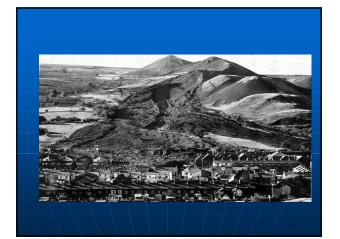
# DISASTER RISK AND THE COMMUNITY

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### BACKGROUND

21 Friday 1966
Tip of Merthyr Vale Colliery
40,000 cubic ms of liquid slurry 12 ms deep
Destroyed a farm, 40 houses and Pantglas Junior School
144 killed, 116 children

## PRECONDITIONS

Huge piles of rock and mining slag on highly porous sandstone and natural springs

Super-saturated slag liquefied

Concern amongst community – LA 1963 letter to NCB

## EFFECTS

Davies Inquiry – NCB at fault Tips engineering structures Prolonged effect on community New legislation introduced







#### BACKGROUND

3 December 1984
Bhopal, Madhya Pradesh
42 million tons methyl isocyanate released
Official death toll 2,259
More generally accepted total 8,000 to 10,000 dead

## PRECONDITIONS

Union Carbide economics Water entered large storage tank of methyl isocyanate Exothermic reaction led to release Poor maintenance Inadequate storage Safety systems shut down Built in populated but poor urban area Poor safety record

## EFFECTS

- Cocktail of chemicals phosgene, hydrogen cyanide, carbon monoxide, hydrogen chloride Heavier than air – entered ground and basement rooms preferentially 170,000 people treated Animals killed/slaughtered
- Vegetation and crops affected
- Food shortage and long term ill health



# HURRICANE KATRINA



#### BACKGROUND

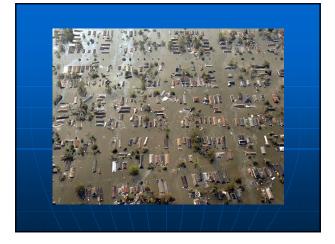
29 August 2005 80% of New Orleans Flooded Depth of 4.5 ms in parts 90% of residents of SE Louisiana evacuated 1,464 people died Public disorder Infrastructure extensively damaged

### **PRE-CONDITIONS**

Levees identified as inadequate Delay in reconstruction (end date of 2015) Evacuation problematic – poor no cars Inadequate policing FEMA changes

## EFFECTS

Poor areas disproportionately badly effected Poor trapped in city Louisiana Superdome experience Clean water and power at a premium Reconstruction prolonged Inadequate housing with all its effects



# PUBLIC REACTIONS



DISEASE		
MRSA		
C Difficile		
SARS		
Avian Flu		
Swine Flu		
HIV		



# NON DISEASE

Electricity cables Mobile phone masts GM food

# PROBLEMS

Scientific illiteracy Deep seated fears Distrust of authorities Vested interest

# APPROACHES

Identification of hazard Understanding of risk Monitoring of risk Management of risk Empower the potentially affected communities Political priority

