

Japan's Nuclear Crisis: the Long-term Impact

Chatham House Comment by Walt Patterson - 13 March 2011

We do not know what may yet happen at Fukushima and other nuclear plants in Japan. Amid the chaos and devastation caused by the earthquake and tsunami, communications are understandably confused and difficult. But some consequences are already evident.

In the context of the catastrophic damage and loss of life the country has suffered, the media and popular attention paid to the nuclear problems seems disproportionate. But nuclear issues have long been peculiarly resonant in the public mind, especially in Japan, for obvious historical reasons. Moreover Japanese nuclear authorities have an unfortunate track record of downplaying or concealing mishaps, making the media and the public less ready to accept official reassurances.

At the moment, what is known about conditions at Japan's nuclear sites is fragmentary and incomplete, and evolving rapidly. The possibility of much more serious malfunction cannot yet be discounted. The additional stress on the population in the affected areas, with a reported 170,000 people thus far evacuated, is compounding the drastically severe traumas caused by the earthquake and tsunami.

At least three reactors are being flooded with sea water, effectively writing them off. They will never operate again. In fact Fukushima 1 was due to be shut down later this month. But decommissioning it and the other reactors, and cleaning up the radioactive mess inside them, will be a long, difficult and dangerous task, even assuming no more serious developments ensue. The immediate economic impact will be significant. But the longer-term economic impact may be more profound.

The cost of nuclear energy

In recent years the question mark over nuclear power worldwide has been economic. The cost of the new nuclear plants under construction in Finland and France has rocketed to twice and even three times original estimates, compounded by delays and schedule overruns. Commentators have proclaimed a 'nuclear renaissance', but private finance has been patently reluctant to pay. Only with generous government assistance from taxpayers, for instance in the US and, obliquely, in the UK, have new nuclear projects moved much beyond the paper stage anywhere except in centrally-planned, centrally-financed economies.

However, governments and politicians that have hitherto endorsed proposed programmes of new nuclear plants, with financial as well as rhetorical support, may now find that their electorates are abruptly less enthusiastic. Chancellor Angela Merkel of Germany and Senator Joseph Lieberman of the US have today expressed misgivings. Others may follow.

The future of nuclear energy

The implications for energy and electricity policy around the world are as yet unclear. Assuming no more serious subsequent developments at the Japanese sites, nuclear advocates will insist that the episode demonstrates that even under the most extreme conditions, such as the Japanese earthquake and tsunami, the plants are acceptably safe, and that more recent designs will be yet safer. Whether politicians and the public will concur remains to be seen. Many may prefer non-nuclear options.