

**A SYSTEM OF CROSS-BORDER
PROTECTED AREAS (TOCh)
WITH LEADING TOURIST FUNCTION
IN THE EASTERN BORDER REGION
OF POLAND**

AN OUTLINE OF THE IDEA



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CONCEPT AND DEVELOPMENT OF TOURISM IN TOCH AREAS

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I. INTRODUCTION

The areas adjacent to Poland's eastern border – the so-called "eastern wall" – have for many years been underinvested-in, and have suffered from depopulation. This has been a consequence of their remoteness from economic centre and of the almost total lack of cross-border traffic and local cross-border trade until 1989. Although it has had an obvious negative impact on the economy, this situation (lasting for over 45 years), has contributed to the retention of numerous relatively little-modified areas of high natural and landscape value, in sparsely-populated border regions devoid of industry and visited by tourists only rarely because of security factors (access was further hindered by strict rules relating to stays and travel within the border zone). Similar areas have been retained on the other side of the border, in the states which emerged after the disintegration of the USSR (where until recently the border rules were even more rigorous). A considerable portion of these areas on both sides of the border have lacked proper protection up to now.

The change in the political situation in 1989, and in particular the disintegration of the USSR in 1991, encouraged a spontaneous and explosive development in the traffic of people and goods at the ever increasing number of border crossings. Extensive areas around border crossings, and along routes leading to them, are undergoing a systematic and rapid degradation which poses a serious threat to nature. It is therefore essential that the most valuable border areas should be brought under legal protection as quickly as possible. However, for this protection to be fully effective, it is necessary that similar steps be taken by our eastern neighbours, who are having to cope with similar problems.

Another aspect of the creation of a system of protected areas in the border regions is the possibility which arises for the highly valuable natural and landscape features in these regions to be utilized in the promotion of tourism. Currently, traffic at border crossings is dominated by citizens of the states of the former USSR and Poland, who tend not to be involved in tourism. However, it may be supposed that authentic tourists and citizens of western European states are going to constitute an ever greater part of this traffic. Many tourists in transit may be attracted if cross-border protected areas are managed appropriately, if infrastructure is developed (obviously with care taken to protect the most valuable natural features) and if advertizing is appropriate. In addition, enjoyment of the most valuable and attractive areas, such as the Romnicka, Augustowska, and Białowieska Forests (*Puszczas*) and the Bieszczady Mountains, could become the

main purpose of the visits of guests from home and abroad. The attractiveness of these areas would be enhanced considerably if it were possible for tourists to visit whole protected areas without needing to use distant border crossings. Fascinating possibilities would then open up. For example it would be possible to sail throughout the Vistula Lagoon, to canoe from Lake Wigry or the Augustów Lakes to the Neman River, or to take an uninterrupted hike along the whole chain of the eastern Carpathians from the Low Beskids, through the Bieszczady Mountains, up to Gorgany and Czarnohora. Excellent new perspectives for lovers of water sports would be opened up by the renovation of damaged canals in the border zone, such as the Mazury Canal joining the Great Mazurian Lakes with the Pregola River and the Vistula Lagoon, the part of the Augustów Canal joining the Czarna Hańcza and Nemen Rivers, and the Royal Canal joining the Bug and Pripyat Rivers. The opening up of passenger-tourist navigation along these routes would certainly create an attraction on the European scale. At the same time, staking the future on tourism would provide an opportunity for the economic development of border regions in Poland and neighbouring countries.

All those aspects are taken into consideration in the concept of **cross-border protected areas** (*transgraniczne obszary chronione* – **TOCh**) with leading tourist function, whose principles were laid down in 1992 in the Institute of Environmental Protection and in the Institute of Tourism, on the commission of the Ministry of Environmental Protection, Natural Resources and Forestry and the State Sports and Tourism Administration. In the first phase of preparation, data were collected on protected areas, valuable natural features and the tourist economy of border areas of eastern Poland, Kaliningrad District, south-western Lithuania, western Belarus, western Ukraine and north-eastern Slovakia. On the basis of these data, eight areas have been nominated as qualifying for protection as cross-border protected areas (TOCh), and a preliminary scheme has been produced. Laid down in this are the principles by which TOCh areas would function and by which tourism would develop in them.

The TOCh idea was presented at a conference called on the initiative of Poland and held in Brest (Belarus) in October 1992. Participants included representatives from the administrations, nature protection services and scientific institutions of Belarus, Lithuania, Kaliningrad District, Poland and Ukraine. In the final signed communique, participants approved the TOCh idea and took on the obligation to take steps to put it into practice (see Appendix).

TOCh areas could function perfectly well within the framework of the "Green Lungs of Poland": a functional area created in 1989 on the strength of an

agreement between the voivodes (leaders) of five voivodeships in north-eastern Poland. The TOCh concept also interplays with the recent proposal for a "Green Lungs of Europe", which assumes strict co-operation between Poland and its eastern neighbours in the fields of environmental protection and eco-development. This would be in accord with the so-called "Wigry Declaration" signed in April 1992 by representatives of Belarus, Lithuania, Latvia, Poland, Russia and Ukraine. It would also be in line with the thinking of guidelines drawn up at the Rio "Earth Summit" in June of last year. The creation of the TOCh system may become a concrete example of such co-operation between countries of east-central Europe and may encourage similar activities to be undertaken in other fields. This can also bear fruit through the creation of further Euro-regions, like the Carpathian Euro-region, which was created in February 1993 on the borders of Poland, Slovakia, Ukraine and Hungary.

II SYSTEMS OF PROTECTED NATURAL AREAS IN POLAND AND IN NEIGHBOURING COUNTRIES OF EAST-CENTRAL EUROPE.

Different legislation, legal regulations and traditions have given rise to a situation in which forms of nature protection now in force differ considerable between Poland and her eastern neighbours. It is therefore important to recall where these differences lie, before the creation of common protected areas begins.

The **extensive system of protected areas (WSOCh)** came into being in Poland in the 1970s and 1980s. The elements included within this are **National Parks** (*parki narodowe*), **Nature Reserves** (*rezerwaty przyrody*), **Landscape Parks** (*parki krajobrazowe*) and **Areas of Protected Landscape** (*obszary chronionego krajobrazu*). The system is augmented by **Areas of Ecological Use** (*użytki ekologiczne*) – a new form of nature protection introduced recently, and **Monuments of Nature** (*pomniki przyrody*) – which in our country are, as a rule, single objects such as impressive trees, erratics, single rocks or caves. Protected areas in Poland now cover more than 20% of the country.

The system of protected areas still in force in the countries of the former USSR is – in the main – that created in Soviet times. The main elements of this are: **Zapovedniks**, **National Parks** (*nacjonalnyje prirodnyje parki*), **Nature Reserves** (*Zakazniks*) and **Monuments of Nature** (*pamiatniki prirody*).

The Zapovednik is a form of nature protection which could be defined as an intermediate between our National Park and Strict Nature Reserve. *Zapovedniks* are usually extensive areas (corresponding in size to Polish National Parks rather

than Reserves). They have a strict protective regime (corresponding to that in force within our Strict Nature Reserves), and all economic activity is forbidden within them, as is tourism (unlike in Polish National Parks). Only scientific research may be conducted in these areas. Each *Zapovednik* has its own scientific station and its own administration.

The status of the **National Parks** of our eastern neighbours is considerably different to that of our own National Parks. In Poland, the main function of these areas is to protect and safeguard the areas of the country most valuable for nature. In contrast, in the former USSR National Parks were treated as protected areas, but principally as places for tourism and recreation, which allowed the masses to make contact with nature. Certainly, the tourist–recreational function (although obviously secured by certain restrictions) is as important there as the protective function. For this reason, the National Parks of our eastern neighbours could be defined as protected areas of a status intermediate between those of the Polish National Parks and Landscape Parks.

The **Nature Reserve** of the *Zakaznik* type in the states to the east of Poland is the form of nature protection corresponding most closely to the Polish Nature Reserve. *Zakazniks* are usually considerably bigger, however. Many types are distinguished in relation to their different protective aims. There is also a diverse range of protective regimes, though these are usually less strict than in Polish Nature Reserves.

Monuments of Nature in the countries of the former USSR are usually protected areas of defined size – mostly much smaller than nature reserves of the *Zakaznik* type. They, enjoy strict protection and may include protected objects of exceptional value, such as: woodland complexes and ranges, communities of impressive trees, parks, bogs, sites for rare plants, sites with erratics etc. They are thus quite different to the Polish notion of a Monument of Nature, which most often relates to a single object like a tree, erratic, rock or cave. Monuments of Nature in the former USSR can also be single impressive trees, erratics or rocks, but this is considerably rarer than in Poland.

Some of our eastern neighbours – notably Lithuania and Ukraine – have recently modified the old Russian system of protected areas and objects to a considerable degree. New forms of nature protection have also been introduced.

In **Lithuania**, for example, four new National Parks (*nacionalinis parkas*) were created in 1991. One of these had a historic profile. 19 **Regional Parks** (*regionalinis parkas*) were created throughout the country in 1992. In rank these correspond to Polish Landscape Parks, and, together with National Parks and the previously

existing *Zapovedniks* (*rezervatas*) and Nature Reserves (*draustinius*) these have become the basis for Lithuania's extensive system of protected areas.

Western Ukraine's project for an extensive system of protected areas was drawn up in 1992. Along with the *Zapovedniks*, National Parks and Nature Reserves already in existence, this system anticipates the creation of several tens of **Regional Landscape Parks** (*regionalnyje landsaftnyje parki*) in the nearest future.

The current system of protected areas in **Belarus** does not differ fundamentally from the old Russian system.

The system of protected areas is developed most poorly in **Kaliningrad District**, where there were no forms of nature protection at all, until recently. In 1987, a new National Park was established on the Kursiu Spit (Kursskaya Kosa), and several Nature Reserves were created. These Reserves were liquidated in 1992, but 7 new ones were created. It is planned that two of these will be transformed into protected areas of higher rank – the "Vislinskaya Kosa" (Vistula Spit) National Park and the Oziersky *Zapovednik*. The creation of a further National Park on the Semland Peninsula is also planned.

The system of protected areas created by Czechoslovakia in the 1970s and 1980s continues to exist in **Slovakia**. The elements of this are: **National Parks** (*narodne parky*), **Landscape Parks** (*chranene krajinne oblasti*) and **Nature Reserves** (*statne prirodne rezervace*). There are also various types of **Monuments of Nature** (*chranene naleziska* and *chranene prirodne vytvory*).

III. EXTENSIVE PROTECTED AREAS, AND AREAS VALUABLE FROM THE POINT OF VIEW OF NATURE, IN THE EASTERN BORDER AREA OF POLAND.

1. Eastern Poland

Elbląg Voivodeship. In the area along the border with Kaliningrad District there are two Landscape Parks: the "Mierzeja Wiślana" (Vistula Spit) L.P. and the "Wzniesienie Elbląskie" (Elbląg Heights) L.P., as well as the "Jezioro Druzno" (Lake Druzno) Nature Reserve. In addition, areas that are naturally valuable but as yet unprotected are situated in Żuławy – the projected Żuławski L.P., in the eastern part of the Elbląg Plateau and in the Górowskie Heights area (of which parts are in Olsztyn Voivodeship and Kaliningrad District).

Olsztyn Voivodeship. In the border area there is only one larger protected area – the "Jezioro Siedmiu Wysp" (Seven Islands Lake) Nature Reserve including Lake

Oświn. Fragments valuable for nature and landscape, but not yet protected, are border areas of the Górowskie Heights and the Łyna Valley below Sępólno.

Suwałki Voivodeship. This voivodeship is exceptionally rich in naturally-valuable areas with beautiful landscapes. Many of these lie close to the border. To date only the most valuable areas have been brought under protection – in Suwalski (Suwałki) Landscape Park and Wigierski (Lake Wigry) National Park. However, many other areas of considerable natural value lack stricter protection as yet. These include: the Lake Mamry complex (in the proposed North Mazury L.P.), Puszcza Borecka (the Borecka Forest), (a proposed Landscape Park), the Skalskie Forests, the Szeskie Hills, the Rospuda Valley, Puszcza Romnicka (the Romnicka Forest), Góry Sudawskie, the Sejny Lakeland, Puszcza Augustowska (the Augustów Forest) and the Upper Biebrza Valley. All these areas qualify for inclusion in Landscape Parks at least.

Białystok Voivodeship. Białowiecki National Park (also a Biosphere Reserve) lies directly adjacent to the eastern border. It is proposed that this be extended considerably, so as to include the whole Polish part of Puszcza Białowiecka (the Białowieża Forest). Slightly more distant from the border is the Puszcza Knyszyńska (Knyszyńska Forest) Landscape Park. Areas valuable in terms of nature and landscape, but not so far enjoying stricter protection, are the border valley of the River Świsłocz and the Bug River Gorge, adjacent to the border.

Biała Podlaska Voivodeship. A naturally valuable area here is the border valley on the Bug River, which is worthy of inclusion in an area with some higher form of protection. It is currently included in the Area of Protected Landscape. Another interesting area, contiguous with the protected areas in Polesie Lubelskie, is the northern part of the Parczew Forests.

Chełm Voivodeship. Lying in the north-eastern part of the voivodeship is the complex of protected areas consisting of Poleski (Polesie) National Park, Poleski Landscape Park (and contiguous "Łączna Lakeland" Landscape Park in Lublin Voivodeship), Sobiborski (Sobibór) Landscape Park, Chełmski (Chełm) Landscape Park, and the "Bagno Bubnów" (Bubnów Marsh) Nature Reserve. In the south of the voivodeship, on the border with the voivodeship of Zamość, is Strzelecki L.P. Not enjoying stricter protection is the border valley of the Bug River, which is valuable from the point of view of nature.

Zamość Voivodeship. A complex of protected areas embraces the Roztocze area and Puszcza Solska (the Solska Forest). This is made of Roztoczański (Roztocze) National Park, Szczepreszyński (Szczepreszyn) Landscape Park, Krasnobrodzki (Krasnobród) Landscape Park, Południoworoztoczański (South Roztocze)

Landscape Park and the Puszcza Solska (Solska Forest) Landscape Park. The last two Parks are on the border with the voivodeship of Przemyśl). A naturally-valuable border fragment of the Bug Valley remains unprotected.

Przemyśl Voivodeship. Apart from the Solska Forest and South Roztocze Landscape Parks (on the border with the Zamość voivodeship), several other areas that are exceptionally valuable for nature are also under protection. These are in the Pogórze Przemyskie (Przemyśl foothills) Landscape Park by the border (it is proposed that a National Park be created in the most interesting part).

Krosno Voivodeship. Under protection here are naturally-valuable border areas within the chains of the Carpathian mountains and foothills. There are the Bieszczadzki (Bieszczady Mountains), and proposed Magurski, National Parks (the latter including the Low Beskids), and the "Góry Słonne", Jaśliski, "Dolina Sanu" and Cisna-Wetlina Landscape Parks. The last two would be included in the proposed "Wschodnie Karpaty" (Eastern Carpathian) International Biosphere Reserve.

2. Kaliningrad District (Russia)

In the region of the border with Poland there are three Nature Reserves: "Vislinskayja Kosa" – which includes the northern part of the Vistula Spit (and of which recategorization as a National Park has been proposed), "Balga" – on the shore of the Vistula Lagoon, and "Zehlau Bruch" – which embraces a raised bog in forests south of the middle Pregola River (and of which recategorization as a Zapovednik is planned). In addition, there are two Areas of Protected Landscape: "Oziero Vištyńskie" (Lake Vištytis) – lying where the borders of Kaliningrad District, Lithuania and Poland meet; and "Rieka Krasnaja" (Błędzianka) in Puszcza Romnicka (the Romnicka Forest). Remaining unprotected are fragments in the border areas which are valuable from the landscape point of view – the valleys of the Łyna and Węgorapa Rivers, the northern part of the Górowskie Heights, forests along the middle Pregola River, and the northern part of Puszcza Romnicka (the Romnicka Forest) – which is very interesting in terms of nature.

3. South-Western Lithuania

Close to the border with Poland are the "Vištytis", "Meteliai" and "Veisiejai" Regional Parks, as well as the "Žuvintas" Zapovednik. Slightly more distant, beyond the Neman River and close to the border with Belarus, are "Dzukija" National

Park, the "Čepkeliai" *Zapovednik* and the large "Ula" Nature Reserve. So far unprotected is the naturally valuable north-eastern fragment of Puszcza Augustowska (the Augustów Forest) where the borders of Lithuania, Poland and Belarus meet; the fragment of the Neman Valley adjacent to it and the lakeland near the town of Veisiejai.

4. Western Belarus

Grodno District. Where the borders of Belarus, Poland and Lithuania meet (in the south-eastern part of the Augustów Forest, Puszcza Augustowska) there is the large Sopockin Reserve. Lying rather further to the east are the "Hožskij", "Poriečskij" and "Oziery" Nature Reserves. Near the border with Poland there is the "Bielowiežskaya Pušča" National Park, of which the larger part is situated in Brest District. Still unprotected are the valleys of the Neman and the Swisłocz (the border river with Poland), which are valuable from the natural point of view.

Brest District. The "Bielowiežskaya Pušča" National Park lies near the border with Poland. It is planned that this should be recognized as a Biosphere Reserve along with the Polish part of the forest, and the neighbouring "Dikoye" Reserve. The "Sieliachy" Nature Reserve is situated where the borders of Belarus, Poland and Ukraine meet. Still unprotected, and interesting, are the border valley of the Bug River and the large marshy areas of Western Polesie.

5. Western Ukraine.

Folyn District. Where the borders of Ukraine, Belarus and Poland meet there is the Šatsk National Park. It is planned that four Regional Landscape Parks should be created in the eastern part of the District, near the borders with Belarus and Poland. These will be the Ratnovskij, Liubomelskij, Lukivskij and Pribuzhskij Parks.

Lvov District. Near the border with Poland there are – along the Bug River: the "Fedoivka" and "Vielikij Lis" Nature Reserves, in Roztocze: the Roztocze *Zapovednik* and the Zavadijskij and "Griada" Nature Reserves, in the Pogórze (foothill) region: the "Vierchno-Dnistrowski Beskidy" and "Rozłucz" Nature Reserves, and in the eastern Bieszczady Mountains: the Libochorskij and "Pikuj" Nature Reserves. It is planned that extensive new protected areas be created in these regions: "Roztocze" National Park – in Roztocze and "Skolivski Beskidy" National Park in the eastern part of the Beskid Mountains. Regional Parks will also be created: Fedorivskij (along the Bug River), Potielickij and Niemirivskij in

Roztocze, Mizenickij and "Vierchno-Dnistrovski Beskidy" in Pogórze and the Orivskij Park in the Beskids.

Zakarpatskij District. The "Stužica" *Zapoviednik* lies in the area where the borders of Ukraine, Poland and Slovakia meet. It constitutes a part of the Carpathian (Karpatsky) *Zapoviednik*. It is planned that this should be enlarged considerably and included within the proposed International Biosphere Reserve of the Eastern Carpathians. The "Sokolovy Skieli" Nature Reserve lies in the eastern Bieszczady Mountains. It is planned that two Regional Landscape Parks should be created near the border with Slovakia. These will be the Pieriećinskij and Polianskij Parks.

6. North-eastern Slovakia

The "Vychodne Karpaty" Landscape Park runs along the border with Poland to the point where the frontiers of Slovakia, Poland and Ukraine meet. Part of this is going to be included within the proposed Eastern Carpathian International Biosphere Reserve. The "Vihorlat" Landscape Park lies somewhat further south, near the border with Ukraine.

IV. A SCHEME FOR THE SYSTEM OF CROSS-BORDER PROTECTED AREAS (TOCh)

1. The main aims of the scheme:

1. The protection of those areas in Poland's eastern border region that are most valuable for nature and landscape.
2. The intensification of co-operation between Poland and her eastern neighbours in the spheres of environmental protection and tourism.
3. The development of tourism in border areas, and thus the furnishing of an opportunity for the voivodeships and gminas (provinces and civil parishes) of the "eastern wall", and the border regions of neighbouring countries, to emerge from economic stagnation.

2. The main principles of the scheme:

1. The creation, with neighbouring countries along Poland's eastern border (Kaliningrad District, Lithuania, Belarus, Ukraine and Slovakia), of cross-border

protected areas at sites selected as the most valuable in terms of nature and landscape. Within these areas there can and should be protected areas that exist already: National Parks, Landscape Parks, Nature Reserves, *Zapovedniks* and *Zakazniks* as well as other areas valuable for nature that are not yet protected.

2. The drawing up, in the neighbouring countries, of common regulations for the protection of nature and the principles of tourist traffic, to be in force within cross-border protected areas, and to therefore allow for the possibility of visits to some areas lying either side of the border, (e.g. on the basis of a zone under a tourist convention or through the organization of special border crossings for tourists).

3. The designation of special zones with a leading tourist function around, at the edges of, and within, these areas, (in co-operation with the authorities of neighbouring countries), and the construction or enhancement of infrastructure in these areas, whilst taking due care of valuable natural features.

4. The joint organization of tourism in these areas (guides, specialist groups, eco-tourism) as well as their advertisement and promotion (e.g. through the preparation of brochures, tourist maps, books, press advertisements and offers for travel agencies).

3. A proposal as to the principles of functioning and status of Cross-border Protected Areas (TOCh)

1. Cross-border Protected Areas (TOCh) are to be ecological corridors joining Poland's extensive system of Protected Areas (WSOCh) with the systems of protected areas of our eastern neighbours. These areas should have a status similar to that of Polish Landscape Parks, or groups of Landscape Parks. Independently of the international status of the protected area, individual parts of a given TOCh should be under the protection of a given state, in a form typical of that state, e.g. as Landscape Parks, Nature Reserves, *Zakazniks*, *Zapovedniks* etc.

2. The parts of a TOCh on the territories of each of the neighbouring countries should be made up of designated **functional areas**. For Polish parts the most appropriate form would seem to be a union of gminas (civil parishes). Such gminas making up TOCh should acquire the status of **ecological gminas**.

3. In the course of drawing up spatial management plans, it is necessary that several zones of different status be distinguished within TOCh. This is already the case, for example, in the National Parks of Lithuania, Belarus and Ukraine as well as in Biosphere Reserves. There should be:

- a) **a zone of strict protection** – including the areas most valuable for nature: Strict Reserves and National Parks, or parts of same. There should be a complete ban on economic activity in these areas, and only tourism of a specialist nature should be permitted: hikes along designated scientific or didactic trails, guided groups of specialists and visits by individual tourists–naturalists (who have obtained suitable permit–passes).
- b) **a zone of landscape protection** – including the areas most valuable in terms of landscape. Forestry management should be permitted in these areas, along with traditional forms of management (agricultural production without fertilizers, health foods, beekeeping etc.). This zone would be earmarked for qualified tourism: on foot, by water, by bicycle and on skis, as well as for more sedentary forms based on stays in guest houses or private accommodation.
- c) **recreational and economic zone** – including the edges of the areas most valuable in terms of nature and the landscape, as well as some settlement enclaves in the interior. Various forms of economic activity would be permitted here, as long as they were in accord with the principles of eco–development (harmonious co–existence between human activities and the functioning of nature). Industry and intensive agriculture would be excluded. Sedentary forms of tourism would develop in this zone above all: with small hotels and rest homes, centre for tourist services and information, places for the rental of tourist equipment.

4. The appropriate realization of the protective aims of individual TOCh areas should be overseen by International Boards for the TOCh. These should be made up of scientists from the neighbouring countries who know the area and its problems very well, directors of smaller autonomous protected areas (e.g National and Landscape Parks, and *Zapovedniks*) which exist within TOCh, and representatives of the local governments responsible for the protection of the environment.

5. In order to meet the assumption that tourism in TOCh areas is to be one of the economic bases sustaining the local population, it would be useful if special tourist bureau–agencies could be created to deal with the organization, promotion and

advertizing of eco-tourism in areas of TOCh on both sides of the border. Amongst other things, these would deal with hotel bookings; the organization of the rental of private accommodation; the development of a network of guest houses and centre for the hire of tourist equipment; the organization of services for specialist groups; the training of guides; the publication of brochures, maps, guidebooks and other materials; the appropriate exposition of the region's greatest natural and landscape attractions – which could attract foreign tourists; and the propagation of the ideas of eco-development and eco-tourism among the local population. Whilst regulating the scale of tourist traffic within TOCh, these agencies would ensure that the number of tourist staying in a given place at a given time did not exceed the maximum premissible number. The income from these bureau-agencies would augment the finances of the union of gminas making up the TOCh areas.

4. The most important problems associated with the establishment of TOCh.

1. Differences in legal regulations concerning the protection of nature, between Poland and its eastern neighbours.
2. Different forms and systems of protected areas in individual countries, as well as different principles by which they function.
3. Difference in the system of administrative divisions, in the legal status of individual administrative units and in the rights of local governments.
4. The problem of border crossings within TOCh and the principles by which they would function, as well as international tourist traffic in these areas.
5. A problem with acceptance by the local population and local government, of the idea of TOCh, and of the principles by which they function (eco-development, eco-tourism).
6. The threats to the valuable natural features of cross-border areas posed by mass traffic in transit, uncontrolled tourist traffic and contamination of waters and air.

5. Cross-border Protected Areas (TOCh) that have been designated preliminarily in the eastern border region of Poland. (Map No. 1)

I. The "Zalew Wiślany" (Vistula Lagoon) TOCh. (Map No. 2). Located on the border of Poland and the Kaliningrad District, this area will include the Vistula Spit – of which the Polish part is at present a Landscape Park, while the Russian part is a Nature Reserve (recategorization as a National Park is planned) – as well as almost the whole of the Vistula Lagoon and its western edges, where the "Elbląg Elevation" Landscape Park is found in the Polish part and the "Balga" Reserve "Zakaznik" in the Russian part.

This area has exceptionally favourable conditions for the development of sailing tourism in summer and ice-boating in winter: a large marine basin sheltered from the sea, the proximity of the urban agglomerations of "The Triple City" (Gdańsk–Gdynia–Sopot), Elbląg and Kaliningrad and a large number of German tourists. There are ideal conditions for the sedentary tourism associated with sunbathing and sea bathing. Almost devoid of people, the Vistula Spit is just ideal for nature tourism. Furthermore, the landward shore of the Vistula Lagoon is characterized by outstandingly valuable landscape as well as by the presence of valuable groupings of historic buildings (in Frombork, Elbląg, Braniewo, Balga and Baltijsk).

II. The Suwalsko–Wisztyniecki (Suwałki–Vyštytis) TOCh (Map No. 3). This area lies on the borders of three countries: Poland, Russia (Kaliningrad District) and Lithuania. On the Polish side it would embrace: the southern part of Puszcza Romnicka (the Romnicka Forest) where the creation of a Landscape Park is planned (under a scheme of the Institute of Environmental Protection), as well as Suwałki Landscape Park, of which the considerable expansion is planned to include areas lying close to the border around Wiżajny. On the Russian side, this TOCh would embrace the northern part of Puszcza Romnicka with two areas enjoying landscape protection: the valley of the Krasnaya (Błędzianka) River and Lake Vištytis, situated on the border with Lithuania. On the Lithuanian side, this area would include the Vištytis Regional Park, which is situated to the east of lake Vištytis by the border with Poland and Kaliningrad District, as well as the proposed "Aista" Hydrological Reserve.

The Romnicka Forest area is of outstanding natural value. For several centuries it has been a hunting area famous throughout Europe – a favourite of the rulers of Prussia and later of Germany. Before the last War it enjoyed strict

protection. The natural and historical value of the Romnicka Forest can be compared to that assigned to the Białowieża Forest, and the opening up of this area for sightseeing and exploration will certainly attract many tourists – especially from Germany.

In turn, Suwałki Landscape Park, the environs of Wiżajny, and Vištytis in Lithuania, are areas of outstanding landscape value of post-glacial landforms. The attractive landscape and suitable climatic conditions (allowing for winter skiing) create favourable conditions for the development of varied forms of tourism here all year round.

III. The Augustowsko–Olicki (Augustów–Alytus) TOCh. (Map No. 4). An area situated on the borders of three countries: Poland Lithuania and Belarus. On the Polish side it would include Wigierski (Wigry) National Park as well as Puszcza Augustowska (the Augustów Forest) and parts of the Sejny Lakeland lying to the east of Sejny. The creation of Landscape Parks is planned for both of these areas. Also included would be the large peatland reserve proposed for the valley of the Upper Biebrza River. On the Lithuanian side, this area would include the north-eastern edge of Puszcza Augustowska, as well as the "Meteliai" and the "Veisiejai" Regional Parks and the adjacent part of the Neman Valley. On the Belarus side this area would embrace the south-eastern edge of Puszcza Augustowska (with the Sopockinskij Reserve and the proposed "Cornaya Hańcza" Reserve) and the part of the Neman Valley lying beside it.

The huge forested area of Puszcza Augustowska combines with lakelands of outstanding landscape value to create perfect conditions for the development of eco-tourism. An additional attraction is the prospect of bringing the cross-border section of the Augustów Canal back into use. Attractions on the European scale would be offered by canoe routes joining the Augustów Lakes, or Lake Wigry, with the Neman River, and by the launching of tourist passenger transport from Augustów to Grodno or Druskininkai.

In the future, it would be possible to increase the area of the TOCh considerably by adding naturally-valuable areas on the border between Lithuania and Belarus (Dzukija National Park, the "Čepkeliai" *Zapovednik*, the Hoževskij and "Oziery" *Zakazniks*). The TOCh would then include a large, compact area of forest stretching from Augustów almost as far as Vilnius.

IV. The "Puszcza Białowieska" (Białowieska Forest) TOCh. (Map No. 5). An area straddling the border between Poland and Belarus, it would embrace the whole of Puszcza Białowieska with the "Belovežskaya pušča" National Park and the "Dikoye" Reserve (Zapovednik) on the Belarus side as well as Poland's Białowieża (Białowieża) National Park, whose considerable enlargement is planned. The creation of an International Biosphere Reserve is also proposed for the whole of the Białowieska Forest.

The Białowieska Forest has an established international reputation as an area of outstanding natural value and as a natural refuge of the European bison. The chance to visit both parts of the Forest will certainly encourage a growth of interest in this area and will attract many tourist-naturalists.

V. The "Przełom Bugu" (Bug River Gorge) TOCh. (Map No. 6). An area situated on the border between Poland and Belarus, including the part of the Bug River Valley between Brest and Drohiczyn as well as adjacent areas on both sides of the border. It is planned that a Landscape Park should be created in the Polish part.

An area of outstandingly valuable landscape, with the gorge-like valley of the river and high morainic hills. This area also has features of sightseeing and cultural interest, as a consequence of the large number of historical buildings preserved there (Drohiczyn, Siemiatycze, Mielnik, Grabarka, Janów Podlaski, Wołczyn, Skoki and Brest).

In the future, the TOCh should come to embrace the whole border section of the Bug River Valley; a valley of such a large river with a landscape that, as a consequence of its border location, has changed little, is a phenomenon unique on the European scale. The valley of the Bug River is also of great cultural significance (with historical monuments, centre of religious cults, wooden architecture).

VI. The "Zachodnie Polesie" (Western Polesie) TOCh. (Map No. 7). An area situated on the border between Poland and Ukraine. On the Polish side it includes the Polesie National and Landscape Parks, the "Łęczna Lakeland" Landscape Park, the "Bubnów Marsh" Nature Reserve and the Sobibór, Chełm and Strzelecki Landscape Parks. On the Ukrainian side the area includes the Šatsk National Park and adjacent areas, as well as the proposed Liubomelskij, Lukivskij and Pribužskij Landscape Parks, and a fragment of the valley of the Bug River forming the state border.

An area of outstanding natural value, protecting the Polesie landscape with its marshes, lakes, forests and numerous sites for rare flora. This is a landscape which is ideal for eco-tourism. There are possibilities for this area to be enlarged considerably through the inclusion of large, naturally-valuable marshes on the border between Ukraine and Belarus.

VII. The "Roztocze" TOCh. (Map. No. 8). An area lying on the border between Poland and Ukraine. On the Polish side it would embrace Roztocze National Park, Szczepleszyn Landscape Park, the Solska Forest Landscape Park, and the Krasnobród and South Roztocze Landscape Parks. On the Ukrainian side it would include the "Roztocze" *Zapovednik*, the proposed "Roztocze" National Park, the proposed Potielieckij and Niemirivskij Landscape Parks, and adjacent areas.

Terrain of outstandingly valuable nature and landscape, its attractiveness is increased by the proximity of valuable groups of historical buildings (Zamość, Żółkva, Lvov), which make it possible for various forms of qualified and sedentary tourism to be enjoyed here.

VIII. The "Wschodnie Beskidy" (Eastern Beskid Mountains) TOCh. (Map No. 9). An area on the borders of Poland, Ukraine and Slovakia. Included on the Polish side are the Bieszczady Mountains National Park, The Cisna-Wetlina Landscape Park and the "Dolina Sanu" and Jaśliski Landscape Parks. Included on the Slovakian side will be the "Vychodne Karpaty" Landscape Park, (*chranena krainna oblast*). Include on the Ukrainian side will be the Stuzicki Massif a part of Karpatski *Zapovednik*, the proposed Stuzicko-Sianskij Biosphere Reserve, the proposed "Skolivski Beskidy" National Park, the proposed Orvskij Landscape Park, the Libochorskij, "Pikuj", "Berdo" and "Sokolovy Skieli"

Nature Reserves, and adjacent areas. It is also planned that the central part of this area be brought under protection as an International Biosphere Reserve.

The Bieszczady Mountains and the eastern Carpathians have long been exceptionally popular with tourists. After the international protected area has been created here, this area of outstandingly valuable landscape and natural features will become a great attraction for tourists, including those from Western Europe. The assets of this area are gorgeous landscapes, which cannot be encountered in other mountain ranges, fragments of natural montane forest, sites for rare flora, refuges for animals, and partly-preserved folk culture and historic buildings. Amongst the basic forms of tourism which may develop in this area are: hikes, tourism of the "survival school" type, and winter recreation associated with the snow.

In the future there are possibilities for this TOCh to be enlarged considerably. Ultimately, it could include the whole range of the Carpathians on the borders of Poland, Slovakia, Ukraine and Romania. In this range, there are already numerous extensive protected areas of various rank.

The final number and sizes of cross-border protected areas, and their boundaries, will become defined in the successive stages of the programme's realization, anticipated in the coming years. In the course of further work, detailed projects for each of these areas should be worked on by teams of specialists from Poland and the neighbouring countries.

6. The integration of the projected TOCh system with the system of protected areas, and areas of natural value, in the East-Central Europe.

As already mentioned, on the principle of ecological corridors, the proposed TOCh system is to link the Polish system of protected areas with the systems of protected areas and areas of natural value found in the neighbouring countries of the east-central Europe. The preliminarily-designated TOCh areas represent all types of landscape and the most valuable kinds of ecosystem in our part of Europe, which are arranged into distinct "ecological stretches". Found within these belt-like stretches are the majority of existing and proposed large-scale protected areas of our eastern neighbours as well as extensive areas not embraced by protection thus far, but valuable from the point of view of nature and landscape.

The Baltic Coastal Belt. The elements of this "ecological stretch" are the Vistula Lagoon with the Vistula Spit (a proposed TOCh), the western part of the Semland Peninsula, the Kuršskaya Lagoon and the Kuršskaya Spit (a National Park in Kaliningrad District and in Lithuania), the Neman Delta with adjacent areas of marshland on the Kaliningrad District – Lithuanian border, the coastal belt stretching up to the Gulf of Riga with the "Grini" and "Slitere" *Zapovedniks* in Latvia as well as the islands and coast of Estonia with the "Vilsandi", "Viidumae" and "Matsalu" *Zapovedniks* as well as the Biosphere Reserve which include the great marine islands of Estonia.

The Lakeland Belt. The wide lakeland belt stretching parallel to the south and east shores of the Baltic as far as St. Petersburg, is an important "ecological stretch" with many protected areas that are valuable from the points of view of landscape and

nature. Contained within it are the proposed Suwałki–Vištytis and Augustów–Alytus TOCh as well as Poland's Mazurian Landscape Park; Lithuania's "Žuvintas" and "Čepkeliai" *Zapoviedniks* and Trakai and Ignalina National Parks; Belarus' Sopockinski, Hožski, Porečski, "Ozery" and "Błakinyje Lakes" *Zakazniks* and the projected "Braslavskie Lakes" and Narocz National Parks; Latvia's "Tejci" and "Kurstkalni" *Zapoviedniks* and Estonia's "Endsaala" *Zapoviednik*.

The Belt of Puszcza (extensive forests) in the central European lowlands. The elements of this "ecological stretch" are the large forest areas that once made up a single vast expanse, but which are currently isolated from one another. In Poland, these include Puszcza Knyszyńska (a Landscape Park), and Puszcza Białowieska (a National Park nad Biosphere Reserve, and a proposed TOCh), and in Belarus, Puszcza Różańska (a *Zakaznik*), Puszcza Lipiczańska (a projected *Zakaznik*), Puszcza Nalibocka (a *Zakaznik*), and the Berezina *Zapoviednik* (a Biosphere Reserve).

Polesie. A wide belt of marshy terrain stretching further to the east from the Lublin part along the Pripyat River Valley as far as the Dnepr River. Lying in this belt are – in Poland: Polesie National Park and the "Łęczna Lakeland", Polesie and Sobibor Landscape Parks; – in Ukraine: the "Šatsk National Park, the Stochodsky and Polessky *Zapoviedniks*, the Pieriebrodivskij *Zakaznik* and a number of projected Landscape Parks; – and in Belarus: the Rodostovskij, Sporovski, Vygonoszczanskoye and Lenin *Zakazniks* as well as the Pripyat *Zapoviednik*.

The upland Belt. This "ecological stretch" is made up of: Roztocze (a projected TOCh) with – on the Polish side – Roztocze National Park and the Szczebrzeszyn, Krasnobród and South Roztocze Landscape Parks and – on the Ukrainian side – the "Roztocze" *Zapoviednik* and projected National Park, and two proposed Landscape Parks; as well as – further into Ukraine – the proposed "Gołogóry", "Voroniaki" and "Krzemienieckie Mountains" Landscape Parks and the "Miodobory" *Zapoviednik*.

Carpathian Mountains and Foothills. A mighty belt of mountains on the borders of Poland, Slovakia and Ukraine. Found in this area are, amongst others, the proposed International Biosphere Reserve of the Eastern Carpathians and the projected Eastern Beskid TOCh, the Bieszczady Mountains National Park and numerous Landscape Parks in Poland and Slovakia. In the Ukraine, it also includes,

among others: the Carpathian National Park, the Sinievir National Park, the proposed "Skolivski Beskidy" National Park, the Carpathian (Karpatsky) *Zapovednik*, the proposed Stuzicko-Sianskij and Carpathian (Karpatsky) Biosphere Reserves, the proposed "Gorgany" *Zapovednik* as well as numerous reserves and proposed Landscape Parks.

The valleys of large rivers. The valleys of large rivers in the east-central Europe have a role as specific kinds of ecological corridors crossing the parallel "ecological stretches" at right angles, and linking them. Having the greatest significance here are the valleys of: the middle Vistula (a projected Landscape Park), the middle Bug (a projected TOCh), the Narew and Biebrza Rivers (the Narew and Biebrza Landscape Parks), and of such rivers as the Neman, Dzwina and Dnepr.

7. The TOCh concept against the background of international agreements relating to the protection of the environment, and co-operation in the East-Central Europe (Map. No. 10)

In the period 1991–1992, Poland reached a number of agreements with her eastern neighbours, for co-operation at various levels in the field of environmental protection. Amongst other things, bilateral Departmental-level agreements in this field were signed with Belarus, Lithuania and District Ukraine, and an agreement for co-operation with Kaliningrad was concluded at vice-ministerial level. Furthermore, at Tomaszów Lubelski in 1991, an agreement for co-operation between border voivodeships in Poland and districts in Ukraine was signed by Polish voivodes and the heads of the Councils of People's Deputies from Ukrainian districts.

Some of these agreements related to concrete matters. An agreement signed by Environment Ministers from Poland, Slovakia and Ukraine in Ustrzyki Górne in September 1991 concerned the creation of the International Biosphere Reserve of the Eastern Carpathians. The World Bank made funds available for this undertaking in 1992. Steps are also being taken to create an International Biosphere Reserve in the Białowieśka Forest of Poland and Belarus. The TOCh concept fits in with both of these projects. The projected International Biosphere Reserves occupy the central parts of the proposed Białowieśka Forest and Eastern Beskids TOCh, and the peripheral parts of both could therefore act as buffer zones for the Reserves.

Representatives of Poland, Lithuania, Latvia, Russia and Ukraine concluded an agreement known as the "Wigry Declaration" in Wigry in March 1992. This concerned the realization of the concept of the "Green Lungs of Europe" (in an analogy to the "Green Lungs of Poland" existing since 1989). In Warsaw, in February 1993, a document concerning the creation of the "Green Lungs of Europe" (ZPE) was signed by representatives from the Environment Protection Ministries of the aforementioned countries, plus those of Belarus and Estonia, who had entered the agreement. The area will thus embrace the whole of Belarus, Lithuania, Latvia and Estonia, as well as parts of Poland, Russia and Ukraine. Natural resources are to be afforded special protection within the ZPE area, and economic activity is to be in agreement with the principles of eco-development. The TOCh concept, based as it is, on the protection of nature and the development of eco-tourism, is in accord with the ideas of ZPE. In fact, the creation of the TOCh system could constitute one example by which these ideas are put into practice.

In February 1992 an agreement between local government representative from border areas of Poland, Slovakia, Ukraine and Hungary has borne fruit with the creation of the Carpathian Euro-region. The document on this subject was signed in Debrecen, in February 1993, by local government representatives and Foreign Ministers of the four countries. The Carpathian Euro-region includes Poland's voivodeships of Przemyśl, Krosno, Ukraine's Zakarpatsky District, 7 poviats of eastern Slovakia and three districts of north-east Hungary. One of the main reasons for the creation of the Carpathian Euro-region is the tightening of regional co-operation in the field of nature protection, amongst others. It is also planned that new border crossings be constructed, and tourism developed. The establishment of the Carpathian Euro-region creates very favourable circumstances for the projected Eastern Beskids TOCh.

The aims associated with the TOCh concept are in many ways convergent with the Euro-region concept. The creation of the TOCh system along Poland's eastern border will certainly contribute to the increase of further Euro-regions in this part of Europe.

V. A CONCEPT FOR THE DEVELOPMENT OF TOURISM IN TOCh AREAS.

1. Introductory notes

One of the main purposes of creating cross-border protected areas in the chosen regions along Poland's eastern border is the development of environment-friendly forms of tourism, as well the drawing up of programmes common to neighbouring countries for the construction and development of tourist infrastructure and for the joint organization of tourism.

In doing the least harm to the environment, tourism may be that branch of the economy which should activate naturally-valuable TOCh areas economically and should provide places of employment for local communities all year round. The concept for the development of tourism within and around cross-border protected areas is based on several fundamental premises. It should therefore be assumed that:

1. the activities undertaken will work to bring an end to economic degradation and to encourage the future development of border regions lying around existing or proposed protected areas. The proximity of protected areas will impose on planners and local governments certain limitations of forms of economic development. The influence of these limitations of people's incomes should be minimized.
2. conflict between the protection of the natural and cultural environment and the development of tourism will continue to deepen. With an ever-clearer conflict between the protection of the natural and cultural environment on the one hand, and current trends towards the development of tourism involving active recreation "in the bosom of nature" and participation in the life of the inhabitants on the other, more and more is likely to be said about the necessity for the mere notion of environment protection to be treated in a considerably broader way (i.e. not only as protection of nature).
3. border traffic (both in-transit and local) will increase steadily. This traffic will often pass close to protected areas, or enter them.

2. Conditioning of the development of tourism within TOCh areas.

The diversity of the proposed cross-border protected areas does not allow a single concept for the development of tourist traffic to be created. Instead it is assumed that a concept will be worked out for each cross-border protected area,

along with principles for the functional areas and tourist zones. These principles should take account of the fact that the creation of a protected area (an administrative decision) gives rise to a new element attractive to tourists. The main protective aims may and should therefore indicate also the preferred kinds of tourism.

It is important that the concept for the area should take account of the rapid infrastructural development which would make it possible to become familiar with the most interesting elements of the protected areas without necessitating movement throughout the entire area. Small infrastructure should manage the traffic throughout the protected area and separate recreational forms from those involving exploration, and from local traffic.

Functional areas within TOCh will be the existing (of proposed) autonomic areas of stricter nature protection, such as: National Parks, *Zapovedniks*, Nature Reserves (*Zakazniks*), or Landscape Parks (Regional Parks). The utilization of these will be restricted (in terms of management and the possibilities of exploration) in accordance with the protective regime in force within them.

Other kinds of functional areas will be the tourist zones designated within and on the edges of TOCh areas, outside the areas of stricter protection. Concentrated within these zones will be the tourist infrastructure enabling various forms of tourism to be developed within TOCh areas without coming into conflict with the aims of nature protection.

Individual functional areas and tourist zones within individual TOCh, as well the TOCh areas themselves, should be linked by a system of linear elements – suitably-programmed tourist routes. Within individual TOCh these should be tourist routes and trails: on the water, for hiking, for hiking and cycling, for skiing, for motor vehicles and for trains. These routes should be managed and utilized in accordance with the principles of eco-development. In order to link all TOCh, a special system of tourist trails should be created, particularly motorized ones related to the existing road infrastructure. It would seem appropriate to propose special signposting of these routes and to relate their courses to the system of tourist trails currently existing in all the countries.

3. Tourist zones within and around TOCh areas.

For the development of the region and for regional planning, the aims of the creation of tourist zones may be listed as follows:

1. To guarantee the steady economic and civilizational development of the population living around protected areas, as well as the income for the zone itself.
2. To adjust tourist infrastructure to increased tourist traffic and to direct part of the infrastructure outside protected areas. An important aim here is to steer tourist traffic, through the appropriate distribution of current and future infrastructure.
3. To direct transit and cargo traffic outside designated areas.

The adoption of the aforementioned assumptions and aims suggests the following general concept for tourist zones:

1. The borders of the zone for each cross-border protected area should coincide with the borders of basic administrative units (i.e. with the borders of gminas in Poland). Such an attitude will facilitate planning and management processes within the zones.
2. The basic function of the zone should be the starting point for planning work and location decisions.
3. The concept of the development of tourist infrastructure should be worked out for the whole zone, in the same way as the general developmental plans. Both the concept for the development of touristic infrastructure and the general plans for development should be worked out jointly, and independently of the course of national boundaries.
4. The concept for the zone should embrace a recommendation for transit and cargo traffic as well as guidelines for local border crossing points.

4. Eco-tourism as a factor in the activation of the economy of TOCh areas and their surroundings – the general concept.

In many cases the two leading functions of a TOCh – the protection of nature, and tourism – are in conflict with each other. For this reason, it is recommended that the forms of eco-tourism developing within the 8 TOCh areas under discussion should be those guaranteeing the preservation of valuable natural features. The development of these forms should be encouraged through defined activational

activities both at the level of the individual TOCh, and the level of the functional or administrative units within it.

Eco-tourism is understood here as a spatial phenomena involving utilization and tourist management of the natural environment in such a way as to guarantee that balance is maintained in ecological systems. It should be assumed that the forms of utilization to be developed will be those which will not disturb the efficiency by which nature functions. The considerable diversity of TOCh has been revealed in the presentation of the general characteristics of features making them valuable from the natural and touristic points of view. The forms of eco-tourism which could be developed within them are also diverse and quantitatively-rich. This diversity provides an opportunity for the idea of protection to be popularized whilst eco-tourism develops, and the economy of the areas is activated.

The system by which eco-tourism within individual TOCh areas is organized and serviced should be comprised of regions and centre for eco-touristic services.

The regions for the servicing of eco-tourism should differ according to the ultimate eco-touristic functions fulfilled at the time and defined for later stages. These differences would be revealed in different means of eco-touristic management, as defined by the volume of traffic and the kind of activational steps taken. Basic programmes for the utilization of the region should resolve themselves into the servicing of appropriate forms of eco-tourism, as conditioned by the natural features. These may be for example the following **forms of eco-tourism**:

- of the "**survival school**" type – in areas with valuable natural features which enjoy the strictest protective sanctions, and which are currently devoid of touristic development, or which have only a low volume of traffic.
- **qualified** eco-tourism designed for hikes, cycling, horse riding, water-based activities, in areas adapted and suitably-developed for forms limited to, for example, tourist trails, rest points, bivouacking, primitive huts, sanitary facilities.
- **wandering on land**: designed for hikes, cycling, cross-country skiing, horseback riding, in areas with attractive tree cover and landscape and with the possibility of free linear and surface exploration.
- **wandering on the water**: designed for canoe journeys and sailing – in areas with the most attractive networks of surface waters and with specialist development

(ports, quays, riverside hostels, boat sheds, boatyards, signposted water routes etc.) in agreement with the requirements of nature protection.

– **stationary** – designed for various users: on-water recreation, waterside recreation, beach recreation, agro-tourism, ethnographic tourism, curative tourism, skiing – appropriate development in accordance with the requirements of nature protection.

The correct functioning of eco-touristic regions depends on the system of services and information and on the organization of the directing of traffic. This system should embrace the following hierarchical elements:

- regional centre of eco-touristic services;
- district centre of eco-touristic services;
- eco-touristic villages;
- eco-touristic localities;
- service centre and service points.

Regional centre of touristic and eco-touristic services located outside TOCh, should include the full range of services connected with the activities of the districts. Their coordinatory role should lie in the area of promotion of individual districts, the provision of full information relating to all TOCh areas and of services, and in the distribution of traffic to particular districts according to the form of eco-tourism. In Poland this role should be fulfilled primarily by voivodeship centre.

In addition, **district eco-touristic service centre** should provide the whole range of services. Their activities should be directed to the servicing of one district, however. This and the remaining links of the hierarchical system of services under discussion should be within individual TOCh districts.

The centre for basic services should be eco-touristic villages and localities. A basic programme, limited to a concrete form of eco-tourism, should be present at service centre and service points.

5. Activational activities.

The development of eco-tourism within TOCh will only occur if concrete activational activities are undertaken. Implementation should be proceeded by detailed analysis of the directions to be followed whilst activating individual TOCh or the service districts within them.

For example: in areas where tourist functions are already developed it will be necessary to find directions which will transform the existing forms into forms of eco-tourism. In these areas, it will also be necessary for reform to be implemented within the natural environment and for structural transformations to be made to the tourist base, if this does not meet the conditions for eco-development. These transformations should involve the dislocation of the existing tourist base, the breaking up of the biggest centre of tourist management, the liquidation of the standard tourist base or the structural transformation of the base (e.g. changing seasonal accommodation into year-round accommodation). In addition, transformation should involve the introduction of new management elements corresponding to the activational directions adopted.

The list of activational directions depends on the actual conditions of a TOCh, and should be established in the next stage of the work. Once appropriate activational directions have been defined, the next step is to define a set of activational activities.

A considerable proportion of these activities will be of a universal nature. They will relate to three basic spheres: the social, the spatial and the promotional.

The social sphere. At the level of the management of TOCh and service districts, it would be desirable to embark on activities to popularize the development of eco-tourism. Further initiational activities should aid the development of pioneering activity, and organizational activities should be directed above all to the staff, which will co-ordinate all activities in the development of eco-tourism.

Popularizing activities should aim to popularize the idea of eco-touristic development and to highlight the profits accruing from it. The local community will be on the receiving end of these activities. The aim of such activities is to shape attitudes of the local population towards those participating in the tourist trade which would be favourable to the inflow of guests, and which would not limit this inflow. This refers to such features as: hospitality, kindness, well-mannered behaviour etc. It is also important that the local community be made aware of the fact that expenditure incurred in creating proper conditions for the receipt of guests (e.g. investments to raise the standard of sanitary, accommodational and kitchen facilities) will pay for themselves relatively quickly and that it is worthwhile investing in this area. One important aspect of the popularizing activities is the stimulation of folk creativity and handicraft work, which make it easier for tourist to participate in farm activities, work in the fields, holidays and family festivities etc.

An example of a popularizing activities the organization of open-air painting and sculpture sessions and of photography competitions connected with the area of a given TOCh or its districts. There may also be special popular science sessions related to the valuable touristic features of the area, the life of the locals, local gastronomic specialities and economic activities such as horsebreathing, beekeeping or fishing. The results of the aforementioned activities should be set down in special publications. The popularization of photographic, painting and handicraft output, should be encouraged through the organization of special auctions and the ultimate creation of exhibition centre such as ethnographic parks, exhibition halls, halls for contemporary local output etc.

Initiational activities should support pioneering activities for the development of the servicing of eco-tourism. This relates particularly to areas where there has so-far been no tradition of servicing tourism and where the local community is not yet fully convinced of the benefits for the region, settlement, family or individual family member that follow from it.

In such cases, it would be valuable for pioneering activities to be supported financially in basic units for the servicing of eco-tourism. This refers for instance to family businesses or to individual activities connected with investments in the servicing of eco-tourism. This might include tax relief for those starting such businesses or tax concessions (or postponements of tax payment). In some areas, it may be important to give credit for investments connected with the renovation of amenities earmarked for the service of agro-tourism.

Staff and organizational activities should involve the creation of a system by which activational activities can be co-ordinated at the level of individual TOCh and its service districts. It would be expedient to separate a special organizational cell (of full-time job) at the level of organizational units (i.e. in Poland at the level of the gmina). This cell would deal with all of the activities serving to activate eco-tourism. The activities of such units should embrace, for example, the creation of computer data banks, local information centre and local centre for the servicing of eco-tourism and the co-ordination of activities such as investment activities (help with financial matters for potential investors, promotional activities relating to individual districts, information about the possibilities for purchasing amenities for agro-tourism, possibilities for the rental of equipment, eco-tourism guides etc.).

The spatial sphere. Basic activational activities in the spatial sphere are concerned with the creation of regional eco-tourist space in individual TOCh and their service districts. The primary aim is to create a separate image which would enable a particular fragment of geographical space to be distinguished from others.

Moreover, this is an activity which aims to create a personal and emotional link between the visitor and the area he is visiting. The ultimate aim is to establish a fashion for visiting this area. Three specific groups of activities are related to the spatial sphere: aestheticizing activities, inspirational (offer-like) activities and legal activities (the creation of local legislation).

The **primary aestheticizing** activity is the introduction of general order, and order in the area earmarked for the development of eco-tourism. This refers not only to the closing down of sub-standard amenities, the removal of "blots on the landscape" and the rubbish etc., but also to the systematic maintenance of cleanliness in the areas visited, and to the elimination of refuse, unpleasant smells etc. The creation of original space for eco-tourism should involve not only influences on the basic organization of traffic in the form of service elements, but also the introduction of particular elements, e.g. the signposting of districts with defined functions, the decoration of facilities, the creation of symbols for places etc.

To be included amongst the elements creating original eco-touristic space are: tourist, sport and recreational facilities open to all (e.g. bathing areas, belts and routes for sightseeing, bivouacking places, camping grounds, places for meetings, rest and bonfires) and elements of so-called "small architecture" such as benches, litter bins, notice boards and signposts.

Among the activational activities under discussion, **inspirational (offer-like) activities** have a particular role to play. Their range is very wide. They may relate both to an offer directed at a potential eco-tourist and to an offer to a potential investor involved in the building of suitable service facilities. As examples, mention could be made of offers relating to the chance to purchase summer allotments, the possibility to buy abandoned farms or farms prepared for letting, the possibility of participation in suitable forms of eco-tourism or investor offers for the development of tourist routes and trails, of facilities connected with environmental protection e.g. sewage treatment plants, and of hydrotechnical buildings and buildings connected with eco-tourism on the water e.g. for the building of riverside inns, boatyards etc.

An important role is played by the **legal activities** connected with the creation of local law embracing activities in the sphere of eco-tourism services. In Poland, these should be primarily local laws introduced at the level of the gmina, (for instance with regard to the updating of spatial management plans, and the creation of special eco-tourist organizations in gminas, e.g. eco-touristic associations of gminas). At local level, as well as at regional level, legal activities may relate for example to the sphere of the production of health food for visitors, to the

protection and reclamation of surface waters, to the elimination of external threats affecting the purity of surface waters etc. In particular, these activities may include laws relating to the ecological certification of the tourist base from the point of view of the degradation of surface and ground waters, the auditing of water-sewage management within the TOCh, the auditing of drainage measures and the introduction of chemical treatments in forests.

The promotional sphere. The scale and dimension of activities in the promotional sphere depend not only on the current development of tourist functions within TOCh, but also on the appropriate directions of activational activities adopted. In each case, a basic set of informational and specialist material should be drawn up for TOCh and the individual service districts.

6. The programme of activities on the field of the organization of tourism within TOCh areas.

The optimal solution would be for each cross-border protected area and tourist zone to create a timetable for work which takes account of the following stages:

1. The designation of existing and proposed protected areas.
2. The analysis of transit traffic and the elaboration of a concept for border crossings.
3. The calculation of economic losses to the local population resulting from limitations to economic activities, and the profits to be derived from tourist income, the production of health food etc.
4. The evaluation of current and future tourist traffic, and its structure.
5. The working out of the assumptions underpinning the spatial management plans for tourism.
6. The elaboration of a programme for the development of tourism, with the location of centre and basic infrastructural elements.
7. The drawing up of an investment offer.
8. The training of representatives from the local community.



VI. SUMMARY

1. On both sides of Poland's eastern border there are many areas with features of landscape and nature that are valuable on the European scale. Until recently these areas were separated from each other by a "sealed" border, which also served as an ecological barrier.

2. The valuable aspects of these areas are currently endangered as a result of the rapid development of cross-border passenger and cargo traffic.

3. The effective protection of these areas requires a joint effort from all interested countries, i.e. not only Poland, but also its eastern neighbours: Russia, Lithuania, Belarus, Ukraine and Slovakia.

4. To protect the most valuable areas along Poland's eastern border it is proposed that a system of cross-border protected areas should be established. These would have a status close to that of Polish Landscape Parks, and would protect selected areas on both sides of the border that are most valuable in terms of nature and the landscape. At the same time they would act as ecological corridors joining the systems of protected areas in Poland with those of its eastern neighbours.

5. In the light of an analysis of available material concerning the valuable natural and tourist-landscape features of the border areas of Poland and its eastern neighbours, it is proposed that 8 cross-border protected areas (TOCh) should be created:

- the "Vistula Lagoon" TOCh
- the Suwałki-Vištytis TOCh
- the Augustów-Alytus TOCh
- the "Białowieśka Forest" TOCh
- the "Bug River Gorge" TOCh
- the "Western Polesie" TOCh
- the "Roztocze" TOCh
- the "Eastern Beskids" TOCh

6. The economy within TOCh areas should be subordinated to the principles of eco-development, and – apart from protection – the main tasks for these areas

should be the propagation and development of eco-tourism, agro-tourism and ecological education, as well as the stimulation of ecological awareness amongst the local population.

7. In order that eco-tourism should develop within and around TOCh areas (excluding those parts enjoying strict protection), it is proposed that special tourist zones be created. The borders of these should coincide with those of administrative units (gminas in case of Poland). With suitable organization and propagation, the development of nature tourism in TOCh areas attractive to tourists from at home and abroad could become one of the bases for the economic activation of border areas of Poland and our eastern neighbours, and could lead to the creation of new places of employment and thus to an improved economic existence for the inhabitants.

8. In order that the initially-proposed TOCh areas be endorsed formally, it is necessary that each area should produce detailed documentation of natural, cultural and tourist-sightseeing features, and should draw up detailed plans describing the status of the TOCh as an international protected area, the regulations in force in these areas and the principles for tourist and cross-border traffic. Moreover, the assumptions underpinning the spatial management plan should be worked out for each TOCh, along with a programme for the development of tourism.

9. The TOCh concept is perfectly commensurate with the idea of the "Green Lungs of Europe", created in 1993, and with the concept of the Euro-region. The creation of TOCh along Poland's eastern border may be a concrete example of regional co-operation in such important fields as nature protection and tourism. Such co-operation may promote the creation of further Euro-regions in the East-Central Europe (in addition to that created in the Carpathians in February 1993).

VII. A PROPOSED TIMETABLE FOR THE ESTABLISHMENT OF THE TOCh SYSTEM.

1. Spring 1993. Signing of the international agreement relating to the establishment of the TOCh system. This will provide the basis for further activities in this direction. The assurance of financial resources for the realization of the project.
2. Years 1993–1994. Activities in this period should follow three tracks:
 - a) The drawing up of detailed documentation concerning nature in each of the designated areas, by international teams of scientists. This will provide a basis for the planning of individual TOCh areas as well as the protected areas within them (Landscape Parks, Nature Reserves, *Zakazniks*) and also for the elaboration of plans for their spatial development.
 - b) The provision of a detailed project for the principles of functioning of TOCh, by specialists from various disciplines. This will take into consideration legal aspects, differences in legislation and regulations concerning the protection of nature, the administration of areas, local government and border traffic.
 - c) The elaboration of concepts for tourist development in TOCh areas. These will take account of the specifics of these areas, connections with communication routes, border crossings, as well as methods for the promotion and advertizing of these areas and ways in which the local population may be "converted" to the ideas of TOCh, eco-development and eco-tourism.
3. 1996 – formal endorsement of the TOCh system. Should work on endorsement be prolonged, each of the neighbouring countries could, as a first step, bring under protection the areas on their soil making up TOCh (as for example Landscape Parks, Nature Reserves, *Zapovedniks*, *Zakazniks* or National Parks). Only in the second stage would these become subject to full protection as international protected areas.
4. Years 1996–1997. Elaboration of detailed plans for the spatial management and business plans for TOCh functional areas.

VIII. APPENDIX

FINAL COMMUNIQUE

Of the international conference "The protection of nature and the development of tourism in the border areas of Belarus, Lithuania, Poland, Russia (Kaliningrad District) and Ukraine.

An international conference concerning the creation of a network of cross-border protected areas in neighbouring countries of East-Central Europe was held in Brest (Belarus) between the 21st and 24th of October 1992. The conference was organized on the initiative of the Warsaw Institutes of Environmental Protection and Tourism.

Participating at the conference were representatives:

from Poland's:

- Ministry of Environmental Protection, Natural Resources and Forestry,
- Office of Physical Culture and Tourism,
- Central Planning Office,
- Bureau of the "Green Lungs of Poland" agreement,
- Institute of Environmental Protection,
- Institute of Tourism,
- nature protection services in the 9 border voivodeships;

Form Belarus':

- Republican Committee for Ecological Matters,
- "Bielarusturist" Tourist Agency,
- Higher School of Tourism,
- Institute of Tourism,
- Brest District Committee for Ecological Matters,
- "Bielovežskaya Pušča" National Park;

from Lithuania's:

- Republican Department for the Protection of Nature;

from Russia's:

- Kaliningrad District Committee for the Protection of Nature,

– Kaliningrad University;

from Ukraine's:

– Institute of Tourism,

– Lvov University.

The concept of a system of cross-border protected areas (TOCh) was presented at the conference. This had been elaborated by the Institute of Environmental Protection in Warsaw. A number of papers were also presented on subjects including the valuable natural features of border areas and the utilization of these areas in the service of tourism.

Conference participants agreed on the following statements:

1. On the borders of Poland, Russia, Lithuania, Belarus and Ukraine there are extensive areas with outstandingly valuable natural features that require special protection.
2. It is proposed that 8 cross-border protected areas (TOCh) be created, and that principles for their functioning should be worked out. The areas are:
 - I. The "Vistula Lagoon" TOCh – on the borders of Poland and Kaliningrad District
 - II. The Suwałki–Vištytis TOCh – on the borders of Poland, Kaliningrad District and Lithuania.
 - III. The Augustów–Alytus TOCh – on the borders of Poland, Lithuania and Belarus.
 - IV. The "Białowieża Forest" TOCh – on the borders of Poland and Belarus.
 - V. The "Bug River Gorge" TOCh – on the borders of Poland and Belarus.
 - VI. The "Western Polesie" TOCh – on the borders of Poland and Ukraine.
 - VII. The "Roztocze" TOCh – on the borders of Poland and Ukraine.
 - VIII. The "Eastern Beskids" TOCh – on the borders of Poland, Ukraine and Slovakia.
3. Tourism may provide a chance for economic and civilizational development in those areas. To attain this goal a programme should be worked out for the

economic activation of these areas, using Polish experiences (Institute of Tourism), and taking account of the interests of all the interested parties.

4. An international conference should be organized with the participation of the governments of the countries interested. The results of the work so far will be presented at this conference, and an appropriate international agreement concerning these areas could be signed. The proposal that this conference take place in Poland in spring 1993 was adopted.

LIST OF MAPS

5. The conference participants declared themselves ready to propagate the idea of cross-border protected areas and to take actions to foster their creation.

DESIGNATED PRELIMINARILY IN THE EASTERN BORDER REGION

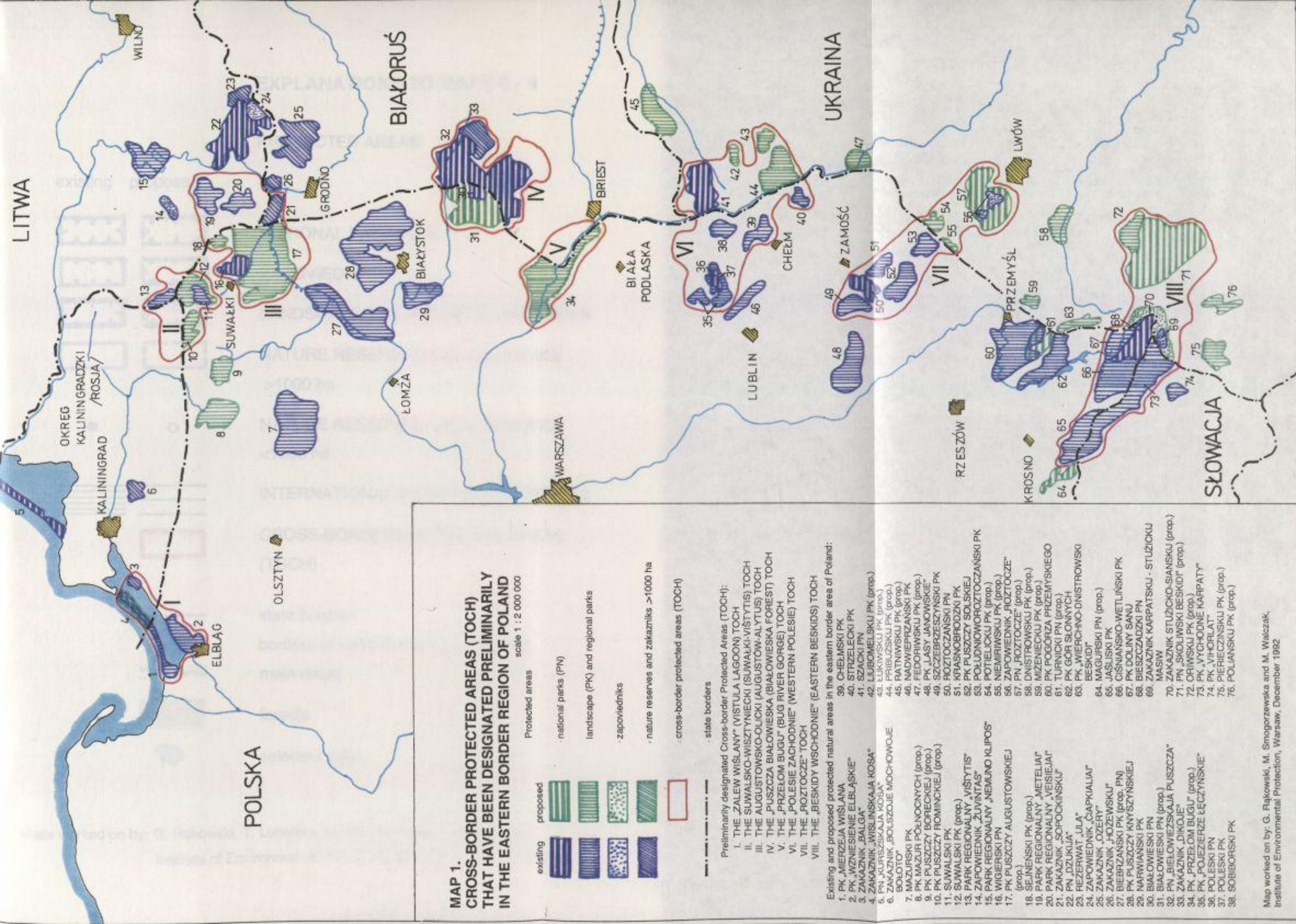
Brest, 24.10.1992

2. THE "ZALEW WISLANY" (VISTULA LAGOON) TOCH
3. THE SEWALSKO-WIEŻYTŃSKI (SUWALKI-VISTYTIS) TOCH
4. THE AUGUSTOWSKO-OLICKI (AUGUSTOW-ALYTUS) TOCH
5. THE "PUSZCZA BIAŁOWIESKA" (BIAŁOWIEŻA FOREST) TOCH
6. THE "PRZEŁOM BUGU" (BUG RIVER GORGE) TOCH
7. THE "POLESIE ZACHODNIE" (WESTERN POLESIE) TOCH
8. THE "ROZTOCZE" TOCH
9. THE "WSCHODNIE BESKIDY" (EASTERN BESKIDS) TOCH
10. THE TOCH CONCEPT AGAINST THE BACKGROUND OF INTERNATIONAL AGREEMENTS RELATING TO THE PROTECTION OF ENVIRONMENT, AND CO-OPERATION, IN EAST-CENTRAL EUROPE



LIST OF MAPS

1. CROSS-BORDER PROTECTED AREAS THAT HAVE BEEN DESIGNATED PRELIMINARILY IN THE EASTERN BORDER REGION OF POLAND
2. THE "ZALEW WIŚLANY" (VISTULA LAGOON) TOCh
3. THE SUWALSKO-WISZTYNIECKI (SUWAŁKI-VIŠTYTIS) TOCh
4. THE AUGUSTOWSKO-OLICKI (AUGUSTÓW-ALYTUS) TOCh
5. THE "PUSZCZA BIAŁOWIESKA" (BIAŁOWIEŻA FOREST) TOCh
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MAP 1.
CROSS-BORDER PROTECTED AREAS (TOCH)
THAT HAVE BEEN DESIGNATED PRELIMINARILY
IN THE EASTERN BORDER REGION OF POLAND

scale 1 : 2 000 000

- Protected areas**
- existing
 - national parks (PN)
 - landscape (PK) and regional parks
 - zapowiadniks
 - nature reserves and zakazniks >1000 ha
 - cross-border protected areas (TOCH)
 - proposed
 - national parks (PN)
 - landscape (PK) and regional parks
 - zapowiadniks
 - nature reserves and zakazniks >1000 ha
 - cross-border protected areas (TOCH)
- state borders**

Preliminarily designated Cross-border Protected Areas (TOCH):

- I. THE "ZALEW WIŚLANY" (VISTULA LAGOON) TOCH
- II. THE SUWAŁSKO-WIŚTYNIECKI (SUWAŁKI-WIŚTYNIECKI) TOCH
- III. THE AUGUSTOWSKO-OLICKI (AUGUSTÓW-ALYTUS) TOCH
- IV. THE "PUŚCZA BIAŁOWIESKA (BIAŁOWIESKA FOREST) TOCH
- V. THE "PRZEŁOM BUGU" (BUG RIVER GORGE) TOCH
- VI. THE "POLESIE ZACHODNIE" (WESTERN POLESIE) TOCH
- VII. THE "ROZTOCZE" TOCH
- VIII. THE "BESKIDY WŚCHODNIE" (EASTERN BESKIDS) TOCH

Existing and proposed protected natural areas in the eastern border area of Poland:

1. PK "MIERZEJA WIŚLANA"
2. PK "WZNIĘSIE NIE ELBLĄSKIE"
3. ZAKAZNIK "BALGA"
4. ZAKAZNIK "WIŚLANSKA KOSA"
5. PN "KURSZAKA KOSA"
6. ZAKAZNIK "BOLSOJE MOCHOWOJE BOŁOTO"
7. MAZURSKI PK
8. PK MAZUR POŁNOČNYCH (prop.)
9. PK PUŚCZY BORECKIEJ (prop.)
10. PK PUŚCZY ROMIŃCKIEJ (prop.)
11. SUWAŁSKI PK
12. SUWAŁSKI PK (prop.)
13. PARK REGIONALNY "WIŚTYNIECKI"
14. ZAPOWIEDNIK "ŻUWINTAS"
15. PARK REGIONALNY "NEMUNO KLIPAS"
16. WIGIERSKI PN
17. PK PUŚCZY AUGUSTOWSKIEJ (prop.)
18. SEJNENSKI PK (prop.)
19. PARK REGIONALNY "METELIA"
20. PARK REGIONALNY "WEISIEJA"
21. ZAKAZNIK "SOPOCKIŃSKI"
22. PN "DZUKIJA"
23. REZERWAT "JULA"
24. ZAPOWIEDNIK "CĄPKALIA"
25. ZAKAZNIK "OZERY"
26. ZAKAZNIK "HOZEWSKI"
27. BIEBRZANSKI PK (prop. PN)
28. PK PUŚCZY KNYŻYŃSKIEJ
29. NARWIANSKI PK
30. BIAŁOWIESKI PN
31. BIAŁOWIESKI PN (prop.)
32. PN "BIAŁOWIEŻSKA PUŚCZA"
33. ZAKAZNIK "DIKOJE"
34. PK "PRZEŁOM BUGU" (prop.)
35. PK "POJEZIERZE ŁĘCZYŃSKIE"
36. POLESKI PN
37. POLESKI PK
38. SOBIBORSKI PK
39. CHELMSKI PK
40. STRZELECKI PK
41. SZACKI PN
42. LUBOMIELSKI PK (prop.)
43. LUKIWSKI PK (prop.)
44. PRIBUJSKI PK (prop.)
45. RATNIEWSKI PK (prop.)
46. NADWIEPRZANSKI PK
47. FEDORIWSKI PK (prop.)
48. PK "LAS JAWOWSKI"
49. SZCZEBRZESZYŃSKI PK
50. ROZTOCZAŃSKI PN
51. KRAŚNOBRODZKI PK
52. PK PUŚCZY SOLSKIEJ
53. POLONOWOROZTOCZAŃSKI PK
54. POTELICKI PK (prop.)
55. NIEMIROWSKI PK (prop.)
56. ZAPOWIEDNIK "ROZTOCZE"
57. PN "ROZTOCZE" (prop.)
58. DNISTROWSKI PK (prop.)
59. MIŻENIECKI PK (prop.)
60. PK POGÓRZA PRZEMYSKIEGO
61. TURNICKI PN (prop.)
62. PK GÓR SŁONNYCH
63. PK "WIERCHNO-DNISTROWSKI BESKID"
64. MAGURSKI PN (prop.)
65. JAŚLUSKI PK
66. CIŚNIAŃSKO-WETLIŃSKI PK
67. PK DOLINY SANU
68. BIESZCZADZKI PN
69. ZAKAZNIK KARPATSKU - STUŻICKI MASIW
70. ZAKAZNIK STUŻICKO-SIANSKI (prop.)
71. PN "SKOLIWSKI BESKID" (prop.)
72. ORIWSKI PK (prop.)
73. PK "WYCHODNE KARPATY"
74. PK "VIHORLAT"
75. PIERIECZYŃSKI PK (prop.)
76. POLIANSKI PK (prop.)

EXPLANATIONS TO MAPS 2 - 9

PROTECTED AREAS:

existing proposed



NATIONAL PARKS (PN)



ZAPOVIEDNIKS



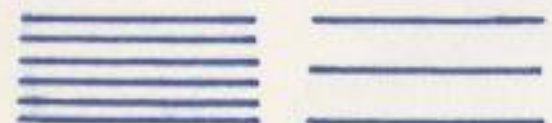
LANDSCAPE (PK) AND REGIONAL PARKS



NATURE RESERVES AND ZAKAZNIKS
>1000 ha



NATURE RESERVES AND ZAKAZNIKS
<1000 ha



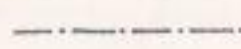
INTERNATIONAL BIOSPHERE RESERVES



CROSS-BORDER PROTECTED AREAS
(TOCH)



state borders



borders of voivodeships and districts



main rivers



forests



selected cities

EXPLANATIONS TO MAPS 2 - 9

PROTECTED AREAS

existing proposed

NATIONAL PARKS (PN)

ZAPOVIEDNIKS

LANDSCAPE (PK) AND REGIONAL PARKS

NATURE RESERVES AND ZAKAZNIKS

4000 ha

NATURE RESERVES AND ZAKAZNIKS

4000 ha

INTERNATIONAL BIOSPHERE RESERVES

CROSS-BORDER PROTECTED AREAS

(TOCH)

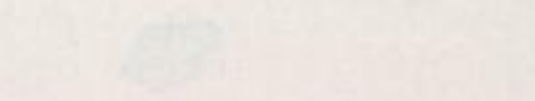
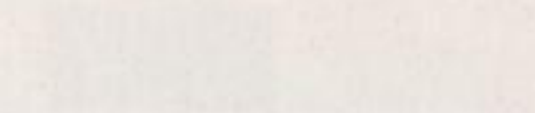
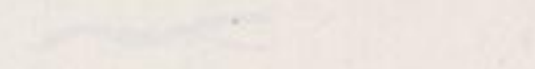
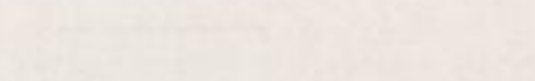
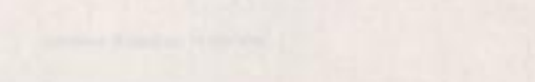
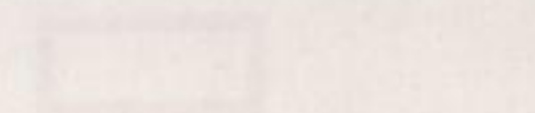
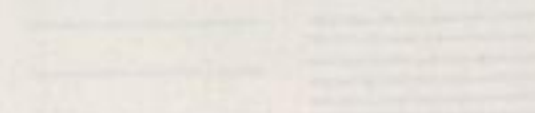
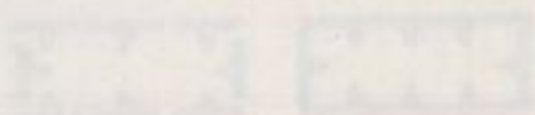
state borders

borders of volodarskie and districts

main rivers

lenses

selected cities



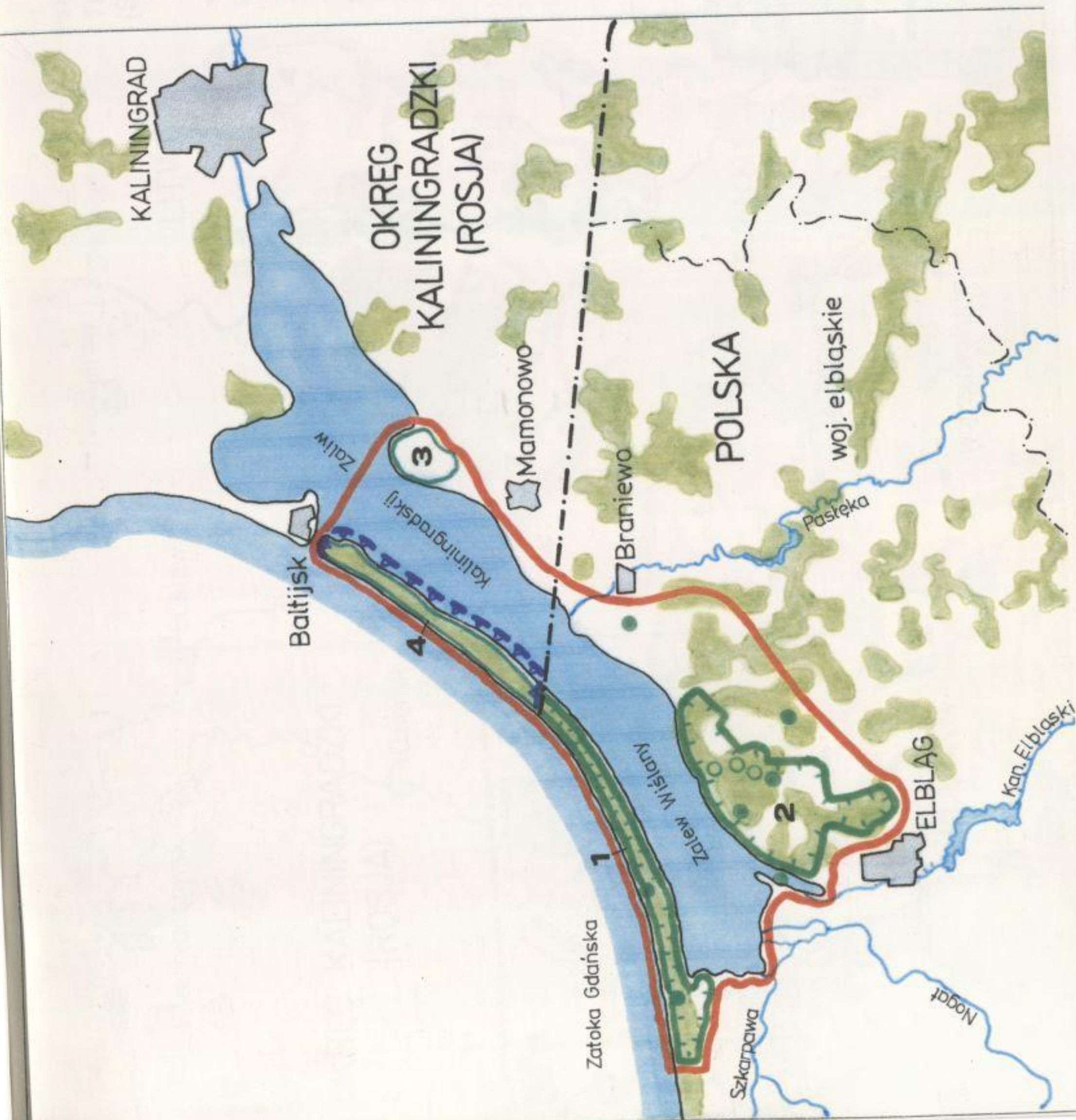
Map was worked on by O. Belyakov, I. Lysenko, M. Shchegolev, M. Vasiluk

Institute of Environmental Protection, Warsaw, December 1992

MAP 2. THE „ZALEW WIŚLANY” (VISTULA LAGOON) TOCH

scale 1 : 500 000

1. PK „MIERZEJA WIŚLANA”
2. PK „WZNIESIENIE ELBLĄSKIE”
3. ZAKAZNIK „BALGA”
4. ZAKAZNIK „WISLINSKAJA KOSA”
(prop. PN)



5-94M "YINJISW WELAS... JHT H30T (MOODJ ALITIN)

100 (000) 1 (000)

YINJISW WELAS... JHT
 H30T (MOODJ ALITIN)
 100 (000) 1 (000)

CAPEMILIAN

OKRNO
 DISJAPONILIAN
 (AL209)

AM2104

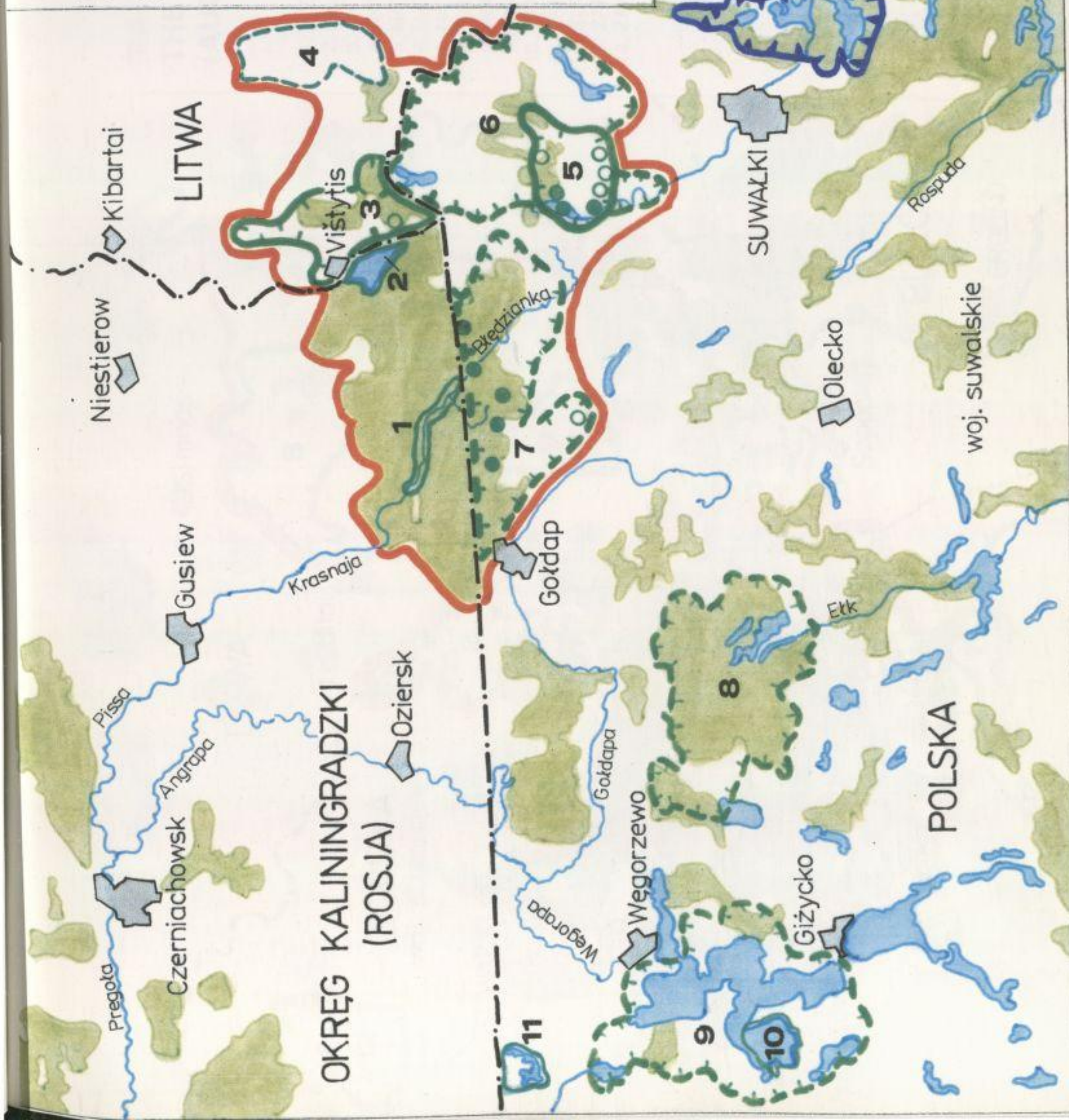
SHEDJING 304

100 (000) 1 (000)

MAP 3. THE SUWALSKO-WISZTYNIECI (SUWAŁKI-VIŠTYTIS) TOCH

scale 1 : 500 00

1. NATURE RESERVE „RIEKA KRASNAJA”
2. NATURE RESERVE „OZIERO WISZTYNIECKOJE”
3. REGIONAL PARK „VIŠTYTIS”
4. NATURE RESERVE „AISTA” (prop.)
5. SUWALSKI PK
6. SUWALSKI PK (prop.)
7. PK PUSZCZY ROMINCKIEJ (prop.)
8. PK PUSZCZY BORECKIEJ (prop.)
9. PK MAZUR PÓŁNOCNYCH (prop.)
10. NATURE RESERVE „JEZIORO DOBSKIE”
11. NATURE RESERVE „JEZIORO 7 WYSP”
12. WIGIERSKI PN



THE SUBARCTIC TUNDRA (SUBARCTIC TUNDRA)

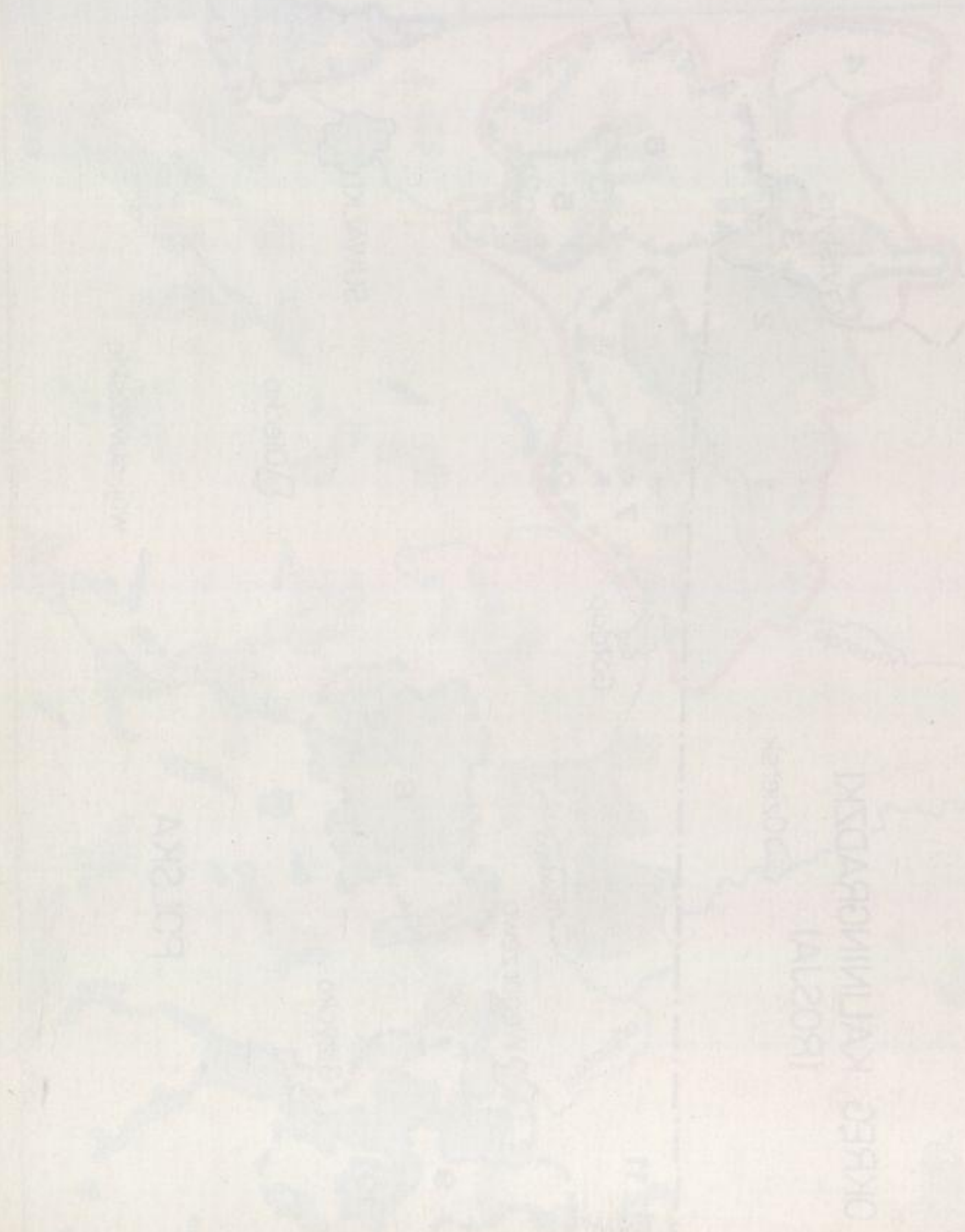
1. The Subarctic Tundra is a transitional zone between the Arctic Tundra and the Temperate Forest. It is characterized by a mix of low-lying shrubs, grasses, and mosses. The vegetation is more diverse than in the Arctic Tundra, but less dense than in the Temperate Forest. The climate is also transitional, with milder winters and warmer summers than in the Arctic Tundra, but cooler than in the Temperate Forest. The Subarctic Tundra is found in the northern part of North America, Europe, and Asia.

of the
TUNDRA

of the
TUNDRA

THE SUBARCTIC TUNDRA
(SUBARCTIC TUNDRA)

THE SUBARCTIC TUNDRA
(SUBARCTIC TUNDRA)

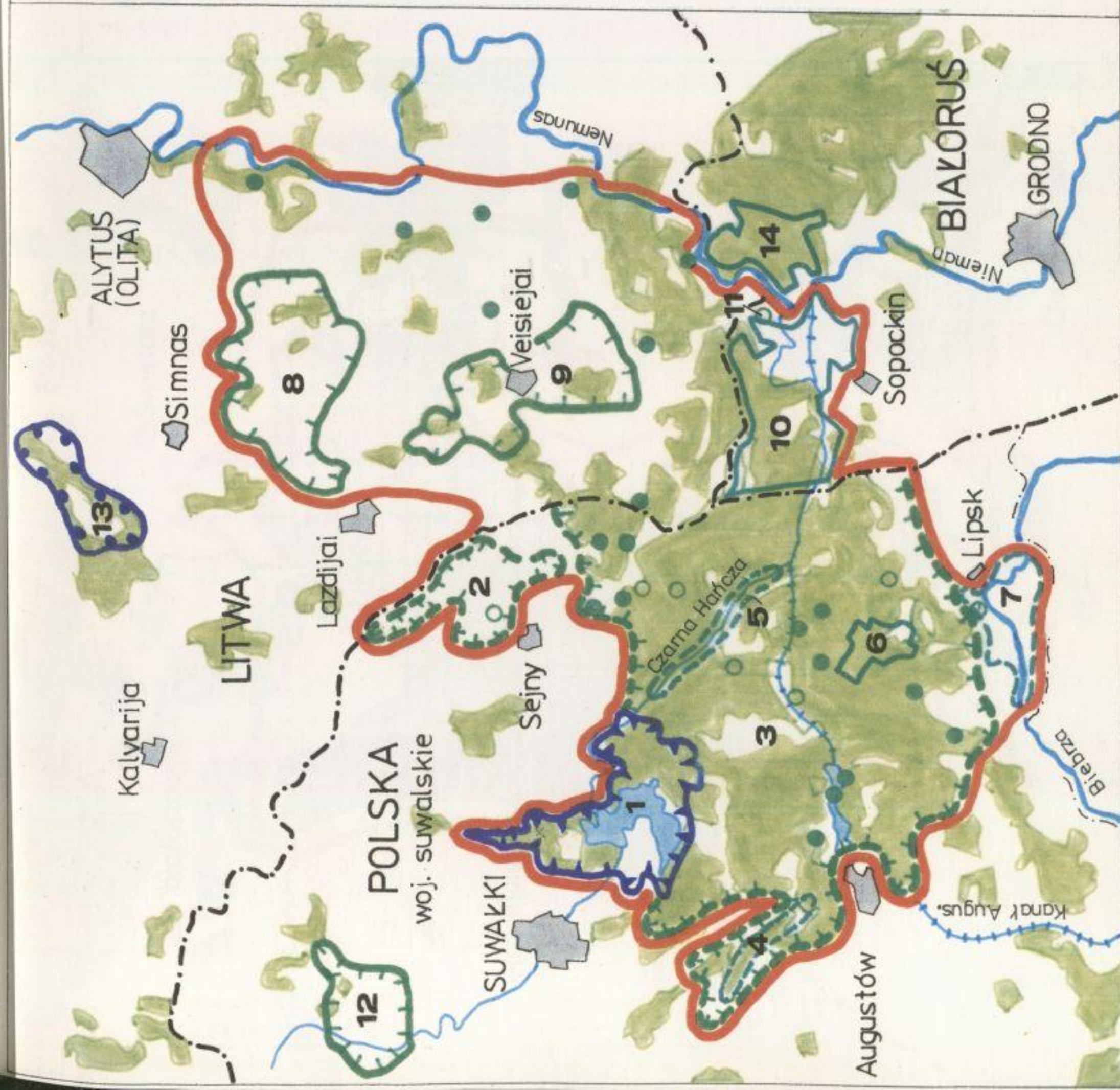


MAP 4.

THE AUGUSTOWSKO-OLICKI (AUGUSTÓW-ALYTUS) TOCH

scale 1 : 500 000

1. WIGIERSKI PN
2. SEJNEŃSKI PK (prop.)
3. PK PUSZCZY AUGUSTOWSKIEJ (prop.)
4. NATURE RESERVE „ROSPUDA”
5. NATURE RESERVE „CZARNA HAŃCZA”
6. NATURE RESERVE „KURIANSKIE BAGNO”
7. NATURE RESERVE „TORFOWISKA GÓRNEJ BIEBRZY” (prop.)
8. REGIONAL PARK „METELIAI”
9. REGIONAL PARK „VEISIEJAI”
10. ZAKAZNIK „SOPOCKINSKIJ”
11. ZAKAZNIK „CZIORNAJA HAŃCZA”
12. SUWALSKI PK
13. ZAPOVIEDNIK „ŽUVINTAS”
14. ZAKAZNIK „HOŽEWSKIJ”



POLSKA

Okręg Grodzieński

Swistocz

woj. białostockie

Narew

Narewka

Hajnówka

Białowieża

BIAŁORUŚ

Szerszewo

Prużany

Wysokoje

Kamieniec

Lesna

Okręg Brzeski

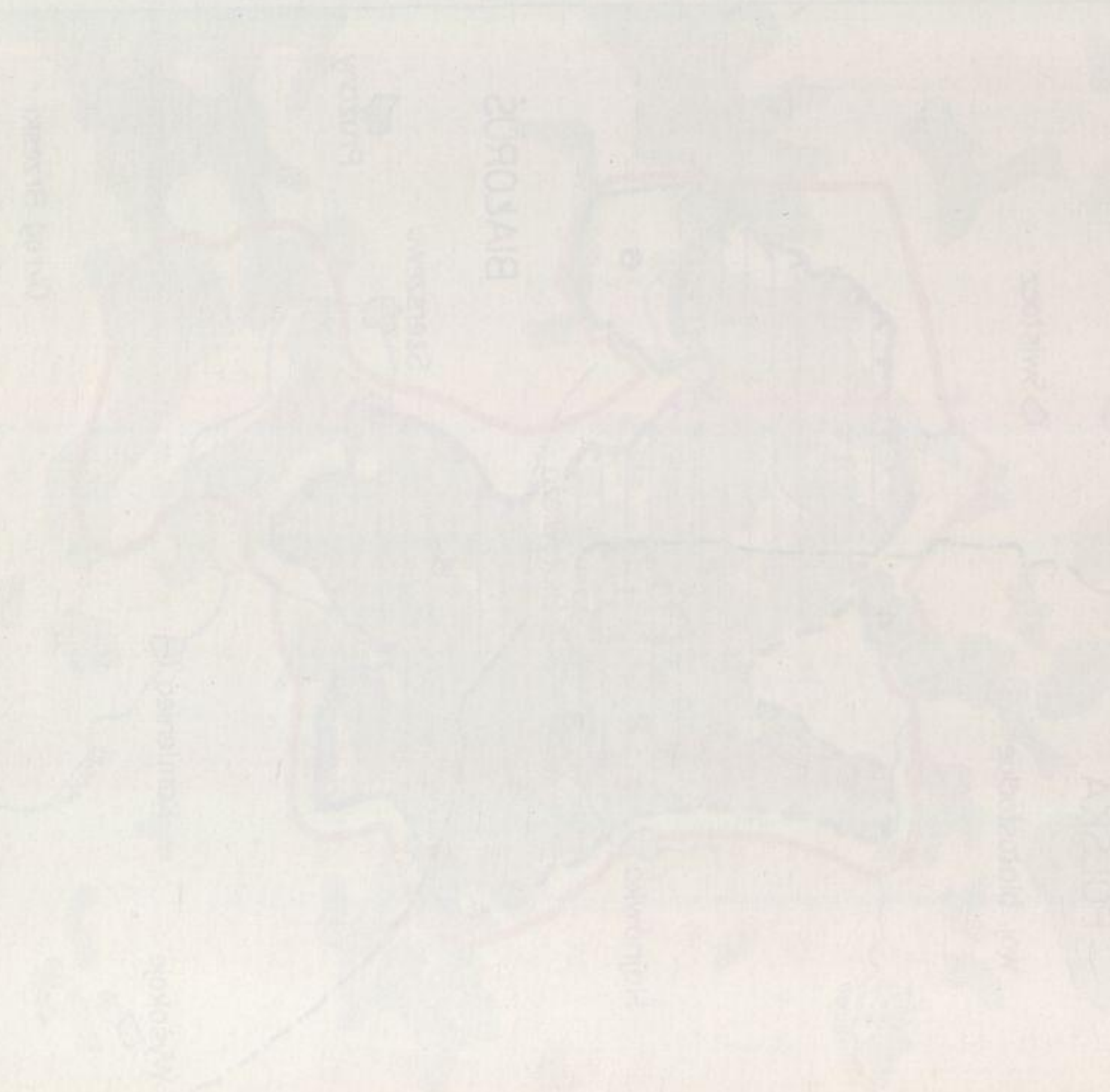
MAP 5. THE „PUSZCZA BIAŁOWIESKA” (BIAŁOWIESKA FOREST) TOCH

scale 1 : 500 000

1. BIAŁOWIESKI PN (BIOSPHERE RESERVE)
2. BIAŁOWIESKI PN (prop.)
3. LANDSCAPE RESERVE
4. NATURE RESERVE „SIEMIANÓWKA” (prop.)
5. PN „BIEŁOWIEŻSKAJA PUSZCZA”
6. ZAKAZNIK „DIKOJE”

2-й ПЛАН (БІЛГОМІСЬКА ЛОСІСЬ) ЛОСІСЬ ЛОСІСЬ

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POLSKA

woj. białostockie

Siemiatycze

Drohiczyn

Wysokoje

Kamieniec

BIAŁORUŚ

Bug

Janów
Podl.

BRIEST

Muchawiec

Terespol

BIALĄ PODLASKA

Krzna

woj. białskopodlaskie

MAP 6.

THE „PRZEŁOM BUGU” (BUG RIVER GORGE) TOCH

scale 1 : 500 000

1. PK „PRZEŁOM BUGU” (prop.)

2. POLESKI PK

3. POLESKI PN

4. NATURE RESERVE „BAGNO
BUENOW”

5. BODIBORSKI PK

6. CHELMSKI PK

7. STYŻELECKI PK

8. SZACIŁ PN

9. LIUBOMIELSKI PK (prop.)

10. LUKIŃSKI PK (prop.)

11. PRIBLUDZKI PK (prop.)

MAP 7.

THE „POLESIE ZACHODNIE” (WESTERN POLESIE) TOCH

scale 1 : 500 000

1. PK „POJEZIERZE ŁĘCZYŃSKIE”

2. POLESKI PK

3. POLESKI PN

4. NATURE RESERVE „BAGNO
BUBNÓW”

5. SOBIBORSKI PK

6. CHEŁMSKI PK

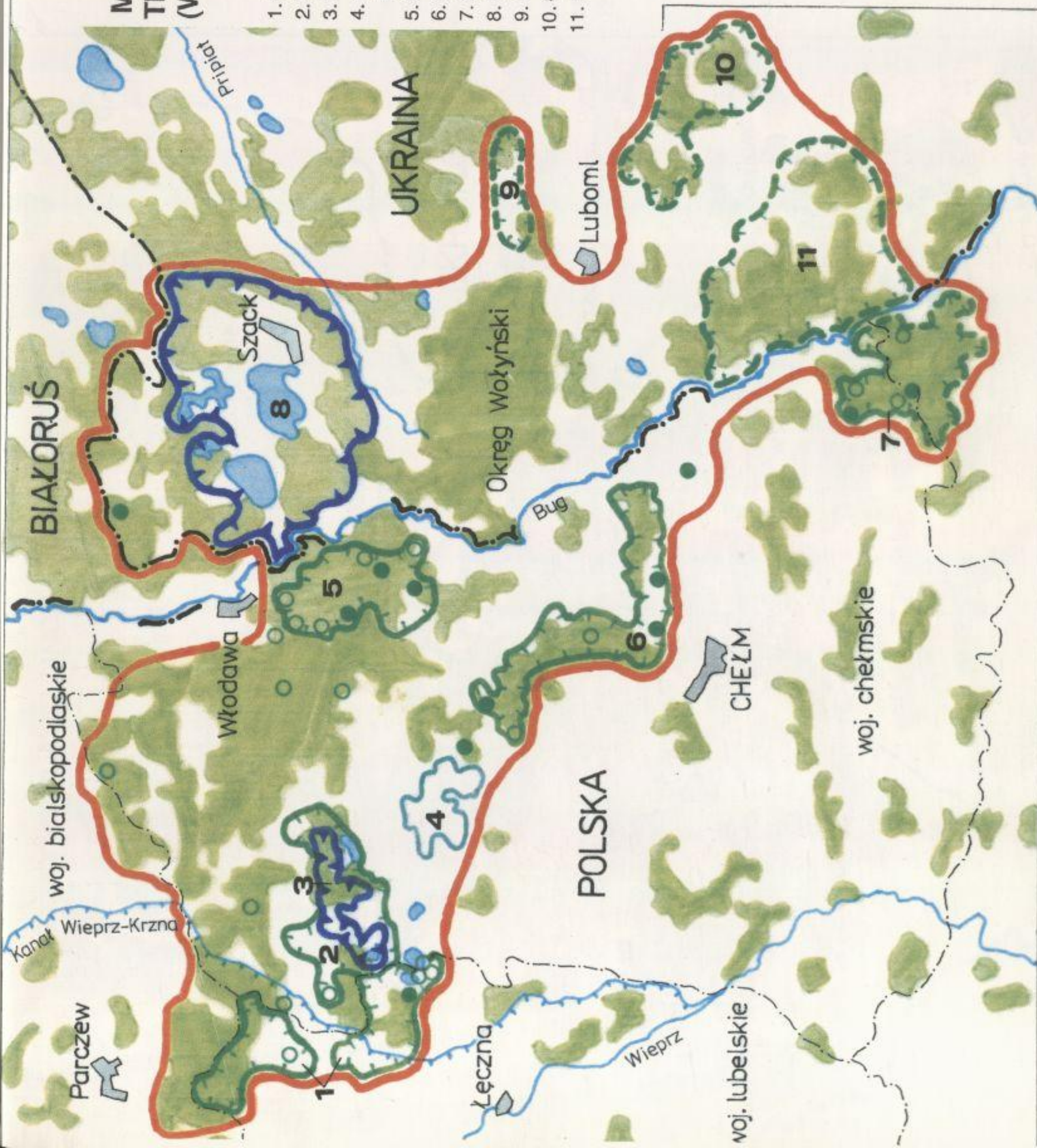
7. STRZELECKI PK

8. SZACKI PN

9. LIUBOMELSKIJ PK (prop.)

10. ŁUKIWSKIJ PK (prop.)

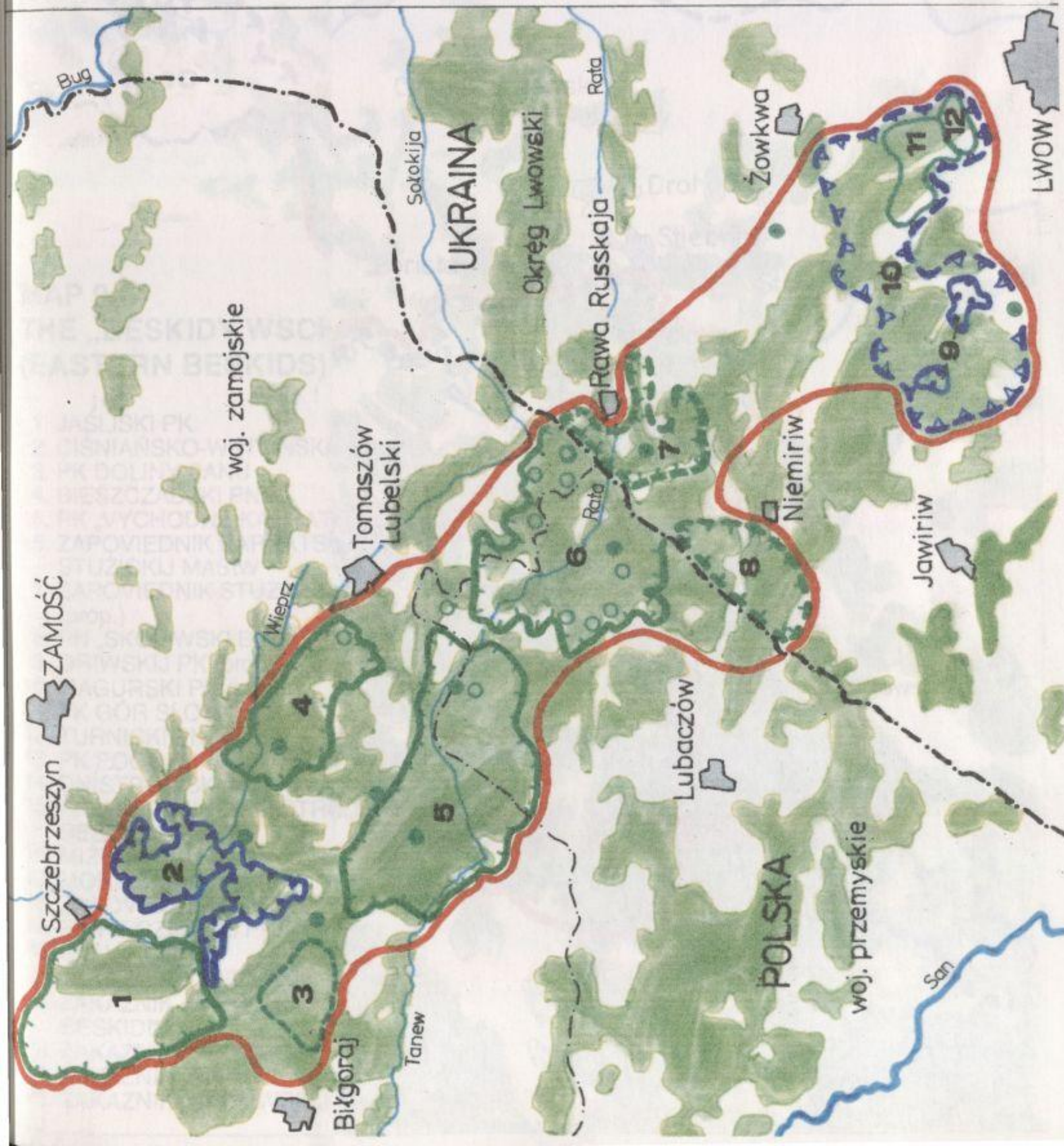
11. PRIBUŻSKIJ PK (prop.)

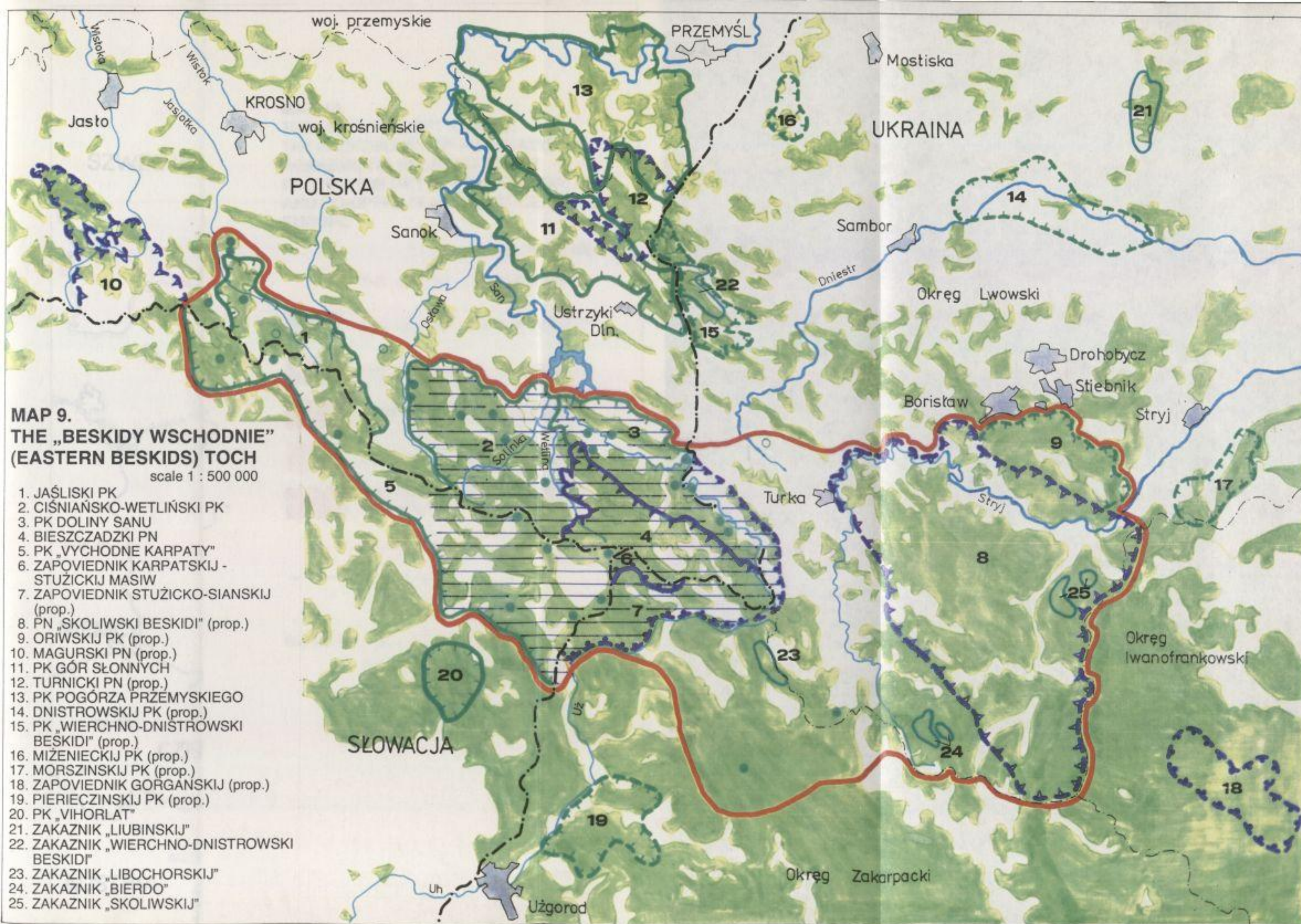


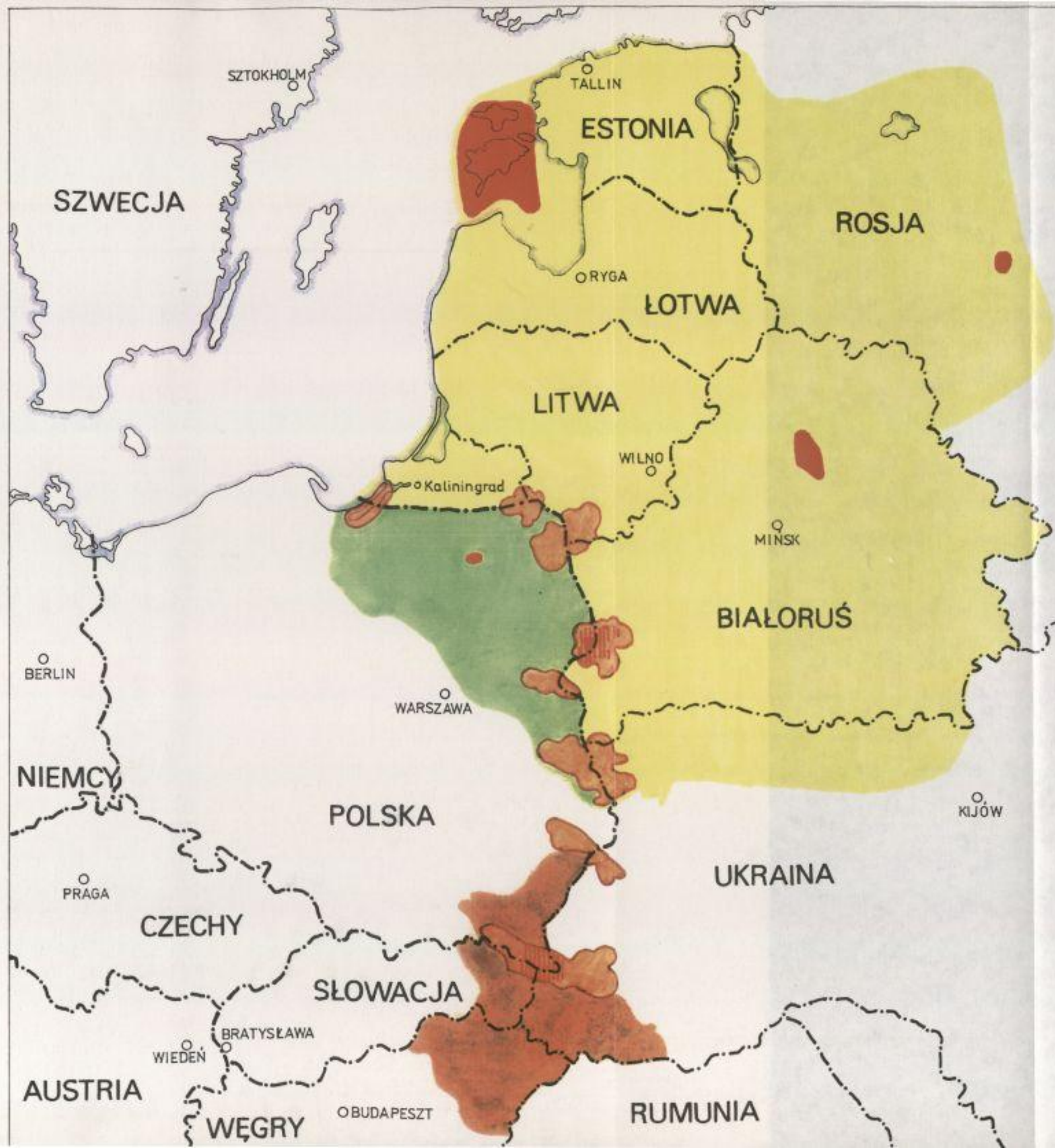
MAP 8. THE „ROZTOCZE” TOCH

scale 1 : 500 000

1. SZCZEBRZESZYŃSKI PK
2. ROZTOCZAŃSKI PN
3. NATURE RESERVE „WIELKIE BAGNO” (prop.)
4. KRASNOBRODZKI PK
5. PK PUSZCZY SOLSKIEJ
6. POŁUDNIOWOROZTOCZAŃSKI PK
7. POTIELICKIJ PK (prop.)
8. NIEMIRIWSKIJ PK (prop.)
9. ZAPOWIEDNIK „ROZTOCZE”
10. PN „ROZTOCZE” (prop.)
11. NATURE RESERVE „ZAWADZKI”
12. NATURE RESERVE „GRIADA”







MAP 10.
THE TOCH CONCEPT AGAINST
THE BACKGROUND OF INTERNATIONAL
AGREEMENTS RELATING TO THE
PROTECTION OF THE ENVIRONMENT,
AND CO-OPERATION, IN EAST-CENTRAL
EUROPE

scale 1 : 5 000 000

- THE "GREEN LUNGS OF EUROPE"
- THE "GREEN LUNGS OF POLAND"
- THE CARPATHIAN EURO-REGION
- BIOSPHERE RESERVES existing
- BIOSPHERE RESERVES proposed
- CROSS-BORDER PROTECTED AREAS (TOCH)
- state capitals
- state borders

Map worked on by: G. Rąkowski, M. Smogorzewska
 Institute of Environmental Protection
 Warsaw, February 1993

