

THE DISASTER RESEARCH UNIT

Formed in December 1973 out of a grant from the Leverhulme Trust, which has now been matched by the University, the Disaster Research Unit has a three-part programme.

Its aim is to coordinate research in its three sectors to produce a precautionary strategy for application in disaster prone locations as either a manual for pre-disaster planning for use by planners and decision-makers, or in the form of a tailor-made plan for specific locations.

Disaster in the Unit's terms is the effect of violent natural phenomena on a community and the three sectors of research will be:

- Precautions against disaster;
- An assessment of the degree of risk;
- Economic studies.

Precautions against disaster will cover studies of all precautions which are taken or which could be taken against disaster. These will include precautions in emergency administration, in building and engineering construction, in land use zoning and in legislation.

The availability of warnings of the disaster event will affect the degree and nature of necessary preparedness and the adoption of a warning system will be a form of precaution in itself.

But it is the Unit's view that proposals for precautions on their own would be inadequate and that it will be necessary to compare these proposals with an assessment of the risk from disaster, which will become the content of the second sector. The third sector will be economic studies to enable the cost of precautions to be assessed against the risk of losses from future events in order that the worthwhileness of precautions may be considered.

But economic studies will not only be in the form of supporting information for the other sectors. It is a source of increasing comment and interest that losses by developing countries may be compared with the total amounts of aid they receive and moreover that their 'development' may be entirely negated by the continued effect of disaster events. In other words it will be an interesting enquiry to explore how much some countries owe to natural disaster for their state of retardation.

It is not the aim of the Unit to apply itself exclusively to developing countries but it is clear that developing countries are the most vulnerable to disaster. An examination of one source of statistics* of disaster occurrence and resulting death totals for any relationship with 'development' has revealed some interesting preliminary comparisons.

From a total of seventy-two countries the most developed twenty-five were compared with the least developed twenty-five as indicated by each country's gross national product per capita (1973).

The totals killed in natural disasters occurring over a twenty-three year period (1947-70) were fifty-six-and-a-half thousand in the twenty-five most developed countries and eight-hundred-and-forty-three thousand in the twenty-five least developed countries; a ratio of something like 1:14. A further comparison of the total dead from the twenty-five most developed countries with the total dead from the forty-seven remainder produced a ratio of the order of 1:20.

It is interesting to note also that from amongst the twenty-five most developed countries, just over half the total number of disaster events occurred in the USA, but in spite of this, just over half of the total numbers of deaths occurred in Japan.

It will be useful to explore for any more definite relationship between disaster deaths from all or some particular disaster types and population density and the results of studies the Unit hopes to make of material losses will produce a further basis in which to make similar comparisons.

The Unit has set itself a wide ranging project which, if it is to achieve anything like what it has set out to do must be tackled comprehensively on a broad front. Even with the resources to hand that we have sought it will be necessary to seek further funds to enable us to explore and incorporate all avenues. There is a wealth of material to be gathered and a continuing sequence of disaster events to combat and to mitigate.

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*Smithsonian Institute for Short Lived Phenomena