



A REVIEW ON INTEGRATED WATER RESOURCE MANAGEMENT (IWRM) IN MALAYSIA

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INTRODUCTION

Water resource is getting insecure and turns to conflicting issues if it remains uncontrollable. One of the critical problems that hinder the sustainability of water resource in Malaysia is the water crisis management. In this regard, Malaysia have adopt Integrated Water Resource Management (IWRM) as a holistic approach in order to resolve water crisis management as well as overcome some water issues such as water excesses, water shortage, water pollution, threat from climate change and issues in current state of governance. In view of that, many policies, plans and programmes are being conduct to ensure the IWRM approach can be effectively implement.

Unfortunately, in order to resolve water issues, the implementation of this approach is still remaining in doubt and leaves its principles unrealistic and too idealistic for real success. Lack of understanding over the IWRM, lack of involvement from local communities, conflicting jurisdiction over water resources, slow progressing in terms of integration between relevant agencies, problem related to the lack co-ordination and ignorance of the range institution arrangements that facilitate integrated management techniques will lead to certain gaps especially towards the IWRM progress of implementation.

Therefore, by reviewing existing literatures of IWRM, this study aims to examine the scenario of Integrated Water Resource Management (IWRM) implementation theoretically. In particular, the study also identifies the current status of IWRM implementation progress from theoretical view as shown in Table 1 and also discusses some of the IWRM past studies that have been carried out in Malaysia and synthesise the overall findings. By using content analysis, this study will be conduct via three levels which are the (i) literature review, (ii) information and secondary data synthesis, (iii) discussion.

The result may derive a conclusion to determine the status and further actions required for the improvements in IWRM implementation. This also justifies how the novelties of this study in terms of basic pillars of IWRM by considering enabling environment, institutional framework and management instrument is brought to resolve current water issues and offer better improvement of water resource management in effective and practical way.

MAIN RESULT

Table 1: Status of IWRM in Malaysia

Status of IWRM	Progress
1. National Water Policy that reflects IWRM concepts	National Water Resource Policy has been launch in 2012.
2. Water Law that incorporate IWRM principles	Water Enactment of 1920 is out dated and needs review. The Selangor Water Enactment 1998 was passed by Selangor State Government to manage water resource in the state. Several states such as Sabah and Sarawak also have created their own legislation.
3. Organization on policy level for IWRM	Establishment of the National Water Resources Council. Only one state is set up to manage the water resources of the rivers in state- Selangor Water management Authority (SWMA)
4. Organization on implementation for IWRM	Not started. River authorities planned for SWMA only but not fully operational.
5. IWRM management Instrument	Currently IWRM management instruments or tools that being used (may probably not complete and certainly not prescriptive): (a) River Basin Decision Support System (RB-DSS), (b) IWRM Modelling Approach, (c) IWRM Tool-BOX, (d) The urban Governance initiative (TUGI) Report Cards (RCs) and (e) Collaborative Decision Making (CDM)
6. Government spending on IWRM	Budget Allocated for IWRM is arranged through Ninth Malaysia Plan (2006-2010). But there is some lack of financial support from government to increase the capacity of enforcement bodies.
7. Performance of basin level management	Currently have 9 IWRM Best Management Practices (BMP) Projects in 2009-2012 all over Malaysia.
8. Stakeholder Participation and Citizen group support system	Capacities building with the cooperation by Malaysia Water Partnership, MyCapnet, Global Environment Centre, and Open University of Malaysia. Awareness programme and campaign have been launched by government agencies and NGO such as My Water Voice Forum, Malaysia Environmental Week,
9. Education and training programme	In education, Open University of Malaysia has offered an MSc course in IWRM to the public.
10. Administrative reform at the federal as well as state level	Re-organisation and formation of 4 ministries (Ministry of Natural Resources & Environment, Ministry of Energy, Water & Communication, Ministry of Agriculture & Agro Based Industry and the Ministry of Housing & Local Government) related to water resources (2003)

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