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Case studies on Remuneration of Positive Externalities (RPE)/ Payments for Environmental Services (PES)

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Rusenski Lom Nature Park is one of the pilot sites of WWF DCPO included in the project Promoting PES and other related sustainable financing schemes in the Lower Danube Basin (Danube PES), because of the PES potential to finance the conservation of biodiversity values of Rusenski Lom Nature Park.

Rusenski Lom PES targets cultural services provided by the protected area and aims at decreasing the pressure of tourism activities on the wildlife and ecosystems. But it also contributes to improving regulating services through

Tourism investment in regulating and cultural ecosystem services, Rusenski Lom Park, Bulgaria

Overview

Tourism, as well as agriculture, aquaculture, forestry rely on the goods and services provided by natural ecosystems of Rusenski Lom Nature Park. While tourism is gaining an increasingly important role for local economies, some impact on biodiversity is already evident - new entrepreneurs start up and although of small size, the cumulative effect of their business operations disturbs biodiversity. The effect on different ecosystem services might not be noticed immediately, but biodiversity is more vulnerable and is a clear indicator of this disturbance.

Payments for cultural ecosystem services were introduced in Rusenski Lom as a win-win solution to businesses and nature - the instrument contributes to generating income from tourism users of the park, which would be invested entirely in enhancing the values of the area for these users. The measures to be implemented include development and maintenance of low-impact biodiversity trails, restoration and management of the habitats and protection of key animal species of global conservation importance, but also of cultural values, such as the European ground squirrel and the Corncrake. In this way, the landscape features and the biodiversity, attracting tourists to the area will be protected, which will also ensure the livelihood of local tourism businesses, but also of small-scale farmers, bee-keepers, aquaculture managers, who supply their products in tourism places, as well as local people employed to provide different services to tourists.

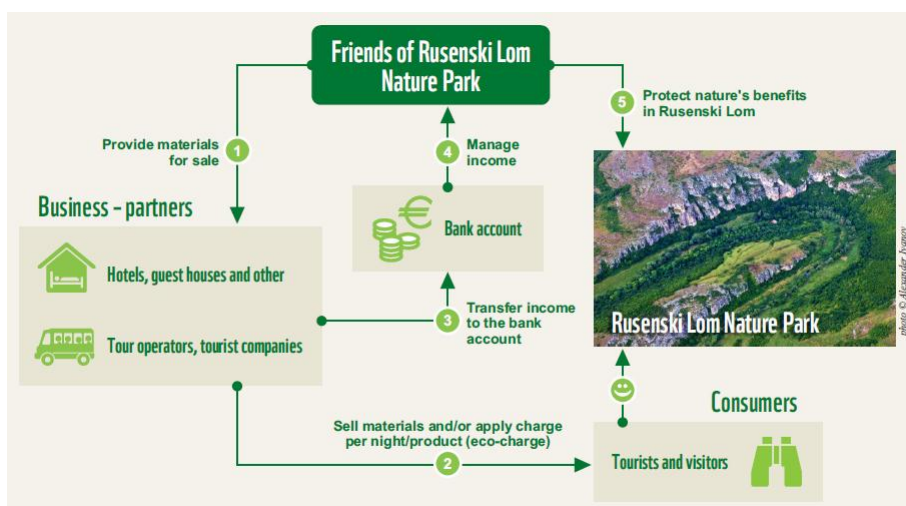


Figure 1. Operational structure and financial flows

The need for investment in ES conservation

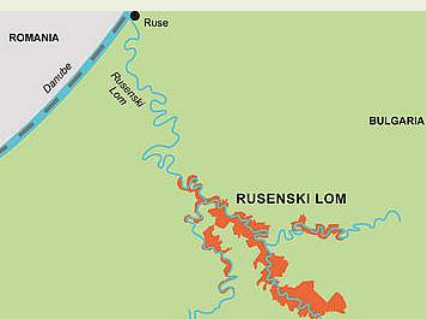


Figure 2: Rusenski Lom Nature Park is located in the canyon-like valley of the Rusenski Lom river, the last major tributary of the Danube in Bulgaria, before it spills into the Black Sea © WWF



Chamæcytiscus kovacevii (Velen.) Rothm, Bulgarian endemic species located only in the north of the Danube plain © Directorate of Rusenski Lom Nature Park

Figure 2. Rusenski Lom watershed is the only place in Bulgaria, where the Balkan endemic species *Verbascum dieckianum* Borb. & Degen can be found. Endemic flora species in the Park comprises 3,4%

[1] Category V—Protected Landscapes and Seascapes allow a higher level of interaction with surrounding communities who are able to contribute to the areas management and engage with the natural and cultural heritage it embodies through a sustainable outlook.

Landscapes and seascapes that fall into this category represent an integral balance between people and nature, and can sustain activities such as traditional agricultural and forestry systems on conditions that ensure the continued protection or ecological restoration of the area.

Rusenski Lom Nature Park is a protected area, located in Northeast Bulgaria, in the canyon-like valley of the Rusenski Lom River. The area was designated a nature park in the 70's because of its unique and complex canyon relief in the Danube river plain, a home of rich diversity of flora and fauna, and a site of history and culture recognized for its value for the generations by UNESCO. In an area of 3,408 ha, 900 plant species, 200 bird species and 22 fish species thrive. Rusenski Lom PES pilot site consists of woodlands (forests and lands) - 82% of the total park territory, and grasslands - nearly 16%. It falls under category V of the IUCN protected area categories[1] and therefore it hosts contemporary developments such as ecotourism at the same time as maintaining the traditional land-use practices that may procure the sustainability of aquatic and agrobiodiversity.

Increasing pressure from tourism

The park generates income for 35,000 people living from agriculture, forestry and tourism. Annually the park attracts more than 10,000 visitors, bringing as much as 67,000 € to local people according to pessimistic valuations. The popularity of Rusenski Lom increases - the number of visitors between 2010 and 2011 increased with 56%. This number represented only organised groups and people who used accommodation in Rusenski Lom. It did not include visitors from Ruse and Bucharest for rock climbing, byking and hiking, water-sport lovers and other individuals who camp in the nature park. Only visitors of Ruse city exceeded 500,000 in 2011, and according to Ruse Tourist Information Centre at least 5% of them visited the Nature Park.

The main pressures resulting from tourism are:

- Disturbance of wildlife

The noise, improper practices and the visit of great numbers of people are the main irritating factors for the animal species, especially for bird species. In some cases, it is about the capacity of the visited place, while in others – it is just the lack of knowledge of the visitors. Such problems have been observed in places intensively visited by tourists, such as the historical sites, tourist shelters, rocks and caves. Rusenski Lom has a small but important breeding population of Egyptian Vulture (*Neophron percnopterus*), which is listed as globally endangered and sensitive to visitor disturbance. The Park also has other breeding species, listed under the EU Birds Directive, which are similarly sensitive to disturbance during the nesting period, e.g. Black Stork (*Ciconia nigra*)

- Contamination with waste from tourists

Pollution with different waste thrown in nature by tourists is a common problem in all tourist destinations in the area.

The driver for PES:

- There is pressure on habitats and biodiversity originating from tourism in the region, which will increase because of the development of tourism in the area;
- The features of the area and its predominantly flat relief, mean an easy access to almost all areas of the park;
- There is limited state funding to support running conservation costs, which is roughly enough to cover the entire need of funding for visitors' management – 10,000 euro per year;
- There is a variety of EU findings effective in Bulgaria since 2007, but few of them address the impact of tourism on nature and provide long-term funding for conservation;
- There is no link between the user of the aesthetic and biodiversity value of Rusenski Lom and the costs related to the management of the same natural capital.

PES funds could help to bridge this gap, as there is no economic instrument to contribute to mitigating/decreasing the impact of tourism on ecosystem services in Rusenski Lom.

Realizing the value of the park

Grasslands and forests of Rusenski Lom generates economic benefits of more than 2 million euro annually.

Ecosystems of Rusenski Lom Nature Park provide a lot of benefits which were not known to people. Besides material benefits (provisioning ecosystem services), forest and grassland ecosystems provide other regulating and supporting ecosystem services, such as carbon sink, flood protection, pollination, recreation and biodiversity maintenance, which annual value was estimated to exceed 2 million euro (fig. 3). However, there is no link between the user of the natural capital and the costs of its management. While some forestry activities provide back financial resources for forestry practices, agriculture and tourism still miss to re-invest in the natural capital, which they depend on so much. This is a financial gap which results in loss of the biodiversity in the area. Currently, 15 accommodation places operate on the territory of the Nature Park. There are also several NGOs based in Ruse specialised in adventure and eco tourism. They all benefit from the biodiversity and landscape of Rusenski Lom, providing opportunities for various forms of tourism - rock climbing, canoeing, cave exploration, bird-watching etc. In the same time, tourism businesses do not invest any part of their income in maintaining and protecting these values

Cultural services have been more easily understood by local stakeholders and are considered an entry level of the ecosystem services approach and PES in the area.

The term ecosystem services has been very difficult for local stakeholders to comprehend. Only local conservation experts from the Directorate and NGOs were able to understand its meaning. These were concluded further to the interviews, numerous meetings and workshops held locally with different target groups: farmers, fishermen, tourism developers, NGOs, public administrations (of the nature park, local governments, extension services) in the period 2010-2012. Among all types of ecosystem services cultural ones received the highest level of understanding. It was even surprising that during a workshop to present the values of the area organised for local journalists they were not aware of natural functions and of any economic instruments (including carbon deals) for investing back in nature.

The Danube PES team decided to design a payment scheme to enhance aesthetic and biodiversity values of Rusenski Lom Nature Park, linking into a partnership the users and providers of these services.

The goal of this scheme is to enhance (the protection and maintenance of) biodiversity and the associated supporting and cultural ecosystem services provided by Rusenski Lom Nature Park through active involvement of the users of these values.

The scheme covers the current territory of Rusenski Lom Nature Park - 3,408 ha but it has a smaller intervention area formed of the places most intensively used by tourists (around 67% of the whole territory).

Since 2010, there is a local logo owned by the Nature Park Directorate – Lomovete (fig.3). The regional brand is provided by the Directorate to local entrepreneurs to promote their products under the condition that they respect the park management regimes for economic activities. The brand is still quite new to the market and has low advertising/marketing power but this is gradually developing. In 2012 a group of bee-keepers from one of the villages in the nature park signed contracts for using the brand. One of the requirements of the contract was to contribute to the payment scheme for cultural ecosystem services in Rusenski Lom (PCES), which is a new element in the scheme itself, initiated by the Directorate. Up to 2% of the revenues of bee-keepers from selling their products will be reinvested back into grasslands management, important for bees.



Figure 4. Landscape of Rusenski Lom Nature Park © WWF

Ecosystem service		Euro Value
Cultural	Eco tourism	67 200
Regulating & Maintenance	Flood protection	7 500
	Water purification	15 340
	Carbon sink by forests and wet meadows	2 321 570
Provisioning	Fruits and wild berries	250
	Game	230 000
	Timber and wood	80 000
	Fodder (hay and fresh grass)	66 000

Figure 3: Annual Euro value of ecosystem services from Rusenski Lom



Figure 5: Regional Brand provided by the Nature Park Directorate

The PES agreement

In December 2012, a Partnership Agreement was signed between Friends' Club of Rusenski Lom Nature Park and 8 tourism businesses and organisations for provisioning of cultural ecosystem services (Fig. 6).

The provider of the service is the Friends' Club of Rusenski Lom Nature Park. The Club is a non-governmental, non-profit organisation, established in 1998. One of the main purposes for establishing the Club was to enable the Directorate to access external funding (non-state). Over the years, the Club developed a lot of experience in developing and implementing conservation and sustainable development projects on the territory of Rusenski Lom and in the Lower Danube river basin. It is well known in the conservation community in Bulgaria. Its reputation among local stakeholders and partners is good, with high level of credibility. The Club is also a partner of WWF in the Danube PES project. The Club, together with the Directorate was involved in all phases of developing the PES scheme - during clarifying elements of the legal document and financial issues, development of conservation measures and promotional materials. It has the knowledge and capacity to manage the scheme. The Club is a signatory of Partnership Agreement as one of the parties. In the capacity of a seller, the Club is responsible to develop and propose an annual conservation programme and budget to the sellers, which is subject to an approval by the Steering Committee (SC) of the scheme. The Club is also responsible to create and maintain a bank account specially used only for the purposes of the PES scheme.

The measures should contribute to enhancing the protection and maintenance of the aesthetic values and the biodiversity of Rusenski Lom Nature Park, including: 1. Maintenance of land and water trails with a minimal environmental impact on ecosystems and the biodiversity; 2. Protection/restoration of semi-natural grasslands and emblematic species, of value for tourism – Egyptian vulture, Black stork, Crex crex and European ground squirrel; 3. Training of local guides; 4. Marking and position of information tables. These activities do not exhaust the list of measures to be taken but these are considered the most urgent to be undertaken. The Directorate and the Club already started working with bee-keepers, expanding the scheme but it can be further developed, so that the scheme covers other users of ecosystem services.

Monitoring is carried out by a Steering Committee comprised of 8 members: Directorate of Rusenski Lom Nature Park, Ruse Regional Government (permanent members), 2 representatives of each the business and NGO sector, and one representative of local governments on a rotational principle. WWF is a special member, with the right to exercise its special voting rights related to conservation activities and their budgeting in the first 3 years of implementation of the scheme (by 2015). The SC meets once a year and is the body responsible for the control and monitoring of implementation of the scheme with view to achieving its objectives and to the decision making process to efficient absorption of the funds. The obligations of the SCs are stipulated in Statute of the Work of the SC. All reports on the scheme progress are published on the internet site of the Club, <http://www.lomovete.org>.



Figure 6: Four of the eight business partners signing the Partnership Agreement before the local media of Ruse on 11 December 2012 © WWF



Figure 7: Interview with Tsonka Hristova, chair of the Friends' Club of Rusenski Lom Nature Park NGO about the PES scheme in Rusenski Lom: "I believe in this initiative, just like our partners and signatories of the agreement do. Many people see that this initiative does not require a lot of financial resources and that by investing now in nature, it will repay us in the future, and that the effects will be tangible" © WWF



Figure 8: The Facebook page of the PCES scheme

Figure 9. (right) Institutional set up for implementation and monitoring of PES-funded activities



Investors in the ES of the park

Services buyers are the tourism developers in the area, comprising NGOs registered in public and private interest, hotels and guest houses, tour operators and agencies: Black Stork Hotel, Edelvais Family Hotel, Hotel Kladenetsa, Villa Angel, Salviniya Travel tour operator and travel agency, Byala Zvezda Ruse Adventure Club NGO, Akademik Torism and Nature Protection Club NGO, Prista Tourist Association NGO.

Tourism operators are aware that their activity relies on the aesthetic values of the area but 5 out of 12 are not aware that their practices have a negative impact on habitats and biodiversity. 8 out of 12 were ready to invest money on their own in developing eco trails, and 6 of them were not familiar with the fact that they had to coordinate this with Rusenski Lom Nature Park Directorate.

WWF has been working with most of these partners since 2007. They have been also familiar to the Directorate and the Club. WWF has played a facilitation and capacity building role on both sides - the conservation community of Rusenski Lom and tourism businesses, so the link between the Directorate, the Club and accommodation places have been further developed.

The form of the payment is chosen on a voluntary basis, including the following options:

- Promotion of information materials (fig.5) - income generated to be entirely used for targeted conservation activities, after reducing production costs. The use of the promotional materials - postcards in this case, is necessary because some local buyers do not report their revenues to tax authorities and in most financial periods they show financial losses. To overcome this and for promotional reasons, the team developed promotional materials that would generate part of the PES from direct consumers of the aesthetic value provided by ecosystems in the area (directly from tourists). Tourists and visitors, in their capacity of buyers are able to purchase materials developed under the scheme. Currently, these are four types of post cards, specifying the conditions for the payment provided by buyers.
- Sale of tourist services or packages, including an add-up/charge over the standard price (for example for responsible tourism) to be collected and used entirely for the purposes of the scheme. The level of add-up could be chosen by the buyer but it ranges between 1 and 5%.
- Donations to the funds to be spent entirely on maintenance and protection of ecosystem services.

The form of the payment is chosen on a voluntary basis by the buyers but most of them prefer to sell promotional materials to their customers through which part of the income will be generated. Some business developers, like NGOs, could not issue cash receipt, so they decided to charge their members with an extra fee to the price they pay for tourism services. All amounts are then transferred to a special bank account, stipulated in the Partnership Agreement.

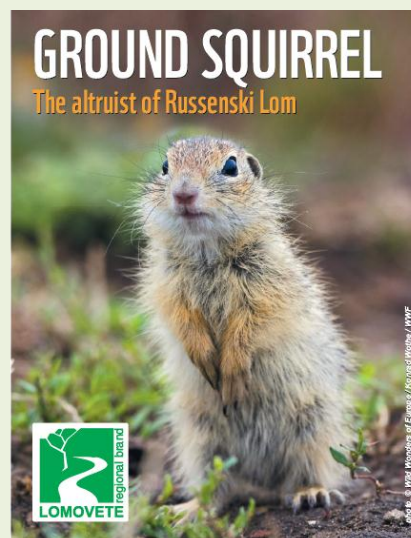
The scheme started in December 2012. This first year is a testing period for the scheme. Most partners selected to sell the four types of cards specially developed for this purpose. The first donation to the scheme was provided by the Kladenetsa Hotel, after the signing of the Agreement. According to estimates the amount collected since the start will not be higher than 1,000 euro. It is quite likely that more partners will try to introduce an add-up to their services. In October 2013, there will be a meeting of business partners to report on the scheme progress and of the SC to decide how to proceed with the income.



Public-Private

More about business partners, signatories of the Partnership Agreement:

- <http://hotel-kladenetsa.com/>
- <http://www.black-stork.com>
- <http://edelvais.biz/>
- <http://www.vila-angel.com/>
- <http://salvinia.eu/>
- <http://www.bialazvezda.com/>
- <http://academic.uni-ruse.bg/>
- <http://tdp.free.bg/>



* By buying this card you help restore and maintain the grasslands of Russenski Lom which are my home!

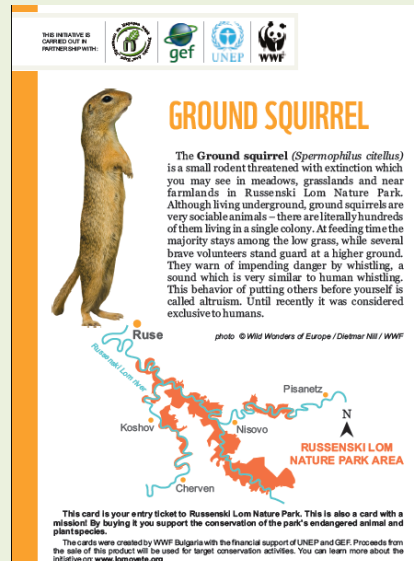


Figure 10. One of the four types of the post cards promoted by tourism operators in the Park © WWF



Negotiation

Lessons learned

Part of the baseline information includes a review of validity/reliability of existing sources. It also includes a review on the availability of required data. This is particularly relevant in the case of pilot testing, where most of the schemes are based on secondary data. It is necessary first to go through all official sources and involve relevant key experts from national institutions to get an idea of the real situation, and then, carry out interviews at local level to define deviations from national/regional statistics.

Negotiation support materials: conduct an indicative cost-benefit analysis for both buyers and sellers, as part of the baseline information. Building arguments for the negotiation phase is costly.

Make the most of existing public funding instruments at national and supra national level to cover start-up costs of the scheme, especially capital investments.

Try to partner with local/regional government authorities with political power to facilitate tax breaks for conservation/development activities which are of national interest.

Negotiating a long-term agreement

Identifying the users of ES

The number of tourists was difficult to obtain because there is no official statistics on that in the area. The reasons for this were various - the nature park does not have a system to count and monitor the number of tourists; local accommodation places do not provide correct information on the number of tourists resting with them officially (to municipalities) for cost reasons; there were places providing accommodation but not registered at all.

The only data on tourists flow in the area could be obtained from the Regional Museum of History (RMH), whose administration is responsible for the maintenance of the historical sites in Rusenski Lom. According to the data from the RMH, in 2011, 9597 tourists visited the Ivanovo Rock Churches, which is 56% higher comparing to the number in 2005, when they registered a little over 5000.

Interviews conducted with local accommodation places and local municipalities to see the level of deviations. According to information provided by accommodation places, the number of their customers in 2011 was 4,335 tourists. In comparison, the number of tourists reported by Ivanovo municipality, where 3 of the interviewed accommodation places and two historical sites are located, comprised 19,957 in 2011.

Negotiation: Willingness to pay and readiness to participate

Willingness and capacity to pay or participate are two very distinctive conditions/factors, which need to be properly addressed. Sometimes, buyers were not willing to participate until they first witnessed the benefit that they would pay for - for examples maintained low biodiversity impact trails. In other cases, readiness was missing because of the expectancy of high responsibility beyond the capacity of the buyer. In a third situation, the lack of readiness came through because of the lack of financial and technical capacity to get involved (also referring to reporting financial costs of the scheme in the accounting systems of buyers). Capacity might be weak because (i) PES is a new instrument, and its management and/or monitoring requires combined knowledge of economic, environmental and social sciences; all these in addition require funding, which has two other aspects - sometimes PES collected could be quite a small share; Start up costs of PES schemes may not be eligible for external donors' funding because environmental benefits cannot be accumulated within the required period of the external donor and are not included in the standard cost and benefit analysis, used in project appraisal (ii) PES requires start-up funding for capital investments, which sometimes is difficult to be covered by any of the parties involved.

The Danube PES team worked on building capacity at local/ national level for PES. In Rusenski Lom this was solved through the involvement of experienced manager, the Friends' Club and investigating all potentials for donors funding of start-up costs.

Another issue here is the development and implementation of PES in the conditions of economic crisis. In Bulgaria it is still a hot issue, especially for depopulated rural areas, providing lower employment and investment opportunities. This is relevant not only to the payment by buyers of ecosystem services but to the possibility of sellers of ecosystem services to build their technical and expert capacity to deliver the ES (capital investments in the beginning of the scheme). The only way to sustain ES in such conditions is to show business and market (employment) opportunities embedded in PES. For example, the Danube PES team worked with tour-operators outside the pilot area to promote Rusenski Lom.

Legal challenges in PES Design

The main legal challenge for implementing PES pilots in the area is the fact that there was no previous payments for ecosystem services experience at national level, and therefore there are no legal frameworks and/or documents stipulating the rights and obligations of buyers and sellers of ecosystem services. Consultations were made with lawyers specialised in environmental legal practices. Even for them it was necessary to investigate the issue from different perspectives so that the eventual contract to be signed by parties is not in violation of tax and/or public administration legislation. One interesting aspect of the legal structure was the potential presence of an intermediary in the Rusenski Lom pilot. The seller of the cultural ecosystem services is an NGO established by the Directorate of Rusenski Lom Nature Park, who manages the territory of the pilot.

Initially, the team planned that the Directorate sign the PAg with businesses, but this would create problems with the income generated. The problem came from the internal procedures of reporting revenues from economic activities (that would appear in the case of a PES deal). Firstly, there would be a tax on this income; secondly, the income had to be transferred back to the state authority the Directorate was subordinate to, and this could create a time gap between the moment of providing the PES and the moment of implementing obligations under the PES deal. For this reason and to avoid creating a too long, expensive and suspicious to buyers “supply chain” of ecosystem services, the signatory of the PAg in the Rusenski Lom pilot is the NGO.

Despite the development of a good legal basis of the scheme, we also found out that trust must exist among all those different players. Trust turned to be the baseline of business relations and when developing the legal documents we tried to put reasonable limits to buyers and sellers. Otherwise, we risked to lose them as partners in these pilot initiatives. In the PCES for Rusenski Lom, both revenues (in the form of payments collected) on the side of the provider of the services and the costs (in the form of income donated, amounts from the sale of postcards and charge over the product/services provided), on the side of the buyer of the cultural services, are tax treated. In the same time these cash flows do not relate to the main economic activities of the provider and buyer of the cultural services, and cannot be used in forming the tax base. **This in turn, puts a tax burden on the sides, participating in the scheme.**

Involving stakeholders at an early stage of developing a PES/SF is key to a successful **ownership and sustainability of a PES agreement**. There are many aspects linked to this, which is necessary to be carefully assessed early in the pilot project, including: **communications, willingness and readiness (capacity) to participate**. WWF had been working for already a long time in Rusenski Lom, and it was not difficult to define and launch a scheme.

In any case, the team had to be really adaptable to and careful about reactions of local stakeholders. For example, in the Rusenski Lom PES scheme the local coordinator identified local leaders and promoted them through media, workshops, providing them with a leading role in the decision-making process, in the presence of other buyers and sellers of cultural services. A successful way to attract new supporters, after defining the elements of PES was: to gather in one place potential buyers and the identified project leaders who were able to transmit the PES vision and messages themselves; to actively involve local/national media to record successes and bring forward the local actors (the buyers and sellers of ecosystem services).



Ownership

Lessons learned

A legal framework is crucial for the whole functioning of a PES scheme. Where it does not exist be brave and create such a framework yourselves, with the support of legal and financial advisors. Include legal/institutional review as part of the baseline information.

Trust is something that should exist even before the legal framework is set up because if we are too suspicious of private companies and put too many limitations on them, the scheme may not start. Cooperation needs to be based on trust in addition to legal agreements.

Ownership of schemes might be affected by many factors, including cultural issues. These should be analyzed and assessed early enough to avoid risks of failure and/or the time-consuming process of adjusting the scheme. Analysis of stakeholders, especially in case of pilot testing should be performed regularly - despite the existence of a good baseline stakeholder analysis, the situations above might evolve at the stage of implementing the pilot scheme.

Future Outlook

Friends' Club of Rusenski Lom Nature Park NGO (2013), consider PES as an economic instrument, very influential in building and improving the link between managers of protected areas and local communities and businesses, which in turn is key to the successful management of the nature park.

Vision: A set of innovative financing for Rusenski Lom Nature Park is established and operational, successfully involving users of economic benefits from ecosystems and the biodiversity of the protected area in a voluntary partnerships with local land manager/s to safeguard these values.

The future of this pilot scheme depends on and is a mutual responsibility of the parties, signatories of the Partnership Agreement establishing the PCES in Rusenski Lom. WWF will continue to facilitate the dialogue among partners and build their capacity, so that Rusenski Lom is a place of restored and protected ecosystems bringing socio-economic values to local communities, with their active involvement .

The Danube PES team already valued other important ecosystem services, besides aesthetic and biodiversity values of Rusenski Lom for tourism. WWF also established the link and dialogue between farmers, tourism developers and the conservation community in Rusenski Lom. Therefore, further efforts should be invested in packaging this variety of ecosystem services and proposing them to existing or new users. This may include voluntary carbon deals related to restoration and maintenance of native forests, restoration of grasslands and floodplain areas along rivers in Rusenski Lom to mitigate the impact of floods and associated potential costs for insurance companies, banks or the state, tailor-made agri-environmental schemes in addition to existing national to better reflect the changes in land-use practices.

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*The payments for cultural ecosystem services in Rusenski Lom is one of the four market-based pilot schemes developed by WWF under the project **Promoting Payments for Ecosystem Services and Related Sustainable Financing Schemes in the Danube Basin**.*

The project is implemented by the WWF Danube-Carpathian Programme with the financial support of the GEF through UNEP.

Link to the WWF PES project in the Danube:

http://wwf.panda.org/what_we_do/where_we_work/black_sea_basin/danube_carpathian/our_solutions/green_public_funds/pes/the_danube_pes_project

The Danube PES project, area map



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