

Natural and Human Induced Environmental Hazards & Disasters

HARSH GUPTA¹

¹*National Geophysical Research Institute, India*

With the passage of time, the impact of natural hazards is on an increase globally. In the recent past, we had the most devastating tsunami generated by the second largest ever recorded Mw 9.3 Sumatra earthquake of 26th December 2004. It is estimated that about 280,000 human lives were lost. The Muzzafarabad earthquake of October 8, 2005 claimed an estimated 88,000 lives. The 2005 Hurricane Katrina in the US killed 1840 human beings, destroyed 170,000 homes and inflicted a financial loss of about 82 billion US \$. Earthquakes triggered as a consequence of filling artificial water reservoirs is a classical example of human induced hazard. At several places, the triggered earthquakes exceeded M 6 and were locally very damaging. The frequency of natural disasters is rising rapidly. From about 100 per decade in the earlier part of the 20th century, it rose to 2800 per decade towards the end of the 20th century. Considering the impact of natural disasters on humanity, ICSU is developing a program of research aimed at strengthening international science to provide a firmer basis for policies to prevent natural hazards from becoming disasters. The most significant research gaps are in interdisciplinary cohesion: intersection of the natural, social and political sciences; and the issue of how knowledge about hazards is, or can be put to use. In spite of the growth in knowledge, the losses from natural hazards are on an increase. The issue is most relevant for the Asian region which accounts for about 80% of total human lives lost globally due to natural disasters.