



Sustainable Agriculture
and Rural Development
MOUNTAIN POLICY PROJECT

Project for Sustainable Agriculture and Rural Development in Mountain Regions (SARD-M)

Valorisation of positive externalities within the framework of the SARD-M project

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Table of Contents

Introduction	1
I. Positive externalities within the framework of the SARD-M Project	3
A. What is a positive externality?	3
B. The concept of sustainable agriculture and rural development (SARD)	3
C. Positive externalities in mountain regions	4
D. Internalizing positive externalities: can this contribute to SARD?	4
E. The need for policies tailored to suit mountain regions	5
II. Creating a collection of documentation relevant to the SARD-M Project	6
A. Step 1: Expanded research	6
B. Step 2: Classification and selection	6
C. The selected documents	7
III. Lessons learned from selected experiences	8
A. The adopted approach	8
B. Lessons learned	9
Part 1 – Policies and institutions	9
1.1. Institutions, decentralisation and governance	9
1.2. Policies	10
Part 2 – Procedure	10
2.1. Designing a project for the valorisation of positive externalities	10
2.2. Project implementation	13
2.3. Project monitoring and evaluation	14
Part 3 – Impacts	15
3.1. In general	15
3.2. Socio-economic impacts	15
3.3. Environmental impacts	16
Part 4 – Ways of valorising positive externalities	16
4.1 Payment for environmental services	16
4.2 Sustainable tourism/pro-poor tourism	17
4.3 Trade in regional products/quality products	18
IV. Recommendations	20
A. Recommendations regarding the documentary research approach	20
B. Recommendations for the valorisation of the positive externalities of mountain zones	20
C. Avenues of work for the SARD-M Project	21
V. Annexes	23

Introduction

The overall purpose of the SARD-M project is to promote the design, implementation and evaluation of new policies for sustainable agriculture and rural development in mountain regions, taking account of the essential links between plain and mountain-dwellers.

The Project Steering Committee, taking up the proposals of the Adelboden Group in October 2004, set down three priorities for the project in 2005, of which the third was to:

"Analyse positive and negative externalities of mountain regions through a comparative review of existing methods and tools focusing on water, biodiversity, agricultural heritage, indigenous knowledge, demographic trends, tourism, livelihoods diversification, social and environmental services"

Positive externalities are the positive effects that are not taken into account by the market. By implementing new policies for sustainable agriculture and rural development, the SARD-M project forms part of a process for **valorising the positive externalities of mountain regions**.

The context

Before formulating the project activities relating to this priority, it was felt that more reflection was required; an essential prerequisite being the identification of the comparative and specific benefits of the SARD-M project in this respect.

The first step towards identifying this comparative advantage was taken with the contribution made by the project in 2005 to the following activities formulated by its partners:

- a seminar organised by EUROMONTANA on the positive externalities of mountain regions (Scotland, 10-11 November);
- a study conducted in Morocco by the FAO Roles of Agriculture (RoA) project dealing with environmental services in mountain regions;
- a limited review carried out by PASOLAC at national workshops and the regional workshop organised to evaluate the strengths and weaknesses of mountain policies in two Central American countries.

A second approach, conducted in parallel to this, is the ongoing work of collecting publications, particularly case studies on the positive externalities of mountain regions, and lessons that may be drawn from them.

The approach adopted

The approach adopted comprises four consecutive phases, into which this document is structured:

- **Stage one: defining the scope of a documentary research**

The basic purpose was to lay down criteria to draw up an initial inventory of potentially interesting documents, based on the fundamental principles of the SARD-M Project, and to identify the positive externalities specific to mountain regions;

- **Stage two: creating an inventory of documentation dealing with positive externalities inside and outside mountain regions**, and more specifically the experiences of valorising the positive externalities in terms of sustainable agriculture and rural development; and classifying and selecting documents of relevance to the SARD-M Project, based on a list of predetermined criteria.
- **Stage three: identifying the lessons learned**
This review has made it possible to identify a number of lessons based on previous experiences, and has grouped them together by theme.
- **Stage four: formulating recommendations** to identify the comparative and specific benefits of the SARD-M project on this theme.

I. Positive externalities within the framework of the SARD-M Project

A. What is a positive externality?

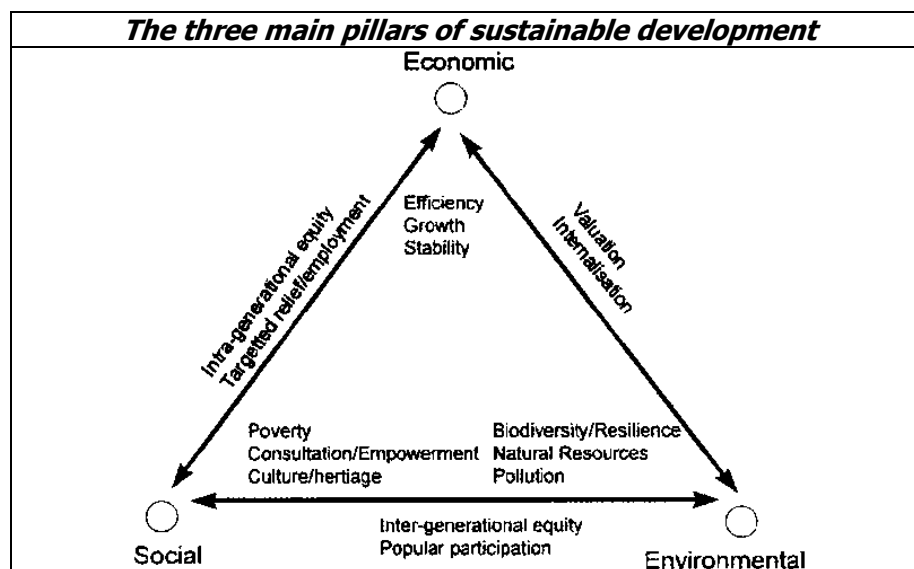
Externalities exist when the results of a market affect the economic agents participating in the market other than the buyers and sellers participating in it.

That is to say an individual, **through his/her activity, influences the well-being of other individuals, without the latter receiving or paying any remuneration for this effect.**

The existence of these externalities is **a shortcoming of the market**, which does not incorporate all the trade-related information. When this effect is beneficial to those affected by it in a given territory, it is called a positive externality.

B. The concept of sustainable agriculture and rural development (SARD)

The concept of sustainable development emerged in 1987 with the Brundtland Commission report on Environment and Development: it defined sustainable development as *"development that meets the needs of the present without compromising the ability of future generations to meet their own needs."* This entails a move away from narrow sector-based interests to an **approach** that comprehensively **embraces environmental, social and economic objectives in a given territory.**



The SARD concept, the subject of chapter 14 of Agenda 21, is a **framework** for focusing greater attention **on sustainability issues in agricultural and rural development processes** in both the developed and the developing countries alike.

SARD provides an overall framework comprising the principles of sustainable development, including: economic viability, cultural appropriateness, social justice, environmental

soundness and long-term productivity. Chapter 14 also identified the areas of particular relevance to mountain regions, such as: policy and agrarian reform, participation, diversification of employment opportunities, infrastructure development, land resource planning, agricultural education, land conservation and rehabilitation, water, plant and animal genetic resources, integrated pest management, plant nutrition and rural energy.

C. Positive externalities in mountain regions

Attempting to define the externalities of mountain regions is the first step in identifying the relevant documents in terms of the SARD-M project.

Main externalities of mountain regions	Examples of valorisation
Water quality	Payments for reforestation, sustainable agriculture practices
Water resource management	Payments for water management, good irrigation practices, choosing appropriate crops
Air quality	Payments for tree planting, sustainable forest management, agroforestry
Biodiversity conservation	Payments to respect pristine land creation, ecosystem conservation
Landscape management	Payments for reforestation of degraded zones, choice of practices
Soil protection	Payments for tree planting, sustainable agricultural practices
Natural hazards prevention and protection	Payments for tree planting
Knowledge/expertise conservation	Tourism, agritourism, sale of quality products
Conservation of building heritage	Tourism, agritourism
Conservation of cultural heritage	Tourism, agritourism, sale of quality products
Preserving a social fabric	Subsidising community projects

The list of the externalities proposed is neither fixed nor exhaustive. There are numerous positive externalities which often vary enormously between a mountain region and a valley region.

D. Internalising positive externalities: can this contribute to SARD?

The valorisation of positive externalities is an **opportunity** for sustainable agriculture and rural development, particularly **for the mountain regions**, because they are **a source of supplementary wealth** and can be a driving force behind rural development. This requires them to be incorporated into the market to pursue **sustainable rural development**.

The means used to internalise these externalities are economic tools:

- **Internalisation with the sold product:** selling products that stand above their competitors, thanks, for example, to certification (e.g. Bio-certification).
- **Non-sale internalisation:** taxes, subsidies, ICDPs (Integrated Conservation Development Projects), payments for services, particularly environmental services (in cash or kind). Unlike an externality, which is an unintended effect, a service is voluntary.

E. The need for policies tailored to suit mountain regions

Exploiting positive externalities requires the design and implementation of policies suited to each mountain region.

Identifying suitable policies can be facilitated by analysing the successes and failures of experiences in other countries and territories. This is why the first collection of documentation on positive externalities and their valorisation in the framework of field programmes/projects has been produced as part of this research.

II. Creating a collection of documentation relevant to the SARD-M Project

A. Step 1: Expanded research

An initial set of documents has been identified through an expanded research:

- based on documents relating to the **valorisation of positive externalities** such as those described in point I.3 (case studies, research reports, working papers, etc, in English, Spanish or French);
- based on **field experiences**, in order to better identify the political and institutional implications;
- **not specifically focused on mountain regions**, based on the principle that certain experiences or lessons learned are relevant to different types of territories.

B. Step 2: classification and selection

A classification and selection stage then became necessary to focus the analysis of documents with great potential value for drawing lessons, taking account of the available time.

In order to select the relevant documents for the SARD-M project, an analysis tool was needed. This is why **a grid** (see annex 1) was created, **taking into consideration the fundamental principles of the SARD-M project**. These documents were then classified in terms of the criteria indicated below.

► Rural development

The issue of positive externalities in mountain regions within the framework of the SARD-M project must routinely take account the two aspects of "rural and sustainable development" knowing that the tools have actually been developed for the purposes of the economics of the environment and natural resources, intended to improve the market by taking account of the environment.

In the case studies, the environmental aspect of sustainable development often prevails. Projects must therefore be targeted at fostering – not hampering - rural development.

► The pillars of sustainable development

The documents were selected for their social, economic and environmental relevance. Each document has been assessed in terms of each of these three criteria.

► Policies, institutions and governance

The documents were also selected by targeting the original themes on which the project is based, namely, policies, institutions and governance issues.

► Mountains

The experience of exploiting positive externalities in non-mountain regions can also be a

source of useful information. The document collection phase has made it possible to highlight **the rarity of documents dealing specifically with mountains**. Documents on experiences in mountain regions have therefore been given priority

C. The selected documents

Applying these criteria has made it possible to classify the 54 documents identified as being potentially relevant into three categories (Annex 2):

- **"key documents"** (list 1, 12 documents), comprising those which deal most specifically with the SARD-M project issues, and offer particularly interesting ideas. A document containing even one idea that is missing from other publications can justify its classification as a "key document";
- **"interesting documents"** (list 2, 20 documents) comprising documents which are relevant and closely related to the project issues;
- **"annexed documents"** (list 3, 22 documents), comprising a group of second-tier documents which can be consulted as a more general information source for the purposes of complementary research.

The main publications collected (lists 1 and 2, 32 documents) reveal that:

- very few are dedicated to mountains (4);
- environmental problems predominate (general environment/11; carbon sequestration/9; biodiversity/7; water/6; soil protection/2) over more rural aspects (heritage/5; culture/3; landscape management/2; food security/2; social fabric maintenance/1);
- international surveys (12), or surveys dealing with Central America (11) are over-represented compared with Africa (3), Asia (4), South America (5) and Europe (1);
- all these publications are comparatively recent: three were published in 2000, 5 in 2001, 3 in 2002, 9 in 2003, and 3 in 2005.

III. Lessons learned from selected experiences

The purpose of this stage was to produce a **summary document** giving a concise account of the lessons learned from the documents, and an overview of the main teachings, and the gaps in the documentation collected.

A. The adopted approach

- **Step 1: making an inventory of the "lessons learned"**

The most interesting documents both in terms of their approach to positive externalities and their linkage with the problems of mountains, were reread in order to identify the main lessons learned from the experiences to which they refer (annex 3). From each document the following information was collected: lessons learned, policies involved, monitoring activities mentioned by the authors, and the methodological tools that appear relevant. A list of these "tools" is given in annex 4.

- **Step 2: organising the data collected**

In order to facilitate the use of these documents, a thematic classification was made, the details of which are given below, based on an analysis of all the information gathered and attempts to group them:

- ▶ Policies and institutions

This section powerfully reflects the problems of the SARD-M project. It is divided into two parts, the first dealing with **institutions, decentralisation** and **governance**, and the second with **national, sectoral and intersectoral policies**.

- ▶ Procedure

The section on "Procedure" is organised to indicate the stages in the life of a positive externalities valorisation project, namely, **project design, implementation, monitoring and evaluation**.

- ▶ Impacts

This section sets out the impacts of positive externalities valorisation projects. It is based on the **three sustainable development pillars**, firstly studying the social and economic impacts, and then the environmental impacts.

- ▶ Ways of valorising certain types of positive externalities

Three ways of valorising positive externalities are addressed: **Payments for Environment Services/PES), sustainable tourism, and the trade in quality products**.

B. Lessons learned

The numbers in the left-hand column refer to the publications from which the information has been taken. The phrases in bold are taken from documents dealing with one or more mountain regions.

The valorisation of positive externalities: lessons learned

Part 1 - Policies and institutions

1.1 Institutions, decentralisation and governance

Local partnerships

- 22-4 Relating the public and private sectors is essential to make the activities viable.
- 22-1 The difficulties caused by scattered populations, services and enterprises in the rural environment can only be overcome by linking them together into one sector or across sectors (linking agricultural producers, local processors, crafts persons, hoteliers, restaurants, tour operators etc).

Local institutions

- 3-11 The internal organisation of the authority responsible for the project jointly with other institutions must be thought out and made official beforehand.
- 22-5 Coordination is essential between the public institutions having responsibility for policies, most often of a sectoral character.
- 3-9 Dialogue and continuity in any organisation also depends on having policymakers stably in place.
- 11-3 **Involving local authorities in the process is often based on the assumption that the local political forces share the stakes.**

Decentralisation

- 3-10 Decentralising decision-making powers and capital permits flexibility and rapidity.
- 6-1 The "top-down" approach by environmental services, in which policies approved nationwide are applied to local cases, is replaced by a flexible and participatory approach.
- 15-8 All the intermediaries that might create a bureaucracy should be reduced, because they hamper the process and prepare the ground for corruption.
- 15-7 The PES can be a useful tool for consolidating a decentralisation policy.

1.2 - Policies

National policy

- 7-5 The government must encourage regulation that will foster employment for the poor.
- 7-7 Promoting pro-poor products and enterprises using marketing methods at the national level.
- 7-6 Encouraging private investors.
- 14-2 It is not necessary to involve government when interest is shown by the Community.
- 14-3 The lack of policies and legal bases is a real handicap for environmental conservation projects.
- 15-9 **A framework for action (regulation) is needed to facilitate PES implementation.**
- 12-2 **It is not necessary to have a legal framework and government commitment to ensure the success of a PES. It can have a positive effect if these types of support do not create excessive rigidity.**
- 14-3 The lack of policies and legal bases is a real handicap for environmental conservation projects.

Sectoral policy

- 7-4 A policy should be put in place to regulate property ownership.
- 11-2 **Access to financing or lending is a major obstacle for communities. This applies in particular to the poor and illiterate.**

Inter-sectoral policy

- 4-6 There is a need for a general policy with improved inter-regional and inter-sectoral coordination.
- 4-5 A fragmented PES approach weakens the potential of environmental services. The main obstacles are laws covering only part of the projects, a sector-based approach (agriculture, tourism, energy etc) and a lack of general policy to improve the communities' capacities.

Part 2 - Procedure

2.1 Designing a project for the valorisation of positive externalities

Sine qua non conditions

- 13-4 The process of implementing a project that valorises externalities must be simple, standardised and flexible.
- 4-2 An institutional framework and a financing fund are two basic conditions for launching a PES.

- 14-3 The lack of policies and legal bases is a real handicap for environmental conservation projects.
- 10-6 The PES should be avoided under three conditions: when the source of financing (buyers) is not stably in place, when work with the local communities is an excessively large obstacle to giving priority to participatory implementation, and when other approaches produce the same result at a lower transaction cost.
- 10-7 The PES should not create a situation in which the service suppliers threaten acts of destruction and/or pollution. It is not a basis for environmental blackmail. These are not "paying victims".
- 10-4 One essential condition for an environmental services market is the value added by that service: there is no point in paying for something which will be delivered even without payment.
- 10-5 The effect will be positive for suppliers of environmental services if they have an adequate negotiating capacity with the buyers.
- 16-1 The farmers' financial security is a prerequisite for all agro-environmental projects.
- 15-5 **Funds collected thanks to the natural resources must be reinvested in the natural resources.**

Analysing to be able to forecast

Analysis of the stakeholders

- 2-1 The status of the poorest people must be considered when decisions are taken, since they are affected the most by any indirect consequences of the measures adopted.
- 9-2 Expectations regarding externalities vary according to the group considered (tourists, ecological sensitivity, agronomists, residents).
- 12-4 **The users and suppliers of environmental services are often poorly identified.**
- 6-2 **The beneficiaries of a resource, including those who do not own it, must be identified when reflecting on a PES project. The economy linked to the informal use of resources must not be neglected.**
- 4-1 Before examining an environmental service, relations between the local people and their resources must be thoroughly studied.

Analysis of the project implementation costs

- 12-5 **The socio-economic evaluation may be a problem if its cost makes the project too costly.**
- 15-1 **A cost/benefit analysis must precede the project**
- 2-2 The relevance of a procedure for valorising positive externalities must take into account the associated transaction costs.

Estimate of the project's contribution to sustainable rural development

- 15-1 **A cost/benefit analysis must precede the project.**

- 3-7** The condition of the poorest people and women must be considered during decision-making. They are sometimes the most affected by the indirect consequences of measures adopted.
- 14-5** Environmental conservation and poverty reduction are not always reconcilable goals. A comprehensive solution is not always possible. A viable but less successful solution is sometimes the only one available.
- 18-2** Considering aspects other than the environment when designing PESs (social effects etc) can quickly weaken the economic effectiveness (cost-effectiveness) of the PES.
- 1-3** The short-term and long-term effects of implementing the PES must be taken into account: if the long-term effects are positive, the short-term transition phase can be dramatic.

Facilitate access to the project

Financial capacity

- 10-3** **Two obstacles to participation by the poor: transaction costs in relation to the potential gain and the lack of property ownership in the case of the poorest people.**
- 11-2** **Access to financing and borrowing is a major obstacle to the communities. This is particularly true of the poor and the illiterate.**
- 1-2** Three conditions are needed to accede to a PES programme: property ownership, the capacity to advance investment costs, and the possession of the necessary technical skills (equipment and/or training).
- 7-1** Access to the tourism market depends on the level of knowledge, place of residence, and living standards. The "economic élites" often block access, and the poorest people often live far away from the attractive zones.

Technical skills and expertise

- 1-2** Three conditions are needed to accede to a PES programme: property ownership, the capacity to advance investment costs and the possession of the necessary technical skills (equipment and/or training).
- 7-1** Access to the tourism market depends on the level of knowledge, place of residence, and living standards. The "economic élites" often block access, and the poorest people often live far away from the attractive zones.
- 16-2** Farmers often lack the skills they need to negotiate with tourism professionals

Questions relating to property ownership

- 11-5** **Property ownership issues must be considered when implementing the project**
- 13-3** A sound approach to property ownership issues is a success factor, particularly with regard to the security of ownership.
- 3-8** Property ownership issues must be considered when taking decisions, particularly when the property is not legally registered (the informal economy).

Choosing a mode of payment

- 15-4 **Payment may be collective or individual.**
- 18-1 **The mode of payment must be suited to the local traditions; individual payments can disorganise a society based on a cooperative system.**

Guaranteeing the security of the stakeholders (project sustainability)

- 13-5 The participants must be guaranteed in the event that the project fails.
- 19-1 **Projects are highly vulnerable to external contingencies (livestock epidemics, international politics) which can destroy the balance between the stakeholders.**
- 13-3 A sound approach to property ownership issues is a success factor, particularly with regard to the security of ownership.
- 16-1 The financial security of farmers is a pre-requisite for all agro-environmental projects

Laying the foundations for the participatory management of the project

- 3-1 The stakeholders must be committed and convinced of the project that valorises positive externalities.
- 22-3 Territorial competitiveness, the capacity to act jointly and effectively at the local level requires coordinated efforts.
- 3-4 The capacities of each stakeholder to defend their own interests must be verified and, where necessary, improved.
- 6-1 **The "Top Down" approach of environmental services, under which national level policies are applied to local cases, should be replaced by a flexible and participatory approach.**
- 15-3 **The PES must be placed under the authority of a body with multiple stakeholders involved.**

2.2 Project implementation

Laying down the coordination and a decision-making rules

Participation

- 13-1 The production and dissemination of information on PES projects can considerably reduce both transaction and project launching costs.
- 13-2 For services that can be evaluated and remunerated independently for each participant (e.g. carbon sequestration), community work can be a trump card: it reduces transaction costs and increases the social benefits for everyone.
- 3-6 Information, awareness-building and participation by the local people is a condition for putting the organisation's decisions into practice..
- 3-3 The organisation responsible for the project must represent all the stakeholders.

Balance/equality between stakeholders

- 3-4 The capacities of each stakeholder to defend their own interests must be checked, and where necessary, improved.
- 11-6 **Discrimination against women and "gender rules" raises difficulties when implementing a sustainable tourism project.**
- 10-5 The effect will be positive for environmental service suppliers if they have sufficient negotiating strength in dealings with purchasers.

Transparency

- 3-5 Total transparency in decision-making is indispensable if the organisation is to operate properly.

Disseminating information and providing access to training

Information/sensitisation

- 3-6 Information, awareness-building and participation by the local people is a condition for putting the organisation's decisions into practice.
- 13-1 The production and dissemination of information on PES projects can considerably reduce transaction and project launching costs.

Stakeholder training and skills

- 3-4 The capacities of each stakeholder to defend their own interests must be checked, and where necessary, improved.
- 7-3 To implement a "pro-poor tourism" project in the field, a solution must be found to the problems of acquiring access to the skills needed to propose a tourism project, and guarantee communications.
- 11-4 **Local people are often very inadequately trained to be able to understand tourists' expectations.**
- 14-1 Combating poverty in a resource conservation project requires capital and learning how to use resources properly.

2.3 Project monitoring and evaluation

- 13-6 Service quality depends on monitoring, support and independent certification.
- 8-1 A sustainable tourism offering must be constantly and continuously monitored.
- 4-3 The basis for successfully implementing a PES is to choose a certification organisation to guarantee the quality of the service rendered.

Part 3 - Impacts

3.1 In general

- 1-4 PES have two types of impacts on non-participants: impact on resource users (not owners), and impact on paid employees and on properties.
- 2-6 PESs provide three types of benefits: financial, environmental improvement-related (health, recreation areas) and market-linked (environmental education, institutions, and definition of ownership).
- 1-3 The short-term and long-term effects of implementing the PES must be taken into account: if the long-term effects are positive, the transition in the short-term can be difficult

3.2 Socio-economic impacts

Sensitive groups

- 2-1 & 3-7 The condition of the poorest people and women must be borne in mind when taking decisions. These are sometimes the most seriously affected by the - indirect - consequences of the measures adopted.

Social effects

- 14-4 The causes of poverty and environmental degradation are often far removed from the area on which they impact.
- 22-2 The implementation of a rural development project strengthens the people's sense of belonging to their territory:
 - it links the people to their environment: countryside, heritage, buildings, common values etc
 - it creates links with other stakeholder groups, particularly:
 - between public and private stakeholders
 - between stakeholders in the same category (farmers, hoteliers)
 - between different stakeholder groups (livestock farmers and restaurateurs, craftspeople and artists)
 - between generations
- 13-2 For services that can be evaluated and remunerated independently for each participant (e.g. carbon sequestration), community work can be a trump card: it reduces transaction costs and increases the social benefits for everyone.
- 4-4 The PES have a major impact on small farmers when they are involved in the process. It has a financial positive effect, and also has social effects, by enhancing Community dynamism.
- 15-2 **The PES can create economic dependence by the participating populations.**

Economic effects

- 10-5 The effect will be positive for environmental service suppliers if they have

sufficient negotiating strength in dealings with purchasers.

- 12-3** The interest shown by environmental services suppliers is sometimes closely bound up with seeking recognition of property ownership rights.

3.3 Environmental impacts

- 12-6** PES can have negative environmental consequences on sectors not protected by the services.
- 14-4** The causes of poverty and environmental degradation are often far removed from the area on which they impact.
- 12-1** There are uncertainties regarding cause and effect relations between an environmental service (e.g. planting trees) and the expected effects (e.g. improving water quality).
- 13-6** Service quality depends on monitoring, support and independent certification.

Part 4. Ways of valorising positive externalities

4.1 Payment for environmental services

In general

Types of PES

- 10-2** Three distinctions for PES classification:
- private v. public purchasers
 - based on the geographic zones/product type;
 - based on resource-use restrictions (conservation)/resource - replenishment (restoration).

Bundled services

- 2-4** "Bundled services" may be of two types: Merged bundles (all the environmental services are sold together and inseparably) and Shopping baskets (the buyers choose the services they need).
- 2-5** "Bundled services" present all the traditional difficulties of the PES but they also require a better understanding of environmental mechanisms (e.g. the linkage between water quality and forest management).

Project design

Circumstances for project implementation

- 4-5** A fragmented PES approach weakens the potential of environmental services. The main obstacles are laws covering only part of the projects, a sector-based approach (agriculture, tourism, energy etc) and a lack of general policy to improve the communities' capacities.

Resource analysis

- 12-1** There are uncertainties regarding cause and effect relations between an environmental service (e.g. planting trees) and the expected effects (e.g. improving water quality).

Market and market agent analysis

- 12-4** The users and suppliers of environmental services are often poorly identified.
- 2-3** Environment services can be a solution on three conditions: transaction costs must not be too high, the service must be able to deliver (organisation, ownership etc.), and there must be a demand (shortage of finance, coordination etc.).
- 10-1** A PES is based on meeting four conditions:
- a voluntary transaction,
 - a service buyer,
 - a supplier,
 - a trading conditionality (guaranteeing service delivery).

Analysis of the project's capacity to achieve its objective

- 1-1** If the objective of the PES is not to reduce poverty, preventing increased poverty and as far as possible playing a part in reducing it, form part of the basic requirements for putting these services in place.

Project implementation

- 1-2** Three conditions are needed to accede to a PES programme: property ownership, the capacity to advance investment costs, and the possession of the necessary technical skills (equipment and/or training).

Monitoring

- 12-6** PES can have negative environmental consequences on sectors not protected by the services.
- 13-6** Service quality depends on monitoring, support and independent certification.

4.2 Sustainable tourism/pro-poor tourism

In general

- 11-8** There is a genuine demand by tourists for sustainable tourism.
- 11-9** Communities seize on the opportunities for sustainable tourism if they are given the chance.

Project design

- 11-1** There are three major stages in a sustainable tourism project:
- identifying the stakeholders, the place, and the potential,
 - a feasibility study,
 - project implementation,
 - monitoring and evaluation.
- 7-1** Access to the tourism market depends on the level of knowledge, place of residence, and living standards. The "economic élites" often block access, and the poorest people often live far away from the attractive zones.
- 16-3** Agri-tourists have expectations which are similar to sustainable agriculture practices.
- 7-2** The success of a product depends on its quality, the attractiveness of the region where the project is located, and the marketing efforts made.
- 8-3** Involving the local people in a sustainable tourism project ensures sound marketing and also provides an opportunity for the operators.
- 11-6** **Discrimination against women and "gender rules" raises difficulties when implementing a sustainable tourism project.**
- 17-1** Solidarity-based tourism is the effect of the internal construction of tourism by professionals, as well as external construction with the involvement of tourists.

Project implementation

The stakeholders' training and skills

- 7-3** Implementing a PEC project in the field depends on solving the problem of acquiring the necessary skills to propose a tourism project, and to communicate it.
- 11-4** **Training the people to understand the expectations of tourists is often very inadequate.**

Monitoring

- 8-2** After the initial project, a process must be set in motion to ensure that the tourism offerings are diversified and improved.

4.3 Trade in regional products/quality products

- 9-1** Criteria to be met when taking a decision on a regional product:
- social externalities,
 - environmental externalities,
 - territorial externalities,
 - market attractiveness,
 - the competitive position of producers.

- 9-3** The subjective perception of externalities must be carefully considered when valorising a positive externality by product differentiation...
- 9-4** The policy of analysing externalities and the strengths/weaknesses of each regional product must be accompanied by a political commitment.
- 21-1** **Two essential qualities give specificity and attractiveness to mountain agri-food products: the expertise associated with production and the linkage between the environment and natural resources.**
- 21-2** **21-2 Three criteria ensure the success of products designed to valorise mountain production:**
- **typical features and legitimacy of the product,**
 - **mobilising the stakeholders to implement structures,**
 - **supporting the projects.**
- 20-1** The internalisation of positive externalities is easier when dealing with specific products (regional or local products) for which there is a linkage with the consumer. For generic products, there is a weak linkage with consumers and another form of internalisation must be envisaged. La perception subjective des externalités demande à être bien considérée lorsqu'on souhaite valoriser une externalité positive par une différenciation sur le produit

IV. Recommendations

A. Recommendations regarding the documentary research approach

A.1. Update the list of positive externalities

Every human activity can be a source of positive externalities, varying according to the regions and the needs of the societies concerned. The great diversity of mountain regions and the evolution of the peoples' needs throughout the world require the list of positive externalities described in point I.3 to evolve and be enhanced. This list should be regularly updated.

A.2. Continue gathering documentation

Updating and enhancing documentation on the valorisation of positive externalities are the logical follow-up to this study. All the documents identified contain interesting information.

A.3. Enhance the analysis and synthesis documents by incorporating the "lessons learned"

Analysing the new documents collected will make it possible to complete the list that has already begun.

B. Recommendations for the valorisation of the positive externalities of mountain zones

B.1. Assess the value of positive externalities

How can the value of positive externalities be assessed? This question is difficult to answer in many of the experiences discussed. It is also an area in which field experiences, particularly on adjusting these values, are rare.

B.2. Compare the instruments used for the valorisation of positive externalities

There are many different tools for valorising positive externalities. A comparison of the strengths and weaknesses of each approach, particularly by examining implementation costs, needs in terms of institutions and policies, and the environmental, social and economic impacts, would be a very useful decision-making tool for defining appropriate positive externalities valorisation policies.

a. - Adapting the means of payment

Little information is available on ways of distributing the returns on valorised externalities:

- Payment in cash or kind?
- How to distribute the money?

The advisability of setting up schools and/or health care centres, or fostering access to social services, is a particular issue. These ideas deserve further thought. There is also a lack of in-depth discussion on how to redistribute some of these resources to the poorest people.

The question of land tenure also arises. Where property ownership is uncertain, projects aiming to valorise externalities often make it possible to formalize property rights. One idea that deserves thought is to distribute land in exchange for its proper maintenance.

b. - Designing a project evaluation grid (*ex ante* and *ex post*) for valorising positive externalities in a sustainable rural development perspective.

Despite the fact that this evaluation, is acknowledged to be necessary, it is often poorly documented, particularly from a sustainable development perspective, beyond the **non-environmental aspects**. What criteria are required for this?

Work on evaluating systems for valorising positive externalities is a logical follow-up to the study of the impacts of projects already implemented.

c. - Considering a whole set of externalities: Bundling PES

The "**Bundling PES**" system consists of considering all the positive externalities (biodiversity, watershed protection, carbon sequestration etc) in an integrated fashion, in the form of a package. This system provides a **broader and more integrated view** of environmental issues. It does, however, come up against the difficulty of evaluating these externalities, and also raises the issue of payment (the beneficiaries are obviously more numerous and varied). But this approach has the benefit of making a more in-depth study, broadened to take in other types of externalities (maintaining the social fabric, heritage conservation).

B.3 Diversify positive externalities valorisation experiences in mountain regions

One of the things that emerged from the documentation collection exercise was that there is a lack of documentation on mountain regions. However lessons drawn from experiences in non-mountain regions do not apply to mountain regions, except to a limited extent, and it would be useful to diversify experiences in mountain regions.

C. Avenues of work for the SARD-M Project

- The SARD-M project could **target activities** relating to the following points which have been raised in parts A and B above:

A. Recommendations for the documentary research approach

- A.1 Update the list of positive externalities
- A.2 Continue gathering documentation
- A.3 Expand the analysis and synthesis documents with "lessons learned".

B. Recommendations for the valorisation of positive externalities in mountain regions

- B.2 Compare the procedures used for the valorisation of positive externalities

b - Create a project evaluation grid (*ex ante* and *ex post*) for the valorisation of positive externalities in a sustainable rural development perspective.

c - Take account of a whole set of externalities: Bundling PES.

- The project must also **carefully monitor its partners'** experiences in valorising positive externalities of mountain regions.

V. Annexes

- 1. Document selection grid**
- 2. Documents selected by level of relevance**
- 3. Lessons learned**
- 4. Interesting methodological tools**

Description and analysis grid

- **Document title:** the document title in the original language of the publication
- **Publication date:** the year the document was published
- **Author:** the name of the author
- **Publisher:** the name of the publisher
- **Document type:**
 - workshop reports: reports and conclusions of meetings of specialists and/or stakeholders,
 - substantive articles (by a specialist, university, international organisation): a document addressing the issues in more general and theoretical terms,
 - reports based on projects/case studies implemented.
 - case studies

The word "Draft" is to be added where relevant.

- **Region:** the various regions dealt with in the publications: Africa, Asia Pacific, Central America and the Caribbean, South America, North America, Middle East, Europe, international.
- **Country:** the countries studied or participating in the programmes and projects examined in the document.
- **Document context:** the context in which the document was drafted (framework study, research, project, discussions).
- **Organisations involved:** the organisations (NGOs, international organisations, government) involved in the drafting of the document.
- **Subject matter:** the main subjects covered by the document (the original subject of the texts, even if it is not, at first sight, focused on externalities)
- **.Externality/Service:** the type of externality or service addressed in the document
- **Social aspects**

The document deals with the social aspects of externality valorisation projects. Notation: 0 (not addressed) 1 (little attention) 2 (considerable attention) 3 (very thoroughly addressed).

- **Economic aspects**

The document deals with the economic aspects of externality valorisation projects. Notation: 0 (not addressed) 1 (little attention) 2 (considerable attention) 3 (very thoroughly addressed).

- **Environmental aspects**

The document deals with the environmental aspects of externality valorisation projects. Notation: 0 (not addressed) 1 (little attention) 2 (considerable attention) 3 (very thoroughly addressed).

- **Policies**

The document deals with the policy aspects of externality valorisation projects. Notation: 0 (not addressed) 1 (little attention) 2 (considerable attention) 3 (very thoroughly addressed).

- **Institutions**

The document deals with the institutional aspects of externality valorisation projects. Notation: 0 (not addressed) 1 (little attention) 2 (considerable attention) 3 (very thoroughly addressed).

- **Governance**

The document deals with the governance aspects of externality valorisation projects. Notation: 0 (not addressed) 1 (little attention) 2 (considerable attention) 3 (very thoroughly addressed).

- **The main relevant features of the document**

The document's added-value in terms of SARD-M. What does this document offer compared with other documents? (Some documents offer the same information). This should not be a short summary.

- **Mountains:** is the document addressed specifically to mountains or not?
- **Case study:** the document is based on case studies, or refers to them.
- **Relevance /10:** the relevance of the document to SARD-M project issues. This is a subjective indicator regarding the contribution of each document as input for our future work.
- **Criticisms:** criticisms of the document in terms of its usefulness to the SARD-M project.

Annex 2: List of documents

Key Documents

List 1 - Document title	Publisher	Region	Country	Themes addressed	Externality	Mountains
Can Payments for Environmental Services Help Reduce Poverty? An Exploration of the Issues and the Evidence to Date from Latin America (Ensuring that the Poor Benefit from Payments for Environmental Services - DRAFT) - 2004	World Bank	International	International	PES Poverty	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N
Silver bullet or fools' gold? A global review of markets for forest environmental services and their impact on the poor - 2002	IIED - International Institute for Environment and Development	International	International	PES Forests Poverty	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N
Developing pro-poor markets for environmental services in the Philippines - 2003	Regional Environmental Economics Program (REEP), Asia IUCN - The World Conservation Union	Asia	Phillipines	Poverty	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N
LESSONS FROM THE AMERICAS AND KEY ISSUES FOR STRENGTHENING COMMUNITY STRATEGIES COMPENSATION FOR ENVIRONMENTAL SERVICES AND RURAL COMMUNITIES - 2003	DEVELOPMENT AND ENVIRONMENT RESEARCH PROGRAMME IN EL SALVADOR	Central America and Caribbean South America	Costa Rica, Salvador, Mexico, Brazil, New York	PES	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N
Environmental Goods and Services in Honduras - A Sustainable Development Alternative - 2004	PASOLAC-Honduras	Central America and the Caribbean	Honduras	PES	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N
Watershed Development, Environmental Services and Poverty Alleviation in India- 2002	World Development	Asie	India	PES watersheds poverty	water quality and quantity	Y
PPT Strategies for pro-poor tourism A review of experience- 2001	Practical strategies for pro-poor tourism	International	International	Sustainable Tourism	Culture Heritage Biodiversity/Environmental Conservation	N

Practical strategies for pro-poor tourism TROPIC Ecological Adventures - Ecuador- 2001	Practical strategies for pro-poor tourism	South America	Ecuador	Sustainable tourism	Culture Heritage Biodiversity/Environmental Conservation	N
Rural livelihoods and carbon management - 2000	DFID - Forest Research Programme Project	International	International	Carbon Management (Sequestration, conservation) and the rural way of life	carbon sequestration	N
For sustainable agriculture in Valais - 2000	Institut d'économie rurale, Ecole polytechnique fédérale, Zürich	Europe	Switzerland	Agriculture	Conserving the Social Fabric, Conserving the Environment	N
Payments for environmental services: Some nuts and bolts - 2005	CIFOR - Center for International Forestry Research	International	International	PES	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N
How Can Market Mechanisms for Forest Environmental Services Help the Poor? Preliminary Lessons from Latin America - 2005	WORLD DEVELOPMENT	Central America and Caribbean South America	Central America and Caribbean South America	PES Poverty	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N

Interesting Documents

List 2 - Document Title	Publisher	Region	Country	Themes Addressed	Externalité	Montagne
Practical strategies for pro-poor tourism: case study of pro-poor tourism and SNV in Humla District, West Nepal - 2001	Practical strategies for pro-poor tourism	Asia	Nepal	Sustainable Tourism	Culture Heritage Biodiversity conservation	Y
Payment schemes for environmental services in watersheds - 2003	FAO	Central America and Caribbean South America	Costa Rica Ecuador Honduras Dominican Republic	PES watersheds	Water Quality and Quantity	Y

Who Benefits from Payments for Environmental Services Programs? An Analysis of Participation in and Performance of Costa Rica's PSA Program" - 2003	Cornell University Department of Applied Economics and Management	Central America and Caribbean South America	Costa Rica	PES PES Beneficiaries	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N
Smallholder agroforestry projects: potential for carbon sequestration and poverty alleviation - 2003	FAO	International	International	Poverty Carbon Sequestration Agroforestry	Biodiversity Conservation Carbon Sequestration	N
An Analysis of Institutional Supports for Community-Based Land Management Systems with Carbon Sequestration Potential in Mali - 2003	Sustainable Agriculture and Natural Resource Management CRSP	Africa	Mali	Carbon sequestration	carbon sequestration	N
Poverty and Conservation, Landscapes, People and Power - 2005	IUCN – The World Conservation Union	International	International	Integrated Conservation and Development Projects (ICDPs) Forêt	Conservation de la biodiversité Séquestration de carbone	N
Electronic forum on payment schemes for environmental services in watersheds - 2004	FAO	Central America and Caribbean	Ecuador Brazil Chile Costa Rica Colombia Latin America	PES Watersheds	Water Quality and Quantity	Y
Paying for Biodiversity Conservation Services in Agricultural Landscapes - 2004	World Bank	International	International	PES Biodiversity, Silvopastoral Practices	Biodiversity Conservation Carbon Sequestration	N
Paying for Environmental Services at Municipal Level in Honduras, El Salvador and Nicaragua: "PASOLAC's contribution to developing and innovative approach which will contribute to sustainable mountain agriculture" - 2004	PASOLAC	Central America and Caribbean	Central America	PES agriculture	Water Quality and Quantity, Carbon Sequestration	N
A Shared Research Agenda for Landuse, Landuse Change, Forestry and the Clean Development Mechanism - 2001	Center for International Forestry Research	International	International	The use of lands, forests and sustainable development	Carbon Sequestration	N
Perception Analysis of Environmental Externalities of Coffee Farming System in Rio Limpio and Irrigated Farming System in San Juan de la Maguana, Dominican Republic	ROA/FAO	Central America and Caribbean	Dominican Republic	Comparison of Externalities of 2 modes of production (bio and non-bio)	Biodiversity Carbon sequestration Soil conservation Landscape management	N

Genetic Diversity, Coffee and Soil Erosion in Ethiopia - 2003	ROA /FAO	Africa	Ethiopia	Biodiversity Food Security Erosion	Biodiversity Food security Soil conservation	N
Agriculture's Environmental Externalities Valuation: Agro-Tourism in the Dominican Republic - 2003	ROA /FAO	Central America and the Caribbean	Dominican Republic	Agri-Tourism	Cultural and Environmental Heritage	N
Compensation for Environmental Services and Rural Communities: Lessons from the Americas- 2004	POLITICAL ECONOMY RESEARCH INSTITUTE (University of Massachusetts Amherst)	Central America and the Caribbean South America	Costa Rica Mexico El Salvador Brazil	PES	Environmental externalities(biodiversity conservation, carbon sequestration, landscape management, water quality and quantity)	N
Payment for environmental services as a mechanism for promoting rural development in the upper watersheds of the tropics: Proposal for Andes Basin - 2004	GTZ-CONDESAN (Cuencas Andinas Project), CIAT, DIIS	Central America and the Caribbean	Central America and the Caribbean	PES	Water Quality and Quantity	N
Externalities and labor market linkages in a dynamic two-sector model of tropical agriculture (Version Power point) - 2003	Purdue University	International	International	PES Watersheds Agriculture	Water Quality and Quantity	N
Establishing the impact of forestry on the means of subsistence of the local population-2000	Centre de recherche forestière internationale (CIFOR)	International	International	PES	Carbon Sequestration	N
Carbon, Forests and People Towards the integrated management of carbon sequestration, the environment and sustainable livelihoods - 2002	IUCN – The World Conservation Union	International	International	Forest Management	Carbon Sequestration Biodiversity Conservation	N
Environment Module, Morocco - 2004	ROA/FAO	Africa	Morocco	Positive Externalities of Agriculture on Tourism	Cultural and Environmental Heritage	N
Linking farmers and researchers in China-2004	Canada's International Development Research Centre (IDRC)	Asia	China	Biodiversity Participatory improvement	Food Security	N

Annexed Documents

List 3 - Title	Publisher	Themes addressed	Focus of Interest
Multifunctionality: consequences for government action-2003	OECD	Multifunctionality of Agriculture	Data on agricultural externalities
Getting it right: emerging markets for storing carbon in forests - 1999	World Bank	Forestry	The document raises the problem of carbon fixation
Solidarity-based tourism: innovation and networking France-Italy Comparative Analysis-2004	Université Catholique de Lyon	Solidarity-based tourism	Institutional support for tourism: Italy-France compared
Forest ecosystems services: can they pay our way out of deforestation? - 2002	GEF	PES	Addresses the practical aspects of a PES
Making markets work for forest communities - 2002	Forest trends	Forestry	The document studies the potential and comparative advantages of forestry for poor populations
Poverty Reduction, Equity and Climate Change: Global Governance Synergies or Contradictions? - 2003	ODI - Overseas Development Institute	Climate change	The document addresses poverty in terms of combating climate change
"Marketing" Environmental Services: Lessons Learned in German Development Cooperation - 2004	German Development Co-operation - GTZ Laboratoire d'Economie de la Production et de l'Intégration Internationale	PES	Analysis of different aspects of PES
The territory and its heritage-2004		Territory	One of the rare analyses of territorial externalities
Scenarios for reconciling biodiversity conservation with declining agricultural use in the mountains of Europe - 2002	BioScene	Conservation of biodiversity in mountain regions	Social aspects and rural development
Multifunctionality and territories-2002	CEMAGREF-CIRAD-INRA	Agriculture, externalities and valorisation difficulties	The document indicates difficulties linked to internalising agricultural externalities (imputing positive effects, evaluation). It proposes a vision of specific (niches) markets

Carbon projects in Brazil and the roles and functions of the "Brazilian Biofuels Programme"-BBP -	IPGRI - International Plant Genetic Resources Institute	Biofuels	Interactions between developed/developing countries
Community Policies and Mountains - 2002	European Commission	Agro-environment Certification	Multiple vision of mountain regions
2003 Parc national de la Vanoise Activity Report - 2003	PNV	Rural development	Local Aspects and Governance
Mountain agrifood products in Europe: conclusions and specific project achievements-2004	EUROMONTANA	Strategy for developing quality products	Addresses the valorisation of positive externalities by certification
Risks and stakes in family agriculture - Cases in mountain regions, arid and semiarid - 1997	CIHEAM	Family agriculture	Social Aspects and Rural Development
Evaluation of economic benefits linked to achieving the objectives of the agro-environmental action plan 1998-2005-2000	Union québécoise pour la conservation de la nature (UQCN)	Agro-environment Certification	The document correctly addresses the problems of positive and negative externalities of agriculture and rural development
The role of services driving the structuring of rural areas - 2003	Université F. Rabelais - Tours et UMR CNRS 5045 Mutations des Territoires en Europe, Montpellier	Rural development and service	The document illustrates the new dynamic of rural development
Social competitiveness 2000	European Commission	Rural development	The institutional aspect is soundly addressed in terms of rural development
Characterising environmental services in a landscape dimension produced in rural areas - 2002	Sustainable and territorial development	Landscape	A rare example of a PES on landscapes This document describes the state of forests in the Navarra region. The externalities of this region were used as a basis for subsidising new forestry measures, with rather poor results.
Forestry measures in the rural development programme for Navarra - 2002	Comunidad foral de Navarra	Forestry	

[The future of mountain regions in Europe-2004](#)

Euromontana

**The future of
mountain regions**

**Strengths and weaknesses
of Mountain regions**

[Environment Module, China](#)

ROA/FAO

**Reduction of
agricultural pollution**

**The document proposes a
method for evaluating the
positive externalities of
agriculture**

Annex 4: List of identified tools

Key Documents

Nº	Document Title	Tools and methodology
1	Can Payments for Environmental Services Help Reduce Poverty? An Exploration of the Issues and the Evidence to Date from Latin America (Ensuring that the Poor Benefit from Payments for Environmental Services - DRAFT)	- a very useful tree diagram showing the obstacles to household participation in a PES. - a table summarising the potential impacts of PESs on participants and nonparticipants.
3	Developing pro-poor markets for environmental services in the Philippines	- good grids for evaluating the social economic consequences of a project.
6	Watershed Development, Environmental Services and Poverty Alleviation in India	- a short table providing information on employment rates in a mountain region over 10 years of a PES (the judgment of the local people). - a table showing the evaluation of a PES project by the local people
7	PPT Strategies for pro-poor tourism - A review of experience	- Document listing barriers to participation by the poor
9	For sustainable agriculture in Valais	- a good decision-making analysis grid for each product: invest in a regional product, select it, abandon it?
10	Payments for environmental services: Some nuts and bolts	- table indicating all the approaches to conserve an environmental resource (certification, PES, environment taxes/subsidies etc). Exceeds the framework for valorising externalities.

Interesting documents

Nº	Document title	Tools and methodology
11	Practical strategies for pro-poor tourism: case study of pro-poor tourism and SNV in Humla - District, West Nepal	- Table showing 10 stages to mount a tourism project by the local people
12	Payment schemes for environmental services in watersheds	- Grid setting out the evaluation criteria for implementing the watershed management project
14	Poverty and Conservation - Landscapes, People and Power	- table providing solutions to resolve various aspects of poverty
16	Agriculture's Environmental Externalities Valuation: Agro-Tourism in the Dominican Republic	- a classification and typology of agro-tourists