Poniży L., 2011. Possibilities of economic valuation of the planned land use changes in terms of the natural environment. The Problems of Landscape Ecology. Vol. XXX. 249-256.

Possibilities of economic valuation of the planned land use changes in terms of the natural environment

Lidia Poniży

Department of Integrated Geography
Institute of Physical Geography and Environmental Planning
Adam Mickiewicz University, Dzięgielowa 27, 61-680 Poznań, Poland

Abstract: The land use structure is changed in consequence of implementing decisions taken in spatial planning documents. The change is usually set along the directions of modifying stable ecosystems into unstable ones, which has an adverse impact on the biodiversity and ecosystem services. Including the concept of ecosystem services into the strategic assessment of the environmental impact would form a basis for a quantitative valuation of the effects which the delivery of spatial planning decisions exerts on the environment. The main objective of this study is to present financial effects of the changes in the land use provided for in the local spatial management plan, currently reflected in the financial projection, as well as to present the Biotope Valuation Method (BMV) as an example of a tool to value the above changes, and finally to present the concept of ecosystem services as a perspective to estimate environmental changes resulting from spatial planning decisions.

Key words: ecosystem services, biodiversity, land use, financial effects, spatial planning documents

Introduction

Implementation of the decisions taken in the spatial planning documents changes the land use structure and, in consequence, transforms the functions of the natural environment. The changes are usually set along the directions of modifying stable ecosystems, such as forests, pastures or water bodies into unstable ones, such as farming land or developed areas. The land use changes exert an adverse impact on biodiversity and ecosystem services (Kędziora, Karg 2010).The above processes can be limited, especially in the areas which are not subject to forms of spatial conservation, by introducing a comprehensible economic calculation (also referred to as an economic-ecological calculation) into the assessment of planning documents assumptions, which would reflect not only the economic factors in the decision-making process, but also changes in the ecological functioning of the natural environment (Praddecka 1991). The economic premises for local spatial management plans are presented in the obligatory projection of financial effects, which usually presents revenues and expenses of the commune, yet there is no quantitative valuation of the environmental effects potentially caused by spatial planning decisions. The Polish law imposes an obligation to assess the environmental impact of the change. Pursuant to art. 46 of the Act on Providing Information on the Environment...(Ustawa o udostępnianiu informacji o środowisku... Dz.U. 2008 nr 199 poz.1227), all levels of spatial planning documentation require strategic assessment of environmental impact. The projection of environmental impact is an integral part of such an assessment. However, given the lack of consistent methodology for forecasting the change effects, the produced projections differ in terms of quality and are often limited to a mere “description of natural environment” (Szulczewska 2008).

The paradigm of sustainable development is the bedrock of spatial planning and ecosystem services are one of the main conditions of its successful implementation. Ecological factors of the management processes require that this condition be reflected in environmental and spatial control at all levels and stages of management (Michalowski 2010).
Incorporating the concept of ecosystem services into the strategic assessment of environmental impact would form a basis for a quantitative valuation of the effects the delivery of spatial planning decisions exerts on the environment.

Objective of the study

The main objective of the study is to present, on one hand, currently felt and reflected in the financial projection effects of the land use changes driven by spatial planning decisions, and on the other hand, to show the possibility of economic valuation of the planned environmental changes and include it into the strategic assessment of environmental impact.
Firstly, the paper presents financial effects of the local spatial management plan assumptions caused by the change in the land use. Most often, such effects are limited to administration fees and changes in tax rates.
To illustrate methods practically applied to appraise the economic value of the natural environment, the paper presents one of the biotope valuation methods (BMV), often used in the German spatial planning practice. The concept of ecosystem services providing a perspective for estimating economic effects of changes in the natural environment was also shown. The need to reflect the valuation of changes in the ecological value of the natural environment in the financial analysis of the planning decisions effects is of a key importance to, firstly, making a correct economic choice and taking right decisions, and secondly, to the process of developing environment protection instruments and supporting sustainable development (Jeżowski 2010).

Financial effects of the local spatial management plan

One of the financial effects of adopting or modifying the local spatial management plan is a re-zoning fee paid for the benefit of the commune. The fee is paid on a one-off basis by the property owner if the following three conditions have been met:
• due to adopting the local spatial management plan, the value of the plot included in the plan has increased,
• the purpose of the area where the plot is located has been changed,
• the owner sold the property within 5 years since the adoption of the local spatial management plan.
The amount of the re-zoning fee is set in the local spatial management plan and cannot exceed 30% of the difference between the property value before the plan was adopted and the value at sale. The re-zoning fee is regulated by art. 36 sec. 4 of the Spatial Planning and Management Act (Ustawa o planowaniu i zagospodarowaniu przestrzennym Dz.U. 2003 nr 80 poz. 717).
If as a result of adopting a local spatial management plan the properties are divided or consolidated and divided and therefore their value increases, the commune has a right (but not an obligation) to charge to the owner(s) a fee (betterment levy). The legal basis to charge that fee is the Property Management Act of 21 August 1997 (Ustawa o gospodarce nieruchomościami Dz.U. 2010 nr 102 poz. 651).
If as a result of adopting or modifying a local spatial management plan the value of the property decreases and the owner or a perpetual lessee sells the property, they may seek compensation from the commune equal to the reduction in the property value. Also, if using the property or a part of it in the former manner or in the manner which complies with the former purpose, has been considerably limited or made impossible, then the owner or perpetual lessee may demand the following from the commune: compensation, purchase of the property or a part of it, or exchanging the property for another (Ustawa...Dz.U. 2003 nr 80 poz. 717).
Depending on the land use specified in the register of land and buildings, the land owner is obligated to pay an annual tax fee either in the form of agricultural tax, forest tax or property tax. Land use changes in the local spatial management plan entail also the changes in the type of a local tax. Therefore, changing the land use from agricultural to development means much higher inflows to the communal budget due to levying a different

tax.

Change of the land use made in the local spatial management plan and adopting the plan may provide grounds to exclude the land from agricultural or forest production. The Agricultural and Forested Land Protection Act of 3 February 1995 (Ustawa o ochronie gruntów rolnych i leśnych Dz. U. 1995 nr 16 poz 78) sets the fees for exclusion of land from agricultural and forest production. The property owner who was granted permission to exclude the land from agricultural production is obligated to pay a one-off fee (for permanent exclusion of land) and annual fees (10% of the calculated amount payable annually for 10 years if the exclusion is permanent, or in the event of temporary exclusion, payable annually but not longer than for 20 years). The amount of the one-off fee and annual fees depends on the class and type of land excluded from agricultural production (table 1).

Table 1. The one-off fee for exclusion of 1ha of arable land from agricultural production

Arable land, orchards		Meadows and permanent pastures	
class	one-off fee (in PLN)	class	one-off fee (in PLN)
on soils of mineral and organic origin			
I II IIIa IIIb	437 175 378 885 320 595 262 305	Ł i Ps I Ł i Ps II Ł i Ps III	437 175 361 398 291 450
on soils of organic origin			
IVa IVb V VI	204 015 145 725 116 580 87 435	Ł i Ps IV Ł V Ps V Ł i Ps VI	174 870 145 725 116 580 87 435

[Ł – meadows; Ps – pastures]

Source: Agricultural and Forested Land Protection Act of 3 February 1995 (Ustawa o ochronie gruntów rolnych i leśnych)

In the event of forested land, a certain number of m3 of wood is adopted to calculate the one-off fee and annual fees for excluding 1 ha of forest from production, depending on the forest habitat type (table 2) and the price of 1m3 of wood, which is published annually by the Central Statistical Office (GUS) (in 2010, the price of wood was PLN 154.65).

Table 2. Basis for calculation of the one-off fee for excluding 1ha of forest from the production

Forest habitat type	Number of m3 of wood used to calculate the one-off fee
Broadleaved forests: fresh, wet, riparian, mountain, ash swamp and mountain alder swamp	2000
Mixed broadleaved forests: fresh, wet and marshy, upland, mountain and alder swamp	1500
Mixed coniferous trees: fresh, wet, marshy, upland and mountain	1150
Coniferous forests: fresh, wet, mountain	600
Coniferous forests: dry and marshy	250

Source: Agricultural and Forested Land Protection Act of 3 February 1995 (Ustawa o ochronie gruntów rolnych i leśnych)

Despite the one-off fee and annual fees, if the owner fells the trees too early, they will pay an additional, one-off compensation fee in the amount equal to the difference between the expected value of the tree stand when it reaches its felling age and the value when it is actually cut down.

Financial effects of planning decisions do not reflect or reflect marginally (one-off fees and annual fees for exclusion of land from agricultural and forest production) changes in functioning of the natural environment driven by modifications of the land use. To date, no quantitative methods to assess the changes in the natural environment have been introduced to the Polish spatial planning practice.

Biotope Valuation Method (BVM) as an instrument of economic valuation of non-market goods of natural environment

Quantitative methods of assessing changes in the natural environment have been developed for over 30 years in the field of ecological sciences in Germany, among others, where they have also been practically applied and formed the main instrument of landscape protection.The necessity to assess the impact of investments on natural environment is provided for in Gesetz über Naturschutz und Landschaftspflege (Bundesnaturschutzgesetz - BNatSchG) (Darbi, Tausch 2010). Apart from general guidelines at the national level, every German state has its own regulations and procedures concerning methods of assessing the initial ecological value (from before the investment) and valuing gains and losses resulting from the investment. The procedures aim mainly at ensuring that the existing ecological condition is preserved as a minimum standard, and if this standard cannot be preserved – that the negative effects are compensated for. Given the lack of consistent guidelines and legal regulations at the national level, at least 40 methods have been developed and published (both qualitative and quantitative) for assessing environmental changes (Darbi, Tausch 2010).

One of the quantitative methods is the Biotope Valuation Method[1] (BVM) – a method used for economic valuation of non-market goods provided by the natural environment.

The BVM dates back to the 80s of the 20th century and was used, among others, in Hessen, a German state, to calculate administration fees for damage made to the natural environment as a result of legal or illegal human activity. The method is based on the assumption that maintaining biodiversity is the main factor in the correct functioning of the ecosystems, which has also been confirmed by the TEEB report (2008) and Millenium Ecosystem Assessment (2005).

The method consists in building lists of biotopes types (types of land use) at the local level and ascribing score values to them (most often for 1m2) (Verordnung… http://www.rv.hessenrecht.hessen.de - accessed on 17.06. 2011). The points are allocated to certain biotope types based on the interdisciplinary expert valuation. Every biotope is assessed against the following eight ecological criteria:

1. maturity of the biotope
2. unaffected state of the biotope
3. diversity of the layer structure
4. diversity of species
5. rarity of biotopes
6. rarity of the biotope species
7. sensitivity of biotopes
8. threat to the number and quality of biotopes

Every single biotope type can be given from 1 to 6 points for every of the above criteria. Next, the sum of the points for the first four criteria (internal features of biotopes) have been multiplied by the sum of the points for the last four criteria (external features of biotopes). The highest possible score is 576 points. The final score value of a biotope is the percentage of the points given against the maximum possible number of points. It is calculated according to the formula:

[((1 + 2 + 3 + 4) * (5 + 6 + 7 + 8)) / 576] * 100 = no. of points (3-100)

The results allowed to rank all types of biotopes according to their ecological value. In the next stage, the BMV aims to translate the scores into monetary value. The monetary value of one point was assessed by means of the replacement cost method, based on the delivered revitalisation projects which served to calculate the cost incurred to increase the ecological value of 1 m2 by one point.

By using the scores from the list of biotope types, ecological score value of a biotope is calculated for a given area before the change in the land use and then after the change; next, the difference in points is converted into monetary value and constitutes a basis for rehabilitation actions or establishing the amount of compensation for environmental damage.

The method, called the Hessian Method, was recommended in 2000 in the EU White Paper on Environmental

[1] In Germany the biotope maps have long been used in spatial planning (Sukopp, Weiler, 1988; Gödde et al., 1995). Biotopes are regarded there as a synonim for habitat and are defined as a desiganted area of animal and plant life; basically, they represent various types of the land use (Löfvenhaft et al. 2002)

Liability (Brussels, 09/02/2000, COM(2000)66 final).
Although applied in practice in Germany, the methods of biotope valuation find many opponents. The BMV was criticised by Zisenis (2008), who referred mainly to the works of German authors dealing with the problem of abundance of various assessment systems used to appraise the natural environment and landscape, and arriving often at different, incompatible results, as well as indicating lack of guidelines for selecting the assessment criteria and scale at the local level.
The criticism of the existing methods concerns also the fact that assessments of the natural environment are still based solely on natural sciences while social sciences and arts remain under-represented (Schramm, 1999; Erdmann, 2002).

Ecosystem services – application perspectives for assessing environmental changes

It seems that a dynamically developing research field of benefits the man draws from the functioning of ecosystems, referred to as ecosystem services (Mizgajski, Stępniewska 2009, Poskrobko 2010) provides the opportunity to adopt a multidisciplinary approach to the assessment of the natural environment and changes the environment undergoes in time.
However, the problem with assessing the market value (monetary value) of ecosystem services consists in the fact that several elements contribute to that value. First of them is the utilitarian value arising from the direct use of the natural resources and goods; usually it is easy to assess it in economic terms, e.g. this is the value reflected in the price of 1 m3 of wood gained from the forest. The other two elements – the value arising from indirect use (e.g. oxygen production, recreational benefits) (Śleszyński 2006) and non-utilitarian value concerning benefits derived not from using the resource but from delaying the use in time or even from the mere existence of the natural resource (Fiedor 2002) – are very difficult to be quantified, in fact non-measurable at the present level of knowledge.
A global discussion on ecosystem services has been triggered by the publication of Costanza et al. (1997) which presented a global valuation of ecosystem services in monetary values. The work itself aroused controversies as to the used valuation methods and whether it was justified to conduct valuations at all, but it gave rise to further search and development of that field of study. This can be illustrated by the TEEB project (The Economics of Ecosystems and Biodiversity) being delivered since 2007 and engaging many scientists and experts from around the world. The project emphasizes the necessity to assess the value of the services provided to mankind by natural environment and recommends the most suitable methods to appraise individual ecosystem services[2] (table 3) as well as incorporating the valuation of ecosystem services into the strategic assessment of the impact which spatial planning documents exert on the environment.
Beyond all doubts, changes in the land use contribute to changes in the biodiversity and changes in the functions of ecosystems, which, in turn, modifies ecosystem services (TEEB 2008). However, the difficulties in estimating the scale of the changes are caused by the lack of comprehensible research, especially at the local level, aiming at allocating monetary value to particular ecosystem services[3]. Problems with assessing the scope and scale of changes in the ecosystem services are also related to the probability that there are benefits which have not been identified yet, therefore, at the current state of knowledge we can value ecosystem services only partially.
Incorporation of the ecosystem services concept into the spatial planning practice should be supported by further development of research directions, consisting mainly in seeking answers to the questions below:
• which states, processes and functions ecosystem services depend on,
• which actions and what type of anthropogenic pressure pose a threat to the states, processes and functions,
• how can we support and protect the capacity of ecological systems to provide vital services (Barkmann et al. 2008).

[2] More about the methods to value natural environment resources: Famielec (1999), Garrod, Willis (2000), Fiedor at al. (2002), Michałowski (2006), Śleszyński (2006), Żylicz (2010)
[3] Attempts to assess monetary value of ecosystem services can be found in the works of Stępniewska (2010), Kronenberg (2010), Lupa (2010)

Table 3. Methods to value the ecosystem services as per their types

Comparison of valuation methods				
Group	Methods	Summary	Statistical analysis	types of services
1. Direct market prices	Market prices	Observe market prices	Simple	Provisioning services
2.Market alternative	i. Replacement costs	Finding a man-made solution as an alternative to the ecosystem service	Simple	Pollination, water purification
	ii. Damage cost avoided	How much spending was avoided because of the ecosystem service provided?	Simple	Damage mitigation, carbon sequestration
	iii. Production function	How much is the value-added by the ecosystem service based on its input to production processes?	Complex	Water purification, freshwater availability, provisioning services
3. Surrogate markets	i. Hedonic Price Method	Consider housing market and the extra amount paid for higher environmental quality	Very complex	Use values only, recreation and leisure, air quality
	ii. Travel Cost Method	Cost of visiting a site: travel costs (fares, car use etc.) and also value of leisure time expended	Complex	Use values only, recreation and leisure
4. Stated preference	i. Contingent valuation method	How much is the survey respondent willing-to-pay to have more of a particular service?	Complex	All services
	ii. Choice experiments	Given a 'menu' of options with differing levels of ecosystem services and differing costs, which is preferred?	Complex	All services
5. Participatory	Participatory environmental valuation	Asking members of a community to determine the importance of a non-marketed ecosystem service relative to goods or services that are marketed.	Simple	All services
6. Benefits transfer	Benefits transfer (mean value, adjusted mean value, benefit function)	'Borrowing' or transferring a value from an existing study to provide a ballpark estimate for current decision	Can be simple, can be complex	Whatever services were valued in the original study

Source: TEEB for Local and Regional Policy Makers (2010)

Conclusion

The changes in the land use are introduced in spatial planning documents and the local spatial management plan in particular (constituting local legislation). Financial consequences of the changes are presented in an obligatory financial projection; however, the projection itself does not reflect, or reflects marginally, the changes in the value of the natural environment. Neither the environmental impact projections account for the economic effects of environmental changes. Given the above, potential effects and losses in the natural environment driven by the decisions made in the planning documents remain unidentified and undisclosed to the local

communities and decision makers, which does not help in winning their support in protecting and preserving valuable ecosystems.

The losses caused by planning decisions in the natural environment can be identified and presented in quantitative categories by applying the Biotope Valuation Method (BMV). Nevertheless, due to the above mentioned criticism it attracted, the BVM is not recommended as a suitable tool to appraise the environmental changes.

Yet, the recent development of the common field of study of economic and natural sciences provide increasingly improving methods to value non-market natural goods. Such valuations should be reflected in financial projections or projections of environmental impact as a vital element of strategic assessment of environmental impact.

References

Barkmann J., Blume H.-P.; Irmler U., , Kluge W., Kutsch W. L., Reck H., Reiche E-W, Trepel M., Windhorst W., Dierssen K., 2008: Ecosystem Research and Sustainable Land Use Management. In: Fränzle O.; Kappen L.; Blume H.-P.; Dierssen K., (Eds.) Ecosystem Organization of a Complex Landscape Long-Term Research in the Bornhöved Lake District, Germany Springer-Verlag Berlin Heidelberg.

Costanza R. et al., 1997:The value of the world's ecosystem services and natural capital. Nature,No. 387.

Darbi, M., Tausch, C., 2010. Loss-gain calculations in German Impact Mitigation Regulation. Occasional paper contributed to BBOP. Consulted on-line at http:// www.forest-trends.org/publication_details.php?publicationID=2404 (accessed 21 June 2011).

Erdmann, K.-H.2002: Perspektiven des Naturschutzes. Erfordernisse und Möglichkeiten der Weiterentwicklung. in Erdmann, K.-H. and C. Schell (ed). W:Naturschutz und gesellschaftliches Handeln. Aktuelle Beiträge aus Wissenschaft und Praxis. Bundesamt für Naturschutz, Bonn-Bad Godesberg, Germany. Pp. 213-241

EU White Paper on Environmental Liability (Brussels, 09/02/2000, COM(2000)66 final).

Famielec J.,1999,Straty i korzyści ekologiczne w gospodarce narodowej. Wydawnictwo Naukowe PWN Warszawa-Kraków.

Fiedor B., Czaja S., Graczyk A., Jakubczyk Z., 2002, Podstawy ekonomii środowiska i zasobów naturalnych. Wydawnictwo C.H. Beck Warszawa.

Garrod G., Willis K.G.,2000: Economic Valuation of the Environment. Methods and Case Studies. Edward Elgar Publising, Cheltenham UK, Northamton USA.

Gödde, M., Richarz, N., Walter, B., 1995. Habitat conservation and development in the city of Du¨sseldorf (Germany). In: Sukopp, H., Numata, M., Huber, A. (Eds.), Urban Ecology as the Basis for Urban Planning. SPB Academic Publishing, The Hague.

Jeżowski P., 2010: Metoda deklarowanych preferencji. In: Szyszko J., Rylke J., Dymitryszyn I., Jeżowski P., (eds). Ocena i wycena zasobów przyrodniczych. SGGW Warszawa.

Kędziora A., Karg J., 2010: Zagrożenia i ochrona różnorodności biologicznej. Nauka 4/2010 PAN Warszawa.

Kronenberg J., 2010: Koszty alternatywne wydobycia złota w kopalni Kumtor w Kirgistanie. Ekonomia i środowisko 1(37)/2010. Białystok.

Löfvenhaft K., Björn C, Ihse M.,2002: Biotope patterns in urban areas: a conceptual model integrating biodiversity issues in spatial planning Landscape and Urban Planning 58 (2002) 223–240

Lupa P., 2010: Kompostowanie odpadów komunalnych w świetle koncepcji świadczeń ekosystemów. Ekonomia i środowisko 1(37)/2010. Białystok.

Michałowski A., 2010: Ocena działań na rzecz zachowania świadczeń ekosystemów na etapie programowania rozwoju jednostek organizacyjnych. Ekonomia i Srodowisko 1(37): 98-113

Michałowski A., 2006, Usługi środowiska w teorii ekonomii. In: ekonomia i Środowisko 2(30)/2006 Białystok 199-218

Millenium Ecosystem Assessment, 2005: Ecosystems and Human Well-being: Synthesis. Island Press, Washington, DC.

Mizgajski A., Stępniewska M., 2009: Koncepcja świadczeń ekosystemów a wdrażanie zrównoważonego rozwoju. W: Kiełczewski D. Dobrzańska B., (eds) Ekologiczne problemy zrównoważonego rozwoju, Wydawnictwo WSE Białystok.

Poskrobko B., 2010:Usługi środowiska jako kategoria ekonomii zrównoważonego rozwoju. Ekonomia i środowisko 1(37)/2010. Białystok.

Prandecka B., 1991: Nauki ekonomiczne a środowisko przyrodnicze. PWE Warszawa.

Schramm E., 1999: Zum Problem der Interdisziplinarität in der Umweltforschung. Biodiversität als Herausforderung für Wissenschaft und Gesellschaft. In: Görg, C.; Hertler, C.; Schramm, E. and M. Weingarten (ed). Zugänge zur Biodiversität. Disziplinäre Thematisierungen und Möglichkeiten integrierender Ansätze. Metropolis-Verlag für Ökonomie, Gesellschaft und Politik GmbH, Marburg, Germany. Pp. 21-37.

Stępniewska M., 2010: Wycena świadczeń ekosystemów jako instrument programowania gospodarki ściekowej. Ekonomia i środowisko 1(37)/2010. Białystok.

Sukopp, H., Weiler, S., 1988. Biotope mapping and nature conservation strategies in urban areas of the Federal republic of Germany. Landscape Urban Plan. 15, 39–58.

Szulczewska B., 2008: Skuteczność planowania przestrzennego i ochrony środowiska, w poszukiwaniu rozwiązań. Urbanista 4/2008: 34-35

Śleszyński J., 2006 Metody wyceny środowiska przyrodniczego. W: Ekonomia i Środowisko 1(29)/2006 Białystok. 34-49.

TEEB (The Economics of Ecosystems and Biodiversity) for Local and Regional Policy Makers (2010) http://www.teebweb.org/ForLocalandRegionalPolicy/tabid/1020/Default.aspx

TEEB (The Economics of Ecosystems and Biodiversity). An Interim Report (2008) European Commission, Brussels.

Ustawa z dna 21 sierpnia 1997 r o gospodarce nieruchomościami, tekst ujednolicony: Dz.U. 2010 nr 102 poz. 651.

Ustawa z dnia 3 października 2008 r. o udostępnianiu informacji o środowisku i jego ochronie, udziale społeczeństwa w ochronie środowiska oraz o ocenach oddziaływania na środowisko. Dz.U. 2008 nr 199 poz.1227.

Ustawa z dnia 27 marca 2003 r. o planowaniu i zagospodarowaniu przestrzennym Dz.U. 2003 nr 80 poz. 717

Ustawa z dnia 3 lutego 1995 o ochronie gruntów rolnych i leśnych Dz. U. 1995 nr 16 poz 78

Verordnung über die Durchführung von Kompensationsmaßnahmen, Ökokonten, deren Handelbarkeit und die Festsetzung von Ausgleichsabgaben (Kompensationsverordnung - KV) Vom 1. September 2005, http://www.rv.hessenrecht.hessen.de (dostęp 17.06. 2011)

Zisenis M., 2008: A critical analysis of the quality of Environmental Impact Studies in Germany. Landschaftsplanung. NET, Ausgabe 2008. http://www.lapla-net.de/texte/2008//zisenis/Zisenis.pdf (27.09.2011)

Żylicz T., 2010: Wycena usług ekosystemów. Przegląd wyników badań światowych. Ekonomia i środowisko 1(37)/2010. Białystok.