

SITUATION REPORT No. 1
Appeal Ref. No. 50/92

May 21, 1993

CHERNOBYL HUMANITARIAN ASSISTANCE AND REHABILITATION PROGRAMME

1. SUMMARY

It is now seven years since the Chernobyl Nuclear Plant Disaster (CNP-Disaster) on 26 April 1986. According to information released on the eve of the seventh anniversary of the catastrophe, 10 million people continue to live in the contaminated areas, among them 780,000 children. In Ukraine alone, 150,000 people, including 60,000 children were affected by radioactive contamination.

Thousands of experts and specialists worldwide have been participating in studies and practical efforts to alleviate the consequences of the disaster. However, it is becoming more and more obvious that we are only at the beginning of understanding the actual dimensions of this catastrophe for the health and well-being of the people living in the affected areas.

Since January 1990 the International Federation of Red Cross and Red Crescent Societies has been assisting the National Red Cross Societies of Belarus, Russian Federation and Ukraine in executing the Chernobyl Humanitarian Assistance and Rehabilitation Programme in the most affected areas of three countries. More than 200,000 people benefited from the services of environmental gamma-radiation monitors, food-monitors and Mobile Laboratories. Innumerable single measurements were taken to provide people living in the affected areas with accurate and reliable individual information on the levels of contamination in their dwellings and food and on the state of their health.

The situation in the affected areas continues to be of growing concern. The cases of thyroid cancer and other diseases presumably caused by radiation are on increase from year to year. An ongoing and deepening economic crisis and declining health services contribute negatively to this situation.

2. GENERAL SITUATION

Based on a Survey Report prepared for the Federation by a Group of International Experts in January 1990, a joint Federation/Operating National Societies programme has been designed to assist the people living in the areas contaminated with radioactivity after the CNPP disaster in 1986. At the start of the Programme the Red Cross workers were provided with 350 environmental gamma-radiation monitors and 12 food monitors. This equipment enabled the National Societies to detect the extent of radioactive contamination in the living space as well as in foodstuffs.

Although the Red Cross has not been able to replace contaminated food with uncontaminated food, the results of the measurements allowed warnings to be issued to people on the dangers of consuming certain locally produced food and to provide them with information on simple methods to reduce irradiation of food. These efforts created confidence among the population in the Red Cross assistance programme.

As a further step six Mobile Laboratories were purchased and handed over to the operating National Societies. These Laboratories are mobile diagnostic centres equipped with modern technology for screening and early diagnosis of a large number of patients (up to 100 per day by each Mobile Laboratory). Many people especially in rural areas who had not seen very often a physician or a radiologist since the beginning of this disaster thus gained access to early diagnostic facilities. Altogether more than 70,000 people were examined in 1992. A growing number of health disorders were detected, including specifically thyroid cancers. Recently, 30 cases of thyroid gland disorders were diagnosed by the Red Cross Gomel Laboratory (Belarus) during two working days. The work of the Red Cross Rovno Laboratory (Ukraine) in one village resulted in advice to almost 360 out of 400 persons who were screened, to seek more profound examination at the specialised clinics. Undoubtedly, a lot of people have been given a greater chance of survival and proper treatment.

On 2-5 November 1992, the Ministry of Health of Ukraine hosted an International Workshop on the alleviation of the consequences of the CNPP Disaster. Among the participants were representatives of UN, WHO, UNESCO, health and radiological experts from many countries of the world. At this meeting the Governments of Belarus, Russian Federation and Ukraine signed an Agreement with the United Nations on coordination of health-related programmes/projects. A list of priorities for long-term programmes (until year 2000) was discussed and agreed upon. It was suggested that future efforts should concentrate primarily on the creation of medical centres for examination and treatment of children and adults, equipping of medical institutions in the contaminated zones, creation of socio-psychological rehabilitation centres for children and teenagers.

On 13-14 April 1993 the Presidents of the Red Cross Societies of Belarus and Russian Federation and the Vice-President of the Ukrainian Red Cross who attended the meeting of the Chernobyl Red Cross Programme Coordination Committee confirmed that the Programme has vital importance for preserving health and well-being of the population living in the contaminated areas and committed full support on behalf of their Societies to its further progress.

On 17 May 1993 the Committee held a follow-up meeting in Kiev which observed the progress achieved in April-May. At this meeting the President of the Belarus Red Cross announced that the Government of Belarus had decided to provide substantial financial support to the Red Cross Chernobyl Programme.

The Programme is in the second year of its implementation and does not concentrate on purely scientific aspects but is aimed at meeting the immediate health-related needs of the affected population.

One of the main problems continues to be the psychological situation of those affected by the disaster and fear of the unknown and unseen consequences. Therefore, it is of the utmost importance to offer the affected population facilities for early diagnosis and regular screening. The Programme seeks to provide individual counselling about the extent of risk to each person's health. Rapid diagnosis and the large-scale spectra of radiological and medical examinations enable Mobile Laboratories to accurately answer the concerns of the people who are turning to their services.

Discussions with people who were tested in the Mobile Laboratories show that the value of screening on-the-spot, which includes the immediate hand-over of results to the persons concerned, cannot be overestimated. It is an important factor in establishing confidence in the work of the Red Cross.

Another important measure is the distribution of vitamins and minerals. Application of vitamins is an important step to protect the human body against the negative effects of exposure to permanent low dose radiation. Altogether, more than 150,000 ampuls of calcium-gluconate and vitamin B compounds have been distributed in addition to 9,000,000 tablets of vitamin C. This is equivalent to the annual requirements of 25,000 people.

Originally, the programme was not designed and equipped to collect data for scientific studies. The aim is to identify sick persons, to counsel them and to send them for further treatment, if necessary. However, it is a fact that a lot of data has been collected during the daily work. Therefore, potentially the programme may contribute to the work of many specialized agencies which are engaged in study and alleviation of the long-term consequences of the nuclear disaster.

During 1992 the Federation Delegation in Kiev established an EDP-system to process data collected in the affected areas and to provide information on the following:

- identifying target groups for follow-up measures;
- following the fate of people with identified disorders;
- supporting public health services;
- adapting the Programme at any time according to the most acute requirements;
- monitoring the consequences of the disaster;
- setting up a surveillance system as a base for a further medico-social care programme.

3. RED CROSS ACTION

3.1 Environmental contamination

In 1991, 350 gamma-radiation detectors became operational. This allowed operating National Societies to immediately provide a huge amount of reliable information on environmental contamination directly to the population and to the authorities. However, this information continued to be supplementary to measurements taken regularly by the specialized governmental agencies.

In many cases these supplementary efforts by the Red Cross Societies relieved the mental strain on people living in the areas where gamma-radiation was found not to exceed the natural environmental level (0.04-0.20 mkSv/h).

The radiation levels detected by the Red Cross workers during April-December 1992 in two regions (out of six where the Red Cross programme is implemented) were as follows:

Region/Oblast	Samples	Min (mkSv/h)	Max (mkSv/h)
Gomel/Belarus	306	0.058	1.520
Rovno/Ukraine	581	0.080	0.520

The above table demonstrates that this part of the programme is still important, specifically in terms of targeting the Mobile Laboratories to areas with high environmental contamination.

At the same time, according to the specialists the radiological situation continues to be unstable. Radioactive contamination is moving due to meteorological and other factors. Therefore, this part of the programme will need to be strengthened further.

3.2 Food monitors

Today one of the most important factors increasing risks for health is the intake of radionuclids with foodstuffs. Food monitoring therefore is an important measure to detect and prevent Caesium 137 incorporation into the human body. The following data collected by Gomel and Rovno RC Mobile Laboratories discloses the origin and extent of contamination of foodstuff.

Gomel region: Altogether 3,923 samples of different types of food (oblast) were measured in the areas where the Mobile Teams have been working. Excess of radiocaesium was detected in 56 cases from April to December 1992.

Food	Cases	Min. (Bq/kg)	Max. (Bq/kg)	Max. level accepted in Ukraine
Drinking water	10	23	83	18.5
Milk (private production)	10	190	267	185
Mushrooms	26	390	4595	370
Boar	1	---	4795	600
Jam	4	252	1143	370
Berries	2	292	515	600
Fish	1	---	839	600
Honey	2	461	4580	370

Rovno region: 626 samples of different types of food were measured in (oblast) the areas where the Mobile Teams have been working. Excess of radiocaesium was detected in 73 cases in April-December 1992.

Food	Cases	Min. (Bq/kg)	Max. (Bq/kg)	Max. level accepted in Ukraine
Milk (private production)	41	201	1443	185
Mushrooms (fresh)	7	631	2149	370
Mushrooms (dried)	12	1230	5858	---
Berries	9	375	923	600
Honey	4	583	1110	370

These figures confirm the acute need for continuous monitoring of foodstuff mainly in rural areas where the percentage of privately produced products is traditionally high. To diminish the risks for health linked with the consumption of contaminated foodstuff, RC workers are counselling and distributing leaflets and booklets with information on how to avoid or to treat contaminated products. With the support of the German Red Cross, the Russian Red Cross produced a booklet (100,000 copies) on means to decrease contamination of food. This booklet is distributed in the affected areas free of charge to the population.

3.3 Mobile Teams/Laboratories Project

Undoubtedly, the Mobile Laboratories are the most challenging part of the Chernobyl Programme. More than eighty percent of the workload is linked with organizational and logistical questions concerning their running. When the Mobile Teams started to work in the beginning of 1992, there was no experience in running mobile diagnostic centres. Therefore, 1992 must be considered as a trial year. Nevertheless, the results of this trial period could be considered as generally positive.

According to the established schedule, the Mobile Laboratories are working mostly in rural areas where adequate health services are hardly available. Following the results of the work of two Mobile Teams (Gomel and Rovno) given to Kiev Delegation, the efficiency of the teams must be underlined here.

Checking six districts during 1992 the Gomel Team (Belarus) has produced the following results:

	Patients	Disorders	%
Whole Body Monitoring	3,356	33	0.98
Blood Analysis	2,322	276	11.87
Urine Analysis	878	437	49.77

The medical examination of patients allowed to detect the following diseases:

Diseases	Cases
Thyroiditis	13
Nodules in thyroid gland	31
Thyroid cancer *	62
Leucocytoses	108
Iron deficiency anaemia	88
Vitamin B-12 anaemia	90

*Exclusively in children under 14 years.

Information regarding all these patients has been submitted to the National Health Register. They were recommended to approach the Specialized Gomel Dispensary for more specialised diagnosis and treatment.

The following figures were supplied by the Rovno Team (Ukraine) for 1992:

	Patients	Disorders	%
Whole Body Monitoring	11,900	2,157	18.12
Blood Analysis	3,734	612	16.39
Urine Analysis	2,990	not given	---

Among the patient with disorders were detected:

Diseases	Cases
Thyroiditis	21
Thyroidal Hyperplasia	151
Nodular goitre	17
Thyroid cancer *	6

*Exclusively in children under 14 years.

Timely diagnosis of thyroid cancers by the Mobile Teams allowed these children to be operated on. Rapid diagnosis by the Mobile Teams allows

allows provision of immediate information on state of health. The Red Cross has become an important support to the health authorities in the affected areas in a situation where the public health institutions are overstressed and weakened by a difficult economic situation.

3.4 Plan of Action for June-December 1993

During the period before the end of 1993 the Federation and the operating National Societies are planning:

- a) to consolidate and improve the structure of collecting and processing information on the health status of the population in the affected areas;
- b) to equip Mobile Laboratories with ultra-sound scanners to increase the efficiency of diagnosing thyroid gland disorders, specifically among the children;
- c) to aim at closer integration of the Red Cross Programme into the epidemiological surveillance structures of the governmental health authorities;
- d) to organize independent evaluation of the progress of the programme by a group of international experts on radiology and health aspects related to nuclear disaster;
- e) to convene an international workshop (September 1993, Kiev) to study and share experience and information on the Chernobyl Humanitarian Assistance and Rehabilitation Programme.

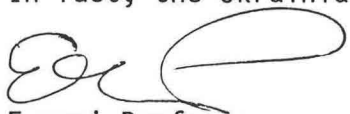
4. CONTRIBUTIONS

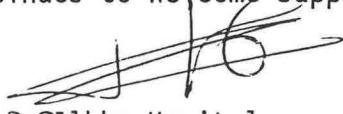
Please see attached annex.

5. CONCLUSION

Response to the Federation Appeal no. 50/92 has been so far below the minimum requirements as to force the Federation to readjust the priorities and cancel its initial plans related to the utilization of a number of food monitors and the purchase of additional laboratory equipment. Lack of funding also does not allow an increase in the number of parameters in blood testing to meet the standard requirements of health authorities in the affected countries.

We would also like to correct the statement in the appeal text that "Responsibility for planning, finance, management, and reporting on the operations has been assumed in full by the Ukrainian Red Cross." In fact, the Ukrainian Red Cross continues to welcome support.


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APPEAL No. 50/92

CONTRIBUTIONS RECEIVED

17/05/93

DONOR	CATEGORY	QUANTITY	UNIT	VALUE CHF	DATE	COMMENT
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CASH

REQUESTED IN APPEAL	CASH			880 000		
AUSTRALIA RC				147	26/11/92	
CANADA RC				14 344		
ICELAND RC		100 000	ISK	2 331	15/10/92	
JAPAN RC		2 800 000	JPY	32 046	18/11/92	
GERMANY RC		10 000	DEM	8 935	29/10/92	TO BE REC.
GERMANY RC				4 288	08/03/93	
GREAT BRITAIN RC		15 000	GBP	33 000	05/02/93	
NETHERLANDS RC				80 000	05/11/92	6 SCANNERS
OXFAM		50 000	GBP	110 500	28/02/93	
SUB/TOTAL RECEIVED IN CASH				285 592		

KIND AND SERVICES

GERMANY RC	DELEGATE 1 YEAR			150 000	29/10/92	
SUB/TOTAL RECEIVED				150 000		



Annex I (Chernobyl Sitrep)

SUMMARY OF INVENTORY OF INTERNATIONAL HEALTH-RELATED ACTIVITIES IN THE FORMER USSR ON THE CONSEQUENCES OF THE CHERNOBYL ACCIDENT (*)

1. World Health Organisation (WHO)

Involvement of the WHO relates principally to the International Programme on the Health Effects of the Chernobyl Accident (IPHECA) which was initiated in 1990 and endorsed by a WHO resolution the following year. Detailed plans were then elaborated by groups from the three affected Republics of the Union of Soviet Socialist Republics and through assistance of several scientific advisory groups. The implementation of the Programme began in January 1992. Following the dissolution of the Union of Soviet Socialist Republics, the organisational structure of IPHECA underwent some changes. A Management Committee was formed comprising representatives of the Ministries of Health of Belarus, the Russian Federation and Ukraine, representatives of donor countries and WHO. The first meeting of the Committee was held in Kiev in November 1992.

IPHECA is funded by voluntary contributions received so far from the Governments of Japan (USD 20 million) and Finland (USD 40,000) and some other donations, including contributions in kind. At this stage, pilot projects are being implemented covering five health concerns: thyroid, haematology, brain damage in-utero, oral health and epidemiological registry. These projects will continue in 1993 and 1994.

2. Chernobyl Centre for International Research (CHECIR)

The Centre was officially opened in April 1991 following an agreement between the USSR and International Atomic Energy Agency (IAEA).

Activities of the Centre are limited to the epidemiological surveillance and biological dosimetry of the Chernobyl Nuclear Power Plant staff and other persons staying within the 30 km zone.

3. Project of the Council of Europe

This project called SIEAD-APO-CHERNOBYL (System of Epidemiological Information and Assistance for Medical Decision - Open Partial and the CEMEC (European Centre for Disaster-related Medicine, San Marino) in response to a Soviet application for aid and co-operation in mitigating Chernobyl accident consequences, submitted to the Council of Europe on 26 July 1990. Some time earlier, i.e. on 13 April 1990, the Government of the USSR signed the Open Partial Agreement on Major Disasters.

(*) Based on information received from the Division of Environmental Health, WHO, Geneva.

The information gathered in the system will be ultimately compiled and processed at the State Registry in Obninsk. The processed information will be made available at all levels. Thereby, epidemiological studies and clinical work will be improved. The pilot phase of the project, when a limited number of sites were to be supported, ended in 1992. The complete phase is planned to be performed from 1993 to 1998.

4. German Government

The USSR was officially notified about the support by a letter dated 7 March 1991 from Mr. Toepfer (Ministry of Environment, Protection of Nature and Reactor Safety) to Mr. Gubanov (State Committee on the Elimination of the Chernobyl Accident Consequences). The German contribution (DM 7 million) consisted of the cost of equipment (to be retained as a German property), and the travel costs for German specialists to participate in field missions. The purpose of the project is measurement of radioactive contamination in environmental samples, foodstuffs and humans. Seven mobile units have been provided for that. It is hoped that the dissemination of information to be obtained, among the population of investigated regions will lessen the psychological stress.

5. The Netherlands Government

By an official memorandum of 19 March 1991 from the Embassy of the Netherlands in the former USSR, the Government of the Netherlands notified the Soviet Government about a donation of NFL 10 million (about USD 5,000,000) for the establishment of a polyclinic in an area affected by the Chernobyl accident. The relevant Dutch authorities selected Gomel in Byelorussia as the site of the planned polyclinic.

6. Mission of Sasakawa Foundation

In August 1990, the Sasakawa Health Co-operation Foundation set up a programme having a budget of JPY 5 billion (USD 33 million) over the next five years. The objective of this programme is providing medical assistance in the affected areas. The programme includes the acquisition of medical equipment, medicines and reagents for clinical tests, donation of cars equipped with diagnostic and radiometric devices, on-site expertise of Japanese physicians and training of local medical staff in Japan. The programme is implemented in different regions of Russia, Byelorussia and Ukraine.

7. Project "France-Ukrainian Centre - Children of Chernobyl"

In January 1990, a French association "Children of Chernobyl" was established. Its main aim was medical follow-up of children evacuated from the town of Pripyat to Kiev. An agreement was signed in December 1990 for three years between the Minister of Health of Ukraine, Dr. Yuri Spizhenko and the State Secretary for French Humanitarian Action, Dr. Bernard Kouchner, on the French-Ukrainian co-operation in the follow-up of these children.

In February 1991, the Institute of Protection and Nuclear Safety (Commissariat for Atomic Energy of France), the Institute Gustave Roussy (Paris) and the Association "Children of Chernobyl" opened a French-Ukrainian dispensary in Kiev to provide diagnostic examinations and epidemiological investigations among 7,000 children evacuated as well as among the members of their families (in total about 20,000 persons). 3 million French Francs were allocated to equip the Centre and half a million are donated annually for maintenance of the project.

8. Long-term bilateral projects in preparation

8.1 IARC ECLIS

ECLIS stands for European Childhood Leukaemia/Lymphoma Incidence Study which was started by IARC in 1987. It involves all recorded cases of these diseases in children occurring in a population of 60 million covered by the relevant registries in 18 countries. Financial support has been provided by the Radiation Protection Programme of CEC.

In March 1991, Drs. D. Parkin and E. Cardis paid a visit to Minsk to investigate the possibility of extending ECLIS to Byelorussia in view of the Chernobyl accident. The focal point in Byelorussia is the Research Institute of Hematology and Blood Transfusion (Director Dr. E. Ivanov).

8.2 Bilateral contacts with U.S. institutions

Early in 1990, a series of project proposals under the topic of "Health Effects" were sent to the former USSR by US experts. A group of them visited Moscow, Kiev and Obninsk in May-June 1990 to discuss these proposals and to determine ways for co-operation. The following areas of co-operation were identified:

- Physical dosimetry with the emphasis on methods and models for validating and improving individual dose estimates
- Biological dosimetry to develop sensitive indicators of radiation injury
- Acute radiation syndrome and other non-stochastic health effects; this project aims at developing early prognostic indicators and methods of therapy on the basis of the Chernobyl experience
- Countermeasures for reducing internal exposure to radiocesium
- Dose rate factor in stochastic somatic effects
- Epidemiological registries and database management
- Thyroid studies to detect thyroid ailments
- Leukaemia epidemiology studies with the initial goal of designing a protocol
- Population health surveys, consisting of two sub-projects: child health survey and adult health surveys.

Although scientific exchange has been vigorous, the project proposals have not yet been translated into ventures with a solid financial support.

8.3 Norwegian Company "Norconsult International"

The establishment of modern diagnostic services is obviously indispensable for the International Centre planned in Obninsk and in three affected Republics. This was strongly recommended by the WHO Task Group convened in Obninsk (January 1991) and by Soviet working groups on the implementation of the pilot projects of IPHECA (March 1991).

For translating the Flocon concept into a concrete design for the International Centre in Obninsk, the RIMR signed in December last year a protocol of intent with another Norwegian firm, Norconsult International (NI). The Government of Norway has pledged to donate initially about USD 150,000 for supporting the development of diagnostic services at the International Centre provided that WHO expressed its interest for the venture.