agricultural land have registered contamination of the soil sufficient to warrant concern. How can one put these figures into perspective?

They indicate, first of all, that Chornobyl contamination affected 6.6% of all Ukrainian territory; 7.4% of all agricultural land; and 1.6% of all forests, according to official statistics for the years immediately prior to the accident. The evacuations entailed the construction of new residences for resettlers in ecologically clean zones, and the erection of a completely new city for Chornobyl plant operatives and their families, called Slavutych, and located in western Chernihiv Oblast, about 42 miles northeast of Chornobyl. In 1995, Slavutych had 28,000 inhabitants (as compared to the 45,000 who lived in the now abandoned Pripyat). How do the above statistics translate into human casualties?

## **Human Toll**

Human casualties from Chornobyl can be divided into several categories: the initial firemen and first-aid workers; the liquidators; the evacuees; and the population living in regions of high radiation fallout. When the USSR established a Government Commission to deal with the consequences of the disaster, the official death toll was given as 31,280 of whom had reportedly died from radiation-related causes. figure then remained static and additional deaths were not added to it. Some highlyrespected public figures succumbed to the effects of Chornobyl, including the Ukrainian film director, Volodymyr Shevchenko and possibly even Borys Shcherbyna, the first chairman of the Government Commission. The suicide of Valeriy Legasov, the head of the Soviet delegation to the International Atomic Energy Agency (IAEA) in Vienna, on the second anniversary of Chornobyl was clearly linked to that accident. Ostensibly Legasov could not live with the knowledge that the nuclear industry had commissioned the station despite information that the



CHILDREN OF CHORNOBYL CDN FUND
One of the million children of Chornobyl

## CHORNOBYL FACTS & FIGURES

Impact on Ukraine

Territory contaminated by radioactivity

Agricultural land contaminated by radioactivity

Agricultural land removed from cultivation by government

Forest lands affected by radioactivity

Forest lands no longer usable

Number of people living in irradiated areas or evacuated

Number of people evacuated, incl. emergency workers exposed to radiation in cleanup

1990-1995

Financial toll

Chornobyl contamination affected 6.6% of all Ukrainian territory; 7.4% of all agricultural land; and 1.6% of all forests. Evacuation of the town of Pripyat of 45,000 and their resettlement into the completely new city of Slavutych erected for 28,000 inhabitants

over 40,000 sq. km., incl. 2,200 cities, towns and villages

4.5 million hectares

123,000 hectares, of this 52,000 falls within the 30-km radius of the Chornobyl Evacuation Zone

4.4 million hectares

136,000 hectares, of this 110,000 falls within the 30-km. Evacuation Zone

3.2 million, of which nearly 1 million are children

356,600, with 160,000 evacuated. Of these, 50,000 have since become disabled, and more than 125,000 have died (of these, 6,000 took part in the original cleanup)

Incidence of thyroid-related cancers in children has increased between 6.5 and 10 times

Over the past ten years, Ukraine has been spending 12% of its national budget on the consequences of Chornobyl

Chornobyl plant contained some 32 fundamental design flaws.

n 1990, I interviewed an official of the Pripyat Industrial and Research Association who was visiting Canada, and whom I had first met at the Chornobyl plant the previous year. He noted then that about 5,000 liquidators had died since the accident, some of whom had suffered heart attacks. The liquidators were predominantly young men in their 20s and thus should not normally have died from such a cause. A recent figure offered by the National Committee for the Radiation Protection of the Population is 5,722 deaths among liquidators. In addition the former decontamination crews suffer from various ailments. Almost 50% of those liquidators resident in Ukraine have some ailments, most notably skin diseases, digestive and breathing problems, while many have complained of loss of libido.

Reliable information on the number of civilian deaths is the most difficult to ascertain, for two reasons. First, the international scientific community has been negligent in providing an accurate picture of the true health situation in the areas affected by Chornobyl. A 1991 study undertaken by a group of experts working under the auspices of the IAEA, which produced the International Chornobyl Report (ICR), attempted

to assure the world that the health impact of Chornobyl had been exaggerated; that although the possibility of thyroid gland cancers and leukemia in the future could not be discounted, in 1990-91 there was no evidence of serious health concerns. Rather, there was a great deal of psychological tension and stress, some of which had been generated by constant evacuations of people who would have preferred to stay in their homes

From the perspective of 1996, it is easy to criticize such a report as outdated, but evidence suggests that even by 1991, health problems related to Chornobyl were already becoming apparent. In the following year, an article in the British journal "Nature" noted the correlation between a new outbreak of thyroid gland cancer among children and radiation fallout from Chornobyl. The ICR investigation team did not, however, examine liquidators or evacuees. The results ascertained, therefore, were perhaps not so surprising. Nonetheless, the Report was circulated widely as an attempt to provide a current account of the health problems, or lack thereof, generated by Chornobyl.

Continued on page 61