

EDUCATION AND TRAINING FOR IMPROVED STANDARDS OF DISASTER MANAGEMENT

THE BACKGROUND

An extended programme of research by the Cranfield Disaster Preparedness Centre, Cranfield Institute of Technology, England, examined the role and responsibilities of the administration, public services, police, the military, voluntary agencies and the people themselves, in disaster-prone developing countries for disaster preparedness.

Useful material on which to base such research is difficult to acquire because affected countries' reports of difficulties and failures are not published, those of the United Nations organizations necessarily tend towards blandness and are not critical of the performance of the internal and external organizations and agencies involved. Newspaper reports are frequently highly coloured, often inaccurate and seek the sensational at the expense of being objective. Much personal experience is either untraceable or that which is available is very local, subjective, defensive or lacks depth. There is a great deal of published material relating to experience in that most disaster-prone country the USA, but because of vast differences in available resources social and political structures, infrastructure and organization, this does not relate to circumstances in the disaster-prone developing countries many of which are among the poorest.

The research project was therefore privileged and drew great advantage from its access to UK Foreign Office files containing ambassadors' post-disaster reports and assessments, from private OXFAM material and from a close association over a period of many years with a great number of research fellows who were all senior and experienced public servants from developing countries, such as Bangladesh, India, Pakistan, Mozambique, Ethiopia and Sudan, all prone to a variety of disasters.

Through case studies, the research examined many disaster situations arising from earthquake, cyclone, flood and drought, in all continents, but during the comparatively short period 1968-85. This concentration in time permitted an assumption that the different national administrations were at similar standards of development and thus that their capabilities bore comparison with one another.

The principal conclusions of this research programme were that:-

- ◆ In the catastrophic disaster (earthquake, cyclone or flood), although the physical event causes destruction and death much of the subsequent distress arises from administrative breakdown under load or because of poor planning.
- ◆ In the slow-onset disaster, seen in famine, environmental degradation and disease, the natural event of drought is merely the catalyst which creates disaster from previous failures in development planning, farming practice, public health or environmental management.
- ◆ Failure to plan the employment and deployment of indigenous human and material resources in disaster is common-place, exacerbates distress and delays rescue and relief.
- ◆ Pre-disaster analysis and planning, leading to effective states of disaster preparedness and mitigation is the most efficient and cost effective way to minimize distress and speed relief.

- ◆ Failures in analysis and strategic planning of development projects, frequently create circumstances in which communities exposure to disaster is increased.
- ◆ Growth in the developing countries is severely retarded by recurrent disaster, particularly when pre-disaster planning, disaster prevention, mitigation and preparedness are not features of government policy.

From these conclusions, deductions have been drawn which indicate pressing needs to expand present patterns of training in the public service in developing countries and which take place throughout the world in staff colleges, academies, universities, institutes of public administration and other establishments to embrace these areas associated with pre-disaster analysis and planning and disaster relief management.

THE PLAN

The aim must be to ensure that pre-disaster analysis and planning and disaster relief management are regarded as essential and on-going elements of government responsibility rather than requirements associated with a "one-off" Act of God, unlikely to affect an individual administrator or a particular area more than once. This aim can best be achieved by expanding present programmes of administrative training rather than to develop specialist courses which may tend towards the creation of disaster specialisms.

This aim and the creation of effective standards of disaster preparedness, would be achieved through programmes of education and training similar to the following.

Appreciation Seminars to create and develop an understanding of the nature and value of Disaster Preparedness amongst those in the most senior positions of responsibility in governments. This understanding will develop the commitment and decisions upon which the other elements of the programme depend. Opportunities must therefore be taken to include presentations and discussions concerning disaster, its implications and requirements in the programmes of the many national and international conferences which occur throughout the world each year.

Disaster Planning and Management Training constitutes the second element of the programme and as suggested above should be integrated into the existing curriculum of government officers' professional training and particularly of those whose posts embrace responsibility for pre-disaster analysis and planning, disaster preparedness and disaster relief management. Those whose duties and tasks include those areas of responsibility are likely to include the following:

- ◆ Administrators in government and specialists in engineering, medicine and public health, agriculture, transport, irrigation and water engineering and many others.
- ◆ Police, the military and emergency services.
- ◆ Voluntary agencies.

The objectives of this training would be to develop capabilities in the following areas:

- ◆ Threat analysis, vulnerability analysis and the planning processes which results from this particularly in relation to disaster preparedness (such knowledge and skills are equally and directly relevant to development planning and management).

- ◆ The techniques and methods of management in crisis, emergency and disaster.
- ◆ Environmental and water resources management.
- ◆ Logistics of disaster and food relief programmes.
- ◆ Examination of the relationship between development strategies and the disaster proneness which can result in communities, from inadequate standards of development project planning and management.

Disaster Skills Training to create and develop individual and group abilities and skills to ensure the smooth and effective implementation of disaster preparedness plans. This training spans both those in the official and the voluntary sectors and in subjects such as rescue, field hygiene, sanitation, first aid, relief distribution, etc. The object must be to develop both organizational and technical co-ordination so that for example, those with first aid skills can be directed and transported in the right numbers at the right time to where their skills are most required.

THE METHOD

Appreciation Seminars should be developed as elements of as wide a variety of conferences and meetings as possible. The objective being to develop commitment and involvement in Disaster Preparedness at the most senior levels in both national and international official and voluntary groups. Opportunities should be taken to employ the benefits of experience gained in developing countries by using these as the basis of presentations and also to draw on the findings of research and the planning and management techniques generally in use in the developed countries. But great care is necessary in extrapolating from experience gained in developed countries to the disaster-prone developing areas. The levels of economic development, the availability of resources, the social and cultural conditions are so dis-similar, as to make comparisons less than relevant. But examples of ways in which Disaster Preparedness is developed and of the benefits accruing from this can be used to illustrate the advantages of such courses of action.

Disaster Planning and Management Training should be organized and run on a regional (eg Caribbean, East African, SW Pacific) basis. There seem to be a number of strong reasons for such a course of action:

- ◆ The subject would be examined against the background of a common understanding of the threat and similar climatic, ethnic and cultural circumstances.
- ◆ Countries within geographical regions are in general at comparatively similar degrees of economic development and the levels of available resources are similar.
- ◆ By basing the programme upon national and regional institutes, although initially there would be a need for external teaching in-puts, by integrating these with appropriate national or regional training the capabilities to maintain and develop the programme as an on-going element of curricula, will be created.
- ◆ Study of the problems of disaster on a regional basis will indicate the commonality of problems and should lead to some degree of co-operation both in research and in operations. It is also likely to show that national and regional resources are the most readily available and appropriate forms of disaster relief.

It does seem that the least effective basis for training of this kind is to centralize it and to draw students from all over the world. To do so will tend towards the study of the problems of disaster on a basis of generalities rather than on the specifics which are possible in national or regional programmes.

Participants in a training programme such as this can be expected to come from senior management posts in their departments and organizations. They will be mature and experienced as a result of employment in a number of posts of responsibility over a period of years. Disaster Management Study programmes must be designed to employ this knowledge and experience in an active learning situation.

Lectures are quite inappropriate to such study programmes. Specialist lectures may be necessary for the introduction of specific information but the weight of the programme should involve the participants in the study of problems through case studies pursued in discussion and in simulation exercises of different kinds which require examination of the information available, identification of information needs and the formulation of plans for action and how these are to be implemented.

Such a training methodology ensures the free and open exchange of views and ideas based upon experience, against the realities of relevant problems in credible situations. Although such study and training programmes do require skill and experience to develop they produce effective results based on experience and active involvement with problems and action.

The disaster relief management simulation exercise ATLANTIS is an example of such a training methodology. Its aim being to expose the problems arising in a wide field of activities associated with rescue and the maintenance of life support systems (water, medical aid, food and shelter) and their associated communication and transportation requirements in disaster. In the post-exercise debriefing and study programme the participants examine these problems in depth and draw lessons from them concerning the nature and value of Disaster Preparedness.

The exercise brings together course participants as a national Disaster Emergency Committee. Individually and in groups they represent the functions of government policy and action in response to a major disaster in their country of Atlantis. The Prime Ministers's office is represented, as are Home Affairs, Public Works, Transport, Medical and Public Health, the armed services, the police, the voluntary agencies and the social problems of the population by participants. The exercise runs over a period of about two days representing about nine days in ATLANTIS with the participants passing through a series of overlapping phases during which they are receiving and seeking information concerning the situation, assessing relief needs and what is available to them to meet these. Whilst deploying these resources they are also assessing and quantifying what additional aid they will require and making requests to the international community for this aid. In the last phase they are responsible for managing incoming international aid and integrating this with their own. The subsequent debriefing and discussion sessions are as important as the period of active exercise.

The exercise is supported by a computer program which greatly reduces the number of directing staff who would otherwise be required to support the exercise. The computer in its role may be viewed as a teleprinter terminal through which the participants communicate with the outside world and receive messages from many sources. In addition however, the computer is maintaining the account of available and deployed resources and ensuring that the players do not deploy what does not exist. Equally significantly the computer program is simulating the effects of the players' actions and inactions and representing the consequences of these on the people and the situation.

Although the scenario upon which the simulation is based involves an earthquake in a relatively small country, the exercise and its supporting computer program are flexible enough to enable a change in scale or of the nature of the disaster to be made. But this exercise is not as relevant to the problems of slow-onset disasters such as those which are so common in Africa. There is an urgent need to develop a similar training methodology which addresses the problems of famine early warning, food relief and health programmes and the management of refugees, displaced persons and their subsequent rehabilitation.

THE TRAINING PROGRAMME

There is a central core to the training programme, particularly in the area of planning and management which is likely to be common to disaster planning and management training wherever it is run. National and regional courses should however be based upon careful programmes of research and planning so that the "teaching needs" are carefully identified and a training programme designed to meet these.

There are a number of areas of disaster management training which must feature in any programme of studies wherever this may be run, although the actual material taught will vary. Some examples of these subjects are listed below and it will be seen why these particular modules must be individually designed to meet the needs of specific regional or national planning and management courses:

- ◆ The analytical process related to examination of the threat and identification of vulnerability.
- ◆ Financial and legislative powers.
- ◆ Immigration and customs regulations.
- ◆ Public information and education.
- ◆ Press relations.
- ◆ Warning Systems.
- ◆ Logistics.
- ◆ Medical, public health and sanitation.
- ◆ Environmental and water resources management.
- ◆ Refugees.
- ◆ Rehabilitation, reconstruction, redevelopment of the economy.
- ◆ UN, international and bilateral aid and assistance.