



## **Role of Scientific Education in Civil Protection**

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Education and training can be considered as fundamental means of professionalising civil protection services. A model of the processes involved is presented and its implications are explored. The fragmentary nature of knowledge and expertise in civil protection is discussed. The traditional structure of scientific endeavour has inhibited the growth of a trans-disciplinary approach well able to solve practical problems in a complex emergency environment. New means of breaking down the barriers between disciplines are required, as are new forms of dialogue between researchers and practitioners. In this context, a template for the standardisation of courses and curricula is presented and evaluated in terms of its positive and negative connotations. The warning process is given as an example of the need to strengthen links between the technical, administrative and social processes at work in civil protection.

Sustainable disaster preparedness, a form of resiliency, requires sustained input from the earth science community, but of a kind that is sensitive to the needs, objectives and cultures of the other participants in the process. There is always a need for scientific input into safety and security policy, but one needs to be sure that the policy-making objectives are sound, as scientific results can be used to back up diverse approaches. Hence the moral and ethical aspects of resiliency are fundamentally important to policy formulation and its use of science.