Forecast of environmental impact of the Cross-Border Cooperation Programme
Poland – Belarus - Ukraine 2014-2020
**Abbreviation summary**

BAT – Best Available Technics Najlepsza Dostępna Technika
LIP – Large Investment Projects Duże Projekty Infrastrukturalne, i.e. projects which include all works, actions or services intended to fulfil an indivisible function of a precise nature
ENI - European Neighbourhood Instrument Europejski Instrument Sąsiedztwa
GDEP – General Directorate for Environmental Protection Generalna Dyrekcja Ochrony Środowiska
GHG – greenhouse gases gazy szklarniane, i.e. gases absorbing long-wave Earth and atmospheric radiation
EC – the European Commission Komisja Europejska
EIA – Environmental Impact Assessment Ocena Oddzialywania na Środowisko
OSO, PLB – the Natura 2000 network areas in accordance with the so-called Bird Directive
SIEP – State Inspection of Environmental Protection Państwowa Inspekcja Ochrony Środowiska
The PBU Programme – Cross-Border Cooperation Programme Poland-Belarus-Ukraine
SEA - Strategic Environmental Impact Assessment Środowiskowa Ocena Strategiczna
SOO, PLH - the Natura 2000 network areas in accordance with the so-called Habitats Directive
TO - Thematic objective(s), cele tematyczne, i.e. the groups of objectives enumerated by the European Commission (Reg. 232/2014) in the document establishing ENI
EU the European Union Unia Europejska
“Green Lungs of Poland” Zielone Płuca Polski, as a part of the Green Lungs of Europe system – a cross-regional understanding of Poland and the neighbouring areas
SD – sustainable development zrównoważony rozwój
I. INTRODUCTION

1. Formal and programme framework

Poland as an EU member is obliged to use environmental impact assessment as an instrument concerning planned enterprises implementation and agreeing on strategic documents which may exert a significant influence on the environment and Natura 2000 network areas. Environmental impact assessments of plans, programs and other strategic documents carried out in the EU in accordance with regulations covering horizontally all member countries are a basic tool for environmental protection management control and the respect of sustainable development principles. Thereby, they have been considered as a basic element to implement assistance programmes in all fields where an environmental aspect may play a significant role. It concerns particularly regional support projects, which includes the European Neighbourhood Instrument (ENI).

The Cross-Border Cooperation Programme Poland-Belarus-Ukraine 2014-2020 (the PBU Programme, the Programme) under the European Neighbourhood Instrument (ENI) continues and broadens the cooperation in the border area of the three countries involved, which so far has been developed within the framework of the Neighbourhood Programme Poland-Belarus-Ukraine INTERREG IIIA/Tacis CBC 2004-2006 (the Neighbouring Programme) and ENPI PWT Poland-Belarus-Ukraine 2007-2013. It is assumed that the Programme will have finished in 2024 and the physical implementation of the programmes in 2022. The territorial scope of these programmes as well as their objectives are very similar and the material and financial aspect is gradually becoming smaller. The principles of functioning of the Cross-Border Cooperation Programmes are regulated by the documents created in the EU by the Parliament and the European Commission in 2014 (232/2014, 236/2014 i 897/2014).

The Forecast of environmental impact Cross-Border Cooperation Programme Poland – Belarus – Ukraine for the period 2014 to 2020 (hereinafter referred to as the Forecast) has been prepared to order of the government body preparing a main strategic document in compliance with the provisions of the Act on the Provision of Information on the Environment and its Protection, Public Participation in Environmental Protection and Environmental Impact Assessments (EIA Act) as of 3 October 2008. The Forecast is prepared as a separate document concurrently with the works on the Programme with a necessary delay. It is a stage in the procedure of an environmental impact assessment of policies, plans and programmes, stated also in the EIA Act implementing the EU Directive.
The procedure in case of environmental impact assessment of policies, strategies, plans and programmes implementation belongs to the tools of permanent and sustainable development implementation – one of the basic constitutional principles of the Polish political system and one of the fundamental principles of the European Community. It belongs to the so-called horizontal EU law, which means that all member countries are obliged to implement such a procedure. Relevant provisions are stipulated in Directive no. 2001/42/EC of the European Parliament and the Council as of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, which entered into force on 21 July 2004. It clearly arises from them that the PBU draft Programme is subject to such an assessment. Stipulations concerning the character of international cooperation of neighbouring countries may include different types of aspects which may be significant for the environmental protection condition and actions and, in particular, they may decide on the undertaking of actions which may exert a significant impact on the environment. At a material level of the Forecast, numerous Acts and Regulations of the Republic of Poland determining environmental standards and administrative procedures in a broadly understood environmental protection management are binding. In view of their huge amount, not all of them are referred to herein. Particular significance, in view of the area character, have the acts and regulations presented below. All these regulations were subject to frequent changes, which requires tracking of current provisions.

The Environmental Protection Law as of 2008 (JoL No. 25, item 150),
The Nature Conservation as of 2009 (JoL No. 151, item 1220),
The Forest Act as of 2005 (JoL No. 45, item 435),
The Water Law as of 2005 (JoL No. 239, item 2019),
The Geological and Mining Act as of 2005 (JoL No. 228, item 1947),
The Building Law as of 2010 (JoL 243, item 1623),
The Waste Law as of 2010 (JoL No. 185, item 1243),
The Act on Chemical Substances and their Mixture as of 2011 (JoL No. 63, item 322),
The Act on Chemical Substances and Preparations as of 2001 (JoL No. 11, item 84),
The Act on Collective Supply in Water and Collective Discharge of Waste Water as of 2001 (JoL No. 123, item 858),
The Act on Maintaining Cleanliness and Order in Communes as of 2005 (JoL No. 236, item 2008),
The Regulation of the Council of Ministers as of 2010 on projects significantly affecting the environment (JoL No. 213, item 1327),
The Regulation of the Minister of Environment of 2002 on the types of installations likely to cause major contamination of the environment as a whole, or respective natural elements (JoL No. 122, item 1055).
Current legal regulations concerning environmental protection are available on the webpages of the Ministry of Environment. Finally, it should be stated that the SEA procedure is growing in importance as a tool allowing for broad public participation and the indication of progression ways in accordance with the principles of sustainable development.

I.2. The objective and scope of the Forecast

The objective of the Forecast is the determination of the environmental impact of the PBU Programme implementation in agreement with the three partners of the Programme. The EIA Act provides for the determination of the scope of the Forecast (the so-called scoping) as one of the obligatory stages of an assessment procedure. A public administration body preparing a draft of a document or introducing changes in an already accepted document has to agree with relevant bodies on the scope and the degree of the detailed nature of information required in the environmental impact Forecast. In this case, such a scope has been officially determined by the General Directorate for Environmental Protection in relation to statutory regulations. The Main Sanitary Inspector has also expressed their position. The Forecast is compliant with these recommendations.

Therefore, the objective of the preparation of the Forecast of environmental impact of the PBU Programme for the period 2014 to 2020 is an overall analysis of a possible impact of actions provided for in the draft of the Programme on particular components of the environment, the determination of potentially adverse consequences and the analyses of possible alternative, mitigating or compensatory actions. The documentation of the Forecast of environmental impact of the PBU draft Programme for the period 2014 to 2020 (hereinafter referred to as the Forecast) constitutes a strategic element of the environmental impact assessment.

In accordance with the stipulations between: the Minister of Infrastructure and Development in Poland, the Minister of Natural Resources and Environmental Protection in Belarus and the Minister of Ecology and Natural Resources in Ukraine, a strategic environmental impact assessment of the Programme will be carried out by the Centre of European Projects under the control of the Ministry of Infrastructure and Development, in compliance with the provisions of the Polish law. Thus, a legal basis of the preparation of the Forecast of environmental impact of the draft Programme will be the Act on the Provision of Information on the Environment and its Protection, Public Participation in Environmental Protection and Environmental Impact Assessments (EIA Act) (JoL 2013.1235 c.t., as amended) as of 3 October 2008, compliant with the requirements of Directive 2001/42/EC as of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (SOOS Directive) and, because of Belarus and

In accordance with article 46 of the EIA Act (JoL 2013.1235 c.t., as amended), carrying out of a strategic environmental impact assessment is required for policies, strategies, plans or programmes in the field of industry, power industry, transportation, telecommunications, water management, waste management, forestry, agriculture, fishery, tourism and the use of land, prepared or approved by the administrative bodies, determining frameworks for later implementation of undertakings which may exert a significant influence on the environment. The Programme constitutes one of them and in relation to this, the body preparing the draft of such a document is obliged to prepare the Forecast of environmental impact for it.

In accordance with article 51 of the EIA Act (JoL 2013.1235 c.t., as amended), the Forecast covers the following scope:

1. Introduction

1.1. The objective of preparing the Forecast

1.2. Legal basis and an arrangement concerning the scope of the Forecast with relevant bodies

1.3. The method of preparing the Forecast

2. The analysis of the draft Programme

2.1. Information on the content, objectives and action included in the draft Programme

2.2. The objectives of environmental Protection determined at the international, the EU and the national level, significant from the point of view of the draft Document

3. Relations between the draft Programme with documents at the international and national level

3.1. The analysis of compatibility with strategic international and the EU documents

3.2. The analysis of compatibility with strategic Polish documents at the national and regional level

3.3. The analysis of compatibility with strategic Belarusian documents at the national and regional level

3.4. The analysis of compatibility with strategic Ukrainian documents at the national and regional level

4. The analysis of an environmental condition in the area included in the draft Programme

4.1. Landscape and the shape of landscape

4.2. Surface water (water resources, water management)

4.3. Climate and the quality of air

4.4. The environment, biodiversity, forests, protected areas

4.5. Cultural values, monuments and cultural and historical heritage, material goods

4.6. The settlement network, population and migrations

4.7. Health and conditions/quality of human life
4.8. Land use, transportation and infrastructure, economy (in particular tourism and recreation, education, labour market, border management), land use

4.9. The existing problems of environmental protection significant from the point of view of the draft Programme implementation.

5. The assessment of the effects in case of the lack of the Programme implementation

6. The environmental impact Forecast, including anticipated significant effects

6.1. The impacts on environmental components (the environments, people, water, air, landscape surface, natural resources, landscape, climate, monuments and material goods)

6.2. Cumulative impacts assessment

6.3. The analysis of the possibilities of the draft Programme cross-border impact

6.4. The analysis of impacts of action included in the draft Programme

7. Problems, uncertainty and the lack of information

8. Recommendations (general and detailed adjusted to the character of the Programme) of the solutions timing at the prevention and limitation of negative impacts on the environment arising from the Programme implementation

9. Recommendations concerning the missing proenvironmental solutions

10. Proposals of the methods of assessment of the effects of the draft Programme implementation and the frequency of carrying them out

11. The presentation of solutions which are an alternative to the solutions included in the Programme together with the justification of their choice and the description of the methods of carrying out the assessment leading to this choice or the explanation of the lack of such solutions

12. The proposals of the methods and the way of conducting the monitoring of the Programme implementation effects within the scope of its impact on the environment

13. Conclusions and recommendations

14. Summary in a non-specialist language

The above-mentioned components of the Forecast may be aggregated and in the event of the lack of the relation with the character of the Programme, omitted or reduced to formal observations.

I.3. Procedural issues

Public administration body preparing the draft of the document is responsible for the Forecast implementation. Following the Forecast implementation, the body preparing the draft of the document submits its together with the Forecast to the authorities, which have been consulted about the scope of the
Forecast. In case of making a decision upon the necessity to carry out the assessment and the scope of the Forecast, the form of cooperation of the bodies was an understanding and agreement — thus, both with the shared decision-making character, but in case of the draft document it is subject only to the opinion of the environmental protection body - cooperation has a non-binding form here. The situation is reverse than in case of the assessments of undertakings where environmental protection bodies only formulate opinions on the necessity to carry out an assessment and its scope, but the agreement concerns only the settlement of the case. This is especially significant in case of a document of an international strategy character, such as the PBU Programme, where the status of the final approving decisions is really high.

Public administration bodies which are competent to agree on the scope and the detailed information required in the environmental impact Forecast for the proceedings on the environmental impact assessments carried out by the central public administration body and formulating opinions on the drafts of these documents are the General Director of Environmental Protection operating within the structure of the Ministry of Environment and the Chief Sanitary Inspector. Due to the geographical character of the strategic document, provisions on cross-border impacts are applicable as well.

Following carrying out of the Forecast implementation, further consultations and possible modifications have to include both documents treated as iunctim (the Programme and the Forecast)

I.4. Working methods for the Forecast

The Forecast concerns the environmental effects of the Programme implementation. Discussion on the Forecast should concentrate solely on the environmental issues and, more broadly, on the relation of the Programme with objectives and principles of sustainable development. Under such conditions, the basic method applied in the Forecast is a comparative analysis of teleological provisions of the Programme with the models of environmental protection management and sustainable development implementation approved by the PBU countries. These models arise from the formally accepted documents (treaties, conventions, directives, acts and understandings). The comparative analysis has been conducted by means of descriptive bonitation and ranking method with the level of accepting potential differences between models and provisions established by experts. It has been done by way of table and matrix summary. The PBU Programme does not include a detailed record of specific material action, it introduces a basic and reserve list of 19 undertakings of investment and organisational character. This list constitutes an attachment to the PBU Programme.

In the course of works on the Forecast, methodological approach has been prepared as a separate study. It has a directive character for similar Forecasts and, therefore, it enumerates all possible content and
methodological approaches. The methodological foundations may be subject to limitations in particular strategic document conditions.

1.5. Public participation

The initiation of a public participation process may take place at any time prior to the approval of the document. Due to the objective of the entire proceeding it is necessary that it takes place after the Forecast implementation. It does not mean, however, that the legislator orders it takes place only once. Under this provision, the body may carry out the procedure of public participation at each stage of the assessment. Legal regulations concerning public access to environmental information, in particular Directive No. 2003/4/EC of 28 January 2003 on public access to environmental information and repealing the Council Directive 90/313/EEC (OJ UE L 41 of 14.02.2003), a relevant provision in the EIA Law, the provisions of the Espoo Convention, ratified by all countries participating in the Programme and by the EU (the Convention on environmental impact assessment in a transboundary context of 1991) and the provisions of the Aarhus Convention (the Convention on access to information, public participation in decision-making and access to justice in environmental matters of 1998) are significant for the subject document as well. It should be noted that the Aarhus Convention has a special position for the PBU Programme as it is not an "ordinary" environmental protection convention. It concerns the right of a human being to clean environment rather than the environmental protection. In this sense, the right to information, participation in decision-making and access to justice are frequently called as the "next generation" of the rights of a human being in the environmental protection and as such constitute a key element of the sustainable development principle implementation. What we are talking about here is a circumstance when countries which have very different sources of law may cooperate jointly using a significant international document of a timeless character.

Carrying out public debates on the draft of both documents (the Programme and the Forecast) and implementing received comments during the summary of final versions constitutes a practical recommendation for the body preparing the Programme. Due to their international character, the debates should be carried out with the participation of the Polish, Belarusian and Ukrainian society representation. The drafts of the documents have to be made available for the Polish society for at least 21 days, e.g. through their uploading on the webpages.

The results of public consultations should be reported in a separate report including raised questions and answers to them. It is possible to aggregate answers or to refer to the provisions in the Strategy or the Forecast.
II. THE SCOPE OF THE PBU PROGRAMME

The Forecast refers only to these elements of the Programme which concern the environmental issues. Thus, it is not necessary to describe the genesis of the Programme and its relation with strategic documents which do not concern the environmental issues and are not subject to an environmental assessment procedure. Procedural issues which have no relation with the environmental Protection and which do not contribute to significant environmental threats are outside the scope of the Forecast as well. The issue of the Programme budget is also not discussed and analysed, provided that it is not related to particular material actions. However, it should be stated that the financial scope of the Programme is very limited and spread over time, which in terms of the three beneficiary countries means that the amounts are very moderate and exclude the implementation of significant undertakings. Particular contractual amounts concerning proposed projects will also not be high, even though the number of projects is small.

The PBU Programme is delimited administratively and it covers main support and adjacent regions. In Poland these are: krośnieński and przemyski (in Podkarpackie Voivodeship), białostocki, łomżyński and suwalski (in Podlaskie Voivodeship), biański and chełmsko-zamojski (in Lubelskie Voivodeship), ostrołęcko-siedlecki (in Mazowieckie Voivodeship) main subregions and rzeszowski and tarnobrzeski (in Podkarpackie Voivodeship), puławski and lubelski (in Lubelskie Voivodeship) adjacent subregions. In Belarus, the main regions are: grodzieński and brzeski regions and the adjacent regions are: miński (together with Minsk) and homelski. Finally, the Ukrainian part consists of three main regions: lwowski, wołyński and zakarpacki and the adjacent regions: rówieński, tarnopolski and iwanofrankowski. The map with the indication of these regions is included in the Programme; in the Forecast, the boundaries are visible on the map of protected areas.

Despite distinguishing main and adjacent regions, the institutions which come from these two parts and applying for co-financing from the Programme are treated equally.

The total surface of this area amounts to 316 300 km², out of which 44% lies in Belarus, 32% in Ukraine and 24% in Poland. The neighbours, apart from the remaining areas of the contracting countries, are Lithuania and Slovakia (the neighbourhood with two countries) and Hungary, Romania and Russia (the neighbourhood with one country). The exhaustive demographic, economic, social, cultural heritage and some environmental information is included in the Programme.

The draft of the Programme is a consolidated text emphasising the issue which is potentially interesting for all three parties and corresponds simultaneously with the ENI. In particular, the PBU Programme is closely related to the three strategic groups from the provisions of the ENI Instrument, these include the following:
A. Promotion of economic and social development in regions that lie along their common border,
B. Solving common challenges concerning the environment, public health and safety,
C. Promotion of better conditions and principles ensuring the mobility of persons, goods and capital.

Thematic objectives, i.e. thematic groups (TO) have been identified together with domestic priorities as potentially aggregated developmental directions. The Programme contributes to the all above-mentioned strategic objectives and identified regional needs through co-financing of the implementation of non-commercial projects referring to the following four TOs and priorities dedicated to them:

1. Promotion of local culture and preservation of historical heritage (TO3)
   Priority 1.1 Promotion of local culture and history
   Priority 1.2 Promotion and preservation of historical heritage

2. Improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems (TO7)
   Priority 2.1 Improvement and development of transport services and infrastructure
   Priority 2.2 Development of information and communications technology infrastructure

3. Common challenges in the field of safety and security (TO8)
   Priority 3.1 Support for the development of health care and social services
   Priority 3.2 Addressing common challenges related to safety

4. Promotion of border management and border security, mobility and migration management (TO10)
   Priority 4.1 Support for effectiveness and border security
   Priority 4.2 Improvement of border management, customs and visa procedures operations

TO3 aims at the protection and propagation of cultural and historical heritage of cross-border regions, the reinforcement of cultural links and cooperation, the improvement of the image and attractiveness of the region and the increase of the activity of local communities. The existence of well-maintained cultural and environmental heritage sites is closely related the development of cross-border tourism, including the so anticipated qualified one. Tourism has been defined as the biggest potential sector for generating revenues and which constitutes an increasing source of employment and investment, particularly in rural areas. The improvement of the condition of various places with cultural and environmental potential, the improvement of spatial order and further development of tourist infrastructure are required in order to use regional heritage in a better way and increase the number of both inbound and local tourists. The priorities will concentrate on the improvement of physical condition of cultural and environmental heritage "sites" as well as on the "soft" actions. The development of physical infrastructure should be supported through enhancing contacts and networks between the parties interested in the cultural and tourist sectors. Moreover, the attractiveness of tourism and the increase in the sector are strongly dependant on the diversity and the
quality of tourist services, the image of the region and proper promotion of seasonal tourist activity. In relation to the above, actions aiming at promotion and diversification of tourist products will be included in this TO as well. The actions also include co-financing of the projects with a small budget. One-time amount of a subsidy for such a project may not exceed EUR 60 000.

In priority 1 concerning promotion of local culture and history, the indicative undertakings may be the following: initiatives and events concerning promotion and preservation of local culture and history; Projects timing at support, promotion and preservation of traditional craft, handicraft and skills; projects promoting tourist values; concerning preparation and implementation of investments in tourist infrastructure and services increasing the use of cultural heritage in tourism; creation of tourist products, with respect of the necessity to protect cultural heritage; simulation of interinstitutional cooperation within the scope of historical and cultural heritage; conservation, preservation and adaptation or development of cultural heritage for tourist, social, cultural, educational and other purposes; trainings and the exchange of personnel with the purpose of: improving cultural heritage management skills, developing common products and tourist services, heritage resources marketing within the scope of the Programme, etc. As it arises from the above, these are all actions aiming at proenvironmental activation of the area.

In priority 2. promoting the preservation of environmental heritage there are also actions which are compliant with this activation. These comprise such undertakings as: initiatives and events concerning the promotion and preservation of environmental heritage; creation of tourist products related to environmental heritage protection; development of skills and cooperation between local and regional authorities within the scope of natural resources management; development of cross-border strategies timing at preservation and utilisation of landscape; investments in environmental infrastructure, particularly waste water and water management, trainings and the exchange of personnel with the purpose of improving environmental heritage management skills, development of common products and tourist services, heritage resources marketing within the scope of the Programme and other related skills; the construction, reconstruction or modernisation of infrastructure aiming at increasing the use of environmental heritage for the benefit of tourism, including supplementary tourist infrastructure. The Large Infrastructural Projects implementation related to the modernisation of historical architectural objects is also planned within the frameworks of TO3. TO7, i.e. the improvement of accessibility to the regions, development of sustainable and climate-proof transport and communication networks and systems, is related to the poor connections and insufficient number of communication networks and systems, which hinders cross-border contacts and disrupts transit traffic, which consequently reduces the attractiveness of the region for the investors. Co-financing of actions related to the improvement of transport accessibility, development of environmentally friendly transport, construction and modernisation of communications networks and systems and improvement of information
and communication infrastructure in the area covered by the Programme are planned. Concentration on the development of local roads which offer significant cross-border effects and impact is visible. Indicative undertakings within the frameworks of both priorities have been stated in the Programme. Common actions supporting sustainable development of cities and regions and the development of improvement of environmentally friendly low-emission transport systems (including the reduction of a noise level) should be noticed there.

Common challenges in the field of safety and security (TO8) should improve a relatively low quality of the inhabitants’ life in many aspects, starting with difficult material conditions and worse accessibility to the job market and insufficient accessibility to social infrastructure and ending with limited access to health care. It corresponds with a strategic objective B concerning cross-border cooperation ENI "Common challenges in the field of environmental, public health and safety protection". It is significant to incorporate initiatives within the scope of natural and human disaster prevention and improving employees’ qualifications in undertaking rescue actions into the second priority of this TO.

In the part concerning borders (TO 10), it is important to counter the spread of human, animal and plant diseases across borders as well as to counter and eliminate illegal trade in rare and endangered species. Moreover, action dedicated to local border traffic will be also supported.

The indicative initiatives aiming at adaptation and development of existing border-crossing points for pedestrian and cycle traffic have been stated in priority 1 "Support for the effectiveness and border security".

Actions supporting border management within the scope of prevention and counteracting illegal migration and trade may be observed in priority 2 "Improvement of border management, customs and visa procedures operations". Large Infrastructural Projects implementation related to the modernisation of border-crossing points is also planned.

Within the framework of the Programme, Large Infrastructural Projects are selected only within the framework of a direct procedure which is applicable only to Large Infrastructural Projects. This means that such projects are awarded to: the bodies with de jure or de facto monopoly in a particular field and for the action with specific features requiring particular type of subject due to its technical competences, high level of specialisation or administrative entitlements.

The approved Large Infrastructural Projects list in included in the Attachment to the Programme; no other projects may be selected within the framework of an direct procedure. Thereby, the list of enterprises which may exert a significant environmental impact has been exhausted a priori. The remaining part of the Programme includes "soft" actions or actions with an infrastructural component with a financial dimension amounting to EU 2,5, with a small or marginal environmental impact which is usually positive.
Thus, the general objective of the Programme is sustainable social and economic development made with the use of cross-border cooperation and integration which is proper for common challenges of the region. Such provision is close to the general ideas of sustainable development as economic and social aspects are an inherent, although not the only one, element of this development. At this stage, it may be stated that this main objective is compliant with the broadly understood environmental protection and the implementation of sustainable development principles. On the other hand, the above-mentioned provisions clearly concentrate on the improvement of the structures which serve borders and to a lesser degree on the support of "tourist" infrastructure (culture, accessibility, sanitation).

In general, it concentrates on the increase of border areas competitiveness. The problem of relative Economic and social underdevelopment of border areas is not unknown neither in Poland, nor in Belarus or Ukraine. The Programme documents this condition and includes the latest data which indicate a still present and adverse trend.

From the ecological point of view, two aspects should be noticed here. The increase of competitiveness in the spatial sense, in Europe, is currently accompanied by a clear increase of the level of the environmental/technical infrastructure and the appearance of sustainable development criteria applicable to business operations. Moreover, the underdeveloped territories enhance their competitiveness mainly due to the development of the services sector, including intangible services. Both of these aspects may have positive environmental effects. It may be achieved through the improvement of the accessibility to the regions.

Actions provided for in priority 3.1. and 3.2. concerning, in a broader sense, the improvement of the quality of life is very significant from the ecological point of view. Improvement of the environmental condition, first and foremost, in terms of the emissions, and improvement of the civil safety and border security are mentioned outright here. These priorities directly and definitely support sustainable development principles implementation. The environmental protection in the border area means common management of the most valuable environmental areas which are mostly located in the cross-border area.

Sustainable development principles are also supported in case of TO3 as a results of implementing local initiatives that may be implemented by self-governments which know environmental conditions well.

On the one hand, these priorities are strongly related to a geopolitical location of the region and on the other hand to its environmental and demographic rich specificity as well as tradition, culture and history. A direct reference to ecological content has been included in two short sub-chapters of the Programme concerning the environmental condition and the tasks within the scope of its improvement. Attention has been paid to poor infrastructure of the environmental protection devices in the sparsely-populated areas with very high values and environmental resources. The level of ecological awareness is rated low which arises from the
weakness of citizens’ movements (NGOs). Directions of change include the reinforcement of the standards of life, also through a simple increase of the access to free resources, and the improvement of spatial order. The increase of the significance of a tourist product, the improvement of waste management and water and waste management have the biggest perspectives in the sphere of economic activity. Priorities purely related to the environmental protection have not been included in the Programme. In particular, renewable power industry investments and other technological innovations serving this protection are omitted.

Attention has been also paid to the role of recently established NATURA 2000 areas which constitute the most important environmental "grate" and to the project of creating two- and three-way biosphere reserves. There are already two areas like this in the three-border areas between Poland, Belarus and Ukraine (Polesko-Szacki region) and Poland, Ukraine and Slovakia (Karpacki region). Attention is also paid to a still insufficient recognition of the environmental values, especially biotic one.

SWOT analysis also includes environmental aspects, referring to them adequately. Deeper and environmental SWOT analysis has been attached to the Forecast.

The Programme includes thematic objectives, that is the groups of environmental objectives located in the TO and priorities provisions. The first group includes the objectives which are directly articulated: sustainable development included in the main objective, the environmental protection and the quality of life, always understood as a necessary factor of progress in work of sustainable development. Indirectly, such objectives also include the skillful increase of accessibility to the region together with the development of intangible services (tourism, but also the management of areas which are environmentally valuable). Proenvironmental objectives may be also related to the priorities concerning border security and cross-border improvement. The Programme decisively declares that specific undertakings (first and foremost road ones) will be implemented with a clear proenvironmental emphasis. Projects which are environmentally adverse will not be approved for implementation.

III. ENVIRONMENTAL CONDITION IN THE PROGRAMME AREA

III.1. General characteristics of the PBU area environment

The PBU area belongs to Eastern Europe, shaped first and foremost on the pre-Cambrian platform, where younger formations occur in the rigid and generally flat foundation. Favourable aseismic conditions and the lowland character of the majority of the area result from this. The Carpathian anticlinorium is a small enrichment in this general structure. The latitudinal extent of the area decided upon significant thermal contrasts between cold northern borders and Podkarpackie valleys. The transitive nature of the oceanic and
continental climate with a small advantage of summer rainfall and the increased (in relation to the rest of Europe) annual amplitude of air temperature (above 23°C) is a characteristic feature. The PBU area is drained to the Baltic Sea (the Vistula and Niemen basin), the Black Sea (the Dniepr, Boh and Dniestr basin and small fragments also through Cisa to Dunaj). In the northern part, there are drainage areas with a relatively small surface. Medium deep and shallow rivers prevail and there are lots of hydrogenic landscapes which are mostly dried and drained. Rich vegetation, including both forests and meadows, can be distinguished from the closer and further surrounding. It also arises from the abundance of kinds, types and subtypes of soil, including the highest quality soil (chernozem on loesses, black soil and limestone soil). The PBU area is culturally, ethnically and historically rich.

The analysed area with the surface comparable to a medium-sized European country is not homogenous in terms of the quality of the environment. In the era of globalisation, but at the same time of centralisation, the areas which possess unique environmental and cultural features are becoming more important. This distinctness and uniqueness are becoming a value in itself which must be protected but also used prudently. The Polish, Belarusian and Ukrainian border area is such a unique area which may become the Polish specific export "commodity" and simultaneously an opportunity for faster social and economic progress. Distinctive features of this area constitute a special, complex and extremely attractive, although not fully known, commodity. It includes the following:

- low population density adjusted to natural conditions; occurrence of areas characterised by relatively unchanged nature, little known even in the countries involved in the cooperation;
- clean air, the cleanest in this part of Europe;
- good quality of water, polluted actually only with municipal wastewater;
- unique diversity of the environmental system; the abundance of hydrogenic ecosystems but also the Pontic communities; the presence of rare species for which special protection systems should be organised;
- attractive forest complexes (including primeval woods), lakes and grasslands;
- possibility of contact with nature unchanged by the civilisation;
- the richness of cultures, traditions and customs;
- good traditional and healthy cuisine; good conditions for the production of healthy food and the location of "green industry."

III.2. Sozologic characteristics
The most significant environmental threats arise from the implementation of large-area and generally unsatisfactory undertakings implementation concerning "transformation of the environment", which was a key challenge of the era of real socialism implemented in all PBU Programme countries.

The biggest damage was done in relation to the landscape surface and soil cover. Podole and Wołyń are the areas with densely located previous mine workings. There are numerous areas of completely damaged peat soil in Polesie. Surface waters are strongly eutrophic, including the source rivers. There are practically no rivers whose water is fit for consumption. However, on the other hand, there is practically no completely degraded water. The quality of water in lakes improves, out of which approximately 30% may be regarded as not threatened by degradation. Currently, the PBU area does not indicate larger spheres of increased pollution concentration. There are only local sources of common pollution (energetic and transport pollution). Transport threat is currently moderate or weak. When it comes to industrial threats, the area is characterised by average or low impact on the atmosphere, hydrosphere, pedosphere and biosphere. The signals of health consequences of physico-chemical threats related to industry in this area are not known.

The most significant centres of industrial emission and simultaneously geochemically degraded areas are located on the Ukrainian side of Roztocze (the Jaworowskie region). The Polish coal mining district (Łęczna – Bogdanka) and cement district (Chełm) did not cause significant ecological damage. Grodno is the centre of significant emissions from fertilisers production plant.

The perspective of building a nuclear power plant in Belarus may be of considerable importance.

Toxic waste which was not rendered harmless and the consequences of a wrongly conducted municipal waste management occur locally. On the other hand, many towns possess formal or potential characteristics of health resorts.

Population parameters (the flora and fauna), indicating a considerable regional variability within the frameworks of the PBU area, reach the highest values in the regions of Puszcza Białowieska, Augustowska and Karpacka, as well as in the Bug, Narew, Biebrza, upper Dniestr and Cis Valleys. Hydrophilous and xerothermic flora is particularly valuable. Mammals, reptiles, birds of prey and wetland animals are characteristic in terms of fauna.

The condition of cultural heritage sites is not satisfactory. The majority of local monuments, including urban complexes is devastated or neglected. Resettlement layout which is a highly important landscape attraction in this area is frequently illegible.

Combining previously mentioned features of the PBU landscapes and threats which are assessed generally, it may be stated that the area constitutes valuable environment with high values which are often only potential – their promotion requires remedy and revitalisation works.
Quantitative sozologic characteristics of the PBU area has been presented in the table below. The situation within the scope of physico-chemical and certain biological threats has been characterised. The following data juxtaposed with the average conditions in Poland confirm a general diagnosis on the cleanliness of air, soil and a good condition of the biosphere and serious sanitary underdevelopment.

**TABLE I. Selected immission characteristics of the PBU area**

<table>
<thead>
<tr>
<th>Component related to the environmental condition</th>
<th>Characteristic or average values in the PBU area</th>
<th>Relations to the rest of the country (Poland)</th>
<th>Tendency of current changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Gaseous immission of SO$_2$</td>
<td>0,1 S$<em>{98,9}$/D$</em>{24}$</td>
<td>3 times lower concentrations</td>
<td>further slow decrease</td>
</tr>
<tr>
<td>2 Gaseous immission of NO$_x$</td>
<td>0,25 S$_a$/D$_a$</td>
<td>2 times lower concentrations</td>
<td>stabilisation, slow local increase</td>
</tr>
<tr>
<td>3 Gaseous immission of CO</td>
<td>less than 0.05 S$<em>{8max}$/D$</em>{8max}$, practically non-existent</td>
<td>decisively lower spatial concentrations averaged, local threats</td>
<td>disappearing of local centres</td>
</tr>
<tr>
<td>4 Dust immission</td>
<td>PM10 0,5 μg/m$^3$</td>
<td>2,5 times lower concentrations</td>
<td>Fluctuations</td>
</tr>
<tr>
<td>5 Wet deposition of sulphates to soil</td>
<td>615 mg S/m$^2$</td>
<td>the lowest in Poland, around 40% below average</td>
<td>slow decrease</td>
</tr>
<tr>
<td>6 Nitrates and nitrites in groundwater</td>
<td>&gt; 15 mg NO$_3$/dm$^3$</td>
<td>the national average</td>
<td>Stabilisation</td>
</tr>
<tr>
<td>7 Municipal waste per one inhabitant</td>
<td>255 kg/mk/rok</td>
<td>15% less</td>
<td>fast increase</td>
</tr>
<tr>
<td>8 Municipal waste on illegal rubbish dump and outside the place of storage and processing</td>
<td>about 85 kg/mk/rok</td>
<td>about 2 times more</td>
<td>Unchanged</td>
</tr>
<tr>
<td>9 The quality of water in individual intakes</td>
<td>80% of intakes with bacteriologically polluted water</td>
<td>More than a half of intakes is polluted bacteriologically on the Polish side of the PBU</td>
<td>No improvement</td>
</tr>
</tbody>
</table>
The noise disruptive in built-up areas are traffic acoustic nuisance indicator – 1 (one) with Southern Poland – 3, Middle Poland 2-2,5 increase, locally fast.

Forest threat of primary and secondary insect pests are weak and Strong and average in the area of Northern, Southern, Middle and Western Poland. Stabilisation

Ionising radiation threat is hourly gamma radiation dose 68 nGy/h in Poland from 63 to 85 nGy/h. Stabilisation

Explanation: 1. Relation of hourly valid average concentrations (percentiles) to the average acceptable values; 2. Relations of annual average values to acceptable annual values; 3. relation of an average maximal 8-hour concentration to acceptable values; 4. PM – dust with fraction below 10μm; 5. in conversion to sulphur; 8. an estimate arising from the balance of stored waste; 10. Podlaskie Voivodeship is regarded as less exposed to traffic noise and the data from this voivodeship are accepted as comparative data (indicator 1), there are similar conditions in Lubelskie Voivodeship; 12. the dose absorbed by one kilogramme ( in this case by soil) for one hour expressed in joules – gray (1 Gy = J/kg).

The data from the reports of the State Inspection of Environmental Protection (PIOŚ) "Environmental condition in Poland" were used – the last one from 2013 and the latest online voivodeship reports prepared by the Voivodeship Inspectorate of Environmental Protection (Podlaskie, Lubelskie, Podkarpackie Voivodeships). The latest data concern the period 2012 to 2013.

Comments on huge ecological disasters should be added to the above-mentioned characteristics.

Eastern borders of the area in Belarus and the Ukraine suffered one of the biggest ecological disasters – the breakdown of nuclear reactor in Chernobyl and the consequences of the release of radionuclides. Until today, significant areas, especially in Homelski District are regarded as contaminated and they are almost not used. The centres of contamination occurred also in Ukraine and to a decisively lower degree in the North-Eastern part of Poland. The level of contamination is locally still significant, which limits vegetation production and the use of ground cover, living aquatic resources, etc.

Land melioration works carried out in these areas also had serious negative environmental consequences. They were conducted in the 20th century in all countries, mostly in Polesie and to a lesser degree in Podlasie and Wołyń. Thousands of hectares of invaluable lowland bog, including the water flow ones, were
destroyed then and many rivers were regulated in a devastating manner, destroying naturally valuable river-beds and valleys.

The above-mentioned general data are constitutive for the cross-border part of the discussed PBU area, although they are highly diversified internally, subregionally and locally.

Environmental characteristics of the PBU area discussed in the second column should be treated as output data in relation to evaluations carried out in the future. Detailed data can be found in official summaries of the state environment monitoring (in Poland and in Belarus and Ukraine respectively). It should be stated that in all countries of cooperation such data are currently available and credible.

III.3. Environmental protection

There are eight National Parks on the Polish side of the area (Wigierski, Biebrzański, Narwiański, Białowieski, Poleski, Roztoczański, Bieszczadzki and Magurski National Parks), at least one which was designed (Przemyski National Park), a number of landscape parks, more than 150 reserves and many other forms of nature conservation (protected landscape areas, natural monuments, documentation sites, ecological utility lands, nature and landscape complexes). There are the UNESCO biosphere reserves in the discussed areas (Białowieski, Łuknajno Lake, Eastern Carpathian Mountains and Polesie Zachodnie), one UNESCO World Heritage Site (Białowieska Forest), wetlands protected under the Ramsaran Convention ratified by Poland (Łuknajno Lake, the Rospuda Valley, Biebrzański, Wigierski, Poleski and Narwiański National Parks). Bieszczadzki and Białowieski National Parks have been awarded the Diploma of Europe as the only ones in Poland. There are national parks of a similarly high value on the Belarusian side: Białowieski, Naroczyński, Polesie Nadbużańskie and Prypecki National Parks. The established areas of NATURA 2000 belonging to both "Bird Special Protection Areas – SPA" and "Habitat Special Areas of Conservation – SAC" are of particular significance. The NATURA 2000 network includes on the Polish side of the PBU area all above-mentioned National Parks and, moreover, a long list of sites, specified in the table below. In total, the areas of NATURA 2000 include less than 11% of the Polish part of the PBU area (8 000 out of 75 912 km²). It is difficult to calculate this surface precisely as there are lots of areas located on the border of the PBU.

It should be emphasised that in Europe and even in the whole world, this part of Central Europe possesses environmental values, understood in ecological and landscape terms, which are extremely rare and particularly appreciated by both naturalists and tourists and constitute, at the same time, unique resources of biological diversity (both habitat and species, genetic and landscape diversity). Lowland geoecosystems of lakelands, glacial valleys, low mountains and uplands with the Pontic character were formulated on the
foundation of glacial and fluvioglacial genesis in the border area of oceanic and continental Europe. Mesoregional mosaik is extremely big here, caused by the foundation differences and, first and foremost, the diversity of climate and water relations, including the supply ones. Such environment is maintained by the transitional climate with Atlantic and continental features, huge variability of weather conditions and determined by significant longitudinal extent in the part of Europe with significant Atlantic and Asian contrasts. Latitudinal extent with simultaneous hydrological unity (first and foremost of Bug and Narew basin) is an important feature as well. Completely artificial administrative borders, which are artificial also from the social point of view, are a significant disturbance of the environmental unity of this region.

Seven cross-border areas with unique environmental and cultural values – the areas with a particular value, should be distinguished in the discussed area. From the North, these are respectively: the complex of primeval forests surrounding the Augustowski Channel (Augustowska, Grodzieńska and Dajnawska Forests), Białowieska, Pobuże Podlaskie, Polesie Włodawskie, the Dubienieńskie Depression, Roztocze, the Przemyski arc of San and Bieszczady with foothills. The Programme should concentrate the most important actions concerning the environmental protection there. These areas cover more than a half of the PBU cross-border zone and they reach the borders of the accepted PBU delimitation.

Within the Ukrainian area covered by the Programme there are numerous areas with a high protection status. The Ukrainian categorisation does not correspond to the IUCN classification applied by the EU and Poland. Therefore, three entities which are located directly on the border with Poland are mentioned here: the Roztocze nature reserve, the Jaworowski National Park and the Nadsański Landscape Park. Other objects have been indicated on the map.

This review description show that the entire analysed area is located in a direct neighbourhood of extremely valuable areas. Only on very small sections of the border, north of Kuźnica, in the region of Wysokie (Belarus), Belza and Jaworow (Ukraine), the landscape is not especially attractive – in the last case, due to the mining exploitation – another problem to be included in the further cooperation. Thus, the inhabitants of the discussed area have 25 km to reach valuable environmental sites and most frequently less than 15 m. It should be added that the border areas, even almost unwooded, distinguish themselves with the charm of untouched structure of extensive agrocenosis, which has been the reason of establishing protected landscape areas close to border on the Polish side. The examples of such areas waiting to be discovered and related to the neighbour are Grzęda Sokalska (on the Polish side: Dolhobyczowskie forests and the Valley of Bug which enters Poland) and a long section of the border zone with Belarus, from Kruszniany on the South through Krynki to Kuźnica. It should be noticed that the NATURA 2000 area PLB20000 "Knyszyńska Forest" does not reach the border in the version of the Ministry of Environment, but on the "Shadow list", i.e. the summary of new areas of NATURA 2000 proposed by the Polish ecological organisations and
accepted by the European Commission, there occurs the contact of this area with Belarus between Narejki and Łapiče and, therefore, practically on the entire section where Świsłocz is an extremely environmentally attractive border river (in the investment proposal there is a bridge on this river). Finally, it should be noticed that the border between Belarus and Ukraine in the neighbourhood of Poland also passes through valuable areas (Polesie Zachodnie, the neighbourhood of the Szacki National Park). The situation is similar in case of the Belarusian and Lithuanian border (the Niemno Valley) and the Ukrainian and Slovakian border (Bieszczady).

It should be noted that the mentioned areas with a very high environmental values are closely related to the landscape and environmental protection system in Poland only in the northern and southern part. What is meant here, is the continuation of lakeland zone from Augustowska Forest through the Elk Lakeland and further towards west, as well as through a south-western chain through the Biebrza and Narew Valley.

**TABLE II. The summary of the NATURA 2000 areas within the framework of the PBU Programme**

s – siedlecki, su – suwalski, t – tarnobrzeski, z – zamojski
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<th>Name of subregion**</th>
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<td>PLC 180001</td>
<td>Bieszczady</td>
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</table>
Fig. 1 Conservation nature protection in the area of PBU

The Bug river corridor is very narrow in places, and densely crossed by anthropogenic structures. In the south it is far, but limited, and the western coverage reaches to the area associated with Roztocze - the Sol Forest and the Janowskie Forests. Only the Bieszczady Mountains, through the Carpathians chain, connect with the rest of the south of the country. This means that maintaining and developing, as part of PBU cooperation, of meridional ecological connectivity along the border, especially on the "hydrogenic" sections.
is an important element of the compactness of Polish natural landscape. Looking at the PBU area as a spatial system, one can determine for it those natural axes which require major efforts to, on the one hand, protect nature and cultural heritage, and on the other promote tourism and sustainable economic revival. The meridional axis is the border river Bug. The two latitudinal zones have the biggest growth prospects: The Augustow Canal, understood as a branched tourist waterway between the Biebrza river and the Niemen river and Roztocze understood as an attractive tourist route between Lublin and Lviv. This natural "grid" helps keep the compactness of protected areas in the NATURA 2000 network.
Fig. 2. Cross-border protected areas which are, at the same time, potentially conflicting: III. Three primeval forests Augustow - Grodno with the Canal, IV - Bialowieza Forest, V - the Bug Gorge; Drahichyn-Brest, VI - Western Polesie, VII - Roztocze, VIII - Eastern Beskidy, the Carpathians of the Three Nations. Not selected, potential area: the Central San Valley: Przemyśl – Truskawiec.
III.4. Selected areas with potential environmental conflicts and problems with maintaining the natural compactness of the area.

Expansion of the areas of conservation protection leads to various social conflicts involving local communities, environmental organizations and administration. It should be noted that in Poland not even one landscape park has been established for eight years, and the extension of national parks has been effectively blocked. The heart of the conflict in the PBU area is the Bialowieza Forest, and to a lesser extent the Przemyskie Foothills. The most difficult problem is the management of forests, the restriction of which, as required by regulations relating to protected areas (including NATURA 2000) is interpreted as economic loss and depletion of revenue. Promotional Forest Complexes are a good way of mitigating these conflicts. Three such vast forest areas lie in the PBU area. They are the Bialowieza Forest, the Janowskie Forests and the forests of the Bieszczady Mountains. Proecological tree stand management is implemented there, while maintaining the economic functions of the forest and exposing non-timber resources and values.

Areas with potential significant environmental risks remain the environs of Jaworowo (Ukraine) and the border transit areas around Brest and Medyka.

In recent years the number of sources of conflict between economic projects (especially those directly serving the public) and nature conservation has been increasing. A clear example from the area is the Via Baltica and the bypass of Augustow, and more recently the expansion of the Białystok road junction. The PBU Programme, as well as other strategic documents concerning this part of Poland (and neighbouring countries) should clearly determine the locations of protected areas, especially network systems, eliminating the serious threats that might occur as a result of the implementation of the strategic document. Two directions of such threats can pointed out:

- Physical, associated with the development of infrastructure and economic activities in specific locations;
- Institutional and programmatic, associated with the reorientation of priorities of zoning, economic structure, technical standards and economic policy.

The Programme does not pose such threats, not only due to the fact that it has fairly modest financially and materially, but also because of the centrally positioned pro-environmental priorities.

It should be assumed that areas particularly sensitive, and therefore potentially conflicting in the face of introducing both soft projects and specific investment projects there, will be the natural-and-tourist cross-border hubs, two of which already ARE formally formed (Białowieski and Zachodnio-Poleski). A schematic map of the area is attached, taken from the work by G. Rąkowski Transgraniczne obszary chronione na wschodnim pograniczu Polski, IOŚ 2000.
IV. OBJECTIVES OF ENVIRONMENTAL PROTECTION AND THEIR INCLUSION IN THE PROGRAM

IV.1. The method of determining the strategic objectives of sustainable development on the border of PBU

Determining these objectives was adopted as a way to demonstrate the consistency of the PBU Programme with the objectives and principles of environmental protection and sustainable development. In the course of preparation for the Programme mutual exchange of information was effected regarding the principles accepted in the three countries, so the provisions of the Programme are the interpretation of those principles. Analysis of strategic documents relating to the issues of environmental protection and sustainable development with reference to the PBU Programme is a statutory element of Programme forecast being performed, as it indicates the position of the document in the system of pro-environmental strategies and allows for the recording of objectives the fulfilment of which is one of the measures used for evaluation of the document by the estimate. They are presented in a historical – suppletory arrangement, that is, with progressive presentation of the more important objectives to effectively select relevant objectives. The key terms and definitions building the record of objectives are written in bold type. European strategies were distinguished, with particular emphasis on the EU, as well as Polish strategic documents, national and regional. Attention is paid to the development strategies of eastern border areas, including strategic documents on the ZPP. Belarusian and Ukrainian documents were also discussed.

The environmental protection objectives established at international, national and regional level can currently be divided into two principal groups: *distancing global threats*, including those related to the depletion of the planet’s resources and connected with broadly understood *ecological safety*, and *ecological awareness* of an individual operating in a given community. The main, universal objective is to follow the *idea and principles of sustainable development*, which is repeated in virtually all modern strategic documents.

IV.2. Group of global and international objectives

Since U’Thant’s appeal (1969), the Stockholm Declaration (1972) and the early environmental protection programmes of the UN (UNEP), and particularly since nature conservation strategy (1980), the World
Charter for Nature (1982) and the Report "Our Common Future" (1987), the meeting of European ministers in Bergen, the green New Year's Message of the Pope (1990) and finally the documents of the UN Conference "Environment and Development", known as the Earth Summit in Rio de Janeiro in 1992, the principles of the necessary rights and obligations formulated there, conditioning the achievement of a new ecological order on Earth and a better quality of life remain valid. The set of principles for sustainable development called Agenda 21 has become particularly popular. One of the things it discusses is the need for constant cooperation of all countries and people for sustainable development in order to preserve, protect and restore the health and integrity of the Earth's ecosystem. The general objective of the PBU Programme – development of border areas of three countries is also consistent with the principles of sustainable development and modern environmental protection, where the economic advancement of people is considered to be a prerequisite for the growth of environmental awareness, and thus a chance for social acceptance of the necessary limitations in the use of environmental resources.

The documents from Rio made widespread the principles of liability for environmental losses, considered classic today, and the basic criteria of sustainable development, as well as the instruments for environmental protection management which have been successfully implemented to date. The most important of the tools to be used in the PBU Programme are environmental assessments, both for individual projects and those carried out in relation to strategic documents. The two most important conventions on environmental protection, extremely important for cross-border cooperation were born in Rio. Namely these are the Convention on Biological Diversity and the Framework Convention on Climate Change. It should be noted here that since the Rio Summit additional legal and political solutions have been sought that could replace the conventions and treaties which are not always signed and ratified. Regionalization plays a major role – considering the difficulties with finding global solutions, regional agreements can be concluded. The Helsinki Convention on the Baltic Sea is a good example (it also relates to PBU, because all the three countries are in the catchment area of that sea). The Green Lungs of Europe agreement, which also covers the area under analysis, may be of similar nature. These, in a sense, replacement programme initiatives are associated with the low efficiency of UN activities.

Another set of teleological sources is UN’s Millennium Report on the Development Goals, featuring eight general objectives. The eighth of them involves the need to establish and implement national strategies for sustainable development until 2005. In 2001 the Amsterdam Declaration was issued, signed by European and North-Atlantic countries, on global change and the necessary responses to that change. The most important statement of this declaration is the postulate to understand these changes not as a simple cause-effect paradigm, but as a process with characteristic thresholds and changes. It was recognized that the Earth as a system has gone far beyond the reach of natural variability occurring over the past hundreds of
thousands of years. Thus, there is a need for ethical and political framework for global governance and a strategy for the development of the Earth as a system. The Amsterdam Declaration is the most serious warning of this type before the final Climate Report of the Intergovernmental Panel on Climate Change (IPCC 2007). In practice this means that all programmes, plans and policies must relate to unintended and progressive changes in the global and local environment. These and other challenges underlay the organization of the Earth Summit in Johannesburg in 2002. For the PBU Programme noteworthy are the **rules of entrepreneurs’ and businesses’ responsibility for the condition of the environment**, which should be put into practice of cooperation. They were included in the main document "Declaration on Environment and Development". The latest global document organizing the relationship of civilization with the environment is the so-called Earth Charter, or tenancy agreement with the Earth prepared in Brno in 2004 by participants in the European regional conference of the United Nations. That Declaration is generally of a philosophical nature, but it well defines the limitations of our current policies and the need for renewal of the natural order of the world as a condition for the long-term existence of man and his culture. The slogans of the Declaration are very well suited for the objectives of the PBU Programme, where sustainable economic development is emphasized.


Poland has ratified about 20 conventions relating to environmental protection, some of which are detailed in EU legislation, and so are strictly implemented into Polish law. It can be assumed that, in addition to the specific cross-border procedures and several EU regulations specifying the restrictions for environmental reasons, all the three countries accept the modern principles contained in European conventions and agreements (eg. those established by the Council of Europe). Thus, the document must be in compliance with them.

**IV.3. EU objectives**

Some of them have their origins in the European activities for environmental protection and sustainable development discussed above. A special role here is played by the Council of Europe, OECD and regional UN agencies. The essential strategic documents concerning environmental protection of the European Union are Community environmental protection programs which began to be formulated in 1973.

As regards the issues covered by the Cross Border Cooperation Programme project, one of the most important documents is the Europe 2020 Strategy - a strategy for smart and sustainable development promoting social inclusion, and one of its leading projects - Europe effectively utilizing its resources. The
relationship of these documents in the context of the Europe 2020 Strategy and other strategic documents of the EU has been shown in the chart below.

![Strategy EUROPE 2020 - a strategy for smart and sustainable development and social inclusion](image)

Fig. 3 The Europe 2020 strategy, Source: EEA Environment and Human health 2012 after Rappolder, 2012

From the point of view of environmental protection, the seventh general EU program for actions in relation to the natural environment by 2020 (7 EAP) "Good quality of life within the limitations of our planet" is an important document. Let us remind that the previous, sixth program of Community action in the field of environmental protection for 2001-2010 had the theme "Environment 2010: our future, our choice". It outlined the four priorities listed below.

- **Halting adverse climate change** and preventing its consequences.
- **Nature and biodiversity**; conservation of rare biotic and landscape resources.
- Environment and health, **ecological safety** of citizens.
- Sustainable use of **natural resources** and new, effective **waste management**.

These programmes clearly turn toward the need to strengthen international institutional framework, the creation of regional structures, better coordination between Member States as well as within other European structures. The Programme involves EU Sustainable Development Strategy "Sustainable Europe for a better world" presented at a meeting of the Council of Europe in Gothenburg in 2001. It has a three-part executive
structure, where in the first stage a summary of cross-cutting, inter-departmental proposals and recommendations leading to the improvement of the effectiveness of policy and achieving sustainable development is assumed. The idea is for sectoral policies strengthen one another rather than to go separate ways, and for regional policy to be the precursor and the best example of such integration. In the second phase the establishment of specific instruments is provided for, and in the third they are to be implemented and evaluated. The 6th programme involves Seven Thematic Strategies far-reaching in the first decades of the twenty-first century. A priority for the PBU is the Strategy of Rational Management of Natural Resources, Soil Protection Strategy and Air Quality Protection Strategy.

At the conference of environmental ministers in Lucerne (1993) the Programme of measures for the protection of the environment for Central and Eastern Europe was adopted. It can be a model for actions for sustainable development in the PBU Programme. The programme from Lucerne contains the rules of counting losses to the environment and prioritization, indicates the necessary reforms in environmental policy, including the creation of better institutions, and addresses the financing of environmental protection naming the objects which should have priority in funding. Above all, however, cross-border and regional problems were addressed in the broadest manner so far. The Programme develops the issue of the management of wetlands and biodiversity conservation in border areas. Important for PBU are also the provisions on cross-border emissions, ionizing radiation and waste trafficking. The provisions concerning the European ecological network Natura 2000 have a direct, very current relationship with the PBU Programme. The special character of these areas, which have already been partially established in Poland, results from the provisions of Council Directive No. 79/409 EEC of 2 April 1979 on the conservation of wild birds, known as the Birds Directive (OJ EC L 103 of 25.04.1979, as amended), Council Directive No. 92/43 EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, known as the Habitats Directive (OJ EC L 206 of 22.07.1992 as amended) and the Commission's decision No. 97/266 EEC of 16 September 1996 concerning the scope of information about the areas of the Natura 2000 system (OJ EC L 243 of 24.09.1996). As a result of these regulations, a coherent network of protected areas has been created throughout the European community since 2004. The network includes special protection areas (SPAs) established in accordance with the Birds Directive and Special Areas of Conservation (SAC) established under the Habitats Directive. In Poland, these areas have been designated and approved (SPA), reported (SAC) and negotiated at the request of non-governmental organizations (SPAs and SACs). They form a system the area of which consists of several percent of the country, including all national parks, some landscape parks and reserves and a relatively large area which was previously almost not protected at all. The problem of establishing and maintaining these areas is one of the fundamental issues of today's nature conservation in Poland. The Polish part of the Programme’s support area includes 95 Natura 2000 areas, the
maintenance of which requires direct cooperation with Russia, Lithuania, Belarus and Ukraine in line with European standards. Specific locations are described in the section on nature.

An example of a European international programme is the Framework Convention for the Protection and Development of the Carpathians. Poland is its signatory, and Ukraine, as a party to the Convention, prepares periodic reports on the fulfilment of its objectives which have the rank of state documents. The objectives of the Convention are definitely environmental. It is about **sustainable preservation of the environmental safety of mountains and foothills**, rational forestry and water management (in the meaning of river basins, and therefore in line with the Water Framework Directive) as well as continuous recording (monitoring) of changes in mountain ecosystems. Documents related to this Convention clearly indicate to pro-ecological specified use of land, including in cooperation with neighbours. Achieving the objectives of the Convention is the responsibility of regional administration authorities, with the Ministry of Environmental Protection and Nuclear Safety of Ukraine as the international coordinator.

### IV.4. Environmental objectives included in Polish strategic documents of nationwide impact, and the assessment of their significance for the PBU Programme

Among the 28 demands of the Round Table Arrangements (1989) there was an extensive provision concerning cross-border cooperation, with proposals to **create functional bilateral areas at the junction of valuable natural areas** located in Poland and immediately beyond its borders. These arrangements were used in further programme documents for environmental protection in Poland. Other elements important for the PBU Programme, declared then, include the **adoption of the principles of sustainable development** in Poland, the adoption of a **new model of forest management**, carrying out a general nature inventory (sadly discontinued) and the establishment of an **ecological system of protected areas** (in the full sense of the word the system has been attained only now).

The best and most important turned out the document - National Environmental Policy, adopted by the Sejm in May 1991. On the basis of that document, the Sejm adopted a resolution on environmental policy in May 1991. It includes the rules of **strengthening the role of environmental protection and environment development actions to improve the quality of life of Poles** and preserve natural resources, which have remained valid until today. In particular, the document indicates the urgent need to modernize the environmental legislation package, **carry out the valuation of environmental losses**, which should lead to the stimulation of **environmentally friendly behaviour of economic agents**, establishing the rules for shaping **ecological security**, the development of **ecological education** system and so on. These and other provisions of PEP I allowed for detailed and modern strategic documents to be formulated in the following
years. Some of them directly addresses the areas of interest of the PBU Programme, and all analyze the needs that should be included in this Programme. Unfortunately, in 2014 this document ceased to be valid and some of the provisions went to other sectoral policies (energy-environmental and agricultural) as well as to the National Development Strategy 2020 (in 2012) and Long-term Development Strategy Poland 2030 (2013). Noted must be the accurate and long-awaited provisions of the National Strategy for conservation and sustainable use of biodiversity with an action programme (2003), where an important role is assigned to the protection of ice-marginal valleys and other river valleys, as well as hydrogenic areas which are the greatest wealth of the PBU area.

The National Regional Development Strategy 2010-2020 - Regions, Cities, Rural Areas has a separate importance. This document also deals with the problem of development backwardness in eastern Poland. The main regional documents concerning environmental protection are provincial environmental protection programs with waste management plans and zoning plans for provinces. These documents are updated every four years, and are still hardly consistent. In 2008 a new edition of the National Spatial Planning Policy was released. The document correctly indicates the need for comprehensive promotion of the PBU area with respect for the principles of sustainable development.

Environmental, eco-developmental and pro-health issues important for the purposes of the PBU Programme contained in these documents cover a very wide range of topics. Environmental policy should be achieved by changing the model of production and consumption, i.e. reducing material consumption, energy consumption, water consumption and application of good practices and environmentally friendly techniques.

These provisions are also included in alternative strategies and forecasts of environmental impacts, especially where in government documents environmental issues were treated with less emphasis. Environmental aspects should be mandatorily included in sectoral policies as well as programmes for regional and local development. This important postulate is still insufficiently fulfilled, and especially in the PBU area it is treated typically declaratively. For example, the market should be encouraged to act for the environment. This includes creating "green professions" (i.e. those requiring less use of natural resources, generating less waste and reducing threat emissions to the environment), partnering with business, shaping consumer attitudes, elimination of environmentally harmful subsidies, environmental management, and responsibility for environmental effects of implemented projects. As regards institutional strengthening, particularly important for the PBU Programme is the introduction of environmentally friendly river basin administrations (in line with the EU Water Framework Directive implemented in Poland) and the strengthening, and perhaps even reforming of the environment inspection services. It should be expected that the latter reform will take place during the implementation of the Programme.
It is important that these strengthened units are given tasks related to the implementation of major international environmental conventions. This means the following Conventions, in the order of enactment: on Wetlands, Ramsar, 1971, on International Trade in Endangered Animals, Washington, 1973, the United Nations Framework Convention on Climate Change of 1992, on Biological Diversity of 1992, on the Control of Transboundary Movement and Disposal of Hazardous Waste of 1992, Basel, on the Protection and use of Transboundary Watercourses of 1992, the European Landscape Convention of 1997 and others. Issues related to social communication also need to be improved. In Poland, this system is formally already in place, but it is far from perfect. Considering low environmental awareness among farmers, the socio-professional group prevailing in the PBU area, this point is particularly important. It is not just about effective sharing of environmental information by public administration offices, but also about the establishment and functioning of permanent consultative bodies dealing with environmental issues. From a formal point of view, these issues are reasonably well regulated in Poland, in the legislation and the Aarhus Convention.

The problems of spatial order and rational use of land are one of the most important tasks, largely conditioning the success of the PBU Programme. The current regulations and planning practice are very bad. In the field of international cooperation, priority should be given to bilateral cooperation in the field of environmental protection with those countries that are or may soon become our strategic partners. In the field of the protection of natural heritage and rational use of natural resources Polish strategic documents raise the issue of increased forest cover (to 30%), the protection of wetlands, the establishment of the Natura 2000 network and the improvement of surface water quality.

In the field of sustainable use of raw materials, materials, water and energy the important measures include control of water consumption, energy consumption and material consumption, and creating a database on pro-environmental technologies (using the BAT criteria). The use of renewable energy sources is a separate issue.

The former Polish National Environmental Policy strongly supports the principles of ecological safety and ecological justice. Apart from the quality of water, including drinking water, air and waste disposal standards, the importance of modern systems of protection against noise, electromagnetic radiation, the presence of harmful chemicals in the environment and avoiding major industrial accidents is growing. One of the priority, though not always perceived, tasks of the PBU Programme in this group should be to counteract anthropogenic causes of global warming and mild to adaptation to its consequences already observed. The potential range of PBU projects indicates that such actions can be supported. Energy saving and reduction of GHG emissions will take place primarily on regional and local scale, within the framework of cooperating local governments and by increasing environmental awareness.
IV.5. Selected environmental protection objectives from regional strategies

The strategic objectives of the Green Lungs of Poland and wider - the Green Lungs of Europe – are a very good model for programme activities of PBU. They also involve the objectives of provincial and Euroregion documents (eg. Carpathian Euroregion). The area of ZPP covers a large part PBU, and the nature of the landscape (apart from a mountain area) is similar. The strategy of ZPP includes development goals and priorities consistent with the objectives of provinces. They can be put together with the provisions of the provincial strategies and the Carpathian strategy in the following order:

- creating conditions for preservation and strengthening of the ecosystems and water protection, as well as the protection and rational management of natural resources (sustainable development);
- creating opportunities for civilizational advancement of local communities, including the improvement of the quality of life;
- economic activation harmonized with the requirements of the natural environment (permanent, sustainable development).

The objectives of environmental protection are also indirectly linked with:

- raising the level of civilization through the development of education;
- introduction of new, including environmentally innovative technologies;
- development of domestic and international tourism at the highest standard;
- development of organic farming, which is a key element of integrated agriculture based on the multifunctional rural development model which takes into account the development of agri-tourism;
- fully meeting the needs regarding the supply of water and energy for the population and economy, with simultaneously securing systems for sewage and waste disposal.

IV.6. Objectives contained in selected Belarusian and Ukrainian strategic documents

Belarus and Ukraine are among the countries that accept the principles of sustainable development. This is evident in official documents and in positions officially expressed at international conferences. It is enough to mention the European environmental conference held in Kiev in 2003. These countries draw attention to the need to preserve the overall ecological safety and to the aspects of good tradition, links with culture and individual quality of life. Environmental protection procedures in place in these countries are not, admittedly, in line with those accepted in the EU, but in many cases they have similar objectives. This applies, for example, to environmental control, performing environmental expert reports, maintaining and
appointing protected areas and objects, setting regional and local standards before certain branches of economy (tourism, water management and forestry). The list of Ukraine's strategic documents related to the subject of this Forecast includes primarily the Regional Development Strategy until 2015 adopted by the Council of Ministers in July 2006. The document was prepared in a prospective diagnosis setting, supplemented by regional and industry guidelines. Disparities between the development of the various regions of Ukraine are analyzed both historically and teleologically, paying special attention to demographic, but also natural potential. The strategy sees the cause of the backwardness of development also in environmental aspects, such as deficiencies of municipal infrastructure (especially access to water), and shortcomings in the rational use of natural resources. The need for a different approach to flood protection is emphasized (an important aspect of PBU cooperation) and the greening of agriculture. The western border regions have been recognized as requiring significant changes, including those corresponding with the objectives of the PBU Programme (development of tourism, nature conservation, water management). Industrial objectives, and involving industries having significant impact on the environment, were set only for Volyn (where important mineral deposits of phosphates and copper are located) and the Lviv industrial district. Demands of conservation and tourist development of the Carpathian Mountains and foothills are emphasized.

Ukraine has prepared its own document relating to cross-border cooperation (National Programme for the development of cross-border cooperation for 2007-2010, GMU, Kiev, 27.12.2006) and an amended version of the 2010 document for 2011-2015 approved by the GMU. 1.12.2010, № 1088. It applies to all neighbouring countries and involves signing two- and three-party Programmes similar to the PBU Programme. It draws attention to the need for sustainable use of natural resources and respect for the natural heritage. Currently, the legal basis of environmental management is the Act of 21.12.2010 "On the fundamental principles (Strategy) of environmental policy of Ukraine until 2020" It uses the provisions of the previously mentioned documents. Belarus has a long and good tradition in the preparation of strategic environmental protection documents. First of all, the Act of the Republic of Belarus on the protection of the natural environment (№ 1982-XII), enacted already in 1992 must be mentioned. In Belarus, there is a National Action Plan for environmental protection for 2011-2015 in place, approved by the Cabinet of Ministers of Ukraine in 2011 (№577-p). Of essential importance in the field of environmental protection is the Natural Biodiversity Conservation Concept, the second version of which has been in force for 8 years. It is a very comprehensive document passed by the Parliament, going far beyond simple understanding of the title. In addition to the policies and plans of keeping the Belarusian nature in the best possible condition, it outlines the principles of coexistence of economic activity and landscape protection, demands a lot from those
designing new investments, and speaks of the need to **rationalize the use of environmental resources**. Belarus has also a strategic document relating to the regional development of a similar nature to the Ukrainian one, with even stronger emphasis on environmental needs and improving the quality of life and health. Two important elements affecting the practice of environmental protection in that country must be noted. Firstly, Belarus has a very expertly prepared complete eco-physiographic inventory, which allows for accurate planning of economic operations and construction in general. Secondly, Belarus operates an OOS procedure similar to the European one, which, however, is effected as part of the system dependent only on the administration.

**IV.7. Assessment of conformity of the PBU Programme with the provisions of strategic documents and the objectives identified on their basis**

This abbreviated presentation of the national, bilateral, international and global documents has made it possible to put together the most important strategic objectives associated with environmental protection and implementation of sustainable development. They are presented below.

**Main objective**

Implementation of the ideas, principles and tools for sustainable development, in accordance with the proposed description: “from a civilization of unlimited needs and limited resources to a civilization of rational needs and the use of unlimited wealth of opportunities of sustainable use of the environment”.

**Reference objectives**

1. Halting global environmental threats, especially climate change, loss of biodiversity wealth, mainly through promotional and indirect activities.
2. Creating and maintaining a network of nature protection system: conservation - spatial, species and habitats in order to ensure the sustainability of the riches of nature while creating opportunities for local populations as well as regions and countries to take advantage of living near those riches.
3. Providing a better level of protection of life and health, by improving the quality of food and water and distancing extraordinary risks.
4. Limiting greedy consumerism and expanding the offering of unnecessary products and waste by influencing the way of life.
5. Institutional and individual effective care of the traditions and image of the region.
6. Progressive integration of communing with nature into the cultural standards.
7. Solving problems caused by common environmental hazards degrading space and resources: primarily those associated with the aftermath of waste water discharges, waste release and the emissions of harmful substances into the atmosphere, soil and hydrosphere.

8. Introducing ever higher environmental safety standards in a common effort of society, businesses and administrations, taking also into account natural disasters.

9. Strengthening the role of society, including local authorities and NGOs in spatial planning and the selection of the directions of development.

10. Creating conditions for the use of all knowledge and experiences to promote and support environmentally-friendly economic activities.

11. Strong expansion of international cooperation, especially between neighbours, in order to jointly address the problems of environment, spatial planning and sustainable economy.

12. Raising environmental and regional awareness.

13. Ensuring adequate funding for environmental protection in the implementation of measures.

In general, it should be noted that the proposed Programme supports activities that contribute to replacing the use of non-renewable resources with renewable resources, as it promotes extensive, but modern, use of these resources and caring for their renewability as a guarantee of prosperity.

It should be emphasized that the Programme complies with the strategic documents relating to the conservation protection and protection of species. It should be noted that the Programme does not breach on the arrangements relating to the areas of the NATURA 2000 network in Poland, and makes it possible to provide them with beneficial buffer zones from the east, thanks to closer cross-border cooperation.

Implementation of the Programme should contribute to the improvement of the environment in areas currently threatened and degraded and to the stabilization of the system of landscape and nature protection understood in the conservation context. In particular, the systems of conservation protection of the highest classes (National Parks, NATURA 2000 areas and natural reserves) located in the border area should be strengthened. Conditions of species protection outside those areas are not going to improve due to the expected development of communication infrastructure, and thus fragmentation of land not covered by the protection.

It is assumed that all projects referred to in the list will be consistent with the assumed priorities and principles of management, and the effects of Programme implementation will include positive changes in the following areas:

- rational use of resources, especially space and resources of the biosphere;
- favourable change in consumer trends;
- introduction of environmentally friendly technology and techniques;
- improvement of spatial order;
- raising ecological awareness and knowledge.

A similar picture was obtained in constructing an environmental SWOT assessment provided in ANNEX I.

The PBU Programme, in most of its aspects, refers to the key ideas and principles of sustainable development (SD). Most SD provisions are compatible with it. This is documented in the table below. The listed principles are taken from the preamble to the final documents of the United Nations Conference "Environment and Development" in Rio de Janeiro in June 1992. Some obvious rules have been omitted, and some were extended in view of the progress in the implementation of these rules and because of the relationship with the PBU Programme.

### TABLE III. Relations of the PBU Programme to the main principles of sustainable development

<table>
<thead>
<tr>
<th>Principle of sustainable development</th>
<th>Relation to the PBU Programme</th>
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<tr>
<td>All people have the right to a healthy and productive life in harmony with nature.</td>
<td>The Programme treats both a region's inhabitants and newcomers in this way.</td>
</tr>
<tr>
<td>States undertake that their activities do not cause damage to the environment of other countries, including neighbouring countries.</td>
<td>One of the foundations of the Programme.</td>
</tr>
<tr>
<td>Law and economic activity should be carried out to ensure the development needs of today but also environmental resources for future generations.</td>
<td>The foundation of SD. The Programme provides for this kind of development.</td>
</tr>
<tr>
<td>Protection of the environment must be considered in conjunction with other development processes.</td>
<td>Implementation of the Programme should indicate the need for such action. Today this principle is generally not respected.</td>
</tr>
<tr>
<td>Eradication of poverty is an integral task of sustainable development, serves to protect the environment in every aspect.</td>
<td>Poverty is a problem in the PBU area. Relationships between poverty and SD should be noted.</td>
</tr>
</tbody>
</table>
Patterns of production and consumption disturbing the SD rules should be eliminated.

The Programme does not directly concern this issue, but it supports eg. ecoinnovativeness.

Development of science and technology should support the implementation of sustainable development.

The role of science and technology has been exposed, also in the ecological sense.

Access to information about the state of the environment and efforts to improve it as well as public participation in addressing environmental issues is the foundation for the implementation of SD.

There will be a marked increase in the forms and intensity of social communication.

States should enrich the legal basis for environmental protection using the international achievements, but preserving their national and cultural-regional identity.

This rule particularly applies to the PBU Programme.

International relations to protect the environment should take place through bi- and multilateral agreements; this concerns eg. trade exchange, but also responsibility for environmental damage, joint prevention of regional and global threats, prevention and counteraction against the transfer of substances and technologies posing a serious threat to the environment.

These aspects should be included in the detailed provisions on cooperation and provide tangible, lasting result of this cooperation.

An internal instrument for environmental control should be a system of environmental impact assessment for specific projects, plans, programmes and strategies.

The Forecast strongly suggests that.

A system of immediate notification of extraordinary environmental threats should be built, also in international
relations.

The importance of tradition and culture in the implementation of SD should be seen.

One of the fundamental objectives of the Programme.

Resolving any environmental disputes should be done through peaceful means, respecting the principles of democratic dialogue and with respect for these and other declarations for sustainable development.

Strengthening contacts may "open" a list of such conflicts. They must be resolved in the way described here.

World environmental resources, both renewable and non-renewable, should be treated as a universal good and used in accordance with the principles of SD, regardless of economic, social and political conditions.

A point for educational activities under the Programme.

Using the objectives of environmental protection and sustainable development listed on the basis of the strategic documents, an assessment of the fulfilment of these objectives by the Programme is presented below. Many direct and indirect relationships (requiring additional measures) with the main objective, that is the implementation of the ideas and principles of sustainable development can be found there. Certain risks can be specified as well. This is illustrated in the table below, showing the key priorities of the Programme.

TABLE IV. Priorities of PBU and the idea and principles of sustainable development

<table>
<thead>
<tr>
<th>PBU priorities selected from the four TO</th>
<th>Sustainable development, the idea and main principles</th>
<th>Risks and weaknesses of the Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct links with the Programme</td>
<td>Indirect link requiring additional measures, description of these measures</td>
</tr>
</tbody>
</table>


| 1.1 Promotion of local culture and history | They relate to areas of specific cultural values | Polish eastern frontiers are considered a cultural treasure | Competition may take place according to conventional economic criteria, which may prove unfavourable for environmental resources. |
| 1.2 Promotion and preservation of natural heritage | Using knowledge is beneficial for the environment. Landscape protection is an integral task in the area of natural and cultural heritage. | Intellectual advancement of society and the increase in welfare support environmental objectives. | Risk associated with postponing projects that are less "hit" |
| 2.1 Improvement and development of transport services and infrastructure | Adventure tourism is definitely environmentally friendly, and the remaining types can easily avoid environmental damage. Roads are an essential element of tourism development in this area. | Tourism produces favourable changes in the labour market, in the field of spatial order and in environmental safety. Access is a prerequisite here. | Local clusters of accommodation tourism. Low standards of tourist infrastructure in areas with special values. Risks involved with the construction of roads. Fragmentation of space |
| 2.2. Infrastructure development of ICT | Improvement of transport safety, including passenger transport. Less waste of energy and space. | Improving the compactness of planning systems. | No significant hazards. |
| 3.1 Support for the development of healthcare and social services | Better living conditions include also the support of non-material aspects of life (thereby soft for the environment) and the weakening of cheap consumerism. | Increasing interest in sustainable development as a concept and way of life. | The danger of certain groups of the population entering in the realm of excessive depletion of resources. |
| 3.2. Addressing common safety challenges | Environmental safety is an inalienable component of SD | In the long term, active organizational and technical environmental | Technical infrastructure necessary in PBU areas causes social conflicts |
protection brings also vast economic benefits leading to the erosion of support for the principles of SD

<table>
<thead>
<tr>
<th>4.1 Support for the efficiency and security of the borders</th>
<th>It is difficult to see any direct benefits for SD</th>
<th>Benefits for sustainable development relating to the control of trade in goods, including preventing the transport of hazardous substances and waste</th>
<th>A number of threats to nature related to border infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2 Improving the operations of border management, customs and visa procedures</td>
<td>It is difficult to see any direct benefits for SD</td>
<td>Indirect benefits for environmentally friendly adventure tourism</td>
<td>No direct reference to cross-border eco-tourism and cooperation of transboundary protected areas</td>
</tr>
</tbody>
</table>

To make this table more legible a list of reference targets for environmental protection and sustainable development important for the analysis of possible consequences of the implementation of the PBU Programme has been put together. Typed in italics are the possible relationships of the PBU Programme with those objectives/  

1. Halting global environmental threats, especially climate change, loss of biodiversity wealth, mainly through promotional and indirect activities. *Possible stimulation of activities detrimental to the climate and biodiversity (roads and intensification of road traffic) and vice versa: possible support for actions to protect the climate and biodiversity (information on hazards, sanitation).*

2. Creating and maintaining a network of nature protection system: conservation - spatial, species and habitats in order to ensure the sustainability of the riches of nature while creating opportunities for local populations as well as regions and countries to take advantage of living near those riches. *Impact of the Programme on the sustainability of nature conservation systems through consistent application of the OOS procedures.*

3. Providing a better level of protection of life and health, by improving the quality of food and water and distancing extraordinary risks. *Better information on hazards, a real chance to improve health conditions in the region.*
4. Limiting greedy consumerism and expanding the offering of unnecessary products and waste by influencing the way of life. *Limited ability to positively impact consumer and environmentally-friendly attitudes, indirect support through the use of social communication procedures.*

5. Institutional and individual effective care of the traditions and image of the region. The rate of utilization in the Programme of positive references to the history, tradition and regional conditions associated with the attitude to nature and environmental resources. *This important aspect is of only declarative significance in the adopted Programme.*

6. Progressive integration of communing with nature into the cultural standards. *The possibility of introduction into the Programme and organization of management of the Programme of environmentally-friendly: criteria, evaluations, promotions and so on.*

7. Solving problems caused by common environmental hazards degrading space and resources: primarily those associated with the aftermath of waste water discharges, waste release and the emissions of harmful substances into the atmosphere, soil and hydrosphere. *Possible impact on sanitation of sewage and water conditions.*

8. Introducing ever higher environmental safety standards in a common effort of society, businesses and administrations, taking also into account natural disasters. *Impact of the Programme on the reduction of the causes and consequences of environmental accidents and disasters.*

9. Strengthening the role of society, including local authorities and NGOs in spatial planning and the selection of the directions of development. *Ability to rationalize the planning and location activities, etc. in municipalities and other basic territorial units of the PBU area, especially in the areas of planned investment projects.*

10. Creating conditions for the use of all knowledge and experiences to promote and support environmentally-friendly economic activities. *Progress in the area of access and utilization of knowledge used to protect of the environment and for sustainable development.*

11. Further expansion of international cooperation, especially between neighbours, in order to jointly address the problems of environment, spatial planning and sustainable economy. *Positive impact on neighbourhood initiatives, including cross-border, with positive environmental consequences.*

12. Raising environmental and regional awareness. *Ability to improve the currently low ecological awareness of inhabitants.*

13. Ensuring adequate funding for environmental protection in the implementation of measures. *A slight increase of opportunities for access to funds for environmentally friendly projects.*
14. Collecting good tangible examples of projects which are in full compliance, ideologically and procedurally, with environmental protection and sustainable development. Ability to use them for environmental education in the PBU area, as well as in the three countries.

Finally, using the above analysis one can formulate several clear opinions about the relationship between the Programme and the ideas of sustainable development. The EU Sustainable Development Strategy discussed above has a clear reference in the Programme, and moreover - regional support. It is expressed primarily in a balanced understanding of social and economic advancement and gentle treatment of space and resources. These ideas are also supported by the clear targeting of actions towards local governments. It should be noted that the actions projected in the priorities are mutually supportive in the spirit of sustainable development. This is especially true with activities for the development of environmentally friendly tourism, renewable energy, agriculture and forestry, and water management. One can express the opinion that the implementation of the Programme will contribute to alleviation of ecological conflicts existing in this area, better and more economical usage of environmental resources, directing consumption tendencies and production structure and services into a direction more gentle for the environment and at the same time more favourable for people.

In terms of methodology, the Programme has correct assessment and prospective diagnosis emphasizing the principles of sustainable development on the background of the identified condition, and the relationship between that condition, the Forecast, the priorities and the evaluation efforts is logical and suppletic.

V. FORECAST SIGNIFICANT IMPACT ON THE ENVIRONMENT RELATED TO THE IMPLEMENTATION OF THE PROGRAMME

The PBU Programme for 2014-20 envisages the co-financing of 19 projects. They are located in all the countries and will be carried out by public entities, also in public-private partnership. The vast majority of specific investment projects relates to road construction (construction and modernization of roads leading to and parallel to borders, technical improvements to hubs, bridge crossing). The second, smaller group are information and communication improvements, including rapid alert systems also useful in case of extraordinary environmental hazards, as well as organizational measures relating to border security and facilitation of transit and migration. One project concerns the sanitation measures in the sub-basin of the lake Svitiaz.

The planned road works include relatively short sections of roads other than the express standard group. Therefore, none of these investment projects belongs to projects which are always likely to significantly
affect the environment, as per the Screening Regulation. Therefore, the execution of the OOS report during the OOS procedure is not obligatory for them. Some of the road projects will be included in the so-called Group II, which means projects that could potentially have a significant impact on the environment. For this group, the obligation to carry out a OOS Report will be indicated in its order by Mayor or Commune Head. At this stage it is difficult to determine which road investments these will be; it is expected that all of them, since the specified locations are at small distances from Natura 2000 areas, and one of them borders such an area. This applies to objects on the Polish side, or border objects. In such locations, the OOS report is required to study the potential threat to the cohesion and population value of an OSO or SOO areas.

According to the rules of performing such assessments, all significant impacts on the environment and monuments should be taken into consideration, including direct, indirect, secondary, cumulative, short, medium and long-term, permanent and temporary impacts. Systemic identification should be carried out and the significance of the potential risks and environmental impacts related to the implementation of each of the analyzed tasks and plans for implementation of the PBU priorities should be evaluated – this is the objective of the forecast, with parallel ongoing economic and social analyzes.

Impacts on the biosphere and landscape with formal separation of the impact on NATURA 2000 areas should be separated. In particular, in the case of impact on such areas the following should be addressed:

- loss and fragmentation of habitats;
- reduction of biodiversity;
- impact on endangered species;
- impact on natural corridors, migration of mammals on the macro scale (in the context of the corridors of continental importance);
- land use changes, changes in the quality of the landscape;
- impact on soil and geological structures and hydrological regimes, with particular emphasis on the threat to utility aquifers and water intakes;
- global, regional and local air pollution and their consequences for the climate, ecosystems and health;
- contamination of soil, surface water and groundwater at local and regional level, along with their consequences for ecosystems and health;
- increase in noise and its impact on human settlements and animal habitats;
- changes in the level of flood protection.

It should be noted that the planned road projects will affect valuable natural areas to a small extent while in service due to moderate traffic. Impacts during the implementation can be reduced. By contrast, most of the locations are in potential conflict with the more or less remote OSO areas. In particular, the need for a
professional evaluation of impacts on avifauna (migratory routes) and chiropterofauna must be taken into account.

The Programme covers a border area, so the cross-border aspect is obvious. The signatory countries to the Programme have not yet developed a procedure of consulting border investments which may significantly affect the environment in the country of exposure. Such procedures have been defined by the EU and they are respected in much of Europe. Signing of similar agreements should be aimed for. As for the real conditions for the emergence of material cross-border aspects associated with the implementation of the Programme, in a strategic sense such threats have not been recognized. The Programme eases the development policy towards pro-environmental trends and introduces elements of retardation to the specified measures. As regards tangible projects, cross-border problems can occur with border bridge crossings and work related to the use of the waters of border rivers (some of the issues here are governed by bilateral agreements on the exploitation of border rivers - e.g. the Bug Commission). A specific form of the cross-border procedure are also agreements on the rules for providing tourist access to protected border areas. So there are no reasons for the implementation of the cross-border OOS procedure.

Under Polish law, the sanitation system for Lake Sviatiaz would initiate a full OOS procedure together with water and legal proceedings. In the case of Belarus, it is difficult to predict the requirements of the local supervisory administration in this regard.

The PBU Programme will not result in significant changes to the natural environment of the area in question, within the meaning of depletion of the resources and values of abiotic and biotic environment, and cultural landscape. As regards the latter, one should expect positive changes to take place thanks to strengthening efforts for the improvement of spatial order. Relatively higher risks may arise as a result of the implementation of certain investments. In the latter case, one should expect indirect impacts, primarily due to demand for transport services, energy production and local building materials. This may cause the accumulation of risks in the areas functioning as logistic hubs for the PBU area (Grodno, Bialystok, Brest, Przemysl, Lviv). During the execution of specific tasks these will be mainly periodic and short-term hazards. It should be noted that the natural structure of terrain promotes environment-conserving activities in the organization of infrastructure systems, both national and international, as well as local. A favourable circumstance is also the existence of large buffer areas giving the ability to conduct location maneuvers. The Programme also provides for a certain concentration of tangible projects in the vicinity of the borders – one can indicate places and areas where such projects will not have significant adverse environmental effects. During the implementation work the issue of spatial preferences for the proposed actions should be addressed – the Forecast may not fulfil this task because the problem is not only ecological.
Particular attention should be paid to a common threat from linear investments – fragmentation of the landscape, and therefore also of ecosystems and habitats.

The following summarizes the expected benefits, environmental risks and recommended mitigation procedures related to the priorities of the PBU Programme. The first table presents environmental benefits.

TABLE V. Environmental hazards and mitigation measures related to PBU priorities

<table>
<thead>
<tr>
<th>Environmental hazards</th>
<th>Comments and conditions</th>
<th>Mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>New locations in environmentally valuable areas</td>
<td>More serious investments concentrated only in the border zone</td>
<td>Mitigating measures related to OOS procedures and modern local spatial development plans.</td>
</tr>
<tr>
<td>Expansion of accommodation centres in environmentally valuable areas</td>
<td>The theoretical tourist capacity of land is used in about a dozen standards and environmental centres in percent; there is no risk of certifications</td>
<td>Mitigations using the BAT standards and environmental certifications.</td>
</tr>
<tr>
<td>New access roads to new border crossings usually cause environmental conflicts</td>
<td>The most serious is the problem with the crossing of valuable river valleys and hydrogenic areas (conflicts with NATURA 2000 areas – see the Rospuda)</td>
<td>BAT. IPCC. EU standards for linear investments. Mitigating provisions of regional and strategic planning. Forecasts of environmental impacts and their implications.</td>
</tr>
</tbody>
</table>

Problems with the location of waste, environmental protection program and implementation of the principles of sustainable development; it is necessary to introduce them to the strategic Regional, district and municipal sectoral documents and spatial plans, especially the records of discussions on them. Education.
Sealed borders are a substantial natural barrier, while non-sealed, in turn, provide an opportunity for the illegal transport of dangerous substances.

Well-functioning borders can reduce both of these threats. Mitigations related to the OOS procedure. Technical facilitations for migrating animals. Information, education

No hazards for the transfer of information in the conditions of PBU should bring almost exclusively environmental benefits.

Compliance with national, regional and local environmental programs, but also complements and innovation

This forecast indicates the possible, related to the implementation of the Programme, project implementations which may significantly affect the environment and determines the overall package of recommended mitigating measures. The most important group of such potential projects is linear infrastructure (roads, sewerage, telecommunications). These investments can be a serious threat to the biotic environment as they fragment the landscapes and habitats. The main groups of the necessary mitigating measures is the prudent planning of their routes and carrying out architectural and landscape studies in sensitive sections. EU standards (BAT, IPPC) must also be complied with. Significant effects can be achieved using modern technologies for this kind of infrastructure.

In connection with the adopted, relatively even distribution of resources to priorities, and therefore the directing of significant funds towards "soft" projects, postulated during the discussion on the Programme, there is no practical possibility of executing, in the context of the PBU, of major infrastructure or production investments that would meet the criteria for large projects (financially). Of particular importance will be procedures to streamline border crossing, especially those related to new or modernised bridge crossings. The principle here, which should be commonly introduced in this valuable area, is to build crossings which cross valleys and not river beds. Such solutions are starting to become widespread also in Poland, despite the lack of the decision-makers' understanding of the issue. Another group of expected investments related to environmental protection is the water supply and wastewater management industry. Here the
technological direction should take into account the specificity of settlements and favour individual ways of wastewater treatment as well as collective local water lines (basin of Lake Svitiaz). The issue of disposal of sewage sludge should be categorically resolved.

Unfortunately, the programme does not include projects involving the liquidation of existing environmental contamination. A serious threat to the environment of these areas is the presence of remnants of various kinds of industrial, mining and paramilitary facilities, which are numerous in this area and often in adverse conditions.

It will also be difficult to quickly address the numerous environmental hazards posed by agriculture which, although largely extensive in this area, has a serious problem of underinvestment in the simplest equipment to protect against the impact on water, soil and spatial order. Here, the primary way of avoiding the growing threats is education.

Possible changes of the morphology and lithology, hydrology, geochemistry, soil, climate, air quality and environmental noise, acoustic climate, and the quality of the landscape result rather from the general transformation of the landscape, especially with advancing climate changes. A sudden change should not be expected in the PBU area. Some changes are expected in the field of biodiversity. There will be a consolidation of protected areas, including in particular, systems protecting habitats and taxa (in accordance with the provisions of biosphere reserves and the NATURA 2000 network). At the same time, diversity may be reduced in the immediate vicinity of the borders and along preferred routes, including tourist routes. In terms of quality of waste management and water and wastewater management, progress faster than today may be expected. This especially relates to qualitative changes in the area of waste segregation in situ and increase in recovery and recycling. In the field of water management, positive changes to the quality of drinking water are expected (today on the Polish side, numerous individual water intakes, in at least 3/4 of the cases, have water unfit for domestic use). The very unfavourable ratio of homes connected to the water supply system to those covered by wastewater disposal or treatment should be reduced. Simple systems for purification and returning water and raw materials used in agriculture and services around agriculture to the environment should appear. The PBU Programme only marginally supports these beneficial processes.

This evaluation covers the expected outcome of the full implementation of the Programme, but also the result of the probable material projects in the rational size and with their uniform distribution. It can be concluded that in any of the categories of components, the danger of deepening of the negative trends caused by the implementation of the Programme has not been recognised. The deterioration of the climate and water conditions in 2010-2030 is almost inevitable, reversal of the trend requires action on a larger scale. The most difficult will be the risks associated with progressive climate change and thus changes in the water resources. The Programme is not able to turn these trends around. It is important that potentially
proposed projects include the need to protect nature and landscape, and will encourage the establishment and proper functioning of systems of protected areas, including Natura 2000 network. Here, the positive effects are expected in all countries.

TABLE VI Evaluation of the trend of environmental change according to the distinguished activities as well as before and after the implementation of the PBU Programme

<table>
<thead>
<tr>
<th>No.</th>
<th>Component/measure</th>
<th>Current trend of changes</th>
<th>Investment projects</th>
<th>&quot;Soft&quot; projects</th>
<th>Trend of changes after implementation of the Programme*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Air quality</td>
<td>△</td>
<td>▼</td>
<td>△△</td>
<td>△△</td>
</tr>
<tr>
<td>2</td>
<td>The quality of surface waters</td>
<td>△</td>
<td>O</td>
<td>△</td>
<td>△△</td>
</tr>
<tr>
<td>3</td>
<td>Groundwater quality</td>
<td>▼</td>
<td>▼</td>
<td>O</td>
<td>△</td>
</tr>
<tr>
<td>4</td>
<td>Water resources</td>
<td>▼</td>
<td>▼</td>
<td>O</td>
<td>▼▼</td>
</tr>
<tr>
<td>5</td>
<td>Quality of the soil cover</td>
<td>O</td>
<td>▼</td>
<td>▼</td>
<td>▼</td>
</tr>
<tr>
<td>6</td>
<td>Abundance of agricultural space</td>
<td>O</td>
<td>▼</td>
<td>O</td>
<td>▼▼</td>
</tr>
<tr>
<td>7</td>
<td>Forests, quality and abundance</td>
<td>O</td>
<td>O</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>8</td>
<td>Flora, diversity and abundance</td>
<td>▼</td>
<td>▼▼▼</td>
<td>O</td>
<td>▼▼</td>
</tr>
<tr>
<td>9</td>
<td>Fauna, diversity and condition of habitats</td>
<td>▼</td>
<td>▼▼</td>
<td>O</td>
<td>▼</td>
</tr>
<tr>
<td>10</td>
<td>Acoustic climate</td>
<td>▼▼▼</td>
<td>▼▼</td>
<td>O</td>
<td>▼</td>
</tr>
</tbody>
</table>
O - no significant changes ▼, ▼▼, ▼▼▼ - negative changes: minor, distinct, major Δ, ΔΔ, ΔΔΔ - positive changes: minor, distinct, major *

Comments: The negative trend projected changes in items 4, 8, 9 and 11 results from the expected effects of global warming, not the implementation of the Programme. The Programme can counteract this to a very limited extent. This evaluation covers the expected outcome of the full implementation of the Programme, but also the result of the probable material projects in the rational size and with their uniform distribution. It can be concluded that in any of the categories of components, the danger of deepening of the negative trends caused by the implementation of the Programme has not been recognised. The deterioration of the climate and water conditions in 2010-2025 is almost inevitable, reversal of the trend requires action on a larger scale. The most difficult will be the risks associated with progressive climate change and thus changes in the water resources. The Programme is not able to turn these trends
around. It is important that potentially proposed projects include the need to protect nature and landscape, and will encourage the establishment and proper functioning of systems of protected areas, including Natura 2000 network. Here, the positive effects are expected in all countries.

A separate question is whether the proposed Programme and related material activities will reduce health hazards resulting from the condition of the environment. The answer is generally positive, a progressive sanitation of living conditions in villages and small towns and a reduction of typical risks (air purity, waste) should be expected.

Finally, it is expected that the implementation of the Programme will strengthen environmental protection services and administration responsible for implementing the principles of sustainable development.

Following the changes of the region concerned, also due to the implementation of further PBU cooperation programmes, an indicative forecast of changes in environmental conditions can be presented, taking into account the consequences of the implementation of "soft" projects and specific mutually agreed on investments. A thesis can be accepted that Polish efforts for a distinct advantage of "soft" projects are legitimate for environmental reasons.

VI. MITIGATING MEASURES, VARIANTS. ENVIRONMENTAL MONITORING AND EVALUATION OF THE PROGRAMME

VI.1. Mitigation measures and environmental monitoring

The PBU Programme is structured largely in line with the principles the observance of which significantly reduces the unfavourable trends in changes to environmental conditions.

However, it is important to try to introduce organisational measures to mitigate potential environmental risks associated with the implementation of the Programme. We are talking about:

- Evaluation of environmental effects of implementing the Programme, in accordance with the recommendations set out below;
- Broad public participation in making decisions about the allocation of funds for individual tasks;
- Verification of the Programme in intervals of several years;

At the stage of strategic assessment, possible and recommended measures may be presented, tailored to specific conditions, for mitigating, compensating and monitoring, related to specific projects likely to have significant effects on the environment.

The PBU Programme can help the prevent, reduce and compensate the negative impacts on the environment, which may result from the implementation of the document. What's more, it gives rise to tripartite agreements and standardisation. And so projects planned as a result of the implementation of the
PBU Programme can contribute to sustainable development through the use of sector-specific measures to eliminate or reduce the negative impact on the environment.

In a spatial sense, the development of latitudinal directions is more beneficial for the environment than meridional directions. The issue of monitoring the environment in the course of the PBU Programme is especially important in this area, but the size of the Programme will not allow for introducing a separate system of tests and measurements. The existing system of the State Environmental Monitoring should be used, carried out by the Chief Inspector of Environmental Protection and its subsidiary bodies. This can be done by compiling tables as the one shown above every two years (Tab. V). Implementation of the environmental monitoring programme will take place using environmental protection services, whose very important role in the implementation of the Programme should be taken into account at all stages.

VI.2. Variants and modifications of the PBU Programme, risks related to implementation. Evaluation

Funds allocated for material activities are definitely limited, which from an environmental perspective averts the risks and allows giving up the preparation of financial variants. There is also no practical possibility to change the agreed list of investment projects. Preparation of variants of "soft" projects is also pointless, because their choice should take place through the procedures of direct democracy with equal participation of the three parties. Poland should not interfere in this process to a greater extent than is due (1/3).

It is possible to consider different variants related with the principles of environmental reconciliation of the projects. A pro-environment variant is application of EIA procedures to all major projects, including taking into account the impact on particularly valuable natural areas (in Poland - Natura 2000). A rational variant would be a procedure consistent with national regulations. No analysis is performed here for variants distinguished in this way. A discussion on this topic should be carried out during consultations, and the results incorporated into Forecast.

The Programme is an unconstrained concept of the development of the border area of three countries, which does not result from political or economic liabilities. Therefore, it does not contain a prior plan of material actions that may cause hazards. The Programme can, by the will of societies of the three independent and sovereign states, be implemented in full, in part or abandoned. Therefore, creating variants of the Programme taking environmental aspects into account in a greater degree is not needed.

Analysis of the variant of not implementing the Programme also is omitted. This option carries strongly more adverse effects on the environment.
However, the Programme should be enriched with pro-environment content as the planned actions are prepared and standards and restrictions established.

The Programme analyses the risk assessment of implementation. The need to conduct appropriate environmental procedures (EIA) can lead to delays, even significant. This applies to those sections of roads that are adjacent to Natura 2000 sites.

All the strategic documents should have a system for evaluating progress in their implementation. The Programme provides for such a procedure. The Programme contains apt recommendations applicable to monitoring and improving both the whole and sets of tasks associated with it. Evaluation indicators are also proposed. In particular, in the case TO7, the positive effect of modernisation resulting in better conditions to travel by road (fewer emissions, saving time) will be assessed. In the case of TO8, the number of residents served by improved health protection systems (access time, information, etc.) will be analysed. From the environmental point of view the evaluation methods should be proposed together with a package of indicators covering the ecological and eco-developmental aspects.

It is recommended to introduce at least two groups of criteria to the evaluation procedures: the new account of environmental and economic benefits and losses and trends relating to global threats. There are many possibilities here. The forecast cannot propose all of them, moreover, it may be enough to provide an assurance in the provisions of the Programme that such an approach will be used in the evaluation process.

In terms of global threats, particular attention should be paid to the problem of global warming, as the economic development, even as balanced as in the PBU Programme, can lead to a relative increase in GHG emission (Greenhouse gases). One of many indicators linking greenhouse gas emissions with a parameter characterising economic development should therefore be adopted as a monitoring indicator. An exit point to the construction and indexation of such an approach should be to assess the projected changes in greenhouse gas emissions in the sectors of the economy. Unfortunately, there are no such data for the PBU area. Regardless of the activities, greenhouse gas emissions will be growing, if only because of transportation, which is associated with a priority increase of availability. This is due to the increasingly more intensive development of this sector and the increasing share of road transport. With time, along with the improvement of technology and the improvement of fuel quality, this growth will be lower. The frequency and scope of the analysis on the assessment of the share of transport in the balance of greenhouse gases in the PBU area (especially CO₂) should be agreed with the Ministry of Environment, in particular with the Climate Convention Offices and EPER (emission monitoring). It is proposed to introduce several indicators to the Programme, which take into account environmental aspects, closely linked with the reference objectives mentioned earlier:

- Carbon dioxide emissions relative to GDP;
Relationship between the level of connection to water supply systems and sewerage systems (i.e. share of households where wastewater reaches wastewater treatment facilities);

Traffic at tourist crossings.

Other indicators, due to the nature of the proposed measures, do not apply.

In Poland, it is assumed that strategic documents should be evaluated every two years, and verified and supplemented every four years. Such rules can be found in the laws defining the need to implement these documents. The core evaluation criteria is always an analysis of validity of the goals - in this respect fundamental changes should not be expected - environmental (and sustainability) objectives are stable.

Another issue is to check progress in implementing the Programme. This is done in two ways: by controlling the tasks (the Programme is divided into tasks) and by controlling effects. In the first case, the facts which occurred are verified, in the second the impacts are assessed. In the case of environmental assessment, this type of evaluation is particularly important and the principles regarding this assessment should be agreed upon during the adoption of the document. A practical solution adopted in the last phase of compilation of the Programme is to use annual reports on the implementation of the Programme for evaluation purposes. The reports will include records relating to environmental protection: an overview of clearly pro-environment projects, the outcome of the assessments of environmental impact carried out.

VI. CONCLUSION

The document was prepared in line with the principal challenges of sustainable development and does not forecast any escalation of environmental threats in the analysed area. On the contrary, the priorities established allow for predicting a reduction of the pressure on the environment. Also, the financial scope of the Programme is moderate and excludes the large investments that could significantly affect the environment.

The Programme is formulated in a realistic manner and should be well received by the pro-environmental NGOs, as well as citizens who care about the quality of their environment. It is understandable, so it will be easy to refer to consultation, during which it will be possible to enrich its task part.
The investment process control instruments in use in Poland, in line with the EU standards, can fully guarantee the environmental safety of these projects. Such procedures are also active in Belarus and Ukraine, it is recommended, however, to use Polish (EU) procedures for joint projects. Smaller projects, especially "soft" projects, in line with the priorities of the PBU Programme, will promote the deepening of environmental awareness.

The Programme's positive significance for environmental protection and sustainable development will be enhanced by including ecological conditions in the application criteria.

The forecast was prepared in accordance with the recommendations of the bodies defining its scope under the law. It discusses the structure and content of the Programme and distinguishes pro-environmental goals. The main part analyses the possible environmental consequences and the implementations of priorities included in the Programme related to sustainable development. All the priorities have been subject to such analysis, and then the risks pointed out that may arise in the implementation of the Programme activities. The forecast also contains a prospective diagnosis of the environment of the analysed area. The Programme supports the so-called balanced development variant of the Polish-Belarusian-Ukrainian border area. It has been discussed in the Forecast and evaluated in terms of ecological effects. It is definitely more beneficial than traditional development strategies, as well as planning documents.

It is anticipated that the provisions of the Forecast used for the protection of the environment will supplement the draft Programme, and the environmental arguments contained therein will be useful in the promotion of the region.

VIII. Non-technical summary of the environmental impact assessment of the Poland - Belarus - Ukraine Cross Border Cooperation Programme for 2014-2020

Formal framework, goals and scope

This forecast of environmental impact, in accordance with EU legislation and the provisions of the Polish EIA Act is a separate document attached to the draft Programme. In Poland it is called the Forecast of Environmental Impact ("Forecast") and in accordance with the SEA Directive it is called an Environmental Report. The Forecast was developed on the basis of the said Act and in accordance with the recommendations of the authorities which under their statutory responsibilities review the the scope and depth of detail of such documents. In this case, the scope has been reviewed by the General Director for Environmental Protection in the Ministry of Environmental Protection and the Chief Sanitary Inspector. After preparation of the forecast, the body which prepares the draft program submits both the Programme as well as the Forecast for review by the authorities with which the scope of the Forecast has been coordinated. Due to the geographical character of the strategic document, the recommendations relating to cross-border impact should also be taken into consideration (according to the EIA Act and the Espoo Convention).
According to Article 43 Section 2 of the EPL and Article 2.6.4 of the SEA Directive, public participation in the proceedings on environmental impact assessment programmes and plans is an important part of the proceedings. The authority preparing the draft programme should carry out a public consultation both in regard to the draft programme and environmental impact assessment and integrate the results of this consultation in the final version of the programme and forecast. Due to the international nature of the programme, the process of public consultation should include representatives of Polish, Belarus and Ukrainian society.

The aim of the Forecast is to identify direct and indirect elements of the potential impact on the environment of the Poland - Belarus - Ukraine Cross-Border Cooperation Programme 2014-2020 (PBU) in consultation with the three partners of the programme.

This document discusses the structure and contents of the draft Programme and distinguishes the environmental objectives. In its main principal section, it analyses possible environmental effects and effects related to sustainable development resulting from the implementation of priorities and actions adopted in the draft programme. All the thematic objectives (TO) and the priorities of the programme were subjected to such assessment, and on this basis the risks that may occur during implementation were identified. In addition, the Forecast contains a prospective diagnosis of the environmental conditions of the analysed area. The conclusions from the forecast of environmental impact can be summarised in several essential items.

**Methods of analysis**

The primary method used in the Forecast is a comparative analysis of the teleological provisions of the programme with the standards of environmental management and implementation of sustainable development adopted by the PBU Countries. These standards stem from formally accepted documents such as treaties, conventions, directives, laws and agreements, both on a worldwide, European and regional level. The comparative analysis was conducted by grading and rating, with the specified level of acceptance of possible differences between models and regulations. This was done by way of comparison of tables and matrixes.

**Area covered by the programme**

The area covered by the programme includes the south-eastern part of the Baltic basin (except of small piece of Ukrainian territory) and is delimited administratively. In Poland, it covers the southern and eastern border region, and similarly the western and central part of Belarus as well as the western part of Ukraine. The total area covered by the Programme is 316,300 km2, including:
75,200 km² in Poland, 138,500 km² in Belarus and 102,500 km² in Ukraine.

State of the environment

The program area is one of the most valuable natural regions in Europe. Therefore, it is reasonable to shape the development priorities in order not to create hazards to its natural resources or impair the balance between human activities and environmental needs. Distinguishing features of this area constitute a specific, complex and extremely attractive product. They include:

- Low population density adjusted to natural conditions; the occurrence of areas characterized by relatively unchanged fauna and flora, little known even in the countries covered by the cooperation;
- Clean air, cleanest in this part of Europe;
- Good water quality, polluted practically only by municipal wastewater and agricultural activities;
- Unique diversity of the natural system; the wealth of the water ecosystems and the presence of rare species for which special protection systems must be organised;
- Attractive forest complexes (including primeval forests), lakes and grasslands;
- The possibility of communing with nature not changed by civilisation;
- Wealth of cultures, traditions and customs;
- Tasty, traditional and healthy cuisine; good conditions for the production of healthy food and location for "green industry".

This area is unfortunately not free from ecological threats.

The PBU area currently shows no elevated concentrations of contaminants. There are only local sources of common pollution (from energy and transport). Municipal waste management, especially in rural areas, is still technically primitive and ineffective. Surface waters are strongly eutrophic, including the source rivers. Practically, there are no rivers with the highest level of suitability for direct consumption, but on the other hand, completely degraded waters practically do not exist. Water quality in lakes is improving, of which about 30% can be considered as not at risk of degradation.

As for industrial risks, this area has an average or low impact of the industry on the atmosphere, hydrosphere, soil and biosphere. A serious threat to the environment are all sorts of out-of-use industrial, mining and paramilitary facilities, which in this area are numerous and often are left under adverse conditions causing the destruction of the landscape, soil, water and vegetation.

Area on the eastern borders of Belarus and Ukraine survived one of the biggest ecological disasters - the failure of the nuclear reactor in Chernobyl. Large areas, especially in the Gomel Oblast, are still considered to be contaminated and are practically not used. Outbreaks of contamination occurred also in Ukraine and,
to a lesser extent, in north-eastern Poland. The danger level is still locally significant, which limits crops and utilisation of natural resources.

Serious negative environmental effects were caused in these areas by intensive irrigation works in Polesia. The PBU area has a high regional diversity in flora particularly in the area of the Bialowieza Forest, the Augustow Primeval Forest and Carpathian Forest, and in the valleys of Bug, Narew, Biebrza, Upper Dniester, Tisza. In regard to fauna, main abundant are mammals, reptiles, birds of prey and waterfowl.

In this area discussed, seven cross-border areas of particular natural and cultural value must be distinguished. They include, from the north: Complex of primeval forests surrounding the Augustowski Channel (Augustow, Grodno and Dajnava forests), Bialowieza Forest, Pobuze Podlasie, Polesie Wlodawskie, Dubienka Depression, Roztocze, Przemysl San Bend and the Bieszczady Mountains with their foothills.

The most important protected areas cover more than half of the PBU cross-border area. It is worth noting that this part of Central Europe features some extremely rare natural resources, both in terms of ecological and landscape terms which are rarely found in other parts of Europe or even the world. They provide a unique diversity of the environment and landscape and are appreciated by naturalists and tourists.

Recently created NATURA 2000 sites, both Special Protection Areas (SPAs) established in accordance with the Birds Directive and special protection areas (SPAs) established under the Habitats Directive, play a particularly important role in the PBU area. The NATURA 2000 network covers all national parks (6) as well as a long list of other areas (NATURA 2000 in the PBU area includes 23 sites). A similar number of such areas is also located on the Belarusian and Ukrainian side of the border.

**Programme priorities**

The draft programme is a concise document highlighting the issues which are potentially interesting to all three parties. Several potential aggregated development directions have been identified. They have been specified as priorities. The overall objective of the programme is sustainable social and economic development achieved via cross-border cooperation and integration. This provision is close to general ideas of sustainable development.

Socio-economic analysis, upon which the structure of the priorities and activities of the programme are based includes a direct reference to environmental issues and actions required to improve it. The analysis highlights the need to improve environment protection infrastructure and environmental awareness in the borderland population. The possibility of building development potential based on natural resources and low pollution of the border area is also indicated.
The first priority is to increase the competitiveness of border areas. From an ecological point of view, two aspects should be noted here. Increasing competitiveness in the spatial sense, in Europe, is currently accompanied by a clear increase in the level of technical infrastructure and the appearance of sustainable development criteria in relation to economic activity. Moreover, underdeveloped territories enhance their competitiveness mainly thanks to the development of the services sector, including intangible services. Both of these aspects may have positive or neutral environmental effects. Priority is to be achieved by improving the accessibility of the region (construction and modernisation of roads) and facilitating cross-border movement. Task related to sanitation, as well as the protection and revitalization of cultural objects will also be important.

This means improving the conditions conducive to the development of tourism, including adventure tourism.

Implementation of the Programme supports cross-border cooperation and the exchange of experience, as well as environmental protection.

The Programme is definitely pro-environmental. Priorities and measures are on the one hand strongly related to geopolitical location of the region, on the other with its natural and demographic specificity, as well as its traditions, culture and history.

As a result, there will be no escalation of environmental threats in the analysed area. On the contrary, the pressure on the environment will decrease thanks to the programme. It can be concluded that the implementation of the programme will contribute to alleviating ecological conflicts existing in this area.

Analysis of the national, bilateral, international and global documents make it possible to put together the most important strategic objectives related to environmental protection and implementation of sustainable development.

The PBU Programme, in most aspects, refers to the key watchwords and principles of sustainable development. In special tables included in the full version of the forecast of environmental impact, there are numerous direct and indirect references to the main goal, which is to implement the ideas and principles of sustainable development. The programme is closely related to the EU strategy for sustainable development and, moreover, supports its implementation at the regional level.

**Significant environmental impact**

The forecast states that the implementation of the PBU Programme will not result in significant changes in the natural environment of the analysed area. Countering potential threats will take place on the basis of generally accepted methods and measures (e.g. environmental impact assessments of projects). The Programme does not contain provisions that would entail the need or desire to implement large investments.
and related population concentrations which may significantly affect the environment. There also are no such financial possibilities. The proposed list of projects is short (19 items).

**Conclusions**

The document was prepared in line with the principal challenges of sustainable development and does not forecast any escalation of environmental threats in the analysed area. On the contrary, the priorities established allow for predicting a reduction of the pressure on the environment.

The comments and recommendations included in the Forecast will allow for better implementation of the Programme from the point of view of environmental protection.

**APPENDIX I**

**Environmental assessment SWOT as a supplement to the assessment contained in the Programme**

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
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<tbody>
<tr>
<td>Considerable share of valuable natural areas in all three countries, including</td>
<td>Artificial administrative boundaries</td>
</tr>
<tr>
<td>formally protected (especially in Poland)</td>
<td>hindering the logical action to protect nature, the environment and supporting</td>
</tr>
<tr>
<td>High biological and geographical diversity (landscape), both taxonomic and</td>
<td>the principles of sustainable development</td>
</tr>
<tr>
<td>population, a large number and area of ecotonal zones of very different nature</td>
<td>Scattered rural settlements, low standards of new buildings in rural areas and</td>
</tr>
<tr>
<td>Existing and potential nature areas of international value (NATURA 2000, M&amp;B,</td>
<td>small towns</td>
</tr>
<tr>
<td>Ramsar, etc.)</td>
<td>Poorly designed network of ecological connections of protected areas</td>
</tr>
<tr>
<td>Good quality of air and groundwater, numerous natural and little changed</td>
<td>Low levels of effective protection of valuable areas against encroachment of</td>
</tr>
<tr>
<td>ecosystems, including non-forest, especially hydrogenic</td>
<td>civilization, weak mechanisms for balancing losses in nature</td>
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<tr>
<td>Preserved traditions of not invasive cooperation with nature, i.e. is sustainable</td>
<td>Relatively low environmental awareness, especially among the rural population</td>
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<tr>
<td>use of its resources</td>
<td>and users of environmental resources</td>
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<tr>
<td>Low population density, adequate to the resources and the environment,</td>
<td></td>
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<tr>
<td>allowing for rational management of space</td>
<td></td>
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<tr>
<td>Growing interest of scientific and academic centres and</td>
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</table>
NGOs in environmental issues of the PBU border area

- Relationship of land with the idea of Green Lungs of Europe and the Association of Polish Green Lungs
- Increasing activity of regional scientific centres in environmental protection, sustainable development and tourism (Bialystok, Olsztyn, Lublin, Rzeszów, Pultusk, Grodno, Minsk, Lvov, Rovno)
- Cross-border projects opening new tourist regions in areas of outstanding natural beauty (Augustow Channel, Roztocze)
- Growing demand for "borderland" tourism in Poland and trips to Poland from Belarus and Ukraine (tourism)

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td>Ethnic mosaic mobilising to cooperation with aspirations for closer contacts between the Poles, Belarusians and Ukrainians; Polish traditions in Grodno and Lviv, Belarusian traditions in Bialystok, Ukrainian traditions in Przemysl</td>
<td>Quick uncontrolled development, without set environmental standards including a sharp increase in interest in the development of the transport system, roads.</td>
</tr>
<tr>
<td>Protection of nature - subject of cooperation invoking least problems Possibility of joint organisations of management of environmentally valuable areas.</td>
<td>High costs of fundamental actions for conservation, especially the protection of fauna <em>in situ</em></td>
</tr>
<tr>
<td>Growing awareness of government institutions, local government and residents of the need to strengthen efforts to dismiss global threats, especially relating to climate change and water relations</td>
<td>Too small funds of local governments to support environmental investments</td>
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<tr>
<td>Rapid deployment of environmentally friendly technologies, especially in the field of renewable energy, sanitation of water management, construction</td>
<td>Continued lack of rational legislative solutions related to municipal waste management</td>
</tr>
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<td>Good opportunities for SMP development while maintaining environmental standards</td>
<td>Maintaining low individual incomes conducive to unorganised exploitation of nature (poaching, destruction of space)</td>
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<td></td>
<td>The threat of an emergence of exceptional risks associated with the location of facilities</td>
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<tr>
<td>Development of green occupations in rural areas, including agro- and eco-tourism and other adventure tourism</td>
<td>with a high risk for the environment</td>
</tr>
<tr>
<td>Development of ecologically certified projects, including services, products and facilities (including EMS: EMAS, ISO, LCA and others)</td>
<td>Possible difficulties with the adaptation to the conditions of warmer and drier climate, especially in typically agricultural areas requiring stable natural resources</td>
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<tr>
<td>Attractive area for the development of remote methods of environmental valuation and optimization of land use</td>
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<tr>
<td>Activity of institutions dealing with environmental education aimed at the PBU region</td>
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