

## The Taiwan Environmental Impact Assessment Act Contributes to the Water Resources Saving

**Authors :** Feng-Ming Fan, Xiu-Hui Wen

**Abstract :** Shortage of water resources is a crucial problem to be solved in Taiwan. However, lack of effective and mandatory regulation on water recovery and recycling leads to no effective water resource controls currently. Although existing legislation sets standards regarding water recovery, implementation and enforcement of legislation are facing challenges. In order to break through the dilemma, this study aims to find enforcement tools, improve inspection skills, develop an inspection system, to achieve sustainable development of precious water resources. The Taiwan Environmental Impact Assessment Act (EIA Act) was announced on 1994. The aim of EIA Act is to protect the environment by preventing and mitigating the adverse impact of development activity on the environment. During the EIA process, we can set standards that require enterprises to reach a certain percentage of water recycling based on different case characteristics, to promote sewage source reduction and water saving benefits. Next, we have to inspect how the enterprises handle their waste water and perform water recovery based on environmental assessment commitments, for the purpose of reviewing and measuring the implementation efficiency of water recycling and reuse, an eco-friendly measure. We invited leading experts in related fields to provide lecture on water recycling, strengthen law enforcement officials' inspection knowledge, and write inspection reference manual to be used as basis of enforcement. Then we finalized the manual by reaching mutual agreement between the experts and relevant agencies. We then inspected 65 high-tech companies whose daily water consumption is over 1,000 tons individually, located at 3 science parks, set up by Ministry of Science and Technology. Great achievement on water recycling was achieved at an amount of 400 million tons per year, equivalent to 2.5 months water usage for general public in Taiwan. The amount is equal to 710 billion bottles of 600 ml cola, 170 thousand international standard swimming pools of 2,500 tons, irrigation water applied to 40 thousand hectares of rice fields, or 1.7 Taipei Feitsui Reservoir of reservoir storage. This study demonstrated promoting effects of environmental impact assessment commitments on water recycling, and therefore water resource sustainable development. It also confirms the value of EIA Act for environmental protection. Economic development should go hand in hand with environmental protection, and it's a mainstream. It clearly shows the EIA regulation can minimize harmful effects caused by development activity to the environment, as well as pursuit water resources sustainable development.

**Keywords :** the environmental impact assessment act, water recycling environmental assessment commitment, water resource sustainable development, water recycling, water reuse

**Conference Title :** ICEWRM 2016 : International Conference on Environment and Water Resource Management

**Conference Location :** Tokyo, Japan

**Conference Dates :** May 26-27, 2016