

Spis treści

Słowo wstępne	9
Arkadiusz Babczuk: Miękkie ograniczenia budżetowe jednostek samorządu terytorialnego	11
Grażyna Borys: Świadectwa pochodzenia jako instrument wspierający kogenerację	26
Martina Černíková: The Most Considerable Changes of the Tax Legislation in the Context of the Public Budgets Stabilization in the Czech Republic	35
Jarosław Dziuba: Wykorzystanie przychodów zwrotnych w gospodarce finansowej powiatów w Polsce	41
Andrzej Koza: Wsparcie ze środków publicznych przedsiębiorczości bezrobotnych osób niepełnosprawnych	53
Damian Kubiak: Zmiany na rynku pracowniczych programów emerytalnych w Polsce	62
Alina Majczyńska: Rola Funduszu Dopłat w realizacji programów dopłat do kredytów mieszkaniowych	72
Martina Prskavcová: Tax Policy in Taiwan (Republic of China)	82
Ivana Šimíková: Mundell-Fleming Model and Maastricht's Fiscal Convergence Criteria: Fiscal and Budgetary Stabilization Need in the Context of EMU	91
Jana Šmídová: Is Contemporary Tax Book in the Czech Republic Really Tax Book?	96
Melania Bąk: Wartości niematerialne i prawne w aspekcie prawa bilansowego i podatkowego oraz Międzynarodowych Standardów Rachunkowości.....	102
Zdeněk Brabec: The Financial Evaluation of the Capital Project (Construction of the Minibike Circuit)	118
Šárka Čechlovská: Project Finance – an Alternative Method of Corporate Financing	127
Marketa Dubová, Helena Jáčová, Marie Šimonová: Analysis of E-learning Materials Benefits of Course „Selected Problems of Financial Management” for Different Target Groups of Users	132
Olga Hasprová: Comparison of Selected Items of Company and Insurance Company's Liabilities Balance Sheets	150
Josef Horák: Development of Czech Accounting from the End of 19 th Century until the Present Time	156
Radana Hojná: Costing and Its Usage in Product Management	162
Helena Jáčová: Assessment of Suitability of Selected Indicators for Specification of Economically Depressed Areas in the Liberec Region	169
Joanna Kogut: Wpływ zmian projektu ustawy o rachunkowości na rachunkowość jednostek gospodarczych	182
Olga Malíková: Leases of the Asset and its Depreciation – Differences in Reporting under the Czech Legislation and Standards IFRS	195

Šárka Nováková: Economic Aspects of the Ecological Risks Assessment of the Industrial Accident	205
Magdalena Swacha-Lech: Istota finansów behawioralnych	211
Jacek Adamek: PLS i jego odwzorowanie w produktach bankowości islamskiej na przykładzie kontraktu <i>musharakah</i>	221
Elżbieta Hajduga: Przegląd uwarunkowań rozwoju działalności reasekuracyjnej w Polsce	232
Alicja Janusz: Ekonomiczne przesłanki tworzenia sieci bezpieczeństwa pośredników finansowych	241
Wojciech Krawiec: Realizacja polityki inwestycyjnej polskich funduszy nieruchomości	252
Robert Kurek: Rezerwy techniczno-ubezpieczeniowe zakładu ubezpieczeń – nowe podejście w Solvency II	265
Teresa Orzeszko: Zasady funkcjonowania rezerw na straty kredytowe w argentyńskich bankach	273
Beata Owczarczyk: Analiza porównawcza rozwoju działalności bancassurance we Francji, w Niemczech i w Polsce	289
Agnieszka Ostalecka: Metody przewycieżania kryzysu azjatyckiego – wybrane aspekty	300
Małgorzata Solarz: Upadłość konsumencka w wybranych krajach	311

Summaries

Arkadiusz Babezuk: Soft Budget Constraints in Municipalities	25
Grażyna Borys: Certificates of Origin as the Cogeneration Supporting Instrument	34
Martina Černíková: Istotne zmiany w prawie podatkowym w kontekście stabilizacji budżetu Republiki Czeskiej	40
Jarosław Dziuba: Implementation of Recovered Revenues in Financial Economy of Districts in Poland	52
Andrzej Koza: The Public Funds for Support of Self-employment Among Handicapped Persons	61
Damian Kubiak: Changes on the Employee Pension Programs' Market in Poland	71
Alina Majczyna: The Meaning of Subsidy Fund in Financial Programmes to Support National Housing	81
Martina Prskavcová: Polityka podatkowa na Tajwanie (Republika Chińska)	89
Ivana Šimíková: Model Mundella-Fleminga oraz fiskalne kryteria konwergencji z Maastricht: potrzeba stabilizacji fiskalnej EMU	95
Jana Šmídová: Czy współczesna książka podatkowa w Republice Czeskiej jest rzeczywiście książką podatkową?	101
Melania Bąk: Intangible Assets in View of Balance and Tax Law and International Accounting Standards	116
Zdeněk Brabec: Finansowa ocena projektu kapitałowego (konstrukcja toru do minimotocykli)	126

Šárka Čechlovská: Finansowanie projektowe jako alternatywna metoda finansowania przedsiębiorstwa	131
Marketa Dubova, Helena Jacova, Marie Simonova: Analiza korzyści materiałów kursu e-learning „Wybrane problemy zarządzania finansowego dla różnych grup docelowych użytkowników”	149
Olga Hasprová: Porównanie wybranych elementów pasywów bilansów przedsiębiorstwa i firmy ubezpieczeniowej	155
Josef Horák: Rozwój rachunkowości w Czechach od końca XIX wieku do czasów obecnych	161
Radana Hojná: Kalkulacja kosztów i jej wykorzystanie w zarządzaniu produktem	168
Helena Jáčová: Ocena stosowności wybranych czynników do wyodrębnienia regionów słabiej rozwiniętych w regionie Liberca	181
Joanna Kogut: The Influence of Changes in Accountancy Act Draft on the Accountancy of Business Entities	194
Olga Malíková: Leasing aktywów i ich amortyzacja – różnice w sprawozdawczości według ustawodawstwa czeskiego i standardów IFRS	204
Šárka Nováková: Ekonomiczne aspekty pomiaru ryzyka ekologicznego wypadków przemysłowych	210
Magdalena Swacha-Lech: The Essence of the Behavioural Finance	220
Jacek Adamek: Profit and Loss Sharing and its Representation in Islamic Banking Products Based on the Example of <i>Musharakah</i> Contract	231
Elżbieta Hajduga: A Review of Reinsurance Development Causations in Poland	240
Alicja Janusz: Economic Indications for Creating Safety Networks of Financial Intermediaries	251
Wojciech Krawiec: The Realization of Investment Policy of the Polish Investment Fund	264
Robert Kurek: Technical-Insurance Provisions of an Insurance Company – New Attitude in Solvency II	272
Teresa Orzeszko: Loan Loss Provisioning in Argentinean Banks	288
Beata Owczarczyk: Comparative Analysis of the Development of Bancassurance Activity in France, Germany, and in Poland	299
Agnieszka Ostalecka: The Methods of Asian Crisis Overcoming – Chosen Aspects	310
Małgorzata Solarz: Consumer Insolvency in Selected Countries	322

Šárka Nováková

Technická univerzita v Liberci

ECONOMIC ASPECTS OF THE ECOLOGICAL RISKS ASSESSMENT OF THE INDUSTRIAL ACCIDENT

1. Introduction

Industrial accidents go along with the mankind from the industrialization beginning. Thank the changes that brought an industrial revolution it has come to the strong shift in the work oraganisation, in the machine production and wider usage of the primary commodities. This trend brought along also negative thing by appearance of the increasing requirements not only on the human being but in the huge extent on the nature. The chemical industry is from this point of view one of the biggest polluter and it take share on the undesirable effects. The industry use dangerous substances in the production, but it also produce these dangerous substances. It is also possible to suppose that the growth rate of the production volume is going to continue in the 21st century thanks to high-speed industrialization of transitive economies.

2. Industrial accident, consequences and legal regulations

Except environment pollution by all sorts of polluters, at the same time arose yet another negative invisible product – risk of the heavy accident. Industrial breakdown is an incident, at which happens the incidence of definite objective conditions at the same time that may be dangerous, like e.g. state of the technological arrangement, type, quantity and characteristics of the media, materials and acts of employees. Causes of accidents may be technical or human factor nature.

To prevent the industrial accidents, to limit them or alternatively to reduce the accident consequences, industrial enterprises process the whole row of the documents oriented from the valid legislature. Already seven years ago acquired in Czech republic come into operation law No. 353/1999 Sb. (law about the prevention of the major accidents). This law during the years passed through several changes and was replaced by the law No. 59/2006 Sb. with effect from 1. June 2006. Law relates on objects and arrangements, in which occurs a dangerous chemical substance in quantities traversing law limits. Companies have a duty to process documentation that solve the company safeness in term of preventative measures, but also activities after the origin of the serious major accident. Among such papers belong the wrecking plans, safety programs and security reports.

By mentioned legislative regulations were implemented requirements EU directive 96/82 – Seveso II to the Czech law system.

However world's matters in last years reflect on new forms of industrial companies threat, their employees and their surroundings. Recently we can often see around the industry accidents caused on purpose. Generally these activities are called terrorism.

3. Survey of the accidents from the past years

The accidents connected with the leak of the chemical substance into the soil, water or atmosphere are the most observed accidents in conjunction with the leak of radioactive material. These accidents attract attention not only towards production and stocking but also to the dangerous materials transport. Consequences of the significant accidents often pass national borders, therefore the international co-operation is necessary.

Some significant accidents within EU led to creation obligatory or voluntary precautions, among which belongs without doubt the accident from the year 1976 in town Seveso not far from Milano. As an accident response was in the year 1982 the adoption of the European directive about risks and dangerous materials. Then followed other chemical accidents: accident in Indic Bhopal in the year 1984 (the leak of the metylizokyanátu) where 252 500 persons were hit, 8000 people died and many others after the years suffer from chronic effects caused by the chemical substance (damages of lungs and eyes). In addition this chemical accident attacked 7000 animals, 1000 pieces died from the toxic consequences of hazardous chemical substance. Then we could mention the fire at Basle in Switzerland in the year 1989, the explosion of the pyrotechnics store in Enschede (2000) and or the last big explosion in Toulouse in the year 2001.

The fields of processing and usage radioactive materials also have their big accidents. First huge accident happend in the nuclear power station Three Mile

Iceland in the United States of America in 1979. But the biggest accident at all was in nuclear power station in Černobyl in Soviet federation in 1986.

4. Risk assessment

It is possible to express the accident risk by the formula:
Hazard (risk) = {probability of the appearance x quantified consequences} of the dangerous incident.

Hazard presents the thread of lifes and health, the environment or the possession.

To risk determination of different technologies and their evaluation there are used risk analyses that are focused on identification and quantifying of the sources threatening lives and health of the persons, environment and possession. The results of the analysis serve to risk assessment, that means to determination risk weightiness and acceptability leading to a safety increase.

Therefore in engineering practice it began to develop the methods of risk analyses, whose aim is to detect risks – it means objects, facilities and technologies that have high potential to threaten their surroundings, and subsequently suggest the additional technical-safety precautions to decrease the risks and to increase the safety.

Risk analyses were developed in second half of the last century above all in the USA and in Western European countries, so they have Anglo-Saxon origin.

In direct proportion with a growth rate of an industrial production it will grow also risk. However this trend is in the long term unacceptable and resists the principles of the sustainable development. It could seem that the exposure is dependent only on the growth of a production volume and complexity of the production technology but that is not truth. Next mechanism that can effect the risk is a precaution.

Precaution includes technical and organizational arrangements. Technical precautions insure the parameters observance of the procedure and in the event of a abnormalities rise activate appropriate fallback system that are designed to respond in advance anticipated consequences of an accrued abnormality. Organizational precautions are not expensive but their contribution is used to be considerable. Those preset optimized changes in current work organization and encrease of human reliability.

5. Environmental economy

Environmental economy deals with economic aspects of the impact of human activities on environment. In economic areas adulteration of the environment thanks to human activities and also care of preservation environment screen like:

- economic formulation of the damages from adulteration environment, where belongs an economic loss related with environment devaluation (e.g. losses in

production connected with the absence of manpower or with other production factors, lower work productivity, higher production costs etc.) or economic loss connected with the compensatory additional costs (costs connected with necessity to remove or reduce negative consequences of environmental damage, that means costs that would not have been expended, if had not happened the environment waste);

- social cost connected with the problems of environment, which are spent on additional stripping consequences waste of environment and preventative costs;
- economic effect connected with care about environment;
- economic component of the environmental policy of the state.

6. Economic optimum of the environment qualities on macroeconomics level

Value devaluation or environment damage on the one side and cost volume on elimination hereof damage on the other side are two basic categories that it is necessary to get into relationship and somehow to optimise them. Relation of the value development of the economic formulation of ecological damages and remedial costs in-process of the escalation cleanliness remedial environment shows next fig. 1.

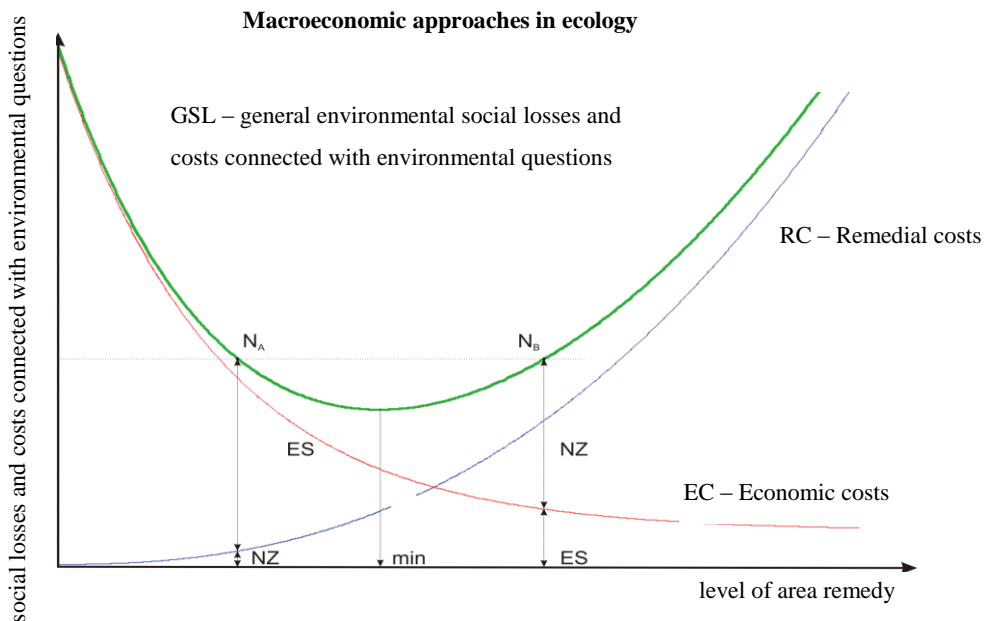


Fig. 1. Point of the economic optimum of the environment – macroeconomics aspect

Source: own elaboration.

Curve of the damages representation on environment (red line) presents negative economic effects incurred by environment devaluation and also their fall along the remedial process. Height of these damages is directly proportional to environment devaluation.

Remedial costs (blue curve on picture) constitute costs on prevention or decrease of the level of environment devaluation, or more precisely on modulation or ablation of the causes and consequences of the pollution.

Green curve is an additive and presents general environmental social losses. Point *min* upon this curve is the point with minimum value of the losses and in this sense presents the point of the economic optimum. To the value of minimum losses matches a certain level of area clearing (appropriate value on axis x), which however doesn't need to be consistent with social idea about sufficient or needed level of the clearing. For macroeconomics poin of view on the environmental problems and its interpretation are important points N_A and N_B on the curve of general losses. They constitute values with the same level of the globally expended of the social losses and costs, but with different ratio of values on ablation damages and their precaution and with a different level of environment cleanness. It is desirable to get the resources at first time on the precaution at the same level of social losses, that means to shift on curve of social losses to go on minimum or on the right site from the economic minimum.

7. Conclusion

To have qualified decisions dealing with stripping or moderation environment damages, there is environmental risk management. This field is highly multidisciplinary, it touches the areas of physic science, chemistry, geology, hydrogeology, confection, toxicology, biology, environmentalism, economics and also legislature. For good decision making it is necessary on the one hand to identify and quantificate damages and on the other hand to value technical, technological possibilities of their decrease. Numeration of material damages on production, transportation and others facilities and losses from outage of production is relatively simple. On the other hand is difficult avaluation of the human health and life. Perhaps even more difficult is quantification of damages on environment components. Therefore the society face the big challange in the area of the risk assessment.

This work was supported by the Ministry of Transportation of the Czech Republic, project No. 1F44E/015/030 – Transport Infrastructure as a Critical Element of the National Infrastructure on the Part of the Basic State Functions.

Literature

- [1] Moldan, B. a kol. *Ekonomické aspekty ochrany životního prostředí*, Karolinum, Praha 1997.
- [2] ŘÍHA, J. *Hodnocení vlivu investic na životní prostředí*, Academia, Praha 1995.
- [3] <http://europa.eu> [online]. [cit. 9. 11. 2007].
- [4] <http://www.bozpinfo.cz> [online]. [cit. 8. 11. 2007].
- [5] <http://www.ekolist.cz> [online]. [cit. 8. 11. 2007].
- [6] <http://www.enviweb.cz> [online]. [cit. 8. 11. 2007].
- [7] <http://www.greenpeace.cz> [online]. [cit. 9. 11. 2007].
- [8] <http://www.mvcr.cz> [online]. [cit. 11. 11. 2007].
- [9] <http://www.risk-management.cz> [online]. [cit. 11. 11. 2007].
- [10] <http://www.umz.fme.vutbr.cz> [online]. [cit. 9. 11. 2007].

EKONOMICZNE ASPEKTY POMIARU RYZYKA EKOLOGICZNEGO WYPADKÓW PRZEMYSŁOWYCH

Streszczenie

Niniejszy artykuł odnosi się do wypadków przemysłowych oraz konsekwencji z nich wynikających. Głównym celem artykułu jest ogólne podsumowanie obszaru jakim jest pomiar ryzyka ekologicznego wypadków przemysłowych. Artykuł nadmienia o ciężkich wypadkach w przemyśle, które doprowadzały do zastosowania rozwiązań prawnych mających na celu zapobieganie takim wypadkom, ich eliminowanie oraz ograniczenie ich konsekwencji. W ostatniej części artykułu przedstawiono spojrzenie na ekologię z punktu widzenia makroekonomii.