

## MAIN CONCLUSIONS OF THE CHERNOBYL FORUM

1. The Chernobyl accident in 1986 was the most severe nuclear accident in the history of the world nuclear industry. Due to the vast release of radionuclides it also became the first rate radiological accident. However, after a number of years, along with reduction of radiation levels and accumulation of humanitarian consequences, severe social and economic depression of the affected Belarusian, Russian and Ukrainian regions and associated serious psychological problems of the general public and emergency workers became the most significant problem.

2. The majority of the more than 700 000 emergency and recovery operation workers and five million residents of the contaminated areas in Belarus, Russia and Ukraine received relatively minor radiation doses which are comparable with the natural background levels; this level of exposure did not result in any observable radiation-induced health effects.

An exception is a cohort of several hundred emergency and recovery operation workers who received high radiation doses; of whom approximately 50 died due to radiation sickness and its consequences. In total, it is expected that radiation has caused, or will cause, the premature deaths of around 4000 people from the 600 000 affected by the higher radiation doses due to the Chernobyl accident.

Another cohort affected by radiation are children and adolescents who in 1986 received substantial radiation doses in the thyroid due to the consumption of milk contaminated with radioiodine. In total, about 4000 thyroid cancer cases have been detected in this cohort during 1992–2003; more than 99% of them were successfully treated.

3. Radiation levels in the environment have reduced by a factor of several hundred since 1986 due to natural processes and countermeasures. Therefore, the majority of the land that was previously contaminated with radionuclides is now safe for life and economic activities. However, in the Chernobyl Exclusion Zone and in some limited areas of Belarus, Russia and Ukraine some restrictions on land-use should be retained for decades to come.

4. Countermeasures implemented by the Governments in coping with the consequences of the Chernobyl accident were mainly timely and adequate. However, modern research shows that the direction of these efforts must be changed. Social and economic restoration of the affected Belarusian, Russian and Ukrainian regions, as well as the elimination of the psychological burden of the general public and emergency workers, must be a priority.

Another priority for Ukraine should be the decommissioning of the destroyed Chernobyl Unit 4 and the safe management of radioactive waste in the Chernobyl Exclusion Zone, as well as its gradual remediation.

5. Targeted research of some long term environmental, health and social consequences of the Chernobyl accident should be continued for decades to come. Preservation of the tacit knowledge developed in the mitigation of the accident consequences is essential.

6. This report is the most complete on the Chernobyl accident because it covers environmental radiation issues, human health consequences and socio-economic consequences. About 100 recognised experts in the field of Chernobyl-related research from many countries, including experts from Belarus, Russia and Ukraine, have contributed to it. This report is a consensus view of the eight organisations of the UN family and of three affected countries.