

# The Social Consequences of Natural and Man-Made Emergency: The Regional Aspect

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To investigate the causes of natural and social disasters of the extraordinary character, show the importance of preventive measures at the level of the state and public organizations, and suggest ways to improve the quality of training and emergencies is the purpose of the proposed work. With particular emphasis on the study of emergencies arising out of the basis of the natural and anthropogenic factors in the various regions of Kazakhstan, as well as specialists training who know the regional peculiarities and specifics of the mental values of the population. Professional competence, tolerance, spiritual and physical preparedness, organizational skills and responsibilities are all the necessary qualities of a modern specialist at work in emergencies and those whose activity is aimed at protecting the environment. Orienteering society in an economically efficient use of natural resources in accordance with the requirements of environmental protection, the formation of a social consciousness of the people, based on the respect for nature, as well as the formation of ethically interdependent interaction with it requires the professionalization of the activities of people directly involved in the prevention and risks of natural and anthropogenic emergencies.

*Keywords:* emergency, environmental security, social catastrophes, risks, environmental awareness, rehabilitation of the population.

## INTRODUCTION

In the context of the fundamental structural changes in the economic life of Kazakhstan along with the positive developments in connection with the use in the manufacture of innovative science and technology and many issues appeared that affect the citizens, environmental safety. What challenges do await the next generation? What do you need to do in order the life has become social secure?

In 2014, President Nursultan Nazarbayev made an early message of "Nurly zhol (Нұрлы жол) - path to the future" to people of the Republic in the course of which he said that the coming years will be a time of global testing. In his opinion, not many states will go worthy through this difficult phase; only strong nations and countries will go abroad. (Message of the President of the Republic of Kazakhstan N.A. Nazarbaev, 2014). One of the main directions of social policy of Kazakhstan is a

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strategy for the protection of human resources. Protection of human resources requires the creation of conditions to protect the person from any disease, mental stress, poverty and unemployment. Complete socialization of the individual is possible in the presence of physical, mental and social health of the individual. Human health depends on the ecological state of the natural landscape, which is broken under the influence of natural and anthropogenic factors. The occurrence of natural disasters and an increase in their numbers does not stop human interference in the environment to obtain maximum benefit. Comfortable living conditions for the creation of which, people exploit the natural environment for their own pleasure and unlimited consumption, have negative environmental and social impacts.

However, the diversity of climatic conditions in Kazakhstan predetermines significant exposure to its territory to a wide variety of natural emergencies. For Kazakhstan, the most devastating are the earthquakes, floods, hurricanes and strong winds, heavy rains, mudslides, landslides, avalanches, forest fires and wildfires, and others.

The relevance of the study of emergency situations on a regional scale is due to the following circumstances:

- With globalization, not only in the world, but also at the regional, local level there are new kinds of social risks and new forms and methods of their solutions.
- The study of the consequences of emergency situations of natural and anthropogenic character is interdisciplinary. Sociologists need to carefully examine the social consequences of the disaster and the activities of modern social institutions in solving this urgent problem.
- An analysis of emergencies' risks at the regional perspective requires further in-depth study.
- There is a need to train highly qualified professionals for emergency situations.

Over the past 70 years in Kazakhstan there were 600 kinds of natural anomalies and they were mainly distributed as natural disasters.

The issue of prevention of emergency situations can be viewed from different angles: on the one hand, the need to improve monitoring to identify regional, national and local ecological crises and disasters, with severe social and economic consequences for the countries and regions; regular full-scale research to determine the dangers and the preparedness level of emergency services to the unexpected situations, and the responsible attitude of the citizens to their social life, improve methods of emergency predicting - creating real models for the solution of the existing problems in the sphere of the environmental safety. Particular interaction between society and nature should be studying with the help of sociology, emphasizing as a priority the functional unity of society and the natural environment, and their constant interaction (Abdikerova and Omarova, 2014). There is no doubt that sociology as a science should fulfill its civilization mission, to form ecological awareness oriented to the recognition of the equivalence of biophysical, cultural and social environmental factors, change strategy and technology of interaction with the nature. On the other hand, it is necessary to ensure the implementation of ethical standards and rules, not only in the people world, but also with the natural world.

Among natural disasters the earthquake has the most severe consequences. For the world as a whole, the damage from the earthquake is greater than from all other natural disasters combined.

According to the Ministry of Emergency Situations of Kazakhstan, the earthquakes take the first place among the potentially dangerous natural disasters in Kazakhstan. This danger is subject to 6 million Kazakhs and about 500 thousand square kilometers of the country (Nurmagambetov 2012).

Often industrial explosions, mining development and production of oil and gas help the occurrence of earthquakes. Volumes of mining and petroleum operations on land and in the Kazakh sector of the Caspian Sea are increasing, which leads to the strengthening of human and environmental burden on the environment, revitalization of dangerous exogenous processes, and in turn, to the threat of man-made earthquakes.

Kazakhstan, which has large reserves of mineral energy resources, has on its territory of about 363,450 dangerous sites of mining, chemical, oil and gas, atomic energy and other industry. They are the source of man-made emergencies caused by industrial and other accidents, fires, explosions, collapse of buildings and facilities, dam failures, etc.

## **METHOD**

When choosing methods of social protection of the population from the negative effects of emergencies the fundamental criterion is their efficiency. Distressed population in the region as a result of disaster can count on full support from the state bodies and public organizations. This, above all, modern methods of interaction between government and citizens, such as cooperation and partnership, methods of active adaptation to situations, psychology of the social optimism, organizational and economic measures, doctor and social worker consultations. For Kazakh people actually the most common type of assistance - is the spiritual and material support of relatives and friends. It is necessary to use the potential of the people themselves in a difficult situation. For this purpose, actively adapting technologies are used.

There are no absolutely safe places in the world: the risk of catastrophe has become a systemic phenomenon. According O.N. Janickiy, we live in a global society which is characterized as a society of universal risk. Therefore, the main aim of the global community today is not so much the further accumulation of material and social benefits, as conservation and protection of existing public and private wealth. Or to put it more broadly, to maintain this type of socio-ecological metabolism, which would minimize the occurrence of risks and disasters (Janickiy, 2013).

Social experience shows that the danger usually do not occur unexpectedly. In most cases, they are preceded by some phenomena, events, processes, which are called accumulation of risk factors. The detection of such precursors, danger signs, their analysis and based on its prediction the probability of the danger, the timing of its appearance, orientation, possible damage, and so on is the most important tasks of danger diagnosis.

Dam break in Kyzylagash became one of the most devastating floods in the history of modern Kazakhstan. Kyzylagash tragedy refers to the number of emergencies with social nature, which we can trace careless activities of officials and employees of public services. The breakthrough of water from an emergency reservoir killed 45 people. After the tragedy, it was built 465 new homes, as well as it was overhauled of nine social facilities and 30 homes. Total to build housing for victims Kazakh government has allocated 53.1 million dollars. In case of Kyzylagash tragedy dangers did not occur by the chance. During the investigation of the causes of the dam break 705 people were convicted (Kyzylagash Dam failure, 2010).

Such tragedy requires a reconstruction of cultural and social infrastructure of settlements, social protection, property damage assessment and assess the situation of citizens and their families. How to organize the social protection of the population from the affected region? Who will do the creation of socio-economic comfort, offsetting the population negative effects of the emergencies?

At the present time, given the growing influence of anthropogenic factors on the environment it is needed to increase environmental awareness of the population. It

is necessary to overcome anthropocentrism in environmentally conscious of the citizens, based on the consumer attitude towards nature, a sense of superiority over it. The time in which we live requires human consciousness oriented on ecocentrism (Ramazanov, 2009). This consciousness is characterized by a civil and humane content, which examines the nature par with man as equal living organism. Experience shows that it is impossible to the development a humane society without civilized man's relationship to the nature. It is impossible to perceive nature as an object of unilateral effects, as the property of a man who dominates in the relationships with it.

In society there is a need for highly qualified professionals - the "new" middle strata that define the modern look of the society. The training of the specialists with a high level of professional competence in the field of emergency situations - is a part of this great task. Important professional qualities of the modern expert on emergencies are observant, speed, spatial orientation, verbal and figurative memory, spatial visualization ability, intellectual lability, emotional and volitional stability, perseverance, courage, organizational and communication skills, knowledge of official duties, legal acts and good physical fitness etc (Abirova, 2014).

In solving the pressing problems of modernization of Kazakhstan's society culture of its citizens has the great importance, which largely depends on the success of reforms and the progress of the society. Civilized citizens' attitudes to the surrounding social and natural environment are the key to the social security of the society.

Emergency situations are the results of objective and subjective factors. Especially the speed and suddenness of emergency does not allow a person to confront it. It is necessary to take into account the fact that people in extreme situations lead themselves differently. Some people deliberately behave rationally, but at the same time there is a maladaptive behavior that is characterized by panic and fear.

The negative social consequences of emergencies may have a serious threat to the security of the society as a whole and for individual social institutions. From all the above there is a serious need for a serious state policy in the sphere of prevention of emergency situations to minimize their negative effects, ensuring effective social and economic protection of the affected population. From the quality of the solution of these problems the security of the state and its stable development largely depends on.

Safety of modern daily life, interrupted by explosions, accidents, acts of terrorism, becomes one of the scarcest goods of existence, the result of the efforts of the authorities, security services and daily activities of people saving the society of "kidnappers" security. People have common interests by virtue of the fact that they faced with global challenges, common to the most (Smirnov, 2003).

The state can act as a tool to protect the social and economic interests of the people.

The rehabilitation of the population and territory - are the concern primarily of the state, then the department which caused the damage, and then - local structures, as well as the population, which should be considered not only as an object but as a subject of social protection (Pavlov et al., 2012 ). The state carries out the function of protection, taking part in the social process as an active subject rather than a passive observer from the side. First of all, it defines the main directions of development of the social system. Humanistic orientation of the character of the system can promote the development of charity and compassion of the citizens.

In September 2014 among the population of the East Kazakhstan region sociological research: "Influence of the dangers that arise on the basis of an emergency situation in the regions on the social well-being of the population." was conducted. The study included 320 people. The main objective of the research was

the dimension of social well-being of the population survived the dangers of natural disaster and sociological assessment of the socio-psychological readiness of the population in case of recurrence. Research has shown that natural emergencies greatly concerned about 82.2% of the respondents, to some degree - 17.5% and did not care about 8% of the citizens. The answers indicate that subconsciously most people have the concern about the possibility of unexpected extreme situation and it causes them anxiety.

## **RESULTS**

What should be done to reduce the anxiety of the people in advance to prevent the consequences of risky situations? According to the respondents it is largely dependent on the self-organization of the people, the conscience and demands of the citizens. This answer was chosen by 53.2% of respondents. The time when the government tightly controlled the activities of public organizations and citizens, is gone, and now everything is different. Make a self-perfection to improve your environment! No one is so much interested in solving social problems as the citizens themselves. Activity of officials who are in charge of environmental activities is increasing in the proportion to the citizens' activity. Especially it is noticeable if media interferes in it. Often, unresolved social problems unite people and push them to take actions. Kazakhstan citizens have been increasingly resorting to the services of television and online communication to attract the public's attention to the urgency of the problems.

Man-made and natural disasters often occur because of the irresponsibility of individual officials who ignore environmental safety and allow careless attitude to their activities. According to the respondents in the prevention of the danger of risky situation, the most important is the quality of the activities of the ministry of emergency situations (10.3%), government policy - (7.1%). Respondents indicated that they were generally satisfied with the activities of the Ministry of Emergency Situations of Kazakhstan (52.4%), but all completely satisfied is only (10%).

According to the risk map of Ministry of Emergency Situations (MES) in Kazakhstan the most vulnerable to various types of natural disasters throughout the year are the South Kazakhstan, Zhambyl, Almaty and East Kazakhstan region. Slightly less - Atyrau, West Kazakhstan and Mangistau regions.

Emergencies are determined by the conditions of life. What are they worse the higher the level of social discontent, and the harder it is to contain it. In case of unfavorable development some small waves of dissatisfaction are connected, gain destructive force and cover new territories. The instability of life creates its resentment, as a consequence, the protest, which translates into action, destroying the already disrupted the infrastructure of life support. This, in turn, gives rise to a new explosion of protest and new destructive actions. Thus, the process of destruction becomes an avalanche.

Man-made and natural disasters, increasing the number of social problems of people, encourage them to the active political actions. Measuring of the social well-being of the population in Kazakhstan shows its inconsistency to the accepted social norms in society, and gives rise to various forms of discontent. Therefore, the state must be prepared to solve social and economic problems of the people that arise after disasters. It is better to prevent the problem in advance at the stage of its occurrence by preventive measures, not leading to the conflict.

Diagnosis of dangers and threats has several features (Yarochkin, 2000):

- Watch their precursors often do not cause alarm;
- People have different perceptions of the dangers and threats;
- Every kind or type of the danger has its own specific, often individual features;

- Combination of features of a particular danger is manifested in its process of development from one stage to the other - from the conception to the direct threat.

To measure the risks in the social sphere the system of parameters (indicators) is used via which it is possible to determine not only quantitative but also qualitative threshold risk value. The indicators commonly are events, processes of their manifestations, information, effects, allowing early detecting the dangers, their nature, source, orientation, scope and possible terms of their coming. They, in essence, are the signs, symptoms, danger signals, their quality characteristics.

The source of man-made disasters can be of any potentially dangerous production facility. These objects are in normal use does not pose a risk to the population and territory, but in an emergency or destruction there is a threat to life and health of people and animals, as well as causing significant material damage and damage to the environment.

The opinion of the respondents regarding the risks of accidents and disasters at potentially dangerous facilities shows that respondents do not consider these items safe, and the degree of protection of the people from their harmful influence perceive differently. The positions of the respondents are as follows: a fully protected - 8%, partially protected - 42%, is not protected - 3.2%, generally not protected - 13.5%.

For example, about the harmful effects of such objects villagers from Kalachi Akmola region said. Kalachi village went into hibernation. Local residents were knocked down by sleeping sickness. For the year there were dozens of victims. Scientists have already held seven thousand studies and have no result. Since the 1960-ies, the proximity of the village Kalach uranium ore was mined. Uranium production stopped in 1992, and the mines were closed. According to officials, "The whole range of activities for the disposal of the former mines held and continues. The fact that people (in Kalach) are falling asleep, is not associated with uranium mines "(Flash" sleeping sickness "in Kalach, 2015). Residents do not deny the impact of uranium ore on the health of the population.

In West Kazakhstan region residents of Berezovka village, where at the end of the last year there were mass poisoning of adults and school-age children, staged a rally, demanding resettlement from the authorities. The villagers believe that the malaise is the consequences of the emissions from oil field "Karachaganak", located near the village.

## DISCUSSION

In practice, disaster risk management is to improve the level of social security. Safety of the society is, firstly, the absence of dangers and threats within a reasonable risk to the society, and secondly, a sufficient degree of its resistance to them, i.e. the presence of specific immunity, and, thirdly, the ability and willingness to defend themselves against these dangers and threats to remove them and restore the state of well-being. In this regard, the increase security in the social sphere requires:

- improvement of the social system and its facilities (structures, institutions, organizations, and the relationships between them, policies, etc.);
- staff training able to effectively and purposefully solve this problem;
- the ability and willingness of social structures and personnel for disaster management.

The issue of safety culture is very acute and urgent on the agenda. Safety culture occurs when the activities of organizations and individuals in the behavior of the security has top priority, and it is given due attention (Yakupov, 2006). Prerequisites of the safety culture:

- no complacency in the course of professional activity;

- recognition of the priority of the safety in making decisions;
- systematic approach at all stages, not neglecting the little things.

The security in the Republic of Kazakhstan in the fields of natural and man-made is carried by the state emergency management system. In case of emergency rescue, recovery, and other urgent works to eliminate immediate danger to people life and health is in its competence.

In Kazakhstan, the number of man-caused emergencies is 99.2% of the total number of emergencies. The number of natural emergencies is 0.8% of the total number of emergencies (Overview - analytical information, 2015).

Currently, there are four methodological approaches to defining the risk:

- engineering approach, based on the statistics, the calculation of frequencies, probabilistic safety analysis, construction of the "tree of danger";
- modeling approach based on the construction of the models of the impact of harmful factors on the individual, social and professional groups, etc;
- expert approach, when the probability of the event is based on a survey of the experienced professionals, i.e. experts;
- sociological approach, based on a survey of the population (Pushenko, 2011).

It should be noted the important role of the mass media in bringing to the public and government agencies attention to solve urgent problems of natural and social character.

Social media "allows users to create and share information that the authorities do not have or are not willing to give them (Neubaum et al., 2014). With the globalization, the increasing role of the Internet resource creates a tremendous opportunity to inform the public about the risks, created emergency situation, thereby to unite the citizens in the name of quite concrete, tangible common goals. In view of the circumstances, often, representatives of the mass media are not interested to transmit warning information, and in the information news agencies lines only the facts of already occurring emergencies take the highest ratings of views. Environmental awareness of the population is under the strong influence of the public opinion forming by media.

G.L. Pogosyan said that the regions which are the subject to a greater risk and where often there are various disasters are characterized by the fact that the population has formed a special relationship to disasters. People include them in their thinking, into a subjective view of the world, trying to anticipate the possible consequences, to define their actions (Pogosyan, 1995).

Considering the impact of natural disasters on the mental state of a person, it should be noted that the greater people perceive the threat to life and the longer a direct impact of the disaster on the social well-being of the person, his stressful reaction becomes the more pronounced.

The social and psychological well-being of the population before and after an emergency is equally important for the effective existence of the society. The state of health is that what is sometimes called "emotional intelligence" (Timothy O'Riordan, 2013). Effectively understand in the emotional sphere of human life, to understand emotions and reasons of emotional relationships, to create conditions for inner satisfaction, as well as empowering citizens - all are urgent problems that need immediate solutions.

In modern conditions, human activity has led to a number of global environmental problems threatening the security not only of a given region, and has spread to the complex consequences of acute social and environmental conflicts affecting the world at large.

Security of the person at increased risk of natural disasters includes all aspects of the security. It is necessary to analyze physical safety, and psychological, and information, as well as own mental safety. In this respect, self-identity of the person his\her own security and safety plays the important role.

Therefore, in the present conditions it is necessary to ensure the functioning of the complex mechanism of the readiness for life activity safety. This mechanism includes:

- acquisition and transfer of the knowledge and skills of the individual growth in different situations;
- formation of ecological outlook;
- Action in case of natural disasters training;
- development of skills to adequately respond and behave in a sharp social conflicts in society;
- Formation of readiness to defend the interests of the Fatherland (Gubanov et al., 2011).

Under Article 3 of the Law RK "On emergency situations of natural and man-made character" one of the basic principles of the protection of the population in emergency situations of natural and man-made disasters is to inform people and organizations on projected and any emergencies, measures for their prevention and solutions (Law of the Republic of Kazakhstan the "about emergency situations of natural and man-made", 1996).

Undoubtedly, one of the preventive measures to protect the public is to inform the public about the possible emergencies in the country, region, locality and site; the most characteristic consequences and dangers of a particular emergency, and most importantly - action in emergencies, the service, responding to emergencies and their basic functions. However, there is a need to strengthen the information content, the competence of the population confidence in the openness and accessibility of the information concerning their social security.

To reduce casualties and reduce property damage, generating a correct algorithm of actions of the population in emergency situations, we must be systematically and meticulously form in the population the full knowledge of the system of emergency management. The degree of social rehabilitation of the population, experienced the emergencies will be determined, on the one hand, the efficiency of public policies, on the other - increase of desires, abilities and skills of the population to protect themselves at the city, the settlements, the family and the individual levels. We must use the positive potential of the collective consciousness of ethnic groups living in Kazakhstan, due to their traditional culture. First of all, it is the material and spiritual support of the loved ones, which unites in a certain extent, people and communities, giving them a sincere relationship, emotional. The humanistic tradition capacity is need to be saved, no matter of tough market conditions. Implementation of the cultural traditions preservation policy, taking into account national and ethnic origin is one of the key policies of the Kazakhstan society. At the same time active working on the development of volunteerism contributes to the mobilization of civil society activity.

Literacy is the key to security in emergencies. According O.N. Yanitskiy in modern society the perception of the surrounding world of the "ordinary citizens" is important. Protection nature is a necessary condition for the existence of society itself, including each of its members (Janickiy, 2014). A prerequisite for nature protection is the recognition of its value, not only the assertion of the need to use it by the future generations.

## **SUMMARY**

Formation of equal partnership "man-nature-society" is an essential condition for sustainable development of society. Sustainable development is possible only when the person's inner world changes, and hence its relationship to the world, another person and himself. To implement the principles of sustainable development in



practice can do only a person with a new outlook, guided by moral principles in their relations to others, to nature.

The transition from the anthropocentric ecological consciousness to the consciousness oriented on the ecocentrism dismisses from thinking pragmatism considering the legal and allowed only what is useful to man and mankind.

Improving the psychology of the social optimism and overcoming of dependency and social laziness is an important condition for the development of social activity of citizens, awakening their desire to maintain a decent lifestyle.

Development of rehabilitation, health visitor activity in the conditions of occurrence of risk situations in the human environment, by adapting the rehabilitation measures to the local conditions, and the use of cultural and historical experience of spiritual traditions in the process of rehabilitation period may contribute the perfection of the moral society foundations, rapid and active development of population patriotic qualities.

## REFERENCES

- Address of President of Kazakhstan N.A. Nazarbaev to the people "Nurly zhol (Нұрлы жол) - the path to the future". Retrieved November 11, 2014 from [http://www.akorda.kz/ru/page/page\\_218341\\_poslanie-prezidenta-respubliki-kazakhstan-n-nazarbaeva-narodu-kazakhstana-11-noyabrya-2014-g](http://www.akorda.kz/ru/page/page_218341_poslanie-prezidenta-respubliki-kazakhstan-n-nazarbaeva-narodu-kazakhstana-11-noyabrya-2014-g)
- Abdikeroval, G.O. & Omarova, A.T (2014). Emergency situations and their impact on the social feel of the population. *Vestnik KazNU. Al-Farabi, Series psychology and sociology*, 4 (51), 58.
- Nurmagambetov, A. (2012). Public safety and facilities management in Kazakhstan, taking into account the risk of the strong earthquakes. *Herald Kokshetau Technical Institute of the Ministry of Emergency Situations of Kazakhstan*, 1 (5), 5-8.
- Yanitskiy, O. N. (2013). Ecological disasters: structural and functional analysis. Institute of Sociology. Official site of the IP RAN.
- Dam break in Kyzylagash. Retrieved from <http://encyclopedia.kz/index.php>
- Ramazanova T.M. (2009). The ideas of the noosphere in the modern environmental consciousness. *Scientific Gazette*, 8 (63), 165-171.
- Abirova, S.M. (2014). Features of enhancing professional training GU "SP" and "RSA" DES Atyrau region specialists in the activities of the fire service. *Herald Kokshetau Technical Institute of the Ministry of Emergency Situations of the Republic of Kazakhstan*, 3 (15), 10-11
- Smirnov, A.E. (2003). Tolerance: violence of the being or power events? (p. 29). *Social heterology and the problem of tolerance*. Ekaterinburg Univ. Ural State University.
- Pavlov, B.S., Berdnik, L.P. & Razikova, N.I. (2011). Environmental and socio-valeological feels of the population in the Urals (p. 522). Ekaterinburg.
- Yarochkin, V.I. (2000). Securitylogy - the science of the safety (p. 103). M.
- The authorities of Kazakhstan: Flash "sleeping sickness" in Kalach not connected with the operation of uranium mines. Retrieved from <http://www.rosbalt.ru/exussr/2015/01/15/1357158.html>
- Yakupov, A. (2006). What is a safety culture?. *LIFE SAFETY FUNDAMENTALS. Basics of Life Safety*, 11, 47-52.
- Overview - analytical information on identified trends in the development of natural and man-made disasters occurring in the territory of the Republic of Kazakhstan for 2014 y. Retrieved from [http://www.emer.gov.kz/index.php?option=com\\_content&view=article&id=27053%3A-2014-&catid=72%3A2011-07-29-06-18-40&Itemid=25&lang=ru](http://www.emer.gov.kz/index.php?option=com_content&view=article&id=27053%3A-2014-&catid=72%3A2011-07-29-06-18-40&Itemid=25&lang=ru)
- Pushenko, S.L. & Strahova, N.A. (2011). The methodology of the risk management of labor protection at the enterprises of the construction industry. (p. 15). Monograph. Rostov-on-Don: ZAO "Rostizdat". <http://www.sciencedirect.com/science/article/pii/S0747563214000260>

- Neubaum, G., Rösner, L., Rosenthal-von der Pütten, A.M. & Krämer, N.C. (2014). Psychosocial functions of social media usage in a disaster situation: A multi-methodological approach. *Computer sinhuman behavior*, 34, 28-38.
- Pogosyan, G.L. (1995). The social consequences of natural disasters, *Journal of Sociology*, 4.
- O’Riordan, T. (2013). Sustainability for wellbeing. *Environmental Innovation and Societal Transitions*, 30.
- Gubanov, V.M. Mikhailov, L.A. & Solomin, V.P. (2007). Emergencies and social protection from them (p. 27). Moscow: Drofa.
- Law of the Republic of Kazakhstan "On emergencies of natural and technogenic character» #19-1 on July 5, 1996.
- Janickiy, O.N. (2014). On the concept of environmental and social knowledge. *Sociological studies*, 4(360), 5

