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'D I S A S T E R E C O L O G Y'

An International Journal for the Study of the
Avoidance and Mitigation of Natural Disaster.

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In the study of relationships between man and his environment, it has been the impact by man on the environment upon which attention has been concentrated, but a parallel and emerging area of study over recent years has been the potential of impact by extremes of his environment upon man. That these extremes are the sole cause of the 'natural disaster' which has sometimes resulted, has been shown to be an elementary view. Disasters involve people as well as extremes of nature, and may be exacerbated and perhaps even created by, the activities of man which have preceded the occurrence of extreme natural phenomena. Man's impact upon his environment may cause or exacerbate the impact of environment upon him. Hence the ecological nature of disaster.

But activities which precede extreme natural phenomena may contain preventive or preparedness strategies which will mitigate disaster. It is towards a development and exchange of this understanding that 'Disaster Ecology' has been conceived.

Natural hazard research originated in the USA where continuing series of disasters created the condition of hazard upon which research has been focused. Disaster research, commenced in the United Kingdom, was initially focused upon improving relief methods after the occurrence of disaster and, more recently, upon methods of preplanning and mitigation which can be implemented before the occurrence of disaster. Research in the USA was primarily and appropriately motivated by national domestic conditions. Disaster research in the United Kingdom, largely unconcerned about national events, was motivated by a desire to improve awareness and response to disasters occurring overseas, with particular reference to those in developing countries, recognised as being the most disaster-prone.

The use of 'hazard' for research in North America and 'disaster' for globally orientated research in the United Kingdom is significant. Recognition of the state of hazard comes from direct experience of it and all events that it manifests. Disaster research, focusing on events in overseas countries, has relied for its motive, mobilization and data upon reports of events or field study of reported events. For news of the occurrence, the disasters themselves have had to qualify for news media treatment and, whether used for data or for field study or both, have therefore usually been "big" and of international significance. One result is that "small" disasters, or disasters in small countries, have not received so much attention. Although disaster has been recognised as a continuum by the more recently established pre-planners, the state of hazard that undoubtedly exists in less-developed countries, and methods for indigenous perception, adjustment and response to it, has gone largely unresearched. It is towards the filling of this vacuum that "Disaster Ecology" is aimed.

The development of an applied science of precautionary planning has aimed to seek out methods of implementing strategies of prevention and mitigation from within vulnerable countries and vulnerable locations. In so doing, it has recognised the causes and constituents of disaster as being a relationship between place, people and environmental phenomena. The socio-economic constituents of disaster have been identified as well as the environmental ones. The socio-economic constituents of preventive and preparedness strategies have been similarly identified, as have multi-disciplinary requirements for their implementation. Just as disaster research has become a multi-disciplinary pursuit, so also is the recognition, prevention and mitigation of disaster occurrence. Just as socio-economic factors determine or affect, to a large degree, the creation or exacerbation of disaster, so also do they affect capacity for prevention and preparedness. Prevention and preparedness strategies must be as ecologically tuned as is the creation of disaster itself.

Natural disaster occurs at the meeting point between extreme environmental phenomena and man's settlements. Preparedness seeks to reduce the impact of 'inevitable' disaster upon settlement^s by relatively short term strategies. Prevention seeks to reduce the vulnerability of settlements in the first place by what are usually longer term strategies. For shorter term preparedness to proceed without attention being given to longer term preventive measures, which may reduce vulnerability itself, will make it always possible for preparedness to be effective. Vulnerability reduction must be the long term aim for existing and planned settlements - in the meantime, preparedness strategies must be applied. Either sector of the overall strategy will not displace another. Both are mutually compatible, but is it not pointless to implement the one without the implementation of the other?

Long term elements must be part of planned development and change in the sectors of agriculture, industry, health and education, housing, social welfare, education, transportation and communications. Decisions for social and economic development in all of these sectors, or in any one of them, is likely to relate to the "disaster factor" of a vulnerable location.

Natural disasters, as they have come to be known, include the effects of earthquake, volcanic eruption, tsunami, tropical cyclone, flood, drought, snow, ice, wind, lightning, hail and fire. Man may have, knowingly or unknowingly, played a part in the creation of disaster by being in the wrong place at the wrong time, or by undertaking activities which may have exacerbated the effects of natural phenomena. He may, or may not, have taken steps to implement strategies for mitigation and preparedness; he may have the resources, skills and options to enable him to do so, or he may not. The extent, size and scale and impact of disaster will vary accordingly but all situations will be within the scope of this Journal which has more to do with the experience of a condition of hazard, the indigenous assessment of

environmental risk and social need and local participation in the implementation of planned processes for mitigation, than with external assessment of conditions after disaster and external mobilization of relief.

'Disaster Ecology' seeks to assist the development of a rapidly growing area of concern, not only in a crucial area of environmental analysis - vulnerability to natural disaster - but also in methods of preventive, mitigating and preparedness strategy related to indigenous conditions, resources and capacity.

'Disaster Ecology' seeks to develop a wider awareness of a potential for the perpetuation of hazard in all aspects of development and its relationship with environment and habitat.

'Disaster Ecology' will provide a medium for an exchange of views, experience, study, research and project and programme implementation and case study from a wide spectrum of disciplines which will include seismology, vulcanology, oceanography, climatology, meteorology, geography, anthropology, sociology, psychology, and development economics, involving agriculture, forestry and regional planning - and many more besides - in an equally wide and all-embracing spectrum of geographical source and application.

'Disaster Ecology' seeks to provide a medium for an 'ecological' relationship of thought concerning man and environmental hazard from throughout the wide range of concept, discipline and place from which it originates. It will facilitate and generate the presentation and exchange of information between disciplines in research and amongst policy makers and administrators. The formation of the Editorial Board seeks to reflect the comprehensive disciplinary nature of and the extensive geographical coverage of the subject of disaster ecology which affects all parts of the world in some degree.

'Disaster Ecology' anticipates inclusion of the following subject areas, for example:-

- The role of development policies and programmes in the prevention of disaster.
- Regional and national planning and disaster prevention.
- Methodologies for the assessment of vulnerability to natural disaster, taking account of social and economic factors.
- Community location and disaster vulnerability.
- Disaster as an impediment of development.
- The technological prevention of ~~disaster~~. *extreme natural phenomena.*
- Land-use change and disaster potential.
- The factor of extreme natural phenomena in environmental impact analysis.
- Man and drought and the causes of famine.
- Indigenous and sub-cultural resources and adjustments to environmental extremes.
- The disaster continuum; the adaptation of societies to disasters through history.
- Climatic change and disaster probability.
- What short term disaster mitigation requires from development programmes: the infrastructure for preparedness.
- Methodologies for the integration of preventive and preparedness strategies with development programmes.

The International Editorial Board will be as follows:-

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with board members to be appointed.