Conference on "New Thinking in Water Governance" and Regional Consultation Meeting

2 – 4 July 2009
Singapore

Country Report Malaysia

By

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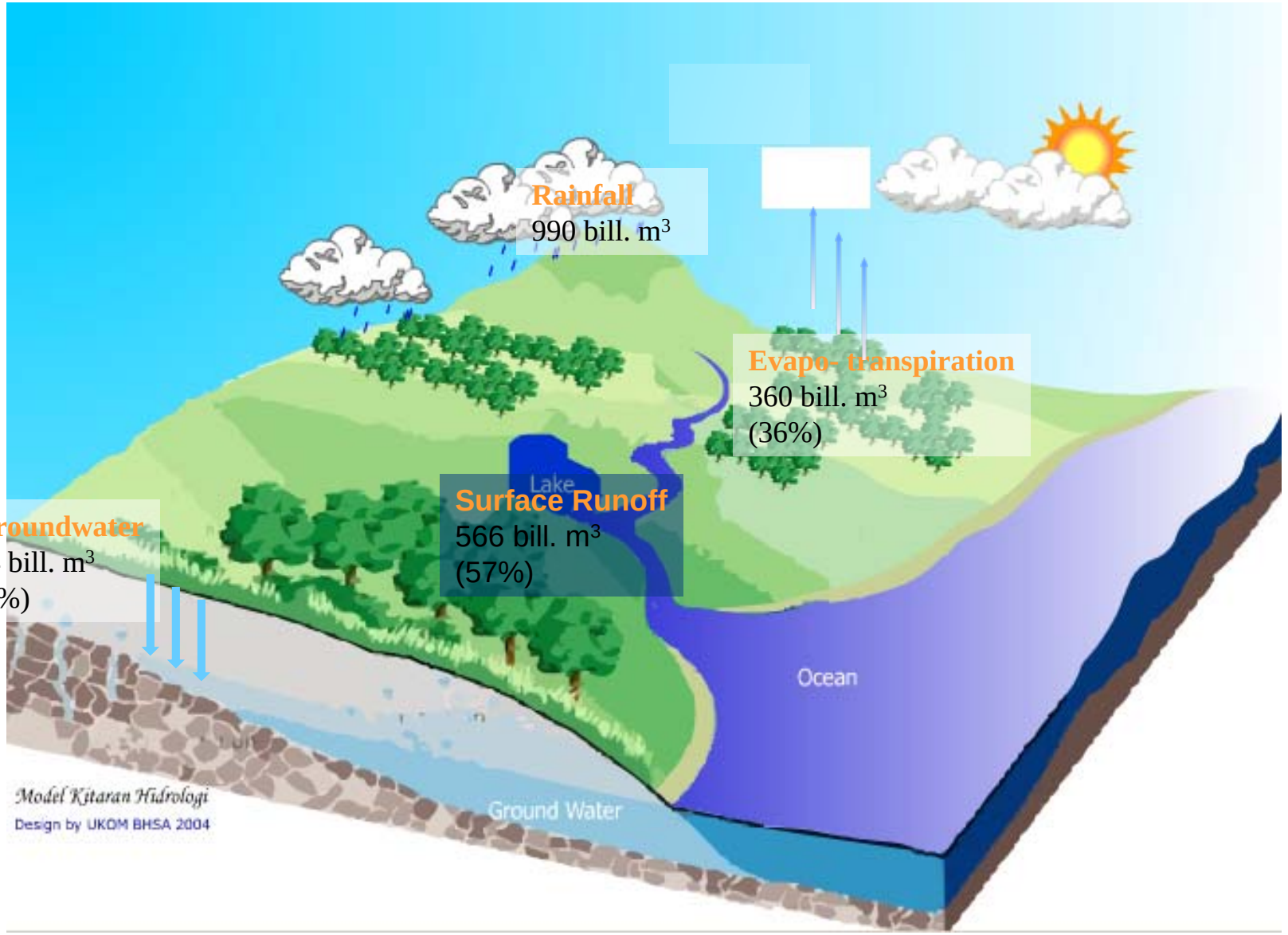
If I May Briefly Take You Through…

- **How Much Water Do We Have?**
- **Water Issues**
- **Do We Have A Water Policy and Law?**
- **The Water Vision, Strategic Goals and Key Players**
- **Malaysia's Journey along the path of IWRM**

Mean Annual Water Resources



Water Demand

- Surface water constituted 97% of the raw water for agriculture, domestic and industrial water supply.
- In Peninsular Malaysia, the main uses of water are estimated to be 7.35 billion cubic meters (70%) for agriculture (irrigation), 1.833 billion cubic meters (18%) for domestic and 1.26 billion cubic meters (12%) for industrial consumption.
- The water consumption in these three sectors is expected to increase by 69% to about 17.675 billion cubic meters in the year 2050.

Water User Sectors

Water Issues

1. **Water Excess (Floods)**

2. **Water Quality (Pollution)**

3. **Water Shortages (Droughts)**

Water Management Issues…

Water, water, water everywhere

NST pictures by Nushairi Nawi, Mokhsin Abidin, Syaharim Abidin and Amirudin Sahib

BOAT PEOPLE ... A City Hall rescue squad ferrying office workers who were stranded along Jalan Melaka, to safety.

Several hours of heavy rain and KL almost comes to a standstill

By Adrian David and V. Ramanan

KUALA LUMPUR, Mon. — In a near repeat of the incident in April this year, the city was again in chaos for several hours today, after a torrential downpour caused flash floods a

while waiting to be picked up.

Volunteers were also seen sweeping away flood water at the entrance of the Our Lady of Fatima church opposite the school.

A regular church goer, Lucien Wijesuriya said it was quite normal for the church to get flooded when there was a

IN DISTRESS ... Office workers in Jalan Melaka had to wait hours for the flood waters to recede before being able to head home after work.

SAFETY FIRST ... Office workers on board a boat being escorted to higher grounds by rescue personnel.

HELPING HANDS ... Two rescue team members escorting a woman across the flooded street along Jalan Ampang.

ALTOGETHER ... Members of City Hall's rescue squad and passers-by helping to push one of the many cars which were caught in the floods to higher grounds along Jalan Dang Wangi yesterday.

NOT SPARED ... Motorcycles parked along Jalan Tun H.S. Lee were nearly submerged. Note the garbage bags floating by.

FOCUS

JULY 4, 2004

WATER abundant and scarce

The country's abundant water resources, being finite, cannot sustain us into the future indefinitely unless they are prudently managed. But a shift in the national management approach from the 'old ways' is taking shape, albeit slowly, writes IDROS ISMAIL.

WATER, more than oil, will be a cause of friction between nations sharing the same water resources in the future. While alternative sources of fuel can be utilised, there's no substitute for good, clean water.

It's not far-fetched to say that the survival of nations and peoples depends on availability of water resources. Water, more than an economic commodity, may even become a strategic tool in the future.

While States in Malaysia will not go to war with each other over water, disputes will crop up from time to time between States sharing the same water resources. States will look at water as an asset from which

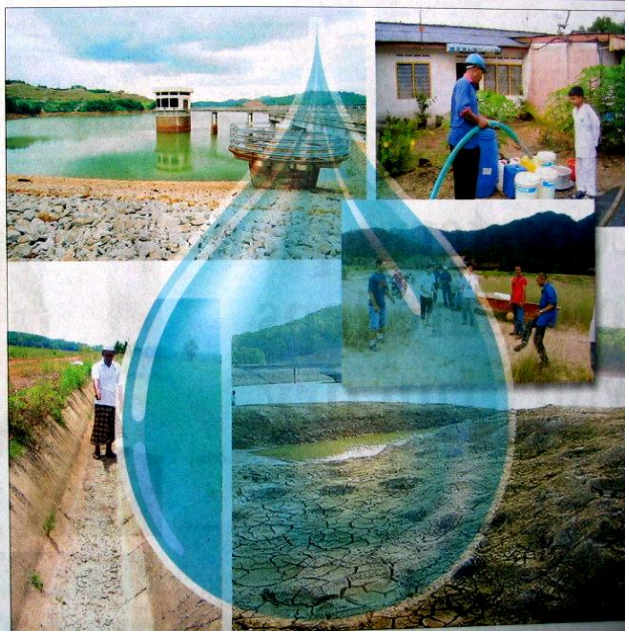
Talib had said that a co-ordinated Federal-State approach to water management was crucial to improving the efficiency of water distribution.

Of course, water distribution is just one downstream aspect of the many utilisation of water resources. The country needs more than just effective management of water distribution; it crucially needs a holistic management approach to the entire water resources available.

Once the resource at source is properly managed, its downstream utilisation — for clean water, for agriculture and for the environment — can be more effectively controlled.

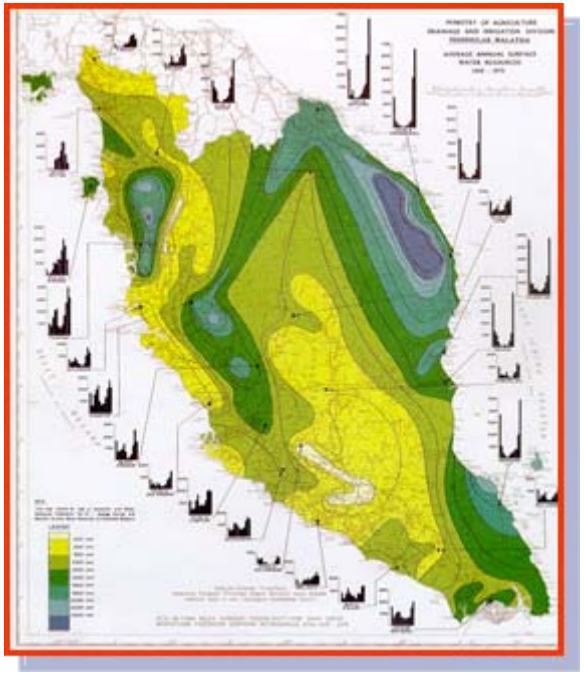
With the country's abundant rainfall, we have no business grousing

the robot waters along Jalan Tun Perak.



Irregular Distribution of Rainfall Pattern and Amount

- Although abundant rainfall (2,400 – 3,800 mm annually) rainfall is not uniformly distributed throughout the year either temporally or spatially
- Since flows in rivers coincides with rainfall, this give rise to problems associated with supply and demand, especially during prolonged periods of drought



Mean Annual Runoff in Peninsular Malaysia

Water Management Issues…

TheStar FRIDAY 5 November 2004

'Gazette water catchments'

Do it as soon as possible, states ordered

BY MERGAWATI ZULFAKAR

PUTRAJAYA: The order is out to all state governments to gazette all water catchment areas as soon as possible.

And once done, a total of 880,000ha would be gazetted as water catchment areas to meet the future water needs of Malaysians.

Deputy Prime Minister Datuk Seri Najib Tun Razak said the authorities must use satellite photos and aerial surveillance to curb illegal logging in all forest reserves.

He said the country's water resources must be protected as demand for water was on the rise.

"Some state governments have already gazetted these areas and others are in the process of doing so.

Najib: Says water resources must be protected because demand for water is rising

Forestry Council meeting here yesterday.

Malaysia had been recognised as one among the 12 countries in the world with rich biodiversity where there were 12,500 species of flower plants, 300 species of mammals, 750 species of birds, 350 species of reptiles, 165 species of amphibians, 300 species of freshwater fish and millions of invertebrates.

Najib also said the council was getting the cooperation of the Malaysian Centre for Remote Sensing to supply satellite and aerial photographs to state governments to check on illegal logging activities.

"This will make it easier to detect illegal logging activities and enforcement could be beefed up to eventually curbed it totally.

National Needs Assessment Findings

RANKING	Water Related Issues/ Themes
1	River Water Quality
2	Catchment/ Landuse Management
3	Flooding
4	Potable Water Supply
5	Institutional Arrangement
6	River Corridor Management
7	Wetlands Management
8	Water Borne Diseases
9	Biodiversity
10	Drought
11	Environmental Flow

Group Discussion

Main Themes for the BMP Projects are based on the issues identified

National Water Policy?

- No official document yet…in the pipeline
- Third Outline Perspective Plan (OPP3) for national socio-economic development provides the thrust for a sustainable water resources development

- Other national policies and plans related to water resources management :

  - National Physical Plan
  - Industrial Master Plan
  - National Agricultural Policy
  - National Environmental Policy
  - National Energy Policy
  - National Forestry Policy

Laws updated?

Land and Water are State Matters…
2005, Federal Constitution amended; water services in Concurrent List, water source remains with State

- Currently there more than 30 laws (Federal & States) related to water ; some outdated since the 1920s, few overlapping & contradicting, gaps

- However, 6 states recently (since the 1990s) already enacted their own WR laws/enactments basing on the principles of IWRM

Malaysian Water Vision

“In support of Vision 2020 (towards achieving developed nation status), Malaysia will conserve and manage its water resources to ensure adequate and safe water for all (including the environment)”…

The key objectives of the Vision take care of:

Water for people (domestic supply)

Water for food and rural development

Water for economic development (industrial supply)

Water for environment (includes river maintenance)

IWRM Issues and Strategic Goals

	IWRM Issues	Strategic Goals
1	**Deterioration of Water Quality**	**1. More emphasis on changing the mindset of civil society to prevent water pollution** **2. Strengthening enforcement to reduce water pollution.**
2	**Water Resources Management Paradigm**	**1. Provision of mechanisms to protect the health of the rivers in the basins** **2. Management of water source areas.** **3. Prepare guidelines on environmental flows to protect the aquatic life forms in the river systems.** **4. Awareness creation of the relationship between water and biodiversity in the river basin**
3	**Rapid Landuse Changes**	**1. Improve landuse planning as a tool to protect water resources from depletion and pollution** **2. Provide more specific guidelines on landuse zoning and land conversions** **3. Provide efficient enforcement during land conversions**

IWRM Issues and Strategic Goals (cont.)

	IWRM Issues	Strategic Goals
4	**Flood Damage**	**1. Improve floodplain planning and provide guidelines for their use** **2. Provide measures to improve flood warning systems, response time for relocation, and protect vulnerable floodplain dwellers.**
5	**Dedicated Water Demand Management**	**1. Encourage prudent demand management of water among all water users.** **2. Provide specific guidelines on how to save water among the communities** **3. Create awareness and benefits in demand management**
6	**Fragmentation of Water Supply Management**	**1. Enhance the organizational and coordination system among all water agencies and to make it more transparent to protect public and private investments when developing water resources.** **2. Provisions of mechanisms to improve efficiency in water supply and use.** **3. Create awareness and benefits in efficient management of water, especially in the reduction of NRW.**

Players who are busybody with water

No.	The Core Organization	Functions
1.	The State Governments	Ownership and control of water resources, dams and catchment areas
3.	Ministry of Natural Resources and Environment	Water resources management and environmental improvement projects such as hydrology, integrated river basin management, flood mitigation, pollution control, forest catchment management, coastal erosion and other resources and environmental related issues
2.	National Water Resources Council	Address the cross-cutting water resources management issues. Chairman: Prime Minister Members: Ministers from related Federal ministries and Chief Ministers from all the States

Players who are busybody with water

No.	The Core Organization	Functions
4.	**Ministry of Energy, Green Technology and Water**	**Responsible for managing the water utility services such as Domestic and Industrial Water Supply, Sewerage and Hydropower**
5.	**Ministry of Agriculture and Agro-based Industries**	**Water for Agriculture especially for irrigation of paddy fields.**
6.	**Ministry of Health**	**Development of basic rural sanitation and water supplies**
7.	**Economic Planning Unit, PM Department**	**Development of national policies for socio-economic development**

The Need for River Basin Approach

NEW STRAITS TIMES NATI

Master plan for river basins

Monitoring land use fo

By Jaswinder Kaur
news@nstp.com.my

KINABATANGAN, Mon. — The Drainage and Irrigation Department will formulate a master plan on land use at 150 river basins in the country, its director-general Datuk Keizrul Abdullah said.

The master plan would become a basis for all local authorities to use as it was impossible for the department's enforcement officers to monitor the almost 12,000 rivers in the country.

He said a master plan was necessary as "every inch" of the country was part of a river basin and all activities have an impact on rivers.

Keizrul was speaking after witnessing Agriculture and Food Industry Assistant Minister Datuk Mannan Jakasa close the two-day Sungai Kinabatangan Expedition in Sukau on Saturday.

About 40 people re
government agencies, n
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members of the media p
in the expedition which
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River" campaign.

Keizrul said integra
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bah, the plan would be
Kinabatangan which, at
the longest river in the S

He said the departmen
rehabilitate rivers back
Three and then down to

(Class One refers to p
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be used as a drinking s
treatment; Class Three
contact sports; Class Fou
rivers which do not a
contact; while Class Five
ers with poor water quali

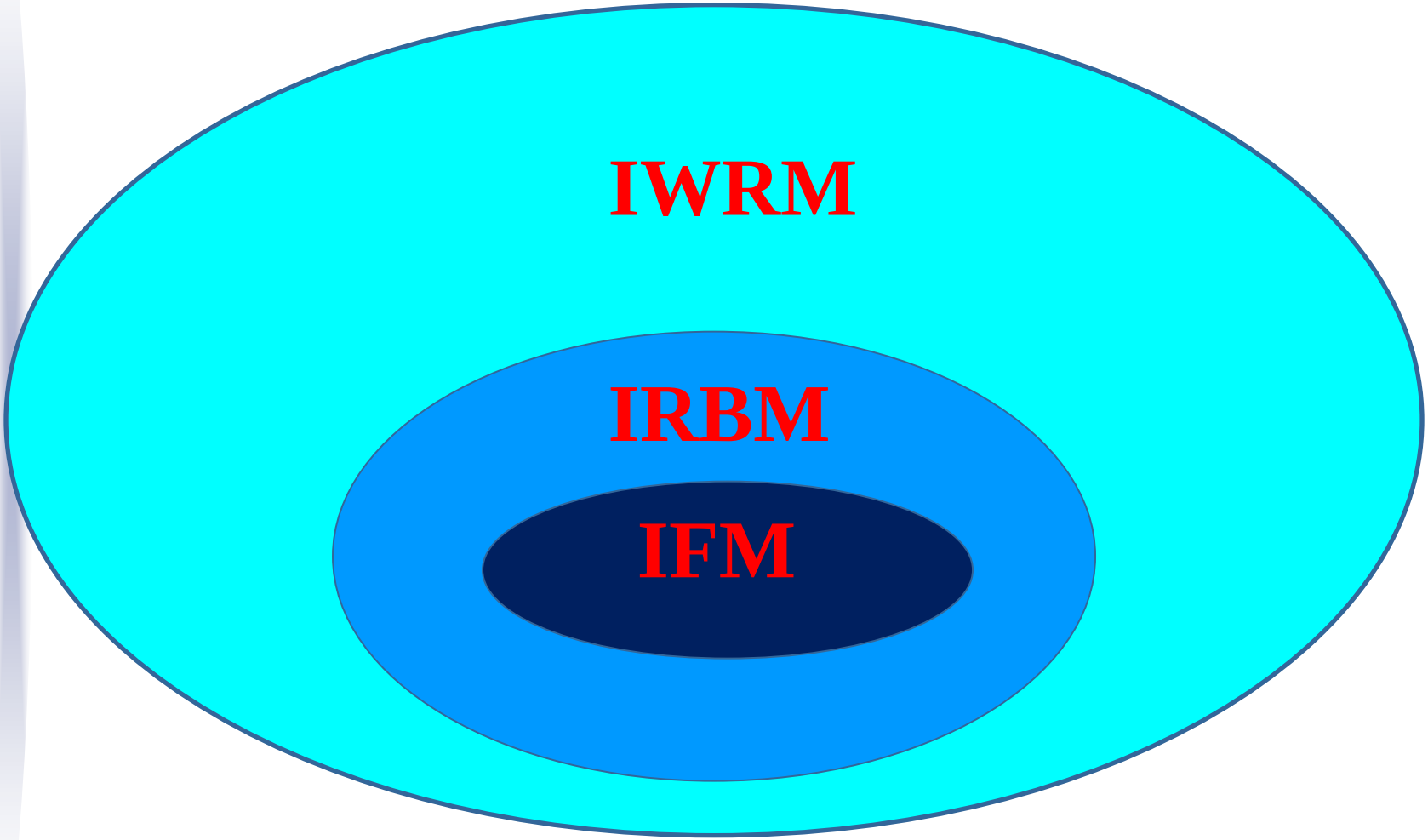
EARTH MATTERS

Time to manage our rivers better

A fresh approach is needed to arrest the damaging effects of development on river basins, but can it be done? asks IDRUS ISMAIL.

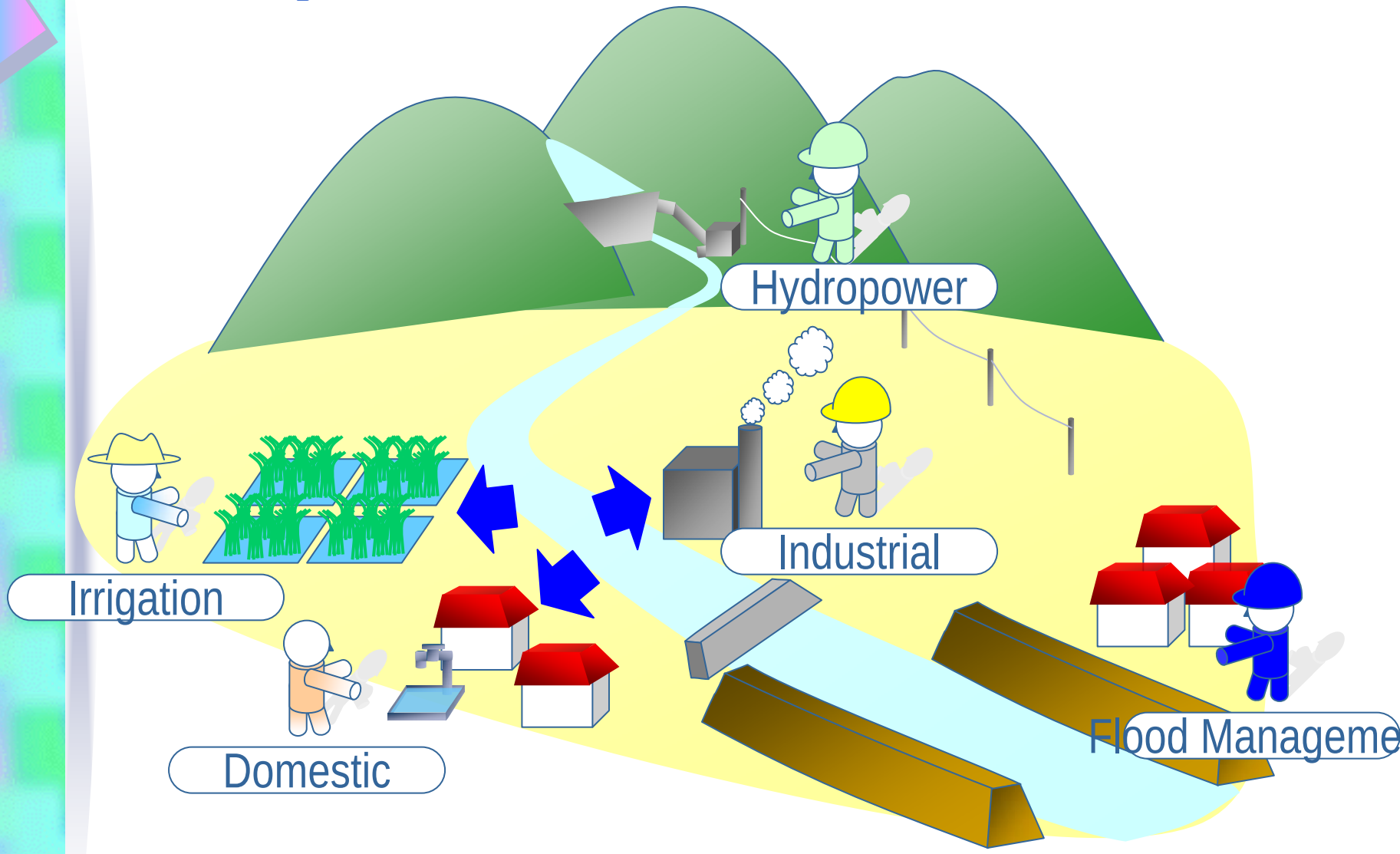
> *The longer remedial and preventive measures are delayed, the greater the environmental deterioration, the more costly the reparations.*

IWRM builds on River Basin Management

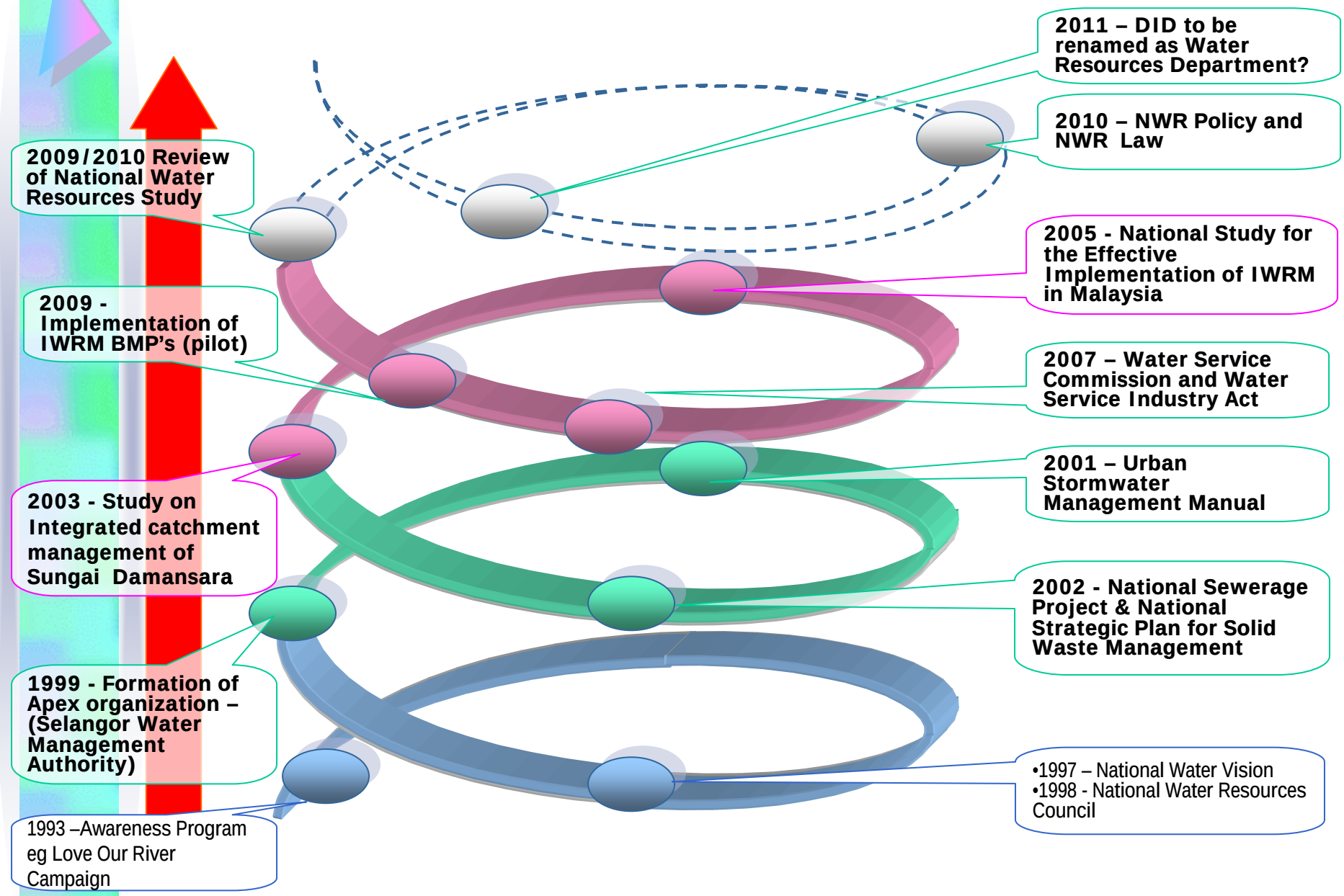


- from a water quantity *and* water quality perspective

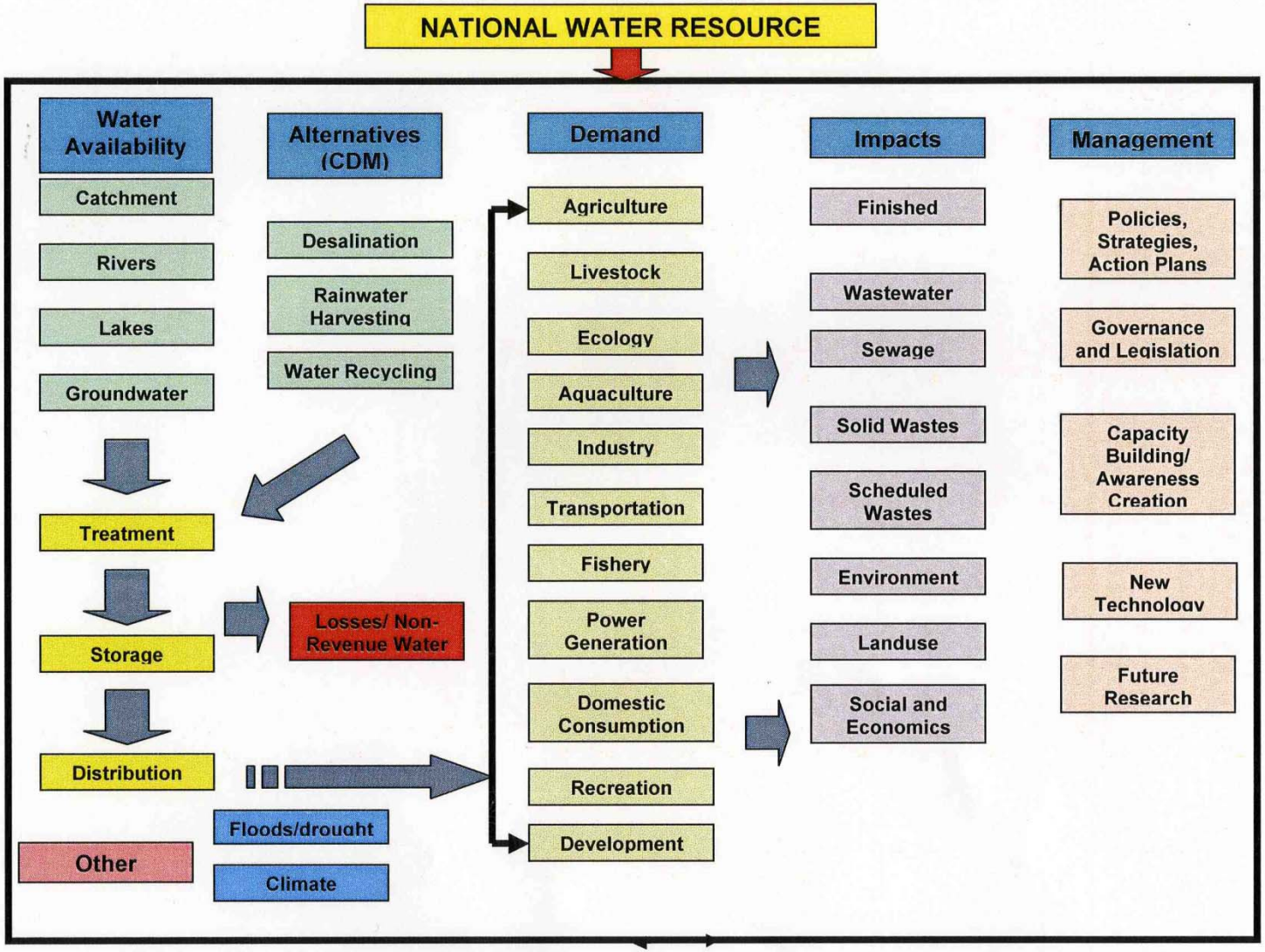
The Gap


Hydropower
Industrial
Irrigation
Domestic
Flood Manageme

Spiral Model – Monitoring the Implementation of IWRM



Review of National Water Resources Study *and* Formulation of National Water Resources Policy and Law…on the way




Thank you
Terima kasih
limch@water.gov.my

Direct Answers to the Guide Questions

1. How comprehensive and integrated are water policies in your countries (6)

- Water management policy initiatives:

- The concept of IWRM was introduced in late 1980s
- Formation of the Malaysian Water Partnership (MyWP)
- Formulation of the Nation Water Vision in 1997

- National Policies:

- Third Outline Perspective Plan (OPP3) for national socio-economic development provides the thrust for a sustainable water resources development

- Other national policies and plans related to water resources management:

  - Industrial Master Plan
  - National Agricultural Policy
  - National Environmental Policy
  - National Energy Policy
  - National Forestry Policy

2. How updated are water laws in your country/State? (6)

- Currently there more than 30 laws (Federal & States) related to water resources
- 6 states already enacted their own WR laws/acts

2(a) Are water policies based on water assessments (10)

Yes, policies on irrigation, water supply, urban drainage and water quality management among others have been based on sectoral assessments.

3. Are there cross sectoral coordination mechanisms such as neutral apex bodies that can oversee the policy formulation and sector reform process? (7)

•An apex body, the national Water Resources Council formed in 1998 is chaired by PM of Malaysia

•Memberships comprise Chief Minister of all the states in the country and all (6) relevant ministries.

How effective are these mechanisms? (8)

•The mechanisms are relatively effective as the Council governs the usage and conservation of water resources

•It acts as a coordinating and integrating body for planning, development and management of national water resources

4. Are there legislations and /or policies for the following?

	Yes/No	How effective are these policies? (scale of 1 to 10 being highly effective)
Water rights	Yes	5
Quality standards	Yes	8
Ground water use	Yes	6
Demand management	Yes	7
Resource conservation	Yes	7
Private sector participation	Yes	5
Civil society participation	Yes	5
Institutional responsibilities for water sector functions	Yes	8

5. How comprehensive are water resources assessments in river basins? (8)

•Quite comprehensive

•The first National Water Resources Study was completed in 1982

•The Second Study completed in 2000 included:

-Assessing and updating of the water resources availability in Peninsular Malaysia

-A master plan for water resources development

-The forecasting of water demands for all users up to 2050

-Review to be carried out soon

6. Are there river basin organizations in the country? How Effective are these river basin organizations ? (4)

- River basin administrative system is not yet established except the formation of Sabah and Selangor Water Management Board

- Its role is to plan and regulate land and water development and activities in a river basin in an integrated manner

- Not very effective as there is a need to distinguished between the regulatory and the service provider roles

- Various states have committees for river basin management

7. To what extent are water allocation, entitlements and usage right established using participatory and negotiated approaches? (2)

- There is no specific participatory and negotiated approaches to address such issues
- However, when there is a water scarcity especially during drought, domestic water consumption is given higher priority over irrigation demand and hydropower generation

8. How autonomous and accountable are water service providers: (9)

Rural water supply

Urban water supply

Irrigation service

•Both rural and urban water supplies provided by the service providers are regulated by the National Water Service Commission , while the irrigation services are currently provided by the Dept of Irrigation and Drainage and a few Regional Irrigation Authorities under the Ministry of Agriculture

9. To what extent do water users participate to make services and service providers more responsive and accountable to beneficiaries, their needs and ability to pay? (5)

- A national dialogue attended by various group involved in water governance on effective water governance in Malaysia was successfully convened in 2003 to address the issues affecting effective water governance

- Some NGOs like the Penang Water Watch , Consumer Association etc. has played an effective role in helping the Government in convincing the public that a certain amount of price hike is fair and necessary

10. To what extent are responsibilities turned over to water user associations

-for irrigation system O&M (1)

-for rural water supply O&M (1)

- The O&M for the irrigation system is carried out by the Government

- The O&M for the rural water supply is carried out by the Government but once it is corporatised the cost is to borne by the Water Corporation

11. To what extent are cost recovery tariffs applied? (2)

- Water users can be classified into ‘slight, moderate, high and excessive water wasters’

- Many states can not recover capital cost; some barely enough for operating expenditure

- Imposing higher tariffs for ‘excessive water wasters’ say for a family using more than 70,000 litres per month

12. To what extend do water tariff's reward conservation and penalize waste? (7)

- Low water tariffs encourages over-usage and wastage but tariffs should be affordable to the poor

- Higher tariffs for high water usage encourage water saving

- Ascending scale used, but still not good enough

13. Are there policies and practices that effectively provide for explicit participation of the poor in water project (2)

- There is no specific policy explicit participation of the poor, except for Selangor which waives the first RM6.00
- According to Town and Country Planning Act 1976, private sectors, NGOs and CBOs are encourage to participate in consultation for water development projects
- NGOs could play a role in representing the need of the poor

14. How effective are water regulatory agencies? (7)

- An apex body, National Water Services Commission regulates water services industry in terms of licencing, supervision and monitoring

- State Government will corporatise the state water authorities and the Commission would serve as the central regulatory body

- Under the Water Commission Bill and Water Services Industry Act 2006, quality and reliability of water supplies and sewerage services are ensured

15. Are there programs to educate the industry on efficient use of water and the need for higher prices for both water use effluent treatment and discharge ? (3)

Some water saving campaigns have been launched by the Government such as “Water Awareness and Education Campaign” and “Love Our River”

How effective are these programs? (4)

Not very effective but could attain wider participation with more Government - NGO partnership eg. MyCapNet