# Nuclear Weapons and the Environment

The manufacture, testing and disposal of nuclear weapons causes environmental damage. These activities run the risk of accidents resulting in further pollution. The use of nuclear weapons in war would cause death, destruction and lasting contamination on a scale which could threaten the survival of civilisation.

The manufacture of electricity from nuclear power also involves environmental risk.

Scottish CND condemns nuclear weapons and questions the use of nuclear power.

**Mining**

The main radioactive substance in nuclear reactors and nuclear bombs is the element uranium, which is mined in Canada, Russia, Africa and Australia. During the mining process, uranium escapes into the atmosphere and into the ground, where it is spread by water movement. The resulting contamination of air, land and sea will continue for thousands of years.

**The processing of uranium**

More uranium escapes when it is separated from its ore, during transportation and when it is included in nuclear reactors and nuclear weapons. After its use in nuclear reactors the nuclear material is treated in reprocessing plants such as Sellafield (formerly Windscale) in Cumbria where in 1957 a fire at the site caused widespread atmospheric pollution.

The Irish Government has complained and continues to complain about the contamination of the Irish Sea due to the radioactive waste entering it from Sellafield. The explosion at the power station at Chernobyl caused radioactive material to be deposited all over Europe. Many square miles of Belarus were made uninhabitable. Some Scottish sheep farms are not allowed to sell their sheep for food because they contain radioactive substances which came from Chernobyl.

**Submarine risks**

The manufacture and transportation of nuclear weapons involve risks which would not be permitted in non-military activity. In the Trident submarine based on the Clyde nuclear engines, rocket fuel and nuclear warheads are in close

proximity. A fire could cause the escape of nuclear substances and result in the poisoning of areas 30 miles away.

**Atmospheric tests**
Over fifty years ago Britain, the US and Russia tested nuclear weapons in the atmosphere. Even at a time of large scale preparation for hostilities the self destructive nature of this activity was recognised and a treaty was made in 1962 which required an end to these tests. However, underground testing was used instead, threatening water supplies. There was international opposition to nuclear tests by the French Government in the mid 1990's.

**Disposal of waste**
The disposal of nuclear waste is highly controversial especially because some nuclear materials remain radioactive for thousands of years. Some recommend that nuclear material should be incorporated in glass bricks which would be stored underground and that this would be a safe method of storage. Others say it should be kept above ground where it can be monitored and moved if necessary.

**Nuclear weapons**
Two nuclear bombs destroyed the cities of Hiroshima and Nagasaki in 1945. There are now thousands of nuclear bombs in the world. Nuclear weapons cause blast, fire, the release of lethal radiation and the dispersal of radioactive material. In the event of nuclear war thousands would die while those who survived would not be able to eat crops from affected areas and would be subject to disease. Homes, hospitals and schools would be destroyed. Food and help could not be sent because transport would also be destroyed.

**Depleted Uranium**
Depleted Uranium (DU) is a by-product of the process that produces enriched uranium for use in nuclear weapons and nuclear power stations Because it is very hard it is used in the tips of shells containing high explosives to give them more penetrating power. On impact the uranium disperses as fine particles, which can be breathed into the lungs.