

Malaysia Water Resources Management Forum 2012

**WATER RESOURCES MANAGEMENT
IN SABAH**

by:

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Department of Irrigation and Drainage
Sabah**

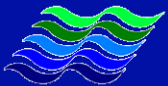
27 November 2012

Putrajaya

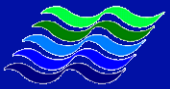
Paper by: Ir. Ng Chee Hing , Yap Siew Fah & Miklin Ationg

Presentation outline

1. Background
2. Implementation Status
3. Factors affecting the implementation
4. Recommendations to increase the effectiveness of implementation



Background



NATIONAL WATER RESOURCES STUDY 1982

(Initiated by DID Malaysia Assisted by JICA)

SABAH WATER RESOURCES MASTER PLAN 1994

MOU between State Gov. & New South Wales's Dept. of Water Resources

SABAH WATER RESOURCES ENACTMENT 1998

Endorsed by State's Legislative Assembly in Ogos 1998;

DIRECTOR OF WATER RESOURCES

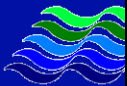
DID Sabah was officially appointed in 2005

DID has assumed the role of Water Resources Manager since 1998

SABAH WATER RESOURCES COUNCIL

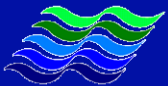
Established in February 2006

Chaired by the Chief Minister



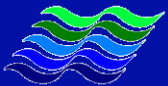
Background (cont')

- **Establishment of Water Resources Management Unit to support the State Water Resources Director**
 - Established within DID Sabah in 1998 with the responsibility to assist the Director of DID in carrying out the Water Resources Director's function.
 - Establishment is inline with the State Water Resources Master Plan recommendation.
 - Human resources for the establishment are from the existing DID staff assign for DID original functions.

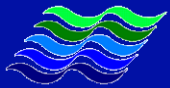


Background (cont')

- **Human Resources Capacity Building in Water Resources Management for the established Water Resources Management Unit**
 - **Capacity building was carried out through the following programs:**
 - **Pilot Study on Integrated Catchment Planning for Sg. Moyog by consultant from Australia;**
 - **Capacity Building Project in Integrated Catchment Planning for Sg. Padas with assistance from DANIDA;**
 - **Other agency's related capacity building project ;**
 - **Capacity building program is in line with the Master Plan Recommendation**

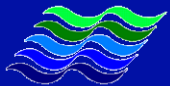


Implementation Status of the State Water Resources Management by DID Sabah



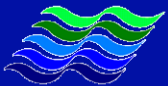
Water Resources Management Activities

1. Assessment of applications for water resources related activities.
2. Implement catchment management in accordance with Part IV of the Sabah Water Resources Enactment 1998.
3. Develop water resources management policy.
4. Develop and maintain a water resources information system.
5. Implement education and awareness programs.



Water Resources Management Activities (cont')

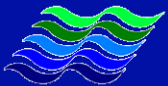
6. Provide technical support to other natural resources management initiatives.
7. Support other related institutions.
8. Monitor river water quality.
9. Prepare project/study proposals related to water resources management.
10. Report the status of state's water resources.



Implementation Status

1. Assessment of applications for water resources related activities.

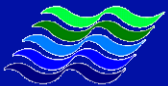
- Through other agencies existing mechanism.
 - Assessment of land applications involving water catchment area.
 - Assessment of TOL application for sand and gravel extraction in rivers and sea.
 - Assessment of EIA report on development proposal involving river and shore.
 - Assessment of EIA report on activities with direct or indirect impact on water resources.
- Note : The department received around 10 applications per week.



Implementation Status

2. Implementation of catchment management in accordance with Part IV of the Sabah Water Resources Enactment 1998.

- Capacity Building on Integrated Catchment Management
- Established District Catchment Management Committee (DCMC) in 15 Districts.
- Carried out study on catchment area in 7 districts and still under progress in 6 other area.
- Identified catchment issues and proposal to address the issues in 8 districts.
- Prepared draft catchment management plan for 5 catchment areas and still under progress in other 6 catchment areas.

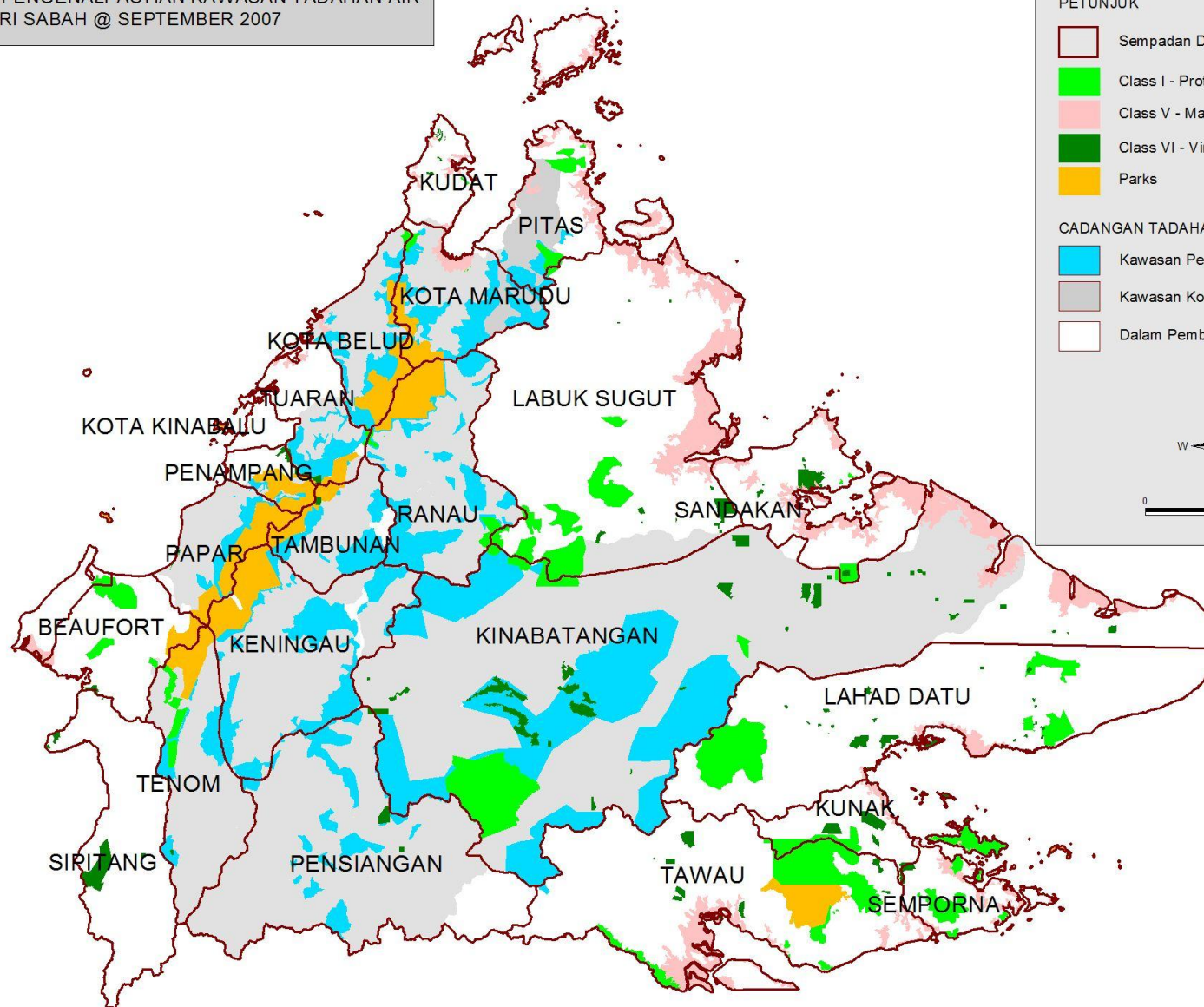


Implementation status of Catchment Management in Districts

District	DCMC	DTT	ICIMS	CMA	BS	ICMP
Tambunan	Formed	Formed	Created	Established	Completed	Completed
Tenom	Formed	Formed	Created	Established	Completed	Completed
Kota Belud	Formed	Formed	Created	Established	Completed	In progress
Kota Marudu	Formed	Formed	Created	Established	Completed	Completed
Kinabatangan	Formed	Formed	Created	Established	Completed	In progress
Tongod	Formed	Formed	Created	Established	Completed	In progress
Keningau	Formed	Formed	Created	Established	In progress	In progress
Beaufort	Formed	Formed	Created	Not yet	In progress	Not yet
Sipitang	Formed	Formed	Created	Not yet	In progress	Not yet
Penampang	Formed	Formed	Created	Completed	Completed	Completed
Papar	Formed	Formed	Created	Established	In progress	In progress
Kota Kinabalu	Formed	Formed	Created	Not yet	Not yet	Not yet
Ranau	Formed	Formed	Created	Established	Completed	Completed
Tuaran	Formed	Formed	In progress	In progress	Not yet	Not yet
Pitas 	Formed	Formed	Created	Established	In progress	In progress 

Identified Catchment Management Area (CMA)

STATUS PENGENALPASTIAN KAWASAN TADAHAN AIR
DI NEGERI SABAH @ SEPTEMBER 2007

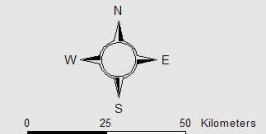


PETUNJUK

- Sempadan Daerah
- Class I - Protection Forest Reserve
- Class V - Mangrove Forest Reserve
- Class VI - Virgin Jungle Reserve
- Parks

CADANGAN TADAHAN AIR

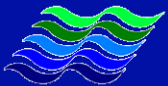
- Kawasan Perlindungan Air
- Kawasan Konservasi Air
- Dalam Pembangunan



Implementation Status

3. Development of Water Resources Management Policies

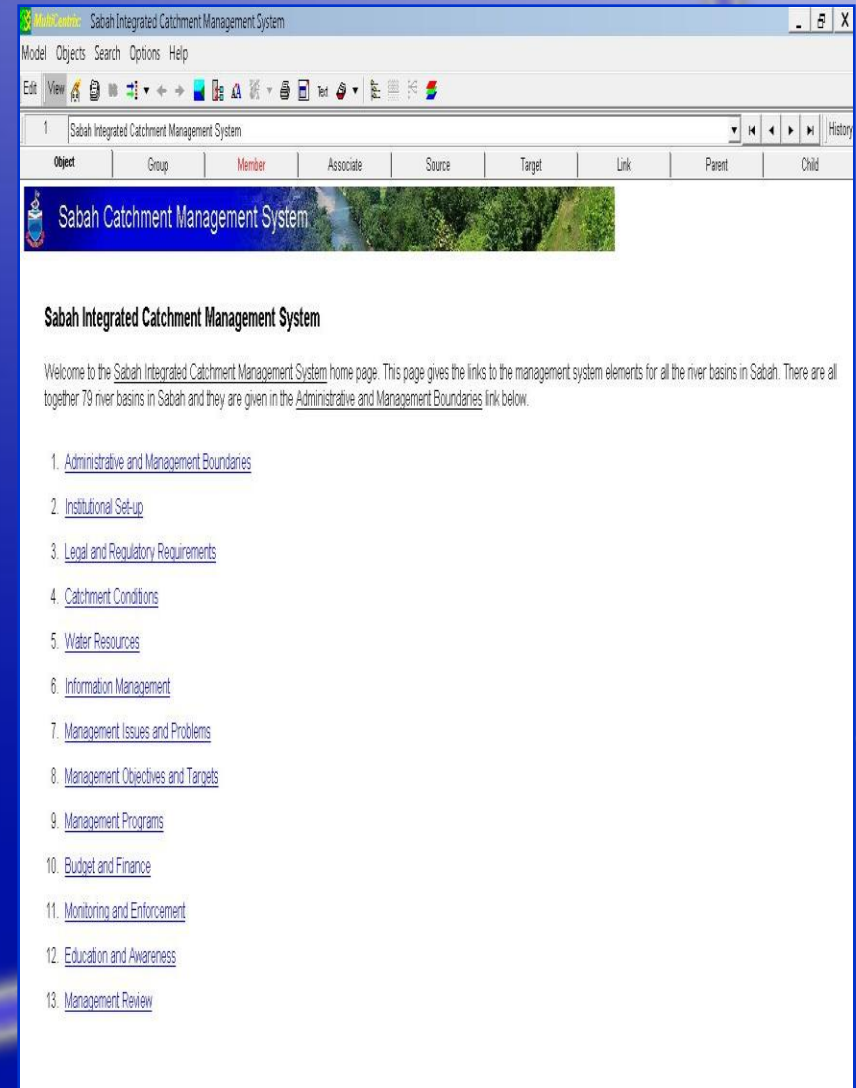
- **Policies developed:**
 - Policy on the minimum requirement of ‘Environmental Flow’ in domestic and industrial water supply, hydro power generation and agriculture water supply.
 - Policy on the state’s water resources management standard.
 - Policy on criteria for the identification of Catchment Management Areas.
- Policies have been tabled and adopted by the State Water Resources Council in 2007.



Implementation Status

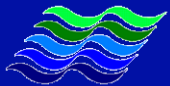
4. Development and maintenance of water resources information system.

- Developed an Integrated Information Management System on Catchment Management



The screenshot shows a web browser window titled "Sabah Integrated Catchment Management System". The browser's address bar displays "1 Sabah Integrated Catchment Management System". The page features a navigation menu with tabs for "Object", "Group", "Member", "Associate", "Source", "Target", "Link", "Parent", and "Child". Below the menu is a banner image of a river and forest with the text "Sabah Catchment Management System". The main content area is titled "Sabah Integrated Catchment Management System" and contains a welcome message: "Welcome to the Sabah Integrated Catchment Management System home page. This page gives the links to the management system elements for all the river basins in Sabah. There are all together 79 river basins in Sabah and they are given in the [Administrative and Management Boundaries](#) link below." A numbered list of 13 management system elements follows:

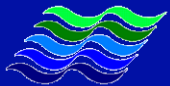
1. [Administrative and Management Boundaries](#)
2. [Institutional Set-up](#)
3. [Legal and Regulatory Requirements](#)
4. [Catchment Conditions](#)
5. [Water Resources](#)
6. [Information Management](#)
7. [Management Issues and Problems](#)
8. [Management Objectives and Targets](#)
9. [Management Programs](#)
10. [Budget and Finance](#)
11. [Monitoring and Enforcement](#)
12. [Education and Awareness](#)
13. [Management Review](#)



Implementation status

5. Implementation of Education and Awareness Program on Water Resources.

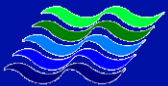
- Organised seminar dan river expedition.
- Developed and implemented a "Community based river monitoring program".
- Involved in other awareness program with other agencies.



Implementation status

6. Providing technical support to other natural resources management initiatives.

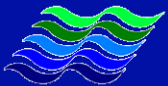
- Supported committees, working groups and task forces on the following projects and programs:
 - Conservation of Klias Peatswamp Forest project.
 - Borneo Biodiversity Ecosystem Conservation (BBEC) I & II project.
 - Sabah Shoreline Management Plan Study.
 - Regional Tourism Conceptual Plan Study Project.
 - Environmental Local Plan



Implementation status

6. Providing technical support to other natural resources management initiatives. (cont')

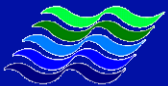
- Heart of Borneo (HOB) initiative.
- Conservation and Rehabilitation of Ex-Mamut Copper Mine project.
- Sabah Land Utilisation Policy study.
- One state one river program.
- Solid Waste Management Master Plan study.
- Kinabatangan Corridor of Life initiative.
- Sabah Environmental Policy study.



Implementation status

7. Support to other institutions

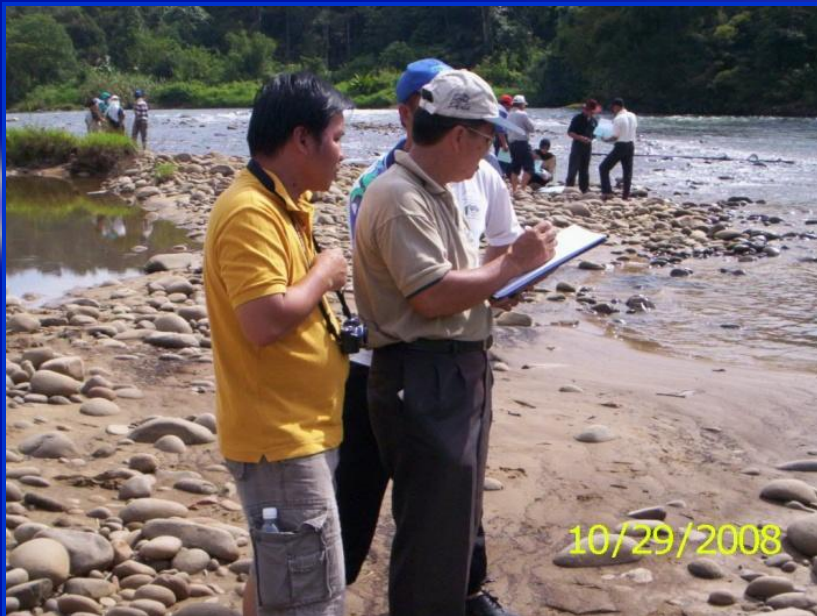
- Sabah Environmental Protection Council.
- Sabah Water Resources Council.
- National Water Resources Council.
- Sabah Biodiversity Council.
- Kota Kinabalu Wetland Society.
- Environment Action Committee.



Implementation status

8. River water quality monitoring

- Developed method for a rapid water quality assessment.
- Carrying out monitoring on river water quality.



MANUAL KERJA LAPANGAN

PENILAIAN KUALITI AIR SUNGAI
(KAEDAH CEPAT, RINGKAS & MUDAH)



(RAPID WATER QUALITY ASSESSMENT METHOD)



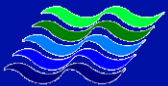
Disediakan Oleh:

BAHAGIAN PENGURUSAN SUMBER AIR
JABATAN PENGAIRAN & SALIRAN
SABAH

Implementation status

9. Preparation of project proposal related to water resources management.

- Proposed projects under the RMK-9.
- Proposed 3 projects under the RMK-10.
 - Study project to develop policies, guidelines and rules for management of water activities, water conservation area and river reserves.

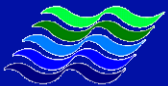


Implementation status

10. Reporting the conditions of state water resources

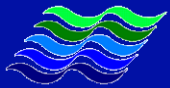
- Condition of the state's water resources was prepared for 2005 & 2008.
- Need to be tabled to the Sabah Water Resources Council.

Report on
**CONDITION OF WATER RESOURCES
IN SABAH 2005**



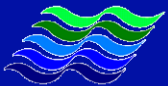
Department of Irrigation and Drainage
State of Sabah

Factors affecting the implementation of Water Resources Management by DID in Sabah

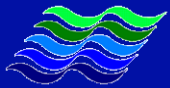


Factors affecting implementation of Water Resources Management by DID

- Lack of human resources and related resources.
- Implementation of DID water resources management functions was carried out by existing DID staff which was assign for DID existing function.
- The use of consultancy services is limited to certain areas only.
- Effective use of consultant services is subject to the competency of staff who supervise.

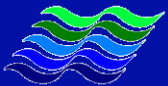


Recommendation to enhance effectiveness of the State Water Resources Management



Recommendation to enhance the effectiveness of the State Water Resources Management

- Organisational restructuring with adequate staff resources and the appropriate grade.
 - DID Sabah organisational restructuring plan was prepared, submitted and accepted by 'Jabatan Perkhidmatan Awam Sabah' in Sept 2008 and forwarded to JPA Malaysia.
 - This will enable development and implementation of water resources management mechanism.





Thank You