

Water Resources in Korea

Yongdeok Cho¹

Department of Civil Engineering, Colorado State University

Abstract. Due to population growth on one hand, and to industrial development on the other, water shortage problems have been intensified in Korea. With this in mind, one of the most crucial policy tasks for most countries has been the securing of a sufficient amount of water resources. South Korea is not an exception, but rather it is a good example of water crisis. It has been predicted that Korea will suffer a water shortage of 1.8 billions m³ in 2011. In the 21st century with water being regarded as one of the world's most endangered resources, Korea is making a significant effort to achieve growth and prosperity by maximizing level of water resources utilization through efficient management of water resources and by securing new water resources.

Recently there have been many recursive flood disasters due to extreme rainfall events in Korea. Flood control is needed and can be achieved by building dams and levees which have to be environmentally sound sustainable development. However dam construction causes controversy between development and conservation, and water resources projects are especially facing strong opposition by environmentalist. For examples, national projects such as water projects including Dong-gang Dam, and the High speed railway project, have been suspended. In brief, Korea really needs water supply and flood control now, but has a lot of problems implementing water resources projects because of environmental problems. Therefore water resource projects need to be developing that consider the environment, economy, and the welfare of its people.

This presentation introduces the Korean climate, its water resources, multi-purpose dams, proceeding of environmental impact assessment for considering environmental problems etc.

¹ Department of Civil Engineering, Colorado State University. Fort Collins, CO 80523-1372. Phone : 970.491.2838, e-mail : ydcho@mail.engr.colostate.edu