Transboundary water resources conservation: A note on Penang and Kedah



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Development, economic or social, cannot bear fruit without the fullest guarantee of life and property.

In other words, however much the Government attempts to develop the country, whatever plan it might have conceived could not be successfully implemented without understanding, good will and cooperation of the people.

Y.A.M. Tunku Abdul Rahman Al-Haj

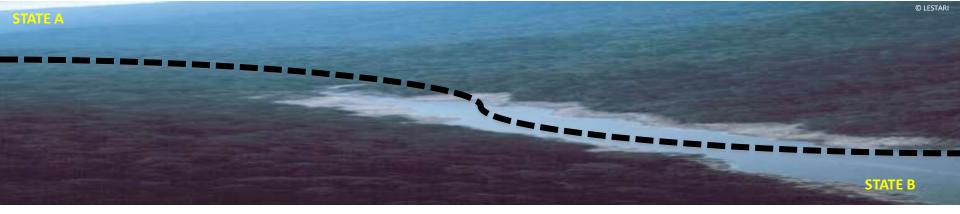
Lest We Forget: Further candid reminiscences, 1983

Water underpins human civilization and environmental integrity.

TRANSBOUNDARY WATER RESOURCES: A QUESTION OF INTERDEPENDENCE.

SEMANTICS

Surface or ground waters which mark, cross or are located on boundaries (for waters that flow to the sea, it ends at the straight line across the mouths between the points on the low water line of the river bank)



SURFACE ----- GROUND

Ecosystems services

Hydrogeological & hydrological interdependence Socio-economic interdependence

Buffers: hazards/ disasters [existing and emerging] Users: Domestic supply Municipal use Agriculture Industry Energy Navigation



TRANSBOUNDARY WATER RESOURCES: CONSIDERATIONS.

Responsibility: *scope & scale*

Purpose, objective & goal

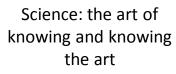
Legal, political, economic and social circumstances

Mandates

Mechanisms & systems

Process & Procedure





Stress, Risks & Threats

Value & potential

Characteristics, environmental flow, hydrogeological, hydrological and environmental conditions

Capacity

Capability

Priority

UTILISATION

BENEFIT to; from; beyond HARM







KEDAH & PENANG: SG. MUDA

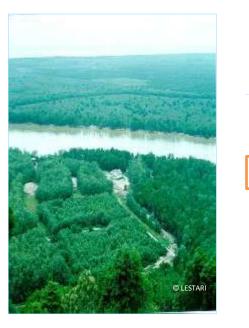
BOUNDARY: Kedah and Penang (Alteration of Boundary) Act 1985 (Enactment No. 3 of 1985, Kedah; Enactment No. 1 of 1985, Penang *centre line of the river channel (section 2 *but need to confirm* the exclusion in Section 3).

CONSERVATION RELATED LEGAL INSTRUMENTS

FEDERAL

- Federal Constitution 1957: Articles 71, 73, 74, 75, 76, 77, 78, 80, 81, 92, 93, 94, 95
- National Land Code 1965: s5, 62
- Drainage Works Act 1954:s 11,12
- Environmental quality Act 1974
- Farmers' Organisation Act 1973
- Geological Survey Act 1974
- Irrigation Areas Act 1953 (revised 1989): s9, 10-24
- Land Conservation Act 1960
- Local Government Act 1976
- Pesticides Act 1974
- Poisons Act 1952 (Revised 1989)
- Street, Drainage and Building Act 1974
- Town and Country Planning Act 1976
- Waters Act 1920: s 4, 5, 7, 7A
- Northern Corridor Implementation Authority Act 2008
- KEDAH Kedah Water Resources Enactment 2008
- S6. sustainable management of water resources and environments S7. river basin plans, guidelines, standards, methods and procedures for management, utilisation and conservation
- Penang Water Supply Enactment 1998
- Water Supply (Catchment Area) 2004 (permissible activities) Water Supply (Catchment Area) (Amendment) Order 2009 (additional permissible activities)





WHAT NOW?

ENTITY	AND/OR	INSTRUMENT	
COOPERATE	AND/OR	COLLABORATE	
FOCUS			

- CONSERVATION PLAN (UPSTREAM TO DOWNSTREAM) USE, PREPAREDNESS (RISKS, HAZARDS AND DISASTERS), CONJUNCTIVE MANAGEMENT
- INVESTMENT AND SUPPORT TO UPSTREAM PROVIDER
- ALLOCATION: DEMAND / SUPPLY MANAGEMENT
- ACCOUNTING, MONITORING AND REPORTING

PREREQUISITES

- Clarify mandates, responsibilities, roles and opportunities for partnerships
- Source funding and investment mechanisms
- Identify best option cooperative framework and/or collaborative framework
- Identify key areas to be jointly looked at and addressed
- Identify key facilitating statutory instrument and leverage on existing regulatory framework with emphasis on planning and conservation
- Identify key plan areas for conservation, use and preparedness (contingency)
- Identify key partnership arrangements, i.e. mandated stakeholders and key supporters from all level of the community and design engagement platforms
- Institute uniformed processes and procedures



THANK YOU