Chapter 8
Review and Revision of the Plan and the Planning Process

In order to ensure the timely implementation of mitigation projects recommended in the state landslide mitigation plan, the proposed state hazard mitigation organization will need to establish an ongoing system for evaluation and modification of the planning process. In addition to tracking progress of the program and providing a record of local and state mitigation achievements, a review process permits the adjustment of program priorities. It allows the state mitigation organization to monitor and become familiar with the types of problems that are likely to be encountered in future projects, so that planning strategies can be developed.

> The criteria, decisions, and methods used in applying the landslide research findings to planning and decision making can be of value to other jurisdictions in which similar hazards exist, and for which adequate landslide information is available. The adaption to, and adoption by, other jurisdictions depends upon the presence of similar public awareness, enabling legislation, hazard issues, priorities, community interest, innovative decision makers, and staff capabilities (U.S. Geological Survey, 1982, p. 44).

While the exact nature of the evaluation system should be determined by the mitigation organization in each state based on specific needs, it is recommended that any system for evaluating the success of state landslide hazard mitigation programs include the following components:

- an inventory of landslide costs,
- an evaluation of mitigation projects and techniques,
- cost-benefit analyses of local mitigation programs.

Inventory of Landslide Costs

An effort should be made to document all landslide-related losses in the state as they occur, particularly direct damage to roads and highways, homes and businesses, and facilities and services, so that decisions can be made regarding the level of mitigation assistance required to reduce losses in an area and so that the cost-effectiveness of individual projects can be determined. The inventory should provide a summary of landslide incidents and associated financial impacts on individuals, companies, municipalities, and local, state, and federal governments. The inventory should include a list of occurrences, the location, type of event, cause of event, facilities damaged, total costs of damages and/or repair and replacement, and maps and photographs of affected areas. To the extent possible, an estimate of indirect damages should also be made.

> Understanding the cost and significance of natural disasters allows officials at all levels of government to make decisions about how much money should be allocated to disaster prevention rather than to the repair of damaged facilities and disaster relief after an event (Fleming and Taylor, 1980 p. 1).

Evaluation of Mitigation Projects and Techniques

The state hazard mitigation organization should establish procedures for the periodic review and evaluation of the status of individual mitigation projects, those proposed, completed, and in progress. The effectiveness of landslide hazard mitigation efforts varies according to the physical, economic, and political conditions existing in the local areas. According to Kockelman (1986, p. 47), "Very few systematic evaluations have been made of hazard-reduction techniques, even fewer for landslides specifically." A careful assessment of the cost effectiveness of each project will help guide decisions of the state hazard mitigation organization about the implementation of future projects.

The occurrence of actual landslide disasters and the identification of new landslide threats will also necessitate an adjustment of planning priorities. Maintaining flexibility in the system will enable the state organization to apply limited funds and resources to efforts that are most likely to contribute to the reduction of future losses.

Examples of Innovative Mitigation Approaches

The evaluation process will produce a record of both mitigation achievements and failures, each of which will help educate officials involved in solving landslide problems. Examples of innovative mitigation techniques that have been successfully implemented are not only of value as guidance in other jurisdictions, but will also provide justification for gaining funds and support for new projects. Additionally, promoting mitigation success stories increases public education and awareness of landslide hazards, as well as public confidence in government hazard mitigation programs.

Analyses of Local Mitigation Programs

A critical feature of the proposed planning process is the development and maintenance of lines of communication between local and state mitigation systems and between state and federal systems. In order for state mitigation assistance to adequately support local efforts, local programs must periodically report to the state their unmet needs, i.e., desired projects that are determined locally to be needed, but are beyond local resource capabilities.

Local reports of mitigation needs and activities in progress will help state officials determine program effectiveness and funding priorities. Landslides that present potentially catastrophic impacts and local mitigation programs that have demonstrated the ability to produce mitigation results should be among the top priorities considered for state or federal assistance. ❑