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EUROPEAN COMMITTEE FOR THE CONSERVATION OF
NATURE AND NATURAL RESOURCES

Select Committee of Experts - European Diploma
Hautes Fagnes Nature Reserve
(Belgium)

On-the-spot appraisal
by
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1. Introduction.

The European Diploma for Nature Reserves (category A) was awarded to the Hautes Fagnes Nature Reserve in 1966 and has been renewed for successive periods of five years in 1971 and 1976. The Diploma was awarded for the reserve's international significance as a characteristic peat bog landscape. The renewal of the Diploma in 1971 and 1976 was based on the results of on-the-spot appraisals carried out by Prof. Dr. M.F. Mörzer Bruyns. These results were published in documents CE/Nat (71) 16 revised, and CE/Nat/DE (76) 17.

In order to consider a further renewal of the Diploma in 1981 the Secretary General asked me to carry out an on-the-spot appraisal of the Hautes Fagnes Nature Reserve.

The terms of reference for this expertise were:

- Study the present state of the site and thus ascertain whether the site improved, deteriorated or remained the same since the date the Diploma was awarded or since the date of the last renewal;
- Analyse the state of conservation of the flora, fauna and landscape (progression and regression of species);
- Study the impact of the public on the flora, fauna and landscape and make proposals for improving the situation;
- Examine alterations (material or legislative) already completed or in progress.

The visit for the on-the-spot appraisal took place on 23 and 24 August 1979. I/accompanied by Dr. P. Baum of the Environment and Natural Resources Division of the Council of Europe. Ing. M. Segers accompanied us as a representative of the Belgian "Administration des Eaux et Forêts" in Brussels. The two days were spent on excursions to the most important sites of the reserve. These excursions were organized and guided by the Forestry engineers Ing. Zorn, Ing. Colleau and Ing. Rogman. During both days I had full opportunity to discuss the various problems and topes with management authorities and reserve wardens.

Although I did not know the reserve from previous visits and therefore was not able to compare the present situation <u>directly</u> with that in 1975, I have got a fairly complete picture of the state of the site.

My conclusions and recommendations, based on my field impressions and on the received written and oral information about the reserve, are given in the last chapter of this report. In the next chapters I will give some facts about the present situation.

2. Conservation status of the reserve

2.1. Increase of area

In 1977 the total area of the Hautes Fagnes Nature Reserve was 4.180 hectares, of which 3.910 were state owned and 270 hectares rented from local communities. Together with 110 hectares leased by the "Amis de la Fagne" the total protected area amounts to 4.290 hectares. This means that since the creation of the reserve in 1957 there has, up to 1977, been an average annual enlargement of 137 hectares.

In 1978 the state has acquired an area of about 8 hectares to the south of the Mont Rigi Scientific Centre, with the aim to create a nature reserve for educational purposes. Different small plots of private land are still to be purchased (+ 16 hectares).

2.2. Laws and Regulations

- a. "Règlement relatif a la surveillance, la police et la circulation dans les réserves naturelles domaniales, en dehors des chemins ouverts a la circulation publique."

 This "règlement" was set in force by the "Arreté ministériel" of 23 October 1975, published in the Moniteur Belge of 31-12-1975.

 It regulates the public access to all state nature reserves in Belgium, and is therefore of importance to the Hautes Fagnes Nature Reserve.
- b. "Parc Naturel Hautes Fagnes Eifel".

 In February 1979 the Belgian Government published their decision of provisional approvement of the plan and regulations for a National Nature Park Hautes Fagnes Eifel. This National Nature Park is the Belgian part of the German-Belgian Nature Park Hautes Fagnes-Eifel. This official decision is important as it gives extra protection to the Hautes Fagnes Nature Reserve and its sursoundings.

3. Conservation of flora and vegetation.

The characteristic vegetation types of the Hautes Fagnes, as known from different publications and reports, are in my opinion well preserved in the reserve. According to my information there are no important negative developments. Locally appearing problems such as progressive recolonization by ligneous species and damage to the vegetation by trampling are dealt with in a satisfactory manner by the management authorities (seechapter 6). A decrease of Arnica montana in the reserve has been reported.

Although this has already been done in other reports, I would like to mention again specially the botanically very important north-castern parts of the reserve with their typical and geomorphologically interesting Pingo's (Allgemeine Venn, Brackvenn and Torfmoor), as well as the impressive area of living raised peat bog in the Fagne Wallonne.

4. Conservation of fauna.

In spite of growing public pressure in the reserve and surrounding forests (walkers), numbers of large mammals have been maintained. I have seen no evidence of too high densities of red deer and roe deer in the reserve. Wild boar live only temporarily, but in rather large numbers, within the boundaries of the reserve. Foxes are present, but not in large numbers.

During the last years no important progression or regression of bird species is reported. Numbers of black grouse (Lyrurus tetrix) are locally slightly increasing, while decreasing in other parts of the reserve. The breeding population of the goshawk (Accipiter gentilis) seems to have increased somewhat. Among the owls the presence of still a few pairs of Tengmalm's owl (Aegolius funereus) should be mentioned here.

Recent data about small mammals, herpetofauna and invertebrates of the reserve were not available.

5. Conservation of the landscape

An important feature of the Hautes Fagnes Nature Reserve are the large open fagnes areas. These mostly sloping open spaces, surrounded

by forests, form the characteristic scenic beauty of the reserve. Spontaneous tree growth in some of these open areas is not only undesirable from a botanical point of view, but also alters the visual character of the landscape. Treegrowth is therefore controlled by elimination of trees (see under 6.3.).

6. Management

6.1. Prevention of fire

As already stressed in various publication and reports, fires are probably the most serious threat to the reserve. Prevention of fires is therefore one of the most important management measures. As a result of the perfectly organized fire prevention management, there have been no serious fires since the last appraisal in 1975. Only one fire in 1978 was recorded, which was very quickly brought under control and only affected an area of 0.25 ha.

Important measures to prevent and fight fires are:

- Information to the public concerning the dangers of fire (very instructive leaflets are given out in four languages; notice boards at entrances, car parks and picnic places).
- Closing of the reserve to the public during dangerous periods.
- Watch towers and a well organized survey system, operating with mobilophones.
- A well managed (regularly mowed) system of fire breaks.
- Extension and maintenance of a system of access roads for the fire brigades. These roads are closed for private vehicles.

 (During our visit we were shown the very interesting way of constructing roads through the peaty area. Construction is done the same way as the Romans did: a foundation of cross- and lengthwise spruce trunks laid in an excavation and on top of that a pavement of rock and loamy soil.)
- Use of a pair of specially designed light tracked vehicles, equipped with water tanks and fire engines. These vehicles are of great importance because they are able to move fast over all sorts of fagne-vegetation, so that a beginning fire can be reached in time. The very broad caterpillars of these vehicles result in relatively

little pressure on the vegetation and so cause almost no damage of any importance.

- Close cooperation with fire brigades of neighbouring municipalities.

6.2. Hydrology

To eliminate the effects of the drainage system, made long ago for afforestation purposes, construction and maintenance of small dams is continued. At this moment excessive run-off of water is controlled quite well, to the effect that the original hydrology of different drained fagne-areas might in future restore itself. The water, held back in the dammed canals is also useful for the fire brigades.

6.3. Vegetation

The management of the vegetation of the reserve deals with:

- Elimination of spruce and other trees in parts of the reserve. The clearing is completed in Clefay and the Fagne Wallonne and continues in other parts of the reserve, especially the Brackvenn area.
- Regular mowing of the fire breaks around the fagnes-areas.
- Mowing of the vegetation in some selected places is carried out to maintain certain typical vegetation types and for creating mating areas for black grouse.

6.4. Fauna

Apart from mowing to create mating areas for grouse, and restriction of public access, no active management measures concerning the fauna are taken inside the reserve. Hunting and netting have been prohibited for about 15 years.

6.5. Staff and budget

The Hautes Fagnes Nature Reserve is managed and guarded in different parts by staff of different "cantonnements" of the Forestry Service.

The permanent management and supervision of the reserve is carried out by 5 engineers (each giving one-fifth of their time) and 15 forest wardens (each giving one-third of their time). During weekends and

fire-risk periods and when additional supervision is required, extra staff and sometimes voluntary helpers are put in. Recently the wardens have been equipped with three light-weight vans, fitted with radio. These vans have already proved to be very useful, especially in periods with many visitors.

During the period of 1967 - 1976 the total sum of about 18,5 million Belgian Francs was spent on management projects and maintenance of the Hautes Fagnes Nature Reserve (without costs of staff). The total annual budget (included costs of staff) amounts at the moment to between 5,5 and 6 million Belgian Francs.

6.6. Management measures dealing with the public.

One of the most difficult aspects of conservation management is management in relation to activities of the public. In the Hautes Fagnes Nature Reserve the main aim is to guide the public to places which are not vulnerable and to keep them on certain carefully selected paths and fire breaks. In this way damage to the reserve is avoided as much as possible.

The different measures taken to prevent damage being done to the reserve by visitors (listed in document CE/Nat/DE (76) 17) have not essentially changed since 1975. In all, the effect of these measures is very positive and as far as I could judge no significant deterioration has set in since the last appraisal in 1975. I have the impression that the different measures are carried out very well and in good coordination.

Some more specific information about certain aspects should, however, be given here:

- There was a further increase in the number of visitors, which was in 1978 estimated to be between 300.000 and 500.000.
- Traffic discipline is not always as it should be. Ignorance of the regulations to keep to signposted tracks is frequently reported, with the result that new paths are made, sometimes across the very sensitive peat vegetation. One special case should be mentioned here. On the official map of the reserve one track, indicated as "Piste A" in the Fagne Wallonne, is closed to the public because it borders

the untouched and vulnerable area of raised peat bog. However,

of scientific research contribute often to the conservation and management of the reserve.

Although the access rules of the reserve are also followed by research-workers, special permits are provided sometimes.

At this moment a little, white painted metereological station is located on top of the raised peat bog of the Fagne Wallonne. This white spot can be seen from all directions and is attracting visitors on to the very important and vulnerable peat vegetation. In my opinion, putting research equipment in such conspicuous places should be avoided (see Conclusions).

8. Conclusions and recommandations

During my on-the-spot investigation of the Hautes Fagnes Nature Reserve, I came to the conclusion:

- that the reserve is still of international significance as a characteristic peat bog landscape;
- that the present situation of the reserve is good and has in some respects even improved since the last renewal;
- that the conservation and management are of a high standard, that the management authorities aim at further improvement and are mainly coping well with problems of increasing numbers of visitors.

I therefore propose a <u>renewal</u> of the validity of the European Diploma (category A) for the Hautes Fagnes Nature Reserve.

The present situation leads me to the following recommendations, which I want to put forward in connexion with this proposal:

1. I recommend that the track crossing the Fagne Wallone (Piste A on the I.G.N. map) be either closed more efficiently or be opened to

the public again, but than provided with duckboards so that trampling of the peat vegetation is minimized. In case of reopening, as little as possible public attention should be drawn to this track because it borders on very vulnerable untouched raised peat bog.

- 2. The little weather station on the Fagne Wallonne, attracting visitors on to the raised peat bog, should be moved, because any possibility of damage to this untouched peat area should be avoided.
- 3. Doubling or widening of the duckboarded tracks, as envisaged for some frequented places, should be kept at a minimum, because wider duckboards attract even more visitors and therefore are likely to create problems instead of solving them.
- 4. The notice boards, placed at different entrances to the reserve, do not have any information on the European Diploma. By adding this information, which I suggest, visitors could be made aware of the international importance of the reserve. This might help to reduce ignorence of the rules somewhat.