

Final Report to Rufford Small Grants Foundation, April 2010

Innovation Grant I. 206, Emilian Stoynov, FWFF, Bulgaria:

## Establishment of a Sheep Breeding Company for Nature Conservation in Bulgaria



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## **1. Project Summary**

The livestock breeding has always in these years been a function of the economic and political situation. It was and still is considered only as a food producing practice, and never as a tool of maintaining of certain habitats and ecosystems.

The Emilian Stoynov's team incorporated in the NGO called Fund for Wild Flora and Fauna (FWFF) presents the current project proposal aiming to ensure stability in the ecosystems depending on sheep grazing and way of keeping. FWFF decided to establish its own company for conservation sheep breeding. The difference is that, it is not necessary the firm to gain profit. If so- alright, the profit will be re-invested or other conservation activities will be supported, but it will be enough if the sheep company just covers the expenses to sustain. This way it could not be dependent by the political and economical changes too much and this will ensure stability of the ecosystems of the sites that will be managed by this way. FWFF is now willing to buy parcels of land near or within several protected areas in Bulgaria. As now the price of the land is quite cheap. After that traditional sheep barns will be established and sheep herds will be settled. Local shepherds will be employed and training of young shepherds will be permanently organized to keep the traditional sheep breeding alive. Transhumance will be practiced. All this will be managed by FWFF in the frame of its Conservation sheep breeding company. Lowland and mountainous grasslands habitats will be managed and many species threatened like vultures, bears, wolves, lynx, grasses, orchids, song birds, ground squirrels, bats, insects etc. will be positively affected in long term. FWFF has gained experience with the sheep breeding during establishment of its Compensation program - kindly supported by Rufford Small Grants and Whitley Award, but the new initiative will have widely extended intervention and a great conservation value. This will be a new era in the conservation mechanisms and Bulgaria and the FWFF are in the best position to develop this innovative approach.

The conservation and maintenance of productive ecosystems and habitats in Bulgaria is related with livestock breeding. The livestock breeding is traditional practice that has been implemented for centuries and grasslands habitats and ecosystems are adapted to this practice and many threatened species are in very close direct or indirect relation to it. But because of this, every depression of the number of the livestock directly reflects to the situation of the populations of species and the habitats adapted to this system. These are all carnivore mammals, and most of the birds of prey especially vultures and eagles, as well as all species that require lowland and mountainous steppe habitats.

The livestock breeding is an economy related sphere that is reacting on any political or economical change. Serious political and economical changes have occurred four times in Bulgaria for the last 150 years that changed the situation of the birds of prey, and especially the vultures. These are as follows:

- The crash of the Ottoman Empire and creation of the new states on the Balkans- Before the late 1800s the livestock has been moving freely on the Balkan Peninsula as transhumance has been practiced by typical nomadic local tribes, but also from the sedentary mountain population, where only the men have moved from to lowlands as shepherds and return back to their families and settlements in the mountains in summer. Another very important factor was the great market abilities of the Ottoman Empire and the not far situated capital city - Tsarigrad (Istanbul). We have to mention also the great importance of wool in that time. After the establishment of the borders on the Balkans with the new found states the crossings of the borders by shepherds have become more and more difficult and after the World War I, they were totally banned. After this period the transhumance continued in short distant movements and in less numbers of livestock.

- The World War II and the establishment of a Communistic regime in Bulgaria that nationalized the entire economy including the livestock breeding- After 1944 in Bulgaria the economy was fully nationalized e.g. the livestock breeding. This way all the livestock has been taken from the private owners and a collective state farms subsidized by the government were created. New technologies of livestock breeding have soon been introduced and the situation has totally been changed. This way the thousands of hundreds of livestock owners were stopped to practice their favorite and traditional job and were involved in construction of highways, factories etc.
- The end of the Communistic regime in Bulgaria in 1989- During the Communist period in Bulgaria the traditions and the know-how of livestock management were totally lost. Also the autochthonous breeds of livestock and the traditional way of livestock breeding and prevention from predators were lost. In 1989 with the end of the Communist period denationalization of the economy has been started. The livestock has been returned to the families that had provided such to the state in the years after 1944. But the families have not been ready to receive the animals back and they did not know what to do with them and how to breed them. So they, in larger scale, have killed the animals and this caused the next very large decline in the livestock numbers.
- 2007 Bulgaria became an EU member state- the EU era seems promising on the field of conservation, but the problem of the Bulgarian livestock breeding is that the subsidies for the livestock breeding are calculated on the numbers of livestock that occurred in Bulgaria after the 1989. These numbers are more than ten times smaller than the capacity and the former livestock numbers of the country to which the habitats and the ecosystems were adapted. The minimized possibility for subsidization of the livestock breeding together with the lost traditions and the negative attitude of the young people to the sheep herding means that this practice could not be restored naturally. This means also that grasslands habitats and ecosystems will not be properly maintained anymore. One could say that this could be a good time for the forest. But it is not, because the forests are of great economical interest as timber extraction and thus always kept immature, this way being lost as important habitat as well.

To be more accurate we also have made some case studies from abroad, as from Spain and Greece. The vultures has gradually increased their numbers in Spain in the last 20 years and the Griffon Vulture reached population number of about 20 000 pairs in 2003 starting from about 4000 in 1983. But now with the change of the EU rules for the livestock carcass disposal, because of the BSE (*Bovine spongiform encephalopathy*) has changed the situation and only for the last 5 years the population of the Griffon Vulture in Spain has declined with about 40%. In Spain the main food source for the vultures in the last 20 years became available from large pig farms that have disposed great numbers of carcass in open areas nearby the farms. The colonies only in areas where traditional livestock breeding was practiced have not been affected by the EU rules (not positively, nor negatively). In such areas also the rare Black (Cinereous) Vulture has also survived and still is doing well.

In Greece during the same 20 years (when the Griffon Vulture increased its numbers in Spain) the population of the Griffon Vulture decreased from about 1000 pairs to some 250 as about 90% of these survived on the Island of Crete, and the species has almost disappeared on the mainland. In Greece the number of livestock has almost not been changed, but the change of the livestock breeding practices led to reducing the food source for vultures. The been changed in the time.

**What I proposed in the project is to establish a Conservation Sheep Breeding Company, which focus to be the use of livestock as a tool of maintaining and supporting the natural habitats and certain ecosystems. The aim is to keep the Company sustainable, as it will be enough if the incomes could just cover the outcomes. As an NGO, the FWFF "profit" will be the keeping of the balance in certain ecosystems and the maintaining of grasslands habitats in mountains and lowlands (probably again in certain protected areas). This is something that an ordinary company could not do, because it always is looking for a**

**financial profit. In such case if not profitable an ordinary livestock breeding company would be closed if it is not bringing any or even not big financial profit. This makes the difference between the ordinary company and the extraordinary one that FWFF is going to create.**

In few words it could be said that an NGO could be satisfied even if no financial profit is gained from a certain practice, but if the practice gives the opportunity certain ecosystems and habitats to be maintained in a good health.

## 2. Current Achievements

- A conservation NGO is owning sheep farms in Bulgaria, ensuring management and maintenance of the grassland ecosystems independent from political and economic changes.
- Created innovative approach to nature conservation, providing an important tool in the hands of conservation NGOs.
- Established five all year round and two summer sheep farms in five protected areas with feeding sites for carcass eating birds.
- Employed 4 local people in the first year and 2 team members are part-time engaged.
- Leased about 1000 ha pastures and meadows in the area of protected areas.
- Ensured management of about 300 hectares of grasslands in lowlands and another 750 hectares (according to the Management plans of the National parks a sheep covers 2,5 ha of pastures) in the mountains.
- Created preconditions for employing of about 40 shepherds, 5 to 10 local coordinators and 2 FWFF's team members until 2013 and beyond and nature supporting management of grasslands of about 15000 hectares with about 3000 sheep that will be settled in the vicinity or within 3 National parks and 7 protected areas in accordance with the management plans of these territories.
- First products from the farms are just now on sale for members of FWFF and related NGOs, conservation groups and supporters. Buying the FWFF's sheep products as yogurt, white cheese, and lambs they receive a high quality organic product and support the conservation of nature. Until now 38 people (mainly from the capital city- Sofia) are members (customers) of Conservation Sheep Breeding initiative. They seem satisfied from the first products they tried and they say that will introduce and involve their friends and relatives in the scheme.

N	Activity	Expected results	Report
1	Legal advice and registration of the Company	Official registration in the Bulgarian Court of the Conservation Sheep Breeding Company Ltd of FWFF with capital of 50 000 GBP, donated by Rufford Small Grants Foundation	The Company is not officially registered yet, as the current circumstances analyzes showed it is still necessary the sheep breeding action to stay within the current officially registered body – the NGO FWFF, and may be after one-two year a company to be registered officially. Until now the sheep breeding and the related actions are implemented by special department within FWFF called "Conservation sheep breeding crew".
2	Studying the Management plans of the protected areas	Selected the best areas, that need management through sheep grazing	The protected areas administrations of Central Balkan National Park and Sinite Kamani Nature Park contracted FWFF's "Conservation Sheep Breeding crew" for certain territories management through livestock grazing of over 500 hectares. Another 500 hectares are within SPAs NATURA 2000 sites under FWFF and other NGOs supervision until settling the SPA's management plans.

3	Purchase of land parcels	Purchased 10 parcels of land near by or within Nature parks and protected areas of about 20 hectares in total.	Finally 12 land parcels of about 27 hectares are registered as possession of the FWFF
4	Land lease for pasture	The pastures for the first established two herds of sheep are leased by the protected areas administrations or local municipalities.	Contracts signed for land lease between FWFF's and the protected areas administrations or local municipalities for land lease for pastures of about 1000 ha.
5	Construction of the sheep shelters	Established two sheep shelters in the vicinity of, or just inside protected areas (according to regime and management plan of the protected area)	The sheep shelters are officially registered as livestock breeding facilities according to the Veterinarian Law as possession of the FWFF
6	Purchase of sheep	Purchased 300 sheep	Another 300 sheep are registered as possession of FWFF
7	Employment of the shepherds	Four shepherds are employed	Four more shepherds are contracted as full time employees of FWFF
8	Starting of sheep grazing and maintaining of grassland habitats	For the project period (1 year) about 1000 ha of lowland and mountainous land is maintained by extensive and seasonal sheep grazing	The Payment agency of the Ministry of Agriculture protocol for maintaining of land within the agro-environment scheme. The EU subsidies are now paid for 2008, the ones for 2009 will be available in late spring 2010.
9	Seasonal movements of the sheep herds	About 300 animals go up to the mountain in the spring period in order to use the fresh grass and maintain the highland pastures	Documents for transportation of the livestock certified by veterinarians, evidencing the movement of over 500 sheep and lambs in Central Balkan National Park and about 200 in Ponor Mountain.
10	Applying for EU subsidy	Obtaining EU subsidy for agriculture – the money are used for investments (sheep shelter establishment and sheep purchase)	Ensured money for continuation of the project

### 3. Financial Statement for Project as approved by RSG

Incomes in GBP Sterling	
Source of funding	Year 2008
Rufford Foundation	50 000
FWFF/ Other	6 000
<b>Total incomes</b>	

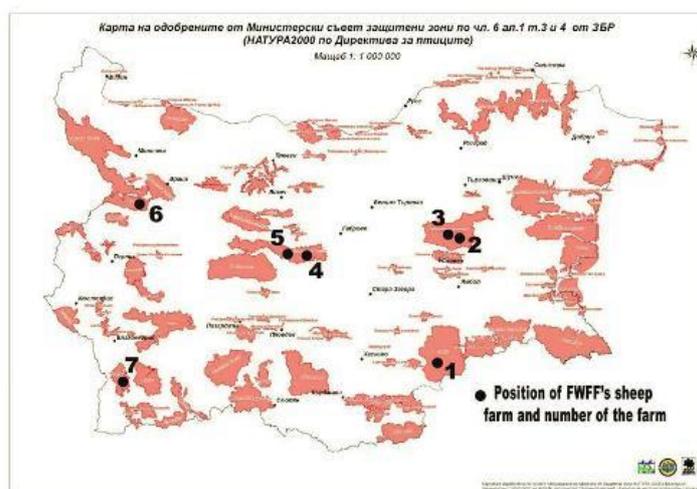
Expenses in GBP Sterling				
Budget lines	Item	Price per item	FWFF/Other	Rufford Small Grants Foundation
<b>Salaries, Honorary</b>				
For shepherds	month	200		4800
For barn construction	barn	1000	2000	
<b>Travelling</b>	month	100		1000
<b>Equipment</b>	Per barn	4000	4000	8000
<b>Special projects</b>				
Purchasing of sheep	sheep	50		15000

Leasing of land	ha	1		1000
Purchasing of land	ha	1000		20000
Legal advice	month	20		200
<b>Total</b>		6371	6000	50000

### 3.1. Financial Information

N	Item	Approved by RSG	Spend until now by FWFF	Remain
1	Land purchase 27 hectares	20 000	21 120	-
2	Pastures lease	1 000	1 000	-
3	Sheep farm construction and renovation	8 000	8 000	-
4	Sheep	15 000	15 000	-
5	Travel, per diems, and reporting	1 000	1000	-
6	Legal advice and registration of the company	200	Moved to land purchase	-
7	Shepherds salaries	4 800	4 800	-
	<b>Total</b>	<b>£50 000</b>	<b>£50 920</b>	

### Map of Bulgaria, with SPA's Natura 2000 sites and the FWFF's sheep farms positions.



**FWFF's Sheep Farm 1- Sakar** next to Turkish border in Special Protected Area (SPA) Sakar [http://bspb.org/ovm.php?id=21&menu\\_id=65](http://bspb.org/ovm.php?id=21&menu_id=65) for conservation of Imperial Eagle. A sheep farm of about 1.6 hectares with building covering 860 sq.m was bought in Sakar Mountain near the village of Levka. The purchase of the building is co-financed by LIFE+ project in which FWFF is a partner of Bulgarian Society for the Protection of Birds. Within the current RSG project the land was bought and the renovation of the building is included. The area is an important refuge for the globally threatened Imperial Eagle (*Aquila helica*) one of the nests is just 2.5 km from the FWFF's sheep farm. The grazing is important especially in the winter to keep the grass low and to maintain the habitat for the European Souslik (*Spermophilus cittelus*) that is the main prey item for the Imperial Eagle and is Globally threatened itself too.



**FWFF's Sheep Farm 2- Buykov Dol - Kotel Mountain** just next to the buffer zone of Orlitsata Nature Reserve in SPA Kotlenska Mountain [http://bspb.org/ovm.php?id=29&menu\\_id=65](http://bspb.org/ovm.php?id=29&menu_id=65)

This is the largest farm that FWFF possesses. It has been bought entirely with the actual funding of RSG Innovation Grant. The land is about 5.4 hectares and the buildings are 1400 sq.m. Here FWFF is keeping 300 sheep and 120 goats. The sheep are grazing and maintaining open habitat over 50 hectares of low mountain pastures. The carcasses of the sheep are used as food by Brown Bear, Griffon and Egyptian Vultures, Golden Eagles, wolves and jackals. This herd is experimental one, consisted mainly of Karakachan Sheep – old autochthonous breed, well adapted to year round grazing and Transhumance. The idea is these sheep to be raised without application of anti-parasitic drugs to minimize the negative impact over insects and butterflies.



*"Buykov Dol" Sheep farm of FWFF in Kotel Mountain, when purchased (left) and after renovation (right).*



*At "Buykov Dol" Sheep farm of FWFF in Kotel Mountain about 300 Karakachan Sheep and 120 goats are kept.*



*"Buykov Dol" Sheep farm of FWFF in Kotel Mountain- shepherds house was also renovated and the living conditions improved.*

**FWFF's Sheep Farm 3- Skendrevoto- Kotel Mountain** just next to the Urushki Skaley Protected area in SPA Kotlenska Mountain [http://bspb.org/ovm.php?id=29&menu\\_id=65](http://bspb.org/ovm.php?id=29&menu_id=65)

This farm is the first farm that FWFF has bought in Kotel Mountain with the help of RSG Booster Grant in 2005. With the current grant also the land of the farm of about 14.4 hectares was bought. Currently FWFF keeps about 300 sheep and about 120 goats in this farm.

In the area FWFF in the frame of Balkan Vulture Action Plan ([www.balkanvultures.org](http://www.balkanvultures.org)) is working of re-introduction of Griffon Vultures. The first birds were released in 2007. Until now 11 Griffon Vultures were released. This year also the globally threatened Egyptian Vulture (*Neophron percnopterus*) has returned to the area despite the decline it faces within the country and elsewhere in Europe. The Egyptian Vultures is believed to have been attracted by the released Griffon Vultures and the feeding site that FWFF maintain in the area, but also because of the general improvement of the habitat with the extensive sheep farming restoration conducted by FWFF.



*The FWFF's farm Skendrevoto – Kotel Mountain.*

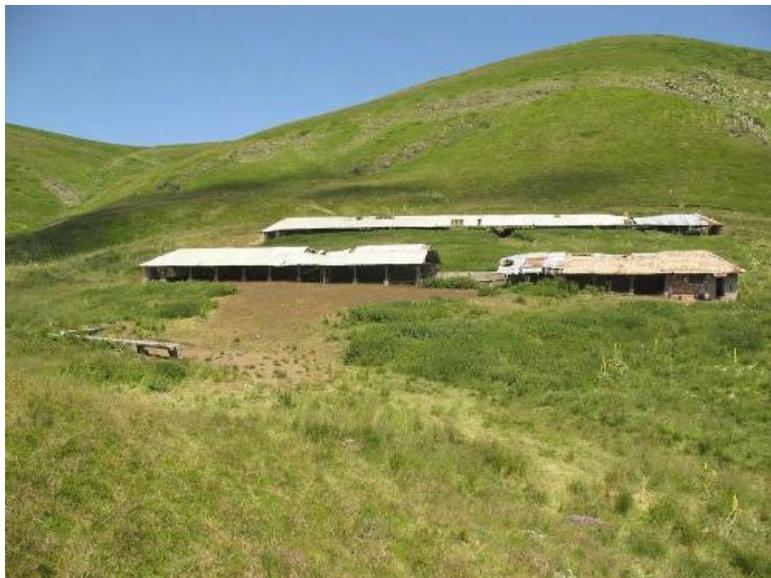


*Hay mowing is beneficial for the White storks, but also for the grass diversity and orchids. FWFF is mowing about 10 hectares of meadows per year and just currently started to control bracken on pastures of over 20 hectares in Kotel Mountain.*



*Griffon and Egyptian Vultures are again backing home in Kotel Mountain after 40 and 20 years of absence respectively.*

**FWFF's Sheep Farm 4- Sinanitsa - Central Balkan Mountain** just next to the eastern border of the buffer zone of Sokolna Nature Reserve in Central Balkan National Park and SPA Central Balkan [http://bspb.org/ovm.php?id=11&menu\\_id=65](http://bspb.org/ovm.php?id=11&menu_id=65)



FWFF summer sheep farm in Central Balkan National Park. Rented for 5 years it will be renovated a bit. There is place for 2000 sheep, but according to the Central Balkan National Park' Management plan no more than 500 sheep should be grazed here. 500 sheep were first time grazed here in 2008 thanks to FWFF Transhumance programme. For more than 20 years no sheep were grazed here. The European Souslik has almost extinct, the steep slopes terrain eroded and the species diversity of plants and insects decreased. Also the Saker Falcon and the Imperial Eagle (As their food the souslik became scarce) are no longer present as well as the vultures. This year FWFF is grazing about 500 sheep and lambs.

**FWFF's Sheep Farm 5- Shopov egrek - Central Balkan Mountain** just next to the western border of the buffer zone of Sokolna Nature Reserve in Central Balkan National Park and SPA Central Balkan [http://bspb.org/ovm.php?id=11&menu\\_id=65](http://bspb.org/ovm.php?id=11&menu_id=65)

Shopov egrek is just summer pasture rented from Central Balkan National Park. The area is as important as Sinanitsa and the sheep are moved from one site to the other depending from the weather conditions throughout the summer pasturing season. Here only shepherds hut was established and the sheep are free ranging over the pastures. There is problem with pastures here as they have overgrown by Juniper (*Juniperus communis*), which is something the optimal grazing would balance.



*Small Shepherd's hut (left) and sheep grazing on high- mountain pastures overgrown of Juniper (right) in summer at Central Balkan National Park.*

**FWFF's Sheep Farm 6- Ponor Mountain** just next to the Vrachanski Balkan Nature Park in SPA Ponor

[http://bspb.org/ovm.php?id=58&menu\\_id=65](http://bspb.org/ovm.php?id=58&menu_id=65)

A sheep farm of about 4 hectares with building covering 920 sq.m was bought in Ponor Mountain near the village of Zasele. The purchase of the building is co-financed by LIFE+ project in which FWFF is a partner of Bulgarian Society for the Protection of Birds. Within the current RSG project the land was bought and the renovation of the building is included.

The area is an important refuge for the globally threatened Saker Falcon (*Falco cherrug*) one of the last known territories of the species is not far from the FWFF's sheep farm. The grazing is important especially in the spring and summer to keep the grass low and to maintain the habitat for the Eropean Suslik (*Spermophilus cittelus*) that is the main prey item for the Saker Falcon and is Globally threatened it self too. The number of the sheep recently kept by FWFF in this farm is 190 sheep.



*The FWFF's sheep farm in Ponor Mountain and cutting the bushes in the yard.*



*The FWFF's sheep farm in Ponor Mountain and purchase of equipment for feeding the sheep and lambs in winter.*



*The FWFF's sheep herd and one of the employed shepherds Stoyan in Ponor Mountain.*

**FWFF's Sheep Farm 7- Rakitna** - just next to the buffer zone of Tisata Nature Reserve and Pirin National Park and SPA Pirin [http://bspb.org/ovm.php?id=11&menu\\_id=65](http://bspb.org/ovm.php?id=11&menu_id=65) and SPA Kresna Gorge [http://bspb.org/ovm.php?id=56&menu\\_id=65](http://bspb.org/ovm.php?id=56&menu_id=65)

The refuge is very important for conservation of reptiles. The grazing of sheep and goats is keeping the habitat in optimal condition. Also here is just in implementation the re-introduction of Griffon Vultures, where the first success is already recorded. After the first birds release in February 2010, now the first for the last 60 years breeding attempt is documented. The return of the Griffon Vulture in the area and the permanent food disposal at the feeding site is a good precondition for natural return of Egyptian vulture and Imperial Eagle. Here the FWFF compensation programme is in implementation. The sheep and goat farm is grazing the habitat, but also the compensation herd is incorporated here. Alive sheep and/or goats are provided as compensation to farmers affected by predators' attacks. This way they call FWFF team any time when predator attacks and kills or hardly bitten livestock. FWFF provides guarding dogs (also bred in the farm) or alive sheep for the killed ones. FWFF collects the carcasses and put them to the feeding site to feed vultures. This way any attempt for poison baits use is prevented and the vultures fed with clear poison- free food. This way the people learn for the relation "livestock- predators- vultures" and FWFF helps the reduction of man-predator conflict. To the feeding site students from the local villages are invited to watch the vultures and usually they are impressed by the magnificent birds.

Within RSG project farmland was purchased of about 1.3 hectares and a small building that is enlarged and renovated. Also a light construction (built in traditional manner) of summer shelter for the sheep and goats is established. FWFF keeps about 150 sheep and 40 goats recently in this farm. An old house is also purchased to serve as a visitor center for tourists that will come to see the farm and the vultures.



*The main FWFF's sheep barn in Rakitna (left) and summer sheep shelter in preparation (right) are found 500 meters one from the other. In between is situated the old house that is going to play the role as visitor center (the picture below).*



*Griffon Vultures are already flying over the future visitor center. It is found just 1 km from the feeding site and the acclimatization aviary in Kresna Gorge.*



*The globally threatened Greek Tortoise (*Testud greaca*) requires optimally grazed grassland habitat, which is less and less available in Kresna Gorge.*



*The new generation – lambs and goat kids in the FWFF's summer sheep shelter in Rakitna. They are going to be moved up to Pirin Mountain (1800 m.a.s.l) in late June for a summer grazing.*



*Karakachan Dogs are reproducing in the FWFF sheep farms. The adults are guarding the herds while the produced offspring are provided as compensation to shepherds that have not dogs and thus are facing predator attacks over their herds.*



*In Rakitna – in Kresna Gorge of Pirin Mountain, FWFF has built acclimatization aviary and feeding site for vultures. 26 Griffon Vultures were imported from Spain to be re-introduced in the area where they have been extinct since 1950s.*



*Any dead sheep or lamb is provided as food for vultures. Also any carcass of killed by predators or dead by other reason is placed to the feeding site of in the aviary as food for vultures.*



*Killed or heavily injured by predators, livestock is collected to be placed at the feeding site for vultures. The farmers are compensated by FWFF with a live sheep and guarding dogs.*



*The carcasses are placed at the feeding site. The vultures are attracted...*



*...and local students and other visitors are invited to observe the vultures thus raising their awareness about nature conservation.*