Chapter 5
Transferring and Encouraging the Use of Information

A major part of any effective landslide loss-reduction program must be the communication and use of technical information (information transfer). Often individuals or groups do not take mitigative action because they do not understand what to do, or lack training on how to do it. The mitigation and/or avoidance of landslide hazards and the reduction of landslide losses require that appropriate information be communicated to, and effectively used by, planners, decision makers, and emergency response personnel.

According to Kockelman (personal communication, 1989), various terms are used to describe the transfer of information to users, namely "disseminate," "communicate," "circulate," "promulgate," and "distribute." Often these terms are interpreted conservatively. For example, an agency or person might simply issue a press release on hazards or distribute research information to potential users. Such activity rarely results in the adoption of effective hazard reduction techniques.

Kockelman notes that no clear, concise definition or criteria for effective information transfer has been offered or can be found in the literature, except by inference or by analysis of what actually works for lay persons. Therefore, he uses "transfer" to mean the delivery of an understandable product in a usable format to a specific person or group "interested" in, or responsible for, hazard reduction, plus assistance and encouragement in the selection and adoption of an appropriate reduction technique. Only when all these criteria have been met have researchers, translators, and transfer agents fulfilled their objectives.

The effective use of landslide information to reduce danger, damages, or other losses depends not only on the efforts of the producers of the information, but also on (1) the users' interest, capabilities, and experience in hazard-related activities, (2) the existence of enabling legislation authorizing federal, state, and local hazard-reduction activities, (3) the availability of funds and adequate, sufficiently detailed information in a readily usable and understandable form, (4) the use of effective information communication techniques, and (5) the existence of qualified staff at all levels of government with the authority to take mitigative action.

Information Transfer

Methods for transferring and/or obtaining landslide information are listed in Table 3. These methods should be used by any landslide information collection, interpretation, and transferral program designed for planners and decision makers. Some of these services are provided by state agencies, map sales offices, geologic inquiries staffs, public inquiries offices, universities, and, in the course of ordinary day-to-day contacts with the public, by the producers of landslide hazard information. In addition, many research workers have provided such services on a limited and informal basis.

Table 3. Examples of resources available for obtaining / transferring landslide information (adapted from U.S. Geological Survey, 1982).

Educational Services
• Universities and their extension divisions through courses, lectures, books, and display materials
• Guest speakers and participants at lectures in regional and community educational programs related to the application of hazard information
• Seminars, conferences, workshops, short courses, technology utilization sessions, training symposia, and other discussions involving user groups

Table 3. Continued

- Oral briefings, newsletters, seminars, map-type "interpretive inventories," open-file reports, reports of cooperating agencies, and "official-use only" materials (released via news media)
- Radio and television programs that explain or report hazard-reduction programs and products
- Meetings with local, district, and state agencies and their governing bodies
- Field trips to potentially hazardous sites by state, local, or federal agencies, and professional societies

Information Sources

- Annotated and indexed bibliographies of hazard information and lists of pertinent reference materials
- Local, state, and federal policies, procedures, ordinances, statutes, and regulations that cite or make other use of hazards information
- Hazards information incorporated into local, state, and federal studies and plans
- User guides relating to earth-hazards processes, mapping, and hazard-reduction techniques

Users of Landslide Hazard Information

Among the potential users of landslide hazard information are people at national, state, regional, and community levels in both the public and private sectors. Three general categories can be identified: (1) scientists and engineers who use the information directly, (2) planners and decision makers who consider hazards among other land-use and development criteria, (3) developers and builders; financial and insuring organizations, and (4) interested citizens, educators, and others with little or no technical expertise. These people differ widely in the kinds of information they need **and in their capabilities to use that information**. Examples of potential users are listed in Table 4.

Table 4. Potential users of landslide hazard information (modified from U.S. Geological Survey, 1982).

City, County, and Area-Wide Government Users

City and county building, engineering, zoning, safety, planning, and environmental health departments
City and county offices of emergency services
County tax assessors
Local government geologists
Mayors, county commissioners, and city council members
Multicounty (regional) planning, development, and emergency preparedness agencies
Municipal engineers, planners, and administrators
Police, fire, and sheriff's departments
Public works departments
Road departments
School districts
Special districts (water, sanitation, urban drainage)

State Government Users*

Attorney General's Office
Department of Administration
    State Buildings Division
Department of Health
Department of Highways
Department of Local Affairs
Department of Military Affairs
    National Guard
Department of Natural Resources
    Geological Survey
    Water Conservation Board
    Water Resources
Department of Public Safety
    Emergency Management Agencies
Department of Revenue
State Planning and Budgeting Office

***NOTE:** Names and functions of state agencies vary from state to state and this list should be adapted accordingly.

Table 4. Continued

Federal Government Users
Department of Agriculture
Farmers' Home Administration
Forest Service
Soil Conservation Service
Department of the Army
Army Corps of Engineers
Department of Commerce
National Bureau of Standards
National Oceanic and Atmospheric Agency
Department of Housing and Urban Development
Federal Housing Administration
Department of the Interior
Bureau of Land Management
Bureau of Reclamation
Geological Survey
National Park Service
Department of the Navy
Department of Transportation
Federal Highway Administration
Environmental Protection Agency
Federal Emergency Management Agency
General Services Administration
Members of Congress and their staffs
Nuclear Regulatory Commission
Small Business Administration

Private, Corporate, and Quasi-Public Users
Civic and voluntary groups
Concerned citizens, homeowners associations
Construction companies
Consulting planners, geologists, architects, and engineers
Economic development committees
Extractive, manufacturing, and processing industries
Financial and insuring institutions
Landowners, developers, and real estate agents
News media
Utility and transmission companies
University departments (including geology, civil engineering, architecture, urban and regional planning, and environmental studies departments)

Other National Users
Applied Technology Council
American Association of State Highway and Transportation Officials
American Public Works Association
American Red Cross
Association of Engineering Geologists
Association of State Geologists
Council of State Governments
Earthquake Engineering Research Institute
International Conference of Building Officials
National Academy of Sciences
National Association of Counties
National Association of Insurance Commissioners
National Governors' Association
National Institute of Building Sciences
Natural Hazards Research and Applications Information Center, University of Colorado
National League of Cities
Professional and scientific societies (including geologic, engineering, architecture, and planning societies)
United States Conference of Mayors

Most states have professional planners, engineers, or geologists available who can make interpretations from available hazard information. Specialists from the federal government who are skilled in the translation of technical data can also assist states. As suggested in Chapter 4, the most effective use of landslide information is achieved when maps are prepared that indicate the location, severity, and recurrence potential of landslides.

Developing an Information Base: Sources of Landslide Hazard Information

Some of the organizations that produce or provide landslide hazard information are listed in Table 5.

Table 5. Examples of producers and providers of landslide hazard information (adapted from U.S. Geological Survey, 1982).

American Institute of Professional Geologists
American Society of Civil Engineers
Association of Engineering Geologists
County extension agents
Educators (university, college, high school)
Museum of Natural History
State Department of Highways
State Geological Survey
Hazard researchers, interpreters, and mappers
International Conference of Building Officials
Journalists, commentators, editors, and other news professionals
Local seismic safety advisory groups
National Governors' Association
Natural Hazards Research and Applications Information Center, University of Colorado
Public information offices (federal and state)
U.S. Army Corps of Engineers
U.S. Bureau of Land Management
U.S. Bureau of Reclamation
U.S. Forest Service
U.S. Geological Survey
U.S. Soil Conservation Service

❑