UPSTREAM-DOWNSTREAM INTEGRATION

Lessons Learned from INTERDAWM Project, Indonesia

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Background

- Upstream-Downstream Integration has a long history in Indonesia.
- In 1985 there were efforts to review the interaction between River Basin Development in the downstream part of a river and Watershed Management at the upstream part of it.
- The situation is, although the Government had strongly advocate the principle of *KISS* – "Koordinasi, Integrasi, Sinkronisasi & Simplifikasi", meaning : Coordination, Integration, Synchronization and Simplification.
- But in the field there were no such practice.

Characteristics

- **Dams and Reservoirs**

  are major components of river basin development. In the approach of river basin development as one system, dams and reservoirs are subsystems, which need to be managed in overall, integrated, multi-purpose, multi-objective, and as a single unit, to reach the predetermined objective.
- **River basin development**

  is an effort to develop water resources in an integrated and overall manner, towards optimization within river basin as a development unit and as a regional unit for water management.
- **Watershed management**

  is an effort to manage renewable natural resources such as vegetation, soil and water to be able to generate utmost and sustainable benefit.

Concept

- Since the National Seminar on Environmental Development in 1978 there were rising awareness on management of natural resources and the environment.
- In line with the raising awareness on orderly management of natural resources in general and river basin development and watershed management in particular, since 1979 had been prepared the formation of Integrated River Basin Development Plan based on the concept of “one river one plan” starting from Brantas River Basin in East Java.

Concept

- In 1980 the effort was extended to Bengawan Solo River Basin in Central and East Java coordinated by the Provincial Planning Agency of Central Java in cooperation with the same agency in East Java.
- After that, it was extended to the other three basins, namely Jratunseluna River Basin in Central Java, Citanduy River Basin in West and Central Java, and Cimanuk River Basin in West Java.

Concept

- In 1985 there were further considerations on the more effective integration in the form of Integrated River Basin Development and Watershed Management, which was further deliberated in the INTERDAWM Project, with its milestone on the conduct of the MPW-EWC Workshop at Jakarta and Cipanas on 22-27 March 1986.

Issues and Analysis

- **Working Mechanism**.

  The working mechanism to integrate several activities had not been done as required, either from the point of view of legislation as well as of the implementation in the field.
- **Planning Process**.

  The plan for river basin development and watershed management is closely related to spatial and regional plan.

Issues and Analysis

- **Flow of Information.**

  In this respect, there is a need for flow of information and two ways directives between national and local agencies to streamline the planning process, resulting in a top down and bottom up planning processes.
- **People's Participation.**

  Planning and implementation of river basin development and watershed management absolutely requires active participation of natural resources user's communities.

Issues and Analysis

- **Food Security.**

  Efforts should be done to maintain food security and safeguarding the sustainability of natural resources.
- **Planning, Programming and Budgeting.** Another principle matter is to improve the mechanism to integrate planning, programming and budgeting process.

Recommendations

1. Improve the existing legislation and reinforce its implementation, including the formulation of new regulations necessary for coordination, integration and synchronization of the INTERDAWM activities.
2. Develop and implement the institutional mechanism and its management in the framework of conservation, utilization, development and control of quality and quality, especially related to timely allocation of water.

Recommendations

3. Establish coordination mechanism at national as well as regional level to enhance the integration in planning, programming, budgeting, implementation and evaluation of INTERDAWM.
4. To secure the integration, considerations for annual budget should be based of INTERDAWM wit due consideration on interrelation between component activities of one sector to the other or between sector and local government.

Recommendations

5. To improve the people's participation, beside the application of education and extension, it is necessary to involve community organizations in planning and implementation of INTERDAWM, and create opportunities for economic incentives.
6. To review the possibility of guided program for intensive dry land farming in the upper watershed.

Recommendations

7. Capacity building in monitoring, evaluation and supervision at all level of INTERDAWM.
8. Establish the magnitude of supply and demand for water, starting from the river basins with high priority to be developed in integration, as a basis for planning and rational allocation of resources at local level.

Recommendations

9. Due consideration for the possible improvement of the role of existing organizations for fully functioning in soil conservation, to be able to create methods for proper erosion control for various land uses such as agriculture, forestry, estates, road construction, settlements, industries, river banks, mining and so on.

Those recommendations are mutually interrelated and interdependence. Therefore it is recommended to be implemented simultaneously to support the implementation of the INTERDAWM principles.


Thank You