this higher payment also led to a feeling of increased responsibility for forest protection. The study furthermore notes, that most HH have realized the important role of forest in reduction of flooding, more water in dry season and reduction of soil erosion. Other forest values on the other hand, such as better air quality, or increase scenic beauty have not yet been explicitly noticed by local people. Probably this change in perception can also be traced back to a number of workshops and awareness raising campaigns in the region. Interesting in this study is also the researched perception of tourism companies about the PES scheme, which has been evaluated as 'good and should be continued' by 71% of the companies; the remaining were undecided about this. Similarly, also the current rate of 1% has been accepted by the majority. Most companies responded that it is fair if the scheme only applies to those activities directly related to the forest or 'site/landscape seeing'.

Interesting difference existed when comparing the responses of the different payer categories. While tour companies seemed to realize and be aware of the importance of forest ES for their future businesses, hydro-power and water supply companies wondered "that they pay for forest environmental services but they are not sure if business efficiency could be gained from buying the services on the view point of the company" (Tran Kim 2010:8). Apparently the rather positive attitude of tourism companies has also been apparent during the preparation of the scheme, as one interviewee pointed to a pro-active attitude of most tourism companies during workshops and

meetings. One interviewed DoSCT staff is from its experiences in Da Lat convinced that tourism companies, once they are explained the concept of ES, are willing to invest.

Despite the general positive outcomes there are remaining challenges from which useful recommendations for the Ba Be scheme can be derived. I will not provide a comprehensive review on all remaining challenges, but focus on points that deliver *additional* information for the PES design in Ba Be. These are:

- **Opportunity Costs.** While respondents to the study by Tran Kim (2010) indicated that the contribution to household incomes was either important or very important, the study also points to the fact that the PES payment level does currently still not cover the full opportunity costs of other commercial activities on the land, e.g. cultivating coffee or agriculture crops. A recommendation to increase payments in the future would be to include global carbon payments into the existing small-scale PES arrangements. This seems to be a feasible option also in Ba Be, which has already been designated as a pilot area for REDD payments as well. In this case, tourism-related payments can also be expected from global players such as airlines.
- **Assessing local preferences.** In its initial phase the scheme has considered diversified payments according to the value of the respective forest. However, in some villages residents did not want this in fear that it would cause social tensions. Thus, what may seem fair to outsiders at the first sight (higher forest values=higher payment) turned out to be locally undesirable. This underlines the importance involving residents already in the design phase.
- **Role of Forest Management Boards.** The function of the FMBs in this PES scheme can be compared with the situation of the NP in Ba Be. They are the legal forest owner who entered into a PES contract with the beneficiaries on behalf of the villagers. The FPD Fund thus first transfers payments to the FMBs who subcontracted the HH for forest management and will pass on the payments to these. FMBs can in this function be called secondary intermediaries and coincides with the role of a NP.
- **Limited cooperation among governmental agencies**. Staff of international organizations as well as from the departments itself mentioned the problem that traditionally cooperation amongst different line ministries and agencies is limited. This is, however, an important necessity for the working of PES.
- **Learn from DoSCT in Lam Dong.** The staff in Lam Dong DoSCT emphasized the great initial need for intense capacity building for policy makers, providers, beneficiaries and intermediaries to foster understanding of the PES concept. Other future schemes in Viet Nam should build on this experience and e.g. invite staff of the Lam Dong departments to participate in meetings and workshops in the other provinces.
- **Support those who report violations.** The study by Tran Kim (2010) revealed that some villagers voiced concerns that they are sometimes afraid of reporting violations to authorities, because there might be tensions with the violators afterwards. This is a serious concern that is of course difficult to control but still needs to be addressed either by the intermediary or facilitators who could offer the PES participants support in case of conflicts.

Mostly, these points refer to institutional structures and while the active engagement of the facilitators in the Lam Dong PES scheme declines with the end of the pilot period all actors claim that the scheme will be maintained. It is subject to further research to observe the development of the PES scheme after the pilot phase and without the strong support of the facilitator. The analysis again confirms how the long-term success of PES schemes depends highly on appropriate institutionalization of the arrangement. Institutionalization of a policy arrangement is, following the introductory writing on PAA, driven and reflected by interactions amongst different actors, their

discourses, prevailing formal and informal rules of interaction and power relations. Such a more differentiated analysis of the PES scheme in its terms as a policy arrangement can be undertaken, after the above chapters explained the working environment of the PES scheme.

5.3 Actors, roles and levels of influence

Entering the analysis via the actor dimension seems a logic starting point as it is only through the very existence of these actors and their day-to-day behavior that discourses, formal and informal rules and certain power relations evolve (Liefferink 2006). Given the broad scope of PES and its trans-sectorial character a plethora of actors from different backgrounds come together in this policy arrangement. The actor perspective goes beyond a conventional stakeholder map as it also critically looks at e.g. who is not involved (enough), levels of influence or distinct/common roles and perspectives that might lead to the formation of coalitions. Depending on the ES included in the scheme, the buyers will vary and of course depending on the region, the providers will be others. In the light of this variability, the issue of smallholder-farmer's possibilities to participate and profit from PES will be extensively discussed in Chapter 6.3. At this stage I will focus the attention on more perpetual institutional key actors in Viet Nam's current PES arena. In line with this the Table 4 lists all relevant institutional actors, describes their role and gives an indication about levels of influence. The assessment was done based on the findings from interviews, focus group meetings and policy documents, the level of influence was thereby seen as a combination of decision making and agenda setting powers. The written analysis below and Table 3 thereby complement one another.

The previous chapters revealed that the PES agenda in Viet Nam is strongly government driven; whereas executive decision making power at national level is with the MARD, it is at provincial level passed on to the PCC who in turn authorizes DARD. Until now, Viet Nam's clear hierarchical and political structures offer little possibilities of devolution for decision making power. That this level of influence does not necessarily correspond with the importance of the entity for the actual design PES becomes especially apparent when looking at the high level of influence of the PPC, who - apart from deciding on the rate of payment (0.5-2%) for tourism business - has little other functional tasks. This contrasts with the role of DARD and DoSCT who have the necessary knowledge about agricultural and tourism specific issues, but little decision making power (interview DARD). While the DARD as the coordinating body at provincial level does have some agenda setting power, the DoSCT has so far only be marginally involved for rather executing tasks such as organizing workshops or trainings. An example of the marginal role the DoSCT plays is the fact that the policy has been communicated to the tourism businesses not via the DoSCT but via DARD and the PPC (interview DoSCT). Apart from the low involvement of the DoSCT there is also a lack of coordination amongst these line departments. Interviewees gave the impression that almost all communication and inter-action had to go via the PPC first and hardly happened between the departments themselves. Interestingly the GoVN itself, in a mid-term evaluation of PES implementation, notes that the coordination between different levels and departments "has not been close and timely" and needs improvement (GoVN 2010b). Furthermore, different levels of understanding of the PES concept at national, provincial and local level and overlapping structures and functions of government agencies have been identified as the main constraints on part of governmental stakeholders during interviews. Moving further down the list from national governmental actors to government led entities such as National Parks or FMBs shows how the GoVN - most notably the PPC – remains the central actor. Interviews with NP authorities in Ba Be repeatedly came to a point where the interviewees could (or should) not give answers and referred us to the PPC, under whose mandate the NP operates.

The so-called mass organizations (MO), most notably Farmer Association, Women Union and Youth Union, are a Vietnamese-specific institutional arrangement at the very local village level. While they first appear to be civil society organizations, they clearly do not have the characteristics

of typical civil society actors as they have been established in all villages across Viet Nam after reunification and until now all villagers 'are expected to be' members (village level interviews in Ba Be). Nevertheless, they are likely to be able to play an important role in PES implementation in Ba Be, as Venn diagrams revealed very high levels of trust, especially towards the Women Union. For a comprehensive overview of the results of the Venn diagrams see Chapter 6.4 and appendix D and F. The fact that these organizations have not been remarkably mentioned in the scheme in Lam Dong may be traced back to the fact that the steering center of the scheme was in a city, where these mass organization have generally much less importance than in rural areas. The context of the mass organizations also sheds light on an actor group that seems to be completely absent in the PES arena, namely local NGOs. Indeed, as Neef & Thomas (2009) notes, NGOs still face problems of formal recognition in Viet Nam and therefore tend to be underrepresented in any policy arrangement. It can be suggested that this has negative consequences for local people's access to and ability to influence these arrangements in general; which is an issue strongly relating to people's social asset and which will find more attention in the livelihood analysis in Chapter 6.

Table 3: Key institutional actors and their roles in PES arrangements (*newly formed for PES scheme)

		Stakeholders	Type of entity	Role in PES arrangements	Influence
Governmental	National	Dept. of Agriculture and Forestry	Government office	- Policy issuing and approval, for example, Decision 380 and Decree 99	+++++
		MARD	Ministry	- overall responsibility for PFES - Preparing PES policies and report to Prime Minister and governmental office - coordinate with relevant Ministries (MONRE, Ministry of Finance) and donor organizations in the implementation of PES policies	+++++
		PES steering committee for the implementation of the Decision 380 on piloting PFES during 2007-2009	Working Group	-led by a Vice Minister of MARD - members: gov. leaders, relevant ministries, PPCs of Son La, Lam Dong and representatives from GIZ and Winrock International	+++
	Provincial/local	DARD	Provincial Dept.	- main coordinating body of PES at province level	+++
		DoSCT	Provincial Dept.	- in charge of payments from tourism	+
		Provincial People's Committee (PPC)	Executive arm of GoVN	- main decision making power at province level	++++
		Provincial PES steering committee*	Working Group	-led by Vice Chairman of PPC - members: relevant departments, selected districts and Communal PC (CPC)	++
		Provincial FPD Fund*	'NGO'	- bundles payments from the different ES / beneficiries	++
		Women Union, Farmer Association, Youth Union	Mass Organizations (MO)	- present in each village to support households - communicate new laws/regulations to villagers	+
		Forest Management Boards (FMB) National Parks	Forest owner	- according to law have to subcontract forest areas to HH for protection or long-term use (already under Program 661)	++
		Bank for Social Policy – provincial branch	Bank	- mandate for micro-finance activities for the poor - in Son La acted as the intermediary for payments	+
		Forestry & Agricultural Universities in Hue, ThDuc, Thai Nguyen, Hanoi	University	- independent research - monitoring of pilot programs, scientific advice	+
International		Winrock International USAID	U.S. NGO U.S. Donor	- Provide initial support to MARD for policy design and piloting in Lam Dong province (watershed functions + scenic beauty)	+++
		GIZ	German bi-lateral organization	-Provide initial support to MARD for policy design and piloting in Son La province (watershed functions)	+++
		IUCN, WWF	Environmental NGO	- with GIZ cooperation on mangrove PES in SocTrang	+
		ICRAF / CIFOR	Research organization	- Brought first PES concepts to Vietnam in 2002 through RUPES project - transfer international experience with PES to national and local partners - technical assistance to IFAD in BacKan on Pro-poor PES	++
		IFAD funded project 3PAD	Multi-lateral org.	- based at provincial level in BacKan, close ties with provincial governmental departments - responsible for PES implementation in BacKan	+++
		Consultants	Individuals	- Independent evaluation of pilot schemes	+

Against the backdrop of the analysis so far, it seems the more remarkable that some international donor and research organizations seem to have had considerable influence on the PES polices. Most obviously this counts for GIZ and Winrock International who were members of the so-called 'core writing group' and where they contributed extensively with lessons-learned from the pilot schemes. ICRAF, as the research organization who was spearheading the introduction of the PES concept to Viet Nam in 2002, delivers scientific input and evaluating studies; both in terms of environmental sciences and with the RUPES program especially also in in the field of social sciences. This orientation of the RUPES program also makes ICRAF the main driving force of the pro-poor discourse in Viet Nam's PES arena, an issue that will find more attention in the subsequent chapter. In its role as a research organization it cooperates with major Vietnamese Universities. The universities play a relevant, however, passive role in providing evaluating studies by means of publications or participation in workshops. In Bac Kan, ICRAF works through the local IFAD-3PAD project as an implementing unit at provincial level, who – through its close ties with governmental departments – facilitates e.g. working permission for staff in the field office or access to documents. Especially the latter has at times been a longsome process as most requested documents needed an authorized letter from the relevant ministry or the PPC that lists the name of the requested documents. In this process of receiving access to documents, the IFAD-3PAD staff has played a very influential role in assisting ICRAF to receive the authorized letters. Such strong partnerships and alliances seem to be a prerequisite also for day-to-day activities. In turn this also increases the level of influence of ICRAF because via the IFAD project technical advice can be communicated more directly to the relevant ministries by means of e.g. jointly organized workshops.

Following the PAA argumentation in a policy arrangement a plethora of different alliances and partnerships usually develop, from which not only level of influence but also the rules of the game and discourses are influenced. Apart from actor coalitions amongst state and non-state actors, it seems worthwhile to note the seemingly good cooperation amongst international organizations working in the field of PES. It is a comparatively small PES community and interviewees expressed mainly positive feelings when asked about levels of cooperation and trust. This is not necessarily self-evident, as competition amongst actors can also lead to frustration or mistrust. This high willingness to cooperate – in what could be called a facilitator-coalition - is also proven by the fact that the organizations are trying to organize themselves into a National PES Network, where (according to interviewees) first proposals for memberships have been developed.

All in all, applying PAA in the setting of a communist country has proven to be a delicate undertaken where the identification of actor-coalitions quickly reached its limits, especially as an alliance with governmental departments basically seems to be the only way to effectively increase levels of influence in the sense of agenda setting powers. The policy arrangement approach emphasizes how identifying coalitions is relevant to disclose if and how certain actor groups are dominating an arrangement (Arts *et al.* 2006). Clearly, the PES arrangement in Viet Nam is dominated by on the one hand government-coalitions, who retain decision making and main agenda setting powers and the facilitator-coalitions, who through implementing the pilot programs and scientific advice have managed to obtain considerable agenda setting power during the policy formulations process. The seemingly limited presence of only two main actor coalitions could also be attributed to (i) high entrance barriers for new actors especially at the very local level (e.g. absence of local NGOs); (ii) strictly hierarchical interaction patterns amongst ministries and departments (see also the chapter on the rules dimension); and (iii) the still rather unfamiliar, innovative nature of the PES concept itself. Irrespective of the existence or non-existence of operational alliances, several distinct perspectives of the different type of actors in PES concept can be identified and will be discussed in the following.

5.3.1 Different actor-perspectives on PES

Having given an overview and account of the actors, their roles and levels of influence in the arrangement, this chapter will move to more intangible characteristics of the stakeholders involved in PES. Based on writings by Swallow *et al.* (2009) different perspectives on or interests in PES in the Vietnamese context can be identified. The stakeholders named between brackets are those for which the particular perspective is thought to reflect their *main* - not the only - driving force or viewpoint:[30]

- **Environmental management perspective:** Using PES as a mechanism for sustainable agriculture and to resolve conflicts over resource access and benefit sharing (GoVN - MARD, DARD; NP/FMBs, ICRAF, Universities, IFAD, WI, GIZ)
- **Environmental conservation perspective:** PES as a mechanism to conserve forest resources (IUCN, WWF,)
- **Poverty reduction perspective:** PES as a possible alternative income stream to local people (GoVN, ICRAF-RUPES, MOs, IFAD)
- **Economic planning perspective**: a cost-efficient way of correcting market failures, address collective action problems, disburden government spending for conservation (GoVN)
- **Rural empowerment and social justice perspective:** PES to address imbalances, power rights, and responsibilities of rural residents (MOs, Universities)

International organizations, such as Winrock International and GIZ were difficult to place, as their official mandate usually encompasses all three pillars of sustainability. Nevertheless, documents and interviews led to the conclusions that PES falls mainly under environmental programs and poverty alleviation is treated as a side-objective. As opposed to ICRAF's RUPES program which especially highlights the exploration of the potential for pro-poor PES schemes.
Apart from the perspectives of the institutional actors who play a decisive role in the political arena, a working PES scheme is of course strongly characterized by its central actors, i.e. the providers and beneficiaries. These have again very differing perspectives on PES from the driving policy makers:

- **Commercial ES beneficiaries:** PES (i) as ethical imperative of businesses (ii) to improve business reputations (iii) to ensure future provision of the ES that are necessary for doing the business.
- **Individual ES beneficiaries (i.e.tourists):** PES (i) as ethical/altruistic imperative (ii) to ensure future existence of nature as travel destination for oneself or future generations.
- **Farmers perspective**: PES can be (i) good for official recognition of their rights (ii) seen as a new governmental social program (iii) a new source of income (iv) perceived as a new way for governments and other powerful interest groups to intervene in local people´s land rights.

Recognizing these different perspectives can help facilitators and intermediaries not only to ensure the right scheme design but more importantly to communicate it appropriately. Taking into account the perspectives of the receiver of information can prevent misunderstandings and foster clear understanding of the PES concept.

5.3.2 Role of intermediaries and facilitators

The institutional actors can, as identified in Chapter 4 and according to their executing roles, be divided into the two main categories of intermediaries and facilitators. Thereby, the time

[30] Acronyms: WI= Winrock International ; MOs = Mass Organizations

perspective is especially relevant for making a clear distinction between those acting as intermediaries and those taking the role of facilitators. The Table 4 below give a more detailed account of the different roles and the respective (potential) cast in Viet Nam.

Table 4: Intermediaries and facilitator in Viet Nam's PES schemes

Intermediaries	Roles/Characteristics
DARD / DoSCT FPD Fund PES steering committee FMB / (NP) Mass Organizations (PPC)	Integral part (long-term)
	Promotes and manages the scheme
	Enduring focal point for all stakeholders during entire process
	Should be strong and trustworthy
	Can be new or existing entity
	Includes representations from all main bodies involved - user associations, farmer cooperatives, local gov. authorities, NGOs
	Can take on the role of monitoring environmental performance

Facilitators	Roles/Characteristics
Winrock International GIZ ICRAF IFAD IUCN/WWF (Local Universities) (Local NGOs)	Advising (timely limited)
	Financial and technical support
	Provides expert knowledge especially in design/set-up phase
	Advise on establishing (new) institutional framework
	Provide training in the adoption of land management techniques
	Assist in impartial research, monitoring and evaluation of PES
	In case of tourism-related PES: communication to tourists

A distinction between the two actor roles is necessary to ensure integral planning from the start. An effective, efficient and fair PES scheme requires a stable, predictable and consistent institutional and legal framework (Hawkins *et al.* 2010); this obviously needs the support of the government as well as the impartial and participatory approach of international organizations. Local universities are in the current situation in Viet Nam only marginally involved but have great potential to be long-term intermediary who could assist with impartial and scientifically sound monitoring of environmental performance. Some of the actors above are put in brackets because their role is contested; (i) the National Park can, only if trusted, be an intermediary organization; (ii) the PPC acts at the moment as an intermediary but should pass on this role to some of the other entities and (iii) local NGOs would be important to include in the scheme but are so far simply hard to find in Viet Nam's provincial regions.

5.4 Substantial discourses

This report has in its first chapters described the general PES concept. The innovative and disputed nature of the PES concept makes for an important and interesting context for looking at discursive discussions that are going in Viet Nam's PES arena. In order to identify those, the previous actor dimension is crucial as discourses develop from different actor perspectives and approaches, which can either go hand in hand, challenge or be challenged by those other actors. In this analysis, discourses have been identified by means of policy documents, websites, in workshops, internal ICRAF office discussions, interviews or publications. In this analysis, a discussion of discourses "concerns ideas about the concrete policy problem at stake, e.g. about the character of the problem, its causes and possible solutions" (Liefferink 2006: 58). This dimension does not require a full linguistic discourse analysis in the sense of the common distinct analytical tool; instead it looks at

common 'narratives' that structure the actors' contribution to the arrangement at hand. The identified discourses are presented either in form of a question or a statement that shortly summarizes some important prevailing storylines or debates that have been found to play a role in Viet Nam's current PES arrangements.

- **Real willingness to pay or governmental enforcement?**

Looking back at the PES criteria in the introductory chapters we come across the description of PES being a 'voluntary transaction'. Obviously, this is at the moment not applicable to the arrangements in Lam Dong or Son La; the participating companies have been appointed by the PPC to take part in the scheme. While this non-conformity with formal PES criteria can be subject to discussions for concept development it should be realized that "the pilot cases [only] work because they are government driven rather than willingness to pay oriented" (Hess & Thi Thu 2010:4). It should indeed not be neglected that one important enabling factor actually was the GoV's concern and strong commitment to PES. Evaluations of the pilot programs regularly point to the critical role that the government plays in organizing, disseminating and implementing the PES mechanisms (Nguyen Thi Bich 2010; Winrock International 2011). The involved international organizations are all aware of the existing formal criteria and occasionally discussions on the lacking 'voluntary' criterion arose in interviews and in project reports. When asked about it in interviews, most reactions were rather pragmatic saying that governmental enforcement is (not only in Viet Nam) necessary for the start-up phase and until the schemes and the idea of PES has established itself amongst the stakeholders. This would mean that only at a later stage truly voluntary PES arrangements are possible.

- **Need for more decentralization and devolution!**

It is an undisputed fact that any PES scheme is by definition a multi-stakeholder arrangement; it requires horizontal as well as vertical cooperation between governmental bodies from national to the very local level, and it requires integration and active participation of the civil society (i.e. villagers/farmers) as well as commercial entities. It has come clear during this research that especially the inclusion of tourism, and with it the respective DoSCT, signifies a need for unprecedented inter-departmental cooperation. Such an arrangement is probably challenging in many (developing) countries, but maybe even more so in the Vietnamese context. The more remarkable are the recent, at least formal, commitments made by the GoVN e.g. in its provincial SEDPs where devolvement of decision making is a key component (IFAD 2008). Furthermore, according to a government official (as cited in Hoang *et al.* 2009), the government encourages establishment of the FPD Fund at the lowest level possible. This means the fund, which during piloting was at provincial level, could as well be set up at the district or even commune or village level. Apart from such governmental documents, also many governmental interviewees at provincial and local level as well as National Park authorities called for more decentralization and wished for more inter-departmental cooperation. This thus seems to be a discourse that is supported by representatives of all actor groups.

Devolution of power is, however, a long-term process and having the legal possibility for e.g. establishing the fund at the lowest level is only one side of the coin; ensuring that local authorities at lowest levels have the necessary capacities to do so is the other side. Until today the policy for agriculture and rural development (executed through DARD) is driven by top down activities, where government extension capacities are low and training is generally formal and lecture oriented (IFAD 2008). Furthermore, also for PES the national government retains the main decision making power by assigning the responsibility for implementation to the PPCs. Thus, despite the call for more devolution of the staff in the implementing issue-specific technical departments (such as DARD,

DONRE or DoSCT) the central-level government retains control. Describing this situation with Liefferink's (2006:59) words and at a higher level of abstraction it can be said that "substantive discourses at the issue specific level on the one hand and governance discourses at the more general level on the other, are potentially incompatible". Hereby, the substance of the PES approach, i.e. the need and call for participatory, multi-stakeholder cooperation can be potentially incompatible with the socialist-centralistic Vietnamese governmental model. While there is an inherent risk that such fundamentally different approaches can paralyze an arrangement (ibid.), there is also an inherent chance that the introduction of PES, to which the government is principally very committed, can lead to broader changes in the (environmental) policy arena.

- **Which tourism businesses are to pay and which not?**

Payments for environmental services from tourism are new; not only to Vietnam. And there is still little experience about the type of businesses that are to pay and which not. Citing Article 7 from Decree 99 (GoVN 2010a) it is regulated as follows: *"[o]rganizations and individuals doing tourism services that benefit from forest environmental services have to pay for services for protection of natural landscape and conservation of biodiversity of forest ecosystems serving tourism purposes."* Furthermore, as stipulated in Article 11: *"Provincial People's Committees are assigned to determine those having to pay including organizations and individuals doing travel tourism and accommodation tourism businesses in provinces and cities under the national government."* The Decree thus clearly regulates the payments for those who benefit from forest environmental services; it does not give concrete criteria for how this decision is made. It stands to reason though that those companies involved in ecotourism can be asked to pay. Discussion at the ICRAF office, with DoSCT staff in Lam Dong and IPAD staff in Bac Kan supported the argumentation that through the increasing (mis-)use of this term in Viet Nam considerable payments can (should) be expected from these businesses (Box 2). Unfortunately, outside these internal discussions which happened in the context of this research, no critical public debate on it amongst e.g. international organizations or governmental staff could be identified yet. Such a discussion is likely to be necessary in the future, however, as more tourism-related PES schemes emerge.

Box 2: (Mis)use of the term ecotourism in Viet Nam

Private business funds eco-tourism development in Tay Ninh

The Hung Duy Trading Import Export Transportation Company will invest VND130 billion in building an eco-tourism area in Hoa Thanh district, Tay Ninh province.

Le Huu Hung, General Director of the company, said construction work on the five-ha Bau Ca Na area will start in November this year and be completed in two years.

After completion, the tourism area will have a cinema hall, a sports centre, a conference centre, restaurants, resorts and other facilities for multi-purpose entertainment.

(Screenshot http://www.vietnamtourism.com/e_pages/news)

- **'Payments' or 'rewards and co-investment'?**

On a global level much discussion is going on if PES can and should be a tool for both, nature conservation and poverty alliviation at the same time. In Viet Nam especially ICRAF's RUPES project clearly aims at increasing the income of the poor. Few initiatives initiated by WWF and IUCN have a clear conservation perspective, while overall most initiatives in Viet Nam take off from an environmental management perspective that integrates poverty reduction and conservation efforts. First results from the pilot areas actually suggest both, positive effects for livelihoods as well as forest conservation. The point of view from the government is again somewhat different, as PES is

seen as a self-sustained long-term financial mechanism for sustainable forest management that takes away some financial burden of the GoVN.

Another terminological discourse that relates to the discussion on pro-poor aspects of PES is represented in the preliminary working title that was chosen for the draft on the establishment of the National PES Network (see above): 'RES/PES Network in Viet Nam'. This title 'RES/PES' points again to the discussion on 'rewards' or 'payment'; a discussion which has been especially vigorously been discussed amongst ICRAF Southeast Asia, where some have adapted the key terminology to 'rewards' and 'co-investment'. This was not a straightforward process but the result - and also cause - of many internal discussions amongst office staff, scientists and practitioners. On a global level, different discourse coalitions within leading PES advocates have developed from the debate on PES with a poverty component ('rewards') and PES focusing on conservation. In Viet Nam all interviewees in the facilitator-coalition were aware of this discourse but no 'camps' were formed. One interviewee mentioned that during the policy formulation process they discussed on whether the official policy document should use 'rewards' or 'payments'. In the end the majority favored 'payments', mainly because it is more concrete and commonly known.

- **Bundling payments of national with international PES!**

Amongst those working with PES in Viet Nam much attention is given to the question of including (international) payments for carbon sequestration into the existing (national) PES arrangements – a discourse that is supported by the international organizations as well as governmental actors, and interestingly also by some private companies (who are likely to own some forest land and hope to qualify for REDD payments). Viet Nam is one of the nine first countries eligible for future REDD payments, so it makes sense to assess early in how far the domestic mechanisms and recently created institutions are appropriate for the inclusion of REDD payments. As a finding from a previous chapter confirms, bundling of the other ES with carbon sequestration offers, on the one hand, significant opportunities to reach payment levels that really cover the opportunity costs of providers (Hoang *et al*., forthcoming). And on the other hand it offers REDD programs the advantage of being linked to domestic small-scale schemes that are already contracting rural smallholders.

- **Commercialisation of nature or 'Green Economy'?**

During several months of fieldwork in Viet Nam also critical voices have been heard, which regarded PES as a means to 'capitalize on nature' and a practice that inherits the risk of replacing altruistically motivated efforts for nature conservation with the longing for economic gains.[31] In the literature this is referred to as 'perverse effects'; cases where the payment mechanisms undermines intrinsic motivations for conservation or where the payments encourage a mere dependency on subsidies instead of encouraging sustainable management practices (Bui Dung et al. 2004). To point to this critical issue van Noordwijk & Leimona (2010) rephrased the PES question into 'who deserves pay for not destroying natural capital?'. In putting it this way they point to the risk of PES being seen as an entitlement rather than an additional incentive; a situation where those who did not get the primary attention are going to use their position by threatening with destructive activities. This is a complex effect, resulting from changing rules and power relations, which has so far more often been formulated as a hypothetical threat than coming from real life situations. But, as there seem to be some early signs that it might be real (ibid.) it is important to maintain a critical view (see also Chapter 5.6 on resources and power).

[31] Informal conversation with international consultant.

5.5 Formal and informal rules and regulations

Besides the agreed formal regulations postulated in laws and policies, the PAA also draws attention to 'informal routines of interaction' that highly influence the working of the PES arrangement on the ground. Surely, all four dimensions are interrelated, but in the Vietnamese context is seems that this is the dimensions that (subliminally) affects the others most. This can be traced back to the findings in the actor dimension, where government coalitions are the most dominant in the arrangement and through which formal, hierarchical structures are enforced. Such rather formal governmental rules are in the course of time also transferred into informal routines, which manifest itself in all levels of PES implementation. This dimension led in the theoretical chapters to the question in how far PES policies correlate or dissociate with the existing political context and local livelihood dynamics. With respect to the former it can be said, that Viet Nam's environmental policies have in the past already created some appropriate mechanisms for PES. The existing political context thus favored the integration of PES. In how far local livelihoods in/around a National Park correlate or dissociate will be discussed in depth in the following. At this point, discrepancies between formal rules (i.e. PES criteria and policies) and its application in informal realities will be discussed.

A quite common phenomenon in developing countries that needs to be taken into account is the existence of formal and informal **tenure and land type systems**. A concrete example comes from Lam Dong, where in one village people did not want differentiated payments according to the formal land type classification because of the fear that it might cause social tensions. Instead they decided it would be better if all receive the same payment level. For the implementation of PES schemes this means that the contracts should look beyond what is formally regulated and respect and integrate what is locally accepted.

In accordance with international PES practices, *Decree 99* identifies **direct and indirect payments,** whereby direct means that the payments would not be transferred from the hotel to the fund but to the provider directly. However, the guidelines in the policy are clearly concentrated on regulating and creating the conditions for indirect payments – whereby "the government agencies (at both central and provincial levels) keep the role as intermediary and management body to regulate this system" (Nguyen Hai 2009). Apart from this, there are also other reasons which make the application of direct seller and buyer interaction unlikely; the most important being that if smallholders are to be integrated in the scheme establishing direct contracts and making direct payments would immensely increase transaction costs. Thus, although formally existent direct PES schemes are at the moment not likely to be formed.

Another very Viet Nam-specific phenomenon related to informal rules has been observed in the pilot PES scheme in Son La where the GIZ realized that local people did not complain to the companies when they did not receive (or delayed) their payments. This "patient silence" (Hess & Thi Thu 2010) shows how until now local farmers are still hesitant to voice their opinion to higher levels. This is a typical example for **culturally routed behavior** that influences the working of PES. For the scheme to work in the future without facilitators a way needs to be found that provides a platform encouraging all to speak. Only then can providers and beneficiaries actually control and monitor each other.

Informal and formal rules can also decide about the **inclusion and exclusion of certain actors** from relevant processes. During interviews, for example, it happened several times that a department or institution on paper had a concrete mandate for carrying out task XY, but when asked about it a common answer was that they had to wait for instructions from the PPC on how to proceed. Some officials, e.g. at Ba Be NP complained that they were thus excluded from active policy implementation; most likely because informal rules of the systems were detaining them. Similar is

the case in Ba Be, where the tourism extension department at district level criticized the lack of tasks and exclusion from processes by the higher DoSCT in Bac Kan.

5.6 Power relations and access to resources

The actor dimension showed that the stakeholders involved not only come from different sectors but also from a wide range of levels within society and politics; some with very different perspectives and stakes in PES. In such an arrangement it is obvious that different levels of influence and power relations can be decisive for participation or exclusion. As mentioned in the introductory chapter, the core idea of this dimension of policy arrangements is that actors are to a certain extend dependent upon each other for (access to) resources such as expertise, money, information or political legitimacy.

The strong involvement of international organizations and scientific institutions in policy making processes for example reflects the **dependency** of the state on financial and technical advice for PES policy formulation and pilot implementation. This dependency can also be seen as a window of opportunity for a subtle change towards a more open political climate. According to Nguyen Hai (2009) the considerable interest that PES currently attracts among academics, practitioners and especially donors was also a catalyst for highest-level political commitment and support. However, in Viet Nam in general, projects and programs of international organizations still greatly depend on the interest and support of the government (see actor coalitions between state and non-state actors). Another issue of concern has been reported in the pilot program in Lam Dong, where the implementing organization has installed an environmental monitoring system that evaluates ES quality and quantity. While it seems to be technically effective it has been criticized by some interviewees as being too costly to be reproduced elsewhere and there were also worries about whether in the future there will be enough resources to maintain the system.

When talking about access to resources it is the less well-off who are often lacking the power to have access. It is at this point where **equity aspects** of PES schemes need to be discussed again. It should be self-evident that pro-poor PES schemes comprise appropriate training e.g. to increase resident's negotiation skills and ensure a clear understanding of the contract. Liefferink (2006) also points to the crucial role that access to knowledge and information plays in a policy arrangements. This is especially relevant in terms of PES, be it about influencing the perception of buyers and their willingness-to-pay (i.e. tour agencies, tourists) or in terms of providing residents access to accurate information about their rights and responsibilities. There is however one equity aspect that remains disputed; the impact of PES on the landless, who are often the poorest. Payment of ES to villages or farmer groups might be one way to tackle the problem, but it is probably only realistic to say that PES is not a poverty alleviation tool for the poorest of a nation (who are on top likely to suffer most from strict forest protection measures as well).

Bringing monetary funds to a region always carries the risk of offering **influential individuals and organizations** a chance to enhance their power. Therefore emerging rules and regulations must ensure that the majority of PES revenues are channeled to local people and **elite capture** by local individuals or FMBs is curtailed (Hawkins *et al.* 2010). On the other hand, through PES, enforcing eyes and monitoring platforms are also added to the current political system. This may reduce the corruption which is currently often observed in government-controlled natural-resource management (Ferraro 2001). Through the local PES platforms that are to be established, and where the providers are an integral part, it clearly has the potential to encourage residents to take their stake. So far, the 'normal people' - how rural residents in interviews often called themselves as compared to rich people or government officials – are traditionally not used to raising their voice. But a PES scheme actually depends on the land stewards claiming their rights to be

compensated for the ES they provide. When they are aware of their rights as stipulated in the contract, and when there is an appropriate institutional framework that has their trust, the providers can help to ensure that elite capture is minimized. Establishing a PES scheme is thus a sensitive undertaken that often challenges locally embedded power relations. It has come clear that a change in power relations is to be seen critically but by no means only in negative terms.

If tourism is integrated in PES schemes, Landell-Mills & Porras (2002:172) see this as a process that "reflects a **shift in the distribution of power** in the tourism market towards land stewards." Traditionally the power in the tourism industry has been bundled by major private companies, and it is not only in the tourism industry that power imbalances along the supply chain account for the exclusion or exploitation of human or natural resources. On the other hand, through introducing the PES concept, market power could also be exerted by residents who force conservationists to pay unusually high rates or who use **strategic behavior** to "feign interest in converting lands that would not have been converted in the absence of payments" (Ferraro 2001:997). Thus, as with any other intervention one has to be prepared for individuals trying to receive the maximum benefit out of the program. According to van Noordwijk *et al.* (as cited in Hoang *et al.* 2009:98) the risk of such pervert effects is increased with the use of strong economic language that makes individuals feel they are in the powerful position to demand more; therefore the risk can be minimized when using "a the language of co-investment and shared responsibilities". This may be more conducive to the type of responsibility, respect, mutual accountability and commitment that is needed for sustainable development (ibid.).

The previous chapter provided an analysis of the wider political and institutional context in which PES arrangements are acted out. They have described the emergence of PES schemes as a policy arrangement and a process of political modernization in the environmental policy arena; an international macro-level trend, so to say, which has in Viet Nam in terms of *Decree 99* been translated into an official PES policy. This is however not the end of the political sphere, as the PES policy and its structures are in turn also translated into different local realities. As elaborated in the theoretical chapters, the SLF links such macro-level trends to micro-level livelihood dimensions. The 'grey box', or policies, processes and structures are thereby said to be of central importance for the way how local people (are able to) use different livelihood assets to follow certain livelihood strategies. In using the sustainable livelihood framework (SLF) the local-level analysis places residents at the center of attention and analyzes the interface of livelihoods and these PES policies, structures and processes.

6 Analyzing livelihoods and PES institutions in Ba Be National Park

In this chapter the analysis moves from the policy level to the very local level where PES schemes are hoped to change current environmentally harming livelihood strategies. In order to do so attention is directed towards Bac Kan; a remote province in Viet Nam's northern mountains. It is most famous for its Ba Be National Park which was established in 1992 around the country's largest natural fresh water and one of the world's largest in-land lakes. Ba Be National Park (Ba Be NP) lies in a remote area characterized by forested limestone mountains with numerous caves and dramatic peaks (Figure 13). The renowned lake makes it a traditional and famous tourist destination in Viet Nam. In 2010 the park registered around 30.000 paying visitors, of which 80% were Vietnamese nationals (interviewee Ba Be NP). According to staff, Ba Be NP is recognized as ASEAN Heritage Park and currently preparing for Ramsar registration.

Figure 13: Ba Be National Park, core zone areas

The maintenance of Ba Be NP and the development of tourism are focal points within the socio-economic development strategy for Bac Kan province, which has one of the highest levels of poverty (37%) but also one of the highest levels of natural forest cover compared to the national averages (MARD & GIZ 2010). Five communes have traditionally been living in the area that is now the National Park's core and buffer zone. The strictly protected and ecological rehabilitation zones (10,048 ha) are home to about 3200 inhabitants in 13 villages, of which most belong to the ethnic minorities Tay, Nung, Dao and Mong. The park's buffer zone (42,000 ha) hosts another 16,000 people in 40 villages (ibid.). It stands to reason that on the one hand environmental degradation, such as deforestation, slash and burn agriculture and water pollution are severe problems and on the other hand local people struggle for livelihood options as they are restricted the use of forest resources. Due to these characteristics ICRAF is in this region since 2008 operating a program for 'Rewarding the Upland Poor for Environmental Services' (RUPES). The project is focusing on a pro-poor approach and aims at mitigating the prevalent conflict between the NP and its inhabitants. In doing so, it uses an integrated watershed management approach which emphasizes the relation between upstream and downstream land users; focusing on ES from watershed conservation, biodiversity conservation and scenic beauty. The pilot scheme will probably include 2-3 villages and is thought to be up-scaled to a wider region and the inclusion of carbon payments at a later stage. For now, two hydropower plants located just outside the park and tourism activities are envisaged for inclusion in the pilot scheme. The chosen villages for the study at hand follow the proposed integrated watershed approach. Leo Keo village is located upstream at the border of the core and

buffer zone along the Leng River that passes through Nam Mau commune; as this river nurtures both the fields in Nam Mau Commune as well as the lake, behaviour and practices of upstream Leo Keo villagers are crucial for a functioning environment in Nam Mau in the core zone. Nam Mau commune, and especially the villages Pac Ngoi and Bo Lu, profit from tourism activities due to their location next to the lake.

Tourism in Ba Be is happening at a small scale and for accommodation tourists have the choice to either stay in the guesthouse that is run by the NP and located at the entrance next to the NP headquarters in the administrative area or in one of the 20 homestays in Pac Ngoi or Bo Lu, where one night only costs between US$ 2.50 – US$ 4. Apart from the still relatively small Post Hotel, located at the main entrance just outside the NP, there are currently no bigger hotels in the area. However, during the research we have come to know of at least one concrete plan to develop a bigger hotel outside the park close to one of the other entrances. And looking at the development strategy for Bac Kan province, there will be more investments for tourism in the area. While some individual travellers make it to the area by public transport, most arrive either by car, motorbike or with a guided tour. The tours are mostly organized by tour agencies in Ha Noi who have connections with some homestays (HS) in Pac Ngoi, and occasionally in Bo Lu. It mainly depends on personal contacts of the HS owner to tour businesses in Ha Noi, although some HS have mentioned that they are at the moment also trying to build their own website. A study parallel to this research by an IFAD tourism consultant on the future Bac Kan tourism strategy revealed that these all inclusive three-day and two-night tours from Ha Noi usually cost between US$ 80 and US$ 194 per person of which clearly only a very small proportion is going to the local homestays and boat tours (Sharrocks 2010). Possible activities are hiking around the park (either on especially designated 'ecotourism trails' or along the paths from one village to another), visiting the minority villages and taking a boat tour on the lake, visiting a waterfall and some impressive caves. The boat tour is done by most visitors and can either be one whole day or half a day. The boat tour can be organized directly at the boat station, via the 'Be Be NP Ecotourism and Environmental Education Centre' (EEEC) or the homestays; where most HS owners are themselves also boatmen. Due to Bo Lu's and Pac Ngoi's involvement in tourism there are significant differences in household incomes between downstream HS owners and boatmen involved in tourism and upstream villages, where farmers struggle with small cultivation land and little alternative income. The conflict between the NP and the farmers is especially in the buffer zone a serious problem where both parties expressed the will to find a solution and where PES is hoped to have potential for mitigation.

6.1 Poverty-environment dynamics in Ba Be

The conflicts between the NP authorities in Ba Be and the villagers are not uncommon in and around protected areas in developing countries. And although much has been written on such human-environment conflicts (for an overview see e.g. Neefjes 2000), it is indispensable to have a close look at the interrelationships in each particular context. Only when local livelihood strategies and relations with environmental degradation are understood, a PES scheme can be designed and implemented appropriately and effectively. Poverty-environment dynamics refer in this chapter to the interactions of local people with their natural environment; i.e. drivers for nature degradation, and to discuss local people's interactions with their social environment; i.e. PES policies and programs. The elaborations of this and subsequent chapters rely, if not indicated otherwise, on fieldwork findings from PRA, interviews, observation and consultation of local documents.

The villagers in the Ba Be region mainly belong, as mentioned, to four different ethnic minority groups, the Tay, Mong, Nung, and Dao. While ethnic minorities overall characteristically live in remote rural areas and generally experience stronger poverty and much higher illiteracy rates than

the Kinh majority, there are also significant poverty gaps amongst the minority groups. The Tay traditionally inhabit the wider and more fertile lowlands, such as the villages Bo Lu and Pac Ngoi, next to the lake, while the Mong, Dao and Nung share the often barren sloping lands in the mountainous regions. There are no serious conflicts between the different groups, but some interviewees in Bo Lu and Pac Ngoi showed a biased attitude towards the upland minorities or as one interviewee expressed it: "they just do not know how to do tourism" (interviewee Bo Lu) or "in upstream villages people have little knowledge … they do not know how to keep water clean" (interviewee Pac Ngoi). Traditionally, however, the livelihood activities of the different groups do not vary a lot. Most households rely on small-scale slash and burn, shifting cultivation (rice and maize) and household livestock breeding, i.e. chickens, pigs, cows and buffalos for field work. Traditionally hunting of wild animals has been practiced, but since guns have been collected in return for livestock several years ago (and because wildlife has basically disappeared in Ba Be) there are nowadays only very few reported cases of illegal poaching (GIZ & MARD 2010). Generally, the people use forest resources for cooking, heating, building traditional stilt houses, selling non-timber forest products such as bamboo, vegetables, herbs or honey. As described above, since the mid-1980s, the households living next to the lake have also increasingly been involved in tourism activities which provided them with significant additional income compared to upland communities. Little by little more households offered so-called homestays, where the guests usually stay in the upper part of the traditional stilt houses. From then on, opening a homestay was in Pac Ngoi and Bo Lu seen as an important way out of poverty[32]. The tables below (Table 5) show the results of one PRA exercise that was done to understand people's basic livelihood strategies. At each stage, the participants were repeatedly asked what they would do with some *extra* money. In a second step they were asked to indicate the poverty and wealth lines. Underneath the poverty line the HH are considered poor, between the poverty and wealth line they consider them as near poverty and above the wealth line they escaped poverty. Thereby the differences between the villages in the core zone involved in tourism and those in the buffer zone, struggling with land conflict and lack of alternative income, came clear.

Table 5: Stages of progress (left: Pac Ngoi in the core zone, right: Leo Keo in the buffer zone)

Stage	What do you do with extra money?
6	Savings / Open more homestays
5	Open homestay
wealth line	
4	Operate a boat
3	Repair house, pay for studies of children
poverty line	
2	Buy buffalos, cows
1	Buy pigs
0	Monthly income of <300.000 VND, governmental subsidies, little land & labour

Stage	What do you do with extra money?
8	Studying, savings at bank, buy more furniture
7	Buy (more) motorbike
6	Repair house, separate household
wealth line	
5	Buy more cultivation land
4	Raise buffalo/cow + pay loan back
poverty line	
3	Pay loan back (partly) + raise more pigs
2	Raise more pigs; buy fertilizer, invest in cultivation
1	Buy rice, buy land
0	Land < 500m2, borrow from bank, lack of food, 1-2 pigs, 0-1 motorbike

In how far the village that is involved in tourism (i.e. Pac Ngoi) is better off than those that are not becomes clear when looking at the item "repair house", which is in Pac Ngoi (left) done at stage 3 whereas in Leo Keo it takes people until stage 6 to be able to do it. This exercise (which is part of the

[32] The Vietnamese official three poverty levels:
poor (nghèo): <400.000 VND/month/HH
near poverty (cận nghèo): 410.000 - 510.000 VND/month/HH
non-poor or escaped poverty (thoát nghèo): > 520.000 VND /month/HH

PaPoLD analysis, see Chapter 3) is an interesting tool to use for PES assessment as people are in this exercise asked how an increased financial asset could influence their livelihood strategy. This exercise also picks up some of the thoughts behind the SLF, which emphasizes the idea that an increased financial asset is by people usually re-invested in other assets; i.e. natural (e.g. buy land), physical (e.g. buy animals, repair house), human (e.g. studying) or financial (e.g. open a homestay, pay back loan) asset. These tables thus show the basic livelihood strategies of the villagers which is relevant to be able to understand the context in which the PES scheme is being designed

6.1.1 Understanding local causal relationships

As an outsider one can at first only speculate about existing reasons for environmental degradation and upstream-downstream relations; but more often than not the actual interrelationships are much more complex. Residents of Bo Lu and Pac Ngoi have in interviews often been talking of the width of the river that has over the last years become narrower through siltation and sedimentation and many of them traced it back to general "bad slash-and-burn practices and bad water management" (interviewee Pac Ngoi) of upstream villagers as well as deforestation activities. Interviewees in the core zone also mentioned that in the past the lake had a lot of fish, but now because of the hydropower plant which was built recently just outside the park and the noisy diesel boats fish numbers have decreased rapidly. Interestingly, many of the HS owners pointed to the problem with domestic tourists who, compared to international visitors, have by HS owners been accused to show little concern for the environment and leave much waste. These examples show how some of the core zone villagers are to some extend aware of the impacts of deforestation and cultivation management on the environment and the disadvantages for tourism and their livelihoods; whereby it can generally be said that those involved in tourism have a higher environmental awareness. This can be seen as a favourable and important point of departure for establishing PES schemes.

According to core zone villagers, it is the people from upstream villages who "come to [their] forest in the core zone and take the wood" (participant of focus group meeting Pac Ngoi), so according to them, people from upland and upstream communes are mainly responsible for illegal forest activities. Some downstream villagers explained that it is because the upland people are poorer and do not have the possibilities to develop a tourism business. As mentioned above, other HS owners showed contemptuous attitudes saying that the other upland minority groups do not have much knowledge. Nevertheless it should be noted, that for their tourism activities many of the HS owners take the visitors to upland villages to visit the ethnic minorities; mostly because they have kept more of their traditions than the lowland Tay people (i.e. traditional colourful clothes). Thus, although they do play an important role, upstream communes do not profit much from tourism as the spending on accommodation and food are made at the HS and boat owners in Pac Ngoi or Bo Lu.

6.1.2 The involvement in tourism: alternative or additional income?

Conventional integrated conservation and development approaches are thought to create *alternative* income possibilities for local residents; whereby the term 'alternative' entails the idea that - in turn for an alternative source of income - people will stop or significantly reduce the use of forest resources. Findings in Ba Be, however, suggest differently as interviews and focus group meetings revealed that many of those involved in tourism continue to use as many natural resources as other households. Especially as it is also an admitted fact that many HS which have gas cookers do not always use it simply because using firewood is the cheaper option compared to paying for the gas. Interestingly, two interviewees also mentioned that occasionally the poorer people (either from the same village or upstream villages) have been paid by the better-off to take the risk and go to the

forest for them. Instead of considering tourism as an *alternative* income, the involvement of core zone villagers in tourism activities should thus rather be seen as an *additional* income. To express this behavior in the words of one interviewee: "if someone is rich, he wants to get richer. So even if the government gives them money, they still got to the forest to earn more"; or as Ferraro (2001:992) puts it: "[t]he needs of most people are not finite, particularly those of poor farmers". This suggests that unless residents have a direct incentive to protect the environment from conversion, other activities that promise income will usually be pursued or even extended. It thus seems obvious that no matter the poverty level, most HH also in the core zone village still use wood from the forest for cooking and heating; also if they are usually not in the statistics of those that are caught in the woods for violations. In summary it has thus come very clear, that relationships amongst different poverty groups and amongst upstream and downstream villages are not straightforward and that tourism is not automatically an *'alternative'* income. In this context a direct conservation approach like PES with strong conditionality criteria can be a promising solution.

6.1.3 The interface of livelihood assets and PES policies, structures and processes

As mentioned in the theoretical chapter, the interface of livelihoods and wider policies, structures and processes is characterized by a two-way relationship: on the one hand it is about the access to assets that determine the extent to which residents can participate in and influence PES arrangements, these are e.g. skills, knowledge and education (human asset) or affiliation with formal and informal networks (social asset); on the other hand it is about the influence such policies and arrangements can – and are also supposed to - have on local livelihoods and poverty-environment interactions. Following the SLF, the findings have been clustered according to human-cultural, social, natural, physical and financial assets. The discussion of assets will take into account this two-way relationship and is based on information obtained through interviews and focus group meetings in the villages. Appendix H contains the tables with an overview of all the issues that are important for PES participation in general. On the basis of these tables only the most relevant issues for the pro-poor PES scheme in Ba Be have been selected and are discussed below.

Human-cultural asset

In Ba Be several interviewees mentioned that it is not the task of "normal people" to interfere or judge upon higher levels of social and political organization. Such a hesitation to speak up relates to general values and ethics that determine people's interactions with their social-political environment. This **culturally-rooted modest diffidence** of most rural residents has also been apparent in the PES pilot in Son La, where the providers did not complain when the payments were late or not made at all. A PES scheme is however build on the premise that all participants are aware of their rights and others' responsibilities. Both contracting partners are also supposed to control each other; if, however, one contractor feels inferior to the other and does not dare to speak up when the contract is violated, then the scheme can be in danger of working properly. This strongly supports the need for facilitators to create or appoint intermediaries who can mitigate in such cases and encourage the less well-off of a village to speak up as well. Extensive training to explain the concept, and thus rights and responsibilities of the scheme are needed. Studies elsewhere in Viet Mam have shown that interviewed farmers considered the human and social skills gained through the workshops as one of the most important positive impacts because they see it as a general advantage in interactions with other local people and the outside world (Hue University in Hoang *et al.* 2009).

A household's **environmental awareness** is another important dimension of the human-cultural asset and highly relevant for active and committed PES participation. It has been found that HH involved in tourism generally understood the connection between human actions, the condition

of the environment and its future importance for tourism in the area. This can be seen as a good starting point for the PES scheme as it may increase acceptance of PES payments and pro-active participation of some HS. In terms of impacts, above mentioned PES workshops and trainings are also likely to substantially increase environmental awareness and understanding of natural causal relationships. In Ba Be this aspect is very important as it inherits the chance to make people understand that current practices do not need to be changed only "because the NP says so" (interviewee Bo Lu) but because they otherwise also negatively affect their own livelihood options in the near future. Providing such a rationale for action may thereby mitigate the conflict between the NP and the villagers.

Social asset

Out of the five livelihood assets, the social capital is usually described as the one that is most closely connected to wider structures and processes (DFID 1999) as it, amongst others, refers to people's access to networks and collaborations amongst each other but also with external structures. It is also the one that seems to be essentially relevant for the fair participation in PES scheme because "strong civil society groups help people to shape policies and ensure that their interests are reflected in legislation" (ibid.:9). Those HH who are thus **members in formal organizations** (e.g. Boat Cooperation) are more likely to have access to a platform to voice their concerns and receive information about PES.

Concerning villager's interactions with governmental programs, apart from a state grant in 2009 for Pac Ngoi to build traditional stilt houses, there is little involvement of official tourism bodies. Common planning and coordination for tourism in and around the park seems non-existent. According to statements in the focus group meeting in Pac Ngoi, this state grant caused much confusion amongst the villagers as to where they should get the timber for building the stilt houses. Such ambiguous policies add to a **climate of mistrust towards the NP and intervention programs.** Furthermore, as this grant only focused on tourism in Pac Ngoi, the villagers in Bo Lu felt treated unfairly and feelings of jealousy and disapproval were openly expressed during interviews. But also amongst the homestay owners in the two villages there were significant differences in levels of trust and cooperation; HS owners in Pac Ngoi spoke about a good atmosphere between the homestays while in Bo Lo there seems to be more a climate of competition and mistrust. Mistrust amongst the villagers, but also towards interventions from outside, are again important local peculiarities that might influence the success of a PES scheme and call for a transparent and careful communication of the PES concept through an entity that is locally trusted.

Especially focus group discussions revealed that informal rules of interaction discourage **negotiation powers** of the less well-off vis-à-vis the better-off; i.e. the providers vis-à-vis the beneficiaries. In terms of PES, this risks that their voice will be undermined in contract formulation (Leimona *et al.* 2009). While this obviously also relates to individual skills (see human asset), it is also influenced by existing social structures.

A point of concern is the risk of causing **social tensions**. This has been observed elsewhere where the PES scheme resulted in jealousy of non-participants. In such cases Leimona *et al*. (2009) suggest intermediaries and facilitators to invest in transparency of information by e.g. openly communicating contract content and actively counteracting misunderstandings. In Ba Be this might be a realistic concern as interviews showed that certain tensions and mistrust amongst up- and downstream villagers already exist. Social tensions can also arise when patrolling the forest; several interviewees pointed to difficult situations when the one who patrols for forest protection knows the one who violates, because in such situations it is "difficult to punish your neighbour" (interviewee Bo Lu). One commune leader also says that the commune often does not want to

punish them because mostly the violators are local poor who already struggle with their livelihood. This concern can be addressed e.g. by creating appropriate institutions that mitigate in case of conflicting situations.

Natural asset

A household's natural asset mainly refers to **land tenure** issues, which is in the global PES discourse one of the most frequently discussed subjects in terms of pro-poor PES participation. In Ba Be the IFAD-3PAD program is - together with the provincial government - currently allocating land use certificates to local villagers in order to enable their participation in PES. As an indirect effect PES schemes thus have the potential to support and accelerate official recognition of land tenure. A related concern that cannot be neglected by any pro-poor PES scheme is the effect on the (already much reduced) natural asset of the **landless**. People who do not have land are usually not likely to be able to participate in a strictly defined PES scheme. In the villages in Ba Be there are only a few landless but they are amongst the poorest in their village and it can be speculated that these might also be amongst the ones who go to the forest to sell wood to the better-off homestay owners. Consequently, a stricter control of Ba Be's forest resources might in the end also undermine this income source of the landless. To mitigate such concerns 'reward'-advocates promote payment transfer to villages or communities instead of individuals; however, the jury is still out to judge in how far this is legally feasible in Viet Nam in the near future.

Physical asset

It seems that this dimension is the least relevant for participation in PES, at least the analysis in the Ba Be context did not reveal any major drivers or obstacles for HH that can be related to this particular asset. Usually this refers to access to electricity, distance to markets, road conditions etc. In terms of PES participation the importance of having access to different seedlings or an alternative to fertilizers - if this is required by the contract – can however be a point of concern in the context of the physical asset. Since the scheme in Ba Be will probably entail both, contracts for conservation as well as sustainable management, some rewards could also come directly in the form of seedlings or farming tools. Giving such in-kind rewards has the advantage of avoiding inappropriate use of payments, as described under the following 'financial asset'.

Financial asset

This asset is obviously the most relevant in terms of PES as it is seen to be the **entry point for PES** to induce the desired change in livelihood strategies. A PES thereby increases a HH's asset either *directly* in form of cash money or bank transfers or *in-directly* via access to credits and loans or reductions in electricity/water bills. Both results in HH having a higher dispensable financial asset; which is in turn reinvested either in savings or in other assets such as seedlings or husbandry animals (physical), additional land (natural), the education of children (human), or more indirectly - as more wealth can often also correlate with more recognition from informal and formal groups - in social assets. The question of the use of extra money can also hint to perverse effects, e.g. when a HH buys more livestock that increases pressure on the environment for grazing. Findings from the PRA focus groups showed that this could become a realistic concern in Ba Be in those areas where having more livestock is thought to be an important way out of poverty. In this context it is again relevant to clearly communicate conditionality and the underlying environmental concept to prevent the occurrence of such perverse effects.

When talking about its relevance for participation in PES as a provider, the financial asset is somewhat disputed. On the one hand those HH who have **savings** are more likely to enter a

contractual agreement that binds them to long term resource planning; mainly because in emergency cases they can use savings and do not run the risk of having to break the contract in order to overcome possible shortage. On the other hand there are findings that those with less financial assets are more likely to profit from PES as the **relative amount received from PES is for the poor higher** than for the better-off HH (Hoang *et al.* 2009). Consequently this means that in cases where a limited amount of contracts is available and a bidding process (see Chapter 4.3.1) for the contracts takes place, the less well-off HH have good chances to be elected for participation.

When looking at the **participation in PES as a beneficiary,** i.e. homestays, the scheme in Ba Be is a particular difficult case because in Ba Be having a homestay does not automatically mean reliable financial security, as homestays are vulnerable to fluctuations in visitor numbers and access to informal networks (e.g. links with tour operators in Hanoi). Depending on these factors, for some homestays participation in the scheme can be difficult.

Taking the above considerations into account for PES design in Ba Be can significantly increase equity aspects of the scheme. Most importantly it has come clear that PES schemes require the creation of institutions that are biased towards the poor. Combined with education and training on contract design and how to interact with PES institutions this can effectively increase villager's social and human-cultural assets; which can in turn strengthen the position of the less well-off and increase their ability to influence existing power-imbalances within the village vis-à-vis richer homestay owners or amongst upstream and downstream villagers. Such non-monetary rewards should be seen as an important side-effect of PES arrangements. Importantly, the identification of poverty-environment dynamic has also revealed that some of the local HH who run a homestay (and are thus according to the characteristics described in *Decree 99* requested to pay for ES) have themselves just escaped poverty. If the PES in Ba Be is to take its pro-poor criteria seriously, then the scheme design needs to take into account the peculiarity of this beneficiary group as well. It has also come clear that past development policies and the NP's programs have in Ba Be also increased tensions in-between villages and also between local people and institutional actors – not least because the complexities of local livelihood strategies have not been taken into account enough in policy planning and program design. With the above analysis of important livelihood assets as a basis, such an institutional design which is transparent, trusted and sustained by the participants in Ba Be can be discussed.

Before the next chapter gives insights into the beneficiary dimension, it is important to note that most likely in Ba Be for the providers different kind of contracts will be used. Depending on the location of the plot the contract can regulate and pay for the strict conservation (e.g. in core zone areas) or for the application of sustainable management practices (e.g. in buffer zone areas). Conditionality then thus means that HH comply with the different agreements and responsibilities as stipulated in the contract. What the actual content of the contracts will be relates to a great extend to the application of certain land use techniques, an issue that is not discussed at length in this thesis as ICRAF is conducting extensive rural appraisal studies on the evaluation of different land use techniques in the study area.

6.2 Identification of beneficiaries

The main characteristics of the tourism activities in Ba Be have been described in the introduction of this chapter and the following groups can be identified as the main ES beneficiaries to include in a first pilot scheme (Figure 14):

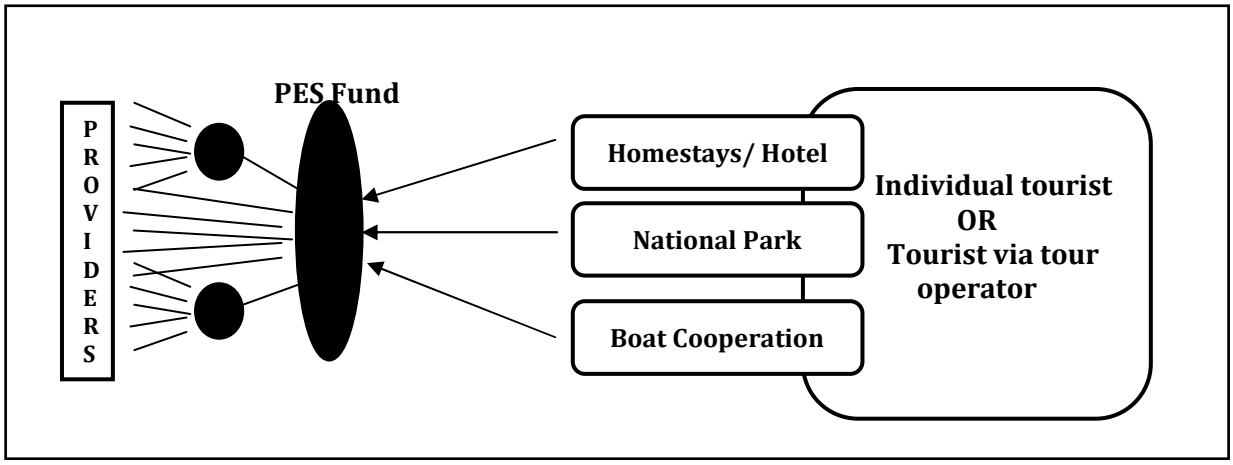

Figure 14: Beneficiary groups of the ES scenic beauty/biodiversity in Ba Be

There are thus three different type of entities which can be asked to enter into a contractual agreement for PES and therewith commit to transfer 0.5-2% of their income to a future *'Ba Be Forest Protection and Development Fund'* (big black circle), which represents the local PES fund that is to be created as regulated in *Decree 99*. The fund will then transfer the payments either directly or via second intermediaries (small black circles) to the providers. As opposed to the scheme in Lam Dong, the situation in Ba Be is much more complex and special attention has to be paid to (1) the fact that the homestay owners, and thus potential payers, are themselves local people of whom some just escaped poverty and (2) the fact that the National Park is the official legal forest owner who in turn subcontracts households for forest protection. In this function it is equal to the Forest Management Boards in Lam Dong and would thus be a secondary intermediary who is also entitled to keep a maximum of 10% of the overall PES payments for management costs. However, the NP also has incomes from tourism through a guesthouse, one restaurant, tour guides, a small boat station and the entrance fees. This means that there will be PES payments from and to the NP. The following discusses such important beneficiary-issues in more detail.

Homestays. The livelihood analysis above revealed that many HS owners have an increased environmental awareness, which can generally be seen as a good starting point for introducing PES. However, when looking at the capacity and willingness to pay of homestays there are more issues to take into account. Firstly there is the fact that, while having a homestay can lift people out of poverty, it can also make them more vulnerable and dependent on visitor numbers. Homestay owners mentioned this point several times in saying that "when no guests come there is no secure income" (participant focus group meeting Bo Lu). Secondly, this issue is supported by the very low prices; currently the costs for one night range from 2.50-4 US$ which sometimes includes breakfast. One should thus be aware not to generally think that all those involved in tourism are automatically rich and can easily transfer the PES-payments. For the PES design this means that especially in Ba Be the payers have to be informed about the possibility given in *Decree 99* to include PES-payments in the production costs. Thereby the costs are transferred to the end user, who is either the individual tourist or the tour operator who books on behalf of a tourist (see Figure 14). Some HS owners

seemed to be afraid of giving away some of their competitive advantages to other regions when raising the price (focus group meetings). However, looking at it critically it can be presumed that a slightly higher price it is not likely to influence the decision of tourists to come to the area and stay overnight because (i) the prices at the moment are way below average prices also elsewhere in Viet Nam and account only for a very small proportion of the overall price of a tour; (ii) there are not many other options to stay elsewhere in the park; and (iii) when a PES scheme is established it is essential to communicate the existences and working of the PES scheme clearly to the visitors via leaflets on arrival to the homestay, in advance via the tour operator and/or the website; which might in turn positively influence the visitors decision. This has not been researched in depth in this study, but is derived from general studies on tourist's increased willingness to pay for nature conservation (see e.g. Bienabe & Hearne 2006; UNEP 2011). It picks up findings from earlier chapters on communicating the PES scheme *and* the concept behind to achieve the double effect of also raising the environmental awareness of tourists. In Ba Be it thus has the potential to mitigate the waste issue with Vietnamese tourists, which has been mentioned repeatedly by HS owners themselves. The questionnaire amongst the homestays furthermore revealed that many do not keep a strict record of earnings and spending in the sense of classical accountancy and some HS might be reluctant to PES at this point as it requires stricter monitoring of their income. The fact that many homestays do not have a clear accounting system on which to base their contribution to the PES fund is likely to increase transaction costs.

Post Hotel. Apart from the homestays, the pilot scheme should also already include payments from the Post Hotel**,** which is located just outside the park and which could have a substantial contribution to the PES fund. With the official Viet Nam Post as owner and a clear accounting system an unproblematic inclusion can be presumed.

Ba Be National Park. Concerning the role of NP in the scheme**,** important lessons have been drawn from the Lam Dong pilot scheme in Chapter 5.2. On the one hand, as the NP remains the legal forest owner for the land plots inside the park, it is considered to take on the same role as the Forest Management Boards in Lam Dong and is thus to be considered a secondary intermediary that subcontracts HH for forest protection. Following *Decree 99*, the local PES fund would then transfer the PES payments to the National Park who in turn transfers them to the subcontractors; in this role the NP would then be entitled to keep 10% of the PES payment for management costs. On the other hand, and apart from its role as a secondary intermediary, the NP is obliged to pay 0,5-2% of its revenue from *all* touristic activities; i.e. the guest house, restaurant, entrance fees and tour guiding. Internally the NP is subdivided into different departments where the Ecotourism and Environmental Education Centre (EEEC) is the one department in charge of managing all touristic activities. According to some NP staff, there will be major changes in the near future on the legal status of the EEEC that would give it more independence and financially uncouple it to some extend from other NP bodies and which seems to have more the characteristics of an independent tourism business. Irrespective of its future form, the EEEC is likely to play a very important role for the NP's PES contribution as it keeps the records of most income activities from tourism. Only the NP entrance fee is managed via a different department. Similar to the prices of the HS, also the entrance fee to the park is until now very low (1$ for adults and 70 cent for children). Also, there is no price differentiation between domestic and international tourist. Historically and globally seen this is no special exception, because as Landell-Mills & Porras (2002) note, "entrance fees have rarely been used by protected areas to capture beneficiaries' willingness to pay … [i]nstead, where fees are imposed they are set low to encourage visitation and minimize illegal entry." However, the example

of Costa Rica shows that differential prices for foreigners and domestic visitors have been widely accepted and well-functioning for a long time (Alpízar 2006) - if connected to a well-functioning and reliable conservation system that ensures provision of the expected environmental services. Thus, a well-designed and effective PES scheme in Ba Be can also provide a justified rationale for introducing an appropriate and reasonable pricing system for the entrance fees.

The third important entity from which payments can be expected is the **Boat Cooperation**. Several years ago the 'Boat Cooperation' (officially 'Ba Be Lake Management Cooperation', but local people always use the short name) has been formed. All boatmen are members of the organisation as it manages the docking station and the distribution of the tourists to the boats. Compared to the NP and HS this is less complex as there are clear rules and regulation on how much the boatmen have to pay to the association already. Currently the Boat Cooperation keeps 25% of the costs for a boat trip; the remaining 75% is paid to the boat men. When PES payments are introduced it is thus recommended to use the Boat Cooperation as the central entity that transfers 0.5-2 % of the overall revenue from boat tours to the PES fund.

A calculation of these entities' contribution to the PES fund will be presented and discussed in Chapter 7 together with the overall framework for the PES scheme. But before doing so the last following subchapter concentrates on an analysis of the existing institutional context and its potential role in the PES scheme.

6.3 Identification of appropriate local institutions and actor constellations

The institutional structures and bodies for PES can either be already existing ones that are adapted or they can be newly formed in the process of PES design. This chapter will discuss this process in more detail, drawing mainly on the results of so-called Venn Diagram (for an example see Appendix D); an inquiry tool that was used during focus group discussions in each of the three Ba Be villages and with selected NP staff. It can, depending on the questions that are posed, be used to grasp the interviewee's perception of institutions and of relationships amongst institutions. An extensive list of all the actors that were mentioned by the interviewees as well as the perceived role and/or villager's opinions about them is given in Appendix F. Here only the most relevant for the tourism-related PES design will be discussed.

Compared to other local level organizations villagers showed very little trust in **National Park authorities**, mostly because they felt that they "only forbid activities but do not offer alternatives" (participant focus group) and do not support the people in their struggle for livelihood income. Furthermore they criticized that there is only little communication and explanation by NP about the rules and that rangers were sometimes open to corruption. Those villagers involved in tourism often mentioned the **NP's Ecotourism and Environmental Education Centre (EEEC)** as a relevant actor, whereby they did not express the same negative feeling as about the NP authorities in general. These general concerns about the limited capacity (and mandate[33]) of the NP authorities and the obviously hostile attitude towards this actor suggest that the NP should not be the one promoting and disseminating initial information about PES as this might cause mistrust towards the scheme at an early stage. However, the NP remains the official land owner of the Ba Be forests and is the one who subcontracts HH for forest management and protection. It thus seems legally not possible to sign PES contracts directly with HH living inside the park. In these cases the NP would have to act as a secondary intermediary and thus play, as identified in Chapter 6, a similar role as the Forest Management Boards in Lam Dong. Furthermore, those villagers who are boatmen and operate tourist trips by boat are mostly all member of the **Boat Cooperation.** Interviewees have expressed contested opinions; most, however, say that members are generally satisfied but that

[33] Ba Be NP operates under the direct mandate of the PPC in Bac Kan.

there have been some serious conflicts in the past about the lack of financial transparency. The head of the Boat Cooperation addressed this unsolicited during our interview in saying that they are by now very aware of this problem and changes for improvement have been made over the last months.

The two biggest mass organizations, **Farmer Association** and **Women Union**, were repeatedly mentioned by villagers to be very important. They displayed high levels of trust towards these organizations, whereby both men and women emphasized the good work of the Women Union; this is on the one hand because of alcohol problems amongst men in rural areas but also because the Women Union has already been in charge of some micro-credit programs with the local branch of the Bank for Social Policies. This makes the Women Union an important possible intermediary, e.g. for dissemination of information about PES to villagers. While they do recognize that both organizations do not have much power and influence, they are still considered as very relevant for the villagers. It is important to realize that, as discussed in the PAA analysis above, these mass organizations are also government-led and cannot be seen as true civil society organizations that necessarily only represent local concerns. In line with the Women Union also the **Bank for Social Policies** seems to have high levels of trust amongst the villagers. In summary, these three organizations as well as eventually the Boat Cooperation are thought to be appropriate institutions to play important roles in a PES scheme in terms of secondary intermediaries.

At the regional and provincial level it can be said that the provincial **tourism department DoSTC** (located at 2-3 hours from Ba Be in the provincial capital) has generally received little critique and especially villagers who are involved with tourism in Pac Ngoi have said to be satisfied with the training they received on tourism business or visitor management. One important remark occasionally made concerned the rather marginal role of the DoSCT at district level (located in Cho Ra under the official name 'Department for Culture and Information'). Several HS owners reckoned it would make sense to involve it more because this department is geographically close "so they know better about what is going on here" (interviewee) as opposed to the DoSCT which is far away in BacKan. In an interview with staff from this district level DoSCT the staff explicitly expressed the wish to have more responsibilities and be included in the policies and programs in and around Ba Be NP. Furthermore, as elsewhere in the pilot schemes, also in Bac Kan the DoSCT and DARD seemed not used to horizontal cooperation but showed an attitude of 'wait and see' what the PPC asks them to do. For an effective and efficient PES scheme, however, direct cooperation is necessary and should be encouraged.

Furthermore there is the PPC, which was basically mentioned by all participants as the most powerful actor. In terms if PES it is also the PPC in Bac Kan who will in the end decide which tourism beneficiaries have to pay and how much (rate between 0.5-2%). To come to know about opinions of villagers about PPC or CPC is a sensitive undertaken as people are usually not very open to expressing their thoughts about governmental actors and political issues. One interviewee once deplored that the PPC should work more efficient, but for the rest people confined to neutral statements about the role of the PPC in general.

This discussion on existing institutional actors obtrudes that for the implementation of PES a new body should be created. None of the existing institutions offers itself for being transformed to the needed central PES intermediary; because for the scheme to function it is highly relevant that a stable and trustworthy regulatory system is in place which is supported by providers as well as beneficiaries. Therefore, and to take the role as the primary intermediary and the main coordinating body of the PES scheme the creation of a so-called *Ba Be Watershed Management Board* is suggested,

who will be in charge of managing the local PES fund. Based on the elaborations above, its members are suggested to be (representatives from):

- Upstream farmers
- Downstream homestay and boat owners
- Boat Cooperation
- Head of Nam Mau and Quang Khe commune
- Village leaders
- Head of Women Union
- Head of Farmer Association
- Ba Be NP – Forest Protection Department
- Ba Be NP – Ecotourism and Environmental Education Centre (EEEC)

In creating such a body as the *Ba Be Watershed Management Board (Ba Be WMB)* the facilitator's efforts should especially focus on making sure that it provides a platform for less well-off ES providers as well as beneficiaries to interact and express their concerns during contract design as well as the follow up phases. This is particularly relevant in Ba Be due to above identified complex poverty-environment dynamics and tensioned relationships between upstream and downstream residents. Some of the members of the Ba Be WMB are themselves organizations who are likely to play diverse roles as secondary intermediaries. Thus, based on the elaborations above the following actor constellation is proposed (Figure 15):

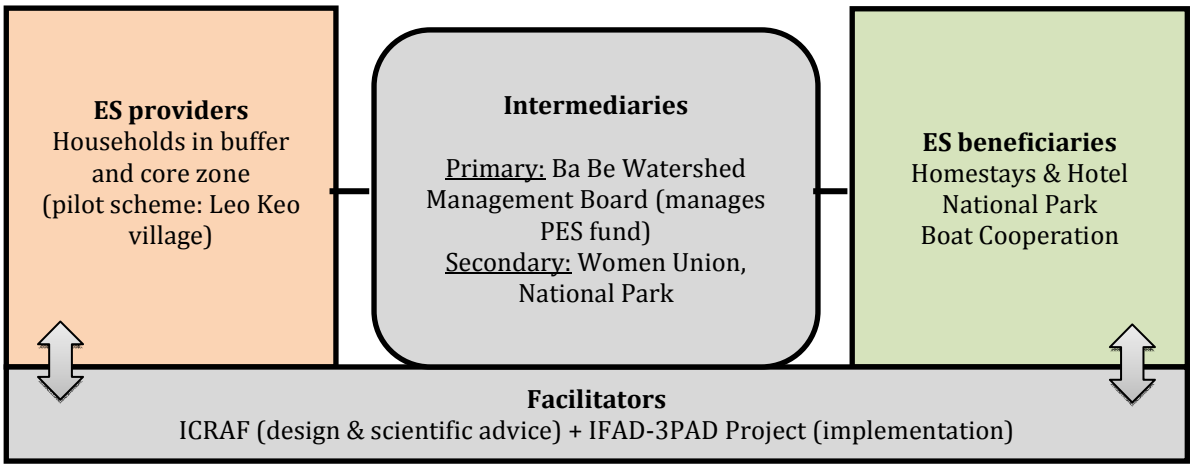

Figure 15: Proposed actor constellation in Ba Be PES scheme

This constellation thus suggests that Ba Be WMB is the central body and contact platform for any questions and problems. In Ba Be the provincial level departments are, other than in Lam Dong, located far away from the area. Therefore it is suggested to make use of the possibilities given in *Decree 99* to create the structures for the *Forest Protection and Development Fund* (commonly referred to as PES fund) at the lowest possible level; and which would then be under the management of the Ba Be WMB. In terms of financial transactions, the PES fund should be created within the *Bank for Social Policies (BSP)*, who transfers the payments according to the contracts to service providers – but only after having received a final appraisal and approval from the Ba BE WMB about compliance (conditionality). The Ba Be WMB thereby thus plays a major role in monitoring and enforcement of the scheme; which should be done in a participatory manner and with the technical support of the special PES software which was already developed for the pilot schemes (Thi Thu & Pancel 2009). Using the local *Bank for Social Policy* for the financial part will

reduce transaction costs as the bank has already been active in the area for many years and certain structures to transfer the money are in place.

The role of facilitators is at this early stage crucial as the PES concept needs to be clearly communicated and explained to all relevant stakeholders during training sessions and open workshops for discussion of the questions that might arise. At the time of interviewing, the *Decree 99* has not yet been officially communicated to the province PPCs and consequently most governmental staff was not yet aware of the PES concept. The more noteworthy it is to mention that part of the DoSCT staff mentioned that they had already learned about PES – mostly this happened in relation with the IFAD-3PAD project which has its office rooms amongst the provincial departments in Bac Kan. The IFAD-3PAD project will implement the PES scheme in the course of 2011 and receives advice from ICRAF on the design[34]. Having this division amongst facilitators is convenient and efficient as is bundles the strengths of both organization; ICRAF has extensive experience with PES schemes elsewhere and IFAD-3PAD has been active in Bac Kan as a whole for many years and has already been operating in close cooperation with most relevant provincial departments. As shown in terms the actor dimension in Chapter 5.3. such alliances are crucial for successful implementation. It is also important to realize that, thus, in the end it will be IFAD-3PAD staff that will be in direct contact with the villagers in Ba Be mostly. Project staff is therefore trained by ICRAF on PRA and other participatory methodologies in workshops, training field trips and accompanying literature. It has been mentioned before that contradictory environmental and development policies in the past led to some distrust and (initial) suspicious attitude towards interventions from outside, especially in the villages Bo Lu and Pac Ngoi. As interviews revealed that the organizations 3PAD and ICRAF are new to villagers, there is a need to put effort in establishing trust and a climate of cooperation. A first step was a stakeholder workshop jointly held by ICRAF and IFAD-3PAD in mid-January, where (representatives of) most of the above identified stakeholders were officially introduced to and explained the PES concept and where first reactions were generally positive.

[34] Concerning the inclusion of payments from tourism this research forms part of this advice in a final IFAD report.

7 Integrating the findings into a framework for tourism-related PES in Ba Be

Based on the precedent observations and considerations a concrete framework of the tourism-related PES scheme in Ba Be can be proposed. The previous chapter dismantling the specific poverty-environment dynamics in Ba Be and thereby not only identified provider and beneficiary groups in Ba Be but also shed light on relationships amongst the providers and beneficiaries as well as their perception of local institutional actors. Thereby an appropriate general actor constellation and a suggestion of their different roles in the PES scheme in Ba Be have been given. These elaborations have substantially informed and enabled the proposition of the following detailed framework (Figure 16).

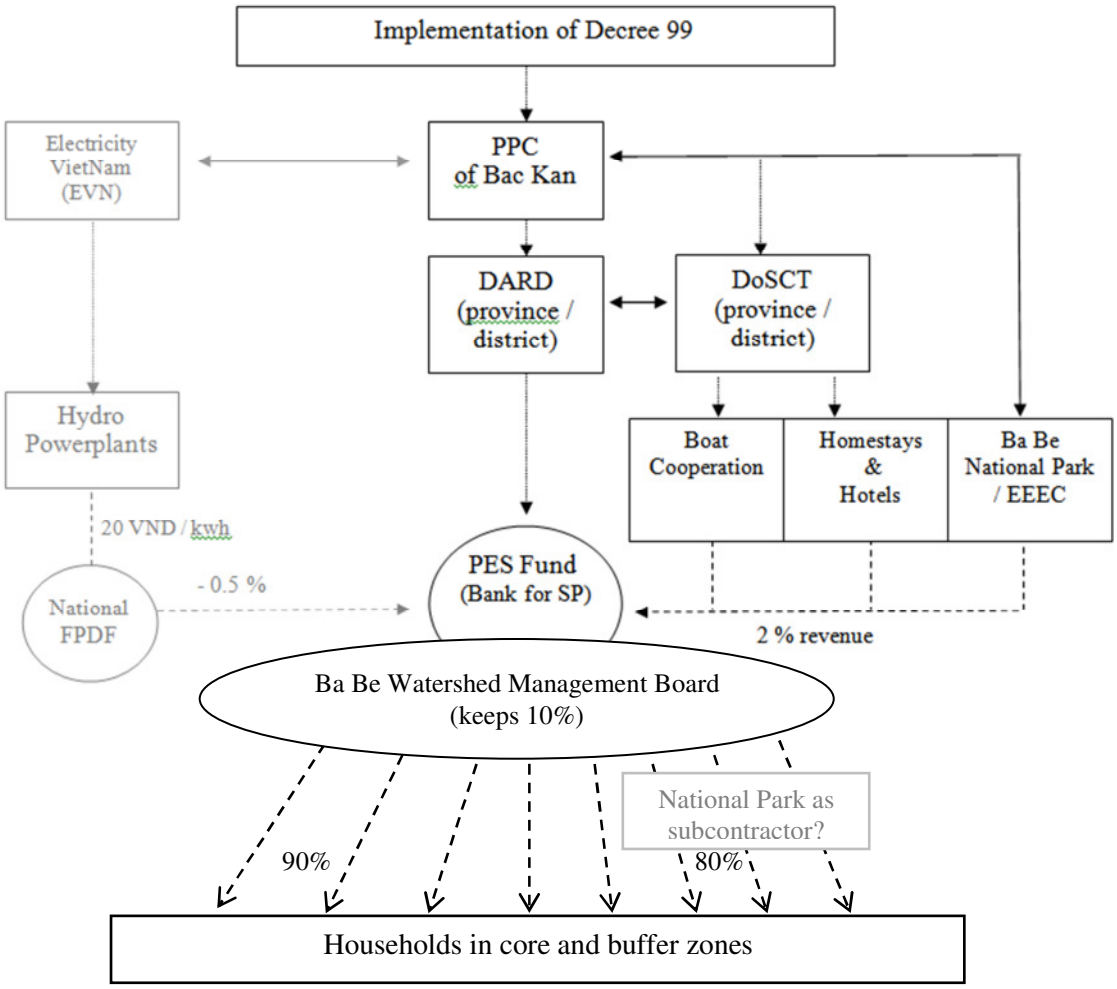

Figure 16: Proposed PES framework for the pilot scheme in Ba Be
(Note: The continuous lines denote an information flow and the broken lines denote a money flow)

Other than the scheme in Lam Dong this framework places the DoSCT as an equally important institution next to DARD; this is necessary because the tourism-related beneficiaries in Ba Be are a highly heterogeneous group wherein certain actors, i.e. HS owners, are likely to need differentiated and close support. This would clearly be the task of the DoSCT, which also already has a certain level of familiarity and trust amongst the villagers in Pac Ngoi and Bo Lu. The previous chapter also explained how the Ba Be WMB is formed and how this body represents the central intermediary where (representatives of) all *local* actors come together. Being the central steering body of the PES

fund, *Decree 99* allows the Ba Be WMB to keep a maximum of 10% of the PES payments for its management costs. Since its operational tasks involve contract establishment, monitoring of compliance and mediation in case of tensions between providers and beneficiaries the most important guiding principle should be to guarantee full transparency at all times – concerning mode of operation as well as the use of the budget. To achieve this should be one of the main tasks of the facilitators in the initial phase.

Concerning the distribution of the PES fund to providers it is obvious that the most direct way of distribution should be aimed for. The most direct way in this framework is via the Ba Be WMB instructing the *Bank for Social Policies* for the actual transaction, so that in the end 90% of the payments directly go to the individual contracted households. Where the NP is the official land owner, a direct transfer might not be possible. In this case, as mentioned before, the NP acts as a secondary intermediary that subcontracts the individual HH. In this function *Decree 99* allows the NP to keep another maximum of 10% for management costs. On the one hand this of course means that a smaller amount is transferred to the HH, but on the other hand this also means that the NP has an additional source of income for general administrative costs and conservation activities.

7.1 Estimated contributions from tourism to the PES fund

As indicated in the figure the application of a 2% payment rate is suggested, which is the upper end of the possible range given in *Decree 99*. Table 6 below shows a preliminary calculation for the payments from tourism for the first pilot scheme (for details see Appendix I). This calculation should be seen as a rough estimation due to the following limitations: (i) the payments from the Boat Cooperation are based on a report (Ba Be Lake Management Cooperation 2010) and an interview with the director of the Boat Cooperation - using the data from 2009, because data for 2010 was not yet available. The interviewee pointed to the fact that 2009 was an overall bad year for tourism due to the world financial crisis, and income from the Boat Cooperation is likely to be higher again in forthcoming years; (ii) data from the homestays was collected by means of a questionnaire in personal interviews and thus relies on oral declaration by the homestay owners as many of them do not have a formal accounting system; (iii) receiving data from the National Park was a challenge in itself, as they were restrictive on sharing income numbers; the same accounted for the Post Hotel which is run by the governmental national post. However, especially from the Post Hotel major contribution could be expected, which make it a strong case to include in the pilot scheme. All in all it can thus be speculated that the actual payments from tourism are higher than the calculation by means on the base of this data allows.

Table 6: Estimated contribution to PES Fund

ES Beneficiaries	Income activity	Contribution to PES Fund / year (estimated; based on 2% from income)
Boat Cooperation	- 3 boat stations offering boat services	**8.968.500 VND**
Homestays in Pac Ngoi and Bo Lu	- accommodation, meals ,tour guiding	**5.557.500 VND**
National Park (Ecotourism and Environmental Education Centre – EEEC)	- entrance fee (Park + Hua Ma Cave) - guesthouse - tour guiding *- restaurant* *- Buoc Lom boat station*	**6.600.000 VND** **12.600.000 VND** **279.300 VND** **N/A** **N/A**
Post Hotel	- accommodation	**N/A**
Estimated contribution from tourism to PES Fund		**41.096.200 VND (sub-total)**
+ Payments from Ta Lang hydro power plant		**236.000.000 VND**
+ Payments from Na Hang hydro power plant		**N/A**
Total volume of PES Fund		Yet to be assessed by ICRAF

These payments from tourism will in the pilot scheme be bundled with payments from two hydro power plants which are located along the same watershed just outside the park. The payments flow together into a local PES Fund, which will be established according to the policy at province level (GoVN 2010a). For the pilot scheme only one or two upstream villages will be envisaged as providers. Most likely the method of reverse auctioning, as described in Chapter 4.3.1 will be applied, to determine the number of participating HH and the amount that they will receive. The exact amount of HH ho will be contracted depends on the size of the PES fund to ensure that those HH who are contracted do receive a significant amount. It is at this early point in scheme design not possible to make concrete estimations on the payment rate that a HH will receive. To give some idea about appropriate payment levels, the pilot scheme in Lam Dong took off with payment levels of 270.000 - 350.000 VND/ha (Nguyen Thi 2010); which was considered a significant contribution to HH income by 70% of the participants (Tran Kim 2010). Poverty levels in Bac Kan and Lam Dong are comparable and reaching contributions settling around this same amount can be taken as guidance. The content of the contract, i.e. what the HH has to do or refrain from doing, also depends on the location of the respective area of land; some HH in the core zone will be required to ensure strict protection while others in buffer zones are required to change current agricultural practices, e.g. no slash and burn or no grazing of animals in the forest. The conditionality criterion ensures that payments are only made when the HH meets these responsibilities as stipulated in their contract. As mentioned, monitoring conditionality would be an important task also of the Ba Be Watershed Management Board.

In Lam Dong the PPC chose for a 1% payment for the first pilot phase in order to slowly accustom the participants to the new scheme. While this may be a valid argument, it is also a fact that the overall contribution of tourism to the PES fund in Lam Dong was only slightly above 1% next to the 99% coming from the water and hydro power companies. In Ba Be it is suggested to directly start off with 2% as the otherwise very minimal contribution would seem to be out of proportion compared to the effort that shall be needed to include payments from tourism (see discussion below). Furthermore it is argued that raising the payments afterwards might encounter anew resistance and might trigger the fear that the rate can be arbitrarily raised year after year. While this can of course never be ruled out, it is still advisable to start with a slightly higher but stable rate of 2% over the first years. Having said this it is of course also important to take into account the findings of the livelihood analysis above, where some homestay owners who themselves just escaped poverty were found to be vulnerable to this encroachment of their financial asset. A way to prevent negative impacts is to emphasize that *Decree 99* gives the homestays the option of including the PES payment in their production costs, thus passing on the payment to the end-user, in this case tour operators and/or tourists. This seems feasible and is not likely to cause any distortion of competition because of the extremely low prices for lodging in Pac Ngoi and Bo Lu at the moment.

Before Chapter 8 will present an overall discussion and conclusion of this research, the following sub-chapter highlights the main issues at stake for the Ba Be case. These findings are very detailed and case-specific for Ba Be to serve as concrete recommendations for the implementing facilitators ICRAF and IFAD.

7.2 Discussion and final recommendations for the Ba Be specific case

The calculation above showed that compared to the contributions from the hydropower plant, the amount that can be collected from tourism activities is so far still comparably small; especially the part coming from the homestays. Although this finding corresponds with the scheme in Lam Dong, where tourism payments also only represented 1% of the overall PES fund, in Ba Be, this raises the question whether the effort of contracting with each of the 18 individual homestays and the possibly

high transaction costs stand to reason for including the rather small payments from tourism in the scheme. When reflecting on the relevance of the payments one should not forget, however, that this research is only focusing on the development of a pilot scheme, which is at a later stage up-scaled. When doing so, it is then strongly advised to also include larger hotels or resorts that are (or are going to be) located in the surroundings of the NP. During the field work we for example already met one investor who has been given the permission and prepared plans to develop a bigger 'ecotourism' resort in an area just outside the NP. Against the background of the issue in Chapter 5.4 on the misuse of the term ecotourism in Viet Nam, it suggests itself that these companies calling themselves ecotourism resorts, should be explained the necessity to pay for ES as regulated in *Decree 99*. The question remains though whether including the payments from homestays stands to reason compared to the efforts. It seems, however, that if payments from tourism shall be integrated it will hardly be feasible to ask other tourism entities in the region to pay but exclude the homestays, and thus those who are actually the ones located directly in immediately along the watershed. This would be very difficult to justify towards upstream villagers who have in focus group meetings already mentioned that it would be fair if HS share some of their benefits because they also take the tourists to upstream villages for day visits. To reduce the risk of high transaction costs and thus increase efficiency of the scheme, facilitators should thus consider in how far administrative structures exist that could be used for easier collection of the payments form the HS Since 2000 the HS have to pay a business tax but the payment level is apparently more an estimation than an amount based on specific numbers. This needs a closer look at the financial arrangement between the tax department and the DoSCT; which is likely to be a sensitive issue. A clear argument for including payments from tourism in the scheme is the fact that scaling up the scheme will in the future allow the inclusion of larger tourism business and thus on the one hand increase payments but also raise their environmental awareness; amongst businesses but also amongst visitors. While raising visitor awareness is certainly not the main objective of PES, it is a very important side effect that should not be neglected; the more so as many HS owners complained about waste problems and lacking environmental responsibility of the (domestic) tourists.

However, generally, and even for the future and bigger schemes, the payment rate of 0,5-2% as set in *Decree 99* is considerably low. In Lam Dong they applied the rate of 1%, but taking into account the structural efforts that need to be made to include payments from tourism the highest possible rate of 2% should be chosen for Ba Be. The final decision-making power on the rate of payment lies with the provincial governments, but facilitating international organizations should point to this weakness in *Decree 99* and encourage a discussion on augmenting the legally very low margins in the future. Apart from this essential discussion on whether payments from tourism should be included at all, some final points of attention for the tourism-related PES design in Ba Be are discussed:

- **Use existing structures and encourage institutions building at lowest level!**

Some of Viet Nam's past environmental policies have created favourable conditions for the development of PES mechanisms (see Chapter 5.1) and in Ba Be, as elsewhere, most villagers are to some extend familiar with conservation contracts. This does not mean that they are familiar with the concept of environmental services, but it is important to be aware of not creating parallel structures to avoid confusion amongst villagers. Using existing structures necessarily also means being confronted with one of the main challenges for tourism-related PES in Ba Be, namely the required cooperation between the tourism department and other departments such as the DARD. Both departments were obviously not used to such horizontal cooperation at provincial level (see Chapter 6.4). This is a classical situation where political modernization (in this case the introduction

of PES) brings new actors, i.e. the DoSCT, into the environmental policy arena. It seems natural in such situations that 'new' and 'old' actors first have to find their way to how, about what and with who to communicate and cooperate (see Chapter 5.5.). For PES-facilitators accompanying and assisting these institutional processes of change and stabilization should be a focal point

Until now district level departments have not played active roles in any program implementation and cooperation among DoSCT and other PES relevant departments (e.g. DARD) is new. In Ba Be there is a strong case for including district level departments as these are with their location in the city of Cho Ra (geographically) much more closer than provincial departments in Bac Kan. According to NP staff and department staff themselves they know local structures better, and the inhibition threshold (which has in the livelihood analysis found to be a realistic concern in Viet Nam) for local people to approach them is lower than with departments at province level. In Ba Be it should therefore be considered if and how the district level departments can be included in PES design. So far in reality there is little decentralization, but on paper *Decree 99* explicitly encourages the establishment of PES institutions at the lowest level possible. Facilitators should emphasize this formal rule as a window of opportunity for increased lower level participation. Attention should however be paid to the fact that villagers expressed a rather hostile and mistrustful attitude towards the NP, which suggests that this actor should not be the one promoting and disseminating initial information about PES as this might cause mistrust towards the scheme at an early stage.

Talking about existing structures also points to the debated issue on land allocation to individuals. The government admits that theoretically allocation has been decided but in reality inconsistencies in the official land-use classification system and in its management remains (Hoang *et al.* 2009). Thus *in practice* organizational owners, both state and private, are compared to individual owners clearly advantaged in gaining access to forest benefits. This was not a focal point of this thesis, as it concerns all PES scheme in general, but it is still complicating the process of PES allocation to individual land owners and possible solutions such as payment allocation to villages and farmer groups are addressed and discussed intensively in workshops, government meetings and literature elsewhere.[35]

- **Strengthen and build on human and social asset to ensure (fair) participation!**

Concerning the participation of providers, and especially for a pro-poor scheme, the creation of appropriate civic and political PES institutions and organizations is crucial as they are otherwise often excluded from negotiation processes due to formal and informal rules of the hierarchical political system (see Chapters 5.3, 5.5, 5.6). Concerning the participation of beneficiaries, the pilot scheme in Lam Dong has shown that the involved tourism companies have been actively participating and mostly understanding the functioning and necessity of PES (see Chapter 5.2). However, to reach this goal it is essential to invest in building correct understanding of PES and to hold several workshops and meetings at all levels where information is shared and questions can be asked. Such clear communication is also crucial to avoid misunderstandings which could arise from the distinct perspectives on PES of the different actors (see Chapter 5.3.1). Farmers, homestay owners, NP staff, government departments, tour operators and tourists will all look for different levels and types of information about the goals and methods of PES. This requires providing stakeholders with information in formats that takes into account their perspectives that they can understand and access easily.

Concerning existing social assets, some HH especially in Bo Lu lack confidence and trust in policies and programs coming from outside the area due to misleading earlier policies or projects that failed

[35] Literature on land tenure issues and allocation of payments to villages: Hawkins *et al.* 2010; Hoang *et al.* 2009; Hoang *et al.* 2010; IFAD 2008)

to have long-lasting results (e.g. grand for stilt houses that confused farmers as for where to take the wood). Furthermore, and rather culturally routed, many local farmers are still hesitant to voice their opinion to higher levels. It is therefore highly necessary to be aware of such informal rules, and to first establish a relationship of trust with the facilitators and integrate villagers in the design process, e.g. as it has been done through participatory research methods or workshops in early January 2011. Thereby the establishment of PES schemes enhances the internal organization of farmers and interaction with formal and informal groups and organizations is likely to increase. Especially in Viet Nam, this increased institutional capacity should be seen as a very important in-direct effect of a PES arrangement as it can change patterns of participation in local decision making in general.

- **Be aware of the double layer of beneficiary dimensions in tourism!**

A scheme that integrates payments for ES from tourism needs to take into account the double layer of the beneficiary dimension which consists of the commercial entities (i.e. the direct ES beneficiaries) as well as the tourists (i.e. the indirect ES beneficiaries) (see Chapter 4). This is important for two points. Point (1) concerns the possibility of commercial entities to integrate PES payments into their production costs whereby the costs are passed on to the tourists (see Chapter 4.3.2). While in the specific pro-poor case in Ba Be this should be encouraged to avoid a strong incision of homestay's financial assets (see Chapter 6.2 and 6.3), elsewhere the challenge lies in avoiding that commercial entities pass on 100% of the PES payments to the tourists. Most likely this will need clear legal regulations. Point (2) concerns the fact that if costs are passed on to tourists, it needs to be accompanied by information and clear communication of the PES concept in general and the transparent working of the PES scheme specifically (see Chapter 4.3.2; 4.4.) The former aspect also raises the visitor's awareness of the interrelationship between human actions and natural ecosystems; i.e. the benefits of environmental services to humans in general.

In Ba Be the tourism-related beneficiaries are a highly heterogeneous group wherein certain actors, i.e. the HS owners, are likely to need differentiated and close support. This should mainly be the task of the DoSCT which also already has a certain level of familiarity and trust amongst the villagers in Pac Ngoi and Bo Lu.

- **Think beyond the existing homestays and beneficiaries!**

On the long run it is important to think beyond Ba Be National Park to include other tourist spots across Bac Kan in order to ensure fairness and in the light of the comparably small contribution that can be expected from the homestays. It is advised to pay attention to the constructions of touristic infrastructures which are planned or going on in the buffer zone and outside the park (see Chapter 6.2). An inclusion of these bigger 'eco'tourism resorts is also highly relevant with respect to the discourse on the increased misuse of the term (see Chapter 5.4). While the rationale to include those businesses who call themselves 'eco'tourism resorts seems to lie obvious, an interviewee at the DoSCT in Lam Dong also mentioned the dilemma that in reality probably also the hotels in the city close to National Parks (e.g. in Cho Ra) or natural areas benefit from the forest and its environmental services; but that in the case of city hotels it will be difficult to prove the direct connection. Thus long negotiation processes amongst local stakeholders on who should be included in the scheme are likely to be needed at these initial stages of PES; this leads to higher transaction costs and thus lower efficiency of the scheme. However, one interviewed DoSCT staff is from its experiences in the Lam Dong scheme also convinced that tourism companies, once they are explained the concept of ES, are willing to invest. Tourism businesses in this scheme have overall shown a very pro-active attitude towards the development of the scheme.

8 Discussion and Conclusion

This study took off with the overall aim of assessing possibilities for the integration of payments from tourism into the PES concept. Although tourism is by many PES advocates identified as a major user of environmental services, an extensive review of publications and existing PES programs confirmed that so far neither much academic information nor practical experience is available on the interface of PES and tourism. In order to fill this knowledge gap, and following the set-up of the research questions, this study combined a thorough theoretical discussion on key concepts, terminologies and existing PES-like arrangements settling around tourism (Chapter 4) with an empirical analysis of the current PES practices in Viet Nam (Chapters 5, 6 and 7), where a recent political program regulates PES-payments from those tourism businesses and individuals who 'rely on' forest landscapes. In issuing and applying this PES policy, Viet Nam is one of the first countries worldwide and thus provided this study with very valuable insights into central issues at stake and the institutional requirements for tourism-related PES arrangements. The country specific case study itself has been carried out on two different scales, starting with an analysis of basic characteristics and organization of already existing pilot schemes and current PES policies at the national level in Chapter 5. The sphere of PES schemes does however not end at the political level; on the contrary, as the main purpose of a PES is to provide an incentive to local land holders for more responsible and sustainable stewardship of natural resources. This very local sphere of PES implementation is the content of Chapter 6 which analyzed interrelationships of PES, local livelihoods and local institutions in Ba Be National Park. In doing so, it contributed to the identification of a framework for the future implementation of a tourism-related PES scheme by the organizations ICRAF and IFAD. Chapter 7 already presented a detailed discussion and final recommendations for the design of this specific PES scheme in Ba Be. This final chapter 8 takes a step back to critically reflect on some of these main findings and its relevance for the general discussion on PES and tourism, as well as the overall analytical approach of this study.

8.1 Reflections on the analytical approach: PES, PAA and SLF

Characteristically PES schemes are applied at different levels bringing together a plethora of different actors from civil society, the state and the private sector into one arrangement. Obviously, this research thus took place on very different scales for which also two different analytical tools have been used that do justice to the requirements. For the overall structural analysis of PES the Policy Arrangement Approach was used, which considered PES in terms of a policy arrangement and enabled a concrete empirical analysis of multi-level and multi-actor processes at the national level. This approach was also chosen because it explicitly emphasizes the interconnections of such (long-term) social and political processes at national or global level with (every-day) practices of policy and program implementation at the very local level. While it does pay attention to the local level and how rules of the game and power relationships influence participation or exclusion in the arrangement, the analysis still stays in a very institutional and political sphere. For the appropriate design of such PES programs in Ba Be it was however crucial to understand the poverty-environment dynamics of those who (should) have the major stake in the arrangement, namely those local residents who are thought to take on the roles of providers, or as in case of the homestays is Ba Be, even as beneficiaries of ES. Therefore, at the very local level in Ba Be, the Sustainable Livelihood Framework (SLF) was used. This combination of the PAA and SLF turned out to be very helpful and complementary also because the SLF approach has in itself often been

criticized of paying too little attention to power relations, governance structures and underlying rules of the game; which are all dimensions that have in this analysis extensively been addressed by means of the PAA. This point of departure of the research also allowed for not losing sight of important political and structural processes; which allowed some interesting insights into the role of PES in the overall political context of Viet Nam.

However, using PAA also had its limitations in this research, especially as PAA has so far usually been used for the analysis of a policy domain (Arts *et al.* 2006) as opposed to the case here; where it had been used to analyze the implementation of an instrument or specified concept. The main constraint thereby was the fact that when being an instrument the arrangement is to some extend pre-defined by concrete informal rules (i.e. the PES criteria presented in Chapter 2.1.3), which have been translated into formal rules (i.e. the PES policy). Apart from this dimension however, many more informal and formal rules of interactions amongst the different actors could be identified by means of the PAA which are not represented in any policy document. Generally, looking at PES in terms of PAA has been found to be very revealing and helpful because analyzing PES requires such as multi-level and multi-actor approach that takes into account the frictions and underlying power relations amongst actors from such differing backgrounds. There has however been a second constraint, namely that applying PAA in the setting of a communist country has proven to be a delicate undertaken. In the results this became especially apparent in the identification of different actor-coalitions in Chapter 5.3. The PAA emphasizes how looking at the formation of coalitions is relevant to disclose if and how certain actor groups are dominating the arrangement, however, in this research the actor-coalition analysis quickly reached its limits because an alliance with governmental departments basically seemed to be the only way to effectively influence the PES arrangement in Viet Nam.

Such an alliance is also the basis of the involvement of a few of the major international organizations, who through implementing the pilot programs and giving scientific advice have managed to be considerably involved in the policy formulation process for *Decree 99*. This involvement, and the fact that such innovative PES arrangements are introduced at the first place, is remarkable and shows some opening up of political space. In the light of PAA, the substance of the PES approach (i.e. the need and call for participatory, multi-stakeholder cooperation) has at time been found to be potentially incompatible with the socialist-centralistic Vietnamese government model. While there is an inherent risk that such fundamentally different approaches can paralyze an arrangement, there is also an inherent chance that the introduction of PES, which underlines the importance of creating local organizations and networks, can lead to broader changes in the (environmental) policy arena and in the Vietnamese context lead to a tentative move 'from *less* government to *more* governance'.

The PAA analysis furthermore revealed that earlier developments in Viet Nam's environmental policy arena have been a decisive factor for current PES pilot implementation. Most notably, and as land tenure is a constant issue in PES schemes, earlier programs have aimed at allocating agricultural and forest lands to a number of HH and individuals for protection, reforestation or long-term use; whereby those HH located inside protected areas have often already been part of a system for (very low) conservation payments. Building on some of these existing institutions was highly relevant for the overall successful development of PES so far, but it has come very clear that design, implementation and monitoring of a true PES scheme requires far reaching formal changes in policies as well as informal changes in interaction patterns amongst different departments and amongst local providers and beneficiaries. Concerning the interaction patterns amongst departments it is important to realize that with the integration of tourism into the domain of environmental policy the respective departments are confronted with new actors who first have

to find their way in communication and cooperation together. Concerning interaction patterns amongst providers and beneficiaries, the livelihood analysis in Ba Be complemented the PAA findings by revealing critical issues related to the human-cultural and social assets of local residents, who were often very hesitant and modest in speaking up. This is likely to complicate local level participation in PES programs and policies and makes training and workshop sessions on the PES concept and their rights and responsibilities a focal point of attention for facilitators and intermediaries of the scheme.

As in many other programs in tropical countries, the vast majority of people living in and around remote natural areas are also in Viet Nam likely to belong to the country´s poor, where interventions from outside need to take a sensitive approach. Time and resources were too limited to carry out a comprehensive livelihood analysis of all assets, but the SLF remained a very useful tool to organizing the thinking about the dynamic nature of livelihoods and its external influences; it was furthermore a useful lens to reveal how different assets constrain or enable PES participation and how the introduction of a PES scheme can in turn also create or threaten those assets. The combination of PAA and SLF allowed paying increased attention to the roles of intermediaries and power relations that guide interactions; which are both also important indicators of ICARF's pro-poor criterion and thus very relevant in the PES design in Ba Be. Chapter 6 revealed those complexities of local livelihood dynamics in detail and informed the framework and recommendations in Chapter 7 to support ICRAF in taking a cautious approach during program design.

The two analytical tools thus fulfilled the two-folded aim of this research and enabled a comprehensive analysis of the Vie Nam specific case from which not only concrete recommendations for ICRAF's PES scheme in Ba Be, but also general insights into the role of tourism in PES schemes could be gained; of which the most important ones will be summarized and discussed at a general level in the following chapter.

8.2 Tourism and PES: the main points of attention

Obviously, intact natural landscapes do not only support the ecological balance but also provide the basis for attracting a vast number of people to travel around the globe. Not surprisingly tourism has by many PES advocates been identified as a major user of ES. So far, however, the tourism industry has often been free riding on and considerably benefitted from efforts for nature conservation by governments or NGOs investing in conservation projects in the areas of interest; but "as governments' ability to subsidize the ecotourism business declines, new pressures for payment by tour operators have emerged" Landell-Mills & Porras (2002:155). In Viet Nam the government indeed considers PES payments as a financial relief for the state budget and from formerly high spending on forest management and conservation programs and plans to replace some government funds by PES funds. PES from tourism can in this sense thus be seen as an alternative, sustainable financing mechanism for conservation.

In order to implement such schemes, in a first step providers and beneficiaries of the ES in question (i.e. scenic beauty, biodiversity, watershed conservation or carbon sequestration) need to be identified. Such PES interactions amongst beneficiaries of ES and its providers are a very new market-based arrangement that requires the existence or establishment of an appropriate institutional and administrative framework for PES; i.e. an enabling environment for the working of the scheme needs to be created. In order to create such structures, informal PES criteria have in Viet Nam been transferred into formal administrative and judicial processes. To collect and distribute funds locally, administrative bodies need to be assigned or newly created; these administrative bodies are referred to in terms of intermediaries. Since PES schemes are still in their early stages,

the creation of an enabling environment strongly depends on what has here been termed facilitators; entities that provide assistance, funding and technical advice in setting up and managing the scheme. These are general characteristics of all PES schemes, but when including payments from tourism the following main points of concern and future challenges could be identified.

8.2.1 Direct and indirect beneficiaries and their willingness to pay (WTP)

A PES approach requires identifying beneficiaries who benefit most from the provision of certain environmental services; now and in the future. The phenomenon of tourism creates different value types for two different actor groups: a direct economic use value of ES for commercial entities and socio-cultural values of ES for the individual tourists. In terms of PES there are thus direct and indirect beneficiaries who benefit in different ways; commercial entities make private profit (direct economic value of ES), while tourists spend this money for enjoyment (socio-cultural value of ES that is translated into economic values through spending money for it). When integrating tourism in PES schemes the commercial entity should in the first instance be the one to enter into a contractual PES agreement. This entity can be e.g. a tour operators, hotel, homestay or National Park. Clearly, this is the first layer of beneficiaries. The PES policy in Viet Nam officially allows the commercial entities to integrate the payments in their production costs, and thus pass the payments on to the indirect beneficiary, i.e. the tourists. Research in Costa Rica has shown that for foreign tourists this would usually be a small contribution in relation to overall vacation expenditure (Biénabe & Hearne 2006). In community-based and small-scale tourism initiatives like in Ba Be where poverty and equity issues play a role, full inclusion of PES payments in production costs might be justifiable, while elsewhere the challenge lies in avoiding that economically strong commercial entities elude the responsibility and pass on 100% of the costs for PES to the tourists. Most likely for future PES schemes this will need clear legal regulations of a certain maximum percentage that can be passed on. This is at the moment still lacking in the Vietnamese PES policy.

Addressing the WTP of commercial entities should emphasize the underlying rationale of the PES concept which proves that investing in provision of ES saves cost in the long run; it minimizes the risk of having to paying for caused damage afterwards and increases the chances for future existence of the business as the environment they depend on is conserved. Tackling the problem of the free-rider mentality, however, means a fundamental change in current economic thinking and is doomed to be a long-term concern that will at this point in time more often than not still be outpaced by individual short-term economic interest. Therefore, as we are still at an early stage of PES development, this line of argumentation can be supported – but not replaced - by the obviously changing behavior of consumers who increasingly demand travel to natural areas and more environmental responsibility of companies operating there (UNEP 2011). Further research is needed in how far commercial entities can be convinced of their need to pay for ES provision, especially as other entities such as governments and NGOs back out. However, if the visitor is provided with adequate information on the PES scheme, this demonstrated responsibility towards the environment is according to Biénabe & Hearne (2006) very likely to be interpreted as a value adding factor to the tourism product. Concerning this WTP it must be noted that in Viet Nam the payments are regulated by the government who is in the position to appoint certain tourism businesses to pay. It was thus not a voluntary transaction between providers and beneficiaries, as the general PES criteria in Chapter 2.1.3 suggest - which can be critiziced, but which probably also enabled the relatively effective and sussessfull implemention of the pilot scheme. Although the overall contribution of tourism payments to the PES fund is still quite small, it can generally be seen as a positive start because according to one government official the pilot scheme in Lam Dong has shown that the involved tourism companies have been actively participating and mostly understanding the functioning and necessity of PES.

8.2.2 Bundling of payments

In existing PES schemes the ES scenic beauty and biodiversity are – if included at all - hardly ever considered as single environmental services, but bundled in one scheme with payments for watershed or carbon sequestration. Considering the initially small payment rates from tourism in Viet Nam it is also highly necessary to bundle these payments with payments from hydro-power plants and water companies into the same PES fund from where they are then dispersed to the land owners. This is not only relevant in order to ensure a significant contribution to local people's livelihoods but bundling might also make sense for conservation purposes, as a situation can be imagined where instead of only focusing on high carbon sequestration, giving the ES scenic beauty and biodiversity more importance might also increase conservation successes. This is based on the premise that re-planted forests may serve well for carbon sequestration and watershed services but primary forests are likely to have higher biodiversity values (MEA 2005). While the beneficiaries of watershed conservation, biodiversity and scenic beauty are rather locally bound, the case for payments for the ES carbon sequestration is somewhat special and could not be addressed within the scope of this thesis. In this thesis the focus was on the two forest ES, scenic beauty and biodiversity and the implementation of locally bound PES schemes, as this was at this stage the status quo and main concern in PES schemes in Viet Nam. However, there is much potential for the future integration of carbon payments from e.g. airlines into the by then locally existing schemes. Thinking thus beyond the scope of this thesis and of the tourism industry in general, it should not be neglected that the sector of course also strongly relies on the other two forest ES; whereby watershed services are highly relevant for the provision of (great amounts of) clean water and carbon sequestration in terms of the additional CO_2 emissions caused through air travel.

The framework and recommendations for Ba Be in the previous Chapter 7 serve as an example how PES from tourism can be integrated and bundled with other ES payments in Viet Nam. Early experiences from Viet Nam suggest that bundling of payments from several beneficiaries can effectively reduce transaction costs and increase the payments to providers to offer them a considerable financial incentive for conservation or sustainable use (Hoang *et al.,* forthcoming). Against the background of future REDD payments[36], facilitators should not only intend the inclusion of carbon payments in local PES schemes, but could also encourage Viet Nam's tourism industry to follow Costa Rica's example, which now markets itself as a carbon neutral destination in using its PES schemes to allow travellers arriving to the country to offset their carbon emissions.

8.2.3 Mainstreaming PES in the tourism arena

Part of this research also compared PES schemes with similar existing institutional arrangements that use returns from tourism to finance conservation. On the one hand, this makes sense in order to gain insight into the detailed working mechanism of tourism-related PES schemes. Hereby Nelson *et al.*'s (2010) and Frost & Bond's (2008) efforts of delineating two African CBT programs to PES were particularly helpful. On the other hand, however, this delineation of PES and CBT harbors the risk of limiting the discussion on PES from tourism to such small-scale tourism programs. Creating this impression should be avoided as PES schemes inherit a particular potential to hold large-scale mainstream and high-end tourism accountable. Thereby the ideological approach plays an explicitly important role as the PES paradigm incorporates a broader critique of the undervaluation of the benefits that respective stakeholders derive from the continuous provision of environmental services. Emphasizing this entrance point has the potential for creating long-term user-led financing of conservation. However, most of the few existing approaches to PES and tourism focus on small-scale ecotourism or CBT arrangements, probably mainly because these display a more obvious link

[36] Viet Nam is one of the nine countries identified for country programming under the UN-REDD program.

between the providers and beneficiaries of ES. However, as made clear, the discussion should not be limited to this but instead also point to the, maybe more indirect but still significant, relevance of (forest) environmental services for e.g. bigger hotel chains, international tour operators or airlines. This argument is also supported by findings from the local case study in Ba Be, where the risks of focusing PES on CBT arrangements becomes apparent in the fact that including small-scale entities is likely to need great efforts but often only a rather small contribution can be obtained. This increases transaction costs and thus compromises overall efficiency of the scheme.

8.2.4 Communicating the concept appropriately

Another important issue, especially for establishing tourism-related PES, is the communication strategy towards beneficiaries. This refers to providing information to commercial entities as well as tourists about the rationale of the PES concept itself as well as about the working of the scheme.
Such clear communication is also crucial to avoid misunderstandings which could arise from the distinct perspectives on PES of the different actors (see Chapter 5.3.1). Farmers, homestay owners, NP staff, government departments, tour operators and tourists will all look for different depths and types of information about the goals and methods of PES. This requires providing stakeholders with information in formats that takes into account their perspectives and that they can easily access and understand. Clear communication is relevant in order to enhance transparency and appropriate use of PES funds, but also to raise environmental awareness of beneficiaries about the benefits that are usually self-evidently obtained from nature. Importantly, providing comprehensive information on the PES concept may in turn also influence the future willingness to pay. This has not been research in this study but should be subject to future research.

8.3 Future research and the way forward

As current economic practices fail to make the (through PES) displayed connection between environmental services, its direct economic values and its local providers, nature degradation is likely to continue. Individual land stewards who make economic decisions are likely to choose to use their forest lands for economically viable activities such as timber production, slash and burn agriculture. This endangers the provision of environmental services of forest landscapes on which society as a whole, the farmer as an individual and also tourism as an industry highly depends. The tourism industry has a high potential and responsibility to contribute to PES schemes and thereby contribute to upgrading the value of ES. However, the development of tourism-related PES schemes is, as the general development of the PES concept, still in its initial stage and much research is ongoing especially in the field of environmental sciences. These studies for example address the question of monitoring indicators for evaluating the (changing) condition of a plot of land/forest area or systems for land allocation and sustainable farming techniques. The field of tourism studies on the other hand should contribute with studies focusing on the following issues:

Willingness-to-pay of commercial entities and tourists

An assessment of the willingness-to-pay (WTP) for ES provision of the direct beneficiaries, i.e. commercial entities and the in-direct beneficiaries, i.e. the tourists can be done as one or in two separate studies. Concerning the WTP of commercial entities, in Viet Nam one government official confirmed that, once they had been explained the PES concept, most of the involved companies accepted the payments and had a generally positive attitude towards the schemes. However, this statement is only based on a small questionnaire amongst 7 tourism companies. A comprehensive assessment of businesses' WTP is still lacking. When approaching this issue it is important not to assess general WTP for nature conservation or poverty alleviation but to directly ask for the

willingness to contribute to a PES scheme for the provision of ES. The PES concept should thus be integrated into the study. A second part should focus on exploring tourists' understanding of the concept and based on that their WTP for ES. Based on these findings, recommendations for the type of information material but also a more specific evaluation on how much of the PES payments could at most be included in production costs can be given.

PES and CBT

The discussion in how far tourism-related PES can be compared with CBT arrangements is important to explore further. This thesis superficially touched on this issue by comparing two such existing studies on tourism-related PES in Africa. This analysis could, however, not go deep enough to be able to make a clear delineation. A study focusing on this aspect could give interesting insights into how far some of the existing CBT arrangements are maybe already using a similar conditionality and contract design as PES and might thus already provide a basis for integration of other payees as well.

Regulated or voluntary?

Another important but complicated question concerns the issue which tourism business are to pay and which not, and who decides about this. In Viet Nam the pilot schemes are government driven and decision-making power lies within this actor. For future research it would be interesting to explore the question whether PES payments from tourism should be regulated by policies or whether the PES rationale is strong enough to create truly voluntary schemes. A related issue at the Viet Nam specific level results from the recommendation to in the future increase payments by including global carbon payments into the existing small-scale PES arrangements. This seems to be a feasible option also in Ba Be, which has already been designated as a pilot area for REDD payments as well. The set-up of such arrangements does however need closer attention and should also answer the question whether in Viet Nam these payments from airline companies should be arranged through policies or direct negotiations with the companies.

Obviously, the practical implementation of PES arrangements is still at its very initial stages and needs much further research especially in relation with payments from tourism. Tourism is one of the most important players in the global economy, for whom biodiversity, scenic beauty, watershed and also carbon sequestration are basic environmental services on which the industry highly depends. This, combined with the fact that a sharply increasing number of tourists travel to natural areas and demand more environmentally sound and socially fair practices (UNEP 2011) suggests fertile conditions for integrating tourism in PES arrangements. The recent developments in Viet Nam prove this and delivered some first valuable insights into issues at stake. Against the background of the consequential quest of the tourism industry for more sustainability it suggests itself to consider PES from tourism also as an opportunity for the tourism industry to take accountability for its own actions and needs.

Finally, looking at the role of PES as a new conservation paradigm and in the wider socio-political context points to what should be considered its main crucial characteristic and which also makes it so important in terms of tourism; namely how asking people to pay for environmental services leads to a public acknowledgment of environmental services and its benefits to humans in the first place. It can thereby be seen as an innovative gateway to sensitize economic and societal institutions to the importance of natural ecosystems. In doing so, providers learn about the value of ES, their benefits and responsibilities in provision, and beneficiaries on the other hand learn about the value of ES, their benefits and its threats to continued provision. Through PES, ES are assigned

an economic value which in turn ensures that environmental values are considered when economic decisions are made. The tourism industry would thereby not only be part of the problem but also of the solution. Advancing the integration of PES and tourism is backed by the recent 'The Green Economy' report, a major publication by UNEP (2011) which argues on the same line as PES in recognizing how economic values and valuation processes are culturally constructed and can and need to be rearranged:

> *"Nearly twenty years after Rio, we have come to realize that a more sophisticated economic lens and a more evolved economic model are needed if we are collectively to thrive over the coming years and decades"*
> *(Foreword, The Green Economy Report)*

Taking this foreword as part of the conclusion, it can be said that this research has shown that the tourism sector can in the future be a promising investor in environmental services and sees the advancement of PES arrangement as one small step towards such a new modernity where existing societal and economical values, practices and attitudes are re-arranged.

References

Adams, W. M., Aveling, R., Brockington, D., Dickson, B., Elliott, J., Hutton, J., . . . Wolmer, W. (2004). Biodiversity Conservation and the Eradication of Poverty. *Science, 306*(5699), 1146-1149.

Allcock, A., Leijzer, M., Hummel, J., & Oostveen, T. (2003) *Sustainable tourism development in Nepal, Vietnam and Lao PDR : experiences of SNV and partner organisations*. Den Haag: SNV.

Alpízar, F. (2006). The pricing of protected areas in nature-based tourism: A local perspective. *Ecological Economics, 56*(2), 294-307.

Announcement No:76, G. (2010). *Announcement No: 76/TB-VPCP - Conclusions of the Deputy Prime Minister Nguyen Sinh Hung at the midterm evaluation workshop on the policy for payment for FES, under the Decision 380/QD-TTg dated April 10, 2008 of the Prime Minister*. Hanoi: Government of the Socialist Republic of Vietnam.

Arts, B. (2011). Forests policy analysis and theory use: Overview and trends. *Forest Policy and Economics*.

Arts, B., & Buizer, M. (2009). Forests, discourses, institutions: A discursive-institutional analysis of global forest governance. *Forest Policy and Economics, 11*(5-6), 340-347.

Arts, B., & Leroy, P. (2006a) *Institutional Dynamics in Environmental Governance*. Dordrecht: Springer.

Arts, B., Leroy, P., & van Tatenhove, J. (2006). Political modernisation and policy arrangements: A framework for understanding environmental policy change. *Public Organization Review, 6*(2), 93-106.

Ashley, C., & Carney, D. (1999) Sustainable Livelihoods: Lessons from early experience. London: DFID.

Ba Be Lake Management Cooperation (2010) Report on activities in 2009 and tasks for 2010. Unpublished policy document.

Ba Be NP (2003) Operational Plan for Ba Be National Park, Bac Kan (2001-2005) Bac Kan: Bac Kan Provincial People's Committee.

Barbier, E. B., & Swanson, T. (Eds.). (1992). *Economics of the Wilds*. London: Earthscan.

Beck, U. (1997) *The reinvention of politics : rethinking modernity in the global social order*. Cambridge: Polity Press.

Beeko, C., & Arts, B. (2010). The EU-Ghana VPA: a comprehensive policy analysis of its design. [Article]. *International Forestry Review, 12*(3), 221-230.

Bens, M.H.W. (2010) Climate Compensation Programs in Costa Rica and the Netherlands. MSc Thesis. Wageningen: Wageningen University and Research Centre.

Beresford, M. Doi Moi in review: The challenges of building market socialism in Viet Nam. *Journal of Contemporary Asia, 38(2): 221-243.*

Berkes, F., & Folke, C. (1992). A Systems Perspective on the Interrelations between Natural, Human-Made and Cultural Capital. *Ecological Economics, 5*(1), 1-8.

Biénabe, E., & Hearne, R. R. (2006). Public preferences for biodiversity conservation and scenic beauty within a framework of environmental services payments. *Forest Policy and Economics, 9*(4), 335-348.

Bond, I., Grieg-Gran, M., Wertz-Kanounnikoff, S., Hazlewood, P., Wunder, S., & Angelsen, A. (2009). Incentives to sustain forest ecosystem services: A review and lessons for REDD Vol. Natural Resouce Issues No. 16.

Brundtland, G. (ed) (1987) Our common future: The World Commission on Environment and Development. Oxford: Oxford University Press.

Bui Dung, T., Dang Thanh, H., & Nguyen Quoc, C. (2004) Rewarding upland farmers for environmental services - Experience, Constraints and Potential in Vietnam. Bogor: ICRAF.

Bulte, E. H., Boone, R. B., Stringer, R., & Thornton, P. K. (2008b). Elephants or onions? Paying for nature in Amboseli, Kenya. *Environment and Development Economics, 13*(03), 395-414.

Bulte, E. H., Lipper, L., Stringer, R., & Zilberman, D. (2008a). Payments for ecosystem services and poverty reduction: concepts, issues, and empirical perspectives. *Environment and Development Economics, 13*(03), 245-254.

Carney, D. (2003) Sustainable Livelihoods Approaches: Progress and possibilities for a change. London.

Castella, J.C. Dang Dinh, Q. (2002) *Doi Moi in the mountains : land use changes and farmers' livelihood strategies in Bac Kan Province, Viet Nam.* Ha Noi: The Agricultural Publishing House

CIA World Factbook (2011) Country Information Viet Nam. Retrieved March 18th, 2011 from https://www.cia.gov/library/publications/the-world-factbook/

Corbera, E., Brown, K., & Adjer, W. N. (2007). The equity and legitimacy of markets for ecosystem services. *Development and Change, 38*, 587–613.

Costanza, R., D'Arge, R., De Groot, R., Farber, S., Grasso, M., Hannon, B., Limburg, K.... (1997) The value of the world's ecosystem services and natural capital. Nature, 387, 253-260

DARD. (2010). *Report on the mechanism for management and use of the money from payment for FES in Lam Dong*. Da Lat: The PPC of Lam Dong, Socialist Republic of Vietnam.

de Groot, K. (forthcoming). Applying Participatory Analysis of Poverty, Livelihood and Environment Dynamics (PAPoLD) - Inputs for designing PES in Ba Be National Park, Bac Kan Province, Vietnam. In M. H. Hoang, Q. NGuyen & L. Fitzgerald (Eds.), *South East Asia TULSEA* Hanoi: ICRAF Vietnam.

de Haan, H., & van der Duim, R. e. (2008) *Landscape, Leisure and Tourism*. Delft: Wageningen University.

DFID. (1999). Introduction to the Sustainable Livelihoods framework from Eldis Document Store http://www.eldis.org/vfile/upload/1/document/0901/section2.pdf

Dryzek, J. S. (1997) *The politics of the earth : environmental discourses*. Oxford [etc.]: Oxford University Press.

Emerton, L. (2000). Using Economic Incentives for Biodiversity Conservation. Retrieved February 11th 2011, from IUCN http://data.iucn.org/dbtw-wpd/edocs/PDF-2000-002.pdf

Engel, S., Pagiola S., Wunder S. (2008) *Designing payments for environmental services in theory and practice: An overview of the issues.* Ecological Economics, 65 (4): 663-674

Fagerstrom, M. H. (2007) Rewarding Upland Poor for the Environmental Services – RUPES' – an 'environmental instrument' for the empowerment of the poorest in Vietnam - lessons learnt *RUPES Annual Report*. Hanoi: ICRAF Vietnam

FAO. Retrieved April, 7th 2011, from http://www.fao.org/es/esa/pesal/PESdesign.html

Farley, J., & Costanza, R. (2010). Payments for ecosystem services: From local to global. *Ecological Economics, 69*(11), 2060-2068.

Fennell, D. (2008) *Ecotourism - Third edition*. London: Routledge.

Ferraro, P. J. (2001). Global habitat protection: Limitations of development interventions and a role for conservation performance payments. *Conservation Biology, 15*(4), 990-1000. doi: 10.1046/j.1523-1739.2001.015004990.x

Fisher, B., & Christopher, T. (2007). Poverty and biodiversity: Measuring the overlap of human poverty and the biodiversity hotspots. *Ecological Economics, 62*(1), 93-101.

Fisher, R. J., Maginnis, S., Jackson, W. J., Barrow, E., & Jeanrenaud, S. (2008) *Linking Conservation and Poverty Reduction: Landscapes, People, and Power* Gland and Cambridge: IUCN.

Frost, P. G. H., & Bond, I. (2008) The CAMPFIRE programme in Zimbabwe: Payments for wildlife services. *Ecological Economics, 65*(4), 776-787.

Giddens, A. (1990) *The consequences of modernity*. Cambridge: Polity Press.

Gómez-Baggethun, E., de Groot, R., Lomas, P. L., & Montes, C. (2010). The history of ecosystem services in economic theory and practice: From early notions to markets and payment schemes. *Ecological Economics, 69*(6), 1209-1218.

Gössling, S. (1999). Ecotourism: A means to safeguard biodiversity and ecosystem functions? *Ecological Economics, 29*(2), 303-320.

Gössling, S. (2011) *Carbon Management in Tourism: mitigating the impacts on climate change*. London: Routledge

GoVN (2008). *Decision No: 380 /QĐ-TTg - On the Pilot Policy for Payment for Forest Environmental Services*. Hanoi: The Prime Minister, Socialist Republic of Vietnam.

GoVN (2010a) *Decree No: 99 /2010/ND-CP - On the Policy for Payment for Forest Environmental Services*. Hanoi: Government of the Socialist Republic of Vietnam.

GoVN (2010b) *Conclusions of the Deputy Prime Minister Nguyen Sinh Hung at the midterm evaluation workshop*

GoVN (2011) Socio-Economic Development Report 2011-2020. Retrieved March, 23rd 2011 from http://english.vietnamnet.vn/reports/201007/Barriers-for-growth-must-be-removed-says-PM-923418/

Hajer, M. A. (1995) *The politics of environmental discourse : ecological modernization and the policy process*. Oxford: Clarendon.

Hall, M. & Tucker, T. (2004) *Tourism and postcolonialism.* London: Routledge

Hawkins, S., To, P. X., Phuong, P. X., Thuy, P. T., Tu, N. D., Cuong, C. V., . . . McNally, R. (2010) Roots in the Water: Legal Frameworks for Mangrove PES in Vietnam *Katoomba Group's Legal Initiative Country Study Series*. Washington D.C.

Hess, J., & Thi Thu, H. (2010) Payment for Forest Environmental Services – An innovative financial mechanism in the forestry sector of Vietnam. Hanoi: GIZ.

Hoang, M.H., van Noordwijk, M., Pham Thu, T. (2008) *How to apply PES experience and lessons learnt to Bac Kan project, 'Pro-poor Partnerships for Agroforestry Development'.* Final working paper. Hanoi: ICRAF

Hoang, M. H., Mai, H. Y., & Tu, S. V. (Eds.). (2009). *Linkages of Forest Protection, Economic Growth and Poverty Reduction - Issues and Approaches in Vietnam* Hanoi World Agroforestry Centre (ICRAF).

Hoang, M.H., Hoang D.T., van Noordwijk, M. … Van Anh Thi (2010) *An assessment of opportunities for reducing emissions from all land uses - Vietnam preparing for REDD*. Nairobi: ASB Partnership for the Tropical Forest Margins

Hoang, M.H. Do T.H, Pham, M.T, van-Noordwijk, M, Minang, P. Benefit distribution across scales to reduce emissions from deforestation and forest degradation (REDD+) in Vietnam. Land Use Policy Journal. Under reviewing.

IFAD. (2008) Socialist Republic of Viet Nam & Pro-poor Partnership for Agro-Forestry Development (3PAD) *Project Design Report* (Vol. No. 2020-VN). Bac Kan: IFAD

Javed, H. A. (2009) *Investigating the institutional arrangements required to implement payment for environmental services (PES): a case study in Baviaanskloof Watershed, South Africa*. [S.l.: s.n.].

King, R.T. (1966) Wildlife and Man. NY Conservationist 20(6), 8-11

Landell-Mills, N., & Porras, I. T. (2002) Silver bullet or fools' gold? A global review of markets for forest environmental services and their impact on the poor. London: International Institute for Environment and Development (IIED).

Leimona, B., Joshi, L., & van Noordwijk, M. (2009). Can rewards for environmental services benefit the poor? Lessons from Asia. *International Journal of the Commons, 3*, 82-107.

Lette, H., & de Boo, H. (2002) *Economic Valuation of Forests and Nature - A support tool for effective decision-making*. Wageningen: International Agricultural Centre (IAC).

Liefferink, J. D. (2006). The Dynamics of Policy Arrangements: Turning Round the Tetrahedron In B. Arts & P. Leroy (Eds.), *Institutional Dynamics in Environmental Governance*. Dordrecht: Springer.

MARD (2010). *Mid-term Evaluation Report - On the implementation of the Decision 380/QD-TTg dated April 04, 2008 of the Prime Minister on the policy for payment for FES.* Hanoi: MARD of the Socialist Republic of Vietnam.

MARD-Newsletter. (2009). Payment for Forest Environmental Services in Vietnam FSSP Newsletter Vol. Vol. 26-27.

MARD, & GIZ. (2010) Realization of a baseline study in pilot area in Ba Be National Park and Na Hang Nature Reserve *GTZ/MARD project "Conservation Of Biodiversity In Forest-Ecosystems In Vietnam"* Hanoi: MARD & GIZ.

McNeely, J. A. (2009) *The wealth of nature : ecosystem services, biodiversity, and human well-being*. Arlington, VA: ICLP.

MEA. (2005) *Ecosystems and Human Well-being: Synthesis* Washington DC Island Press.

Milder, J. C., Scherr, S. J., & Bracer, C. (2010). Trends and future potential of payment for ecosystem services to alleviate rural poverty in developing countries. *Ecology and Society, 15*(2), 6.

Miranda, M., Porras, I., & Moreno, M. L. (2003) *The social impacts of payments for environmental services in Costa Rica* London: IIED/CINPE.

Muradian, R., Corbera, E., Pascual, U., Kosoy, N., & May, P. H. (2010). Reconciling theory and practice: An alternative conceptual framework for understanding payments for environmental services. *Ecological Economics, 69*(6), 1202-1208.

Neef, A., & Thomas, D. (2009). Rewarding the upland poor for saving the commons? Evidence from Southeast Asia *International Journal of the Commons, 3* (1), 1-15.

Neefjes, K. (2000) *Environments and livelihoods : strategies for sustainability*. Oxford: Oxfam Publishing.

Nelson, F., Foley, C., Foley, L. S., Leposo, A., Loure, E., Peterson, D., . . . Williams, A. (2010). Payments for ecosystem services as a framework for community-based conservation in Northern Tanzania: Conservation practice and policy. *Conservation Biology, 24*(1), 78-85.

Nguyen Chi, T., & Hess, J. (2010). *Contributions of Winrock and GTZ to the formulation and implementation of the policy on payment for forest environmental services in Viet Nam*. Power Point Presentation.

Nguyen Hai, N. (2009) Analysis of Decision 380: Content and implementation at Son La Province. Hanoi: ICRAF.

Nguyen The, C., Vu Thu, H., Moore, P., & Emerton, L. (2007) Review of Laws, Policies and Economic Instruments Related to Payment for Ecosystem Services in Viet Nam *The World Conservation Union Viet Nam Country Programme*. Hanoi: IUCN.

Nguyen Thi Bich, T. (2010). *Payment for Forest Environmental Services implemented in Lam Dong Province 2008-2010*. Paper presented at the Asia Regional Biodiversity Conservation Program (WI), Bangkok.

Noordwijk, M. v., & Leimona, B. (2010). Principles of Fairness and Efficiency in Enhancing Environmental Services in Asia: Payments, Compensation, or Co-Investment? . *Ecology and Society, 15*(4), 17-34.

O'Leary, Z. (2004) *The essential guide to doing research*. London [etc.]: Sage.

Pagiola, S. (2008). Payments for environmental services in Costa Rica. [Article]. *Ecological Economics, 65*(4), 712-724.

Pagiola, S., Arcenas, A., & Platais, G. (2005). Can Payments for Environmental Services help reduce poverty? An exploration of the issues and the evidence to date from Latin America. *World Development, 33*(2), 237-253.

Petheram, L., & Campbell, B. M. (2010). Listening to locals on payments for environmental services. *Journal of Environmental Management, 91*(5), 1139-1149.

Pham, T. T., Hoang, H. M., & Campbell, B. M. (2008). Pro-poor payments for environmental services: challenges for the government and administratve agencies in Vietnam [Article]. *Public Administration and Development, 28*(5), 363-373.

Porras, I., Grieg-Gran, M., & Neves, N. (2008) All that Glitters – A review of payments for watershed services in developing countries. London: International Institute for Environment and Development (IIED).

Quan, N. H., Ha, H. M., & Beria, L. (2009) Rewards, use and shared investment in pro-poor environmental services - RUPES secon phase in Vietnam *ICARF Brief Vietnam* (Vol. No. 1 February 2009). Hanoi: ICRAF.

Report, G. M.-T. E. (Sept. 2010). *Mid-Term Evaluation Report on the implementation of the Decision 380/QD-TTg* Hanoi.

Sharrocks, M. (2010). Tourism Strategy for Bac Kan province. Final report prepared for IFAD-3PAD. Mike Sharrocks Consultancy.

Silverman, D. (2010) *Doing Qualitative Research: A practical handbook.* Los Angeles: Sage.

Smith, S. L. J. (2010) *Practical Tourism Research* Cambridge: CABI.

Swallow, B. M., Kallesoe, M. F., Iftikhar, U. A., van Noordwijk, M., Bracer, C., Scherr, S. J., . . . Rumley, R. (2009). Compensation and Rewards for Environmental Services in the Developing World: Framing Pan-Tropical Analysis and Comparison. [Article]. *Ecology and Society, 14*(2). doi: 26

Swallow, B. M., Leimona, B., Yatich, T., & Velarde, S. J. (2010). The conditions for functional mechanisms of compensation and reward for environmental services. *Ecology and Society, 15*(4).

TEEB (2010) The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations. Edited by Pushpam Kumar. Earthscan, London and Washington

Thi Thu, H., & Pancel, L. (2009). *Piloting Experiences of Payment for Environmental Services (PES) in the North West of Vietnam* Internal Document. GIZ. Hanoi

Tran Kim, T. (2008) Values of forest on water conservation and erosion control - Danhim Watershed, Lam Dong Province. Ho Chi Minh City US AID & Winrock International.

Tran Kim, T. (2010) Socio-economic survey for assessing the Vietnamese Government's Pilot Policy on PES for Lam Dong province. Ho Chi Minh City: US AID, Winrock International, MARD.

UNEP (2011) Green Economy Report: A Preview. Chatelein, Switzerland: UNEP

UNWTO (2011) Tourism 2020 Vision . East Asia and Pacific. Downloaded March, 13th from http://www.unwto.org/facts/eng/publication.htm#5

van der Duim (2010) *Safari - A journey through tourism, conservation and development.* Inaugural lecture upon taking the post of Special Professor of Tourism and Sustainable Development at Wageningen University on 9 December 2010. Wageningen: Wageningen University and Research Centre

van der Zouwen, M. (2006). *Nature policy between trends and traditions : dynamics in nature policy arrangements in the Yorkshire Dales, Donana and the Veluwe.* Ook verschenen als proefschrift Radboud Universiteit Nijmegen, Eburon, Delft.

van Noordwijk, M., B. Leimona, L. Emerton, T. P. Tomich, S.J. Velarde, M. Kallesoe, . . . Swallow, B. (2007) Criteria and indicators for environmental service compensation and reward mechanisms. Nairobi: World Agroforestry Center

van Tatenhove, J. (1999). Political modernisation and the institutionalisation of environmental policy. In M. Wissenburg & G. Orhan (Eds.), *European discourses on environmental policy*. Aldershot [etc.]: Ashgate.

van Tatenhove, J., Arts, B., & Leroy, P. (2000) *Political modernisation and the environment : the renewal of environmental policy arrangements*. Dordrecht [etc.]: Kluwer Academic Publishers.

VNAT. (2011). Tourism Statistics Retrieved April, 20th 2011, from Vietnam National Administration of Tourism http://www.vietnamtourism.gov.vn/english/index.php?cat=012035&itemid=4061

Vu Thu, H., Moore, P., & Emerton, L. (2009) Review of Laws and Policies Related to Payment for Ecosystem Services in Viet Nam. Hanoi: IUCN.

Wertz-Kanounnikoff, S., & Rankine, H. (2008) How can governments promote strategic approaches to payments for forest environmental services (PES)? An analysis for the case of Viet Nam: UNESCAP & IDDRI.

Winrock International (2011) *Payment for Forest Environmental Services: A Case Study on Pilot Implementation in Lam Dong Province, Vietnam 2006-2010.* Final Report. Ho Chi Minh City: Winrock International & USAID.

Winter, T. (2009). Asian tourism and the retreat of anglo-western centrism in tourism theory. [Article]. *Current Issues in Tourism, 12*(1), 21-31.

Wunder, S. (1999). Promoting forest conservation through ecotourism income? Retrieved December 3rd 2010, from CIFOR http://cifor.pitsolutions.ch//nc/online-library/browse/view-publication/publication/538.html

Wunder, S. (2005). Payments for Environmental Services: Some Nuts and Bolts. . *CIFOR Occasional Paper 42*. Retrieved from

Wunder, S. (2008). Payments for environmental services and the poor: concepts and preliminary evidence. *Environment and Development Economics, 13*, 279-297.

Wunder, S., Engel, S., & Pagiola, S. (2008). Taking stock: A comparative analysis of payments for environmental services programs in developed and developing countries. [Article]. *Ecological Economics, 65*(4), 834-852.

Zellmer, K. (2010). The role of tourism in payments for environmental services. In: *Tourism for development: Environmental sustainability, poverty reduction and empowering communities – Thematic proceedings of ATLAS Africa Conferences,* Volume 6 / Zellmer, K,; Duim, V. R. van der and Saarinen, J. (eds.) Arnhem: ATLAS.

Zilberman, D., Lipper, L., & McCarthy, N. (2008). When could payments for environmental services benefit the poor? *Environment and Development Economics, 13*, 255-278.

Zingerli, C. (2005). Colliding Understandings of Biodiversity Conservation in Vietnam: Global Claims, National Interests, and Local Struggles. *Society & Natural Resources: An International Journal, 18*(8), 733-747.

Zingerli, C., Castella, J. C., Manh, P. H., & Van Cu, P. (2002). Contesting policies: Rural development versus biodiversity conservation in the Ba Be National Park area, Viet Nam. In J. C. a. Q. Castella, D.D. (Ed.), *Doi Moi in the Mountains. Land Use Changes andFarmers' Livelihood Strategies in Bac Kan Province, Viet Nam,* (pp. 249-275). Hanoi: Agriculture Publishing House.

Appendices

Appendix A –Description of RUPES

The World Agroforestry Centre (ICRAF) is an international research organization that generates science-based knowledge about the diverse roles of trees play in agricultural landscapes and uses this research to advance policies and practices that benefit the poor and the ecosystems in which they live. It is one of 15 international research organizations that make up the Consultative Group on International Agricultural Research (CGIAR). The RUPES program is focusing on designing PES schemes and was expressly designed to explore the potential for pro-poor mechanisms and is currently working in a variety of landscapes in Indonesia, Philippines, India, Nepal and China for testing new in-kind reward mechanisms to local small-scale farmers.

The following is a screenshot from the RUPES website that describes the approach in more detail.

Figure: Screenshot of RUPES website (Source: http://rupes.worldagroforestry.org/overview/)

Appendix B – Primary data collection

B1 - List of Stakeholder Interviewees

Level	Name of Interviewee	Affiliation	Place
Ba Be Village Level			
	Mrs. Chi Hoa (2 meetings)	Homestay owner	Bo Lu
	Mr. Du	Homestay owner	Bo Lu
	Mr. Linh (2 meetings)	Tour guide (+ small tourist office)	Bo Lu
	Mr. Hoan	Homestay owner	Pác Ngòi
	Mr. Mien	Homestay owner	Pác Ngòi
	Mr. Thu (2 meetings)	Homestay owner	Pác Ngòi
	Mrs. Hoa	Farmer	Pác Ngòi
	Mrs. Dung	Handicraft seller	Pác Ngòi
	Mr. Hoang	Hotel manager	Cho Ra
	Mr. Thu	Guesthouse owner	Cho Ra
	Mrs. Tu	Head of Women Association	Bo Lu
	Mrs. XY	Vice- Village leader Bo Lu	Bo Lu
	Mr. Hứa Văn Canh	Village leader Pác Ngòi	Pác Ngòi
	Mr. XY	Village leader Leo Keo	Leo Keo
Institutional Levels			
Ba Be Commune Level	Mr. Nông Văn Hoành	Head of CPC Nam Mau Commune	Bo Lu
	Mr. Trần Văn Lập	CPC Vice Chairman Nam Mau Commune	Bo Lu
	Mr. Pham Huu Tang	Head of CPC Quang Khe Commune	Cho Leng
	Mr. Ha Van Thuong	Head of CPC Dong Phuc Commune	Ban Chan
Ba Be Institutions	Mr. Pham Duc Toan (3 meetings)	National Park - Vice President of Ba Be Ecotourism and Environmental Education Center (EEEC)	Ba Be NP
	Mr. Hieu (2 meetings)	National Park – EEEC staff	Ba Be NP
	Mr. Quang	National Park - Administration and Planning Office	Ba Be NP
	Mr. Hoang Van Kien	National Park - Forest Protection Department	Ba Be NP
	Mr. Dang	Head of Ba Be Lake Management Cooperation (Boat Cooperation)	Bo Lu
Ba Be District Level	Mrs. The	Dpt. of Agriculture & Rural Development	Cho Ra
	Mrs. Cu, Ms. Toan, Mr. Hai	Division of Culture & Information (DoCST)	Cho Ra
Bac Kan Province Level	Mr. Dao Duy Duc	Vice-Director of Department of Culture, Sport & Tourism	Bac Kan
	Mr. Tran Cao Khai (2 meetings)	Department of Culture, Sport & Tourism - officer	Bac Kan
	Mr. XY	Dpt. of Agriculture & Rural Development	
General Institutional Level	Mrs. Minh Ha Hoang	Head of ICRAF Vietnam office	Hanoi
	Mr. Dam Viet Bac	ICRAF – PES program officer	Ba Be
	Mrs. Alba Saray Perez Teran	ICRAF – PES program officer	Hanoi
	Mrs. Delia Catacutan	CIFOR Indonesia	Hanoi
	Mr. Luong Chi Cong	IFAD-3PAD program officer	Bac Kan
	Mr. Dinh Thanh Thanh	Department of Culture, Sport & Tourism – PES coordinator	Da Lat
	Mrs. Ly Thi Minh Hai	IUCN – Vietnam PES coordinator	Hanoi
	Mrs. To Thi Thu Huong	GIZ – Vietnam PES coordinator	Hanoi
	Mrs. Nguyen Bich Thuy	Winrock International – PES coordinator	Ho Chi Minh City

B2 – Overview of the use of primary data collection methods

Methods of Data Collection	Informs about
PAPOLD – Participatory Analysis of Poverty and Livelihood Dynamics	
Level of Analysis: HH/village **Type of Meeting: focus group** **Participants: representative group of villagers (20-30% of all HH/village)**	Socio-economic development of the village over time
	Interrelations between use of environmental resources and alternative livelihood options
	Existing strategies for poverty reduction
	Rules and regulations within the villages
	Livelihood assets
Venn Diagrams on the dimensions 'tourism' or 'local people and institutions'	
Level of Analysis: HH/institutional **Type of Meeting: in-depth interview + focus group** **Interviewee e.g.: villagers, NP staff, homestay owner, boat men**	Relationships between local peoples and institutions
	Relative importance of particular actors
	Local perceptions of the different roles of actors
	Level of influence on the process and decision making powers
	Trust levels
	Livelihood assets (particularly social, human-cultural)
In-depth interviews with key-informants on PES	
Level of Analysis: institutional **Type of Meeting: in-depth interview** **Interviewee examples: ICRAF staff, IFAD field staff, National Park staff, DARD, Hué University, GIZ**	Functioning of existing PES schemes
	Information on relevant tegulations, laws and policies
	Best-practices within Viet Nam
	Classification of seller/buyers, providers/stewards, buyer/beneficiary
	Use of PES/RES criteria
	Bundling of PES and the role of ecotourism within
In-depth interviews with key-informants on tourism	
Level of Analysis: HH/institutional **Type of Meeting: in-depth interview** **Interviewee examples: tour guides, NP staff, homestay owners, DoSCT, Responsible Travel Club Viet Nam**	Main characteristics of ecotourism in/around Ba Be NP
	Current ecotourism management
	Current system of financial support for development of ecotourism
	Tourism development within Viet Nam
	Tourism policies and strategies at national, provincial and district level
Small questionnaire amongst HS owners in Pac Ngoi and Bo Lu	
Level of Analysis: HH **Type of Meeting: one-to-one** **Interviewees: al 18 HS in Ba Be NP**	Different kind of tourism activities and the extent to which homestays are involved in it
	Yearly income from these activities
	Possible mechanisms for payment collection
Observation / Participation	
E.g.: workshops on PES; office meetings on best practices and readiness survey design; staying in homestays in Pac Ngoi and Bo Lu; guided tours	How PES/RES schemes are set up
	Interaction patterns (rules of the game)
	Different perspectives of various actors
	Main characteristics of ecotourism in/around Ba Be National Park

Appendix C – Use of PRA methods in focus group meetings (PaPoLD)

HH= household, NP = National Park, NRM = Natural Resource Management.

Item	Objective	Tool	Specific issues addressed
1	To identify key markers that provoked changes in natural resource use and economic development	Village Time Line Local Secondary Data (e.g. Socio-Economic Development Reports)	1. Changes in infrastructure (roads, electricity) – *physical asset* 2. Occurrence of severe natural disasters (flood, disease) – *natural asset* 3. Arrival of the first tourists, starting the involvement in tourism – *financial, social assets* 4. Regulations and governmental programs – *social, financial assets*
2	To understand local perspectives on wealth and indicators for poverty	Wealth Ranking Poverty Indicators	1. Evaluation of the official governmental poverty criteria/indicators - *social asset (institutional and political aspects)* 2. Importance of the use of natural resources for different wealth groups – *financial, natural assets*
3	To understand livelihood options and strategies for poverty reduction	Stages of Progress Livelihood Ranking Individual HH progress over time	1. Role of tourism as an alternative livelihood option (those living inside NP) – *physical, human assets* 2. Desired livelihood activities for the future - *human* asset 3. Sustainable ways out of poverty – *financial, natural assets*
4	To identify interrelations between villager´s use of environmental resources and the involvement in tourism	Village Time Line Individual HH progress over time In-depth Interviews	1. Changing environmental awareness – *human, natural assets* 2. Appreciation of landscape beauty – *natural asset* 3. Links between economic welfare and use of forest resources – *natural, financial assets* 4. Waste treatment – *natural, human assets*
5	To link governmental changes in NRM to local livelihoods	Village Time Line Individual HH progress over time In-depth Interviews	1. Effect of establishing National Park and tightening laws on poverty issues - *institutional and political aspects* 2. Change in laws/regulations and how it affects local livelihood options – *human asset, institutional and political aspects*
6	To assess organizational and institutional conditions of villagers to become involved in PES-schemes	Venn Diagram	1. Perspectives on the functioning of governmental 2. programs, involvement of NGOs - *Institutional and political assets*
7	To understand local perceptions of institutions and organisations	Venn Diagram In-depth interviews	1. Identify organisations and the level of trust that local stakeholders have in them 2. Existing tensions, relationships amongst local organisations 3. Information about relevant actors within NRM and tourism 3. Identify members for Ba Be Watershed Management Board - *social, institutional and political assets*

Appendix D – Different types of Venn Diagrams (examples)

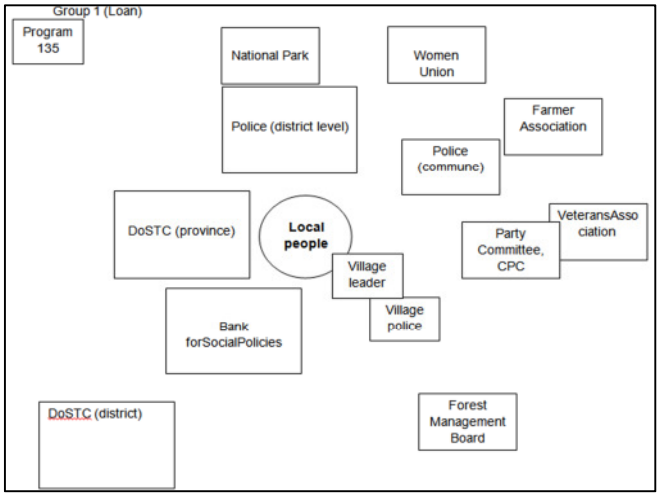

Figure: Example of Venn Diagram during focus group meeting; original (left) and digital transcription (right)

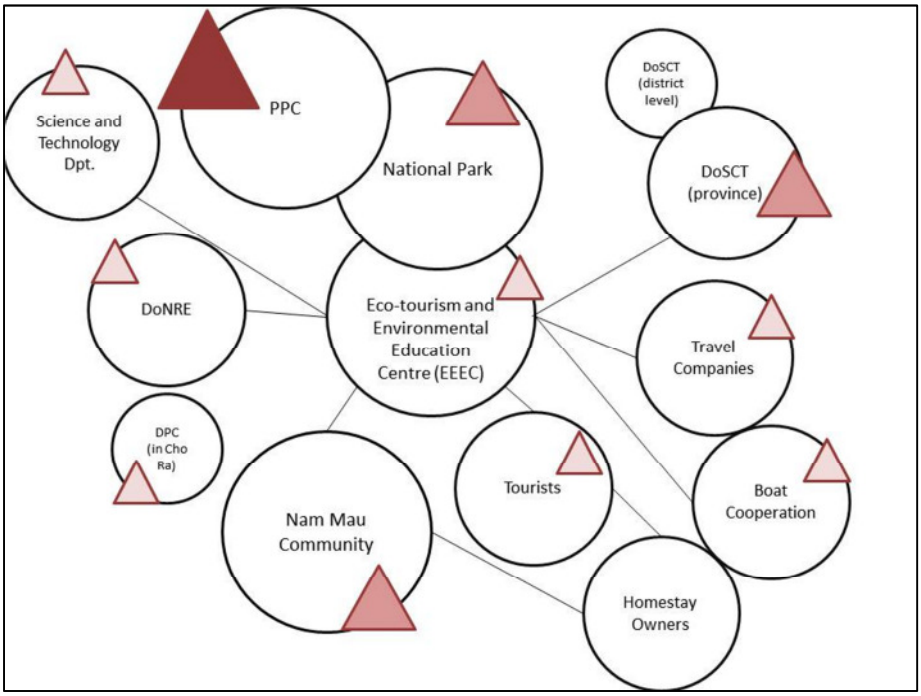

Figure: Example of Venn Diagram during in-depth interview (digital transcription)

Appendix E - Example of a tourism-related PES in Northern Tanzania

"In 2004 a consortium of 5 tourism companies has contracted with a local pastoralist village to conserve a key wildlife dispersal area in exchange for annual financial payments. The companies agreed to share the annual costs of the agreement, justifying this expense as a collective investment in the conservation of an ecosystem their businesses ultimately depend on. This consortium of tourism operators negotiated with the village for designation of Terrat village's portion of the plains as the concession or "easement" area. This 9300-ha area had been used traditionally as dry season grazing for livestock and was managed communally under jurisdiction of the village council. The agreement provides for an annual payment by the operators of approximately US$4500 in exchange for the village agreeing to formally exclude agricultural cultivation or permanent settlements from the concession area. Traditionally, seasonal livestock grazing was explicitly allowed to continue because all parties agreed that such uses did not conflict with wildlife conservation objectives and comprised the key economic value of the area to the community. The contract also formally provides for the community's commitment to prevent activities such as charcoal burning and unlicensed hunting in the concession area … Recently, a court case was instituted against one farmer from a neighboring village who attempted to farm on the plains. The village used 1 year's annual payment from the easement to finance the successful prosecution of this case. Community revenues from the agreement have also been invested in collective social services, such as construction of a new primary school. The village has formed a management board that is responsible for overseeing the arrangement, including receiving and responding to reports from the game scouts, and for preparing plans for revenue expenditures in consultation with the village assembly. The revenues received through the agreement represent the first time Terrat has received direct and conditional economic benefits from the wildlife populations that use the community's lands … After about 3 years of successful administration of the agreement, another village also began to express interest in joining the scheme … and indicates the potential for scaling up this PES framework to cover all the key habitat area over time". (Nelson *et al.* 2010:81-83)

Appendix F - Villager's perceptions of institutional stakeholders

(integrated results of VENN Diagram & PaPoLD ; red = rather negative / green = rather positive)

Actor	Perceived role and influence	Village
National Park	> manages the forest and tourism (boat service). People have to contribute a percentage of revenue from boat service for National park.	Pac Ngoi
	> participants expressed a very negative view when talking about national park ('hate NP')	Pac Ngoi
	> has big influence but only negatively impacts local people's life: control land, do not allow people to do milpa and exploit forestry products, but they do not have any solution for local people to have land to cultivate. They negatively affect economic situation of local people's.	Pac Ngoi
	> group 2 in Leo Keo did not want to include this actor in the Venn Diagram at all	Leo Keo
	> do not have solution to improve livelihood activities for local people.	Leo Keo
	> NP does not care about environmental education at the local schools	KI
	> if National Park does not manage strictly like that, forest cannot be preserved and develop sustainably	Bo Lu
	> help local people protect the forest > pay money to manage and protect the forest for local people in groups	Bo Lu
Ecotourism and Environmental Education Centre	> educate people to protect environment (For example, they periodically clean the boat station, Fairy pond, Puong cave... But since Park project stopped their activities are not regular anymore)	KI
	> good for providing information to tourists	KI
	> People working there get the same salary, no matter if they do a good job or not. So many people choose to drink tea or alcohol instead of working, they choose the easier option and still get paid	KI
Forest Protection Departement (under DARD)	> restrains people, they do not allow people to cultivation in the forest, confiscate the equipment. > (at first they put very far, then a women moves it a little closer because they also have some positive point e.g. pay money for protecting the forest, support seed and transplant. But it is little effective because the tree cannot grow well due to the drought.	Leo Keo
	> was ranked as the least important and furthest away from local people in Leo Keo	Leo Keo
	> do not allow people to exploit the forest, they do not guide well, they are responsible for damaging two big boats that belonged to the local people	Bo Lu
	> group 1 in Bo Lu did not want to include in the Venn	Bo Lu
Ba Be Lake Management Board	> very unclear manadate, many do not know if it still exists	Bo Lu
	> many positions carry out inappropriate work > not much financial transparency > members do not have trust and want to leave. > management does not do what they promise when they set up this organisation	Bo Lu
	> seems to be less about boat management, more about fishery > monitor that no dynamite is used for fishing	Pac Ngoi
	> apparently they invested in two new big boats some time ago, but they do not use it. People complain because this money could have been used for local people´s livelihoods	Bo Lu
Ba Be Lake Management Cooperation (inofficially usually referred to as Boat Cooperation (HTX))	> transport and tourism: provide transport for local people and lake tours for tourists. Manage the distribution of tourists to certain boats. distribute guests to avoid conflict	Bo Lu
	> divide boat men members in groups, each group has about 10-20 people. Each group stays at the boat station for one week. The group members will divide tourists amongst themselves. However, the head of management is also at the dock and takes part in assigning some groups.	Pac Ngoi
	> one of the earliest boatmen says members are generally satisifed with the HTX	Pac Ngoi
	> in the past there were serious conflicts because of lacking financial transparency, it was unclear what the HTX did with the money they received	Bo Lu
	> only important to those who have boats	Pac Ngoi
Police (district & commune)	< all guests have to be registered at the police at district level. For foreign visitors has to report the same or latest the next day.	Pac Ngoi
	< police comes to check if the house meets the requirements for opening a homestay (DoSCT comes as well to issue the permission)	Bo Lu
	> people can ask them for help when there have some problems in the village.	Pac Ngoi
Village Police	> ensure security in village, protect villager, solve conflict	Leo Keo
Village Leader	> solve problems in the village, do social work and contact with commune leader.	Bo Lu
	> put on a small piece of paper because he does not have influence on the economic situation, but is very close to the people	Pac Ngoi
	> Everyone has to depend on village leader for help. > Village leader is the most important and helps people the most.	Pac Ngoi
	> responsible for social work in village, inform villagers about programs, projects and Party's policies	Bo Lu
	> closest to villager, supervise, guide and communicate works from commune level to village level	Leo Keo
Village Forest Protection Team	> 1 goup did not want to include it in the Venn	Bo Lu
	> cannot be very effective because lack of finances	Bo Lu
	> each household has a member taking part in this team, members of this team patrol and protect the forest	Bo Lu
Village (Fatherland) Front	> include village leader, vice leader, Party Unit secretary. They discuss and approve policies before introducing to villager.	Pac Noi
	> some critized that their management activities are not yet very good	Bo Lu
	> does not directly concern local people	Pac Ngoi

CPC	> is the link between people and government	Pac Ngoi
	> all supports and policies of government have to go through commune to reach local people.	Pac Ngoi
	> Directly manage local people, lead the commune > Manage documents: birth certificate, death certificate, marriage certificate, household register… > Create favored conditions for people to do administrative processes	Bo Lu
	> during discussing both Venns with the groups they concluded that CPC should be put in the big piece of paper because they directly manage every aspect of people's life	Bo Lu
DARD	> provide technical training class, support seed, transplant, fertilizer for farmer	Leo Keo
	> has direct contact with people	Leo Keo
DoSCT (province level)	< main actor responsible for tourism in this area	KI
	< provide training (last training was last year on how to run manage a guesthouse/homestay)	KI
	< when there is a change in policy DoSCT communicates this to the people (by letter)	KI
	< issue permission to open homestay (also visit homestay after the police has checked)	Pac Ngoi
	> "DoSCT decides the success or failure for tourism. They do the markting for tourism. They develop tourism, they are the representatives for everybody that does tourism in BK. In general they help to develop tourism. Other provinces they do not have the beautfiul landscapes, BK has this however the have not made use of all the potentials."	I Bo Lu
	> But DoSTC is far from here	Pac Ngoi
	> they pay some attention to Pak Ngoi (give training, and help to develop tourism in Pac Ngoi)	Pac Ngoi
	> imortant for all who are invovled in tourism	Pac Ngoi
	> train tourism skills (for guest houses), boat running, traditional performance to serve tourists	Bo Lu
DoSCT (district level)	> people here do not know much about it	Pac Ngoi
	> up to now they do not play a big role, should be involved more because they are closer to the people here than at commune level	KI
	National Park and dDoSCT should cooperate more	Bo Lu
Program 134	> leakage: this policy caused a lot of deforestation for building the new houses	KI
	> before 2005. Program was for replacing very poor houses or even tents with good houses. In Leo Keo all houses have been replaced.	
Program 135	> governmental program to support the poor from 2005-2010	Leo Keo
	> participants put this very far away, saying it did not reach the people	Pac Ngoi
	> Put furthest away because this Program started long time ago (1994/1995), but did not operate effectively; growing many 'Tram' trees, but they did not have fruit > Local people even do not know whether this program is still active now or if it stopped.	Pac Ngoi
	> provide funds, support equipment, infrastructure, and production equipment, help people in hunger eradication and poverty reduction. This program changed people's life a lot.	Leo Keo
	> Support local people in terms of seed and fertilizer > Provide equipment for production: ploughing machine > Dig agricultural drain for the village > Help poor household to borrow fund > Satisfy the expectation of local people	Leo Keo
	> support clean water, electricity, medical insurance for local people, let poor household borrow fund	Bo Lu
	> support people with clean water, build infrastructure works: electricity, road, school, medical station	Bo Lu
Bank for Social Policies	> has high influence on local people because it lets people borrow money to improve economic activities	Pac Ngoi
	> let people borrow money to raise cattle, agricultural equipments	Leo Keo
	> let people borrow money, provide fund for people, help people do business, create jobs	Bo Lu
	> maximum is VND30 million, minimum is VND 5 million for 3 years.	Bo Lu
	> Almost all household in village borrow from bank. Poor household borrow with low interest rate.	Bo Lu
Mass Organizations		
Farmer Association	> support in terms of seeds and plantations	Pac Ngoi
	> some members have alcohol problems	KI
	> help farmer (for example: request to borrow money from Bank for Social Policies)	Pac Ngoi
	> allow people borrow money to buy fertilizer without paying until they harvest the crop.	Leo Keo
	> however, its activities are more and more discontinuous.	
	> collect the association fee and only has little activities except for visit its member when they have illness	Leo Keo
Women Association	> link between local people and Bank for Social Policies. Help local people borrow fund from bank with lower interest rate	Pac Ngoi
	> provide the cultural performance troop.	KI
	> support each other when there are difficulties	Pac Ngoi
	> is seen to be a quite effective organisation	Bo Lu
	> help women borrow fund from Bank for Social Policies, often help households that have difficulties or funeral	Leo Keo
	> Whenever having projects, they encourage people take part in > Conciliate family conflict	Bo Lu
	> Propagating about family planning (each family should have no more than 2 children regardless of their gender)	Bo Lu

Veteran Union	> regularly hold meeting to speed up the implementation of Party's policies	Pac Ngoi
	> guide local people to follow policies of Government and Party, they hold meetings once a months.	Leo Keo
	> little activity	Leo Keo
Elderly Association	> are not involve to daily life, only old people take part in this	Pac Ngoi
	> they are good model for the young to imitate, regularly have events to improve mental life and health for old people in the village	Leo Keo
Youth Union	> sometimes go to clean the village	KI
	> Nominate excellent members to join Communist Party. However the youth in this village are not many and most of them work far away. The activities of Youth Union is discontinuous.	Leo Keo
	> little activities. Often do not attend meetings.	Leo Keo
	> they are young and can be asked for help in village's events	Pac Ngoi
	> training skills to use computer, increase people's knowledge	Bo Lu
	> develop the economy. But they have very few activities	Bo Lu
Stilt House Association *(does not exist!?)*	> apparently set up by the DoSCT, but no one in Bo Lu or Pac Ngoi knows it with this name	
	> one interviewee in Bo Lu thought he heard it before, but was not sure what they were doing	Bo Lu
	> one NP staff thinks it belongs to 3PAD project, but criticized that although they have been here for long up to now they were not actually doing anything directly	KI
	> not mentioned by any villagers when asked about important organizations	
(Vietnam-) Finland Project	> from 2002-2004 active in Leo Keo > gave support for agriculture > gave fund that was managed by the Women Association	Leo Keo
	> have an important role because they support funds, transplant and animal for local people, especially "bát độ" bamboo shoot, with change people's livings a lot > it is put far from the people because: although the fund from this project is still active, this project has finished.	Leo Keo
	> provide funds from 2002. Now the fund is still active and under the management of Women Association (district)	Leo Keo
PARC Project	> When the project finish, people forgot all about this.	Pac Ngoi
	> train about science and technology, help people in cattle breeding, support funds for people	Bo Lu

Appendix G - Key features of PES scheme in Lam Dong province

Provider dimensions (seller)	
Identification of providers	- 9,870 farmer households - 22 Forest Management Boards (FMBs)
Willingness to accept (WTA)	HH received payments between 290.000 – 400.000 VND/ha/yr, depending on different watershed locations
Tenure rights	Some unclear cases, problem not as serious as in Son La pilot case
Type of payment	Cash
Contracts	- patrol against illegal encroachment (several times/week) - farmer is not allowed to negatively impact the forest, not hunt, not raise animals in the forest, no waste, not import exotic or invasive species, not change natural landscape of the forest
Beneficiary dimensions (user, buyer)	
Identification of beneficiaries	- local hydropower plants (belonging to EVN) - Saigon Water Company - 9 tourism operators
Willingness to pay (WTP)	- initial enforcement through Decision 380 - especially tourism operators later recognized that it is an investment that fosters sustainability of their own business operations
Rate of payment	- Tourism business: 1 % of revenue - Water supply companies: 40 VND/m^3 - Hydropower plants: 20 VND/kwh
Communication	- Poster panels and billboards at the major tourists sites
Enabling environment	
Defined ecosystem services	Watershed, biodiversity and scenic beauty
Institutional arrangement	- creation of Forest Protection and Development Fund (FPDF) at provincial level under DARD
Operational mechanism	- FPDF receives and transfers payments service providers, ensure that ES are properly delivered through counter checking with Contracting Logbook, FMB and FPD - FPDF is overseen by independent council of representatives from all relevant departments
Training & awareness raising	- Workshop & conference: policy makers, scientists and companies - Trainings for providers and beneficiaries - Fieldtrip: link leaders, state policy makers to local people and staff - Publication: leaflet, film, radio, TV, articles in newspaper
Monitoring of compliance (conditionality)	- weekly patrolling entries in the 'Forest Environmental Services Protection Contracting Logbook' as basis for quarterly payments
Monitoring of ES	- watershed monitoring system in sub-catchments in order to support scientific premise that ES e.g. reduce soil erosion, increase ground water levels
Transaction costs	- quite high, set up costs covered by Winrock International

Appendix H - Livelihood assets influencing the participation in PES

Human-cultural asset	Relevance in terms of PES participation
Labour force / Family size	Poor families tend to have more children, thus more labour forces. And according to Hoang et al. (2009) families with more labour forces can easier adopt proposed changes in forest/land management.
Gender	- Single mothers / women often have no land that would entitle them for PES - Role of the women in the household: studies indicate that money from PES should be transferred to women as they tend to spend it more responsibly
Traditions	- The PES concept might clash with the HH's traditional practices - HH might have concerns about interventions from outside
Self-Awareness	- In how far does HH understand its role in PES and its bargaining position?
Self-Esteem / culture	- HH are aware of their poverty and therefore expressed the feeling of having no rights - Refer to themselves as "normal people" who are not in the position to speak up against institutional or governmental organisations - Generally most villagers were hesitant about speaking their true opinion and taking their stake. This might be an issue in negotiation processes
Environmental awareness	- Those HH involved in tourism showed higher awareness of waste and deforestation problem are therefore more likely to support PES
Education	- Research elsewhere (Hue University) showed that the number of years of education is likely to increase PES participation. Entering contractual agreements requires administrative skills and the adoption of different farming methods involves skills to acquire and apply new knowledge. Both are enhanced by higher education levels.
Health and Nutrition	/
Character	- Some villagers have mentioned laziness, lack of motivation and bad working attitude as reasons for others to be poor. - Interviewees were concerned that HH with these character delevop a subsidies-oriented attitude if they only receive money but do not have to do anything for it.

Natural asset	Relevance in terms of PES participation
Type of land right	- Private ownership, village/community ownership - Inside a protected zone: sub-contracting for protection
Security of land tenure	- Insecure land tenure fosters short-term decision - secure land tenure is important for contract negotiations with buyers
Traditional land-uses	- Check for compatibility (relevance of rural appraisal techniques)
Type of land	- Poor HH can be excluded if they are not located where environmental services are generated (related to k-factor, soil fertility, sloping land, biodiversity, richness of forest)
Vulnerabilities	- Regular flooding in Pac Ngoi - Pest and disease affecting the crop - Unexpected events that causes sudden need to sell wood
Size of the land	- In Ba Be areas of land allocate to the HH are often small. It should be assessed what is preferred by the providers; allocation to individuals or to the village - Those that have bigger land plots are more likely to devote some part of the land for conservation while using remaining land for daily needs (more flexibility in resources management decisions)
Landless	- If having land is a pre-condition for PES then the landless, who are often the poorest, are excluded from participation. This can be avoided by establishing contracts with villages/communities

Physical asset	Relevance in terms of PES participation
Road conditions	Not applicable
Electricity	Not applicable
Means of communication	Not applicable
Conditions of buildings	Not applicable
Drinking water	Not applicable
Farm irrigation systems	Not applicable
Use of fertilizer, seed quality	- If the contract requires a change in use of seedlings and fertilizer, it should be considered of the HH has the capacity to carry out the required change
Number of livestock	Not applicable

Financial asset	Description/Rationale
Costs of application	- Preparation of relevant documents, and the paperwork for the contract takes time and eventually costs for the HH
Income from tourism	- Those HH that are involved in tourism are often automatically considered as the beneficiaries who need to pay. But having a homestay does not automatically mean financial security as a lot depends on the arrival of tourists
Access to bank accounts	- Some of the HH might not have access to bank accounts, should be taken into account when deciding on payment mechanism
Credits / loans	- Credit can be obtained from formal or informal sources (friends, family…) - Having higher loans means less likely to adopt and participate in PES because opportunity costs are higher; farmers pressured to pay back loans might need to harvest as soon as possible and cannot adopt long term plantation (Hoang *et al*. 2009)
Savings	- HH with an emergency buffer take fewer risks when entering the contract
PES's contribution to income	- The amount received from PES might relative to the income be higher for the poor, so they might be more likely to want to participate; for the richer the PES amount might be insignificant

Social asset	
Access to informal networks	- A homestay owner who is linked with Hanoi tour operator is likely to have more income security and can easier participate in PES
Membership in formal groups	- HH who are members in formal organizations (e.g. Boat Cooperation) are likely to have access to a platform to voice their concerns and receive information about PES
Relationships of trust	- Trust within the village/with other villages and external linkages can reduce transaction costs because less facilitation is needed when entering the contract
Spiritual beliefs / religion	/
Negotiation powers	- Poor HH usually have weaker positions in negotiations and thereby risk that their voice will be ignored in contract formulation

Appendix I - Calculation for PES from tourism in Ba Be

Beneficiary	Income Activity	Composition	Estimated Income / year	2 % contribution to FPDF
Boat Cooperation (official name: Ba Be Lake Management Cooperation)	3 boat stations offering boat services (North Station, South Station, Pac Ngoi Station)	information was provided for 6 months in 2009	298.950.000	
		estimated for one year	**597.900.000**	**11.958.000**
National Park	Entrance Fee for parc	In 2010: 18.640 adult visitors * 20.000 178 children visitors * 10.000	**374.580.000**	**7.491.600**
	Entrance Fee for Hua Ma Cave	in 2010: 4.433 adult visitors * 15.000 137 children visitors * 10.000	**67.865.000**	**1.357.300**
	Guesthouse	NP did not provide information	N/A	N/A
	Restaurant	NP did not provide information	N/A	N/A
	1 * NP Boat Station	NP did not provide information	N/A	N/A
	Tour Guiding	NP did not provide information	N/A	N/A
	Souvenirs	NP did not provide information	N/A	N/A
Homestays (HS)	*Average total (!) income of each Homestay as estimated by the owners*			
	Includes: Accomodation Food Tour Guiding Souvenirs	HS 1	35.000.000	
		HS 2	10.000.000	
		HS 3	36.000.000	
		HS 4	17.000.000	
		HS 5	10.000.000	
		HS 6	35.000.000	
		HS 7	24.000.000	
		HS 8	10.000.000	
		HS 9	5.000.000	
		HS 10	5.000.000	
		HS 11	5.500.000	
		HS 12	30.000.000	
		HS 13	5.500.000	
		HS 14	27.000.000	
		HS 15	5.500.000	
		HS 16	24.000.000	
		HS 17	50.000.000	
		HS 18	36.000.000	
		Total all 18 HS	**370.500.000**	**7.410.000**
Post Hotel	Accomodation	PH did not provide information	N/A	N/A
		(preliminary) contribution to FPDF		**28.216.900**