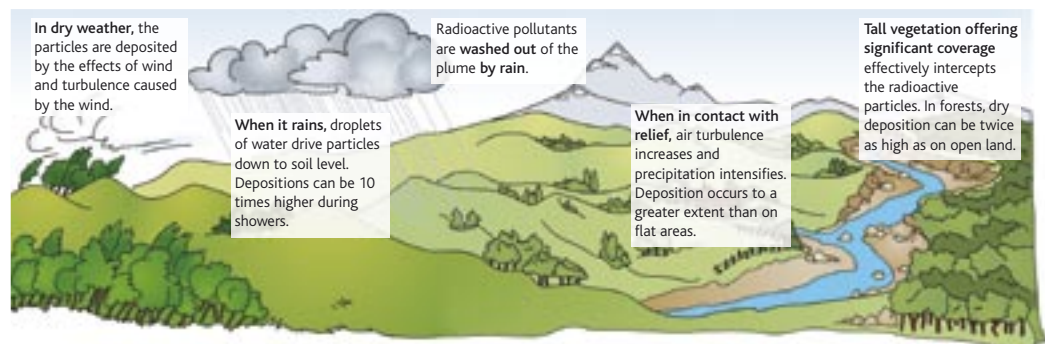


DEPOSITIONS IN SOIL

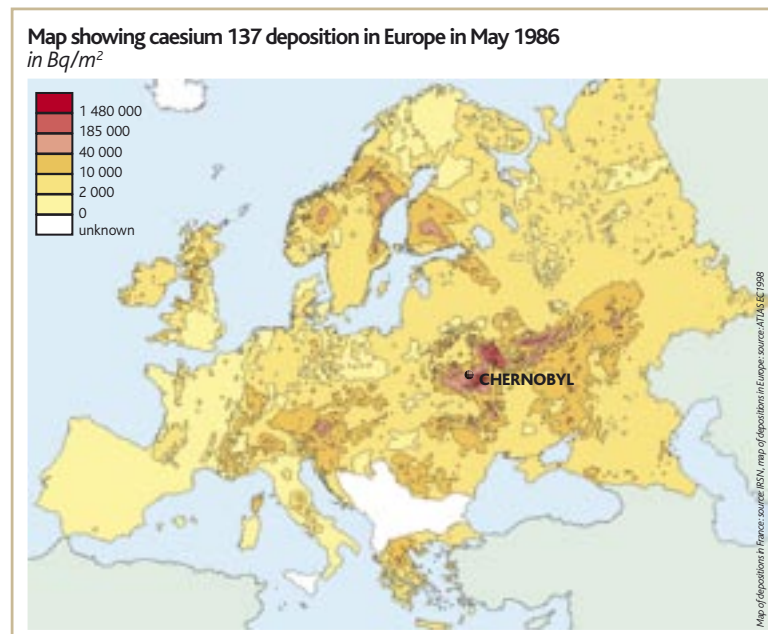
# The deposition of radioactive particles is enhanced during rainfall

The map of caesium 137 deposition in Europe shows spots marking the regions which were the most severely affected by the plume of smoke passing over them.

## DEPOSITION VARIES ACCORDING TO WEATHER AND TOPOGRAPHY



## CONTAMINATED AIR MASSES MOVED TOWARDS WESTERN AND NORTHERN EUROPE FROM 26 APRIL 1986



Heavy rain fell on certain regions. In Austria and Scandinavia, some soil was contaminated up to a level of 185,000 Bq/m<sup>2</sup>.

The 30 km area around Chernobyl and the Belarus, Ukraine and Russia regions were strongly affected by the first plume and were contaminated up to levels of over 1,480,000 Bq/m<sup>2</sup>.

## CAESIUM 137 WAS CHOSEN AS THE STANDARD FOR CHARACTERISING CONTAMINATION IN EUROPE

Indeed, following the radioactive decay of iodine 131, which disappears after 3 months, caesium 137 remained the main source of contamination. Moreover, the initial proportions between

caesium 137 activity and that of other radionuclides is known:  $^{137}\text{Cs}/^{134}\text{Cs} = 2$ .  $^{137}\text{Cs}/^{131}\text{I} = 0.13$  to  $0.2$ .  $^{137}\text{Cs}/^{103}\text{Ru} = 0.7$ .  $^{137}\text{Cs}/^{106}\text{Ru} = 3$ . Finally, caesium 137 can be easily measured.

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