

Chernobyl: Fact and Legacy

April 26 this year marks the thirtieth anniversary of the Chernobyl nuclear explosion, when tests at the power plant there went calamitously wrong.

Then in the Soviet Union and now in Ukraine, the consequences for Belarus have been disastrous. The accident occurred a generation ago, yet it continues to blight lives today. Future generations will find little respite.

The facts: a night of horrors

In the early hours of 26 April 1986, safety tests to the fourth reactor at the nuclear power plant adjacent to the city of Pripyat (population 43,000) caused a power surge. A steam explosion ensued leading to a fire, a further series of explosions and then nuclear meltdown. The core of the reactor was totally destroyed and the roof blown into the sky.

Chillingly, survivors who watched from apartment balconies in Pripyat itself, just two kilometres away, reported that the deadly pall billowing from the roofless reactor actively glowed. Yet none of the onlookers had any idea of the mortal danger they were in from this spectacular pyrotechnical display.

The state's response: 'What explosion?'

In the immediate aftermath the State responded by saying and doing very little. The concerns of the international community were met with silence and denial.

Other than the commencement of evacuation from the immediate area, little was done in terms of measures to address the effects of radiation on the general public, who received no information about what had happened.

The authorities had little idea of what they were dealing with. A massive clean-up campaign subsequently began, largely involving the sluicing-down of buildings and other structures. But the major consequence of this was to wash the radiation down into the ground, increasing the level of contamination.

The impact: questions without answers

Land covering approximately 20% of the territory of Belarus (most of it in the south-east) continues to be affected by radioactive fallout. Thirty years on, accessing reliable information as to the impact of this in terms of hard statistics continues to offer something of a challenge.



Statistics can always be selectively presented to 'prove' a particular point, and perhaps it comes as no surprise that conclusions in high profile reports published by the energy and green lobbies differ extravagantly.

One side of the debate claims that only 28 people died from acute radiation exposure. The opposite side attributes thousands of deaths to the explosion, with many thousands more apparently identified as suffering from carcinoma and related conditions.

Visits to 'hot spot' areas where rain dumped larger doses of radioactivity are only permitted with the prior approval of the authorities, and then only when accompanied by officials. Here, signage displaying the international warning logo is everywhere to be seen, though the extent to which the authorities continue to control access is subject to question.

Whole villages stand abandoned to the elements. Once a year the bereaved are permitted to visit cemeteries to honour the dead, on the occasion of Radaunica (Ancestors Remembrance Day), a public holiday that falls on the ninth day after Orthodox Easter.

Over time, a number of people (particularly the elderly) have returned to homes that are still capable of habitation. No reliable studies exist as to numbers or the extent to which risk to health remains.

The impact: indisputable fact

Some issues are beyond ambiguity, not least the stark reality of fallout 400 times greater than generated by the bomb detonated over Hiroshima in 1945, and 16 million times greater than the accidental release at Three Mile Island in Pennsylvania in 1978.

Around 135,000 people were forcibly moved from the immediate area. The town of Pripjat itself stands as an abandoned wasteland, crumbling, frozen in time and left to the mercies of the elements. Wildlife rules events here.

As the scale of the catastrophe began to emerge, the circle of evacuation widened. The State moved many hundreds of thousands more from their homes in towns and villages further afield (including my own adoptive family living 236 kilometres away in Vetka).

Between 300,000 and 600,000 people were engaged in the

decontamination of the 30-kilometre exclusion zone around the plant (known as 'liquidators').

In the years that followed the explosion, instances of thyroid cancer rose dramatically amongst those living in the area or under the path of the radiation cloud, particularly children and teenagers.

Over 500,000 people in Belarus alone present thyroid problems to this day resulting from absorption of radioactive iodine into the thyroid gland. In my own circle of acquaintance in Belarus, I personally know more than a dozen people so affected. Yet swiftly administered doses of non-radioactive iodine on the part of the authorities would have significantly reduced the absorption of this radioactive isotope.

Today, almost two million people continue to inhabit areas within Belarus that remain subject to radioactive contamination, largely from caesium-137. When this and other noxious elements fell on the ground and into the watercourses they entered the food chain, perpetuated still by the circle of life.

Caesium-137 has a half-life of 30 years. So on this thirtieth anniversary of the disaster, the concentration of contamination from this isotope has reduced by just 50%. It will be another 30 years and another generation before it halves again.

Remembering Chernobyl

Outside the Church of St Simeon and St Helena in Minsk (the iconic 'Red Church') stands the poignant Nagasaki Memorial Bell erected in September 2000, a powerful symbol uniting two communities ravaged by the elemental power of nuclear energy gone wrong.

On the day of the anniversary itself I shall be in Vetka for

the annual service at the memorial stone and adjacent church bell, deliberately and symbolically cracked when cast, fatally flawed forever.

The pain remains visceral, though acts of remembrance extend beyond commemoration of loss into areas of practicality.



In the whole of Belarus, Homiel region suffered the worst contamination of all. To assist with the mitigation of the explosion's consequences, the State established the Paliessie Radiation and

Ecology Reserve in the region to study the effects of exposure to radioactive material and to develop long-term contingency planning.

As for the stricken reactor itself, the concrete sarcophagus erected in 1986 has exhibited cracks for many years, in all probability causing more radioactive material to leach into the surrounding ground and the waters of the River Prypiać, one of the largest expanses of free-flowing water in this part of Europe.

The international community has come together to design a more sophisticated tomb on a massive scale, this time made of steel. Still under construction adjacent to the reactor, the new arch will be painstakingly wheeled into place some time in 2017 and the ends sealed.

The legacy: never again?

Until Japan's own nuclear disaster at Fukushima in 2011, the environment affected by Chernobyl was like no other on earth, affording a unique opportunity to study one of the most

significant issues facing the future of the planet.

The fact that Fukushima happened at all suggests that by 2011, the lessons of Chernobyl had still not been heeded. Even today, questions about nuclear safety continue to arise.

The government of Belarus has commissioned a new power plant close to the border with the European Union, just 50 kilometres from Vilnius. 'Unsafe,' cries Lithuania. Belarusian submissions of observance of the strictest international standards are met with counter-allegations that international requirements are not being met.

While the debate rages, Chernobyl radioactive isotopes with half-lives of tens of years remain present in the land and waters of Belarus, and symbolically within the national psyche of its people.

Thirty years have now passed and the insidious consequences of the calamity show little sign of abating. In 2016, there remains significant 'fallout' still.

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Chernobyl and Belarus: from Gorbachev to Lukashenka

While Belarus has suffered more than any other country from the Chernobyl disaster, it receives little foreign aid because of its political isolation. In addition, all the Soviet-type bureaucracy and red tape limit development of community

initiatives and civil society projects in Belarus, particularly those which involve foreign aid.

When on 26 April 1986 the Chernobyl nuclear power plant exploded, the winds were blowing in the direction of Belarus. As a result, more than 70% of the radioactive fallout landed in the south-east of Belarus. One-fifth of Belarus' farming land was severely contaminated.

In 1986, the Soviet Politburo led by Mikhail Gorbachev was concerned more about its reputation than about lives and health of Soviet citizens, who were primarily living in the territory of Belarus. There was nearly no publicly available information about the blast and people marched in traditional 1 May parades with red flags, praising the Communist Party and exposing themselves to high doses of radiation.

Only after radiation levels set off alarms in Sweden, over one thousand kilometers from Chernobyl, did the Soviet Union officially admit that an accident had occurred and began to share more information with the public. Many illnesses and deaths could have been prevented had the authorities in a timely manner taken the most basic precautions, such as distributing iodine, a treatment which prevents the effects of radiation. As a result, Chernobyl resulted in thousands of deaths, and a much higher number of cases of cancer and other radiation-related illnesses.

25 years later, Belarusian authorities led by Alyaksandr Lukashanka seem to have a two-fold approach. At home, they often argue that the effects of Chernobyl are exaggerated and much of the polluted territories are safe to use for agricultural and other purposes. Dealing with the Chernobyl consequences is costly and clearly undermines the Belarusian authorities' decision to build a nuclear plant station close to the border with Lithuania.

Because of the Chernobyl legacy, the idea of building a

nuclear plant station is unpopular in Belarus. However, the Belarusian parliament is not independent and the civil society is too underdeveloped to influence this decision. Just yesterday, the authorities detained a group of people who were going to protest against building a nuclear plant in Belarus. They also banned Charnobylski Shliakh – an annual rally to commemorate the nuclear disaster – but allowed a meeting outside of Minsk city center.

Abroad Belarus authorities often take a different approach. They use the Chernobyl problem to distract foreigners from the political situation in the country. For instance, in 2007 the Belarus embassy in Washington, DC organized a reception for a local chapter of Harvard Club. The stories told by the embassy representatives to Americans about birth defects and other Chernobyl-related consequences were so shocking that following that event they looked at Belarusians as though they were emitting radiation themselves.

However, the ongoing political repressions in Belarus and the personality of Lukashenka hinder authorities' attempts to raise more funds and get political backing to deal with Chernobyl-related problems. Lukashenka was not invited to a major Chernobyl donor conference in Kyiv last week, because the European Commission's President Barroso wanted to avoid embarrassment of meeting him. Only a few lower-level Belarusian representatives were there. Today, President Medvedev of Russia and President Yanukovich of Ukraine are visiting Chernobyl, but Lukashenka will not be there.

It is understandable that many world leaders want to avoid meeting Lukashenka. But perhaps the organizers of those events should have invited other high-ranking Belarusian officials not directly implicated in political repressions. It is just not right that the country which suffered the most is nearly excluded from participating in major Chernobyl-related international events.

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