

# **Action Plan and National Strategy for Restoration of the Nesting Population of the Bearded Vulture in Bulgaria**

***DRAFT***

Bulgaria - September 2001



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The plan has been elaborated by Green Balkans and discussed by the Bearded Vulture Working Group at a national working meeting, with the financial support of DANCEE and REC

**Action Plan and National Strategy for Restoration of the Nesting  
Population of the Bearded Vulture in Bulgaria**

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*Bulgaria – September 2001*

**National Working Group for the Conservation and Reintroduction of the  
Bearded Vulture  
In Bulgaria**

Green Balkans Federation of Nature Conservation NGOs

‘Le Balkan’ Bulgaria Foundation

Ministry of Environment and Waters

Wildlife Rehabilitation and Breeding Centre

‘Central Balkan’ National Park – Gabrovo

‘Sinite Kamani’ Nature Park – Sliven

‘Russenski lom’ Nature Park

Regional Inspectorate of Environment and Waters – Haskovo

Regional Inspectorate of Environment and Waters – Stara Zagora

Regional Inspectorate of Environment and Waters – Veliko Turnovo

Bulgarian Swiss Programme for the Conservation of Biodiversity – Bourgas Wetlands Project

Sofia Zoo

Regional Veterinary Medicine Service – State Veterinary Sanitation Control – Stara Zagora;

‘Balkani’ Wildlife Society

Bulgarian Ornithological Centre

Society for the Protection of Raptor Birds – Sofia

‘Axis’ Veterinary Clinic

Plovdiv University

The present plan and strategy for reintroduction have been elaborated with reference to the requirements of the Convention on the Conservation of European Wildlife and Natural Habitats, as well as to the adopted National Strategy for protection of the environment and the guidelines of IUCN for reintroduction, adopted at the 41<sup>st</sup> meeting of the Council, May 1995. The plan is being implemented in pursuance of the “Biological Diversity Act” that is to be adopted.

*The plan and the strategy for reintroduction must be reviewed and updated every 2 years.*

**Geographic scope** – Bulgaria. This document can be used as a basis for the reintroduction and conservation of the species in its Balkan area of distribution.

### **Introductory information**

#### *Distribution and population:*

The Bearded vulture is widely distributed in the mountain regions of Eurasia and Africa, and a small part of its world area is situated in Europe (Tucker and Heath 1994). There are obviously large populations in Eastern Africa, Central Asia and the Himalayas (del Hoyo *et al.*, 1994). The species is permanently residing in the whole area.

In Europe, the species could be found in Spain (the Pyrenees), Turkey, France (the Pyrenees and Corsica), Russia and Greece (Crete and the continental part). The European population comprises 167 nesting pairs, and 112 of them are in the EU. The Spanish population consists of more than 50 nesting pairs (this information dates back to 1996). After a serious decrease during the last two centuries that resulted in the extinction of the species in some 10 countries in Central and Southeastern Europe, now the European population is increasing in Spain, becoming stable in France and Russia, decreasing in Greece and probably in Turkey. The marginal population in Morocco is extremely threatened as it has suffered a sharp decrease. Since 1986, an initiative for reintroduction is being implemented in the Alps. As a result, more than 100 birds have been released and there have already been 6 breeding pairs. A project for reintroduction in the region of Andalusia, Southern Spain, has started recently.

#### *Distribution in Bulgaria and the Balkan countries:*

According to the published data, the species became extinct as a nesting one in Romania in 1935, in Czech Republic – 1942, Serbia and Montenegro – 1956, Bosnia and Herzegovina 1893, Macedonia - 1990 (Tucker and Heath). Possibly, there are isolated birds or nesting pairs in Albania and Bosnia and Herzegovina. Isolated birds could be found in the continental part of Greece, but there is no evidence of nesting for the last years. There are four nesting pairs on the island of Crete. In Macedonia, near the Greek border, there is a bird that is not nesting for certain.

In the past, the species was widely distributed in Rila, Balkan Mountains, Vitosha and the Rhodopes (Hristovich, 1894). In the 50s of the 20C the species became extinct in many habitats and was observed in Rila and the area Sinite Kamani (Patev, 1950). It is considered that the species has become extinct as a nesting one in Bulgaria in 1966. After that, there are many observations of isolated specimens. On 16.07.1968, in the vicinity of Ribni ezera (Boev 1985). In 1972, a specimen was found dead in the area Sinite Kamani (Donchev, 1974 ). On 20 October 1980, a young, sick Bearded vulture was found in Varnino village, district of Varna. During the same period a young specimen was observed in the area Bolata, near Kaliakra gore (Nonev 1982). During the last decade there have been sporadic observations in the eastern part of the country, mainly of young birds (by words of mouth – Hristo Hristov, Emiliyan Stoynov). There is also a published observation of a bird in a sub-adult plumage, on 7 March 1999, in the vicinity of Madzharovo, implemented by Emiliyan Stoynov.

## Biology of the species

### *Breeding*

The Bearded vulture breeds in caves and on mountain cliffs at a height of 400-2000 m. It builds a solid nest of sticks and lays one or two eggs in the period late December – early March. Both adult birds take part in the incubation. In 54-58 days, in February or March, the youngsters hatch, and 112-119 days later, in June, they leave the nest. Although both youngsters may hatch, one of them usually dies as a result of aggression in the brood. One of the rare cases when both youngsters have grown up was in Ethiopia in 1996. The young birds stay in the same region until the beginning of the next breeding cycle in November (Heredia, 1990). They reach sexual maturity at about seven years of age or later (del Hoyo, 1994).

This bird is usually a monogamist. Polyandric triads (two males and a female) were found for the first time in the Pyrenees in 1979. Since then, the number of such cases has been increasing, in Corsica inclusive; triads occupied 14% of the nesting areas in the Pyrenees in 1996. The nesting results of the triads are similar to those of the pairs that have occupied the same territories before, as well as those of the neighboring pairs. The formation of triads has been explained with the irregular correlation of sexes, scant food availability, high nesting density or genetic connection between the male birds, but so far there is no evidence of the main factor (Donazar 1990, Fasce *et al* 1993). This phenomenon may have far-reaching effects for the conservation of the Bearded vulture.

### *Feeding*

There is no data in Bulgaria for profound research on the feeding behavior of the Bearded vulture. Interesting fact is the observation of broken tortoise shells in the cliffs, as with the Golden eagle. Presumably, in many regions of the country, where the tortoises are still widely distributed, they could be a significant part of the feeding base of the species. In 1894, Reiser observed a situation when a mule shoulder was raised and dropped on the crags. The menu of the Bearded vulture consists of bones (up to 85% of the food), rather big bones and meat of dead animals (del Hoyo, 1994). The bird breaks the big bones to small pieces that it could eat, flying off with the bone and dropping it on special cliff slopes. The small animals (birds and rodents) are given to the youngsters and represent a significant part of their food.

In the Pyrenees, 88% of the prey objects are mammals, mainly domestic ungulates (sheep or goat limbs), chamois (*Rupicapra rupicapra*) and marmots (*Marmotta marmotta*), 7% birds and 0.7% reptiles (n=152 objects of prey) (Heredia, 1990). A recent research of a youngster still in nest in the Spanish Pyrenees, showed that 59% of the objects of prey are sheep or goats, 25% rabbits, 3% wild boars, 3% cows/horses, 1.6% dogs and 1.6% foxes (n=78 objects of prey) (Margalida *et al.*, in prep).

In Corsica, the menu consists mainly of limbs of domestic ungulates (36% sheep and goats, 33% cattle, mainly calves), pigs (domestic and wild)(16%), mouflons (12%); birds and reptiles rarely occur in the menu (Thibault *et al.* 1993). It seems that the nesting results of Corsica depend on the particular stockbreeding activities, as the main food sources are seasonally moving herds of goats and free-roaming cattle.

In the Alps, the main food for the released birds is chamois and sheep.

### *Artificial feeding.*

The Bearded vulture takes well the method of artificial feeding. 17 different specimens visited a feeding platform for a day (Heredia 1991). The artificial feeding is main method in the reintroduction and the support to the populations in critical status. Anyway, this is not a sustainable method and it should be used as a temporary measure only.

### *Requirements of the habitat*

The Bearded vulture forages in regions with alpine and sub-alpine vegetation, mainly at a height of more than 1000 m, where domestic as well as wild ungulates could be found. In winter and early spring it examines regions with an average altitude and steep cliffs, where there is no snow drifted (Thibault *et al.* 1993). In the Pyrenees, in winter and spring, the bird visits muladares – places near the villages, where carcasses of domestic animals are often deposited.

#### *Movements*

Generally, this is a permanently residing species, although in cases of vast areas and presence of youngsters, it could spread over a large territory. Although since late 80s Bearded vultures have been seen more than 100 times beyond the Pyrenees (M. Hernandez, *in litt.* 1997), none of the 33 young birds that have been put wing-tags in the Pyrenees in the period 1987-1996 have been seen among them (R. Antor *in litt.* 1997). The average area of 13 of those young birds was 4,932 (950-10,294) sq.km. (Heredia 1990). So far, adult birds have not been put wing-tags or radio transmitters. In the Alps, 70% of the released birds return to the release site, although there was a bird observed at about 1,300 km from the release region, beyond the Alps.

#### **Conservation statute**

The sub-species *Gypaetus barbatus aureus* ranges in Europe and on the Balkan Peninsula. This is a threatened species in Europe. Its population comprises 250 nesting pairs at the most. It has been included into the category SPEC – 3. It has been included into Annex I of the EU Directive on the wild birds as well as in Annex II of the Bern Convention and the Bonn Convention. It has also been included into the Bulgarian Red Data Book, category “extinct species”. It has been envisaged for protection under the Biological Diversity Act; protected under the Environment Protection Act. According to the compensation tariff in cases of damages on nature sites (Official Gazette, issue 116/1997), the envisaged compensation amount ranges from 750 to 1000 BGL.

#### **Reasons for the extinction of the species as a nesting one in Bulgaria**

- Use of poisons for terrestrial predators control (wolves, jackals)
- Decrease of the extensive stockbreeding
- Loss and degradation of habitats
- Illegal shooting: as harmful game, for private collections or just as an “attractive target”
- Decrease of the natural feeding resources (game stock)
- Disturbance

General decrease and contraction of the population throughout the area.

Heavy metals and chemicals pollution

Lack of nature-conservation culture

#### **Threats (if the species is reintroduced in Bulgaria at present)**

- *Poisoning (setting of poisonous baits for terrestrial predators).*

The extinction of the species on the Balkan Peninsula results to a great extent from mass campaigns for poisoning wolves and foxes in the 50s and 60s. Since late 80s, the use of poisonous baits has been prohibited by the Bulgarian legislation. It is also prohibited under many international documents. The latest poisoning of vultures in the Eastern Rhodopes was in 1995, when we found four poisoned Griffon vultures. In 1997 a pair was poisoned in the same region. Although in Bulgaria the use of poisons is prohibited, there is a probable threat of usage of these substances by private farmers and Hunting administrations.

Significance: potentially high with a tendency towards decreasing

- *Chemical pollution*

It relates mostly to the influence of various pesticides and chemical substances over the eggs (shell solidity, embryo status). The effect of this threat has not been studied in Bulgaria. Yet, there are regions with proven contents of chemical elements above the safe norms. That is the situation with the valley of Arda River (the Eastern Rhodopes), where the contents of heavy metals, including cadmium, is many times above the safe norms. So far, there is no evidence of the influence over the Griffon vulture colony there, and it reproduces well. It should be taken into consideration that the heavy metals are stored mostly into the bones, and the Bearded vulture feeds mainly on bones, which may produce negative effect on the species.

Significance: low

- *Lead poisoning*

- The lead poisoning is a possible reason for death in regions of intensive hunting (Heredia and Heredia 1992) and migratory routes. The lead could reach the Bearded vultures via prey food, shot by hunters (wood pigeons, thrushes, etc). But a study carried out in Aragon (Spain) on the chronic exposing to lead of 16 birds (including youngsters, juvenile and adult birds), as well as liver and bones samples from 13 birds, revealed that the lead levels are much lower than those that are indicative for the chronic blood poisoning.

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Significance: low

Tendency – invariable

- *Illegal shooting*

Till the 80s all raptor birds in Bulgaria have been declared enemies to the “Hunting Administration” and subjected to mass shooting. At present, the Bulgarian legislation prohibits the shooting at raptor birds. Despite all, the heritage is still alive, especially with the old hunters, and they carry on killing raptor birds. Shooting at and possessing stuffed eagle (including all big raptor birds) is a common practice and manifestation of courage and distinguished hunting skills. The fact that most of the possible regions, chosen for future reintroduction, are protected areas or territories visited by a relatively small number of hunters, which facilitates the control and re-education of the latter, is a chance for the Bearded vulture.

Significance: high

Tendency - decreasing

- *Loss and degradation of habitats*

- The risk of progressive development of the mountain regions is one of the main threats for the future of the species. The construction of roads, dams, ski resorts with the concomitant construction of infrastructure as well as increase of the tourists’ stream may cause irretrievable loss of habitats.
- In the French part of the Pyrenees, a nesting territory has been abandoned only because of the construction of small hydropower station. Examples for the unscrupulous destruction of habitats are the envisaged construction of a cascade of three dams – “Gorna Arda” in Central and Western Rhodopes, the ski resorts “Syutka” and “Perelik”, envisaged for construction in Western Rhodopes, as well as the expansion of the ski complex in Bansko - Pirin mountain.
- The considerable increase of fires during the last years also causes serious damages to the habitats.

- It is worth noting that besides direct chase-away of the species, the destruction of the habitat may produce an indirect effect, such as reduction of its feeding base (chamois, deer, does, tortoises).

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Significance: average  
Tendency - increasing

- *Decrease of the extensive stockbreeding*

Many events such as deprivation of the possibility for migratory breeding of sheep (in winter in Aegean Thrace and in summer – in the mountain regions of the Rhodopes and Balkan Mountains), nationalization of the private property in the 50s, denationalization and dereliction in the 90s, have led to almost complete destroying of the extensive stockbreeding in Bulgaria. Yet, there are regions, mainly in the mountains and the foothills, where the stockbreeding is the major means of living for the local people. These regions are also priority ones for a future reintroduction of the Bearded vulture. The governmental programs, funded substantially by the European Union, for development of stockbreeding exactly in these economically underdeveloped regions, also show great promises.

Significance: high  
Tendency – invariable towards decreasing

- *Change in the methods of carcass disposal*

It is related to the orderly incineration system that existed on the territory of the country till 1990. At present, there are only 1 or 2 functioning incinerating furnaces. In spite of all, the carcasses are deposited indiscriminately, at places that are inaccessible for vultures. There is an order of the Ministry of Agriculture and Forests (2000) for construction of carcass-gathering platforms next to every settlement. If this order is put into practice and corresponds to the needs of the vultures, at least in the regions where they are to be found or where there is a chance for them to come back, this would considerably increase the opportunities for successful reintroduction of the Bearded vulture.

Significance: average  
Tendency: towards invariability

*Decrease of game stock*

During the last decade, the poaching on big game as well as the destruction of its habitats have assumed serious proportions. As a result, the game populations of Chamois, Red deer, Fallow deer, Roe deer and Wild boar have suffered considerable decrease.

Significance: high  
Tendency – invariability

- *Disturbance*

The Bearded vulture is very sensitive to disturbance. With reference to this, the implementation of out-of-control tourism and mountaineering, as well as hunting battues and military activities and drills, is extremely critical.

Significance: average  
Tendency: towards increasing

- *Power-lines*

Significance: low  
Tendency – toward increasing

- *Lack of culture*

The lack of elementary environmental culture has been one of the reasons for the extinction of the Bearded vulture. In the recent years, there are many nature-conservation organizations and programs in Bulgaria, which work along these lines, and the change in the people's attitude towards many environmental issues could be easily seen. Another chance is the fact that the Bearded vulture has been declared symbol of the nature conservation in Bulgaria. The "nostalgia" for its extinction is rather strong, which is supposed to evoke a different attitude in its possible reintroduction.

Significance: average

Tendency – towards decreasing

### **Necessary measures and methods for restoration of the species:**

Taking into consideration the biology of the species, characterizing the Bearded vulture as a permanently residing bird, although there are isolated cases of settlement in distant places, we could not rely on natural return of the species to the Balkan Peninsula in the future, in spite of the increasing populations in the Alps and in Spain.

The only opportunity for restoration of the species is its reintroduction.

There is already a considerable experience in the reintroduction of the species, gained in the WE countries, as since 1986 there has been a project for reintroduction of the species into the Alps, and another project for reintroduction of the species in Andalusia and Southern Spain has been launched recently. So far, some 100 birds have been released in the Alps, as 5 nesting pairs have been recorded in 2001. The initiatives for reintroduction of the Bearded vulture are coordinated by "Foundation for the Conservation of the Bearded Vulture".

### **Reintroduction in Bulgaria:**

*The strategy for reintroduction of the Bearded vulture in Bulgaria is in conformity with the "IUCN Guidelines for Reintroduction", adopted at the 41<sup>st</sup> meeting of the Council, May 1995. The Strategy is in pursuance of the "National Strategy for the Conservation of Biodiversity in Bulgaria". The Working Group of the Bearded Vulture is aware of the fact that this is a very long, labor-intensive and expensive process, for the implementation of which the joint efforts of all relevant state and non-governmental institutions will be needed. Taking into consideration all risks of an initiative of this kind, and using the diverse experience of many European specialists, we reached the conclusion that the reintroduction of the Bearded vulture in Bulgaria is possible.*

### *Criteria for reintroduction*

For the identification of the priority regions for reintroduction of the Bearded vulture, several criteria have been taken into consideration.

1. Distribution of the species and density of the population in the past.
2. Feeding base available at present and relevant tendencies.
3. Availability of stable population of Golden eagle and distribution of the other vulture birds species as well as status of the wolf population.
4. Possible limiting factors at present.
5. Availability of state and non-governmental structures (Nature, National parks, Protected Areas and nature-conservation organizations), willing to and disposing of the needed potential for implementation of practical activities for bringing back to the wild and taking follow-up care of birds.

### *Priority regions for reintroduction:*

We consider the regions of Western Rhodopes, Eastern Balkan Mountains, Pirin and Eastern Rhodopes to be the most suitable for launching the program for reintroduction. That's why we submit these regions to assessment, as we have taken into consideration the assessment criteria as well as the threats.

#### Western Rhodopes:

There is a well-preserved extensive stockbreeding in the region. There are suitable nesting areas. In the past, the species was widely spread. At present, the region is often visited by other vulture bird species. There is also a population of Golden eagle, with relatively high density. Its designation as a Nature park is due in the nearest future. Several non-governmental organizations work actively in the region. The main threat is destruction of habitats (realization of large-scale infrastructure projects for building ski-tracks, winter resorts in wild forest regions, dam cascades, quarry activities). The rest of the threats (use of poison baits, illegal shooting, decrease of the feeding base, etc.) are of average significance.

#### Eastern Balkan Mountains:

On the background of the overall situation regarding the stockbreeding in the country, the region is notable for its comparatively well-preserved extensive stockbreeding (approximately like the stockbreeding in the Eastern Rhodopes, where there are stable populations of Griffon and Egyptian vultures). In the past, the Bearded vulture was a widely distributed bird; that is where the latest data for breeding of the species comes from. There are suitable nesting habitats. Vagrant Griffon vultures are also to be found in this region (information by word of mouth – Green Balkans, Emiliyan Stoynov), nesting Egyptian vulture as well as several observations of Black vulture (Emiliyan Stoynov). The population of the Golden eagle is stable. There is a state structure, represented by "Sinite Kamani" Nature Park (but not throughout the area), as well as non-governmental nature-conservation organizations. The main threats are related to the disturbance caused by the increasing out-of-control tourism and mountaineering. The rest of the threats are of moderate importance.

#### Pirin:

The species was to be found here in the past. The extensive stockbreeding is decreased to a great extent. In comparison with the other regions, there are more chamois, but anyway, in case of future reintroduction a considerable artificial feeding would be needed. Vagrant Griffon vultures visit this region. The Golden eagle is a nesting species. There is a very good nesting base available. Another advantage is the proximity with Macedonia and the continental part of Greece, where there are still wild birds preserved, and probably a breeding pair. There are good institutional preconditions, a state structure represented by "Pirin National Park", as well as active nature-conservation organizations. The actual threats are the out-of-control tourism and mountaineering, disturbing the habitats as a result of the building of new ski-tracks and facilities. The rest of the threats correspond to the importance defined in the chapter "Threats".

#### Eastern Rhodopes.

Several observations, mainly of young birds (the last one was in 1999 – E.Stoynov) have been recorded in this area for the last few years. In the past the species was distributed in this area. There is a relatively well developed extensive stockbreeding. The only nesting colonies of Griffon vultures known in Bulgaria, as well as the highest density of the population of Egyptian vulture, are to be found here. The Black vulture is permanently available and partially nesting species in the region. Another species that could be found as a nesting one is the Golden eagle. As the Bearded vulture is mainly an Alpine species, the Eastern Rhodopes region is not very suitable for nesting of the species. There is no nature or national park in the region, but there are many active non-governmental structures, particularly the Bulgarian Society for Protection of Birds and

Green Balkans. The threats are related mainly to the destruction of habitats (quarry activities, unscrupulous felling and burning down of forests). Nobody could tell what the influence of the dense concentration of heavy metals over the Bearded vulture would be.

Other potentially suitable regions are the Central and Western Balkan Mountains, Rila, Osogovo and Slavyanka, but at this stage they do not meet some of the indicated criteria for reintroduction.

As the period before the reintroduction of the first birds is too long (minimum 6-7 years), it is possible some changes to occur in the priority regions, which would call for their new assessment. Generally, in identifying the priority regions for reintroduction the geographical principle and criteria should be observed.

### **Implementation of an aviary breeding of the Bearded vulture:**

#### *-Providing birds for artificial breeding.*

The question where the birds for breeding in Bulgaria should be taken from is very disputable. The most suitable solution is that they should be from the geographical population on the Balkan Peninsula (subspecies *Gypaetus barbatus aureus*), but unfortunately, this population is almost extinct. There are only 4 pairs on the island of Crete and maybe several in the continental part of Greece and Albania. It is impossible of course, to use these pairs for artificial breeding. There is a similar situation with the European population, which is most likely “contaminated” by the reintroduction of birds. Specialized breeding centers and zoos in Western Europe provide the birds that are used for reintroduction in the regions of the Alps and Andalusia, as their parents are from the overall distribution area of the species. Taking into consideration that it is impossible for the “Foundation on the Bearded Vulture” to provide birds for reintroduction in Bulgaria in the near future, due to the fact that they are intended for projects in the Alps and Andalusia, maybe other sources should be looked for. It is desirable to make genetic examinations of the provided birds and to seek a maximum proximity with the population of the Bearded vulture.

#### *- Possible areas for raising, breeding and preparing the young birds for reintroduction.*

The most suitable place for raising and breeding of Bearded vulture at present is the Wildlife Rehabilitation and Breeding Center. Among the priorities of the Center are its favorable geographical location, suitable climate and the availability of the best veterinary specialists in Bulgaria. The Center commands the services of a specialized veterinary clinic. The team working in the WRBC has attended a training course at the Bearded Vulture Breeding Center – Vienna, as well as training courses in the hospital in Egina – Greece. WRBC is a part of the international system of rescue centers IWRC.

The infrastructure and equipment of the Center are to be improved with reference to the implementation of its functions as a “rescue center” under CITES Convention. The six-years’ experience of the team in the rehabilitation and breeding of wild animals is also important, as there are already achievements in the breeding of raptor birds (*B. bubo*; *B. rufinus*; *F. tinunculus*). A great advantage is the WRBC network of volunteer collaborators established throughout the country.

Another potential suitable place for raising and breeding of Bearded vulture is the network of zoos. At this stage, the narrow means as well as the lack of clearness and consistency in their future management, do not allow their involvement in a long-term program such as breeding of the Bearded vulture and preparing the youngsters for

reintroduction. The Sofia Zoo is the only one suitable for these functions, but the qualification of the personnel as well as the raising and breeding conditions for birds should be significantly improved. The fact that during the period 1915-1928 a pair bred and successfully raised eight youngsters should also be taken into consideration.

*- Methods of reintroduction*

The methods for practical release of birds bred in captivity indicate that it is unnecessary to build additional facilities and aviaries in the wild. Before flying off, the youngsters, 2-3 weeks old, are placed in natural caves in the cliffs or similar artificial ones. During this period, the human potential available in the structures implementing the reintroduction is of crucial importance, since many individuals are needed for raising the youngster until it flies off, as well as for the follow-up daily tracking during the first months of its life in the wild. The monitoring should continue in certain regularity afterwards, as this process will last for years.

The birds must be marked, as the most common practice is bleaching the feathers, but setting radio transmitters would be better.

The experience from the project in the Alps shows that for the establishment of a viable population, minimum 100 birds should be released. Only 30 – 40% of the birds reach sexual maturity. The whole process, which is going on at present, lasts for more than 20 years.

The plan of the activities for the implementation of the program indicates that the first 2-3 birds in Bulgaria can be released in 2010. And from 2014 on 4 birds will be released every year. This process could be accelerated and fostered to a great extent if our strategy for reintroduction is an underlying one in the priorities of the Foundation on the Bearded vulture.

**Concomitant measures in the implementation of the strategy for reintroduction of the Bearded vulture on governmental and non-governmental levels:**

*On governmental level*

- The normative base existing in the country is good and provides the necessary protection for the species, imposing adequate penalty measures in cases of damages. The quality of the implementation of the normative acts, as well as the control of their implementation by the relevant state institutions should be improved. The international conventions and directives should be observed mainly in the realization of large-scale infrastructure projects, causing significant damages to the habitats of Bearded vulture.

- Adopting the practice of open carcass gathering, mainly in the habitats suitable for vultures, corresponding to all veterinarian requirements throughout the country, would facilitate not only the reintroduction of the Bearded vulture, but would also support the populations of all vulture and raptor birds.

- Prior stimulating of the extensive stockbreeding is of crucial importance for the future existence of all vulture birds in Bulgaria.
- Implementation of concomitant projects for increasing the species of the Bearded vulture's feeding spectrum (a good example is the project for the chamois of Vitosha Nature Park)

Setting the reintroduction of the Bearded vulture as a priority goal as well as its inclusion into the investment programs of the Government.

*On non-governmental level*

The example of increasing population of Griffon vulture in the Eastern Rhodopes is indicative enough and is an evidence of the skills of the Bulgarian NGOs for coping with a challenge such as the reintroduction of the Bearded vulture.

Increasing the human potential and the professional skills of the nature-conservation organizations.

Preparing the general public for the forthcoming reintroduction of the Bearded vulture via agitation and explanatory campaigns.

Improving the professional skills and qualification of the people involved in the raising, breeding and follow-up reintroduction into the wild of the Bearded vulture.

### **Funding**

A priority goal is the inclusion of the program for reintroduction into the existing European programs, coordinated by the Foundation on the Bearded Vulture.

Partial funding from state funds that would guarantee mainly the commitment of the state for the realization of the program for reintroduction.

Other international funds and corporative sponsors.

Mobilization of the internal resources of NGOs for implementation of concomitant activities related to the Bearded vulture.

**TIMETABLE**

**Terms for implementation of the program for reintroduction of the Bearded vulture**

		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1	<b>Preparation stage –1997-1998</b>														
1.1.	Gathering information, training personnel and studying the existing international experience- <i>completed</i>														
1.2.	Improving the breeding conditions for the Bearded vulture														
2.	<b>Implementation of informational and educational campaigns among the people and the relevant institutions</b>														
3.	<b>Artificial breeding of the Bearded vulture</b>														
3.1.	Providing minimum one breeding pair plus non-breeding birds														
3.2.	Adaptation and breeding of pairs														
3.3.	Raising the offspring														
3.4.	Increasing the number of breeding pairs up to four														
3.5.	Research of the possible areas for reintroduction of the Bearded vulture with the support of international specialists - <i>completed</i>														
3.6.	Preparation of the chosen area for reintroduction														
4.	<b>Beginning of the reintroduction</b>														
4.1.	Release of the first 2-3 birds														
4.2.	Annual release of 3-4 birds														
4.3.	Permanent monitoring and feeding of nested birds as well as implementation of conservation and supporting events														

**Budget for implementation of the activities to the program for reintroduction of the Bearded vulture in Bulgaria:**

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