

HOT SPOTS

BAD STEWARDSHIP

TOWN ON THE MOVE

The northern Swedish town of Kiruna has been built around the world's biggest underground iron mine. Below ground, the mine is eating its way towards the town centre. So the town has to get out of the way: it is being moved lock, stock and barrel several kilometres to the east. The clock tower, several historic buildings and the century-old church will be moved; the other buildings will be torn down and built anew. In many other countries, the residents would simply be evicted, but Sweden is different: the state-owned mining company is paying for the move, which is expected to cost more than 600 million euros.

Kiruna

PHOSPHATE FROM A GREY ZONE

Phosphate is the most important natural resource of the Moroccan-occupied Western Sahara. The open-pit mine at Bou Craa is one of the biggest in the world. A conveyor belt over 100 kilometres long brings the ore to the coast. The economic significance of the mine is increasing as world reserves of phosphate decline and prices rise. From the point of view of international law, the removal of natural resources from an illegally occupied region constitutes theft by the Moroccan state. Several states, including India, recognize the independent Sahrawi Arab Democratic Republic, but imports the phosphate anyway.

Western Sahara

Nigeria

BENZENE IN THE WATER

The densely populated Niger Delta is one of the most polluted areas of the planet. More than 5,000 oil wells and 7,000 kilometres of pipelines obstruct farming, aquaculture and fisheries. Water sources contain too much benzene – a carcinogen – to be used for drinking. After the Ogoni and Ijaw, two Delta tribes, failed to benefit from government programmes, they launched a resistance movement in the early 1990s. This has led to bloody repression by the government, especially against the Ogoni. Political conflict has led to ethnic strife, with the Ijaw declaring the Delta to be theirs, and the Itsekiri people registering their claims to oil-rich land faster than the Ijaw. The United Nations Environment Programme estimates the cost of cleaning up the pollution at 1 billion dollars.

SPRAYING ON A GRAND SCALE

Nearly all of the soybeans grown in Argentina are genetically modified to resist Glyphosate, a herbicide. Farmers use tractors or planes to spray their crop. According to the Argentinian health ministry, twice as many people die from cancer in areas with large-scale use of agrochemicals than the national average. In 2012, a pilot and two soy producers were found guilty of spraying Glyphosate and the insecticide Endosulfan near a residential area. In the last year alone, Argentinian farmers are thought to have sprayed 200 million litres of pesticides on soybean crops.

Argentina



A SALTY, BARREN HERITAGE

Government subsidies for electricity, fertilizer and high-yielding crops have given rise to a tribe of “tubewell nomads” in the Thar Desert in Rajasthan. These are farmers who pump groundwater to grow mustard and wheat, pushing out the pastoralists who graze their animals there. That lowers the water table, forcing the farmers to deepen the wells. After a few years, the groundwater level sinks below the reach of the pumps. The farmers move on to the next spot, leaving behind barren, salty ground in place of the previous drought-resistant plants. Camels are the only livestock that can eat the salty vegetation.

NITROGEN, ARSENIC AND MERCURY

In much of China, far more nitrogen fertilizer is applied than is necessary. Only 30 percent of the applications are effective; the rest is carried away by runoff or percolates down into the groundwater. Antibiotics that contain arsenic and mercury are a special problem: animals excrete them in their dung. The use of antibiotics in livestock-raising is subject to only weak controls in China. The government has declined to publish details of research about the extent of heavy metal contamination from industry.

CRUMBLING TERRACES

The spectacular rice terraces of Banaue are some of the oldest constructions in the Philippines, and are a Unesco World Heritage Site. Up to 2,000 years old, many have been reinforced with stones for at least 600 years. They climb hillslopes at angles of up to 70 degrees – but they are starting to erode. For they need regular maintenance, which they no longer get. Local people prefer to move into the towns or work in the new tourist industry, rather than doing the back-breaking work needed to care for the area’s stepped landscape.

Rajasthan, India

China

Bhopal

Banaue

TRAGEDY WITH NO END

In 1984, a poisonous cloud of gas escaped from a pesticide plant belonging to Union Carbide (now part of Dow Chemical) in Bhopal, blanketing nearby shanty towns. Up to 25,000 people to date have died as a direct result of this industrial accident, and hundreds of thousands were injured. The site has still not been cleared of its toxic chemicals. Local residents are still exposed to pollution from the plant, and polluted groundwater still threatens their health.

Borneo

MISGUIDED IRRIGATION

Once almost completely covered with dense forest, the island of Kalimantan (Borneo) has lost much of its tree cover since the arrival of two invader species – the chainsaw and the caterpillar tractor. In the 1990s, an attempt to grow one million hectares of rice failed because the irrigation channels dug drained the land instead of watering it. The dry peat burns easily, releasing huge amounts of carbon dioxide into the atmosphere and causing an annual “haze” that blankets much of Southeast Asia in choking smog. Logging – much of it illegal – oilpalm plantations and open-cast coal mines are major current causes of soil loss.