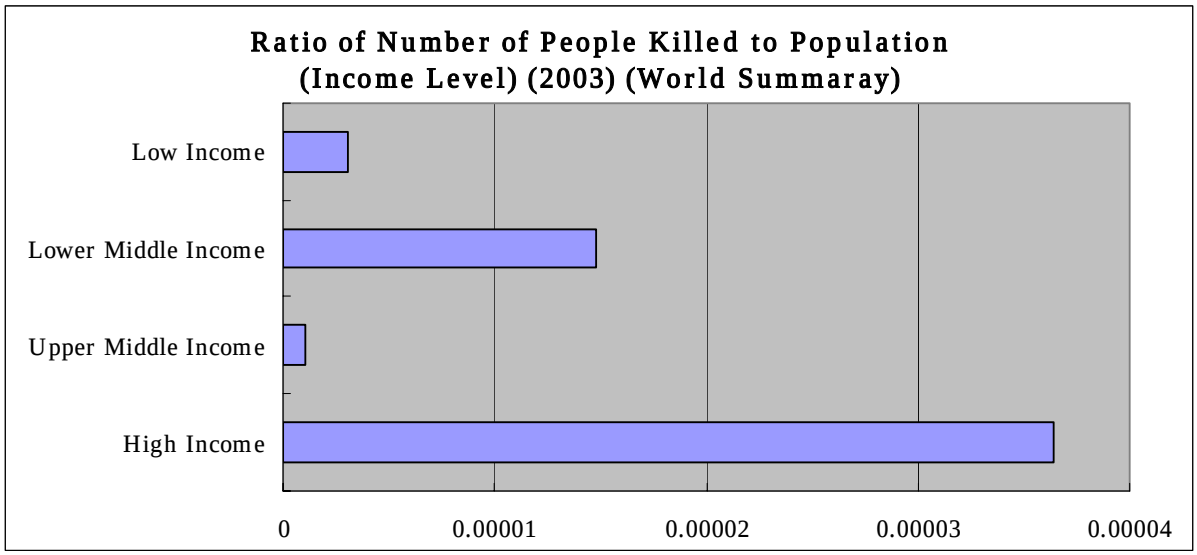
2.3 Economies of Natural Disaster Impact:

In this section, the analysis focuses on the country's income level as related to disaster impact. A country's income level is determined by the per capita GNI of a country and is then related to disaster characteristics. Following figures show this relationship and it is evident that the majority of the human losses and affected people are from low and lower middle income countries except the human losses in high income countries in Europe due to heat wave.

Generally, though the real economic loss from disasters is higher in high-income countries due to their developed infrastructural framework and the economic establishments that have accumulated social capital, loss from disasters in developing and lower income countries is more substantial when compared to the GNIs of those countries. When human loss and suffering are considered, it is once again visible from the following figures that the lower income and lower middle-income countries suffer greatly. This firmly emphasizes the need for a holistic disaster management approach with due consideration of a country's disaster vulnerability, the impact and extent of disaster related damage, and impact of disaster on the human development and economy.

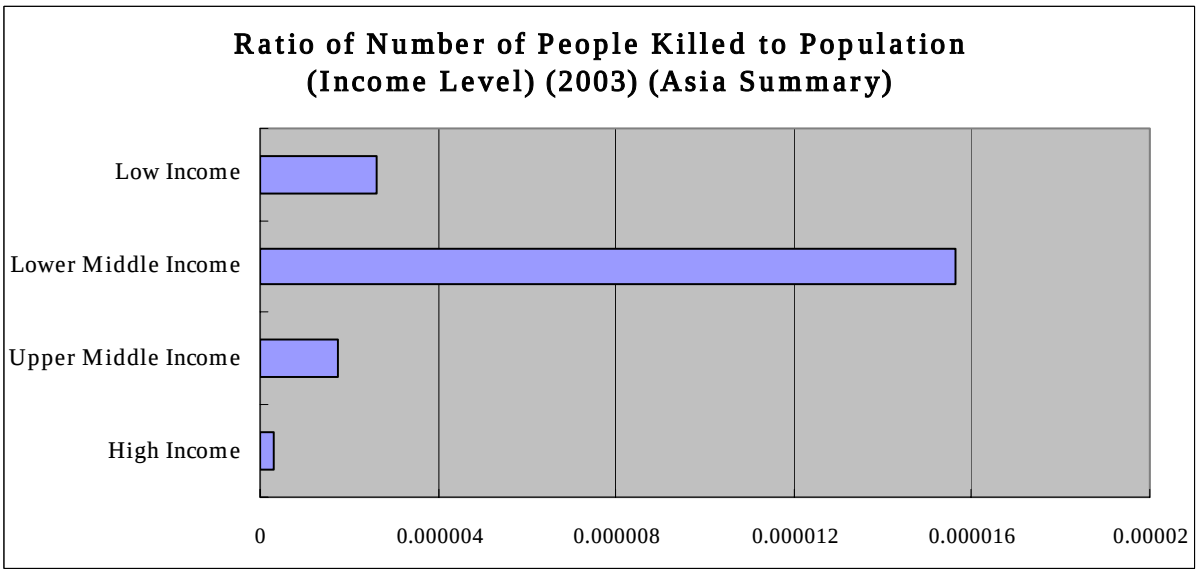
The socio-economic impact of disasters varies according to the types of disasters, the disaster period (length), and the post disaster recovery period. A country's income level plays a crucial role in deciding the recovery period of a disaster. In addition, the income level of a country and the magnitude of the socio-economic impact of a disaster are proportionally related to each other and the ratio of such impact to the country's GNI demonstrates the negative effects of disasters upon low and lower middle income countries. The reason for the shape of Figure 17 is the heat wave which hit Europe. The disasters occurred in Iran, China and Algeria, contributed for the shape of the Figure 18. Figures 19-20 portray similar trends for the world and the Asian region.

Figure 17:



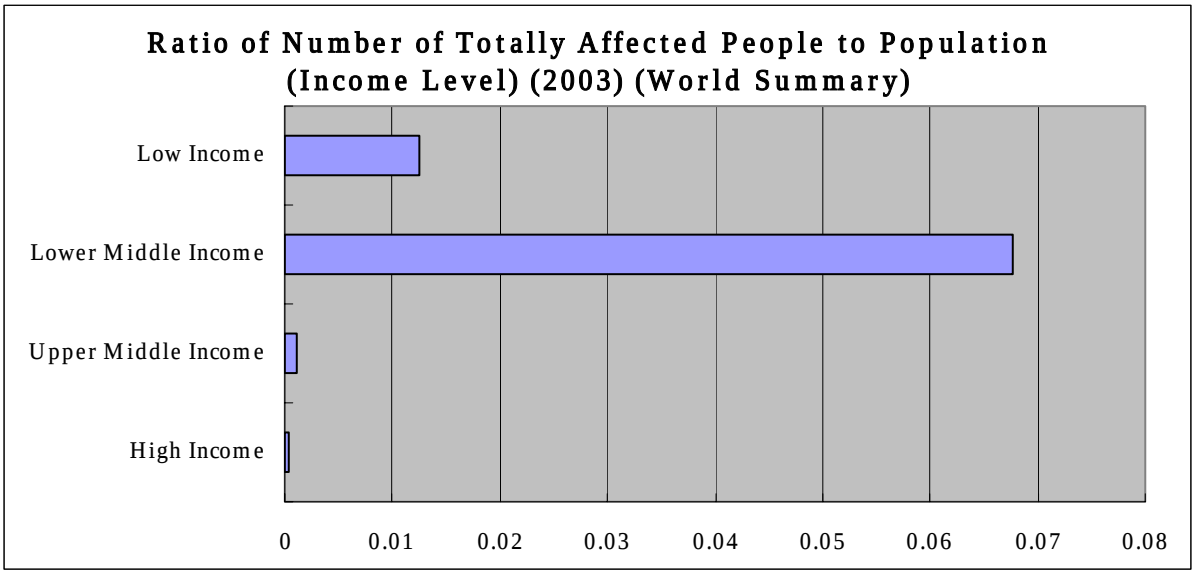
Source: ADRC, Japan, CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium and UNDP, 2003

Figure 18:



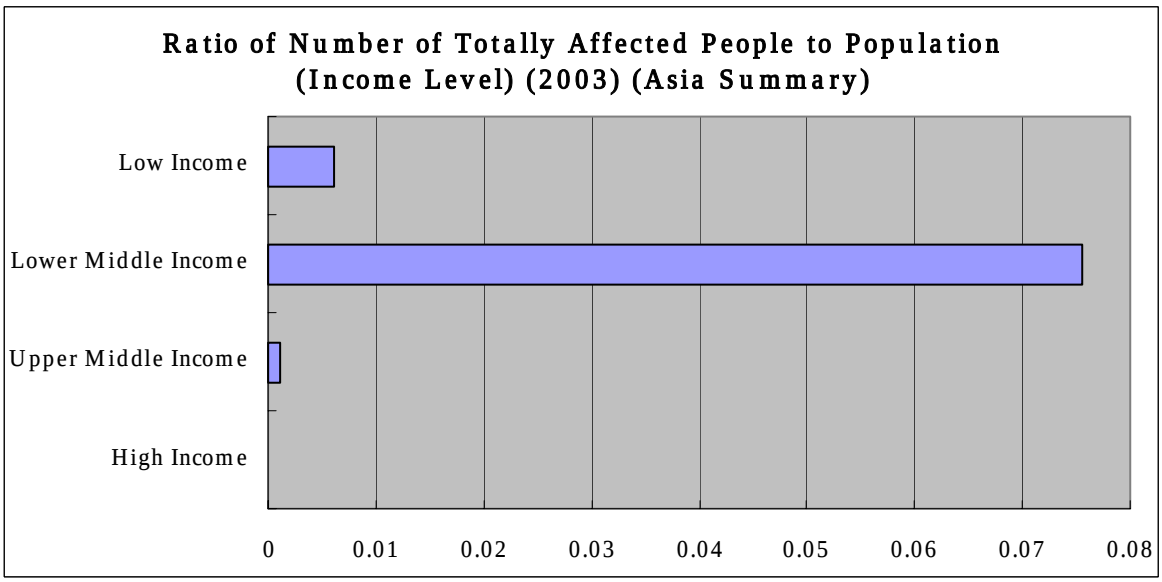
Source: ADRC, Japan, CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium and UNDP, 2003

Figure 19:



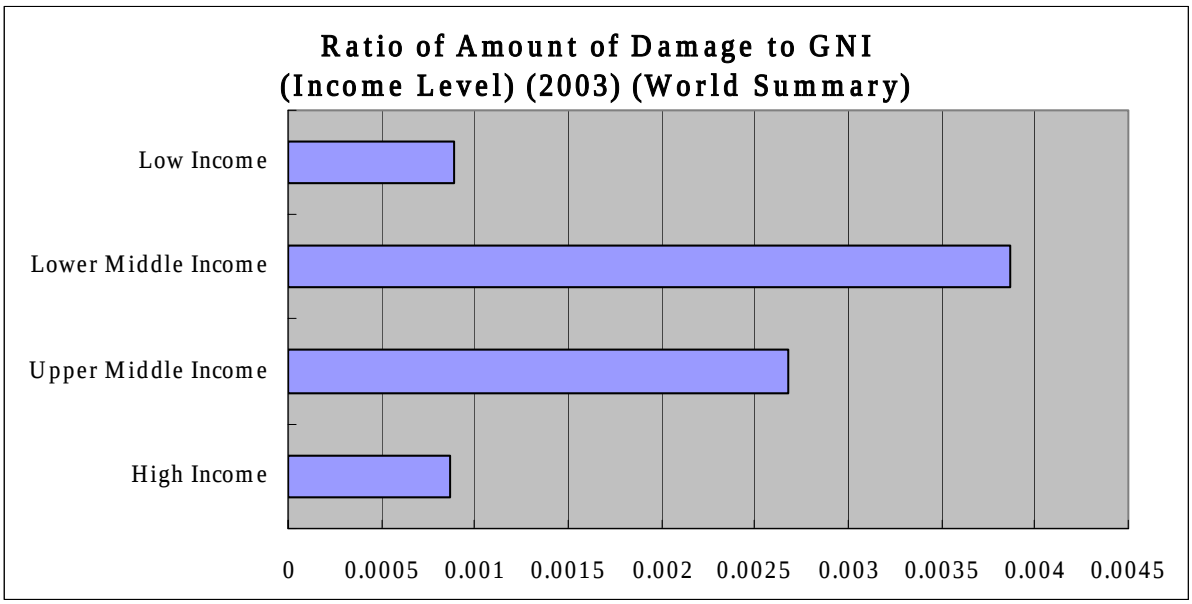
Source: ADRC, Japan, CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium and UNDP, 2003

Figure 20:



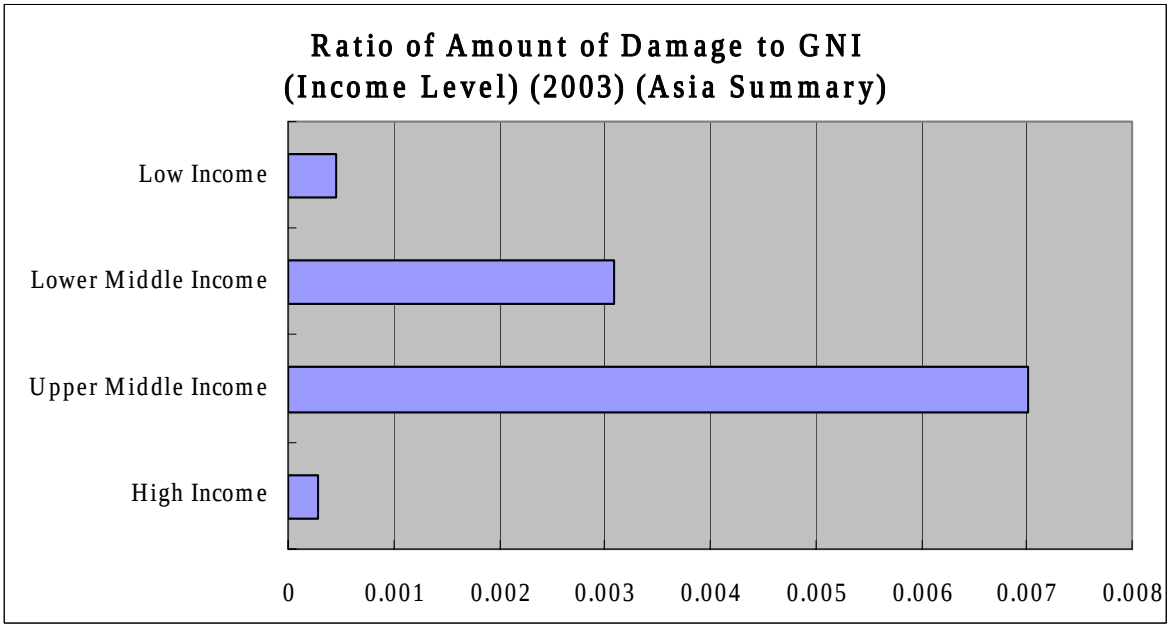
Source: ADRC, Japan, CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium and UNDP, 2003

Figure 21:



Source: ADRC, Japan, CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium and UNDP, 2003

Figure 22:



Source: ADRC, Japan, CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium and UNDP, 2003

Figures 21 and 22 depict the share of amount of damage to the GNI in relation to income levels of the countries. Accordingly, in the world, it is visible that the share of damage to GNI is high in the lower middle income countries and this is mainly due to the floods in China, earthquakes in Algeria and Iran. But in the Asia this share is high in the upper middle income countries and this is mainly due to the typhoon Maemi which hits Korea.

It is evident that the extent of damage by natural disasters is connected to a country's socio-economic level. As seen in the above figures, disaster management and post disaster activities are crucial to sustainable development in the year 2003, as they were in the previous years. It can be said that in 2003, like many previous years, natural disaster impact is closely related to poverty, education, quality of health, gender related issues, and changing policy scenarios in relation to global socio-economic characteristics. Hence disaster mitigation and management strategies must incorporate these areas into holistic disaster management approach line with sustainable development.