

International Volcanological Congress
(1986年2月1-9日, New Zealand)
に於いて発表された提言について*

下 鶴 大 輔

本年2月、ニュージーランドにおいて、表記の火山に関する国際会議が開催された。この会議は、同国のTarawera火山噴火100周年を記念して開かれ、32ヶ国から480名(国外参加者390人)が参加した。日本からも26名の参加者(この他、3名在ニュージーランド)があった。この会議は、昨年11月に2万数千人の死者を出したNevado del Ruiz火山(コロンビア)の噴火後、はじめての世界中の火山学者の集まりであった。IAVCEIの目的の一つに噴火による災害軽減があり、傘下に、Working Group on Mitigation of Volcanic Disasters (Leader: R. R. Dibble)がある。会議期間中、このWorking Groupの集会在2回持たれ、いくつかの提案が採択された。また、このうちの提案の一つを受ける形で、IAVCEIの執行委員会で提言をつくり、2月9日の閉会式に於いて全員賛成のもとに採択された。本会議がIAVCEIの総会(4年毎に1回、IUGG総会時)ではないので、正式の決議(Resolution)ではないが、噴火大災害後間もなくの世界中の火山学者の意識と要望がこめられている点で重要であると思われるので、Working Groupの議事録と共に全文を掲載することとした。

* Received June 30, 1986

WORKING GROUP ON
MITIGATION OF VOLCANIC DISASTERS

Minutes of the meeting at Hamilton at 8 pm on 7 Feb 1986

Present: R. Blong, R.R. Dibble (Chair), R.W. Johnson, K. Kamo, J. Kienle, J.H. Latter, C. Newhall, (co-reporter), D.W. Peterson, R.S. Punongbayan, Y. Sawada, D.A. Swanson.

Apologies: D. Shimozuru.

1/ After discussion it was moved by Latter (2nd Swanson) that the following recommendation submitted by Shimozuru be adopted:

'Considering the recent catastrophic events at Nevado del Ruiz Volcano which caused great loss of life, optimum emergency management and preparedness are highly desired.

For mitigation of such volcanic disasters, we must work towards:

(i) Preparing hazard zonation maps for potentially dangerous volcanoes, and educating the local people and tourists.

(ii) Further developing methods to detect immediate precursors of individual eruptions.

(iii) Monitoring the baseline levels of geophysical and visible activity at potentially dangerous volcanoes to enable precursors to be recognised.'

ADOPTED

2/ Moved by Peterson (2nd Latter):

'That when making a hazard assessment in a volcanic crisis, scientists should identify all the groups with whom they must communicate, and tailor their communications accordingly.'

ADOPTED

Peterson explained that inadequate communication had caused problems at Mt St Helens and Long Valley, and seemed largely responsible for the high death toll at Nevado del Ruiz, and that it was essential for scientists themselves to solve this problem.

3/ Prof Kienle suggested that eruption predictions should be reviewed as are earthquake predictions in USA. He also suggested post mortem investigations of disasters such as Ruiz, and after vigorous discussion in which it was assumed that international missions to volcanic crises were already required to report on their own performance, and that international investigations of a Nation's mitigation performance would be improper, except by invitation, it was proposed by Swanson (2nd Blong):

'That for each serious volcanic crisis, the Working Group invite a scientist of the country concerned to write a mitigation case history, and offer to organise outside assistance if required.'

ADOPTED

4/ Prof Kamo announced that the Kagoshima Prefectural Government was holding a Sakurajima Symposium on Active Volcanoes at Kagoshima in the spring of 1988, and he invited the Working Group to sponsor a session lasting 2 or 3 days on "Topic 1", including hazard assessment, surveillance and research, and prediction of eruptions. A special feature of the symposium was to give local citizens a better understanding of volcanoes, and translation services would be provided so that non-Japanese speakers could be understood. Poster sessions would assist in this. It was moved by Blong (2nd Swanson):

'That this Working Group endorse the initiative of Prof K. Kamo and the Kagoshima Prefecture Government in organising a conference in which citizens and scientists interact, and offer to assist on Topic 1.'

ADOPTED

5/ The Chairman reported discussions with P. Lipman, U.S.G.S. on a contribution to the IAVCEI meeting in New Mexico, 1989. It was moved by Newhall (2nd Blong):

'That the Working Group organise a Workshop on mitigation of a potential disaster at a selected volcano.'

ADOPTED

6/ The following people were assigned responsibility and reporting dates for Group projects:

Data on precursors	C. Newhall	Aug 1987
Questionnaire	J.H. Latter	Aug 1987
Training/Res. Pgrm.	R.W. Johnson	
	C. Newhall	Aug 1987
Hazard press kit	R. Blong	Aug 1987
Video source tape	M. Krafft	Mar 1988

The financing of the video source tape was discussed. Dr Krafft would be responsible, but it was agreed he should provide a budget and report on sources of funds before proceeding. The following people were named as likely sources of video material:

Dr Hm Okada	Usu V. O., Japan
Dr Y. Sawada	SVDMS, JMA, Tsukuba, Japan
Mr S. Brantley	Cascades V.O., USGS, USA
Dr Fiske	Smithsonian Inst, USA
Mr J. Whalan	DSIR Wellington, NZ
Mr Gregory	NZ

The meeting closed at 10.30 pm.



R.R. Dibble
Leader

HIGH-RISK VOLCANOES: A PROPOSAL FROM THE INTERNATIONAL ASSOCIATION OF
VOLCANOLOGY AND CHEMISTRY OF THE EARTH'S INTERIOR.

The eruption of Nevado del Ruiz on November 13, 1985, caused the death of 25,000 people. The potential for tragedies of similar or greater dimensions exist at many other volcanoes, especially in developing countries. The International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI), on the occasion of the International Volcanological Congress in New Zealand, strongly urges that programs to reduce the risk of major volcanic catastrophes be initiated and given lasting support.

An inventory of especially dangerous volcanoes was recently prepared by IAVCEI and UNESCO. About 100 high-risk volcanoes were identified; most of these lie around the Pacific Ocean Basin in developing Third World countries. IAVCEI has also recently commissioned a task force that will develop a broadly defined strategy to mitigate the hazards of high-risk volcanoes.

Effective programs that would lay a foundation for long-term mitigation of volcanic hazards must include:

- (1) Training of scientists from developing countries having such volcanoes. This is paramount in order to bring about long-term self sufficiency in volcano monitoring within such countries;
- (2) Studies of previous eruptive behaviour, preparation of hazard-zonation maps, hazard information and training for people living near high-risk volcanoes, and advance interactions with responsible civil authorities.
- (3) Intensified monitoring of dangerous volcanoes showing current signs of unrest; and long-term base-line monitoring studies of other high-risk volcanoes;

We ask the research and aid agencies of the Developed Countries to pool their financial resources to initiate and maintain the proposed program on HIGH-RISK VOLCANOES. The amount of money needed is small compared to many scientific and aid programs, but long-term stable funding is needed. This program is needed now; we cannot wait for another disaster like that at Nevado del Ruiz.

IAVCEI Executive Committee - February 1986.