

Solving the social problems caused by the Chernobyl catastrophe: 20 years is not enough

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Introduction

Nearly twenty years that passed after the Chernobyl nuclear disaster call for deep investigation of its consequences for people who were affected - usually referred to as "Chernobyl sufferers". Approximate numbers (it is believed that exact numbers will never be known) reveal a real humane catastrophe:

- more than 600,000 participated in the re-construction of the nuclear power plant itself and clean-up of the area ("**liquidators**" of the aftermath of the accident; more than 300,000 of them live in Ukraine - see details below);
- more than 350,000 were resettled, of them about 120,000 evacuated during the first period, including 49,360 inhabitants of the city of Pripyat on 27 April 1986;
- several millions live on contaminated lands since 1986.

Fortunately, it is not a scale of a major war, but it is a scale of a regional military conflict involving several countries...

Economic sufficiency, optimal health, reasonable housing, access to education and recreation, and happy relationships are some of the fundamental needs that constitute the essence of a social well being. The importance of it is recognised by governments and policy makers. Governments and policy makers are those who influence social conditions of living to the greatest extent, especially in strongly regulated systems like the system of "developed socialism" that existed in the Soviet Union and which dominated a great deal the life in Ukraine in the first half of 90th. What impact has the Chernobyl catastrophe had on the social well being of affected population?

Due to limitations on the scope of this paper, we will not discuss health-related and children-related issues, because these are separate big and most complicated topics.

Chernobyl had various repercussion not only for three most seriously affected nations (Ukraine, Belarus, Russia), but all over the world. In 2002, a UN report "The Human Consequences of the Chernobyl Nuclear Accident. A Strategy for Recovery"¹ was released. However, due to the goal of that assessment the report is too general and in some aspects controversial (see, for instance, comments by Nesterenko, Yablokov, Grodzinsky²). The most comprehensive account of events in Ukraine that followed Chernobyl disaster could be found in the book published by the National Academy of Science of Ukraine in 1995-1996 "Chernobyl Catastrophe", edited by Academician V.G.Baryakhtar³. The positive and negative feature of this book is that almost all papers on social protection measures were written by those who implemented them: thus, the papers comprise good factual data, but they reflect positions of respective government agencies that provided assistance and not the opinions of recipients. Since different authors wrote different sections in the book, references are given accordingly. The Institute of Sociology of the Academy of Science of Ukraine has published detailed reports of scientific investigation of social, economic and psychological consequences of Chernobyl Catastrophe⁴.

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In this paper we will briefly outline only problems of those who live in Ukraine - liquidators, resettled, those who still live in contaminated areas. The issue of several thousands workers of the Chernobyl nuclear power plant (NPP) - veterans from before 1986 and newcomers - needs a separate research, as it was developing first in the unique "closed" system of the Soviet nuclear industry, and later under the influence of a fierce struggle between international community trying to close Chernobyl NPP and the Ukrainian government trying to smooth over numerous negative consequences of closing the NPP. Closely linked to their problems is the history of the city of Slavutych (population 26,000, built in 1987-89 chiefly to house personnel of Chernobyl NPP): all pains and tensions caused by changing social protection policy and by the process of closing Chernobyl left their traces here.

For each affected community, each family and individual the disaster had various social, economic, health and psychological impacts. From the first days after the catastrophe the state (first the Communist Party and the Government of the Soviet Union, later Governments of independent states) played a major role in attempts to protect the affected population and to provide compensations for incurred adverse impacts. An outline of these attempts (adopted legislative acts, economic decisions, social policies, direct international assistance etc.) will be discussed in this paper, as well as results of implementation of the planned measures. International assistance to the city of Slavutich, which was quite significant and which went hand in hand with the political pressure on the Ukrainian government - to close down Chernobyl NPP - will not be discussed in this paper.

Evolution of the social and political system of Ukraine between 1986 and 2004: brief outline

The present-day Ukraine (a 48-million nation in Eastern Europe) at the time of Chernobyl catastrophe was a republic within the Union of Soviet Socialist Republics, USSR. The Communist Party ruled the country in the so-called "command and control" manner. In 1985, attempting to solve numerous internal and external problems, a new dynamic leader of the USSR, Mikhail Gorbachev, launched "perestroika" - reconstruction of the whole system. This eventually led to a collapse of the USSR and resulted in many hardships and successes for the people of the country.

The social and political system of the USSR at the time of Chernobyl catastrophe - known as "developed socialism" - was fully centralised with almost all important decisions taken in Moscow, with practically 100 % state ownership of natural resources, bank system, industrial enterprises, infrastructure, health care and educational systems, etc. Civil society virtually did not exist: municipalities, non-governmental organisations (NGOs), even church were all under the strict control of the state.

This situation has gradually changed over two last decades: multi-party political system developed with decisions taken by the Parliament, the nationally elected President and the Cabinet of Ministers appointed by them; independent from the state business sector has been created and flourishes; third sector emerged with hundreds of *de-jure* and *de-facto* independent NGOs, protecting civil rights and interests of their members; administrative reforms provide more and more power and financial resources to communities.

Several events have had deep influence on Ukrainian society in the last quarter of the XXth century. We can list them starting with Chernobyl catastrophe (1986), which dislocated hundred of thousands of people, created the state of anxiety in millions, and placed such a burden on the national economy and finance that it obviously hastened the collapse of the USSR.

Disintegration of the Soviet Union that followed the unsuccessful attempt of *coup-d'etat* in 1991 led not only to the feeling of instability, but also to huge economic problems with eventual impoverishment of some 90 % of Ukrainian population during 1992 - 1994. In some periods monthly inflation was higher than 100 %, and all savings completely disappeared with the collapse of the State Savings Bank of the USSR. All this created the feeling of insecurity and pessimism.

Still this was not the end of hardships, because in mid-90s privatisation of the state property was launched, with members of political and economic "elites" becoming incredibly rich, while the majority of "ordinary" people becoming poor. During 90s a new political and economic system emerged. After the stepping down of the President Leonid Kuchma in January 2005, who was elected in 1994, this system was nicknamed "kuchmizm". The system was characterised by 50-60 % share of "black" and "grey" economy, mass export of capital and total corruption in all spheres of social and economic life. Transparency International index of Ukraine, which was 69th of 85 countries when Ukraine first appeared on the list in 1998, became 87th of 90 countries in 2000 (for comparison, Russia was 76th in 1998 and 82nd in 2000)⁵.

During that period, sophisticated "schemes" of avoiding taxation were invented, and this led to serious budget problems. Many opportunities for avoiding taxation were created by the government itself - most common were special "preferences" which allowed some companies and territories not to pay certain taxes, custom duties and other "mandatory" payments to the budget (the reader may guess how these companies and territories were selected). To give the feeling of incurred budget losses, we can mention that when a new (appointed after the "orange revolution" of 2004) government cancelled these preferences, the resulting planned additional income was 8.7 billion hryvna (US\$1.64 billion) - more than 10 % of the budget. Various preferences were created by the Chernobyl legislation as well, but most of them were annulled several years ago. Of course, all this did not help in solving numerous problems of Chernobyl sufferers. Only in the very end of 1990s the state finances became stable, as well as the funding for Chernobyl programs.

Additional circumstance which seriously aggravated the situation in all rural areas - and more so in those affected by Chernobyl contamination - were slow and inconsistent reforms in agrarian sector. These reforms included reorganisation of soviet collective farms and state farms into "collective agricultural enterprises" and joint-stock companies. Old system disintegrated, and the new one served only interests of new owners - usually former "red directors". Limited opportunities opened for establishing independent farms, but without governmental supports such attempts were often unsuccessful. The unresolved issues of land ownership and agricultural land use were hindering transformations in agrarian sector, and the situation changed only in 1999 when the special decree of the President was issued. With it, and with the following decree of 2000, a market system in agrarian sector started to function and the population of the rural areas obtained framework for implementation of economic initiatives that possibly can lead peasants to prosperity.

Legislation, number of sufferers and budget expenditures

Chernobyl-related legislation and government policy for social assistance to affected people

Despite the fact that the USSR was a country with extensive military and civil nuclear programs, a country with several tens of nuclear power reactors in operation, there was no law on the use of nuclear energy. In cases of nuclear accidents that happened before Chernobyl, problems were settled behind the closed doors of responsible ministries - of course, without any public consultations. Social issues were settled in the same manner, and usually sufferers of the accidents were ordered to sign a special commitment of non-disclosing the matter: this was a condition *sine qua non* for obtaining assistance and social benefits.

When the Chernobyl catastrophe occurred, there was no existing legal base and no existing policy of handling the problem. All decisions were taken *ad-hoc* at the highest level of the government. Because there were very limited possibilities of evaluation of real and expected doses for each affected community (due to enormous scale of affected territory and population, the insufficient background and current information, lack of knowledge among those who were taking decisions and those who implemented them,

absence of capacities for processing huge amount of radiological data), during the first period of 1986-1989 the decisions were based on the levels of contamination of soil by radioactive substances.

First government decisions after the Chernobyl catastrophe dealing with social problems (evacuation of the 30-km zone, compensations for loss of property, mobilisation of resources and manpower for resettling people etc.) were taken by the Politburo of the Central Committee of the Communist Party and the Council of Ministers of the USSR. Only in April, 1990, the legislative body of the country - the Supreme Council of the USSR adopted a Resolution "On a comprehensive programme to liquidate the consequences of the accident on Chernobyl NPP..."

The law of the USSR, which specified relations between the state and the affected population "On Social Protection of Citizens who suffered from the Consequences of the Chernobyl Catastrophe", was adopted in May 1991 - five years after the accident. Earlier that year, in February 1991 two basic Ukrainian laws were adopted by Verkhovna Rada (Parliament) of the Ukrainian SSR: "On the legal status of contaminated territory..." and "On the status and social protection of citizens who suffered due to the Chernobyl catastrophe".

It should be kept in mind, that Soviet and most of Ukrainian laws are indirect, which means that they define general policy, but later specific regulatory acts are needed to start their implementation. For serious problems such acts are adopted by the Cabinet of Ministers, and this was the case with Chernobyl: the Resolution of the Council of Ministers of Ukrainian SSR № 106 of 23.07.1991, in accordance with the two Laws mentioned in the previous paragraph, specified the list of 86 communities of "mandatory" resettlement and 800 communities in the zones of "guaranteed voluntary resettlement" (it meant that the people willing to move out of this zone were allowed to do so and the government would pay compensation for their property left behind).

But we must remember that on 8 December 1991 leaders of Russia, Ukraine and Belarus signed an agreement to dissolve the Soviet Union. Resources from the "Soviet Union" ceased to come to Ukraine for solving various Chernobyl-related problems. Economic decline that followed forced the Cabinet of Ministers of Ukraine to reduce the number of "voluntary resettlement" communities to 49 in January 1993. The country was unable to provide resources for resettlement to the people from 751 communities that were excluded from the list. However, a huge programme of construction of housing and infrastructure continued.

For the purpose of this paper we will make just several observations on the Law "On social protection..." Naturally it was fully oriented on the soviet system, in which everything was produced by state-owned and state controlled enterprises, almost all goods were centrally distributed and everything was in scarce supply (in "deficit"). Because of this, many provisions of the Law were formulated in this way: "Chernobyl sufferers can receive certain goods and services "in the first place" or "without queue"". With coming of market economy during 90s these provisions lost their importance.

Essential feature of the law is that it **deals both with incurred damage (either loss of health or property, loss of jobs etc.) and with risks which have not yet resulted in real damage (risk of living on contaminated land, risk which poses to liquidators radiation exposure that occurred during their work at and around the Chernobyl NPP). And it is very difficult to determine the real levels of these risks**, although the National commission on radiation protection and other agencies made many attempts to resolve the problem.

Many benefits (especially for liquidators) were defined in the form of preferences - e.g. certain categories of liquidators were exempt from paying custom duties, excise duties, income tax and so on. This led to many abuses and later most of these privileges were cancelled.

Some provisions provided for sufferers' access to subsidies and cheap loans either for individual building of house or for opening own business. These privileges were mostly suspended by the year 2000.

A very large part of the Law deals with health care (which we will not touch here) and recreation. There are several articles, which preview direct payments to sufferers - e.g., addition to pension "for loss of health".

But on the whole the system of social protection was built in such a way that almost all budgetary resources were left in hands of responsible government agencies and then these agencies "served" the needs of sufferers. This was a typical soviet system that provided all opportunities of abuses, because the one who needed assistance had to ask for it. And it was a decision of authorised official to satisfy the request or to refuse - and with a total deficit of everything (as could be seen from the following sections) in no way was it possible to satisfy all requests.

Legislation evolved significantly over the past 20 years. As it is mentioned on the web-site of the Ministry of Ukraine of Emergencies, more than 800 documents regulate now Chernobyl related issues. Basic law - "On social protection..." - was modified 26 times: the first correction made 19.12.91 and the last 03.03.05. The law "On the status of territory..." was modified 8 times. It is clear that new law is needed, but due to the huge scale of territory and very large number of people affected it is hard to expect quick changes.

Number of sufferers

It is very difficult to describe the diverse and big pool of Chernobyl sufferers in a short paper.

Apparently the first are those who are considered sufferers according to the Law. As of 1 January 2002 in a special Data Bank there were data on 2,422,212 persons of a total 3,096,814 people registered by the State Committee of Statistics as Chernobyl sufferers ⁶. This comprises roughly 6 % of the population of Ukraine. There are two major categories: 335,785 liquidators (people who worked on liquidation in 1986-1990) and 1,709,146 sufferers (people who live or have lived in contaminated areas). These people are scattered all over Ukraine (see map on Figure 1, bars for oblasts with highest numbers, data from⁶).

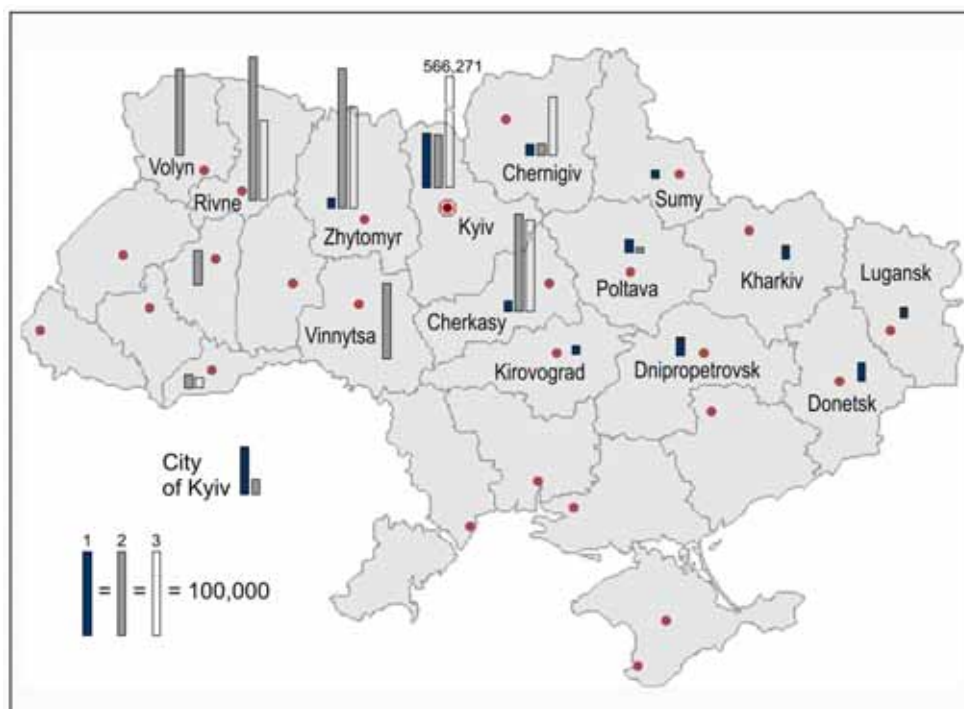


Figure 1. Number of liquidators of categories 1-3 (1), sufferers of categories 1-3 (2) and sufferers of category 4 (3) in some oblasts of Ukraine (bars are shown only for oblasts with highest numbers).

All liquidators and sufferers are divided into 4 categories, and receive benefits according to the category they have. A liquidator, for example, can have:

- category 1 if he/she is disabled (*invalid*) and his disability has causal relation with Chernobyl (this relation is established by an authorised panel of doctors);
- category 2 if he/she worked in the 30-km zone either any number of days before 1 July 1986, or more than 5 days between 1 July 1986 - 31 December 1986, or more than 14 days in 1987;
- category 3 if the number of days is big enough (it's specified in the law) but not sufficient for obtaining category 2.

Sufferers can have categories 1-3 if they live or have lived on the territory of mandatory or guaranteed voluntary resettlement (here again, category 1 is for disabled) or category 4 if they live in zone of "strict radiological control".

Children (evacuated, children who had lived in contaminated areas, or those with at least one parent-liquidator) constitute a separate very large group of 1,048,628.

Among liquidators and sufferers there are hundreds of thousands of those who already incurred damage either to health (number of *invalids* whose diseases have a proven causal connection with Chernobyl catastrophe reached 96,000 by 2002), or loss of property, or loss of family. There are 13,027 families who receive welfare payments due to the loss of provider.

There were doubts as to whether all those who were registered as liquidators indeed earned this status. From January 1997, 388,755 personal files have been reviewed, and 22,708 persons (6 %) were denied the status⁶.

Of course there are many people who have been experiencing hardships after the catastrophe, but are not listed in the registries. Of them we can mention members of the families of liquidators, or those citizens of Kyiv and other cities and towns who were waiting in queue (sometimes for decade and more) on a municipal or built by their enterprises flats and houses - and suddenly these flats and houses were given to families evacuated from Chernobyl zone. For thousands of families this meant additional years of life in over cramped conditions. Indirectly, the sufferers are all people of Ukraine who have been paying for liquidation with their tax money.

Dynamics of required and provided financial means

During the first period (1986-1989) the funding for liquidation of the consequences of Chernobyl catastrophe was provided by the budget of the Soviet Union, and only small portion of it was taken from the budget of Ukrainian SSR⁷:

Table 1. Expenditures directed on mitigation of the consequences of Chernobyl catastrophe, million roubles

Year	1986	1987	1988	1989, January-August
From the budget of Ukrainian SSR	-	70.8	76.4	95.4
Total	1585.5	1646.4	735.1	551.2

At that period the official exchange rate was roughly 1 rouble = 1USD. In 1986-1989, main component of social investments was construction of houses and social infrastructure (for evacuated and resettled). There was also significant funding for decontamination of soil and settlements. The volume of construction works done by only one leading Ukrainian contractor - Ukragrobud company - and its subcontractors is given in the following table. (Ukragrobud was a "head contractor", that means that it subcontracted other design and construction organisations as needed):

Table 2. Funding provided to Ukragrobud company for construction of housing and infrastructure for liquidation of the consequences of Chernobyl disaster in 1986-1989⁸.

Date of decision of Council of Ministers of Ukraine allocating funding	10.06.86	14.10.86	12.12.86	08.04.87	08.12.88	TOTAL
Allocated funding, million roubles	377.0	31.4	231.9	87.0	14.0	746.7

These figures do not include other construction companies, and they do not include the city of Slavutich, because the leading contractor for Slavutich was "Slavutychenergobud" company of the Ministry of Energy of the USSR. The cost of building of Slavutich is estimated at 490,000,000 roubles⁹.

After 1988, there was a general expectation that the problem of resettlement has been resolved, but it became obvious that many more thousand people have to be resettled in the safer environment.

There exist more information on the Chernobyl budget expenditures after the dissolution of the USSR¹.

Table 3. Chernobyl budget expenditure of Ukraine, millions of US dollars

	1992	1994	1996	1998	2000
Social protection	197.3	478.1	545.6	429.1	290.1
Special medical care	6.3	8.8	19.0	8.2	6.4
Radiation control	2.0	2.3	4.4	8.7	2.7
Environmental recovery	-	0.4	0.2	0.2	0.04
Radiological rehabilitation and radioactive material disposal	0.3	0.2	0.2	0.2	0.05
Resettling, housing and living conditions improvement	276.1	205.3	194.1	86.5	13.7
Other expenditures					
TOTAL	510.8	755.7	835.2	584.7	332.7

It is important to notice that the real GDP of Ukraine was steadily declining in 1990s (between 1991 and 1994 the national income of Ukraine declined by 60 %¹⁰), and the share of Chernobyl fund in the budget was also declining. However, the size of Chernobyl budget was still on the level of several percents of GDP (4.6 % in 1992, 1.9 % in 1993, 2.2% in 1994¹⁰). Of course it constituted even higher share in the national budget.

In the same time, the needs of Chernobyl programs were growing. This is clear from the following table¹¹:

Table 4. Funding for social protection of Chernobyl sufferers: needed, planned and provided (in million Hryvna)

Year	Average exchange rate of Hryvna ¹² \$US1 =	Needs according to Chernobyl legislation	Planned in the state budget	Planned, % of needs	Provided funds, % of needs
1996	1.83	2004.1	1150.8	57.4	49.8
1997	1.86	3291.7	1799.3	54.7	36.0
1998	2.45	3474.9	1953.5	56.2	30.2
1999	4.13	4408.0	1310.1	29.7	27.4
2000	5.44	5771.9	1578.4	27.3	27.3
2001	5.37	6731.5	1559.6	23.2	23.2

For example, the state budget of Ukraine (expenditures) for the year 2000 was 33,946.5 million Hryvna¹³, and Chernobyl needs were 5771.9 million Hryvna, that makes nearly 17 %. Provided funds amounted to 4.6 % of the state budget.

The gap between the needs and provided funds shows that the national economy was unable to carry the burden of Chernobyl expenditures required by the law. How could it happen? One explanation is that several generations of Parliament members became legislators using in their election campaigns promises to improve the situation for Chernobyl sufferers. So these Parliament members lobbied interests of Chernobyl fund, and probably not only for the benefit of the sufferers, but also to satisfy requests of numerous lobbyist groups who were making good money on Chernobyl related contracts. So far, the Parliament has been unable or unwilling to make fundamental amendments to Chernobyl legislation, and there are indeed serious social reasons for this.

Implementation of social protection measures

Measures aimed at solving economic problems of the sufferers

The area contaminated by Chernobyl radionuclides is agricultural. If we set aside a case of the satellite city of Chernobyl NPP - Prypiat (which we do not discuss in this paper), most economic activities in the area were agricultural or centred around agricultural production (processing of crops and other agricultural products, maintenance of agricultural machinery and infrastructure, transportation of raw materials and products etc.)

Papers and reports dealing with economic consequences of Chernobyl catastrophe usually speak about loss of production: loss of energy generated by Chernobyl NPP, loss of industrial and agricultural output, loss of agricultural lands. But social dimension of all these means loss of jobs, severe decrease in family income, loss of perspectives for future. Domination of publications on consequences for *economic output* is very characteristic both for the soviet era and for the first decade of post-soviet era, when economy was considered much more important than people who were just "work force" for national economy.

In Ukraine, however, even this account of economic losses was not done with necessary diligence. In Belarus, six national evaluations of economic losses caused by Chernobyl on its territory were prepared between 1986 and 1992, while in Ukraine this work started only in 1991⁷.

Ability to work and to receive a decent income is a basic social need. After the catastrophe, this ability immediately disappeared for tens of thousands of peasants whose work directly depended on agriculture: their crops were not needed, meat from their pigs and livestock could not be consumed, milk and products harvested in forests were contaminated.

It should be mentioned that during the first period after the catastrophe the state made significant efforts to keep economic life in affected areas running - even if the goal of that work was formulated in terms of "production", and not "saving jobs and family income". To a great degree both went hand in hand, and thus saved the economic potential and the employment.

On the contrary, decontamination measures in settlements proved inefficient¹⁴:

"As an example, let's take desactivation of settlements in the zone of "strict" control, which was done by contingents of civil defence. During 4 years, 1.5 million man-rem (120,000 people were involved) and 1.5 billion roubles were used on desactivation. Efficiency of this desactivation was very low. The radiation background was reduced by 10-15 %"

A whole series of agromelioration measures was developed and implemented between 1986-1994 on vast territories: application of lime - 4962 sq.km, application of higher doses of fertilisers - 7301 sq.km, improving meadows and pastures - 6137 sq.km. The intensity of these measures was 2-3 times higher than

before the catastrophe. Special measures were developed which allowed production of "clean" crops, production of "clean" meat and milk on contaminated territories¹⁵.

However, the funding provided for these measures were always low (see Table 3 above) - some 1000 times lower than funding directed for resettlement. So, the efforts aimed at keeping the economy running were insufficient and production (and hence the number of jobs) dropped significantly. The area of used arable land in four most contaminated oblasts dropped by 6.5 - 11.3 %. It is impossible to find in published materials information about creation of new (for this area) sectors of employment. It is hard to say whether this was possible - from the point of view of available humane potential, traditions and economic practicability, and only attempts could have provided an answer.

Only one new sector of employment emerged: control of radioactive contamination. As of September 1995 778 radiological laboratories were in operation only in the system of the Ministry of Agriculture and Food Production of Ukraine¹⁶, and there are other ministries and state committees. It is important, of course, but for local people information about radioactive contamination can be useful only if contaminated food products could be substituted - and usually this is not the case.

Equally serious problems waited evacuated and resettled on the new territories. There is no information about new industrial facilities, farms, greenhouses and the like in the long lists of what was built - only houses, schools, hospitals, roads etc. How could people make their living there, if jobs were in scarce supply in most areas even without Chernobyl resettlers?

In the Law " On the status and social protection..." there were provisions for small loans "to start small business or individual farm", but there is no information on how many people were able to use their chance. Apparently not too many.

It seems that only one business opportunity was intensively used until it was banned in 1995 - duty and excise free import of some goods (like vodka) on contaminated "Chernobyl" territories. But there is no information about benefits created by these activities for the territories and local people (and, respectively, about loss of income of the state budget).

Housing and social infrastructure

Construction of cottages, apartment houses, housing and social infrastructure (water pump stations, schools, kindergartens, hospitals, outpatients health centres, roads, gas supply pipelines etc.) was a major investment in the post-war period. As already mentioned, in early 90s annual expenditures for construction of houses and social infrastructures reached several percents of GDP. Total figures of construction between 1986-2000 are summed up in table¹:

Table 5. Housing and social infrastructure construction, 1986-2000

Houses and flats	28,692
Schools (number of places)	48,847
Kindergartens (number of places)	11,155
Outpatient health centres (visits/day)	9,564
Hospitals (beds)	4,391

The main effort was undertaken by August 1986, when 90,784 people were evacuated¹⁷. During 1990-1991 13,658 people were resettled from zones of mandatory resettlement. In all, by the end of 1991 105,000 were evacuated and resettled in mandatory order, and 58,700 people moved from the zones of "guaranteed voluntary resettlement" and other contaminated zones.

But the programme of resettlement continued, and by June 1996 additional 7,864 families were moved from zones of mandatory resettlement, while 5,852 (of them 1,426 families with children) were still living in these zones. It should be noticed that according to a special survey conducted in summer of 1995, only 56 % of families living in zones of mandatory resettlement were willing to move out¹⁷.

By the end of 2002, 1612 families still lived in the zones of mandatory resettlement, of them 762 families refused to be resettled. During 1990-2002 13,787 families were resettled from the zones of "guaranteed voluntary resettlement"⁶.

The figures above confirm that the huge work has been accomplished. The question is to what extent it solved the problem of Chernobyl? And were there other ways of handling these problems? We are not in a position to answer this question, but as it is stated by informed specialists:

"Unfortunately, the attempt of resettling Chernobyl sufferers into new villages practically failed - at that time they were still hoping that they would be able to return back to their houses in Polissia, and they did not want to settle on new lands. So, the big and hard work of construction workers was in fact used not for what it was intended ⁸".

So, the resources were used, and there were obviously many people who benefited - not only Chernobyl sufferers. There are several reasons that could be mentioned. First, major part of resources was not given to sufferers, but was transferred to different government agencies. Officials at all levels were responsible for planning (without consultations with ultimate beneficiaries - affected population). Officials were in charge of contracting construction companies and in charge of accepting their work. Officials were responsible for distribution of houses and flats. In the *Internet* Russian version of the book³, which could be found on the web site <http://stopatom.slavutich.kiev.ua/1.htm>, there is a page missing in the Ukrainian version (it should be placed somewhere between pp.88 -89), which provides evaluation of the results of the housing construction programme:

"...more than 500 of built houses were not inhabited by fall of 1986... In Chervonoye village of Yagotyn rayon by 1 June 1988 40 of 65 constructed houses were not inhabited, in Supoyevka village - 53 of 140. Main reasons for this were low quality of construction, unsatisfactory social conditions, absence of jobs for new settlers... When 27,800 inhabitants living in houses built for evacuated were inspected, it was found that part of them had no relation to evacuated. They were local residents and people from other "clean" areas of Ukraine and Russia who improved their living conditions."

Of course, a low quality and unfinished construction means that construction companies were overpaid and construction materials used for something else. Obviously there were a lot of abuses during distribution of houses and flats. At present, it seems unlikely that the truth about all this will ever be found and disclosed.

Compensations to sufferers and personal benefits

Benefits for sufferers have been provided in form of free access to some services (free treatment in sanatoria and rest houses, free or partly reimbursable tickets), privileges (tax exempt status, opportunity to import some goods duty free), access to cheap loans (for purchase of house or flat, or starting small business), easier access to budget-sponsored higher education in monetary form.

Access to loans and tax and custom duty privileges are already mostly annulled, some due to many abuses (it is said that some entrepreneurial liquidators managed to import without paying duty more than 100 cars each before this privilege was cancelled). On the list there are still many benefits which were valuable during the period of socialism, but which in fact lost most of their importance at present, because of the changes in the society, which looked during last decade more like a "wild capitalism".

A very big sector of social assistance is free medical service (annual medical examinations, free medicines and so on) and free health improvement holidays for adults and children. This is arranged between authorised government agencies and sanatoria/rest houses located all over Ukraine. Officials are responsible for signing and paying contracts with sanatoria and "control of the quality of provided services". Vouchers are distributed by various authorised agencies among liquidators, sufferers and children.

The numbers of those who used these free vouchers are impressive (data from¹ and ¹⁸, although they do not match precisely).

Table 6. Number of Chernobyl sufferers (1,000 persons) who used health improvement holidays

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Adults	214	160	354	185	96	49	49	37	42	30	25
Children	182	282	320	505	300	401	453	467	482	427	348
Total	396	442	674	690	396	450	502	504	524	457	373

However, due to the insufficient funding only a fraction of those who have rights to use this benefit according to the law, were able to enjoy it. **In 1991, the system served each second sufferer, in 1992 - each third, in 1995 - eighth** (*ibid.*) The question remains whether the funding that was provided from the state budget was used in the most efficient manner. With such deficit of free vouchers all sorts of abuses could happen, and all people who have experience of living in the system of "developed socialism" know what might be a quality of "free services". Also there were little stimuli for sanatoria and rest houses to improve the quality and economic efficiency of their services, because in fact they were not competing on the market - their goal was obtaining a wholesale contract from a government official.

Liquidators of categories 1 and 2 (see section "Number of sufferers" above) have a benefit of free use of public transport in cities and free use of commuter trains. This provision cannot be regarded as really fair, because for a person living in a big city this privilege could amount to some \$100-150 a year, while it is useless for someone living in a village. Serious problems with this benefit appear due to strengthening of market system: transportation companies want to be reimbursed for their services, but nobody knows how many rides liquidators make - they do not receive tickets of any sort. Only recently it became necessary for any possessing such benefit to obtain free ticket on commuter trains so now a railway company can count what it spends on Chernobyl sufferers.

Many benefits for sufferers of all categories are paid in monetary form. These payments comprise the biggest share in Chernobyl budget, and they are important for hundreds of thousands of liquidators and people living on contaminated territories.

Those who were evacuated or resettled from the zone of mandatory resettlement, or who moved to clean areas from the zone of "guaranteed voluntary resettlement" have received compensations for lost property: houses and other buildings, crops, livestock, fruit trees etc. This process is ongoing (partly because it involves also heirs of those who were resettled), partly because of significant changes in pricing during past 18 years. In accordance with the laws adopted in 1996 and 2002, compensations paid between 1992-1996 (during the period of galloping inflation) have to be recalculated into current Ukrainian currency (hryvna) and paid to sufferers by 31 December 2007.

People living in contaminated areas receive several forms of compensations. The basis for their calculation is usually minimal salary, which is fixed by the government for each year: in 2004 it was 262 hryvna (about \$50) per month. Payments are different for different categories, usually they include:

- monthly payments as compensation for restrictions on the use of locally produced food (30-50 % of minimal salary) for those living in contaminated areas;
- additional annual payments for those who live and work in contaminated areas (1-3 minimal salaries);
- higher salaries for civil servants and workers of budget organisations (like schools, hospitals etc.);
- higher pensions and scholarships.

Liquidators, invalids (disabled, whose disability is caused by Chernobyl catastrophe) and liquidators-pensioners also receive some payments in monetary form (annual payment for recreation, payment for

food, addition to pension) and some payments as discounts, e.g. reduced communal payments (water, heat, telephone etc.)

On the whole, regular payments to sufferers play extremely important role for them and their families. Very often these payments are of the same level or even bigger than an average wage a person can earn in his/her locality. Other benefits like health care, sanatoria, free public transport are also important, although there is a need to improve efficiency of them.

Evolution of the national policy and international assistance

Country's policy on liquidation of the consequences of the Chernobyl catastrophe was approved by the Parliament in February 1993 as a "Concept of the national programme of liquidation of the consequences of Chernobyl catastrophe and social protection of citizens for 1994-1995 and for the period until the year 2000". It worth to note that it was not the "national programme", but a "concept" - a legal act of no immediate force, so practical work was regulated by the effective laws.

In 1996 the Parliament turned down a bill "On radiation protection of people", which might had provided a legal basis for national actions. However, in February 1997 the improved version of the bill passed the first reading and in January 1998 the Law "On the protection of man from ionising radiation" entered into force. The Law is not retroactive, but together with the Law "On the protection of population and territories from extraordinary situations of technogenic and natural sort" adopted in 2000 it provides necessary legal basis for potential future nuclear disasters.

The "Concept of the national programme..." mentioned above should have been replaced after the year 2000, and in November 2002 a bill "On the national programme of minimisation of the consequences of Chernobyl catastrophe for 2002-2005 and for the period until 2010" passed the first reading in the Parliament. However, as of March 2005, it has not been submitted for the second reading by the Parliament. Institutional changes are also considered, namely creation of the special State Committee dealing with liquidation of the consequences of Chernobyl Catastrophe (see, for example ¹⁹).

As we already mentioned, international assistance focused mainly on the issues of Chernobyl NPP, including damaged reactor and shutting down of the remaining reactors. Significant support was also provided for managing the 30-km exclusion zone and for the social assistance to Chernobyl NPP workers and the city of Slavutich. Many international organisations, including organisations of the UN system, governments and non-governmental organisations provided humanitarian assistants to Chernobyl sufferers. Detailed account of these efforts can be found in ²⁰.

Among other efforts the UNESCO-Chernobyl Program which was implemented in three countries (Belarus, the Russian Federation and Ukraine) should be mentioned. It was launched in 1991 and terminated in 1997. Although the work was fully relevant to the sufferers' needs, and more than \$9,000,000 was mobilised, the results did not have a follow-up (except for one project), and the running costs and costs not directly benefiting the Chernobyl victims were very high (executive summary of the external audit of the programme²¹). Anyway, this effort could not influence the situation significantly - during that years annual budget expenditures of Ukraine on social Chernobyl programs reached US\$200-500 million (see Table 3).

In Ukraine, with the support of the UNESCO-Chernobyl Programme, three centres of social-psychological rehabilitation of population were established by the Ministry of Ukraine of Emergencies in 1994 and two more centres in 2000. These centres provide advice and psychological help to most socially unprotected groups of population (liquidators, resettled, disabled, unemployed, young people). A goal of the work of these centres - abatement of general tension and alarm among population, professional orientation for young people and unemployed, environmental education and information activities. More than 50,000 people appeal to these centres each year²².

In 2002, UNDP in Ukraine, along with the Ministry of Ukraine of Emergencies and Affairs of Population Protection from Consequences of Chernobyl Catastrophe, launched Chernobyl Recovery and

Development Programme (CRDP). CRDP addresses issues highlighted in the joint UN report¹. CRDP is currently funded by the UN and the governments of Switzerland, Japan and Canada. So far over \$3,000,000 was acquired, and the programme is expected to run until 2007²³.

CRDP components include policy development, community development, social development, economic development and environmental recovery. Until the end of 2004, the programme worked in 63 communities in 3 oblasts of Ukraine (Kyivska, Zhytomyrska, Chernihivska) and from 2005 6 more rayons will be added. Over 70 community development projects were implemented in 2003-2004, with funding coming from communities themselves (20 %), local governments (50 %), CRDP project (30 %) and other sponsors (10 %). More than 90 community organisations were formed and received support in the form of training, development of networks of business services providers and initial grants. The programme also provided information materials on environmental recovery and development opportunities in agriculture, water supply, energy efficiency and other issues.

Conclusions

A huge system for social protection of Chernobyl sufferers has been built in Ukraine during 19 years. In principle it is a "soviet-type" paternalistic system, in which government officials take almost all decisions, and sufferers are "dependants". Major part of financial resources stays in hands of responsible government agencies. The figures of budget lines (after 1995 when the published state budget became more detailed) confirm this conclusion. E.g., in 1995 money allocated for those "who are moving out of Chernobyl zone individually, and state construction programme for liquidators of category 1" comprised 16 % of money allocated for state construction programme (for Chernobyl sufferers); in 1996 - 38 %; in 1997 - 44 %; in 2000 - 39 %. Apparently this ratio was even lower before 1995. (It is not clear how much was paid directly to people for individual building, and how much was spent for state-contracted construction of housing for sufferers of category 1).

Similarly, with health improvement holidays main part of money is spent by government agencies. For example, average price of one recreation voucher in 2000-2004 was around \$150, while direct annual monetary payment for "recreation" to each liquidator of category 2 was equal around \$5. Compensations for unused holidays were also several times lower than the price of recreation voucher, and they were not always paid.

The system that emerged probably gives people some feeling of safety, but it does not stimulate initiative. As sociological investigations show, an attitude of "dependant" became a common feature among Chernobyl sufferers²⁴. People do not take initiative in their hands, and often do not want to take such initiative. Social monitoring in contaminated territories and among sufferers is needed; it could have helped in finding solutions. Such monitoring was started in 1997, but after several years discontinued on the initiative of the Ministry of Ukraine of Emergencies (ibid.).

It is clear that the current system of social assistance to Chernobyl sufferers needs serious reforming, but this reform cannot be abrupt due to very big numbers of those which depend on this system and the fact that many people, excluding children, are not at all young - an average age of liquidator in 2004 was 52 years. We would agree with the conclusion of the UN Report¹ that several years of preparation are needed. The Report proposed a ten-year Recovery Phase of initiatives:

"The new approach should focus on enabling the individuals and communities affected by the disaster to enter fully into society by taking control of their own lives and acquiring the means for self-sufficiency through economic and human development" (ibid.).

New and much more significant efforts are needed for careful investigation of the current situation and formulation of possible solutions. All this should be done in an open and transparent manner and with intensive public consultations. Only after this, the needed changes to the system could be made without creating additional psychological stress for sufferers and serious risk for the stability of the social situation

(we should learn lessons from Russian experience with monetarization of benefits in the beginning of 2005).

Those who formulate the state policy of social protection of Chernobyl sufferers should not concentrate on struggle for higher budget allocations (which is probably impossible), but on finding ways of better use of available resources with the goal of creating the situation when sufferers and territories become economically and socially self-sufficient.

Case study: the town of Poliske, Kyiv oblast

Poliske (Russian spelling Polesskoye) - a settlement (town) in Kyiv oblast, centre of Poliske rayon. Population 11,300 (1986). Sewing, furniture, flax processing factories. Cannery. Production of construction materials, logging and lumber processing.

(Ukrainian Soviet Encyclopedic Dictionary, 1987).

The town of Poliske is located 55 km to the SW of Chernobyl NPP, on the river Uzh, in geographical province of Ukrainian Polissia. The region is known for its ancient and unique culture. The town (known as Khabne before 1934) was first mentioned in written documents in 1425.

(As it was shown by later investigations, the town lies on the Southwest trace of Chernobyl fallout, with contamination by Cs137 between 15-40 Ci/km² and more. In 1987-88 scientists (who were closely involved in drafting the boundary of the 30-km zone back in 1986) told the author of this paper that they knew that Poliske should have been evacuated, but a town with a developed infrastructure was badly needed to serve various logistical purposes - laundry, etc. - and thus it was decided to leave it outside the zone. Moreover, nearly 28,000 people from Prypiat and evacuated villages were temporarily stationed nearby Poliske between 27 April - 5 May 1986²⁵).

A secret report, prepared 25.05.86 by the USSR State Committee on Hydrometeorology, listed Poliske among 15 settlements where the level of gamma-radiation on 10 May 1986 was between 3-5 mR/h. Settlements with levels over 5 mR/h were subject to "temporary resettlement"²⁶, which in effect turned out to be permanent).

In 1986 and later - in 1987-1989 - when many villages were resettled, the town was not evacuated. Instead, a massive decontamination effort was undertaken: replacing roofs and fences, removing contaminated asphalt and paving roads, squares and school yards with new asphalt etc. These works were executed by men aged 30-40 years liable for military service (nicknamed "partisans"), who were drafted for "temporary military service". Effectiveness of this "decontamination" proved to be insufficient for making living conditions safe.

(In the fall of 1988, when the author worked in Poliske conducting yard-by-yard measurements of soil contamination with caesium, he had a chance to present some results and to talk to the Head of Rayon administration. Results clearly showed that contamination exceed all existing limits, but the Head of Rayon insisted that "It is our land, we were born and we will live on it, and we will stay here". It is hard to say what were his reasons to insist on this position - local patriotism, underestimation of danger, willingness to obey orders or some personal agenda. His own position could have been important - he was a Member of the Supreme Council (the Parliament) of the USSR, and that meant high level of authority. Of course there were no consultations with the public...)

Millions of roubles were invested in social infrastructure - new hospital, a whole district of multi-story apartment houses, natural gas pipelines and gas ovens for individual cottages, summer vacations in "clean" regions for children and adults, - this is an incomplete list of measures undertaken by the state in 1986-1991.

Serious efforts were applied to continue (and even increase!) agricultural production in the vicinity of town and the processing of agricultural products on the town cannery. Looking from present time and knowing what we know now, it must seem at least strange, because processed food products included wild berries and mushrooms, dairy products, vegetables... Milk and meat production, working vegetable gardens, flax growing and processing, logging, production of construction materials - all these activities mean work on soil or in a forest - that is, breathing dust.

In 1996, a special Resolution of the Cabinet of Ministers classified certain places outside the 30-km zone, where working conditions in 1986-87 should be considered equally dangerous as in the zone itself. Among them were Poliske rayon hospital, Poliske flax processing factory, dosimetric stations on the road Dibrova-Poliske-Vilcha, Poliske station for deactivation of vehicles and other machines. Equal status received also workers who were involved in logging in nearby forests, as well as those who worked on reforestation and sowing grass on abandoned lands.

(In the same meeting with the Head of Rayon administration the author also raised an issue of compensations. I argued that these should be diversified according to the living and working conditions of people, and hence potential (and actual) radiation doses. It is easy to understand that a person living on a second floor of a concrete house with tap (artesian) water supply and a central heating receives much lower doses than many others who live in wooden cottages, take water from private water wells in the yard and heat their houses with locally collected firewood. Even bigger difference must be between doses of a tractor driver and an accountant sitting in the office where the floor is moped out five times a day. However, the reaction of the Head of Rayon was straitforward: "We all live in this settlement, so we all must receive same compensations").

By early 90s, when information about the real levels of radioactive contamination in the town became widely known and most people acquired adequate and often exaggerated understanding of radiation related risks, the feelings in the town were close to frustration. People, especially those with little children (there were two schools and three kindergartens) were looking for all possible ways of leaving the town. But they needed permission - without such permission they could not receive compensations for the property left behind, and thus their fortune in any new place would be miserable.

(An international community was well aware of Poliske problems. Thus, for example, in 1991 a Swiss organisation SKH equipped Poliske rayon hospital with modern diagnostic equipment and organised permanent consultations of patients and doctors by Swiss specialists, who stayed in Poliske on shift basis. Many other teams of doctors, experts in dosimetry and radiation medicine visited Poliske).

Despite many efforts to improve the radioecological situation in the town, contamination remained too high. So, the Resolution of the Council of Ministers of Ukrainian SSR (CMU) of 14 December 1989 gave permission to families with children under 14 to leave the town if they were willing to. Two months later in February 1990 followed the decision on mandatory resettlement from Poliske of families with children and pregnant women. But of course there were no free houses and flats to implement this decision immediately... And then at last followed a decisive Resolution of the Council of Ministers of 23.08.90 on "mandatory resettlement" of all population of the town. Later this decision was repeated in the Resolution of CMU № 106 of 23.07.1991 in which the town of Poliske was listed among other 86 Ukrainian communities as destined for "mandatory evacuation".

(In 1990, the author accompanied to Poliske a large delegation of Parliament Members, doctors and journalists from Switzerland. The delegation met with town officials, who told about their efforts to make living conditions safe. Only one MP from Ukrainian Parliament joined his nine Swiss colleagues and 40 journalists for that visit.

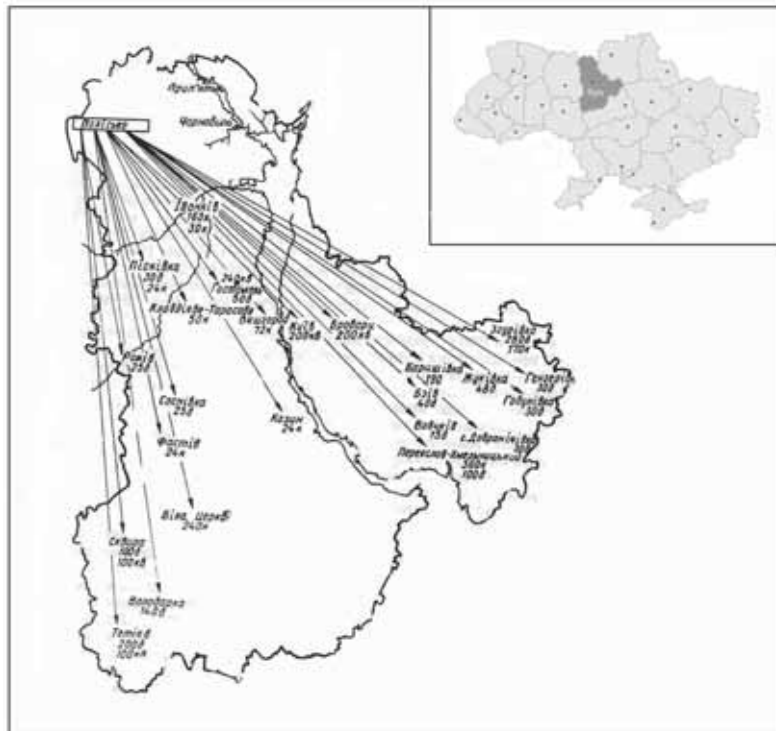


Figure 2. Resettlement of the town of Poliske. Numbers near the name of the town (village) indicate numbers of flats or houses built or provided for Poliske's resettlers.

Later that year a team from Swiss TV (Vladimir Tchertkoff) interviewed teachers at school and kindergarten, and they complained that radiation levels remained high, and that desactivation did not have effect. Parents told about incredible bureaucratic obstacles in obtaining permission for resettlement. It was still a soviet era, and people were not free in choosing the place to live - permits to settle depended upon decisions of the state officials. Later on, in 1998, Tchertkoff's team revisited some people from Poliske - in suburbs of Kyiv and in Kyiv oblast where they lived - and these people told about unbearable humiliation they experienced when the decision on evacuation eventually was taken: they needed to bribe officials to be resettled earlier, to receive better compensation for their property, to choose a place of resettlement...)

Resettlement of some 10,000 people was not an easy job. The government tried to relocate people in large groups to preserve to the extent possible existing families and traditional relations, to make it easier to the people to start new life on new places. But of course there were problems with new construction, demand for new housing was very high. People from Poliske were resettled to 50 different communities in Kyiv oblast (see map from ³ on Fig.2), 9 to 560 families in each. Rarely were they able to renew old traditions on a new land - not only surrounding nature was different, but quite often people from "host" communities were hostile to newcomers. Due to economic hardships of mid 90s, jobs were in scarce supply and no one wanted competitors. Older people who were willing to wait sometimes received better living conditions - they were moved by groups as communes (usually these were neighbourhoods from one or several streets of Poliske). There are several examples, like a half-isolated settlement (which later became a part of the town of Berezan), where people from Poliske have formed a compact commune and live friendly with their neighbours. However, since there are no jobs for younger generation, life in this commune dies out.

After all remaining inhabitants (most of them pensioners) left the town in early 1996, during some period its destiny remained unclear: legally it was still the centre of Poliske rayon. The end to the Poliske's almost 600 years of civil history was enunciated by the Decree of Verkhovna Rada (Parliament) of Ukraine N 204 of 10.07.1996 "On moving the centre of Poliske rayon to the village of Krasiatychi". When

the resettlement of the town and all legal procedures were completed, the deserted town was passed under the jurisdiction of the Administration of the 30-km zone.

(Several times after this the author visited Poliske. The view was really pathetic... Of all town's life, militia quarters were guarding the empty town form looters; paramilitary fire brigade was permanently on alert because of numerous fires in forest around the town. Newly-built apartment houses and century-old cottages with new gas-heating ovens were gutted - partly by their owners who removed all that could be used for their new houses (like windows, doors, pipes and toilets etc.), partly by looters. A dozen of older people who refused to leave their houses and self-settlers from nowhere who live in the town depend on bread supply from a bus-shop that made stop in the town once a week. The hospital built and refurbished in 1987-1991 is in operation, but now it serves the needs of the workers of 30-km zone).

Addendum 26 April 2008

The work on this paper was completed in April, 2005. Few significant changes occurred during three years that have passed. Some information and recent data are provided below.

In March 2006 a "State Programme of Mitigation of the Consequences of Chernobyl Catastrophe for 2006-2010" was approved by the Parliament. It lists numerous activities that need to be implemented to improve social situation, including new legislation, systemic approach, scientific justification of measures etc. Main problem with this, as well as with other governmental programs, is that there is no money in the state budget to fully fund it.

It is estimated that the total costs spent by Ukrainian government between 1991-2005 on liquidation of consequences of Chernobyl disaster have reached about 8 billion US\$ (Section 3 of the "Programme...")

On 16 April 2008, a hearing dedicated to the 22nd anniversary of the Chernobyl disaster was held in the Parliament of Ukraine. For this hearing, the Cabinet of Ministers of Ukraine prepared "Reference materials". Follow some figures from these "Reference materials", which provide up-to-date information.

The number of Chernobyl sufferers which are registered by the Ministry of Labour and Social Protection was (as of 01.01.2008) 2,376,218, of them: 276,327 liquidators (including 65,361 disabled), 2,099,891 sufferers (including 41,242 disabled and 541,641 children). Compensations, pensions and payments for liquidators and sufferers have been increased during 2005-2007. Budget allocation for social protection and pensions of Chernobyl sufferers for 2008 was increased by 27.8 % comparing to the year 2007, and reached 5,947,200 UAH (approximately US\$1.2billion). Unfortunately, inflation and rising food prices will significantly reduce real benefits for sufferers.

In 2007, the total of 147,110 sufferers used "free" health improvement holidays (compare Table 6 above). "Free" vouchers were provided to 15.5 % children and 1.4 % adult sufferers.

The ongoing work on "dozimetric pasportization" (calculation of average doses obtained by inhabitants of particular settlements) indicate gradual decrease in number of settlements where people obtain high doses of radiation. Of 2130 settlements where this work has been performed, the data for 2002-2006 are distributed as follows:

Table 7. Number of settlements according to average calculated dose of irradiation of population

Year	Dose, mSv/year				
	<0.5	0.5 - 0.99	1.00-3.99	> 4.0	Milk > 100 Bq/l
2002	1471	317	368	7	406
2003	1538	334	289	5	339
2004	1551	405	202	5	363
2005	1716	298	112	4	134
2006	1763	294	72	1	84

It becomes clear that status of some settlements could have been revised: thus, in accordance with the effective legislation, there are 86 settlements in the zone of mandatory resettlement, and according to passportization data there should be 45; in the zone of "guaranteed voluntary resettlement" there are 841 settlements and could be 447. However, necessary legislation for such changes has not been passed yet.

The funding for radiological reclamation of agricultural lands in 2003-2007 was increased to about 5 mln Hryvna/year (in previous years it was about 2-3 mln Hryvna/year). Comparatively larger share of this funding is now allocated for purchase and application of higher doses of fertilizers and production of fodder with radioprotective additives. However, because the total level of funding for improvement of radioecological situation in contaminated areas was reduced after the year 2000 to about 12 mln Hryvna/year (while at least 20 mln Hryvna/year is needed), there are no significant improvements and current activities just keep the situation under control.

One of main issues raised at the Chernobyl hearing 2008 was significant underfunding of commitments which should be funded according to the effective Chernobyl legislation (compare Table 4 above, which shows that only about 25 % of needed funding was indeed allocated. The situation during recent years was either similar or worse). Many MPs stated that it is necessary to "gather political will and pass new Chernobyl legislation instead of outdated law of 1991", but with permanent political instability and populist habits of all Ukrainian parties it is unlikely that such legislation would be passed in the near future (controversial experience of Russia in this area is also quite discouraging). This means that the government bureaucracy will have same opportunities to manipulate insufficient funds as it has had before.

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