

## Responding to Hurricane Katrina and Social Justice Issues in New Orleans

For nearly a decade scientists had been predicting a severe hurricane to hit the Gulf Coast region. New Orleans is kept dry and habitable by a series of levees managed by the US Army Corps of Engineers (USACE). The USACE reported that the levees in New Orleans were unlikely to hold during such a storm event. Approximately 80% of the City of New Orleans sits below sea level, sandwiched between the Mississippi River to the south and Lake Pontchartrain to the north. When the levees failed during Hurricane Katrina, the city flooded. In addition to the failure of the levees, wetlands that line the coast of New Orleans had deteriorated due to a combination of natural and anthropogenic factors. On a global scale, sea surface temperatures are rising across the Atlantic Ocean, increasing the force of hurricane events. All these factors made New Orleans highly vulnerable to an extreme hurricane event.

How did the science-practice interface and social justice issues affect the decision-makers' preparation and response to Hurricane Katrina? Hurricane Katrina, which made landfall in New Orleans on August 29, 2005, exposed a large high-risk population, many elderly or in poverty, in an area known to be vulnerable to large hurricanes. This case study will assess social justice issues, mainly of race and class, in the management of the preparedness, evacuation and emergency response of this special-needs population of New Orleans. The case study will also investigate the different kinds of social justice issues present in New Orleans. To what extent were social justice issues recognized by decision-makers and in the population? How did they take them into account in decision-making? To what extent do these issues present themselves in the decision-making process? How well documented and understood are these issues? Who were the key actors in the decision-making process? What roles did they play?

According to the 2000 US Census, New Orleans's population was 484,674 with 130,896 people (26,988 families) living below the poverty level. Decision-makers were unprepared to evacuate and/or manage more than 22,000 New Orleans residents who were displaced by the hurricane. During two separate government programs designed to develop hurricane evacuation plans, the low-mobility and special-needs populations of New Orleans were not given consideration for evacuation – as the only evacuation routes depended on personal vehicles. The 2004 US Census estimates that 38,295 (28%) of New Orleans households did not have a vehicle available.

During and directly after the storm event, the institutional framework (such as public transportation, social programs and communication systems) that supported the people of New Orleans functioned ineffectively. The crumbling institutional infrastructure forced these low mobility, special-needs, and/or low-income residents into temporary, inhumane shelters with little elasticity to recoup their previous way of life. Their adaptive capacity was dependent on governmental institutions and communication networks; once those frameworks did not support them, their adaptive capacity diminished. This case study aims to assess to what extent the population's adaptive capacity was compromised by the failure of government to respond? Did racial and class prejudices play a role in designing preparedness programs? Did any prejudices or bias result in a major loss of life and property? How did those prejudices, if any, limit the population's adaptive capacity? This case study will answer these questions and will make recommendations about social justice issues and hurricane preparedness.