

## **RISK SOCIETY IN LATVIA: CHARACTERISTICS OF ENVIRONMENTAL ASPECTS**

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### **Abstract**

**In the conditions of the contemporary risk society the alternate nature and the variety of risks issue a serious challenge to the world community, which requires an urgent solution.**

**Today the principle of sustainable development takes an increasing significance in the policies of all countries. The concept of sustainable development is based upon the balance between financial, social and ecological resources of our planet. Successful management of all these resources would ensure the sustainability.**

**Achievement of the goals of sustainable development, in its turn, requires conjoint actions of governments, local authorities, businesses and each individual.**

**This article is aimed at the analysis of actions taken by world-wide organisations, governments, and local authorities to provide sustainable development, including legislative, institutional, regulatory and public efforts exerted at all levels in the sphere of identification, assessment and management of environmental risks under the conditions of risk society. The volume of the article unfortunately dose not allow covering of all aspects related to this issue, as well as setting up a thorough discourse in this matter. Therefore, the article provides a brief analysis of theoretical base of the concept of the risk society and the idea of sustainable development and reviews legal, institutional, and regulatory instruments applied for identification, assessment and management of environmental risks applied both globally and in Latvia. It also stresses the significance of rising environmental risk awareness and promotion of readiness for ecological conduct, as it would facilitate meeting the goals of sustainable development by more active participation of population in the activities targeted at the environment protection in general, and preservation and restoration of the natural resources.**

**The article also describes the current level of public awareness of environmental problems in Latvia, as well as the problems the Latvian residents consider to be of highest priority in the field of environment. The readiness of the Latvian population to contribute to environment protection by individual activities is also assessed on the basis of statistical data acquired in the course of the research conducted for the purposes of this article.**

### **Keywords:**

**Risk society, sustainable development, environmental risks, environmental risk assessment, environmental risk awareness.**

### **Introduction**

The term of the risk society originated in late 80s of the 20th century to describe a society endangered by modernization and human activities and the way it responds to these risks. This term is first of all associated with the works of famous sociologists Ulrich Beck and Anthony Giddens.

Another recently developed concept is the concept of sustainable development introduced in United Nations World Commission on Environment and Development report "Our Common Future", and is widely used since United Nations Conference on Environment and Development (UNCED), Rio de Janeiro, 1992. Sustainable development should "meet the needs of the present without compromising the ability of future

generations to meet their own needs" (Bruntland, 1987).

Contemporary risk society faces a variety of risks, both perceived and unperceived, including global warming, exposure to urban, industrial and agrochemical pollution, industrial accidents, toxic chemicals, air, water and noise pollution and hazardous wastes. All such risks require urgent solutions to ensure proper risk management, as well as preparedness and response to these risks to facilitate economical and environmental sustainability.

At the same time the ever-changing modern world experiences the changes in the sources of environmental risks, as well as in their nature and effects, which in its turn makes it necessary to develop new solutions, to

design new social institutions to monitoring the impact of these risks on the environment, and to manage the risks associated with changing conditions of the risk society. This implies collective actions at all levels. Global and cross-national policies, regional and local regulations, as well as individual environmental risk perception, risk attitudes and environmental behaviour – all these factors are essential to ensure sustainable development.

The **object of the paper** is the environmental risks aspects in Latvia under the conditions of the risk society.

The **aim** of the work is to analyse the legislative, institutional, regulatory and public aspects of environmental risk identification, assessment and management under the conditions of risk society.

The following **tasks** have been set in order to achieve the above aims of the article:

- To analyze theoretical framework of the concepts of the risk society and sustainable development;
- To review the legal, institutional, and regulatory instruments applied for identification, assessment and management of environmental risks both globally and in Latvia.
- To highlight the issue of assessment of environmental risk awareness and readiness for ecological behaviour worldwide and in Latvia.
- To draw conclusions on the basis of the collected information and performed analysis.

The **methods** used include the analysis of theoretical scientific literature and research materials related to the subject of the paper, as well as the analysis of the available statistical data.

Highlighting the importance of more in-depth assessment of public opinion towards environmental risks and public readiness for pro-environmental behaviour to ensure sustainable development of Latvia constitute practical importance of the article.

### **Legal and institutional tools of risk management**

During the last years the world has been living in risk society, as defined by the German sociologist Ulrich Beck. According to him, “ours is the age of the smallest possible cause for the greatest possible destruction” (Beck, 1995). Characteristics of the risks society and interrelations within it have been debated extensively in sociologists’ works all over the world.

In one of his works Beck also stated that industrial society that used to be characterised by the distribution is turning now into a society, for which distributions of risk and hazard is typical. That is to say, the advanced modern world, the social production of material benefits is closely connected with risk production. Accordingly, the problems and conflicts in such society are overlaid by problems and conflicts arising from over-production, definition and distribution of scientifically and

technologically produced risks. Another idea introduced by Ulrich Beck in his famous book “Risk Society: Towards a New Modernity” is that that science has changed from an activity in the service of truth to an activity without truth (Beck, 1992). All this implies that the contemporary society, among other things, faces a great variety of problems requiring urgent solutions.

The theorists argue that social, political and institutional reforms are necessary to accommodate the transition from industrial modernity, which was focused on the production of material goods, to reflexive modernity, which is focused on the production of knowledge, the avoidance of risk and the preservation of nature (Ekberg, 2007).

Christopher Hood, Professor of Government at Oxford University, in his book “The Government of Risk: Understanding Risk Regulation Regimes” introduced the concept of a “risk regulation regime”, which enables comparative description and analysis of the rules and institutional arrangements. The book also describes various risk regulation regimes, examines major driving forces in the process of formation of such regimes, e.g. market failure, public opinion, etc., analyses the causes of regulatory failure or success, as well as distinguishes the difference between “natural” and “socially created”, state-created and market-created, “voluntary” and “involuntary”, high-tech and low-tech, individually, and corporately produced risks. (Hood, 2001)

Considering the diversity of risks the contemporary society is exposed to and a vast variety of effects of these risks it is fair to say that these risks require a thorough and comprehensive assessment to enable their expedient management.

According to Giddens, another famous sociologist who approached the phenomenon of the risk society in his works, “risk calculation has to include the risk of which experts are consulted”. (Giddens, 1996)

Both Beck and Giddens believe that the idea of wealth creation, which is characteristic for industrial modernity, has been obscured by the idea of risk avoidance, class consciousness has been displaced by a risk consciousness and the increased awareness of living in an environment of risk has become a major catalyst for social transformation (Ekberg, 2007).

To further understand the changing nature of risk and the different attitudes towards risk in the risk society, Beck and Giddens investigated a number of changes in our understanding of the origins and impacts of environmental and economical risks. These changes include the shift in emphasis from the risks associated with nature itself to technological risks, the shift from a realistic to a social constructivist perspective on risk, the increasing gap between actual and perceived risk, and the change in the distribution of risks. (Beck, 1992)

Beck’s concept of the risk society is basing, among

other things, upon the rise of a new “risk consciousness” around techno-social developments (Wilkinson, 2001). The environmental and health risks from technologies, for example, like pesticides, would be expected to dominate public discourses in a risk society (Blok, 2008). Common knowledge interlaces with issues of scientific expertise in various ways (Lidskog, 1996). Therefore, besides the significance of risk regulation regimes, it is necessary to analyse, how the public is engaged in active forms of experimental knowledge-making. An intermeshing of ways of “knowing” and “acting upon” environmental risks should also be taken into consideration. Ecological awareness today seems to reflect growing uncertainties and anxieties related to the changing character of late modern society. Such uncertainties and anxieties do not only pertain to high-consequence risks, as exemplified by the Chernobyl accident, but also to local problems of providing safe drinking water from the tap. (Mol, 1993)

All the above issues debated extensively in theoretical literature regarding to the risk society and the risks this society is exposed to have become a subject of worldwide empirical research in order to provide the basis for the process of decision-making in the field of assessment, management and prevention of risks at a global, national, regional and local levels.

### **Legal and institutional tools of risk management**

Considering that global ecological problems are closely interconnected, their dependence on the state of the global economy and the level of social development in all regions of the world becomes stronger, national governments and institutions have ever less opportunities to influence ecological issues within individual states without necessity to coordinate their actions with other states and governments.

Until recently, coordinated actions related to solving environmental issues were impeded by the absence of an international organization, dealing with ecological, demographic, and natural resource issues at a global level. In 1972, in Stockholm, the first Conference of the United Nations Organization on environmental issues was held. During this conference there a Declaration was approved, which for the first time stated the principles and recommendations on the development of the Global Ecological Policy. At the same time by decision of the General Assembly of the United Nations Organization, the United Nations Organization Program on environment was approved. This specialized international organization has received extensive authorities in the sphere of management of coordinated actions among international organizations, responsible for environmental protection, prevention and reducing of ecological risks.

One of the major functions of UNEP is a global

assessment of environmental situation and natural resources, as well as providing information on the results of such assessments to governments and population. In particular, the debating document of the seventh special session of UNEP, held in 2002 in Columbia, has outlined the tasks for national and local regulatory authorities in relation to providing of information and education in the field of environmental protection. These tasks include, inter alia, the necessity of inclusion of the section on economy of management of natural resources into economical educational programs of all educational institutions and research institutes, which could facilitate expanding knowledge on environmental issues. Furthermore, importance of coordination between local and regional strategies, enforcement of information infrastructure, initiative support aiming to disclose information, as well as the development of environmental education at all levels has been highlighted (UNEP,2002).

Institutional controls represent another tool, designed to influence human behaviour and activity. These controls mostly take the form of legal or administrative restrictions. Such controls are usually referred to as land use controls (ICMA, 2000) or activity and use limitations (Edwards, 2000). These controls are most often described according to their control method or the way of their application (Kostelnik, 2005).

Currently, along with UNEP, many regional and sub-regional organizations are actively involved in the process of solution of global ecological issues. These organisations include the Organization for Economic Cooperation and Development (OECD), European Union (EU), Organization of Nordic States, Council of the Baltic Sea States, and many others. The tasks of these organizations include the increase of population awareness on the environment protection and stimulation of development of ecological consciousness for involvement of society into solving of environmental issues.

European Parliament and Council Directive 2001/42/EC states that the Community Environmental Policy, inter alia, is to contribute to the preservation, protection and improvement of improvement of the quality of the environment, protection of public health, as well as prudent and efficient use of natural resources, and is to be based on the precautionary principle.

Environmental assessment is a significant measure for integration of ecological considerations, developing and approving plans and programs, which may have significant environmental effect in the Member States, as this ensures that the impact of implementation of such plans and programs is taken into account during the development phase and before their approval.

Adoption of environmental assessment procedures at the planning and programming level shall be beneficial

to companies by providing a more consistent framework of actions, including appropriate ecological information into the decision-making process. The inclusion of a more extensive factor complex into the decision-making process shall facilitate more stable and effective solutions. To ensure a high level of environment protection a variety of systems of environmental assessment in Member States a common procedural requirements (EC, 2001).

The main provisions of sustainable development of the Republic of Latvia state that the sustainable development is a development, which supplies the needs of the current generation without causing difficulties for the coming generations in supplying their needs (Latvijas Vides ministrija, 1998).

Development is a notion of quality, which includes ideas on improvement and progress, as well as improvement of cultural, social and economic sphere.

Objectives of the sustainable development of the Republic of Latvia result from principles, defined in the Rio de Janeiro Declaration. Some of these principles related to the environmental issues include:

- Latvia shall develop a stable national economy, which is able to ensure the needs of the society, and, at the same time, shall ensure that the speed of economic growth exceeds the rate of pollution and the use of resources.
- Latvia shall ensure safe and a health-safe environment both for the current and coming generations.
- Latvia shall ensure sufficient activities for preserving biological diversity and protection of ecosystems.
- Latvia shall develop a responsible attitude of the society towards natural resources and shall continuously increase efficiency of the use of natural resources.
- Latvia shall ensure integration of environmental issues and shall develop broad application of environmental policy measures in the policies of other industries.
- Latvia shall ensure that the market economy mechanisms serve for sustainable development.
- Latvia shall ensure the involvement of the society in the processes of sustainable development.
- Latvia shall evaluate its progress in the achievement of the specified objectives of sustainable development. (Latvijas Vides ministrija, 1998).

To solve the above tasks various policy documents have been developed in Latvia both for specific sectors and general documentation, which includes the principles of sustainable development. The most significant are the Long-term Economic Strategy of Latvia and the National Development Plan, while in the environmental sector – Environmental Protection Policy Plan for Latvia. Solutions of environmental protection issues have been included in policy plans, strategies, and laws

and regulations (Latvijas Vides ministrija, 1998).

Sustainable Development Strategy of Latvia (SDSL) up to the year 2030 is a document related to the development planning, which specifies long-term priorities for the development within the territory of Latvia. Elaboration of the strategy has been performed by the Ministry of Regional Development and Local Government of the Republic of Latvia (MRDLG).

Considering that implementation of such policy planning document involves significant impact on environment, Strategic Environmental Impact Assessment (SEIA) was carried out by external advisers in relation to the abovementioned plan. SEIA has been carried out in compliance with requirements of the law „On Environmental Impact Assessment” and the Regulation No. 157 by the Cabinet of Ministers of 23 March, 2004, „Procedure for the Strategic Environmental Impact Assessment”. Within the framework of SEIA, the Environmental Report has been prepared. Environmental Report is a document, containing information obtained during the process of the Strategic Environmental Impact Assessment.

Sustainable Development Strategy of Latvia up to the year 2030 is a document of the highest hierarchical long-term national level development planning. In October 2007, SDSL basic report was prepared, where directions of strategy development were outlined and ideas on the sustainable development of Latvia were discussed.

SDSL has been developed, identifying future challenges, analyzing capitals available for Latvia, and searching for the opportunities of sustainable development. Within the framework of SDSL, priorities rather than single available course of action have been specified. Furthermore, the most successful solutions for implementation of the chosen primary course of action have been proposed. It leaves open the choice of other consistent and non-contradictory course of actions and solutions, if they facilitate implementation of priorities.

The model of sustainability requires an integrated solution of economics, environmental and social issues, thus, both vertical and horizontal collaboration mechanisms become of high importance.

Horizontal collaboration, for instance, among cities, institutions of different industries, or public organizations of different spheres allow combine available resources and solve issues beyond limits of influence of every individual social player.

Vertical collaboration for governmental level institutions, local governments and population communities provide opportunity to make more effective decisions and find the most optimal solutions.

Effective balancing of economic, social and environmental considerations requires active involvement of the entire society into the policy development process. Providing that the major part of the society is actively

involved, it will be possible to find optimal solutions and effective response to global challenges (SIA "Analītisko pētījumu un stratēģiju laboratorija", 2007).

Along with the above documents the "Procedures for Carrying out a Strategic Environmental Impact Assessment" were issued by the Cabinet of Ministers of the Republic of Latvia in 2004, as amended, specifying the types of planning documents requiring a strategic assessment, the consultations prior to the commencement of the development of these planning documents, the information to be included in the environmental accounts, the procedure of informing of the public, organisations and bodies during the preparation process of environmental accounts, the procedure of monitoring of the implementation of a planning document, as well as the procedures for notification of other states if significant transboundary impact is possible, and the procedures for informing the European Commission (Latvijas Republikas Ministru Kabinets, 2004).

Among the documents adopted by non-governmental organizations the Report by NGO of Latvia should be mentioned, which stated, inter alia, that it is necessary to integrate greenhouse gas stabilization as the basic principle in all industries. Another issues covered by this report is the necessity to put a greater emphasis on an active increase of power efficacy (in particular, in relation to household) and the use of renewable power resources. The document also mentioned the significance of transport sector, which should be considered the most critical in the climate policy. According to the report, the government should urgently apply both economic and legislative limitations for private vehicles, however, at the same time, to make public transport more attractive, convenient and favourable. In the sector of forestry the attraction of greenhouse gases should become one of the basic values. Its development may be facilitated both by governmental policy in relation to the preservation of forests and NGO activities in popularization of this idea within the framework of other campaigns related to forests.

Among other problems covered by this document the role of waste management was mentioned. The report states that willingness of population to reduce and separate waste plays a great role in this sphere. Though, this requires ability of government and local government to arrange systems of waste processing and management.

As a separate issue the problem of raising public consciousness in relation to environment and awareness of environmental risks was mentioned. This problem should be considered as the question of the highest importance, since implementation of new legislation and policies by government, as well as effective use of such legislation and policies shall be possible only with active support by population (Brizga J. at all, 2002).

### Assessment of environmental awareness

To provide comprehensive information regarding ecological risks and problems in the sphere of environment aimed at developing consciousness and conduct towards the environmental education, the most important task is to duly determine the target auditorium and to provide well-to-do quality and quantity of such the information. Proper information on the ecology will enable the population to orient better in the choice of models of consumers' conduct. The role of the governing bodies regarding this issue is in defining quality and quantity of the disseminating information in respect to the actual ecological problems, initiatives put into effect to solve these problems, as well as relating to the applicable standards and the environment protection rules. One of the most important terms and conditions of performing the task is possession of information on the current state of information received by the population, as well as the extent of perception and awareness of this information. Studies on the extent of the population' awareness is a forceful tool for meeting this condition.

The results of polls of the public opinion are used in multiple studies all over the world as the means for valuing the population' position in respect of environment protection, as well as for determining the level of environmental knowledge and the readiness to be armed with facts and figures on the environment conduct.

In Europe, for example, there is a research service Eurobarometer carrying out studies of the public opinion in Europe on a regular basis. Owing to these studies since 1982 there has been provided monitoring of the attitude of the European population towards the environment protection issues.

In particular, in December 2002 there were made the studies under the title "Europeans' Attitude towards the Environment", which results have shown that the word "environment" is associated at the European population with a number of notions both negative (pollution, catastrophe), as well as positive (landscapes, wildlife protection). Regarding environmental conditions this research has shown that the mood of optimism ("environment pollution may be stopped due to the changes happened in people' way of life", 45%) is almost commensurate with the pessimistic attitude ("a human being' activities caused irreversible consequences for the environment", 44%). Pursuant to the results of this research, in the states located in the South of the European Union rather than in Northern Europe people are more anxious about the ecological risks. The issues whereon inhabitants of Europe regard themselves to be less informed (less than 40%), comprise the problems that have not been urgent already (for example, acidic precipitation) or the problems of industrial nature (chemicals, genetically modified organisms, industrial

by-products). At the same time, about a half of respondents specified that they would take any actions friendly for the environment; whereas the others marked their actions will not play any material role. A major share of the respondents considers they are ready to act only in the event, if "other people would make efforts". Among the solutions aimed at "the most efficient solution of ecological problems" more or less equal number of the Europeans named the restrictions (more strict regulations), as well as the convincing method ("improvement of the general level of environmental awareness") (Eurobarometer, 2002).

Many studies covering the matters on environment protection and awareness of ecological risks have been also performed in the member-states of the European Union. However, the number and the scope of these studies vary from state to state.

For the purposes of this article the Latvian Market and Public Opinion Research Centre SKDS in April 2010 conducted the research, focused on the attitude of population towards the issues of environment protection. Within the framework of the research a poll was carried out among the inhabitants of Latvia aimed at clarifying their opinion regarding environment protection, to make assessment of the population' activities aimed at the reduction of ecological risks, as well as evaluation of the level of environmental risk awareness. 1000 Latvian residents from all regions of Latvia at the age from 15 to 74 participated in this study.

One of the aims of the study was to assess the opinion of the population regarding the level of information about general environmental issues. In this question only 3.0% of the participants indicated that they feel themselves very well informed in this field. Rather well informed are 41.5% of the respondents. The answer "very badly informed" was mentioned in 42.3% cases and 7.2% of the participants regard themselves to be very badly informed about environmental problems. 6.0% indicated that they do not have their opinion regarding this matter or cannot answer this question.

Another matter evaluated in the study was the awareness level regarding some particular matters of environmental protection. According to the results of this research the respondents were best informed about the quality of drinking water at the place of their residents. 14.8% of the participants mentioned that they feel themselves very well informed in this field. On the other hand, 16.4% of the respondents indicated very bad level of information related to this matter. 12.8% of the respondents are very well informed about the possibilities of waste collection and utilisation at the place of residence and 17.7% were very badly informed about these possibilities. Very close results were in the question regarding the level of information about the effect of household chemicals on the environment and

their effect on human health. Very well informed were 9.5% and 9.2% respectively and 11.5% and 12.3% in each question mentioned that they regard themselves as very badly informed about these effects of household chemicals. The question about Kyoto protocol have shown that 3.7% are well informed about this matter, 17.7% feel themselves very badly informed, and 27.7% of the respondents mentioned that they have not even heard about Kyoto protocol.

The results of this study also show a very low level of information in such matters as greenhouse gases, Natura 2000, and Aarhus Convention. In all these answer quite a large percent of the respondents (respectively, 27.4%, 43.9% and 55.5% answered that have not heard about these issues.

The purpose of another question in this research was to find out, what natural resources people consider to be most threatened in Latvia. In this question 79.9% of the respondents answered that the most threatened in Latvia are forests. Coastal area was mentioned in 75.4% cases and rivers were indicated by 43.1% of the respondents.

Another question of the study dealt with the opinion of the respondents regarding the level of risks caused by different aspects. 3.5% of the respondents mentioned that growing and cultivation of genetically modified plants represent a very high risk in Latvia. External environmental risks like the consequences of possible environmental accidents in neighbouring countries were mentioned in 20.9% cases as being of a very high risk. 19.0% of the respondents indicated, that they consider consequences of possible defects of hydrotechnical construction in hydroelectric power plants to constitute a very high risk as well.

In the question about the readiness of the population to participate in the activities aimed at the improvement of environmental situation 50.2% of the respondents mentioned that they would certainly agree to buy and use energy saving light bulbs and only 3.1% of the participants are certainly not ready to do this. 44.5% are certainly ready and 42.4% would rather agree to plant trees. Household waste was another issue, where Latvian residents appeared to be rather ready to act to protect environment. 43.6% indicated that they are certainly ready to do this and 43.2% are rather ready to adopt sorting their household waste.

The aim of the last question of the survey was to find out, whether the Latvian residents consider that environmental protection must be a priority in relation to economic growth. In this question 34.6% of the respondents answered that they think economic growth and job creation as more important, even if it causes a certain environmental damage. 37.3%, in their turn, indicated that environmental protection must be a priority, even if it means slower economic growth and a loss of a certain number of jobs. 28.1% of the participants

could not answer this question.

Generalizing the results of this research, it can be said that at present the level of information awareness at the population of Latvia regarding the possibilities of environment protection is insufficient to put into effect all possible measures on the reduction of ecological risks. On the other hand, the readiness to act to protect the environment, according to the results of this study, is rather high (SKDS, 2010).

Viewing the results of the forgoing studies as a whole, it is possible to make the conclusion that over the past decades information awareness in the sphere of environment protection, as well as consciousness of ecological risks by the population in many affluent and developing countries gradually has grown. People are aware of that the concern of the environment protection ceased to be the luxury available only for the states with developed economy and the ignorance of ecological risks in the long-term perspective is related to higher costs.

However, it is worth to note that up to now it is still insufficient information awareness of the population in the sphere of ecological problems. At the same time the research in this sphere does not give a full idea required for the development of comprehensive arrangements, programs, campaigns, which would facilitate the development of the conduct of ecological consciousness, both among the population masses and the top echelon responsible for decision-making in the sphere of environment protection.

The efforts focused on a particular target audience based on comprehensive information regarding the extent of environmental awareness and the level of ecological consciousness of the population could materially increase the efficiency of application of the leverages of law and economy in the sphere of environment protection, as well as to drive the population to take more active part in the arrangements required for environment protection, preservation and recreation of the natural resources which in turn, would facilitate to providing a sustainable development of each state and the world as a whole in prospect.

### Conclusions

The theory of the risk society is quite extensively investigated all over the world and the results of these studies provide a material basis for governments to build their policies aimed at ensuring sustainable development of the world. However, it is necessary to coordinate the activities at all levels in order to succeed in solving this task.

Another essential matter to be taken into account in the development of global, national and local policies is ecological awareness of population. Raising the quality of the information provided to the general public

in relation to environmental issues would ensure an increase of ecological awareness and promote ecological consciousness, which in its turn would facilitate the attainment of the aims of sustainable development by adoption of ecological behaviour and more active participation of population in the activities targeted at the environment protection and preservation and restoration of the natural resources.

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