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Application from the BELOVEZHSKAYA PUSHCHA NATIONAL PARK (Republic of Belarus) for the European Diploma

Appraisal Report

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BELOVEZHSKAYA PUSHCHA NATIONAL PARK
Republic of Byelorussia

0. Terms of reference.

The Republic of Byelorussia has presented the national park of Belovezhskaya Pushcha as a candidate for the European Diploma. After a meeting of the Group of Specialists in Protected Areas, the Secretariat of the Council of Europe organised the mandatory *on-the-spot appraisal* and designated Dr. Maguëione Dejeant-Pons as representative of the Secretariat and Dr. Miguel Castroviejo as consultant. The Group specifically requested the analysis of the European interest in the area and that special attention be paid to the study of the management of the park. The fieldwork was carried out in the period 31 August to 2 September 1995.

1. General description and evaluation of the visit.

Dr. Maguëione Dejeant-Pons and I travelled to Brest via Warsaw and arrived close to midnight on 30th August. We were received by Dr. Bouriak who escorted us directly to the national park where we stayed in one of the hotels belonging to the park for the whole of the visit.

The first day's work on 31st August was completely dedicated to meeting the park staff and administrators at the administrative centre. The meeting began with a general introduction performed by Dr. Lucakov which took up practically the whole of the morning and which provided an overall idea of the park and how it was organised. The afternoon and late evening were dedicated to interviewing senior technical staff from some of the distinct sectors of activity (essentially those of research, resource management and zoning).

After some insistence on our part, it was decided that the morning of the second day would be dedicated to making a field trip into the park - the one only which was made - which, although it was short, allowed us to see for ourselves some of the problems previously discussed. The trip was instructive in that it allowed us to visit various areas of the park and to see, *in situ*, how they were managed. We were able to visit some places where scientific research was being carried out, as such it allowed us to come into contact with some of the field workers and to see some human settlements in the interior. The afternoon was dedicated once again to interviews with staff from the local administration, non governmental organizations (NGOs) and the press. The range of this type of interview and just how representative those contacted were, must be considered taking into account the importance of these organizations in Byelorussia, a country possessing very different social structure, function and administration from those commonly found in Western Europe.

The last day, 2nd of September, was spent in completing interviews and gathering data with the help of some members of the park staff, compiling a summary and general evaluation of the results of the

visit and in making a superficial examination of the buffer zone of the park. In the early afternoon we began our return journey which turned out to be an unexpectedly rich experience.

In general terms one could say that, in the course of the visit, the objective of making a worthwhile examination of the park, its resources and its management in order to attempt a general evaluation with verisimilitude was achieved. Language was something of a problem and here one should mention the invaluable assistance of Dr. Bouriak, a tireless and excellent interpreter. The fact that very few of those interviewed were able to speak English made it necessary to translate absolutely everything, which meant that in practice, notwithstanding the inevitable misunderstandings, there was the necessity to prolong the working sessions which resulted in a tremendous consumption of time, much more than would have been necessary in order to obtain the same amount of information under different circumstances. This situation, in effect, served to reduce the actual productive time spent during the visit to a little more than one day. Nevertheless, it must be stated that the professionalism and benevolence of Dr. Bouriak whose never-faltering attendance during long working sessions as well as at luncheons and dinners - sometimes without rest - did much to minimise the difficulties.

Gratitude ought to be expressed for the interest taken by the administration of the Republic in the visit which was underlined by the permanent presence of Dr. Luchov who made the special journey from Minsk (from the President's Administration) and who kindly presided over all of the meetings and organised all aspects of the visit down to the most minute detail. Nevertheless, his role could have been seen as that of advocate with respect to the application for the European Diploma and for the park itself, it must also be noted that, on occasion, his presence could result to inhibit the openness of some of those who were being interviewed.

During the whole of the visit we found ourselves in the company of staff who were completely dedicated to their work and whose enthusiasm and helpfulness went beyond their contractual responsibilities. It was this attitude which allowed us to obtain the maximum benefit from our visit in such a short time with such an large agenda to accomplish. Working shoulder to shoulder for such long sessions helped to form true and intense bonds of companionship which were sometimes expressed in sincere and hearty toasts in vodka with each offering of food of one form or another. These more informal moments also allowed us, with the help of Dr. Bouriak, to complete some aspects of interviews which, due to the constraints of time and etiquette we had not managed to complete earlier.

Sincerest thanks for all of the hard work which they put into the *on-the-spot appraisal* must be extended to the personnel of the park and the administration in Minsk

I. DESCRIPTION

1. Geographical location and general description.

The park occupies some 87,500 hectares of rolling topography widely dominated by open plains which are crossed by ranges of small hills. It is a terrain with a morphology which is typically pluvio-glacial formed at the same time as the retreat of the Moscow ice sheet. Through the centre of the park there runs a belt of moraine terminals of the Belovezhskaya range rising up to 30m above the level of the plain. Most of the land lies between 140m and 202m above sea level.

A large part of the park is located within river basin of the Vistula though it also feeds the waters of the Dnieper and Neman. The divide between the Black and Baltic seas can be found at its eastern limit. The principle rivers of the park are the Narev, Narevka, Lermaya and Belaya. The park does not contain any natural lakes although ten small dams have been built in the interior, the largest of which is somewhat less than three metres in height and floods approximately 280 hectares.

Because of its location it enjoys the benefit of two climates, the milder, damper climate of Western Europe and the cold, dry winds of the north east, with the influence of the former prevailing. It has the longest growing season and the shortest winter in Byelorussia. The average annual temperature is 6.6°C; the hottest month being July (17.8°C) and the coldest, January (5.4°C). The annual rainfall is 624mm, 70% of which occurs during summer.

2. Natural Resources

If there is a dominant feature of the park it is the forest. One could say that it is the park *par excellence* of European forest. Of the great forest species, those most common are the conifers which account for 69% of the total (58.7% scots pine (*Pinus sylvestris*) and 10.3% norway spruce (*Picea abies*)). Of the caducous types, those species which occupy the river edges and marshy areas, the common alder (*Alnus glutinosa*) and downy birch (*Betula pubescens*) account for 18.8%, with oaks, birches (*Betula pendula*), aspens (*Populus tremula*) and others making up the rest. The locations occupied by vegetation in its natural state other than woodland, for example grasslands or mossy and herbaceous swamps are scarce. There are also areas of extensive agriculture. In total the forest occupies over 88% of the area of the park.

Over 70% of Byelorussian flora lives in here. Some 903 species of vascular plants have been catalogued in the area of which approximately 10% are woody (25 species of tree, 56 species of bush and 18 species of scrub). Amongst the most common species found are the scots pine, norway spruce, oaks, birches, elms and willows. However, that which distinguishes the true character of the *pushcha* is the combination of its specific composition with its structure and great age. The greater part is dominated by ancient forests (of about 100 to 200 and sometimes even up to 350 years of age) which

have developed under relatively natural conditions and which are characterised by the presence of individual trees belonging to different age groups in the same locality. There are also numerous individuals (especially oaks) which are more than 600 years old. The area which has been artificially replanted is less than 10% of the total.

The park is also extremely rich in fauna with 59 species of mammals, 226 species of birds, 12 of amphibians, 7 of reptiles, 28 of fish and more than 9,000 of insects. Amongst all of these are found species of great interest such as the European bison (*Bison bonasus*), the elk, lynx, wolf, European beaver, the sea eagle and the peregrine falcon to name but a few of the commonly known species. In general, it is possible to say that the population sizes of such species are enough to maintain relatively stable populations.

3. Objectives and significance.

The legal objectives of the park are the protection and conservation of its natural systems and cultural resources, scientific research, education about the ecology, public participation and enjoyment and economic activity based on the proper management of the ecology.

There are two elements which give Beiovezhskaya special value:

(a) The concentration in a single system of mixed woodland of different species of all age groups and sizes including trees of great size and age in such a form that it is practically the last example in the world of the old mixed woodlands of the European plains.

(b) Its location in a transition zone between the biogeographical zones of Eastern and Western Europe allows the joint existence of a great diversity of species belonging to both regions. That which gives authentic character to the *pushtka* is the simultaneous presence of endangered endemic species and a high number of species which in other regions exist only in isolation.

4. History.

In the fifth century BC, Herodoto spoke of this woodland which was also mentioned as a place of virgin forest full of wild animals in the chronicle of Ipatievskaya at the end of the tenth century. At the end of the fourteenth century and at the beginning of the sixteenth a protective regime similar to that of a natural reserve in today's terms was bestowed upon the area, by which hunting was prohibited for all except royalty. Already in the mid sixteenth century the removal of dead trees was forbidden. Despite this, the size of the protected area diminished little by little until it reached its present limits at the beginning of the eighteenth century. Practically from the late Middle Ages the area has been protected, being managed as a game reserve for successive royal families and governors of the territory until now.

5. Legal and administrative framework.

The legal regime of the park was outlined under the recently approved, but as yet undeveloped Law of Protected Areas of Byelorussia, of October 1994. This law attempts to enshrine protected areas environmental protection as its principle objective, and the promotion of some level of economic activity as a second objective.

This gives to each park its own juridical personality and complete responsibility for the administration of its territory - which may affect its management whenever excessive importance is given to the search for economic resources. The law also establishes the legal instrument of the Statute of the Park, which - although being permanent and unrevisable - incorporates some elements of the General Management Plan (which does not exist, as such, in Byelorussian legislation).

The Statute of 1992 is currently in effect and a new statute is undergoing elaboration and approval, having been adapted to the new legal framework. This new statute is expected to be in effect some time this year.

The administrative framework of the park is rather complex. As well as having its own juridical personality it is also subservient to the Ministry of Natural Resources on one hand and to the Presidential Department of Management¹ on the other. Both, in one form or another, possessing shared responsibilities.

6. Land ownership.

The land within the park is owned by the State. There is no other type of land ownership within its limits (this is not the case in the adjoining territories).

7. Zoning and management plans.

The Law of Protected Areas establishes four zones whose usage is regulated by the statute according to the following scheme:

- **zone of absolute protection (central zone).** The purpose of this zone is that it serve as a reserve of genetic resources and as a natural system of reference. Only the activities of research and conservation are allowed within its boundaries. It occupies 15,677 hectares and is divided into five separate (but contiguous) areas.

¹There also exists a Presidential Administration in parallel with the government which reports directly to the President of The Republic and also possesses some executive functions.

- **nature management zone.** Within this zone natural resources are managed and widely harvested. It occupies more than half of the total area of the park forming an unbroken area of 57,000 hectares. As the reader will see it is here where the exploitation of natural resources is concentrated.

- **recreational zone.** It is in this zone where visits and recreational activities are centred. Public access to the other zones being considered inappropriate. It does not include visitor facilities. It occupies 10,712 hectares spread over two separate areas, each one situated at one of the principle entrances to the park.

- **economic zone.** In this zone are concentrated the park services, administrative installations and public access as well as economic exploitation such as traditional agriculture. The zone occupies 3,969 hectares divided into many (separate) areas adjoining small villages.

The park does not have a formally stated management plan but relies upon the Park Statute and a series of plans which are the basis of its development (they have the character of special plans for science, infrastructure, etc.) and which usually have effect for a period of ten to twenty years. This unique system is entwined within an administration which has a tradition of central planning in which the slow planning processes make particularly difficult the modification of its products.

As an example it is enough to relate that the development plan - including consultations with the park authorities and especially with its science committee - is elaborated by a central planning institute of the Administration of the Republic which has its headquarters in the capital (Minsk). Its execution is anticipated to take up to twenty years.

The park is surrounded by a peripheral zone known as the "conservation zone" which, with an area of approximately 90,000 hectares, surrounds all of the Byelorussian part of the park. Here the administration possesses certain policing powers and all activities are submitted to a unique system of permits and a kind of environmental impact assessment aimed at minimising the damage which could be inflicted upon the park's resources. Special attention is given to water management.

8. Resources management.

The pride of the *pushcha* is the European bison, the largest living animal in the continent of Europe. In 1914 there were 400 of these animals and by 1919 all of them had been killed. By 1928 there were no more than 56 individuals remaining which were scattered around a number of zoos. The re-establishment of the species in the *pushcha* began in 1946 with 6 individuals which were brought from Poland and Sweden. Today there are 300 free animals on the Byelorussian *pushcha* (a similar quantity live on the Polish *pushcha*). Although this is a commendable feat and one has to recognise the research and experimental effort expended in order to build up such a population as exists today, one cannot overlook the problems which this population presents within the park. The 293 individuals in

existence in 1995 heavily overloaded the carrying capacity of the park. It is understood that the sustainable population is about 200 individuals. Despite the fact that in recent years the area used by the bison has increased, due to natural migrations, from 14,000 to 22,000 hectares, the park still regards itself as having the obligation of providing winter fodder.

A similar problem of overpopulation arises with the deer, with effective estimates of the number of individuals put at 2,000, but with a desirable figure of some 600. These animals also survive the winter thanks to the food supplied by the park. The wild boar also presents a problem of overpopulation and benefits likewise from the fodder provided for the ungulates.

The woodland suffers considerably from the damage caused by such overpopulation. The effect of selective grazing can be seen by the dominance of sapling hornbeam and spruce over all other species which the herbivores find more appetizing and which are completely absent in some places. These two species are also more tolerant of shady conditions. The process entails a clear risk of altering the composition of the woodland in the medium term.

This situation is causing concern to the park authorities and they are searching for a practical solution although the economic hardship from which they suffer is limiting the extent of any possible advance. Until now there has been some hunting and it is still allowed for the purpose of self consumption by the park staff. However, in the case of the bison, without completely banning hunting altogether, the park prefers the capture and transportation of live individuals². The economic situation, which is causing severe financial difficulties for the administration of the *pushtcha* is forcing the authorities to think of ways of obtaining some economic benefit from this situation. It is possible to detect an interest in "selling" the work of culling to hunters who are willing to pay for performing the work and for having the opportunity of shooting bison. The authorities defend this posture on the grounds that the hunting could be construed as being scientific in nature and that what is not important is whether or not a hunter pays to kill an animal, but that an animal is killed when it is necessary to do so. From this point of view the posture is admissible but it runs the risk of suffering the fate of many such schemes whereby the system becomes an important source of income which then establishes it as a permanent system of control, this in turn makes it detrimental to the development of a solution more in keeping with nature. In this respect one has to consider that, although currently operating in the exterior, the park today owns a company dedicated to the commercialisation of hunting. This situation does not give rise to concern amongst the authorities of the park as in their views the existing legislation will never permit a type of management akin to that of a "game reserve".

²They intend to transport some to other territories of the Republic. They are also interested in the possibility of selling individual animals.

Another factor which is important to consider in relation to that which is stated above is the control of the population of wolves. This animal is the only predator of the ungulates already mentioned. The authorities intend to maintain a population of about 30 individuals, although there are years when this reaches 40, or even 50. Nevertheless, practically every year the area is beaten in order to reduce the number of animals.

The fact is, that on the one hand there is an excess of herbivores which have to be fed on winter fodder in order to survive. To produce this fodder some land, agricultural production, human resources and materials must be dedicated to the task. On the other hand, the wolf population is controlled to prevent it from causing excessive harm to the herds which are very vulnerable, above all, during the winter.

This is the principle problem which confronts the park as far as the management of resources is concerned - although it must be noted that the central zone is excluded from all management activity. There is no hunting, neither is fodder provided; however, the perception was that there, also, an excessive number of grazing animals existed.

9. Scientific activity

The park possesses a collection of studies on the *pushcha* and an archive of data gathered over the past fifty years or so. At the present time the scientific activity is focused upon the dynamic and succession of forest vegetation, the problem of the ungulates (essentially the bison), the decline in the population of the capercaillie and, in an incipient fashion, of the invertebrate fauna. The finance provided by the GEF (Global Environmental Fund) for a national project on biodiversity is providing a strong impetus to research, with the important contribution of economic resources and the participation of an increasing number of scientists and institutions (universities, botanical gardens, etc.). This has allowed the incorporation of a geographical information system and opened an interesting program upon eco-friendly agriculture aimed at the buffer zone of the park.

This commendable scientific activity has also highlighted some urgent needs. Of 50 species of plants selected, studies on the first ten of these have shown that 2 are in danger: the orchid *Cypripedium calceolus* and the umbellifer *Astragalus major*. It is necessary to draw up a genetic rescue programme for both and to continue with the investigations on the remaining 40 preselected species with the intention of adequately determining their state of conservation.

The appropriate management of the bison requires continued study of the diseases affecting the male reproductive organs, the investigation of the possibility of introducing new blood lines and the establishment of some new, wild populations outside the park. Although the diversity of arthropods is rich (over 9,000 species of insect) there has been no study nor systematic inventory performed; as such it is necessary to initiate such work.

10. Exploitation of resources and land usage.

The relationship of the people with the park is very different from that commonly seen in Western Europe. It is not possible to perform a satisfactory analysis of the situation without taking into account that it is quite an isolated area possessing a certain degree of self sufficiency: Approximately 125 people live within the park in ten scattered villages. The main centre of population is Kamemiyuki which has more than 1,000 inhabitants and is located, just outside, at the entrance to the park as approached from Brest. A large number of these inhabitants are employed by the park; or derive an existence from it. The level of commercial trade in consumer products with other regions is low. For example there is a heated greenhouse collective producing vegetables all year round for consumption by the community. All maintenance and conservation work on the fabric of the town: carpentry, etc. is carried out by a sawmill and carpentry company which belongs to the park and which uses timber exclusively from the park. Meat production is low and is supplemented by hunting to a certain degree. The (communal) central heating and hot water systems in Kamemiyuki are centralised at a local power station collective which burns what is essentially waste timber, etc. It is the case that, owing to the scarcity of their own economic resources and imported products, the population, in general terms, is greatly dependent upon the *puschna*.

To a certain degree the population of the park (who are employees in the main) and the local restaurants are supplied by game from the park (essentially wild boar and deer, but also wild fowl and other animals). The same may be said of the fishing from the rivers and small reservoirs which supply in good measure the requirements of the restaurants for the benefit of the tourists. The introduction of new species and the periodic re-stocking carried out has produced alterations in the original aquatic communities, although the scale of these alterations is unknown. It appears that, after payment for the granting of the appropriate license, tourists are allowed to participate in hunting and fishing activities.

There is a continuous scavenging of the forest for timber which is felled by the wind, and for dead or sick trees etc. Various species provide such a supply (lime, birch, common pine, spruce, oak, etc.) The authorities estimate that over 250,000 cubic metres of timber is produced annually by the *puschna* by the process of natural wastage. Some 60,000 to 80,000 cubic metres of this timber is recovered. More or less all of this timber is processed at the sawmill in Kamemiyuki (which, although being located outside the park is nevertheless owned by it) where, as has been previously stated, all of the timber products required by the community and by the park are produced. In the park it is used as the raw material for producing furniture, coaches (used by visitors to the park), craftsmanship and carvings for sale to tourists, etc.

As well as this exploitation, other traditional forms of harvesting are carried out within the forest which, because of their nature and low level of intensity, do not pose at present a major threat. These are, for instance, the gathering of mushrooms and fruits and other products of the forest by the local population.

Although some of the activities mentioned above may be considered as being contradictory in some senses to the standpoint that natural systems evolve in the most natural possible way, it must be stated that none of these activities are carried out in the central zone. They take place in the controlled natural zone and, on a smaller scale, in the recreational zone. Nevertheless a valuation of the effect of this exploitation of the natural systems of the park must be made and above all the prohibition of such activity within the central zone, at least, must be maintained.

Also within the park, in what are called the economic zones, there are areas given over to the local population for subsistence farming, to the production of fodder and marginal grazing. In the interior, though their territory does not legally belong to the park, there are two medium-sized agricultural cooperatives.

11. Public use and tourism.

The public use system of Belovezhskaya Pushcha is still at a preliminary stage of development and at present corresponds to the traditional rules which applied when the *pushcha* was a game reserve and which gave almost exclusive priority to fauna-related aspects.

The annual number of visitors has decreased from almost 100,000 during the last years of the Soviet Union to approximately 15,000 in the past few years, although recently the numbers have begun to rise slightly (by September of this year 20,400 people had visited the park). Some 60% of the visitors are school children or students, 20% come on organized tours and the rest come on an individual basis and buy their ticket at the entrance.

There is a museum in the park as well as enclosures for animals in captivity (6 species); a boating facility in the lake and equipment for some other activities is available: there are 50 horses, 40 bicycles, 100 pairs of skis and fishing rods.

It is necessary to comment briefly upon the museum and the enclosures. The former possesses an excellent scientific collection of stuffed specimens (species and their offspring and products) comprising more than 700 objects. The visitor can see at close quarters specimens of practically all of the mammals and birds of the park together with nests, chicks and eggs as well as the most diverse and ingenious methods for capturing them. Although all of this is seen as a great attraction for the visitors, at present it has also provoked long discussions at international forums on national parks over the use of such exhibits as a means of education. Today there is a consolidated movement to stop using such exhibits in visitor's centres. The reason for such a discussion is simple and clear: if the park and its activities are to be taken by the outside world as an example of how to treat and respect nature, what conclusions will be drawn from seeing exhibits consisting of dead animals, together with dislocated nests, and eggs? The consequences are potentially exacerbated if the majority of the visitors are children and they observe how single traps can be used to capture wild animals. Although the museum attendants take great care to explain - with commendable credibility - how

many of the animals were obtained (that they died in captivity, in accidents or by illness, etc.) it would seem that this is insufficient to overcome the negative effect created. In summary, it is a good museum and must be considered as such but it cannot compensate for the need to have an authentic visitor's centre with an adequate range of information, educational material, and exhibitions more in keeping with the spirit and objectives of a national park.

Similar criticism may be applied to the animal enclosures. To see animals in captivity is not entirely compatible with the aim of a national park which is to encourage precisely the opposite: the natural evolution of ecosystems (including animal populations). To keep species in captivity is the role of zoos rather than the national parks. If it were necessary to keep some individuals in captivity for reasons of management, the enclosures should not be accessible to the public. Although the visitor might enjoy seeing a bison or deer at close quarters, the educational role of the park is more important than the provision of such momentary pleasures.

Visitors arriving at the park are first directed to the museum and animal enclosures. After visiting these two sites they can explore the rest of the park by choosing one of four available routes (2 by bus, one on foot and another which is a combination of both these methods). Visitors can stroll around freely only in the vicinity of the museum and hotels, they must be accompanied when travelling to all other parts (of course, only within the limits of the recreational areas). There are only 4 or 5 guides in the park which means that at the busiest time of the year for visitors, the summer, staff from the science department have to double as guides and will dedicate up to 40% of their time working with the public.

Many people spend only a day at the park but there are those who stay for a number of days and use the hotels in the area close to the museum. There are no signposted paths nor routes of exploration which the visitors can use unescorted. There are very few sources of information, interpretation or even sign postings.

It has not been stated that public use has so far been responsible for any significant damage to the resources of the park. At present the authorities are working on the future public use system plan of the park. This plan will define not only a system of visitor circulation, but will attempt to address the principle problem currently faced: that of how to generate income. Park authorities are completely open and many possibilities are under consideration; from those of licensed hunting, as previously discussed, to the construction of new hotels and other tourist attractions as well as rental - at premium prices - of ancient houses located in the forest¹. This would seem to be the appropriate time to establish sound foundations for such plans.

¹One of the possibilities which is being explored is that of "eco-tourism packages" to be offered by tour operators such as, for example, the national company, Beintourist.

12. Surrounding communities.

The short duration of the visit meant that it was possible to maintain contact with only some members of the local administration, those at local town halls essentially concerned with the environment. They explained that it exists an increased and continuous contact between the local councils and the park authorities during which many joint decisions are made. The functionaries indicated that there are major problems with poachers and with field improvement programmes in the peripheral area of the park. Also, with the upsurge of social problems in recent years there is now and increased pressure on the forest due to the gathering of wild fruits, berries and fungi, etc. For the record; in the conservation zone (buffer zone) there is a population of 5,000 people living in four separate local council areas.

Nevertheless, one can observe the pride which the people have in their forest: "the *pushcha* grows the people and the people grows the *pushcha*" states a prayer to the symbiosis adopted as a popular saying after centuries of beneficial coexistence. An indication of this is apparent in noting that, although in the last two years there has been an increase in the number of forest fires in the region, not one has occurred within the *pushcha*. There is also the general feeling that without the help of local people, the *pushcha* would not have survived. An important element in this context the municipal School of Ecology in Kameniyuki which teaches children between the ages of 6 and 17 years and which has about 225 pupils on its roll.

Participation in conservation activities via non governmental organisations (NGOs) is practically non-existent although a small number of such bodies has been established. However, they have little power or effect, nor do they have any social impact. Contact was made with one of these, (The Society of West Byelorussia for the Protection of Birds) which with great enthusiasm intends to carry out various projects in the area.

One of the points which kept cropping up during the contact with the local environmental administrators was the already mentioned critical lack of financial resources, there being a constant demand amongst them for information about possible sources of funds.

13. Administration.

The park is organised into four divisions: science, with a staff of approximately 28; forestry, including rangers, with 280 people (187 forest rangers); tourism and commerce with 148 people and finance, responsible for all areas of spending and maintenance (workshops, the sawmill, etc.) having a staff of 290. In total there is a staff of about 760 in the park which, in general terms, is a sufficient number. Nevertheless, there appeared to be a lack of certain types of personnel in the science department where at least another 5 senior researchers were required. This situation being made all the more urgent by the forthcoming retirement of a large part of the team. The team of park guides ought to be increased in size with more well qualified people; in effect there are only four guides.

Some capital equipment appears to be in relatively abundant supply. There are 40 lorries, 30 four-wheel-drive vehicles, 40 motor cycles, 30 tractors, 7 harvesters and 30 special vehicles (mobile cranes, fire engines, excavators etc.). The problem lies more with the quality of such equipment than its quantity; it is all quite dated. There is also the clear need to provide the park with an extensive system of communications (radios or radio-telephones). Such equipment that they do have is scarce and does not cover even the minimum requirements of the park rangers.

In such a situation of economic difficulties as exists, organising the budget becomes a nightmare of how to manage scarcities, late payments, cash shortages and the responsibility of continuing with the daily problems encountered in running the park. Although it is difficult to give exact figures, it is instructive to note that the budget for 1995 is expected to be approximately \$1,600,000 (approximately eighteen thousand million rubles), of which approximately half is to be generated by the park itself and the other half contributed by the state. The budget is variable from year to year and always just about covers the cost of personnel and the operation of the park. This means that the park authorities are permanently preoccupied with looking for complementary sources of finance. Objectively speaking, it is necessary to increase the budget contribution to the park and to designate specific supplementary funds in order to carry out some important and priority conservation programmes.

14. Cooperation with the Polish authorities

In total the *puszcza* extends across an area of some 125,000 hectares, of which, 110,000 are covered by forest. The border between Poland and Byelorussia passes through the forest, dividing it into two more or less equal areas. Although it must be treated as a single ecosystem, in reality it is divided into two separate areas. In the mid 1980s an enormous fence was constructed along the whole of the length of the frontier making unrestricted movement between the two areas practically impossible. Although there are some guarded checkpoints where people can cross, there are no such places where animals of the *puszcza* can do likewise. This means that in the intervening period since the border fence was constructed the animal populations on each side of it have become separated. For obvious reasons it is hardly necessary to state the negative effects upon the ecosystems of such an act of ecological folly which has created, suffice it to say, separate systems which are more vulnerable and unstable than was the whole. In some cases it is the central zones, the most ecologically unspoiled, which have suffered most from the division.

From an ecological viewpoint, it would be worthwhile to bring all of the influence of the Council of Europe to bear upon the situation in order to encourage the search for a cooperative system of management to be put into place on both sides of the divide, with the future objective of eliminating the presence of the border fence. This action would allow the *puszcza* to return to being the unique ecosystem it has always been throughout its history.

Of course, the present situation would not permit the immediate removal of the barrier. Elemental

problems such as the differences in population densities of species could generate undesired effects like, for instance, those originating from the relative abundance of wolves or deer in Byelorussia compared to that in Poland and the possibilities of animal migrations. What is feasible, however, is the intensification of what is already being done on a small scale: exchange of information and the prosecution of coordinated or joint programmes of research across both sides of the *pushcha*.

The objective must be, however, to form a basis upon which similar schemes of management may be developed for this important piece of European heritage and which will allow its unique ecosystem to recuperate. If possible, it should be reintegrated to form a singular entity in order to facilitate its protection and to allow it to become, for instance, the international park of the *pushcha*. This would possess great symbolic value and to this end all energies must be devoted. In this respect it would be beneficial to initiate a regular and institutionalised dialogue between the governments of both republics in order to coordinate activities of research and management.

II Discussion.

The management of ungulates and the development of tourism are the two most urgent questions concerning the management of Belovezhskaya Pushcha. These, more than any others, will define its immediate future and for this reason special endeavours are essential in the search for solutions.

Being a national park, it is an internationally accepted doctrine that the management of natural resources must be directed to the re-establishment of natural systems which ought to function with the lowest possible level of human intervention. There must be a tendency towards establishing a natural equilibrium between the grazing resources and the populations of herbivores and predators. It is difficult to obtain such an absolute form equilibrium. However, there are certain levels of approximation to it which are complementary to a certain degree of human intervention. In this respect a certain level of control of the populations of herbivores which may, in some forms, generate a source of income is admissible. Also, in extreme cases, an intervention in order to control the wolf population could be admissible. This, however, is difficult to justify in the present circumstances.

In any case, it is imperative to establish clearly the objectives to be pursued, how they ought to be attained and to which eventual state one wishes to bring these resources in qualitative and quantitative terms. It is necessary, therefore, to prepare a comprehensive Plan of management for the herbivores which has to rest upon the principle of minimum possible intervention: a) to establish a point of equilibrium amongst the populations of bison, deer and wild boar and the sources of food available to them, b) to reduce the supply of winter feed and c) to allow, only under exceptional circumstances, the hunting of wolves. In order to realise such a Plan, financial resources not readily available to the park are required. It is therefore necessary that it includes a clear financial statement detailing the cost of its launch with the aim of facilitating the search for the necessary funds.

The second outstanding question is that of the development of tourism and the public use system. The

parious state of national finances redoubles the emphasis upon the park administration to find reductions in costs and new sources of finance. The legal position of the park with a high degree of autonomy, the, as yet, poorly developed system of public use and the possibilities offered by tourism provide the principle sources of hope for the park managers who, in principle, are disposed to examining a wide range of possible sources of income. Although any effort directed towards a demonstration of the possibilities of financing the management of a park via the sustainable use of its resources may be laudable, the danger of over developing such activities in a way that could turn to be incompatible with the proper goals of the park, must be taken into account. This situation underlines the need for prior careful planning of the whole system of public use in an attempt to balance the two conflicting elements of use and conservation.

III. Conclusions.

The European interest of the area is beyond doubt. There is no other similar area in Europe; and Belovezhskaya Pushcha is the embodiment of an important part of the natural heritage of our continent. The existence of some thousands of hectares of woodland free from human interference, not even to recover fallen trees, has a special relevance in a continent long-populated and showing the clear influence of man. The diversity, beauty and good state of conservation, in general terms, of its resources makes it a unique place. There is no doubt that it merits the European Diploma, category A, although some aspects of its management must be adjusted to comply more precisely with the conditions laid down in the Diploma regulations. The objective of the following paragraphs is to illustrate precisely what is required.

In accordance with the existing statute of the park (10/95), the development of the infrastructure for visitors must be carried out in the zones known as "economic zones" (see the diagram attached). On the assumption that the only one of these zones which could be used for this purpose is that which adjoins Kameniyuki (where such facilities already exist inside the park), this raises doubts about the compatibility of future development (hotels, etc.) with the regulations of the Diploma (Appendix 2, Resolution (91) 16). A simple solution would be to exclude these zones from the area to which the Diploma is awarded, but this measure would have little good effect because, on the one hand they are difficult to separate from the rest of the park and on the other, most of the posters or plaques proclaiming the award of the Diploma would have to be located in these areas. This could lead to a most confusing situation. Another solution would be to monitor in detail the development plans for the area in order to avoid any actions which would contravene the award of the Diploma. The efficacy of this course of action would also be limited.

The award of the Diploma should be accompanied by the following conditions and recommendations.

III.1 Conditions.

1. **Plan for the management of herbivores.** Within a period of three years a plan for the management of herbivores must be drawn up, directed at limiting the level of human intervention to a minimum and to reduce the effective populations to levels compatible with the natural means of support. It is imperative that the supply of winter feed is reduced to an absolute minimum. Amongst other things, the plan must consider the role of the wolf, the hunting of which must be suspended. It must state the financial requirements for its application and it must consider the role that the current Polish populations of *puszcza* animals will play in the future.

2 **Public use plan.** Within a period of three years a strategic plan for public use must be elaborated. Amongst other considerations it must define: (a) the objectives of the system as a whole (b) the principles and criteria which will inspire the development of the area; (c) the type of activities which will take place (tourist activities, interpretation, educational activities, recreation, etc.); (d) the facilities to be built, their intended location and how they will be integrated into the environment. In general the plan must attempt to locate the major facilities outside the limits of the park. It must adequately justify any decisions which will lead to these facilities being located within the park.

3. Central zone.

Human intervention of any kind must continue to be prohibited - except for reasons of scientific investigations - in this zone whose current area must not be reduced.

III.2 Recommendations.

1. Management of resources.

1.1 The detailed state of conservation of some of the indigenous flora is unknown. A preliminary study of 10 selected species has shown that 2 are in danger. A genetic rescue plan for these two species must be drawn up and launched. The studies initiated on the state of conservation of plants must be continued and must be concentrated, at least, upon another 40 species already selected.

1.2 The effect of fishing and the restocking of rivers and lakes upon aquatic populations indigenous to the park is unknown. The necessary studies with the aim of establishing some criteria for the adequate management of these resources must be initiated.

2. Science and research.

2.1 The task of monitoring the forest communities must continue. Special attention should be paid to the effect of herbivores upon the different forest species as well as to the dynamics of natural or

induced succession. In the appropriate cases corrective actions for the practical management of natural resources should be taken.

2.2 Adequate management and conservation of the bison populations require a deeper understanding of various aspects of the biology of the species. Special attention must be paid to the genetic monitoring of the population and its evolution, to the diseases of the reproductive organs of the males, to the levels of contamination by heavy metals and nuclides of the animals and to carrying out a detailed study of its ecology with the aim of finding other locations where new wild sub-populations may be established.

2.3 Despite the presence of an estimated 9,000 species of insect in the park there does not exist a detailed study nor a complete inventory of this population. Being characteristic elements of the rich biodiversity of the *pushtcha*, it is necessary to learn as much about which species are present as their state of conservation. In order to achieve this it is necessary to initiate the relevant studies.

3. Public use.

3.1 The system of public use must allow for the different kinds of visitors and try too satisfy their differing expectations. It must satisfy, within certain limits, and in keeping with the spirit and objectives of a national park, the requirements of the visitors, be they in groups, or visiting the park alone, or whether they are members of an organised or open visit. Adequate spaces and conditions must be provided in the anticipation that the visitor can "discover the park by himself" and can "live with nature". An appropriate combination of "directed" and "open" visits will help the park to achieve more readily its objectives in this respect.

3.2 The park must be provided with a minimum level of interpretive and informative media and must have a minimum signaling to orientate the visit. Special attention must be paid to the different means of interpretation, included personal and impersonal services. It must be remembered that personal interpretations services are specially suitable for individuals or small groups (like school visits, for example). In the other hand, larger groups of visitors will require other means of interpretation which will allow the park to drive home its message.

3.3 The park requires a visitor's centre which, via appropriate techniques of interpretation, will contribute to the development of the educational, informative and recreational roles inherent in its nature. For the potentially negative effect upon the objectives of the park, the exhibitions of caged or stuffed specimens as items characteristic of a national park ought to be gradually withdrawn.

3.4 Contact with nature is one of the essential objectives of a national park. The provision of a network of paths for guided, self-guided or free exploration and with the necessary information (pamphlets, signs, etc.) has proved to be one of the most effective means of achieving this goal.

4. Administration and financial resources.

4.1 The park's budget is scarcely large enough to cover the day-to-day running costs and to allow it to comply with the objectives with which it is charged. It is essential not only to maintain the contribution on the part of the administration at its current level, but to increase it substantially.

4.2 The legal position of the park grants it the capacity to search for sources of finance relatively independent from the central administration. This possibility should not be interpreted as a formula by which the park could become totally self-financing, but as a means of complementing its state income. Because of the changes which such initiatives in this sphere could bring about within the park their adoption must be preceded by a detailed analysis of the potential consequences. In this respect the formulation of a plan by which additional financial resources may be acquired in the short and medium term containing an analysis of any possible effects upon the resources of the park, would be especially effective.

Appropriate attention must also be paid to the search for sources of finance for specific programmes of conservation. There is usually the possibility of a range of international funding for such projects.

4.3 The numbers of personnel are relatively sufficient in the different sectors of the park except for those of scientific investigation and public use. In the latter it is necessary to increase the number of interpreters. In the former, there is the need for another five researchers to complete the team. Special attention must be paid to filling any vacancies created by forthcoming retirements and it must be noted that the average age of the research team is relatively high.

5. Cooperation with the Polish authorities.

5.1 A forum for dialogue between Byelorussia and Poland must be established in order to coordinate the activities of research and to investigate the possibilities to advance towards the establishment of the closest possible collaboration in the management of both sides of this artificially divided ecosystem. Steps must be made towards the establishment of the international park of the *puszcha*.

Brussels, 29th October 1995.

SECRETARIAT'S COMMENTS

The Secretariat representative fully approves of the content of the expert's report, and has the following information to add, which tends in the same direction.

1 The expert appraisal programme was carried out under the supervision of Mr Alexander I. Lyushkov, Head of the Protected Areas and Forestry Development Division (Presidential Affairs Planning Department). We were also accompanied by Mr Vladimir Burlak, Co-ordinator of the GEF's biodiversity protection project, which has been financed for the last two years by the World Bank (9 projects). The park director was about to be appointed. Mr Pavel Parfenov, scientist, Secretary of the MAB Unit and the person responsible for proposing the park as a candidate for the European Diploma.

2 The country's institutional structure regarding protected areas is as follows:

- 1 President
- 2 President of the Administration
- 3 Presidential Affairs
- 4 Minister's departmental staff
- 5 Planning Department
- 6 Protected Areas and Forestry Development Division (Mr Lyushkov)
- 7 Project Management Unit (PMU) Technical Director: Mr Vladimir Tolkash
- 8 Belovezhskaya Pushcha National Park
- 9 Berezinsky Reserve
- 10 Pripiatsky
- 11 MAB Unit Secretariat (Mr Parfenov)
- 12 (4% of the territory of Belarus is classified as a protected area; the aim is to increase this figure to 8 - 10%)

3 The programme enabled us to discuss matters with the following persons:

- the technical director of the GEF project (Planning Management Unit), Mr Vladimir N. Tolkash;
- the park's scientific managers (forester: Vladimir Olikevish; botanist: Ms Anna Dengubenko; animal specialist: Mr Viacheslav Semakov; ornithologist: Mr Sherkos) and administrative (personnel) and financial managers (Mr Grigori Julianovich Romanjuk);
- the mayors of the three administrative districts;
- three NGO representatives: Mr Vladimir Sorokin, who has made films and videos on the subject of ecology, hunting and fishing for Belarus, Russia, Ukraine and Moldova; Mr Alexander S. M. Mikhailenko, section head of Belintourist, the Belarus organisation for foreign tourists; Mr Sherkos, head of the West Belarus society for the protection of birds;
- the director of an ecological school (primary school level) working in close contact with the park, Ms Valentina Fralova;
- other persons: Chief inspector of ecology at the district ministerial department (Ms Olga Kasak), etc.

We were also able to make a rapid tour of the park, which is divided into different zones (central zone, recreational zone, economic zone and nature management zone).

4 The zone would appear to be of great interest from a biological point of view. It is one of the oldest nature reserves in Europe and the last old forest of this type in central Europe. It features an exceptionally rich biodiversity, in terms of both flora and fauna. In particular, it is home to 300 European bison (*Bison bonasus*), lynx, wolves, etc (there are 200 bison on the Polish side of the park). It should be noted that the population of bison had completely disappeared in 1939, and that the species was re-introduced in the park in 1946. The status of the reserve has changed several times in the past, in line with the degree of protection it was granted, from reserve, then protected area, protected game reserve and now, finally, nature park. Furthermore, the park has been granted the status of biosphere reserve and world heritage site. In view of this, it is essential that the park be classified in category "A".

5 Regarding the status of protection of the park, the situation is as follows:

- the new park statute, which was about to be adopted by the ministerial department at the time of our visit, was requested from the authorities by our letter of 27 October 1995, and should be sent to us. We have been informed that the main provisions would not be changed;
- the statute comes under the law on protected areas of 29 October 1994, which guarantees suitable protection for these areas and prohibits their privatisation;
- a management plan for the next twenty years has been drawn up.

6 Regarding the administration of the park, the following organisation chart exists:

- 1 Director
- 2 Secretary
- 3 Head of Planning and Economy
- 4 Head of Personnel
- 5 Head of Accounts
- 6 Head forester
- 7 Industrial and economic affairs
- 8 Tourism and commercial affairs
- 9 Scientific affairs
- 10 280 persons, including 5 for road maintenance
- 11 290 persons (transport, garages, shops)
- 12 100 persons - 42 in Vistuli (presidential palace) - 5 in the Arts Centre
- 13 23 persons, including 11 scientists: 5 at the museum, and 4 guides
- 14 (7 sectors)
- 15 (8 sectors)
- 16 (6 sectors) (restaurants, hotels, bars)

The mayors told us that they worked in close association with the park authorities, were invited to meetings, and that decisions were arrived at jointly. Also, the population living near the park was closely involved in the activities of the park. Furthermore, they benefited from the spin-off effects generated by the park.

7 Several difficulties existed concerning the management of the park:

- strong contrast between the different zones of the park (only the central zone is absolutely natural);
- animals kept in cages at the park entrance;
- visitors' use of the museum, the educational role of which could focus more on the theme of conservation (approx. 15 000 visitors a year to the park, 60% of whom are students, 20% tourists in groups and 10% individual visitors);
- sale of hunting rights to foreigners, in the nature management zone, for certain species, e.g. wolves and bison (500 dollars for a bison, with the right to take away trophies);
- equipment which is sometimes dilapidated or insufficient in quantity;
- other difficulties stem from the fact that an excessive number of animals are kept alive by artificial methods (the park supplies food in the Winter).

These problems can be put down to the fact that the park is trying as hard as possible to attract national and foreign tourists, in order to finance itself; it has serious financial problems, as the state does not have sufficient funds to make the contribution it is supposed to. The park meets 50% of its own funding. Its annual budget is apparently close to 4 billion Belarus roubles (1 dollar = 11 500 Belarus roubles). The park authorities consider it acceptable for foreign tourists to hunt species which are considered to be excessive in number (e.g. bison), as otherwise they would have to pay the park wardens to do this anyway. As the life-span of a bison is generally 25 years, they consider it more profitable to allow bison approaching this age to be hunted; this is scientifically monitored, in accordance with the management plan for the next twenty years. Furthermore, the right to kill an animal is only granted if sufficient justification is provided (projects are discussed by the Academy of Science in Minsk), and there is strict monitoring of animal populations. Also, all visitors seem to be systematically in groups or accompanied. It would seem impossible for unsupervised visitors to enter the park, because of the checkpoints located around the park.

8 Regarding contacts with Poland, a border, marked by barriers, has existed between the Bialowieza park and the Belovezhskaya Pushcha since 1980, which makes contact between the animal populations impossible.

It would be possible to award the Diploma, in Category A, to the Belovezhskaya Pushcha, subject to the essential condition that all kinds of human intervention (with the exception of activities carried out for scientific purposes) continue to be prohibited in the central part, whose area must not be reduced. The **recommendations** made by the expert must also be taken into consideration, in an effort to fulfil the following objectives:

- increase in numbers of scientific personnel and tourist guides;
- gradual increase in equipment;
- improved educational facilities for tourists and arrangements for managing tourism;
- introducing management plans, in the nature management zone, for certain species (ungulates, bison, wolves) in order to promote natural regulation of the species, without "artificial" feeding in Winter;
- the preparation of recovery plans for certain threatened species;

- developing the exchange of experience between scientists of the Belovezhskaya Pushcha nature park and the Bialowieza park in Poland, with mutual co-operation and consultation so that, in the long term, the scientific unity of the whole area can be re-established.

The Secretariat has drawn up a draft Resolution which can be found in the Appendix.

APPENDIX

DRAFT RESOLUTION (97) ...

ON THE AWARD OF THE EUROPEAN DIPLOMA TO THE BELOVEZHSKAYA PUSHCHA NATIONAL PARK (Republic of Belarus)

The Committee of Ministers, under the terms of Article 15.a of the Statute of the Council of Europe,

Having regard to Resolution (65) 6 instituting the European Diploma;

Having regard to the proposals of the Bureau of the Committee for the Activities of the Council of Europe in the Field of Biological and Landscape Diversity (BU-DBP);

Having recorded the agreement of the Government of the Republic of Belarus;

After deliberation;

Solemnly awards the European Diploma, Category ..., to the Belovezhskaya Pushcha National Park in accordance with the regulations for the European Diploma (Resolution (91) 16);

Places the aforesaid protected area under the patronage of the Council of Europe until 2002.

Attaches the following conditions to the award:

1. *Herbivore management plan*

A herbivore management plan must be drawn up within three years.

2. *Public use plan*

A strategic plan for public use of the park must be drawn up within three years, *inter alia* defining the objectives pursued, the principles and criteria underlying the development of the area and the types of activities permitted in the park.

3. *Central zone*

The present size of the central areas must be maintained, as must the prohibition of any human intervention other than for reasons of scientific research.

Attaches the following recommendations to the award:

1. *Resource management*

1.1 A plan for the re-establishment of *Xyripedium calceolus* and *Astrantia major* should be drawn up and introduced, and the research started into the state of conservation of plants should be continued;

1.2 A start should be made on necessary research into the effects of fishing and of the restocking of the park's watercourses and lakes on the indigenous aquatic populations, so as to determine criteria for the management of these resources.

2. *Science and research*

2.1 Ongoing monitoring of the forest communities should be continued and, if necessary, corrective action be taken in respect of the practical management of natural resources;

2.2 Knowledge of the biology of the bison should be improved so that the populations are properly conserved and managed;

2.3 Studies of the insect species represented should be started and their conservation status determined.

3. *Public use*

3.1 The necessary spaces and conditions should be provided to enable visitors to explore the park on their own;

3.2 The visitors' centre should be maintained and given educational and recreational roles consistent with the objectives of conserving biological and landscape diversity.

4. *Administration and financial resources*

4.1 The contribution allotted by the administration to the park's budget should be maintained and increased to enable the park to achieve the objectives set for it;

4.2 A plan should be drawn up covering possible additional short and medium-term financial resources;

4.3 As far as possible, the number of guides should be increased and the scientific team strengthened.

5. *Zoning*

5.1 Ecological corridors between the central areas should be created.

6. *Co-operation with the Polish authorities*

6.1 A forum for discussions between the Republic of Belarus and Poland should be set up in order to co-ordinate research activities and to study the scope for moving towards the introduction of very close co-operation on ecosystem management [inter alia, it would be desirable to consider the scope for removing the fences preventing the free movement of large mammals in the wooded massif of Belovezhskaya Pushcha (Belarus) and Bialowieza (Poland)].

СХЕМА

ГОСУДАРСТВЕННОГО
ЗАПОВЕДНО-ОХОТНИЧЬЕГО ХОЗЯЙСТВА
"БЕЛОВЕЖСКАЯ ПУЩА"

Устройство 1971-1972 гг.

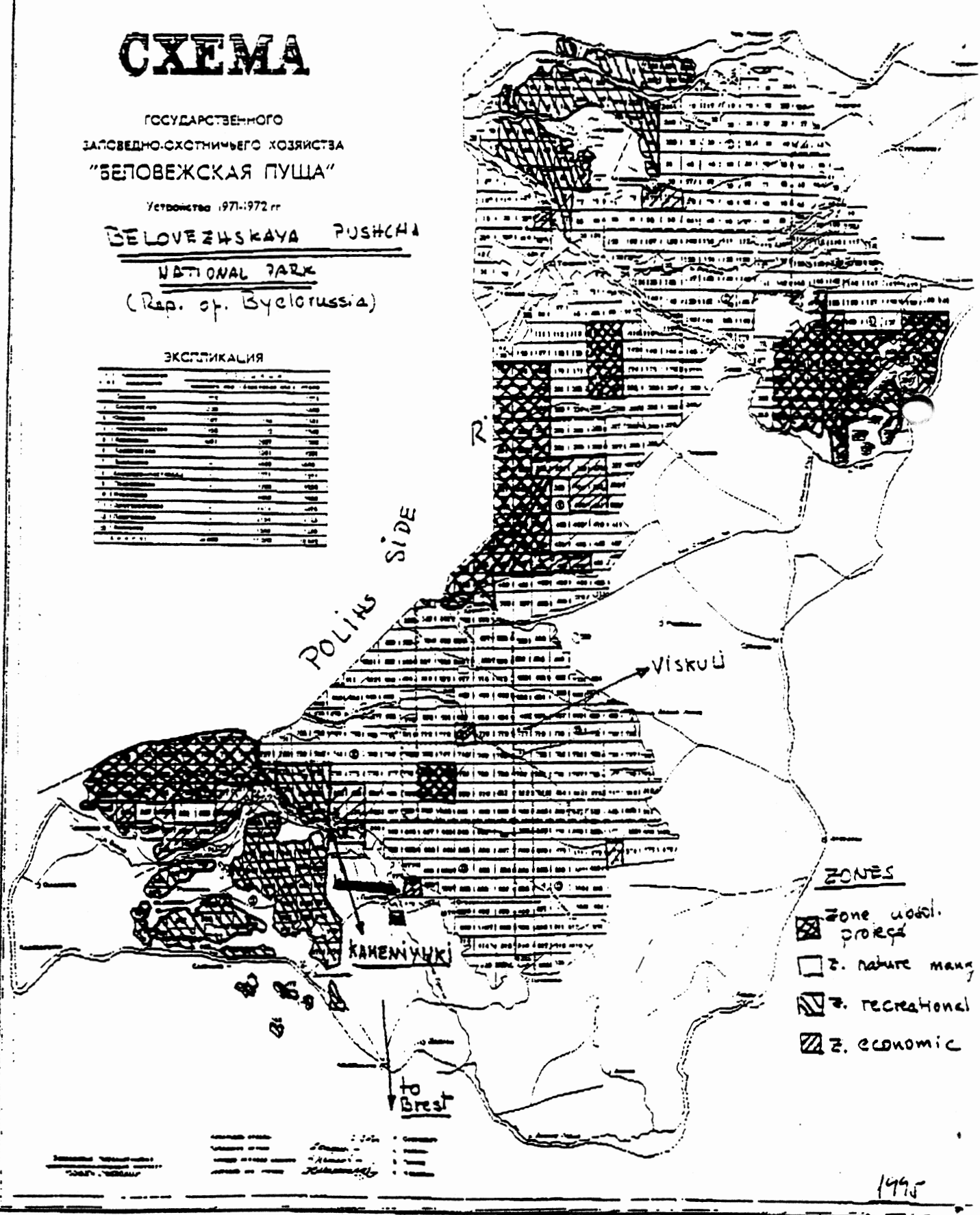
BELOVEZHSKAYA PUSHCHA

NATIONAL PARK

(Rep. of. Byelorussia)

ЭКСПЛИКАЦИЯ

№	Обозначение	Содержание
1	Зона общ. пользования	Зона общ. пользования
2	Зона природного назначения	Зона природного назначения
3	Зона рекреационная	Зона рекреационная
4	Зона экономическая	Зона экономическая
5	Городские территории	Городские территории
6	Территория заповедника	Территория заповедника
7	Территория охотничьего хозяйства	Территория охотничьего хозяйства
8	Территория водоемов	Территория водоемов
9	Территория населенных пунктов	Территория населенных пунктов
10	Территория государственных учреждений	Территория государственных учреждений
11	Территория государственных предприятий	Территория государственных предприятий
12	Территория государственных организаций	Территория государственных организаций
13	Территория государственных учреждений культуры	Территория государственных учреждений культуры
14	Территория государственных учреждений образования	Территория государственных учреждений образования
15	Территория государственных учреждений здравоохранения	Территория государственных учреждений здравоохранения
16	Территория государственных учреждений науки	Территория государственных учреждений науки
17	Территория государственных учреждений культуры, искусства и спорта	Территория государственных учреждений культуры, искусства и спорта
18	Территория государственных учреждений образования, науки и культуры	Территория государственных учреждений образования, науки и культуры
19	Территория государственных учреждений культуры, искусства и спорта	Территория государственных учреждений культуры, искусства и спорта
20	Территория государственных учреждений образования, науки и культуры	Территория государственных учреждений образования, науки и культуры



ZONES

- ☒ Zone of genl. usage
- ▨ z. nature mang.
- ▧ z. recreational
- ▩ z. economic

Государственный заповедник
Учреждение культуры
Учреждение образования
Учреждение здравоохранения
Учреждение науки
Учреждение культуры, искусства и спорта
Учреждение образования, науки и культуры

1975