

Small-minded government

Last week's debacle in New Orleans highlights failings not just in the Bush administration, but in how the United States chooses to govern itself.

The term 'natural disaster' doesn't really do justice to the scenes that unfolded in the southern United States last week. For a start, the main cause of death in the aftermath of Hurricane Katrina will have been drowning as a result of the flooding in New Orleans that sprang from a widely anticipated failure of the city's flood defences. There is an overwhelming sense that the human calamity that befell the city was avoidable and represents a failure of the US government to protect its most vulnerable citizens.

Much of the blame for the painfully slow reaction to the hurricane has fallen on President George W. Bush, and for good reason. His belated and uninspiring personal response to the crisis has invited widespread criticism. The Department of Homeland Security, the newly created government department that fumbled the early rescue efforts, is viewed as Bush's creation and is ineptly staffed by the president's appointees.

Yet as criticism rains down on the administration, it should be pointed out that several contributory factors that led up to this fiasco preceded Bush's arrival in the White House. These include rampant poverty among African-Americans in New Orleans and other US cities; a systematic failure to build public infrastructure commensurate with America's vast wealth; the habitual creation of dysfunctional government agencies by congressional fiat; and the failure of scientists to successfully convey their concerns to policy-makers.

Previous US flood disasters — notably in Johnstown, Pennsylvania, in 1889 and in the New Orleans area in 1927 — prompted major political upheaval. It is not inconceivable that Katrina will force America's leaders to confront poverty and support public investment in infrastructure. But short of such far-reaching change, the disaster should lead to an immediate re-examination of how the federal government is organized, and how it responds to scientific advice.

The Department of Homeland Security was originally conceived in Congress as a response to the terrorist attacks of 11 September 2001. After initially opposing the idea, Bush co-opted it, removed its most potent aspect (the incorporation of the intelligence agencies) and implemented what was basically an amalgamation of existing

government departments, including the once-admired Federal Emergency Management Agency (FEMA).

According to many observers (see page 174), the reorganization has weakened FEMA and focused its attention on such scenarios as bioterror attacks. The public face presented by FEMA has been diminished, and the agency seems to have retreated from its traditional position at the forefront of disaster response. This weakening has left city and state governments in Mississippi and Louisiana bereft of leadership from the federal government at their moment of greatest need. The lesson is that sweeping reorganizations of government agencies in response to particular crises can have severe adverse consequences.

Knowledge of the risk of a storm-induced flood in New Orleans has been widespread in the scientific community for years, and researchers have sought to improve our understanding of it. Much of this work has taken into account stubborn facts such as the propensity of the poor, the elderly and the sick to ignore evacuation orders.

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There seems to be a disconnect, however, between the process that identifies such risks and the people who make the decisions that might manage them. There are indications that many senior politicians — not just President Bush — were simply unaware that the New Orleans flood risk even existed.

River management, meanwhile, has developed into something of a scientific backwater in the United States, some of its practitioners complain. It has also been a subject of bitter political contention — generally between the supporters of the Army Corps of Engineers, which likes to build levees, and environmentalists, who favour marshland conservation and more 'natural' river flow. In the aftermath of Hurricane Katrina, this dialogue-of-the-deaf must end, and the assessment and management of natural risks should be genuinely embraced as a national priority. ■

Proteomics' new order

An international organization is finally bringing discipline to the study of cells' sets of proteins.

The international Human Proteome Organisation (HUPO) was launched in 2001 to much scepticism. After all, the proteome — the complete set of proteins expressed by a cell's genome, and modified following expression — is a moving target. Its constituents change continuously according to the conditions to which

the cell is exposed. A 'human proteome project', in contrast to the Human Genome Project, would be a fuzzy, infinite endeavour. What role could there be for an international organization?

Proteomics was in any case enjoying a mixed reputation. The work of a small number of excellent labs was being diluted by vast data dumps of dubious value. The new techniques developed to identify proteins on a large scale were being snapped up by inexperienced users who pumped out data that often proved hard to reproduce. Even in the best hands, the various techniques had very different outputs, making comparison of results between labs difficult. And it was clear to many that the simple cataloguing of long lists of proteins