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The real reason for Germany's flood disaster

A ‘monumental failure of the warning system’

Weather scientists say a ‘monumental failure of the system’ is directly to blame for the death and devastation triggered by a month’s worth of rain that fell in two days this week

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The first signs of catastrophe were detected nine days ago by a satellite orbiting 500 miles above the tranquil hills around the Rhine river.

Over the next few days a team of scientists sent the German authorities a series of forecasts so accurate that they now read like a macabre prophecy: the Rhineland was about to be hit by “extreme” flooding, particularly along the Erft and Ahr rivers, and in towns such as Hagen and Altena.

Yet despite at least 24 hours’ warning that predicted, almost precisely, which districts would be worst afflicted when the rains came, the flood still caught many of its victims largely unawares.

A destroyed house in Altenahr, Germany. There is suggestion that the government was under-prepared for the disaster

Germany got its preparations “badly wrong”, one of the experts who built Europe’s sophisticated flood prediction model told The Sunday Times. Hannah Cloke, professor of hydrology at Reading University,

said that a “monumental failure of the system” had led to one of postwar Germany’s deadliest natural disasters, which had by last night claimed at least 133 lives since Wednesday and left hundreds of people unaccounted for. At least another 24 people were dead across the border in Belgium, a figure that the country’s national crisis centre expected to rise, while the rains forced thousands from their homes in the Netherlands.

On Tuesday and Wednesday parts of Germany were deluged with more than a month’s worth of rain in 48 hours. Some tributaries of the Rhine swelled to record levels, turning cities into lakes of mud, sweeping away buildings and bridges, and drowning dozens of people in their homes.

“When I woke up [on Thursday] morning and saw how many people had died, I just thought: you can do better than this,” said Cloke. “I’m disappointed that particularly in the cities you had people washed away. That suggests that lots of things are going badly wrong.

“People should have been receiving warnings; people should have understood the warnings. It’s no use having massive computer models predicting what’s going to happen if people don’t know what to do in a flood.”

Instead, the overwhelming majority of people in the path of the floods carried on with their everyday lives, oblivious to the danger, as the waters began to rise.

The German government is now facing questions about how many lives might have been saved had it evacuated the danger zones in time and properly conveyed the gravity of the impending crisis to the public. As Bild, the country’s bestselling newspaper, put it: “Did our disaster protection agency fail?”

In the midst of these reproaches thousands of police officers, firefighters, volunteers, disaster-relief workers and soldiers combed the crisis areas for bodies and trapped survivors as the death toll continued to mount, rising by another 30 in Germany.

In Sinzig, near Koblenz, where 12 residents of a home for people with learning disabilities died, a man escaped from the building and clung to a flimsy window blind for four hours while 10ft-high floodwaters raged around him. “Only his head was above the water,” one witness who lives across the road told Bild. “I saw him and I couldn’t help him. He was screaming for his life. It was unbelievably bad, because I couldn’t intervene.”

On Friday night 700 people had to be evacuated from the nearby district of Heinsberg, the site of Germany’s first serious coronavirus outbreak, after a dam on the Rur river was breached and water swamped the village of Ophoven, close to the Dutch border.

The floods have subsided in parts of the Rhineland and the sun finally broke through the low clouds over the region, but the situation remains critical in Erftstadt, ten miles southwest of Cologne. Houses there were flattened after their foundations were swept away and a vast sinkhole has caused part of the town’s castle, the Burg Blessem, to collapse.

President Steinmeier visited the scene and promised swift financial aid. “Your fate is tearing our hearts apart,” he said. “Many people in these regions have nothing left but their hope. We cannot afford to disappoint this hope.”

Angela Merkel, the chancellor, will travel to flood-ravaged areas in the neighbouring state of Rhineland-Palatinate tomorrow after returning from an official visit to the White House.

In the early 2000s Cloke and two of her colleagues designed the European Flood Awareness System (Efas) with a disaster such as this in mind. After the cataclysmic floods across central and eastern Europe in 2002, which claimed at least 110 lives in nine countries, they resolved that, next time, the victims had to be forearmed. “Given the number of deaths and the amount of damage, we had the idea that we should never allow this to happen again,” Cloke said.

The algorithms combine observations from the European Union’s Copernicus satellites with hydrographical records and readings of river

levels in order to give national agencies up to ten days to prepare for the worst.

In 2014 alerts and maps from Efas allowed the authorities in Serbia, Bosnia and Croatia to fine-tune their response to colossal flooding in the Balkans. This time, however, Efas found itself playing the role of Cassandra.

It raised the alarm on July 10 — four days before the first floods — with warnings to the German and Belgian governments about the high risk of flooding in the Rhine and Meuse basins.

Over the next few days it produced minutely detailed charts correctly predicting most of the areas that would suffer the heaviest damage. Its German partner agency requested specific analysis of several rivers including the Ahr, along whose banks at least 93 people later died and 618 were injured.

Cloke said that some of the flash flooding would have been tricky to forecast in detail but there was “certainly time” to prepare larger towns and cities with warnings or evacuations.

This was hardly an unrealistic scenario: in parts of the US, for example, people are well accustomed to tracking hurricane forecasts and battening down the hatches or leaving their homes when a particularly violent storm is on its way. Yet even as the heavy rain arrived in Germany there was little sense of urgency. Only a handful of cities, such as Wuppertal, set off their sirens.

The Federal Office for Citizen Protection and Disaster Assistance (BBK) issued alerts to the relatively small fraction of the public who had downloaded its apps. Most people, however, were taken by surprise. Some even appear to have sought refuge in their basements.

“The fact that people didn’t evacuate or get the warnings suggests that something is going wrong,” Cloke said. “If you’ve got some information about what risk you’re at and you can understand it, you can take action to protect yourself. These floods were huge. Probably they were like a fantasy or a kind of science-fiction movie for people.”

One underlying problem is the parlous state of Germany's alarm systems. Last September the BBK held a national "warning day", when people across the country were supposed to be simultaneously deafened by sirens and inundated with alert messages in a simulated natural disaster. It was a debacle: most of the technology didn't work.

However, Wolfram Geier, head of risk management at the BBK, said too many ordinary Germans were failing to look out for their own safety and take the warnings seriously. "People knew an extreme weather situation was coming and that it could hit them," he told the General-Anzeiger newspaper in Bonn.

"[But] I think a lot of people clearly underestimated the weather warnings. The population must be made to realise that deluges like this are probably going to occur more frequently even in Germany in the future, and not just in other parts of the world. So people must learn to act swiftly and protect themselves when their home town is affected by a heavy-rain warning."

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