

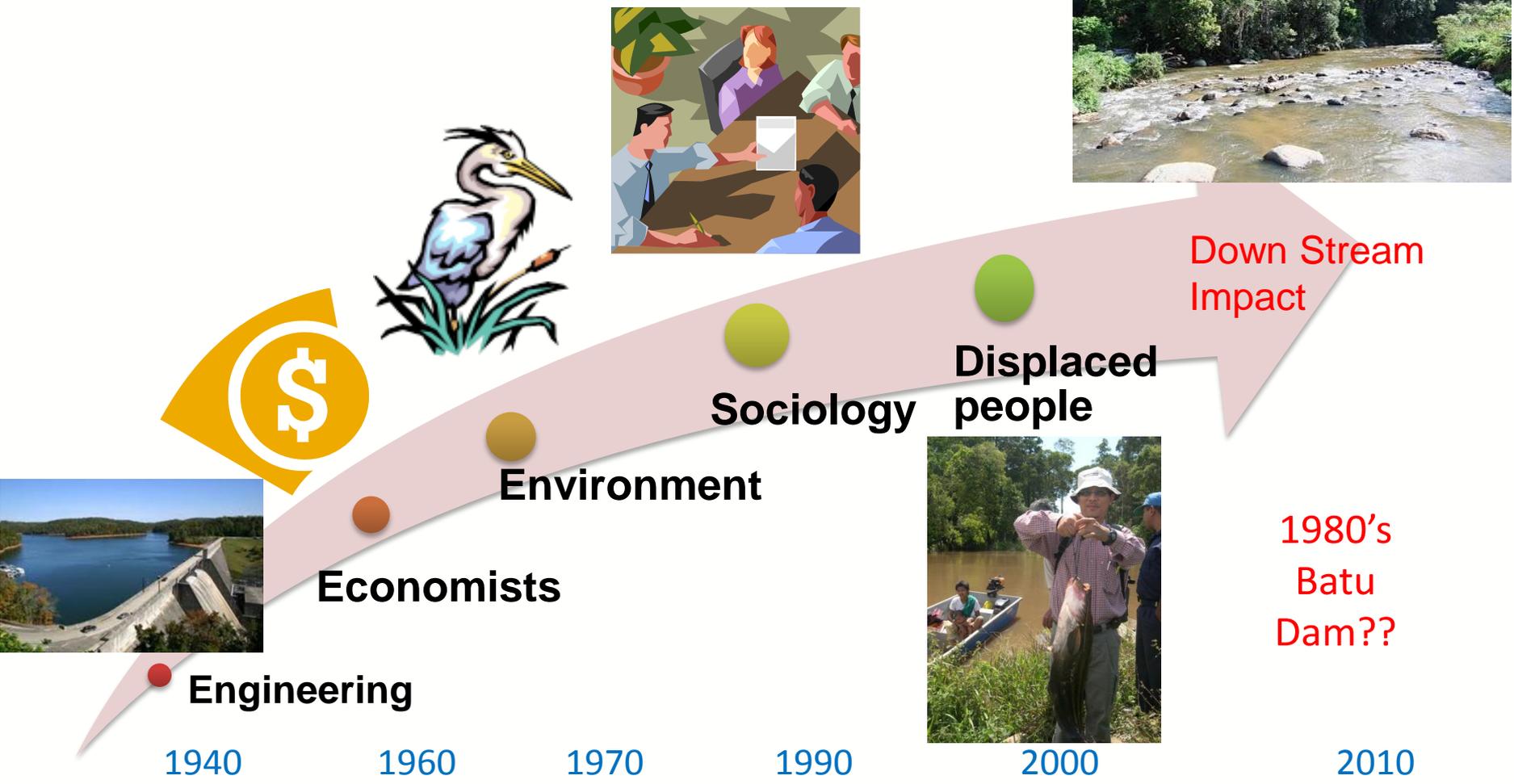
Water Education and Awareness

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Ex Chairman
Water Awareness and Education
Committee
Malaysia IHP (2003-2012)

Environmental management is getting increasingly complex e.g. Dam Planning Practices



Point Source (PS)

- Source of pollution are readily identified (e.g. factory effluent)
- Easier to sample and measure
- Easier to control e.g. discharge standards



Hakisan Dari Tapak Pembinaan



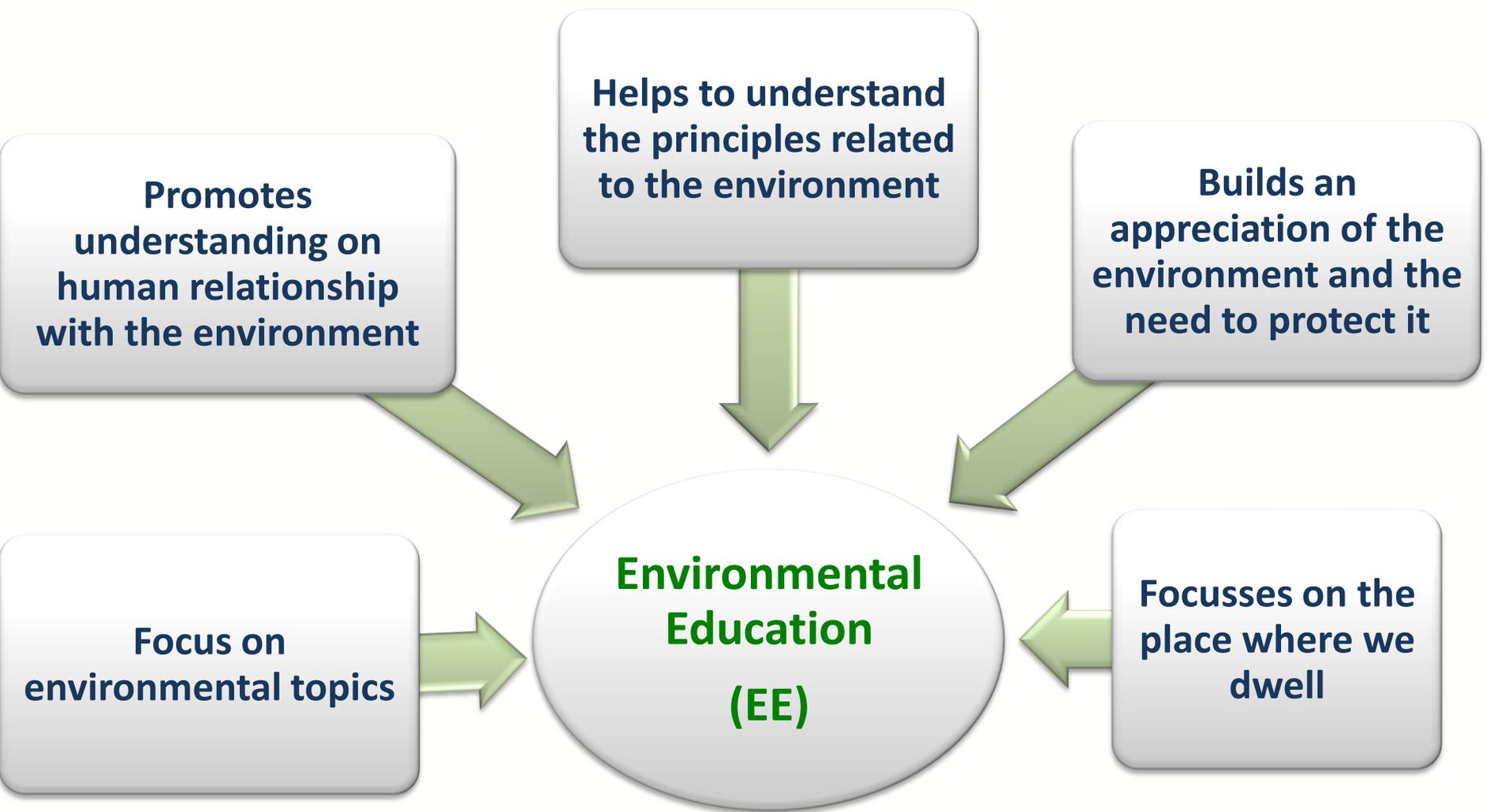


NASIB SUNGAI KITA!!



Solid Waste

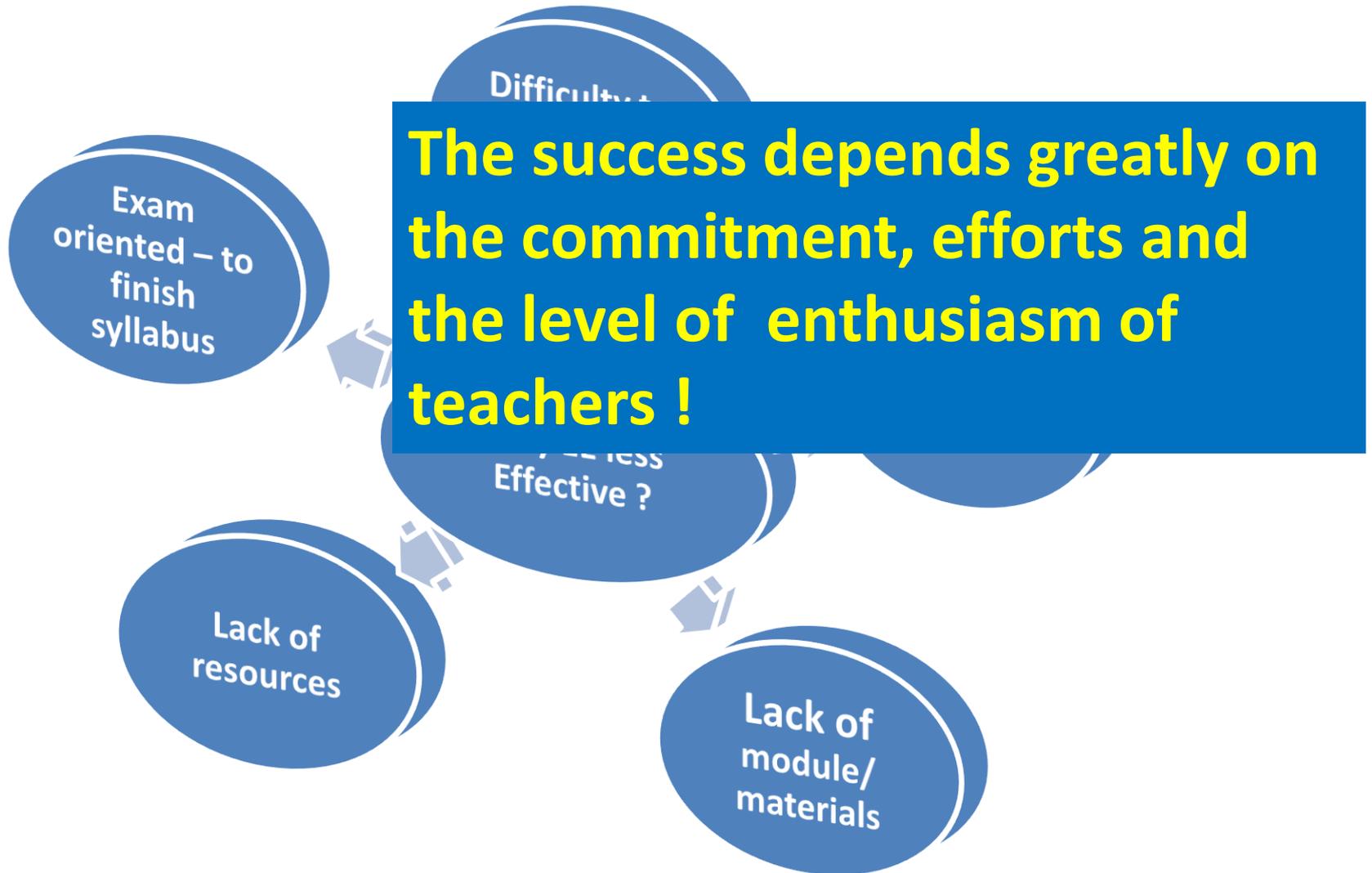




Environmental Education in Malaysia

- Increasingly recognised within our National Education Policy
- Integrated across the curriculum **not** as a subject
- Require teachers to fully understand EE
- Focusses on common environmental challenges - littering, water pollution, air pollution and biodiversity
- Classroom teaching on EE is less effective to create awareness
- EE is regarded as extracurricular activities

EE seems less effective



Non- Curricular Activities

Project Wira Alam

- Initiated in June 1998 by the DoE with the cooperation of MNS and Ministry of Education.
- Was first promoted through the MNS School Nature Clubs and later opened to all secondary and primary schools
- The project consists of three activity books comprising of various environmental activities that teachers can use as a teaching tool while students can attend club meetings as part of their extra-curricular activities.

School Nature Club (Kelab Pencinta Alam)

1. Established in August 1991 – introduced by MNS
2. It began with a pioneer group of 12 schools in the Klang Valley and today - 318 schools all over Malaysia.
3. The KPA program aims to encourage interest, understanding and involvement in various environmental activities and conservation efforts amongst the school-going generation.

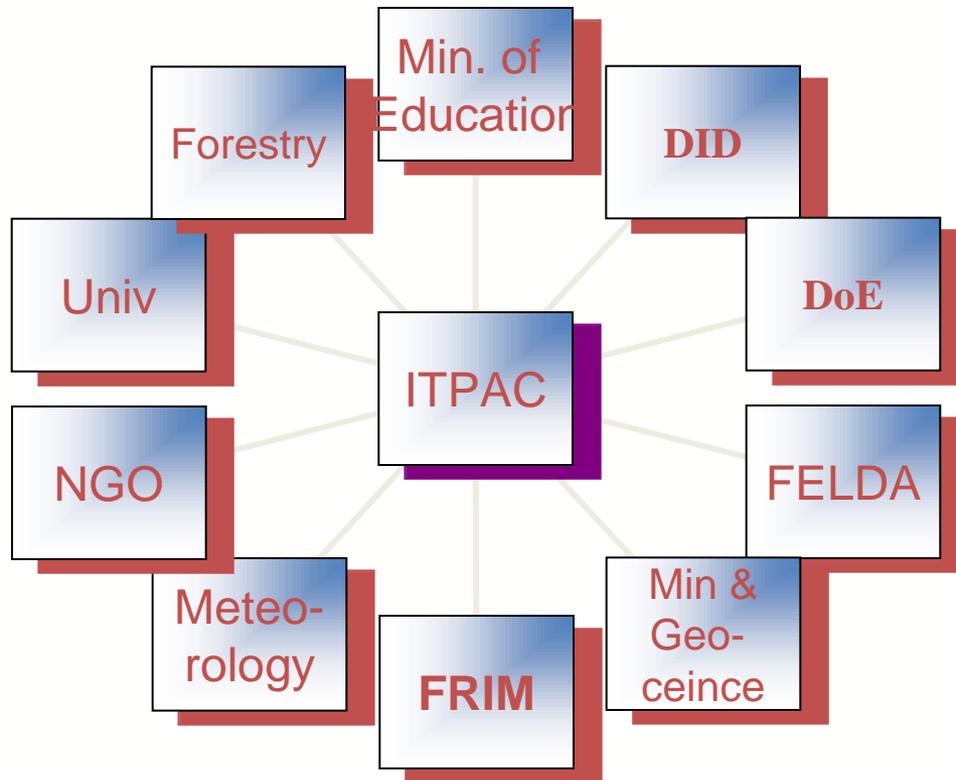
Local EE organizations

- MNS
- WWF
- Malaysian Water Association
- Selangor Water association
- GEC
- EPSM
- ENSEARCH
- Water watch Penang
- SAM
- Wetlands International
- CETDEM
- DID – River Renger
- DoE – Wira Alam
- IHP Malaysia – Multi Agencies
- Universities
- FRIM

Malaysian International Hydrology Program (MIHP)

- MIHP plans its activities through Executive Committees
- Three Committees
 - Research Committee
 - Information, Training and Public Awareness Committee (ITPAC)
 - Standardization of Hydrological Practices Committee

Membership of ITPAC



- Diverse interest
- Opportunity to address water management issues in a holistic and integrated manner
- Facilitate resources sharing
- Better acceptance

Limitations

- Lack of priority at departmental level
- Tight with departmental tasks – always represented by the juniors – lack of authority for decision making
- “Limited freedom”
- Funding – depends on departmental allocation and sponsorship

Our Mission

Promote Environmental Awareness –in particular water resources



Focus of Activities

- Sustainable use of water resources
- Target group:
 - School children – awareness program
 - Professional – continuous education through short courses



Strategies/Modus of Operandy

- Operates like an NGO within the government machinery
- Maximise resources and benefits
- Emphasize on win-win approach by strengthening existing program/activities – not competing





Training of Trainers

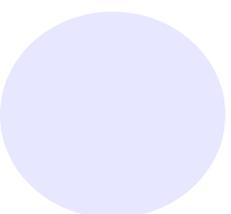
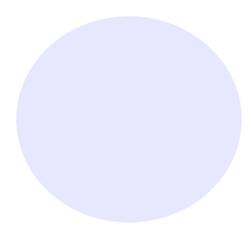
Maximise benefit. Both University students and school children



Activities

- ◆ Water quality testing: basic parameters temperature, pH, electrical conductivity, dissolved oxygen, turbidity
- ◆ Hydrology; streamflow measurement
- ◆ Infiltration measurement
- ◆ Fish observation
- ◆ Study of riparian vegetation
- ◆ Swimming
- ◆ Rafting
- ◆ Preparing scrap book

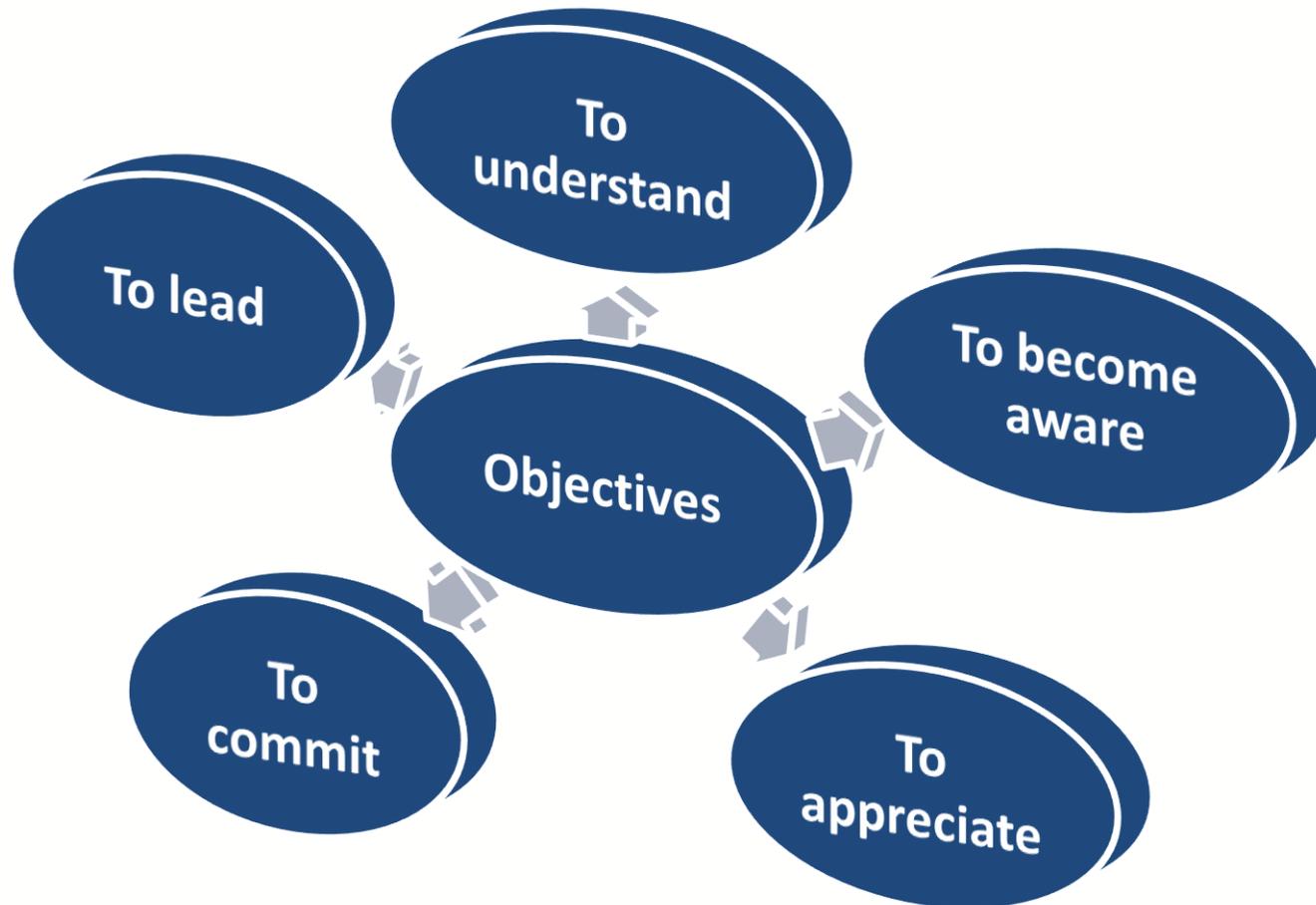




Student Responses

Modules	Enjoy So much (%)	Enjoy (%)	Satisfactory (%)	Boring (%)
Water quality	82.8	17.2		
Fish Observation	93.1	6.9		
Plant study	70.7	29.3		
Swimming	100			
With indigenous people	100			
Hydrological	65.5	25.9	6.6	
Rafting	100			

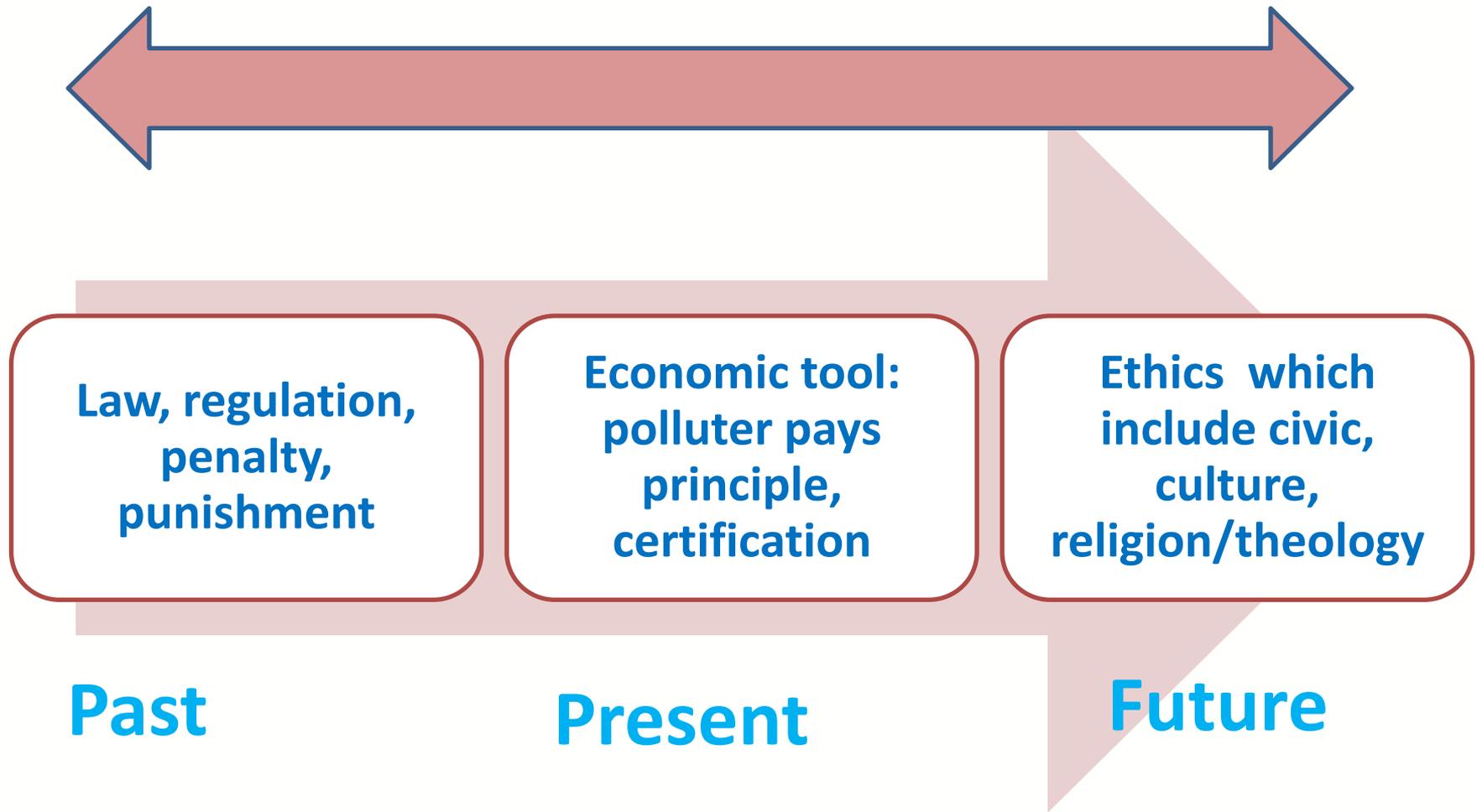
Objective of Awareness program



Start from young



Environmental Control Approach



Kerusakan Akibat Tangan Manusia

ظَهَرَ الْفَسَادُ فِي الْبَرِّ وَالْبَحْرِ بِمَا كَسَبَتْ أَيْدِي النَّاسِ لِيُذِيقَهُمْ
بَعْضَ الَّذِي عَمِلُوا لَعَلَّهُمْ يَرْجِعُونَ

*Telah nampak kerusakan di darat dan lautan disebabkan kerana perbuatan manusia, supaya Allah merasakan sebahagian dari (akibat) perbuatan mereka, agar **mereka kembali** (ke jalan yang benar) (Al Rum, 41)*

Alam semulajadi dalam Al Quran

- ✓ Lebih 700 ayat yang menyeru orang beriman agar memikirkan kejadian alam
- ✓ Bumi diulang 61 kali
- ✓ Air terdapat 66 kali
- ✓ Selalunya di akhiri dengan ayat

لَعَلَّكُمْ تَذَكَّرُونَ
لِقَوْمٍ يَفْقَهُونَ
لِقَوْمٍ يُؤْمِنُونَ

Environmental Ethic

- Anthropocentric
- Deep Ecology
- Green Ecology
- Islamic Environ Ethic
 - *Tawhid* (unity)
 - *Khaleefa* (stewardship)
 - *Amanah* (trust)

Penggunaan Air Berkhimah

Teguran Rasulullah kpd Saad

“Pembaziran apakah ini wahai Saad”

Lalu Saad bertanya “adakah dalam urusan mengambil wudu’ pun ada pembaziran?”

Dan jawab Baginda “ Ya, walau pun kamu berada di tebing sungai yang mengalir” (Ibn Majah)

Can we do?

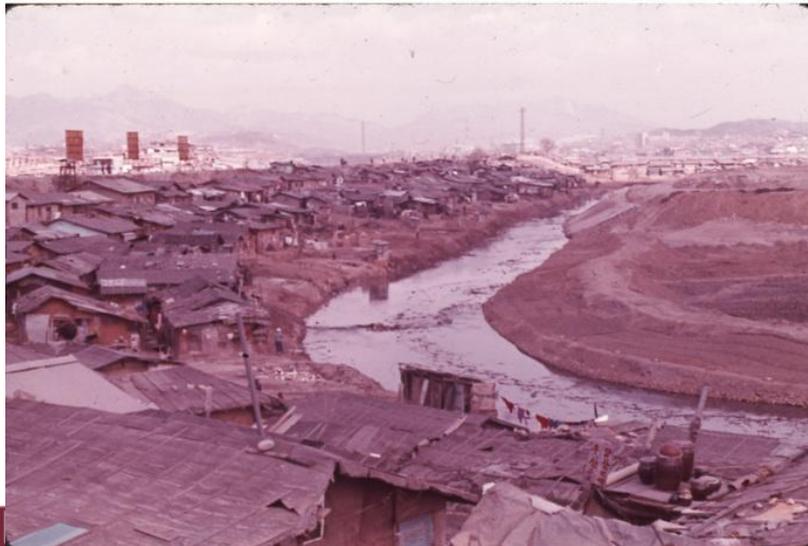
Japan in the 60's and 70's



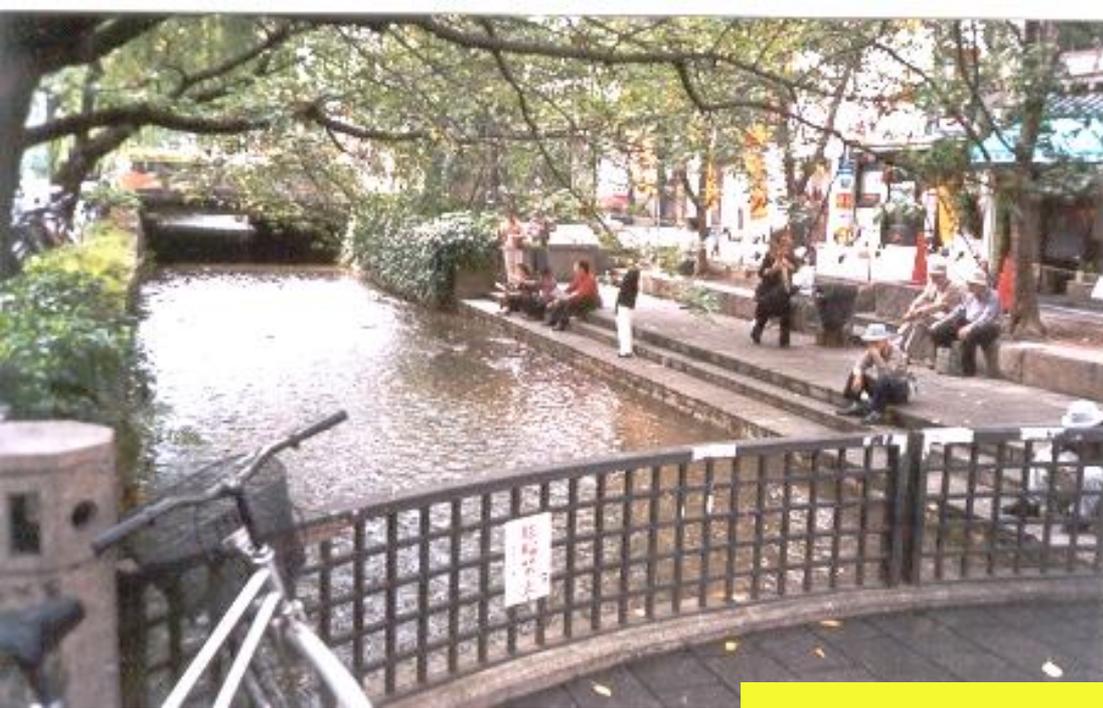
Japan 1975



1971 Minamata Bay due organic mercury and other heavy metal compounds



Itai-Itai River



KYOTO, JEPUN



Low carbon city – Lund Sweden



6 hukum in everyday life

Example of Activities	Wajib	Fardhu Kifayah	Sunat	Makruh	Haram	Harus
Environmental Awareness Activities		X				
Community work to clean the surround		X				
Fishing in						
Illegal du						
Recyclin						
Illegal lo						
Pesticide application				X	X	X
Chemical fertilizer				X	X	X
Self Cleanliness	X					

Never too old to balik ke pangkal jalan. Not only to nurture the young but also to correct the elderly

Conclusion

- EE at school is still less effective – need more interactive activities
- Only very small fraction of the citizens can benefit from the EE program by NGOs – Need more player – the more the better
- Environmental ethic can be promoted (to include the elderly)

I'll take no risk.
The rivers might
be **Polluted!!!**



Thank You!