

**SOCIAL CONSEQUENCES OF THE CHERNOBYL CATASTROPHE:
SOME RESULTS OF SOCIOLOGICAL RESEARCH***

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*This is the longer and written version of a paper presented at the Disaster Research Center on November 10, 1993. While this version was edited by Prof. E. L. Quarantelli from a typed script and tables provided by Prof. Mozgovaya, she did not see this rendering of the manuscript.

INTRODUCTION

My presentation consists of a description of some sociological research results about the social consequences for regions in Russia from the Chernobyl disaster. The research was conducted by the Institute of Sociology of the Russian Academy of Sciences. Some of the work was funded by the State Chernobyl Committee and some was supported by our own Institute.

I am the leader of a scientific research group in the Institute which is concerned with problems of social ecology and social protection in Russian society. The group has six members. We have the possibility of employing specialists for interviews in our field work.

BACKGROUND

I am sure that you know that the inhabitants of some regions in Russia were officially informed a few years after the Chernobyl disaster that their areas had been exposed to radioactivity. Of the seven Russian regions that suffered from Chernobyl, the Brjansk and the Tula districts suffered most seriously.

In the Russian law which defines the social support or help for those who suffered from the Chernobyl disaster, all affected regions are subdivided into four zones according to the cesium-137 content per kilometer and according to the annual doses of radiation in the area.

These are the characteristics of the four zones. (see Appendix A for a graphic depiction). The first one is a zone of absolute alienation or prohibition of anyone living there. The second one is a zone of compulsory evacuation; better said, it is a zone of relocation because evacuation must be undertaken within two or three days. The third one is a zone where people can live but where they have the right to evacuate. The fourth is zone for living but with privileged social and economic status for the residents. The boundaries of these zones can be revised every three years. The Brjansk region is the only one in Russia that has four zones.

There is in Russia a law for the social support or help for those citizens who were exposed to radiological radiation as a result of the Chernobyl disaster. The law also covers different kinds of governmental activities or aid for those regions which suffered from Chernobyl.

In the law mentioned above, twelve categories of victims are defined. They have a governmental guarantee for material compensation and privileges for health and property losses after the Chernobyl disaster. The law also provides a governmental guarantee for compensation as a result of radiation damages as a

result of living and working on territories which were exposed to radioactive contamination exceeding permissible levels.

It must be stressed that the law mentioned above provides a very broad set of social privileges and compensations. However, the problem for victims lies in the fact that the control of and fair execution of the law is entrusted to as part of the responsibilities of certain social institutions. These are local authorities, which are called Soviets in Russia, even today. An even greater paradox lies in the fact that personnel of these institutions have been trained in a totalitarian political and economic paradigm. It means that the current Russian official (a clerk) as his colleagues of yesterday tends to wait for numerous instructions from his boss. Unfortunately even now the government in Russia is popularly identified not with legislation but with an official, a bureaucrat who treats any situation as his private interest. Courts as social institutions are still very weak in Russia.

I think this is the key problem: increasing the effectiveness and justice of the law for the social support of Chernobyl victims.

For example, the government through its legislation guarantees a dwelling space in a new settlement for people who have evacuated from dangerous zones. However, settlers usually find out that there is no dwelling space, no work, no medical services in the new settlements because nobody wants them and their children. A result of this situation is sometime remigration back to dangerous areas.

Unfortunately the social support law is based only on material compensation ideas, and does not take into account the mental (psychological) difficulties. Mental difficulties must be compensated by adequate measures, not only with the help of privileges and money, but also with the help of specialists in the field of psychology and other behavioral sciences. However, in present day Russia there is no such professional recovery service, and there is no culture or tradition of providing civilian help.

Now I would like to discuss directly some results of the sociological research we conducted in the affected areas.

FINDINGS

From 1991 until 1993 we carried out several studies of which I shall speak about three of them (see Appendix B for a summary).

First, in 1991, we carried out research on teenagers and their parents as well as some specialists in the very settlements which suffered from the Chernobyl disasters. The work was undertaken in eight districts of five regions of Russia.

Then at the end of 1992 we carried out studies in the Brjansk region, using a random sample. This means that we have done interviews in all of the districts in the Brjansk region which were affected as well as not affected by Chernobyl.

Then we carried out two studies in 1992 and 1993 among those who had been participants in 1986-1989 in liquidating or cleaning up the radiation damages from Chernobyl. In Russia, these persons are known as "liquidators."

The 1991 research:

Now the research conducted in 1991 in the affected districts of the five Russian regions showed that a great part of the population in studied settlements, is under social-ecological stress. Among those studied, the level of knowledge about environment and health radiation was extremely low. For example, only 45% of teenagers answered that they knew about the influence of radiation on health; but 34% of them said they knew about its influence on nature; and, only 26% of them said they knew about protective facilities against radiation damage.

The adults were even more less informed. More than half of the adult respondents between the ages of 21 and 35 years did not know how radiation affected genetics.

Only one third of the teenagers answered that they had been to lectures about the characteristics of radiation and ways of protecting against it. These lectures had been conducted not by specialists, but by teachers, sometime by medical personnel. The general population, and in particular the great majority of teenagers (and females in particular) tended to say that their state of health was bad, noting that it had worsen during the last two-three years.

Symptoms of psychological stress are becoming more and more evident. It can be stated that these are now an inherent characteristics of a considerable part of the population. For example, about 40% of teenagers answered in the study that for a long time after the disaster, they suffered from fear, a sense of helplessness, and dreaded using food and water. About 16% of the teenagers said they suffered from sleeplessness and loss of interest in life. Girls suffered from such feelings twice as frequently than boys.

As far as adults are concerned, 84% of the women and 61% of the men stated that during the last three years their health had worsen. They indicated the same symptoms as those by the teenagers, but they were more widespread among the adults.

Around 20% of the teenagers and 39% of the adults indicated that

they wanted to migrate, leave their present locality. About 20% of the adults and 11% of the teenagers did not want to have children because they were afraid of bearing sick infants.

The activities of the authorities with respect to social protection and rehabilitation of the people who suffered from the catastrophe, was evaluated as being low or poor. The trust of the population in the authorities seems to be declining together with a decrease of feeling about being socially protected. This is naturally resulting in a strengthening of the social tenseness among the population, and especially between the population and government bodies.

The results of the analysis of the surveys conducted in 1991 show that the key social problem which needs to be solved, because the solving of other problems depends upon it, concerns the strategy of interaction between the authorities and the population.

The inattention to this problem determines the low level of people's information on all the issues connected with the influence of radiation on the state of health. It also accounts for the fact that according to the evaluation of our respondents, the authorities have done little for disaster recovery. They have not been providing treatment, nor food organization or purifying the environment.

The people's feeling of being socially protected is extremely low. This affects both the spreading of social apathy and the increase of asocial behavior, especially among the teenagers. Their estimates of the potential risks in daily life situations is also very high and demonstrates the heightened anxiety they suffer.

Children and teenagers must be regarded as a population with a sense of heightened risk. The gap between appearances, expectations, life aspirations and reality, that becomes especially evident at times of emergency, can turn into personal tragedy for many children and teenagers. It also makes them vulnerable to different radical forces.

What seems even more important is the deformation that has occurred in the structure of value orientations. That is, there has been a lowering of self worth (which was low to start with), an increase in a feeling of social alienation (especially among the teenagers), and a growing tenseness between the population and the representatives of authority.

Nowadays in the regions where we conducted our surveys, the situation can be described as follows. On the one hand, the local governmental bodies are not seen as interested in making decisions about concrete issues, those connected with the recreation of the environment and the health of the population. These might result

in the lowering of their social status. This is according to the opinion of the population.

On the other hand, that part of the population manifesting a deep interest in the solving of ecological problems, is not really organized yet. These people do not have their own leaders, do not have high social status, and have not presented themselves doing concrete actions.

The 1992 research.

At the end of 1992 we also conducted a representative selective survey of the inhabitants of the Brjansk region. We used a questionnaire on "man and environment." The notion of environment in the framework of the research includes economic, social and ecological conditions in the living and actions of different categories of the population.

In accordance with the goal of the research, a multi stage random non-repeating sample was obtained. The real error was 3% for probability level 0.95 and a dispersion of 0.25.

The particular universe we used for sampling was the type of settlement (that is, town or village). Thus, besides Brjansk 40 small towns and 83 villages were included in the sample. We trained 29 teams of interviewers to conduct the field work. The number of respondents numbered 1,200.

The analysis of the data reveals a tendency towards heightened anxiety by those respondents in those settlements which had suffered from the Chernobyl disaster. This anxiety primarily involves the estimation of social protection that our respondents had against organized crime, unemployment, poverty and solitude (aloneness).

The inhabitants of "clean" settlements compared to those in "dirty" settlements trust the authorities more. Inhabitants of radioactivated settlements are less satisfied with some life spheres than those in clean districts. For example, 34% of respondents from dirty districts were not satisfied with their housing conditions. In clean districts 22% of the respondents were not satisfied with their housing conditions. Also, with the dirty settlements being listed first, the comparison of lack of satisfaction is as follows: 53% to 44% for internal family relations; 26% to 18% for nourishment or food; 34% to 26% for rest opportunities; 31% to 18% for personal income, and 34 to 25% for medical services.

In addition, according to subjective estimates, the inhabitants of the clean districts less often suffer from the harmful effects of different ecological problems.

About 40% of the inhabitants of the radioactivated districts and 30% of those which are clean, rate their health as bad. About 70% from the dirty settlements to 58% of those settlements which are clean, stated that their health had become worse during the last three years. However, the frequency of medical visits did not differ in clean and dirty districts.

Special multiple analyses have revealed some settlements where there is a correlation between symptoms of worsening health and suffering from ecological problems. Also in two districts, from the zone of evacuation and of prohibition of living, a tendency to migrate and for increased alcohol use was revealed.

A comparative analysis of governmental statistics as well as our case study data in the Brjansk region shows some changes in demographic indicators. First, it must be noted that post disaster ecological stress does not influence behavior such as getting married. But living under stress conditions does contribute to the destabilization of internal family relationships such as inducing families to limit themselves to one child.

The greatest influence of post disaster ecological stress is on migration behavior. This means that half of all intentions to migrate are caused by the consequences of the Chernobyl disaster.

The 1993 research.

This year we have just finished our study of the participants who after the catastrophe took part in the Chernobyl disaster recovery effort. We call them "liquidators."

Now I should note that these persons were not professionals. There is no professional recovery service at all in Russia. All these people were taken away from their families, work, everyday life and put into a situation of high risk. Almost all of these people did not know where and for what they were going because they were picked through local military departments.

This category of Chernobyl victims, I mean the liquidators, is where the losses have been the most harmful. I will tell you about some spheres of the living conditions of the liquidators, the first of which and the most significant being the family.

About 85% of the liquidators are married. An analysis of the divorce rate of the liquidators from 1986 to 1993 showed that there were two peaks: in 1987 and in 1992. Besides, from 1988 on there is a tendency for increase in divorces. Among our married respondents, 31% are not sure of the stability of their marriage, and 17% think that it is related to harm from radiation.

Among the liquidators, 27% consider that their internal family relationships have become worse since Chernobyl.

While 89% of the liquidators have children, 61% of them do not intend to have any more children.

In the work area too, there are some problems. About a third or 32% of the liquidators do not occupy their previous working positions, and about half of them associate this with their worsening health. About 74% of the liquidators think that their health has become worse during the last two-three years. Almost half of them estimate it as being "bad".

In analyzing the results of our study, we have divided our respondents into two depending on the status of their health. There are those whose health has suffered after the Chernobyl disaster. The other is composed of those whose health has not suffered after working at Chernobyl. (See Appendix D for a summary of the two).

It turns out that there have been significant social deformations in the first category of liquidators.

Among them, there are twice as many persons who have been forced to change their work because of their health status. Also, 48% of the liquidators from the first category versus 5% from the other stated that their internal family relationships have become worse. It is also among the first that there has developed after Chernobyl more of an interest in religion. The same can be said about a decrease in social communication and a raised feeling of social isolation. Those who have suffered from Chernobyl are 1.5 times less sure about their marriage stability. The first category respondents also estimate that they have a significantly less level of social protection. This includes problems in working places, poverty, loneliness and unemployment.

Among 45% of the liquidators from the first category compared to 28% of those from the second category, report that they use alcohol more often since the disaster. About 15% versus 3% think that they may become dependent on alcohol.

Besides well known problems in the society with living conditions, food, and financial status, the liquidators have their own specific ones. This is in interfamily relationships and what is most important, in relations in the social environment such as their job, health and social security. Also there is a high degree of tenseness with the local authorities, whose bureaucrats decide everything. The liquidators see the major problem for themselves as being in the attitude towards them. This is an attitude that is not adequate for the tragedy these people have suffered. Their position in the society, their worthiness to the society are not

recognized. More than that, I would say that even after getting material compensation there is still a feeling of humiliation and inferiority.

At present we are working out programs of social rehabilitation for the liquidators and their families in the very regions where we conducted our research.