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Item 41 (c) of the provisional agenda* Strengthening of the coordination of humanitarian and disaster relief assistance of the United Nations, including special economic assistance: strengthening of international cooperation and coordination of efforts to study, mitigate and minimize the consequences of the Chernobyl disaster

Optimizing the international effort to study, mitigate and minimize the consequences of the Chernobyl disaster

Report of the Secretary-General**

Summary

The present report is submitted in accordance with General Assembly resolution 56/109, regarding the strengthening of international cooperation and coordination of efforts to study, mitigate and minimize the consequences of the Chernobyl disaster. The resolution requested the Secretary-General to submit to the General Assembly, at its fifty-eighth session a report containing a comprehensive assessment of the implementation of the resolution, and to make proposals for innovative measures to enhance the effectiveness of the international community's response to the Chernobyl disaster. The report presents the activities undertaken by the funds, programmes and specialized agencies of the United Nations to optimize the international humanitarian response to the Chernobyl disaster during the reporting period.

Despite the fact that 17 years that have passed since the accident, the situation in and around Chernobyl and the contaminated areas of Belarus, the Russian Federation and Ukraine remains difficult. The scientific data, as well as anecdotal information, indicate that this problem continues to affect a vast number of people, including children, in the three most affected States. Their future prospects and well-being have been profoundly influenced by decisions that they were able neither to influence nor control.

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^{**} The submission of the report was delayed because of the need for further consultations.

A/58/332

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I. General situation

1. The Chernobyl disaster of April 1986 resulted in large-scale displacement of populations and contamination of vast areas of land. The loss of livelihood and the trauma suffered by the people because of the severing of their links with their native soil and their patrimony was a great human tragedy.

2. The situation in the three most affected States was described in the report of 8 October 2001 (A/56/447, paras. 4-7), which provides a succinct and accurate picture of the extent of the problem for Belarus, the Russian Federation and Ukraine even today. Reports of the Governments of the three affected States regarding their efforts to overcome the consequences of the catastrophe are annexed to the present report.

II. Implementing the recommendations of the report "The Human Consequences of the Chernobyl Nuclear Accident: A Strategy for Recovery"

3. A multidisciplinary international inter-agency mission studied the human consequences of Chernobyl, 15 years after the accident, as part of a fresh assessment of the situation by the United Nations. The mission's report, "The Human Consequences of the Chernobyl Nuclear Accident: A Strategy for Recovery", was launched in New York in February 2002. It made several recommendations for recovery and sustainable development. The suggested strategy encompassed health, economic, social and environmental initiatives and a continuation of research into the disaster in order to ensure that resources are directed to those most in need, while also encouraging and enabling the majority of the people affected to attain self-sufficiency. The report also recommended that special attention be accorded to the direct victims of the accident and those afflicted with thyroid cancer. The findings of the report were covered at length in A/56/447, paragraphs 8 to 12.

4. In order to promote the new strategy for recovery with government agencies and international donors, and to help initiate the implementation of the recommendations of this strategy, the United Nations Coordinator of International Cooperation on Chernobyl undertook a second visit to the region in April 2002. High-level officials in all three countries expressed their support for the new United Nations strategy and their readiness to work closely with the international community in its implementation. There was implicit agreement that this shift in the focus of international assistance could best be achieved through a nationally driven process for the creation of domestic conditions for sustainable economic activity. This implies a change in their policies and programmes and a greater focus on assistance to the victims of the disaster.

5. The implementation of the recommendations of the report has been initiated through a concerted effort to reinvigorate cooperation between the organizations of the United Nations system, and to catalyse and facilitate cooperation with the World Bank, the European Commission and interested donors.

6. At the field level, a number of concrete actions were taken by the United Nations country teams in Belarus, the Russian Federation and Ukraine. These included:

(a) Renewed policy dialogue with concerned government agencies on macro and sectoral policy issues related to the implementation of the strategy;

(b) Enhancing the integration of United Nations activities with local and national government initiatives;

(c) Strengthening local partnerships with donors and related resource mobilization.

7. The disbursement of modest sums of seed money from the United Nations Chernobyl Trust Fund was authorized for three pilot projects (\$80,000 per project). These projects, prepared by the United Nations country teams in Belarus, the Russian Federation and Ukraine, aim to support socio-economic rehabilitation and to improve the health of the people in the region.

8. Another key recommendation of the report was implemented with the launch of the International Chernobyl Research and Information Network (ICRIN) in June 2003. The objective of ICRIN is to support the ongoing international, national and civil society efforts for the sustainable development of the affected regions by compiling, consolidating and coordinating scientific research, commissioning further research where required, and ensuring its effective dissemination to all stakeholders. The first phase of the Network's plan is now being implemented.

III. Ongoing international assistance efforts¹

9. The International Atomic Energy Agency (IAEA) established the Chernobyl Forum as a contribution to the United Nations strategy report. The Forum's mandate is to review and reconcile the scientific research related to the environmental and health consequences of the Chernobyl accident and to make the results of the review available to the international community. The members of the Chernobyl Forum are drawn from organizations within the United Nations system — IAEA, the Food and Agriculture Organization of the United Nations (FAO), the Office for the Coordination of Humanitarian Affairs, the United Nations Development Programme (UNDP), the United Nations Environment Programme, the United Nations Scientific Committee on the Effects of Atomic Radiation, the World Health Organization (WHO) and the World Bank — as well as representatives of the three most affected States. Recognized radiological specialists will hold a series of expert meetings to carry out the Forum's mandate. The Forum's findings and recommendations will be widely disseminated via public information specialists, the activities of ICRIN and an international conference to be convened by the Chernobyl Forum in 2005.

10. The IAEA Technical Cooperation Programme has also earmarked resources for the mitigation of the consequences of the Chernobyl accident within the affected communities. Among its various efforts is the Seeds of Hope project, which is run with the support of the FAO/IAEA Agriculture and Biotechnology Laboratory. It has helped farmers in Belarus to cultivate rapeseed on contaminated land, allowing the population to benefit from products derived from the crop, such as edible rapeseed

¹ A comprehensive database covering the overall assistance and research activities of the funds, programmes and agencies of the United Nations system and of its main partners in the framework of the United Nations Inter-Agency Task Force on Chernobyl in the course of the 12 years that the issue has been on the agenda of the General Assembly will be posted on the newly revamped United Nations Chernobyl web page; see paragraph 27 below.

oil. Through the Technical Cooperation Programme, the Agency is also assisting the Government of Ukraine in the management of the radioactive waste associated with the shelter at the Chernobyl nuclear power plant and in drawing up plans for decommissioning the plant.

11. WHO completed its inventory of research done on health effects of the Chernobyl accident. The main objective of this project was background preparation for a series of meetings of an expert group on health within the framework of Chernobyl Forum initiative. The expert group will identify gaps in knowledge and provide advice on future research directions for health risk studies and special health-care programmes for the rehabilitation of populations affected by Chernobyl. In 2002-2003, WHO continued its work on two major projects: the telemedicine project, funded largely through private donations from the Sasakawa Memorial Health Foundation (SMHF) of Japan, and the tissue bank project, which is also supported by SMHF, in partnership with the European Community and the National Cancer Institute of the United States of America. WHO continues to encourage the involvement of non-governmental organizations in Chernobyl-related activities and makes its expertise available through its membership of the ICRIN Steering Group. It also serves as a focal point for the ICRIN Scientific Board. In June 2003, the International Conference on Chernobyl Children — Health Effects and Psychosocial Rehabilitation was held in Kyiv in collaboration with the Office for the Coordination of Humanitarian Affairs, UNDP, WHO and the United Nations Children's Fund (UNICEF). It discussed the results of the national programmes and international research projects on child/adolescent health. The initiative for the conference came from the Ukrainian non-governmental organization Chernobyl Doctors, as part of the United Nations strategy for recovery.

12. FAO continues to work through its joint programme with IAEA to reduce the radiological impact on the population because of the consumption of contaminated food and to support the development of agriculture in the affected regions. A current project is expected to demonstrate that radiologically safe flour can be produced, through appropriate production and processing technologies, from wheat grown on contaminated land. Such projects can provide the basis for further economic development of the affected region.

13. The United Nations Scientific Committee on the Effects of Atomic Radiation is the only body specifically mandated by the General Assembly to scientifically assess sources and effects of ionizing radiation. The Committee, in close collaboration with scientists from the three most affected countries, is continuing and extending the examination of exposure and other effects of the Chernobyl accident that had been covered in its 2000 report. So far, the additional information corroborates the conclusion of the 2000 report, namely, that the vast majority of the population need not live in fear of serious health consequences due to radiation or radionuclides from the Chernobyl accident. The next Scientific Committee report on Chernobyl is expected in 2006. It will present the results of epidemiological studies of health and will be divided into two categories — ecological or descriptive studies and analytical epidemiological studies.

14. The United Nations Educational, Scientific and Cultural Organization had been instrumental in the creation and development of the community centres for social and psychological rehabilitation in Belarus, the Russian Federation and Ukraine. It has been actively involved in providing assistance in the area of post-disaster education and information. The organization promotes the implementation of a preventive education programme that includes education concerning the risks of nuclear contamination. The programme covers the training of students, teachers and parents with a view to managing the contaminated environment; provides opportunities for learning and practising preventive behaviour; and collects information on prevention for dissemination to the general public.

15. United Nations country teams are working in each country to implement the recommendations of the United Nations report for supporting long-term sustainable development in the Chernobyl region.

16. In Belarus the United Nations office has worked over the past year to coordinate dialogue on Chernobyl among the Government, international non-governmental organizations and donors with the goal of establishing development initiatives that effectively meet local recovery needs. Based on these efforts, two initiatives are planned. The first is a pilot programme for integrated development in four affected areas of the country. Called Cooperation for Rehabilitation (CORE), the programme will be supported directly by UNDP and national and international partners, including the Office for the Coordination of Humanitarian Affairs and the United Nations Human Settlements Programme. It will dovetail with UNDP participatory community development initiatives in Ukraine, as well as with a planned World Bank project aimed at local development initiatives and environmental security. UNICEF is developing a partnership with the Swiss Agency for Development and Cooperation (SDC) to introduce life skills into the school curriculum. This project will help young people in Belarus better cope with the social, economic and health problems in Chernobyl-affected areas.

17. United Nations support for the Russian Federation is focused on environmental recovery, regional economic development and youth development. Following a UNDP project to evaluate water quality in the Bryansk oblast, UNDP and the Government have developed a proposal for a second-phase initiative designed to establish practical water safety measures and improve the water supply in Chernobyl-affected territories. With support from the Office for the Coordination of Humanitarian Affairs, UNDP recently launched a project to support economic development in Chernobyl-affected areas of the oblast. Also, UNICEF has developed a proposal for youth-friendly services in Chernobyl-affected areas and plans to replicate its successful experiences in addressing youth problems from other areas of Russia.

18. The United Nations assistance in Ukraine is primarily delivered through the UNDP Chernobyl Recovery and Development Programme. Supported by UNDP, the Office for the Coordination of Humanitarian Affairs and SDC, the Programme provides policy advice and development support to the Government at the national, regional and local levels and promotes participatory community development initiatives. Activities include analysing current human development conditions in affected areas, providing impact assessments of current policies and programmes and promoting collaborative recovery strategies. The participatory community development works directly with local people living in 26 villages in 10 Chernobyl-affected districts and supports the formation of their community organizations. Community organizations implement their own village development projects, in cooperation with local government institutions, by mobilizing local

resources in addition to small grants, which can be up to 40 per cent of a project's total cost.

19. The World Bank is actively involved in efforts to rehabilitate the economies of the region and is currently preparing a new post-Chernobyl recovery project for Belarus. The project would enable rural populations in the three countries living in the districts most affected by the Chernobyl accident to develop better living conditions, including safer and more sustainable livelihoods.

20. The International Federation of Red Cross and Red Crescent Societies initiated the Chernobyl Humanitarian Assistance and Rehabilitation Programme in 1990. It provides radiological diagnostic screening for the population in order to detect thyroid abnormalities at an early stage. Since the start of the programme, over 500,000 persons have been screened and given emergency health care. In 2002, over 91,000 persons were examined. The Programme was redesigned in May 2002, to better focus on evolving assistance requirements and to take into account the lack of government resources to fully assist people in the contaminated areas. The main recommendation of the Programme continues to be to focus on screening for thyroid cancer (palpation and ultrasound) in areas that are now highly contaminated among the priority target groups of individuals who were 0 to 18 years old at the time of the accident (born between 1967 and 1987). Basic health-care support is no longer provided, except in emergency cases. The programme aims to ensure improved follow-up for the individuals with abnormal thyroid scans, including free transportation to the diagnostic centres for further investigation and treatment.

21. The European Commission has allocated significant resources for the study and mitigation of the health and environmental consequences of the accident, including funds for research and development activities and assistance projects provided through programmes of the European Commission's Humanitarian Aid Office and the Technical Assistance to the Commonwealth of Independent States. The European Union is also involved in efforts to transform the employment pattern of Slavutich (Ukraine) and Gomel (Belarus) from mono-industrial centres dependent on the Chernobyl plant to more diverse economies. In addition, the social and economic regeneration of contaminated areas in Belarus is being addressed by the CORE programme, an international effort involving the European Union, several European Union countries, non-governmental organizations, the European Bank for Reconstruction and Development (EBRD) and UNDP.

22. In 1995, the G-7 countries, the European Commission and Ukraine signed a memorandum of understanding that established grants and loans as assistance to Ukraine for enhancing nuclear safety and mitigating the impact of the closure of the last operating Chernobyl reactor in 2000 on the energy sector, as well as in social and economic fields. This cooperation continues to provide considerable support for safety, restructuring of the energy sector, investments and social programmes administered by EBRD. Notable examples include the Chernobyl Shelter Fund (CSF) and the Nuclear Safety Account (NSA), which support ongoing measures to stabilize the existing Chernobyl Unit 4 sarcophagus; to construct a new, stable, and environmentally safe structure that will contain the remains of the reactor for at least 100 years; and to improve the short- and long-term safety of Chernobyl facilities in general.

23. The United States of America remains engaged in efforts to ameliorate the environmental, economic, and social consequences of the Chernobyl disaster. It is a

major contributor to CSF, NSA, and other bilateral assistance programmes. In 2002, the United States Agency for International Development (USAID) completed its Chernobyl Childhood Illness programme. As a result of that effort, over 110,000 children were screened for early thyroid cancer, of whom 8 per cent were found to have thyroid abnormalities, 1.6 per cent had pre-cancerous nodules and required further testing, and 9 had cancer. These children were also examined for psychosocial problems. Close to 14 per cent were found to be in need of assistance. USAID funding for this programme has now ended, and local authorities and non-governmental organizations are providing psychosocial assistance and additional testing and treatment.

24. In order to strengthen the coordination of ongoing national and international efforts, national and international non-governmental organizations, other grass-roots entities and international organizations outside of the United Nations family are invited to participate in the ICRIN activities.

IV. Advocacy and public awareness

25. The Secretary-General visited Ukraine in June 2002. That first visit by a United Nations Secretary-General to the region affected by Chernobyl brought unique and incalculable advocacy value to the issue, providing a much-needed boost to the activities of the international community. It also helped to rekindle waning donor interest in the human dimensions of the Chernobyl problem. The Secretary-General's visit was the culmination of the momentum generated by the launch of the United Nations strategy report and by consultations held in the region by the United Nations Coordinator and Deputy Coordinator of International Cooperation on Chernobyl.

26. To draw attention to the "forgotten crisis" of the Chernobyl disaster, and in order to mobilize international assistance for humanitarian needs and long-term economic, social and environmental development efforts, the Swiss Government helped establish a web site, www.chernobyl.info. It is fully funded by Switzerland and was launched simultaneously in Geneva, Kyiv and Minsk in June 2002. Linked to the United Nations Chernobyl web site, it is intended to provide unbiased, reliable and continuous information on the effects of the disaster and the current situation in the affected areas.

27. The United Nations has initiated work on collating into a single database information on all the assistance and research projects that have been undertaken by all the members and standing invitees of the United Nations Inter-Agency Task Force on Chernobyl. This will provide a clearer picture of what has been done, how much assistance has been provided and to which countries, etc., and will improve understanding of the problems that remain to be addressed and where collective and individual attention needs to be focused.

28. On the sixteenth and seventeenth anniversaries of the Chernobyl catastrophe, the Secretary-General issued statements calling on the international community not to forget those who continue to suffer the consequences of the disaster. On those occasions, various public events were organized at United Nations Headquarters, mainly by the Governments of Belarus, the Russian Federation and Ukraine and other international partners. Coinciding with the anniversaries, the annual International Conference on Health and Environment is organized by the nongovernmental organization World Information Transfer, the Government of Ukraine and UNICEF, in collaboration with other partners concerned.

V. Resource mobilization

29. In the context of the shift in policy on Chernobyl, and as part of the renewed efforts to bring assistance to the affected populations, the United Nations sees a clear need to energize work with donors. Despite efforts in various directions, more needs to be done to secure donor support in a systematic way. United Nations country teams are talking to donors in their respective countries, but this work needs to be invigorated and coordinated.

30. In the reporting period, efforts of the United Nations were focused on the following modalities for approaching donors:

(a) A large donor conference, as well as direct approaches to individual donors;

(b) Organizing donor field trips to the most affected areas of the three States;

(c) A dual approach (in donor capitals and in New York, as well as in the capitals of the three affected States).

31. The United Nations programmes aimed at addressing the human consequences of the Chernobyl disaster have been chronically underfunded for many years. Because of the constraints felt by some donors, Chernobyl falls into a budgetary gap. However, it would certainly be morally appropriate, and of great practical utility to the affected populations, if funds allocated by donors for international assistance efforts were commensurate with the funds being allocated by the same donors to nuclear safety problems around the now closed nuclear plant.

VI. Concluding observations

32. New momentum has been created by the recent initiatives of the international community. For this momentum to be sustained, however, substantial resources are needed. Though many donors have been generous with assistance over the years, it must be noted that some important projects have been discontinued and assistance suspended due to severe financial constraints. The humanitarian and development activities indicated in the present report are the minimum required to mitigate the serious human consequences of the Chernobyl disaster and to show solidarity with the Governments of Belarus, the Russian Federation and Ukraine, which continue to carry a heavy burden because of the catastrophe. For the victims, Chernobyl is a personal and societal tragedy. For the rest of the world, Chernobyl represents a disaster whose consequences need to be eliminated and the recurrence of which should be prevented. Herein lies the enlightened self-interest of the international community and the test of its solidarity with those who continue to live with the effects of the worst disaster of its kind that the world has known.

Annex I Report of the Government of Belarus

[Original: Russian]

Assessment of the radioecological, biomedical, economic and social consequences of the Chernobyl disaster shows that Belarus sustained irreparable damage. The contaminated area constitutes 21 per cent of its territory, and the number of people exposed to the effects of radiation is over 2 million (out of a population of around 9.9 million).

The State is making significant efforts to minimize the consequences of the accident at the Chernobyl nuclear power plant. As a result of the measures adopted, a number of important problems have been solved. They include: establishment of a legal and regulatory basis for dealing with the consequences of the accident in a comprehensive manner; transfer of the population out of the most heavily contaminated districts and its resettlement in new places of residence; establishment of a radiation control and monitoring system; raising the level of medical treatment in the contaminated regions; and development of a social protection system for all categories of the affected population. Practical efforts to address the consequences of the Chernobyl disaster are being carried out in the framework of a special State programme financed from the budget. Currently, a State programme to address the consequences of the disaster is being carried out for 2001-2005 and for the period up to 2010.

The radioecological situation in Belarus is currently determined by the presence of long-lived isotopes, particularly caesium-137, strontium-90 and a number of trans-uranium elements. Analysis of radioactive contamination of Europe by Cs-137 shows that around 35 per cent of the contamination by that radionuclide as a result of fallout from Chernobyl occurred in the territory of Belarus. The radionuclides are present in virtually all ecosystem components and are involved in the geochemical and trophic migration cycles; this determines the multiplicity of pathways for external and internal irradiation of the population, creates additional risks to its health, and hampers the exploitation of natural resources.

Some 70 to 90 per cent of the Cs-137, 40 to 60 per cent of the Sr-90 and up to 95 per cent of the trans-uranium elements remains in the upper root-inhabited layer of the soil, which attests to the continuing danger of radioactive contamination of agricultural production and of food, fodder and medicinal crops. The State is compelled to support agriculture over a large swath of the affected territories; otherwise, there would be no way to solve the problem of employment for the population. Accordingly, significant resources are being expended on the implementation of protective measures. The quality of foods produced on private farms is a matter of serious concern.

From 1986 to 2001, there were 8,358 cases of thyroid cancer in Belarus, of which 716 occurred in children, 342 in adolescents and 7,300 in adults.

Changes are appearing in the incidence of breast cancer. From 1990 to 2000, disease indicators in the Gomel region grew by 16.7 per cent; the disease indicator increased by an average of 3.2 per cent per year. Among rural women, the growth in

the disease rate was 29.2 per cent, with an increase of 3.6 per cent per year; among urban women, the rates were 10.3 per cent and 2.8 per cent, respectively.

From the early 1980s to 1986, the birth rate in the Gomel region was 15.7 per 1,000; in the Mogilev region, it was 14.7 per 1,000. Following the Chernobyl accident (after 1987), the birth rate in these regions began to decline rapidly. The pace of decline slowed somewhat in the mid-1990s; in 2001, the birth rate in the contaminated territories fell by 40 per cent.

Moreover, in the 17 years that have elapsed since the accident, its consequences have not been fully liquidated, since they exceed the scope of the country's capacities. Minimizing and addressing the consequences of a disaster of such magnitude is an extremely difficult task requiring huge material and financial resources. It is therefore necessary to strengthen efforts at both the national and the international levels, in keeping not only with the scale of the damage, but also with the existence of invaluable experience in liquidating and addressing the biggest radiation disaster of the twentieth century.

The main tendency in the development of Chernobyl-related international cooperation at the current stage is a shift in its priorities — a transition from the provision of humanitarian assistance to long-term social and economic rehabilitation and ensuring stable development in the affected districts. The need for such a transition is spelled out in the report of the United Nations Mission, entitled "The Human Consequences of the Chernobyl Nuclear Accident: A Strategy for Recovery", and the World Bank report entitled "Belarus: Review of the consequences of the Chernobyl nuclear accident and a programme for addressing them".

The Republic of Belarus attaches great significance to raising public awareness of the consequences of the Chernobyl disaster and the danger of radiation. The "Cooperation for rehabilitation" (CORE) programme, which includes projects for developing ecological education for the residents of the contaminated regions, is aimed at creating an effective information and education system for working with the affected population, beginning in primary school. Belarus is participating in the work of the International Chernobyl Research and Information Network. The Swiss-Belarusian-Ukrainian joint information project "Chernobyl Info", which has the status of an international information channel within the Network, is at the implementation stage. The Chernobyl Forum was created for the purpose of analysing the medical and ecological consequences of the disaster under the auspices of the International Atomic Energy Agency (IAEA).

Note should be taken of the fact that Belarus was the first to begin developing a new generation of Chernobyl-related initiatives aimed at the stable development of the affected territories. A characteristic example of that initiative is the CORE programme, the active implementation phase of which began in 2003. The programme provides for a comprehensive and integrated solution to problems in the areas of health and environmental protection, economic development, dosimetry, radiation protection, cultural legacy, and education through the implementation of individual integrated projects. The CORE programme is unique in terms of its purposefulness, international support for the local population in the affected regions, and recruitment of that population for the purpose of defining and implementing specific CORE projects. In order to attract additional resources for post-Chernobyl measures, the organs of State power are doing their utmost to cooperate with foreign charitable organizations in carrying out humanitarian actions and initiatives in Belarus.

The combined efforts of the entire international community are needed in order to formulate effective measures for preventing nuclear accidents, implement largescale, comprehensive measures to address the consequences of the Chernobyl disaster, build effective and long-term coordination within the international community around Chernobyl-related issues, and strengthen the comprehensive approach to rehabilitating contaminated territories.

An analysis of the situation with regard to addressing the consequences of the Chernobyl disaster in Belarus leads to the following conclusions.

1. The Chernobyl disaster created a host of serious and long-lasting problems in Belarus affecting the vital interests of millions of people, in particular, their health, way of life, well-being and working conditions. The implementation of State programmes to address the consequences of the disaster shows that the resources allocated from the Belarusian budget are insufficient to solve these problems.

2. In addition to causing serious environmental harm, the Chernobyl disaster led to unprecedented irradiation of the population of Belarus and made it necessary to formulate and introduce a series of protective measures in order to limit the doses of external and internal irradiation. The radiation situation in a number of affected regions remains complicated to this day, and for this reason, it has not been possible to fully solve the problem of producing agricultural products which meet the existing radiation safety standards. There are districts in which the average annual effective doses of additional irradiation received by the population as a result of fallout from Chernobyl exceed 1 mSv, which, in accordance with national legislation, requires the implementation of further protective measures.

3. The radiation doses received by the population have led to a deterioration in the health of residents of the affected regions. The number of cases of radiationinduced thyroid cancer and exposure of the thyroid glands to iodine-131 is continuing to increase among children and adolescents. An increase in illness has been observed among the "liquidators" and the adult population. It is projected that 15,000 cases of thyroid cancer may develop among the inhabitants of Belarus over the 50 years following the accident.

4. Other stochastic effects of irradiation are not yet fully apparent because of the longer latency period and chronic nature of exposure to low doses of radiation. Reliable observation has been made of trends towards a growth in the incidence of oncologically significant illnesses in certain categories of victims exposed to higher doses. Prognoses indicate the possibility of an increase of several percentage points in the disease rate over the victims' lifetime. In order to identify the role of the radiation factor in the possible increase in oncological disease, it is necessary to conduct carefully planned, long-term radioepidemiological studies.

5. The medical consequences of the Chernobyl disaster are not limited to the radiological ones. The disaster allowed a significant portion of the population to form an inadequate perception of the radiation risk, which has led to persistent psychological discomfort. The complex influence of the radiation-related and nonradiation-related aspects of the Chernobyl disaster is leading to a deterioration in the health of all categories of victims, which is reflected in an increase in nononcological disease (illnesses of the endocrine system, cardiovascular disease, psychoneurological disturbances, etc.).

6. Adverse demographic trends are developing in the radioactively contaminated zones. A decline in the birth rate, increased mortality, and a decrease in the active population have been observed. This produces a knock-on effect: the above-mentioned factors, combined with the continuing departure of intellectuals and experts, are aggravating the employment- and health-related problems of the population in the affected regions.

7. The Chernobyl disaster created serious problems for the country's agroindustrial and timber sectors, which employ a significant portion of the population in the affected regions. The introduction of scientifically based systems for carrying out agricultural and timber activities led to a decrease in the production of contaminated products, although the problems are far from being wholly resolved. Ensuring the safety of economic activities in the contaminated territories requires continual investment in order to support the fertility of the soil, implement protective measures, and increase the competitiveness and profitability of production.

8. The complex radiation-related, social and economic rehabilitation of the contaminated territories is an issue of great importance in addressing the consequences of the Chernobyl disaster. In order to achieve the main goal of rehabilitation — real economic rebirth and stable development — there is a need to enhance national approaches and international assistance for the rehabilitation of the social infrastructure of the affected regions and the areas of dense settlement of the evacuated population. The task of creating attractive conditions for Belarusian and foreign investors is of the greatest urgency.

9. In view of the absence within the global community of a clear and unified strategy for conducting scientific research on the issues related to the Chernobyl disaster, and insufficient funding for national scientific programmes, there is a need to deepen international coordination and cooperation.

10. Overall, the perception by the international community of the existing problems related to the Chernobyl disaster is not fully adequate, given their real scale and significance. Despite the fact that 17 years have elapsed since the Chernobyl accident, we note the lack of unified methodologies for assessing the consequences of massive radiation releases and developing full-scale, comprehensive packages of measures to address them. This is a significant gap in the accident response system.

Annex II

Report of the Government of the Russian Federation

Implementation in the Russian Federation of General Assembly resolution 56/109 entitled "Strengthening of international cooperation and coordination of efforts to study, mitigate and minimize the consequences of the Chernobyl disaster"

[Original: Russian]

During the period from 2001 until the present day, work has continued in the Russian Federation with a view to overcoming the consequences of the Chernobyl accident and on rehabilitating the contaminated areas and providing social assistance to the population. In accordance with the legislation in force in Russia and the special federal programme on this question, regular observations were made of the radioactive contamination of the lower stratum of the atmosphere and of bodies of water and soils in the areas affected by the Chernobyl disaster. Practical work was carried out to ascertain in more detail the contamination level in population centres and the surrounding environment.

During the past two years, after issuance of a report on this subject by the United Nations Secretary-General, the Russian Water Authority (Rosgidromet) made a detailed assessment of the radiological situation in the 300 most contaminated localities where over 3,000 samples were taken and analysed in order to check for caesium-137. A database is maintained on radiological contamination of the environment. It contains information on 12,500 communities and on more than 99,000 samples regarding their content of caesium-137, strontium-90 and plutonium-239 and -240. This information is used in assessing the annual and cumulative doses absorbed by the population in the period since the accident.

The weekly publication *The Radiological Situation in the Territories of Russia* and Neighbouring States contains information on the status and evolution of radioactive contamination in the territories affected by the accident at the Chernobyl nuclear power plant. This information is brought to the attention of the relevant ministries and departments of the members of the Commonwealth of Independent States.

At the present time, more than 4,000 communities (4,342) in 14 constituent parts of the Russian Federation with a total population of 1,792,207 are in the area of radioactive contamination. In the period 2001-2002, on instructions from the federal Government, the Russian Ministry of Health assessed the current annual doses absorbed by the population living in the contaminated area and the total cumulative doses for the period since the accident. Estimates were made of the effective average annual doses of radiation absorbed by the inhabitants of 4,438 populated areas, on the basis of which the following conclusions may be drawn:

In 2001, the population of 12 constituent parts of the Russian Federation (excluding the Bryansk and Kaluzhsk regions) did not receive effective average annual doses of radiation above the prescribed limit of 1 milliSievert (mSv).

In 2001, the inhabitants of one community in the Kaluzhsk region and 445 communities in the Bryansk region received an effective average annual radiation

dose of over 1 mSv (the inhabitants of 128 of them are no longer living there). The inhabitants of 55 of those communities received average annual doses of over 5 mSv (in 31 of them, there are no inhabitants). In addition, in one community in the Kaluzhsk region, 61 people received doses exceeding 1 mSv.

Calculations were made of the radiation exposure of the thyroid gland of people living in the contaminated areas of the Bryansk, Kaluzhsk, Orlovsk, Tulsk, Lipetsk and Ryazansk regions, drawing on the expertise the Russian Scientific Commission on Radiological Protection. Those with the highest exposure of the thyroid gland were children at the time of the accident. Radiological exposure of the thyroid exceeding levels of the critical group (1 gray) were noted in 141 communities of the Bryansk region.

The results of the calculations indicated that, in the communities of the Bryansk, Kaluzhsk, Tulsk, Orlovsk, Lipetsk and Ryazansk regions, the effective average cumulative doses varied from a single milliSievert up to hundreds of milliSieverts. The highest observed level — 410 mSv — was among children of under one year of age at the time of the accident in Zaborye, in the Krasnogorsk district of the Bryansk region.

The number of communities in which the effective average cumulative dose received by various age groups between 1986 and 2001 equals or exceeds 70 mSv ranges from 88 to 260. These are only in the Bryansk region.

It should be noted that the effective dose continues to accumulate in the communities. Radiation projections suggest that the number of communities exposed to radiation will grow over time. According to a preliminary projection, the number of communities with effective cumulative doses exceeding 70 mSv may reach 350 by the year 2056 in the Bryansk region. In other regions, a preliminary projection indicates no increased cumulative dose over a 70-year lifespan following the accident. More detailed research is needed, however.

With a view to assessing the medical consequences of the accident at the Chernobyl nuclear power plant, the Russian National Medical and Dosimetric Register was set up in 1986 within the Ministry of Health and has been functioning ever since.

Demographic and morbidity indicators in the contaminated regions are worsening overall and reflect general trends taking place in recent years in the Russian Federation. These indicators are affected by various influences, including social factors. The stochastic effects of radiation include oncological morbidity and congenital disorders.

For a further appraisal of the effect of the radiological factor on the health of the population, medical observations and epidemiological research must be continued. The period of 17 years that has elapsed since the accident has not been enough to arrive at definitive conclusions. The Medical and Dosimetric Register must continue to be maintained.

The continuing high levels of radioactive contamination of agricultural lands and the low rates of reduction of radionuclides in the soil and farm produce necessitate a range of rehabilitation measures with a view to reducing the entry of radionuclides into the human food chain via the soil and agricultural products. Following special measures taken in the agro-industrial sector, farm output with radiation levels exceeding the prescribed limits has diminished: from 86 per cent to 12 per cent in the case of milk, from 15.2 per cent to 3 per cent for meat, and from 78 per cent to under 0.01 per cent for grain. Nevertheless, in order to solve fully the problem of rehabilitating contaminated lands, considerable funds and time are still required.

The work of overcoming the effects of the radiation accident is proceeding along three tracks:

First: Special agrochemical procedures, including the application of lime, phosphorites and increased amounts of potassium fertilizers, are being followed. In general, these measures depend on budgetary funds allocated to the Ministry of Agriculture under the special federal programme for increasing the soil fertility in Russia. The cost of this programme totals 47 million roubles, or almost one third of the amount allocated for agrochemical improvement of lands in the Russian Federation as a whole. In addition, 30 million roubles were allocated in the current year for increased applications of potassium fertilizers, which is a very effective method of minimizing the effects of the radiation accident in agriculture.

Second: Attention is given to the output of "clean" fodder and livestock products as part of the special federal programme for overcoming the consequences of the radiation accident in the period up to 2010. The Russian Ministry of Finance has allocated 5.4 million roubles in the current year for implementation of this programme.

Third: Foodstuffs are being produced with curative and protective properties. Until the current year, this came under the special federal programme for children of Chernobyl, and from 2003 under the programme for overcoming the consequences of the radiation accident in the period up to 2010. Beta carotene, "premix 730/4" and iodocasein are used as food supplements. Each year, between 1.5 million and 1.7 million roubles are allocated for the production of foodstuffs with curative and protective properties for children, and for the purchase of such products. Vitaminenriched foods are supplied to schools, children's homes, hospitals, sanatoriums and kindergartens, with children as the main target.

There is heightened interest in the production of such foods. This calls for expanding the network of enterprises producing vitamin-enriched foods. Such action has become possible to some extent, now that the Russian-Belarusian programme of joint activities to overcome the consequences of the Chernobyl disaster in the context of the Union Government for the period 2002-2005 has gone into operation.

In order to satisfy more fully the people's need for the above-mentioned products and to significantly lower contamination levels in such products, as well as to enhance their shelf life, humanitarian aid is needed for the provision of the following equipment:

- Equipment for the manufacture of sausage products enriched with vitamins and possessing curative and protective properties;
- Installations for bottling vitamin-enriched milk, bifidokefir and "bifilaif" in a container that would have a longer shelf life and higher quality, and enabling a substantial increase in the volume of output;

- Equipment with a sterilizer for aseptic bottling of juices, with an output capacity of four tons per hour;
- Mobile radiological laboratories to monitor the radiological situation in agricultural lands and in the output of livestock products.

Measures are under way for the social support of citizens living in contaminated areas. The State allocates substantial funds to solve Chernobyl-related problems. In the period 2001-2002, resource allocation for State rehabilitation programmes amounted to more than \$12 million. Significant changes have been made in federal legislation governing the payment of compensation for the disabilities of Chernobyl invalids and the provision of benefits to the inhabitants in regions exposed to radiation. Among other measures, fixed amounts of compensation to invalids have been introduced, depending on the category of invalidity, enabling 70 per cent of Chernobyl invalids to receive substantial increases. The total amount of such compensation payments was raised 2.3 times over three years (from 780 million roubles in 2000 to 1,812 million roubles in 2003).

Additional benefits have been introduced, including payment of compensation to members of families for the death of the breadwinner caused by radiological illness after having participated in efforts to combat the consequences of the disaster at the Chernobyl nuclear power plant.

As at 1 June 2003, the Act of the Russian Federation for the social protection of citizens exposed to radiation caused by the disaster at the Chernobyl nuclear power plant covers 1.9 million people. These include 1.7 million living in areas contaminated by the Chernobyl disaster and 200,000 people who took part in cleanup efforts, including 50,369 invalids and 4,074 families that lost their breadwinner. It should be noted that the volume of financing does not permit development of an adequate physical and technical infrastructure; consequently, public health institutions are short of medical technology such as low-dose x-ray, ultrasound, endoscopic and other laboratory equipment.

In order to expand the scope of specialized assistance to children with diagnosed thyroid disorders, diagnostic ultrasound equipment was provided by WHO to the Medical and Scientific Radiological Centre in Obninsk under the medical assistance programme for 2001-2002. In addition, during the past two years, WHO and IAEA provided assistance to Russian scientists in the study of the dynamics of radioactive contamination of water bodies in the Bryansk region, and also arranged for the purchase of food supplements.

Under the joint programme of the Russian-Belarusian Union Government to overcome the effects of the accident, an additional sum of approximately \$11 million was provided to areas in the Russian Federation.

Measures for the economic rehabilitation of affected regions are the most financially demanding. State assistance is aimed primarily at the reconstruction and development of infrastructure and the social sector. In 2002, a sum of 400,000 roubles was allocated from the programme to provide 5,600 people with medical assistance, including 800 hospital in-patients. Furthermore, considerable aid is given by the Centre for Radiation Protection of the Scientific Research Institute for Paediatry and Paediatric Surgery of the Russian Ministry of Health. Market mechanisms in the contaminated areas are still poorly developed. To rectify this, assistance has been provided in recent years by the European Commission. In 2001, under the programme of technical assistance to the Commonwealth of Independent States and Georgia (TACIS), a small sum (90,000 euros) was allocated to three of the most contaminated communities in the Bryansk region with a view to stimulating enterprise and local initiative. This year, UNDP allocated \$80,000 to agricultural producers in the Bryansk region for the dissemination of positive lessons learned by farmers in contaminated areas of the Orlovsk region.

In the Russian Federation, humanitarian aid is currently regulated by the federal act on voluntary aid (assistance) and the amendments and addenda to individual legislative acts of the Russian Federation on taxes and the establishment of advantageous contributions to State extrabudgetary funds in connection with the provision of voluntary aid (assistance) of the Russian Federation, and the resolution of the federal Government approving the procedure for the granting of humanitarian aid (assistance).

Under the legislation in force, the federal commission on international humanitarian aid coordinates the activities of organs, organizations and individuals at the federal level concerning the receipt and distribution of humanitarian aid granted to the Russian Federation. The commission takes day-to-day decisions on the approval of funds, goods, work and services in the context of humanitarian aid on the basis of documents submitted by Russian aid recipients. Attestation as to whether the funds, goods, work and services are part of humanitarian aid depends on the commission's decision and remains valid for one year.

The above-mentioned procedure ensures unhindered transit of humanitarian aid across the frontier. Over the past two years, the commission has received no complaints from non-governmental organizations regarding obstacles to goods clearance through customs.

Annex III

Report of the Government of Ukraine

Report of the information on the implementation in Ukraine of General Assembly resolution 56/109 on strengthening of international cooperation and coordination of efforts to study, mitigate and minimize the consequences of the Chernobyl disaster

[Original: Russian]

Seventeen years have passed since the accident at the Chernobyl nuclear power station, an event which has gone down in history as a sad and tragic milestone in twentieth century progress in science and technology. It was an unprecedented industrial and environmental disaster, and its epicentre was in Ukraine.

Although Ukraine invested a great deal of effort and resources in tackling the after-effects of the disaster, it still left an extraordinary range of immediate consequences. Ukraine has been funding such efforts on its own for the past 10 years, devoting to them between 5 and 7 per cent of overall government expenditure, or approximately \$6.5 billion between 1991 and 2002.

In the immediate aftermath of the disaster, the immediate tasks were to bring radioactivity under control and shield the public from it. Now, however, radioactivity levels can reliably be said to be stabilized; they are checked by the monitoring system of the Ministry of Emergencies and Protection of the Population from the Consequences of the Chernobyl Catastrophe, the Ministry of Ecology and Natural Resources, the Ministry of Health, the Ministry of Agrarian Policy and the radiological departments of various institutes and organizations.

The Government's activities have been and remain focused on people, and all action to tackle the consequences of the Chernobyl disaster is aimed at protecting the population. There are three main directions: social action, medical action and radiation protection.

Social security

Social security policy for those suffering the effects of the Chernobyl disaster is based on the following principles: (1) a focus on the life and health of those individuals; (2) a comprehensive approach to health care, social policy and use of contaminated land, based on the appropriate national programmes and taking account of other areas of economic and social policy and progress in science and environmental protection; (3) provision of social security and full coverage of the costs incurred by those suffering the effects of the disaster; (4) using economic methods to improve living standards through preferential taxation rates for those suffering the effects of the disaster and associations of such individuals; (5) retraining and improving the qualifications of those affected by the disaster; (6) coordination of the activities of State bodies, institutions and organizations and civil society associations which look after various aspects of social security for the victims, cooperation between State organizations and victims (or their representatives) and coordination between social groups when social security decisions are taken at local or national level; and (7) international cooperation in health care, social security, radiation protection, job security and use of international experience in organizing action on those issues.

Modern information technology has been pressed into use to handle social security issues mainly through the establishment of a database of all categories of victims. Its main aim is to give central and local authorities information on their movements and the state of their medical, social and radiation protection. It is now 94 per cent complete, with 2,878,952 individuals registered.

In recent years Ukraine has seen an increase in disabilities connected with the Chernobyl disaster. In 1991, there were around 2,000 individuals with such disabilities, but their number had risen to 99,177 by 1 January 2003. Because these individuals receive the highest level of social security, expenditure from the budget on their benefits is increasing significantly.

Medical care

The law on the status and social protection of Chernobyl disaster victims focuses on preserving and restoring the health of those victims. It provides for an annual medical examination, spa treatment and the establishment of centres for monitoring, treatment, social and psychological rehabilitation and career counselling.

Long-term medical care for victims is provided by a network of specialist centres, dispensaries and other medical institutions and departments (36 scientific and clinical institutions with higher accreditation and 77 central district hospitals and over 300 health-care institutions in the contaminated areas).

A State register is being set up to monitor the health of the victims and study the disaster's direct and indirect medical effects. Information has been collected on 1,855,060 individuals.

Since 1994, medical care for the affected population has been provided in accordance with an annual programme of measures for comprehensive health and medical facilities for the victims of the Chernobyl disaster. The programme aims (1) to provide the seriously ill with treatment at specialized health centres and clinics; (2) to help to protect mothers and children, improve the demographic situation in areas affected by the disaster, to develop the system of primary and secondary screening for diseases connected with the disaster by improving the medical/genetic service; (3) to support the operation of expert assessments for establishing causal relationships between illnesses, handicaps and deaths and the effects of the Chernobyl disaster; (4) to improve equipment for treatment and diagnostic facilities of medical institutions; (5) to acquire medicines, consumable medical supplies and reagents for specialized health centres, departments, clinical laboratories and other establishments; (6) to lend scientific support, conduct research and development activities, ensure that treatment centres absorb scientific advances and provide treatment for victims; (7) to provide social and psychological support and rehabilitation; and (8) to work on the development and operation of the medical subregister attached to the State register of victims of the disaster.

There are five centres providing social and psychological support and information on ways to counter the effects of the Chernobyl disaster for the population of the Zhytomir and Kyiv regions. In September 2002, the Ministry of Emergencies and UNDP extended their existing operation by launching a third phase, for 2002 to 2005, of the Chernobyl Recovery Programme. Assistance will be concentrated at region and district level. The aim of the project is to revive the areas around Chernobyl and increase the social vitality and accountability of the population of agricultural regions.

The radiological situation in contaminated areas and protection of the population

Radioactive contamination of land following the Chernobyl disaster added to the sources of long-term ionizing radiation in the environment and thus increased human exposure.

In 1991, the Ukrainian Parliament adopted a concept of population residence in the territories of Ukraine with increased levels of radioactive contamination as a result of the Chernobyl accident. It was used as a basis for post-Chernobyl legislation for radiation protection.

Between 1991 and 1995, on the basis of the legislation in force, the area of radioactive contamination was mapped out. It included 2,293 communities across 12 regions which had been most seriously contaminated as a result of the accident. The current population of the contaminated area (74 districts, 12 regions) is almost 2.3 million, over 1.6 million of whom are in the area under the closest radiological and environmental monitoring.

A key aspect of the Government's policy to mitigate the consequences of the Chernobyl disaster involves a set of measures for comprehensive protection of the population and the creation of safe living conditions in the contaminated areas. As a basis for planning, it is necessary to conduct an objective assessment of radioecological conditions for residence and to draft the appropriate standard-setting legislation.

Dosimetry monitoring plays a key role, and consists of certification of communities through dosimetry, including thyroid dosimetry, and determining internal doses of radiation according to data from direct measurement of radiocaesium levels in the human body. Thyroid dosimetry certification makes it possible to identify adults and children at high risk from iodine isotope irradiation of the thyroid, in order to prevent disease and provide assistance. Thyroid-dosimetry certification was carried out for all populated areas between 1992 and 1999. Because the results of the 1992-1995 certification were in need of revision, in 2000 direct thyroid activity readings were analysed and the methods of retrospective reconstruction of irradiation levels were refined.

Since 1991, the regional offices of the Ministry of Health have carried out dosimetry certification of around 2,160 settlements in the contaminated areas. The results are published in digests of overall dosimetry certification for populated areas throughout Ukraine. Since 1995, mass measurements of absorbed radio-caesium content for inhabitants of the contaminated areas have been conducted. The figures obtained, taken together with the results of dosimetry certification, provide the basis for programmes of countermeasures for agro-industry. In a climate of shortage of funds, they also allow assistance to be targeted more precisely and the effectiveness of existing measures to be assessed.

The network of radiation-monitoring points plays an important role in preventing additional irradiation. The laboratories and posts of seven ministries and

departments perform a wide-ranging programme of radiation monitoring of food products at all stages of production.

An important consideration is making countermeasures part of agriculture and forestry activities, in order to prevent radionuclides from entering the food chain (soil-plant-animal-human). The contaminated land in Ukraine still has 55 State forestry companies, employing over 36,000 people.

Options for the international community to help with issues connected with Chernobyl in the future

1. If the existing problems are to be addressed, Chernobyl-related issues must be kept on the agenda of the General Assembly, and cooperation between Ukraine and the United Nations and specialized agencies working in this field must be expanded.

2. As the central policy and coordinating mechanism of the United Nations for Chernobyl issues, the Quadripartite Committee for Coordination must continue to operate.

3. The intention of the United Nations Secretariat to draw the funds and specialized agencies (IAEA, UNDP, UNICEF and the United Nations Population Fund) more actively into the activities of the Quadripartite Committee for Coordination should significantly widen cooperation to minimize the long-term consequences of the Chernobyl disaster.

4. It would be desirable to establish an International Chernobyl Fund to provide financial support for implementing proposed projects. At this stage, project outlines should be refined and turned into actual projects acceptable to affected countries and to donors. The Government of Ukraine is prepared to provide comprehensive assistance for the implementation of projects approved.

5. In order for the United Nations to help elicit funds from donors, consideration should be given to greater cooperation between Ukraine and other Member States regarding matters connected with the closure and decommissioning of the Chernobyl nuclear power station.

6. A comprehensive programme for 2003 to 2005 and the period up to 2010 is being drafted for the socio-economic revival and development of the areas contaminated by radiation following the accident at the Chernobyl nuclear power station and the areas of mass population resettlement. Efforts should be made to involve international organizations, the United Nations, world-renowned specialists on such issues and resources from international funds in the development and implementation of the programme.

7. An effective way to provide support for the affected population would be to set up five social and psychological rehabilitation and public information centres, involving the office of the United Nations representative in Ukraine. The Ministry of Emergencies is proposing to involve individual United Nations programmes (using international funds) in expanding the network of such interregional centres in places inhabited by victims of the disaster in order to help address their social problems.

8. The international community should be involved in determining which medical centres should treat individuals needing organ and tissue transplants, heart and brain surgery, oncological care and so on, and in financing that treatment.

9. Many non-governmental organizations from Ukraine and the rest of the world organize treatment abroad for children who are victims of the disaster. The opportunities for such treatment available from international organizations could be better exploited if they were coordinated by UNICEF.

10. There is a demand for more effective involvement of international organizations, especially the United Nations, in developing telecommunications for rapid worldwide exchange and dissemination of radiological and environmental information and medical statistics connected with the Chernobyl disaster.