

عنوان مقاله:

Water resource management planning of Aji Chai riverbasin using Weap software, a case study of Vanyar Dam

محل انتشار:

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خلاصه مقاله:

The growing population of the world in developing countries in recent years, on the one hand, has led to the indiscriminate harvesting of resources, and on the other hand, the lack of proper management in providing the resources needed by this population. Water management requires integrated approaches for analysis to be able to plan correctly and cost-effectively. Iran, with its arid and semi-arid climate and limited water resources, now needs to conserve water resources more than ever. In this research, the Aji Chai river basin, which is one of the important rivers of East Azerbaijan province, has been studied. In this study, the main purpose is to manage the dam and flood reservoir to prevent damage, help to restore Lake Urmia and meet the needs of drinking water, industry and agriculture, and provide environmental protection. In this research, WEAP software has been used to manage water resources, in order to evaluate the water resources management approach, three scenarios were proposed; In the first scenario, the level of minimum utilization is considered in accordance with what was intended at the time of design. In the second scenario, the Discharge time of seven months until the minimum exploitation level is considered and the third scenario was done in line with the control of the water level of the tank. According to scenario 1 and 2, it was concluded that the reviewed scenarios cannot guarantee the achievement of the goals and cannot be operationalized, hence the third scenario was proposed for the operation of Vanyar Dam.

کلمات کلیدی:

vanyar dam, water resources management, weap software, drainage basin, climate change, dewatering the tank

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