

Technogenic Disasters And Their Impact On Society, State And Personality: Problems And Prospects

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Abstract: *The subject of this research is man-made disasters arising for various reasons (factors) and having a destructive effect on the state and society. The object is relations related to the solution of issues related to man-made disasters. The author examines the features of man-made disasters, problems associated with their prevention and elimination of consequences. Special attention is paid to the stages and factors of the development of man-made disasters, the prerequisites for the formation of situations that contribute to the onset of destructive consequences. As a result of the analysis of the most complex events of a technogenic type, conclusions were drawn about the causal relationship between the occurrence of an event and various factors, including human ones. The methodology of this research is based on general theoretical and specific scientific research methods of the analyzed topic. It should be noted the comparative legal, systemic and analytical methods that make it possible to identify the cause-and-effect relationship between the analyzed phenomena and formulate appropriate conclusions. The scientific novelty of this work lies in a comprehensive analysis of the stated topic, taking into account the available practical and theoretical material. The author has carried out serious work aimed at finding the relationship and correlation between the prerequisites of man-made disasters and the factors contributing to their occurrence. The author concludes that it is necessary to intensify work in the most important areas of counteraction to man-made disasters, from legislative regulation to practical aspects in the field of security.*

Keywords— disaster, technology, power, control, problems, prospects, personality, society, information, liquidation.

1. INTRODUCTION

Technogenic disasters are a dangerous phenomenon, the cause of which is quite often a technical failure of systems leading to an accident at industrial and other facilities. The ongoing process, as a rule, is chaotic and leads to great damage, entails the infliction of various harm, accompanied by mass casualties, environmental disasters. This phenomenon has long-term consequences, which are manifested in the social and economic spheres, and are the cause of prolonged crises. In the history of human civilization, you can find many striking examples of man-made disasters. They are characterized by the previously indicated signs and features. A number of similar events became a sad page in the history of the state.

2. METHOD

We have tried to use literature analysis, comparison and observation methods in conducting this research. We drew our conclusions through systematic analysis.

3. RESULTS AND DISCUSSIONS

The events that took place at the Chernobyl nuclear power plant, and as a result of the Kyshtym accident, gave a serious reason to think about the further development of safety in nuclear energy. Over a long period of time, numerous legal acts have been developed and multilateral agreements have been concluded. These measures had a significant impact on the development of safety and measures to prevent man-made disasters, but the likelihood of their occurrence remained

relatively high. First of all, it depends on a number of factors that play a significant role in the possibility of a disaster:

- Outdated equipment and wear and tear of equipment, as a result of prolonged use and the absence of modernization and renewal processes;
- Human factor present in almost any technogenic situation;
- Insufficiently developed regulatory and legal framework in the field of safety and prevention of man-made disasters;
- Insufficient level of training of the population and its weak readiness to take preventive measures in the event of a man-made disaster (catastrophes).

Based on these aspects, the following types of man-made disasters can be distinguished:

- A) deliberate;
- B) unintentional.

The second type of disasters is classified in more detail: - Technogenic (technological); - Natural (natural disasters); - Combined (mixed). There is a tendency for the percentage of disasters to fluctuate from year to year, and is unpredictable. Both man-made and natural disasters figure here. A special category of combined disasters is the most dangerous. Together with natural phenomena, the man-made disaster that has occurred is becoming more significant and dangerous and requires the use of radical methods and means in order to localize the problem. Each disaster is the result of a long accumulation of negative factors. Over time, favorable

conditions are formed, which become a catalyst for the event. So the following stages of the formation of conditions for a catastrophe are distinguished:

- Initial accumulation of destructive deviations;
- Process formation; • Directly event (accident).
- A consequence that is long lasting. • Measures aimed at eliminating the disaster. Considering that a technogenic type of accidents is being analyzed, the main reasons that are catalysts for their onset should be considered:
- Over-saturation and obvious complexity in production processes;
- Errors made in the course of activity in the design and creation (manufacture);
- Depreciation of various equipment and means of production;
- Mistakes or deliberate harm;
- Misunderstanding in the course of joint actions.

According to forecasts, in the coming years the number of man-made disasters will relatively increase. Nuclear power plants, chemical plants, oil and gas pipelines, and hydraulic structures may be at risk. Consequently, the disaster zone can expand to a significant size, which entails grave consequences for the social, economic and environmental spheres. The elimination of "synergistic" disasters can drag on for years. The disaster at the Fukushima nuclear power plant in Japan is an example. This man-made disaster, which arose as a result of the earthquake and tsunami, according to the elimination plan, will be gradually improved over 40 years. In the Russian Federation, direct as well as indirect damage caused in the course of emergencies is estimated at approximately 675 to 900 billion rubles. in year. In the future, the growth of the total economic damage from these phenomena will be dangerous. When the indicator of the annual growth of the Russian gross domestic product is reached, a tendency for stagnation in the economy will appear. Currently, the topical direction is the competent and rational management of possible disaster risks. A purposeful policy within the framework of the prevention of such disasters and in the field of protecting the population and territories, restoring life, providing assistance to the victims, is of particular importance. Without the adoption of optimal and effective measures to combat such disasters, no country can achieve sustainable (effective) development. A prerequisite for achieving safety in the field of life is the competence of people and knowledge of methods of protection.

The above is an effective mechanism only in the process of learning and acquiring the necessary experience, at various stages of education and practical activity. The existing hazards can be studied. Human civilization has enough means and effective ways to defend against potential threats. Lack of

human attention to the problems of man-made safety, as well as a tendency to take risks and a clear neglect of danger, are associated with limited human knowledge regarding negative consequences. Within the framework of ensuring sustainable, safe and stable development, professional training of personnel who make and are responsible for making managerial decisions plays a role: A) heads of legislative and executive power; B) heads of enterprises and organizations of various forms of ownership. The human factor is one of the main culprits in emergencies; ultimately, people, their education, upbringing and self-awareness are considered important aspects of the risk of man-made disasters. Let us analyze the situation that has developed in the Russian Federation in recent years. The largest industrial enterprises in our country were established more than 30-50 years ago. Consequently, their wear is about 80–90%. Having a good tendency towards modernization, but this is not enough in the framework of the overall picture. Depreciation of technological equipment in the chemical sector is about 80%, metallurgy is close to the threshold of 60%. Half of the trunk pipelines have been in operation for over 20 years. Repair and replacement of existing equipment began to lag behind needs. It should be noted that large equipment, as well as especially dangerous processes must be under detailed control. Experts are well aware of the risks of such accidents. Nevertheless, time spares no machines and technological systems. They need to be replaced or stopped. Otherwise, an accident should be expected, which will inevitably occur if the appropriate funds and efforts are not invested. A common problem for any state and political system is related to the emergence of conditions that provoke various man-made disasters. First, a number of subjects have a large-scale temptation to obtain inexpensive energy resources. Preliminary calculations pay off very quickly. At the indicated moment, complacency and carelessness sets in, the authorities weaken their strict control in the field of technological safety. Companies show direct negligence in their own operation of highly complex and dangerous industries. As a result, this practice leads to a catastrophe in which people die, damage to the environment is caused. In the process of eliminating the consequences of the man-made disaster under consideration, the authorities demand self-sacrifice from society, which leads to destructive consequences and loss of public confidence. Huge material and human resources are rushed to eliminate the problem. It is interesting to note that the media, according to scientists and business executives, fall into the illusion that with the development of new unique technologies, the possible risk of disasters decreases. They stop requiring the authorities to conduct strict supervisory inspections during the construction and maintenance of facilities. At the moment of a catastrophe, they are the first to panic and become compliant to the authorities' position. As a result, the press does not so much fight and seek to punish the guilty as to calm the society. An exception to this rule was the disaster in the Gulf of Mexico. There was created a precedent of effective technology, following which the press together with the

authorities achieved fair compensation from the culprit for the damage caused. We have to admit that an obvious paradox has developed in our country. In court, only the perpetrators are accused of crimes, and the real perpetrators are always invulnerable to justice. History with logic warns that as long as this practice continues, our society will have to live in anticipation of man-made disasters. An encouraging way out of this situation is as follows:

- the political will of the current government to implement an honest and impartial investigation of the disasters that have occurred;

- bringing the true perpetrators to justice;

- well-thought-out work of the media during man-made disasters and liquidation of consequences, aiming to investigate the obvious reasons and obtain compensation for damage. The designated activity should be brought to its logical end, and not abandoned as soon as the effect of sensation subsides. Today, the media are obliged to constantly monitor the situation at hazardous facilities in the country, insist on inspecting them by scientists and specialists, constantly remind the authorities of the terrible disasters that have already occurred and demand minimization of risks to the population and the environment. Otherwise, society will have to live in conditions of a permanent man-made disaster.

4. CONCLUSION

Summing up the study, it should be said that in this period of time there is a danger for the occurrence of man-made disasters, but the potential for their occurrence is reduced as a result of tightening control over hazardous facilities, the introduction of new and updating old snips, rules and instructions, safety training and development of the sphere of labor protection. The work of the regulatory authorities has become more effective, as evidenced by the data posted on the information sites of institutions that are regulatory authorities. Inspection schedules and constant monitoring of the situation have become a new reality. The question of the quality of these checks is open, since rare man-made disasters occur in modern reality, but the effect of the measures taken is effective, and will manifest itself in the coming years. Carrying out active modernization and transformation of the current legislation, together with practical measures of training and prevention, should become an essential factor in counteracting and preserving society, the state and the individual from man-made disasters. This will become an important and effective impetus for sustainable development.

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