

CHAPTER 3

MORTALITY AND MORBIDITY IN NATURAL DISASTER :
A GLOBAL ANALYSIS OF TIME TRENDS AND REGIONAL DIFFERENTIALS

by

Debarati GUHA SAPIR and Michel F. LECHAT

1.0 INTRODUCTION :

Natural disasters may be classified into four main categories: floods, earthquakes, cyclones and drought, in terms of the frequency and significance of their impact. Other catastrophic events, such as landslides, avalanches, snow, fires occur at rarer occasions and threaten smaller proportions of the populated world. The destructive agents in four main classes mentioned above are wind, water (a lack or excess thereof) and tectonic forces. While all these generally cause structural damage, their mortality and morbidity effects are rather variable.

The disaster cycle can be differentiated into five main phases, extending from one disaster to the next. The phases are : the warning phase indicating the possible occurrence of a catastrophe and the threat period during which the disaster is impending; the impact phase when the disaster strikes; the emergency phase when rescue, treatment and salvage activities commence; the rehabilitation phase when essential services are provided on a temporary basis; the reconstruction phase when a permanent return to normalcy is achieved. The disaster induced mortality and morbidity differ between these phases and are mainly a function of the prevailing health and socio-economic conditions of the affected community. As a result of this, global statistics on disasters seem to indicate a significantly higher frequency of natural disasters in the Third World than the industrialised countries. Disallowing an economic