Best Practices for Observatory Operations during Volcano Crises

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Keywords: best practices, volcano observatory, crisis management,

The following recommendations are based on the international experience of the Volcano Disaster Assistance Program (VDAP): • A single observatory leader to avoid mixed messages: Delegation is essential; however, a final authority for decisions is required. • Multidisciplinary time line: Record all types of monitoring data on a common time line. Use to correlate changes across different data sets and to inform forecasts. Enhances collaboration and understanding among observatory staff. • 24/7 watch & "duty officer": Important for rapidly detecting changes and ensuring timely warnings. •Short daily staff meetings: Changes in monitoring data since the previous day are presented. Data are interpreted and used to guide decisions. • Daily talking points: Short bullet-sentences present observations and interpretations in public language. Shared with all observatory staff and partners and use in preparing public alert notices and press releases. They ensure a single observatory voice. • Alert levels: Ideally for both ground and aviation hazards. Links to mitigation action depend on national & local policies. • Probabilistic forecasts: Event trees are effective for sharing interpretations across disciplines and forecasting activity. • Procedures for worst case scenarios: What to do when monitoring parameters "go through the roof" and a large eruption is anticipated? • Public Information Officer (PIO): Direct media inquiries to the PIO who answers questions and/or refers media to appropriate staff. • Communication and trust: Develop and maintain personal relationships with emergency officials – critical for trust and efficient actions during a crisis. • Call-down lists: Necessary for rapid alerting of key officials; ideally established well before a crisis. • Incident Command Systems (ICS): Typically led by emergency-management agencies. Used to coordinates response and communication among multiple agencies and jurisdictions. •Rapid eruption/explosion detection and reporting to aviation authorities: Eruption detection and alerts of airborne ash may be critical.