ENVIRONMENTAL POLLUTION AND THE CZECH REPUBLIC

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Within a few decades, the Czech Republic concentrated coal mining, heavy industry, chemical production, Soviet military bases and intensive agriculture in the heart of Europe. This makes it an ideal case study for how pollution is created, how it spreads and how it is managed. The lecture starts with key concepts: source, pathway and receptor, and the difference between hazard and risk. It then explains how the country moved from a planned economy to EU environmental law. A central theme is the contrast between legacy contaminants, such as chlorinated solvents, fuels, dioxins and metals, and emerging ones, such as PFAS and tyre-derived chemicals. Four Czech sites show how real contamination has been handled: the Spolana chemical plant, the Ostramo oil lagoons, the former Soviet military area of Ralsko and the 2025 benzene spill at Hustopeče nad Bečvou. Together they introduce technologies ranging from thermal treatment and soil vapour extraction to nanoscale zero-valent iron and in situ chemical oxidation. The lecture ends with an open question: what does "successful remediation" mean?