Introduction

The recorded history of landslides in China goes back almost 4,000 years to 1789 B.C. The landslide of Wudu in Central China, which killed 760 people in 186 B.C., is probably the oldest of such disasters. Since that time, landslides have been a major source of social and economic loss for the population in mountain areas of China. Earthquakes and rainfall are the basic causes of landslides. However, in the past 40 years, other factors have contributed to landslide hazards. The population pressure in China has necessitated the expansion of agriculture, at the expense of forests, on to steeper slopes. At the same time, financial investment in development projects in mountain areas, such as road and reservoir construction and exploitation of mineral resources, has caused impacts that have led to increased landslide damages (Li Tianchi 1990).

In China, landslides annually cause an estimated 15 billion USD in economic losses and about 150 deaths (Li 1992), exceeding the total annual losses due to earthquakes. Most of the landslides found over the last 40 years were concentrated in the provinces of Sichuan, Yunnan, Guizhou, Xizang (Tibet), Shaanxi, Fujian, Hunan, Hubei, and Taiwan. In other provinces, landslides develop less often than in the provinces mentioned above. Most landslides in these areas are triggered by heavy rain and/or melting snow, major earthquakes, and human activities. Occasionally, large hazardous landslide dams have been formed, particularly in the Hengduan mountain area of western China.

Landslide prevention and control are new disciplines, although there are records of China having the oldest landslide hazards in the world. During the 1950s, because knowledge about landslide identification and prevention was scanty, excavations on ancient landslide sites reactivated them with disastrous results. For instance, 136 large and small landslides occurred from 1954 to 1957 within 348km from Baoji to Shangxiba along the Baoji-Chengdu railway line. Railway services were interrupted several times during that period and the cost of repairs was as high as 8,200 million *yuan*[1]. A few studies on landslide identification and control were initiated after these incidents. More extensive studies, including landslide mapping, mechanisms of failure, and prevention and control techniques, began in the early 1960s. Since then, great efforts have been made to reduce the losses from landslides.

This paper reviews the available information on effective mitigative measures used in China to reduce the economic and social losses from landslides, including landslide mapping, physical control measures, anticipation of landslide hazards, assessment, and mitigation measures of landslide dam failure disasters.