

DISASTER CONCEPTS

A

Tectonic activity can produce a very large range of hazard events

Not all of these events are 'disasters'

A natural hazard event becomes a disaster when the event causes a significant impact on a vulnerable population.

These impacts could be human (death, injury) and / or economic (property losses, loss of income).

Definitions vary, but 'significant' losses usually means 10+ deaths / 100+ affected / \$1 million losses.

DREGGS DISASTER MODEL

Geography vol. 77 1992



Know how the overlap of the Venn diagram indicates the scale of the disaster and how over time the overlap increases

B**HAZARD PERCEPTION KATES**

KATES 1992 'THE PERCEPTION
OF NATURAL HAZARDS'

<u>Perception</u>	<u>Response</u>
Acceptance.	Do nothing. Accept losses.
Dominance.	The technological fix- building dams, forecasting technology, earthquake proofing etc.
Adaptation.	<ul style="list-style-type: none">•At traditional level lifestyle may be adapted to environmental risks e.g. nomadism.•Modern level means changing human behaviour as well as trying to control environment.

ALSO PERCEPTION INFLUENCES APPROACHES TO HAZARDS

FATALISTIC	optimism, 'may not happen' 'gods will' losses seen as inevitable people stay in indigenous homelands less educated population have few alternatives
ACCEPTANCE	accept risks because of advantages perceive that COST:BENEFIT in favour of remaining see sources on TOURISM ENERGY etc
ADAPTATION	preparation prediction prevention protection

Look how perception and response may relate to level of economic and technological development of the country/ community

C

WHY DO PEOPLE LIVE IN HAZARDOUS ZONES

USGS -LIVING WITH VOLCANOES 'the plus side of volcanoes'

New Land

"Volcanoes build new land."

Fertile Soils

"Volcanic materials ultimately break down and weather to form some of the most fertile soils on Earth."

Geothermal Energy

"The internal heat associated with young volcanic systems has been harnessed to produce geothermal energy." ... includes Newberry Caldera, The Geysers Geothermal Field, Casa Diablo, Salton Sea Geothermal Field

Mineral Resources

"Most of the metallic minerals mined in the world, such as copper, gold, silver, lead, and zinc, are associated with magmas found deep within the roots of extinct volcanoes located above subduction zones."

Industrial Products

"People use volcanic products as building materials, as abrasive and cleaning agents, and as raw materials for many chemical and industrial uses."

Business Opportunities

Advertisements, Arts and Crafts, Food and Lodging, etc.

Spas and Resorts

Rotorua-Whakarawarewa, New Zealand

Recreation and Tourism

America's National Parks and Monuments ... includes Yellowstone Caldera - First National Park, Mount Rainier - Fifth National Park, Mount St. Helens National Volcanic Monument, etc.

Research these reasons for living in tectonically active areas

D

WHY ARE MORE PEOPLE AT RISK / RISKS GREATER THAN IN THE PAST?

- POPULATION GROWTH
- LAND PRESSURE
- URBANISATION
- INCREASED VULNERABILITY
- INTERNAL POLITICS
- ECONOMIC GROWTH
- LOCATION OF POP GROWTH AROUND PACIFIC (ring of fire)

FACTORS

Make notes on each factor