

Integrated Watershed Management Practice in Chelchai Hyrcanian Forests in the North of Iran

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Abstract : Human health and the health of his watershed are inseparable. This is because a watershed is an interconnected system of "land", "water", "air" and "life". Nowadays, most of the world's watersheds show symptoms of unhealthiness and require a prompt solution. It is believed that suitable solution is a participatory and Integrated Watershed Management (IWM). In recent decades the Hyrcanian forests in the north of Iran, which belongs to the end of the third geological era, are suffering from many environmental challenges such as land degradation, increasing trends of flood, drought and accelerated soil erosion. These challenges in the main forested area of the country impose many tangible and intangible damages and human losses. This is despite the fact that in the past decades, forestry programs, watershed management and other activities in the region have been implemented in a parallel and uncoordinated manner. Therefore, recently; the Natural Resources and Watershed Management Organization has resorted to the concept of IWM planning the Hyrcanian watersheds. The Chelchai watershed as mostly degraded watershed in the eastern part of the Hyrcanian forests has been selected as a pilot watershed for implementation of the IWM. It has a drainage area of 25680 hectares and receives an average annual precipitation of 650 mm. In this mountainous region, the average temperature is 17.3 degrees Celsius. About 34% of the watershed is under cultivation, 64% under forest cover, 2% under built up areas and etc. In this research, the effectiveness or ineffectiveness of the IWM model implementation of the Natural Resources and Watershed Management Organization has been evaluated based on questionnaire method and field studies. The results indicated that IWM activities in the study area should be reconsidered and revived. Based on this research and the lessons learned during five years' experience in the Chelchai watershed; authors believe that seven important tasks are necessary for socially acceptable and successful implementation of IWM projects. These are: 1) Establishment of Local Coordination Committee (LCC) at the watershed level 2) working for development of a IWM law among government organizations to organize watershed management and eliminate parallel and contradictory activities 3) More investment on education of local communities, especially women and children 4) Development of trust builder and pattern projects that showing best agricultural and livestock management activities at each of 26 villages 5) Assigning forest protection to local communities. 6) Capacity building of government stakeholders. 7) Helping in the marketing of watershed products.

Keywords : integrated watershed management, Chelchai, Hyrcanian forests, Iran

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