



# CLIMATE CHANGE – ASEAN EXPERIENCES

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# ASEAN AT A GLANCE

Characteristics	Facts
Population	About <b>580 million people</b> (2008)
Population density	<b>130 people per square kilometer</b> (world average: 49 people per sq km)
Population in urban areas	<b>44% of region's total population;</b> projected to increase to 55% by 2020
Coastlines	<b>173,000 km</b> (14% of the world total)
Forest cover	<b>1,904,593 sq km</b> (2007)
Mangrove	<b>Over 52,000 sq km</b>
Peatland	<b>25 million hectares</b> (60% of global tropical peatlands)
Coral reefs	<b>34% of the world total</b>
Poverty incidence (% of population living below respective national poverty line)	<i>Cambodia (34.7%), Indonesia (16.6%), Lao PDR (32.7%), Malaysia (3.6%), Myanmar (26.6%), the Philippines (30.0%), Thailand (8.48%), Viet Nam (14.75%)</i>

Source: The Fourth ASEAN State of Environment Report, 2009

Southeast Asia is one of the world's most vulnerable regions to climate change impacts such as droughts, floods, typhoons, sea level rise, and heat waves.



# RELEVANT DECLARATIONS / STATEMENTS

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- ASEAN Declaration on Environmental Sustainability (13<sup>th</sup> ASEAN Summit, 2007)
- ASEAN Declaration on COP-13 to the UNFCCC and CMP-3 to the Kyoto Protocol (13<sup>th</sup> ASEAN Summit, 2007)
- Singapore Declaration on Climate Change, Energy and the Environment (3<sup>rd</sup> EAS Summit, 2007)
- Joint Ministerial Statement of the First EAS Energy Ministers Meeting (2007)
- Ministerial Statement of the Inaugural EAS Environment Ministers Meeting (2008)
- ASEAN Joint Statement on Climate Change to COP-15 and CMP-5 (15<sup>th</sup> ASEAN Summit, 2009)
- Singapore Resolution on Environmental Sustainability and Climate Change (11<sup>th</sup> AMIME, 2009)
- ASEAN Leaders' Statement on Climate Change to COP17 and CMP7 (19<sup>th</sup> ASEAN Summit, 2009)

# ASEAN Snapshot



ASEAN Community  
(2015)

ASEAN Economic  
Community

ASEAN Socio-  
Cultural Community

ASEAN Political  
Security Community

Initiative for ASEAN  
Integration (IAI)

AEC Blueprint  
(Nov 2007)

ASCC Blueprint  
(March 2009)

APSC Blueprint  
(March 2009)

IAI Work Plan  
(2009-2015)  
(March 2009)

A. Human Development

B. Social Welfare & Protection

C. Social Justice and Rights

D. Environmental Sustainability

E. ASEAN Identity

F. Narrowing the Development Gap

D1. Global Environmental Issues

D2. Transboundary Environmental Pollution

D3. Environmental Education

D4. Environmentally Sound Technology

D5. Environmentally Sustainable Cities

D6. Harmonisation of Environmental Policies & Databases

D7. Coastal & Marine Environment

D8. Natural Resources & Biodiversity

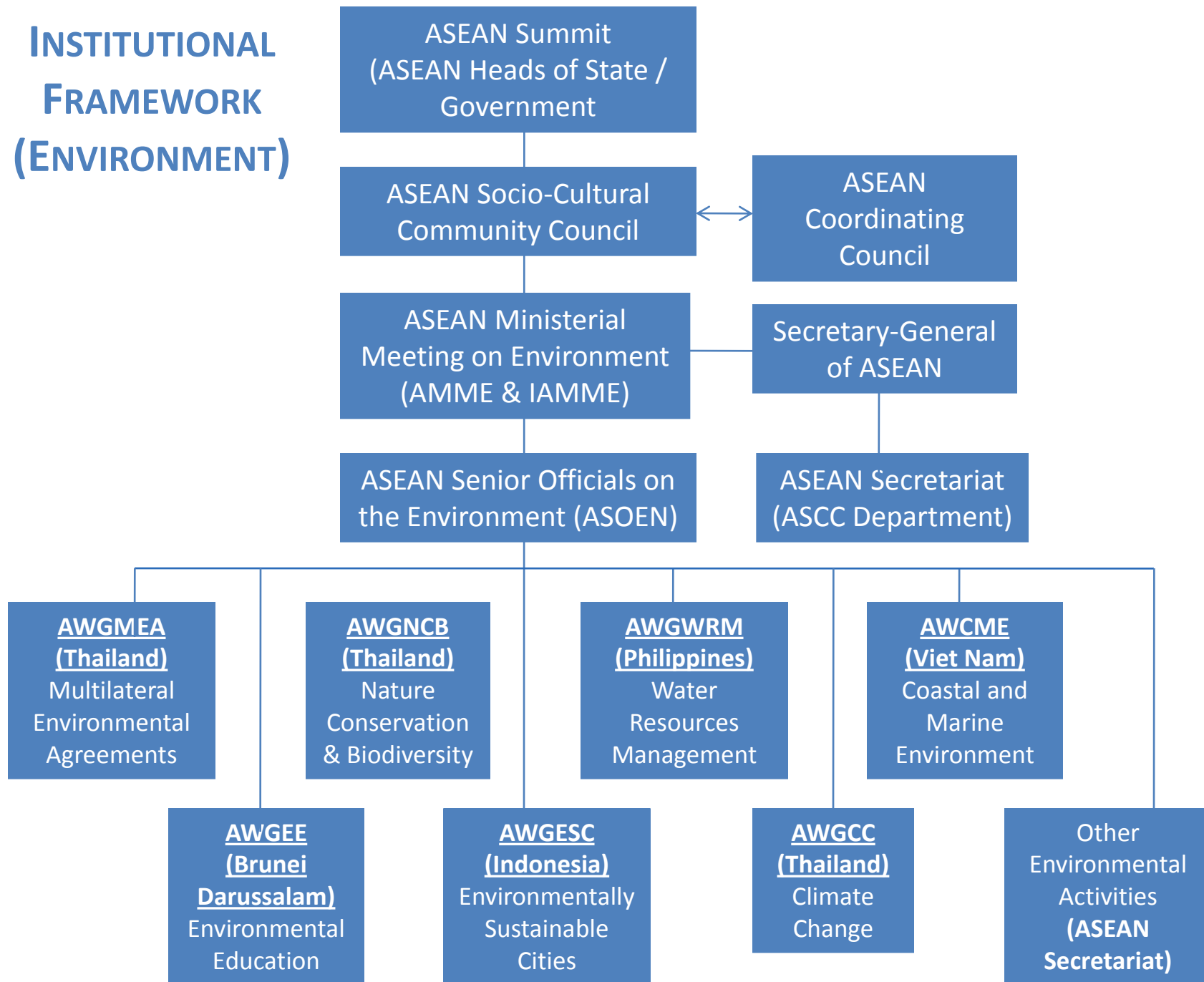
D9. Freshwater Resources

D10. Climate Change

D11. Forestry



# INSTITUTIONAL FRAMEWORK (ENVIRONMENT)



# CROSS-SECTORAL NATURE OF CLIMATE CHANGE

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- Environment

all areas particularly conservation of biodiversity, water resources management, coastal and marine environment, public awareness and environmental education, forest fires and transboundary haze pollution etc

- Agriculture and Forestry

food security, forest degradation

- Disaster Management

more and severe weather related disasters such as floods, droughts, typhoons, etc

- Science and Technology

Weather monitoring and forecasting, research and development on climate related impacts and responses, vulnerability studies, etc

- Health

more and severe weather related diseases



# CROSS-SECTORAL NATURE OF CLIMATE CHANGE

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- Human Development

impact on poverty, sustainable livelihoods, social development, and generally on the achievement of the MDG goals

- Economic Growth

affects production and transaction costs through internalizing environmental costs, change in products, services and markets, drag on GDP growth, carbon taxes, allocation and trade of environmental rights, new market opportunities for environmental goods and services.

- Energy, Transportation

renewable energy, energy conservation, mass and efficient transportation, etc

- Political and Human Security

environmental security issues, political debate influenced more and more by environmental issues, in particular climate change





### **D10. Responding to Climate Change and addressing its impacts**

***Strategic Objective:*** Enhance regional and international cooperation to address the issue of climate change and its impacts on socio-economic development, health and the environment, in ASEAN Member States through implementation of mitigation and adaptation measures, based on the principles of equity, flexibility, effectiveness, common but differentiated responsibilities, respective capabilities, as well as reflecting on different social and economic conditions.



## SECTION D10 OF THE BLUEPRINT FOR THE ASEAN SOCIO-CULTURAL COMMUNITY (2009-2015)

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### Actions:

- i. Encourage ASEAN common understanding on climate change issues and where possible, engage in joint efforts and common positions in addressing these issues;
- ii. Encourage the efforts to develop an ASEAN Climate Change Initiative (ACCI);
- iii. Promote and facilitate exchange of information/knowledge on scientific research and development (R&D), deployment and transfer of technology and best practices on adaptation and mitigation measures, and enhance human resource development;
- iv. Encourage the international community to participate in and contribute to ASEAN's efforts in afforestation and reforestation, as well as to reduce deforestation and forest degradation;



## SECTION D10 OF THE BLUEPRINT FOR THE ASEAN SOCIO-CULTURAL COMMUNITY (2009-2015)

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### **Actions:**

- v. Develop regional strategies to enhance capacity for adaptation, low carbon economy, and promote public awareness to address effects of climate change;
- vi. Enhance collaboration among ASEAN Member States and relevant partners to address climate related hazards, and scenarios for climate change;
- vii. Develop regional systematic observation system to monitor impact of climate change on vulnerable ecosystems in ASEAN;
- viii. Conduct regional policy, scientific and related studies, to facilitate the implementation of climate change convention and related conventions;



## SECTION D10 OF THE BLUEPRINT FOR THE ASEAN SOCIO-CULTURAL COMMUNITY (2009-2015)

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### **Actions:**

- ix. Promote public awareness and advocacy to raise community participation on protecting human health from the potential impact of climate change;
- x. Encourage the participation of local government, private sector, non-governmental organisations, and community to address the impacts of climate change; and
- xi. Promote strategies to ensure that climate change initiatives lead to economically vibrant and environment friendly ASEAN Community taking into account win-win synergy between climate change and the economic development.



## OTHER RELEVANT SECTIONS IN THE ASCC BLUEPRINT

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### **D1. Addressing global environmental issues**

- ii. Promote synergies in the implementation of related MEAs through strengthening of regional cooperation to address measures related to the thematic clusters of MEAs on atmospheric issues such as climate change and ozone depleting substances, and MEAs on chemicals and chemical wastes;
- iii. Promote ASEAN common understanding/common position on relevant MEAs

### **D2.1. Transboundary Haze Pollution**

- i. Operationalise the ASEAN Agreement on Transboundary Haze Pollution through the implementation of concrete preventive, monitoring and mitigation measures and to initiate the process of developing protocols for the implementation and operationalisation of the Agreement;



## OTHER RELEVANT SECTIONS IN THE ASCC BLUEPRINT

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### **D3. Promoting sustainable development through environmental education and public participation**

- ix. Use appropriately designed and targeted EE for promotion of environmentally sustainable business practices;

### **D4. Promoting Environmentally Sound Technology (EST)**

- vi. Intensify cooperation on joint research, development, deployment and transfer of EST.

### **D5. Promoting quality living standards in ASEAN cities/urban areas**

- i. Expand on the existing work under the ASEAN Initiative on Environmentally Sustainable Cities;

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## OTHER RELEVANT SECTIONS IN THE ASCC BLUEPRINT

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### **D5. Promoting quality living standards in ASEAN cities/urban areas (CONT'D)**

- ii. Intensify individual and collective efforts to improve the quality of air and water within ASEAN through regional or national initiatives to reduce industrial and transportation pollutions;
- iii. Share experiences, expertise and technology in areas such as urban planning including transportation, green building, water management, urban greenery and urban biodiversity conservation, sanitation and waste management, 3Rs (Reduce, Reuse and Recycle) and air, noise, water, and land pollution control, through among others twinning cities programme;
- iv. Work towards initiatives such as “Low Carbon Society”, “Compact Cities”, “Eco-Cities” and “Environmentally Sustainable Transport”;
- v. Develop internationally comparable measures for environmental sustainability for major cities in ASEAN by 2015; and
- vi. Introduce and implement an ASEAN Environmentally Sustainable Cities (ESC) Award by 2008 as an incentive to promote ESC practices.



## OTHER RELEVANT SECTIONS IN THE ASCC BLUEPRINT

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### **D8. Promoting Sustainable Management of Natural Resources and Biodiversity**

- x. Promote regional cooperation on sustainable management of biodiversity such as sharing research and development experiences, exchange of experts, and training;
- xiii. Promote cooperation among ASEAN Member States in combating land degradation for sustainable land management to support sustainable agriculture and environment.

### **D9. Promoting the Sustainability of Freshwater Resources**

- iii. Manage water resources efficiently and effectively in order to provide adequate and affordable water services by 2015;
- vi. Promote regional cooperation on water conservation measures and programmes as well as scientific and technological innovations in water quality improvement and supply.





## OTHER RELEVANT SECTIONS IN THE ASCC BLUEPRINT

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### **D11. Promoting Sustainable Forest Management (SFM)**

- iv. Support for global and regional initiatives to reduce emissions from deforestation and forest degradation, and to promote a reformed afforestation and reforestation under the Clean Development Mechanism (A/R-CDM) effort and to identify and avail appropriate international incentives and assistance;



# ASEAN MULTI-SECTORAL FRAMEWORK ON CLIMATE CHANGE: AGRICULTURE, FISHERIES AND FORESTRY TOWARDS FOOD SECURITY (AFCC)

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- The overall goal of the AFCC is **to contribute to food security through sustainable, efficient and effective use of land, forest, water and aquatic** resources by minimizing the risks and impacts of and the contributions to climate change.
- To achieve its goal, sectoral activities will be carried out under the two major objectives of: **(i) coordination on the development of adaptation and mitigation strategies and (ii) cooperation on the implementation of integrated adaptation and mitigation measures.**



# CLIMATE CHANGE ADAPTION (CCA) IN THE WORK PROGRAMME FOR THE ASEAN AGREEMENT ON DISASTER MANAGEMENT AND EMERGENCY RESPONSE (AADMER), 2010-2015

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- **Work Programme for AADMER developed**
- **Climate Change Adaptation is to be taken into account in the relevant strategic components of the Work Programme:**
  - Prevention and Mitigation
  - Risk Assessment, Early Warning and Monitoring
  - Preparedness and Response
  - Recovery and Rehabilitation



# ENERGY SECURITY & CLIMATE CHANGE

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- **ASEAN Plan of Action for Energy Cooperation (APAEC) 2010-2015** was adopted by the ASEAN Ministers on Energy in 2009 with the theme of *“Bringing Policy to Actions Towards a Cleaner, more Efficient and Sustainable ASEAN Energy Community”*.
- The **three key initiatives** of the ASEAN energy security policy/plan within which environment and climate change appears as important elements in the next five years include:
  - (i) Energy Efficiency and Conservation;
  - (ii) Renewable Energy; and
  - (iii) Coal and Clean Coal Technology.



# ENERGY SECURITY & CLIMATE CHANGE

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## o Energy Efficiency and Conservation (EE&C)

The strategic goals of EE&C in APAEC include:

- (i) pursuing the aspirational goal of reducing regional energy intensity of at least 8% by 2015 based on 2005 level;
- (ii) achieving higher end-use energy efficiency for all sectors through regulatory & market approaches, where appropriate;
- (iii) enhancing institutional & human capacity emphasizing the development of energy efficiency technology & service providers in the ASEAN region;
- (iv) encouraging private sector participation, especially financial institutions to support EE&C investment and implementation.



# ENERGY SECURITY & CLIMATE CHANGE

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## o Coal and Clean Coal Technology (CCT)

The strategic goals of CCT in APAEC 2010-2015 include:

- (i) promoting and increase cleaner coal use and trade for regional energy security;
- (ii) strongly encouraging the use of clean coal technologies through regional cooperation; and enhancing institutional & human capacity emphasizing the development of energy efficiency technology & service providers in the ASEAN region;
- (iii) building the perception of coal as a cleaner fuel as a result of clean coal technologies.



# ENERGY SECURITY & CLIMATE CHANGE

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## o Renewable Energy (RE)

The strategic goals of RE in APAEC 2010-2015 include:

- (i) achieving a collective target of 15% for regional renewable energy in the total power installed capacity by 2015
- (ii) strengthening regional cooperation on the development of renewable energy and alternative energy including hydropower and bio-fuels;
- (iii) promote the development of centers of research and development on renewable energy in the region;
- (iv) promoting open trade, facilitation and cooperation in the renewable energy sector and related industries as well as investment in the requisite infrastructure for renewable energy development.



# ASEAN TRANSPORT INTEGRATION & CLIMATE CHANGE

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## ASEAN-Japan Action Plan on Environment Improvement in Transport Sector (AJ-APEIT)

- The plan will serve as a basic framework for ASEAN and Japan to implement measures for environmental improvement with the objective of achieving sustainable development by realizing low-carbon and low-pollution transport systems in the ASEAN region.
- The AJ-APEIT will cover the 5 year period from 2010-2014, and emphasize the following: **(i) human and institutional capacity development, (ii) compilation of best practices, (iii) infrastructure improvement, (iv) experiments and (v) information sharing.**





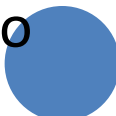
# ASEAN TRANSPORT INTEGRATION & CLIMATE CHANGE

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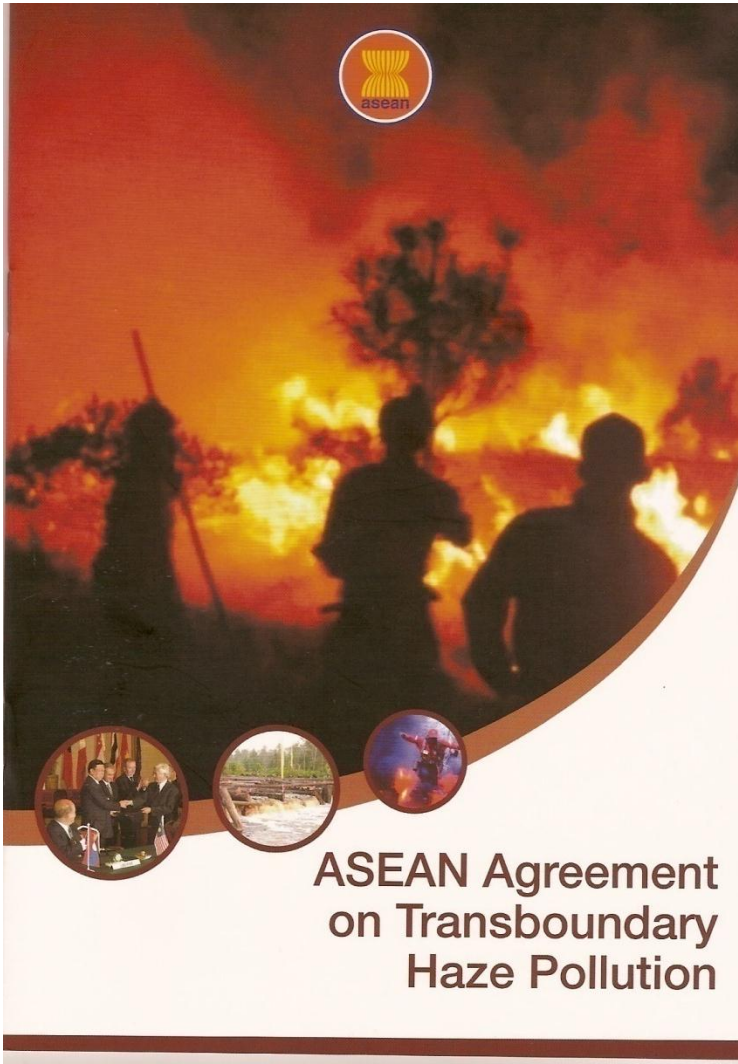
## Energy Efficiency and Climate Change Mitigation for the Land Transport Sector (ASEAN-German)

- The objective of the project is to limit the increase and ultimately reduce fuel consumption and greenhouse gas emissions through higher energy efficiency of land transport systems in ASEAN.

## ASEAN Air Transport Integration Project (AATIP) (ASEAN-EC)

- One of the main objectives of the project is to address the issue of limiting the environmental impact of aviation through exchanges on international rules and regulations, including collaborative research and development and through the evaluation of other possible measures to reduce noise and CO<sub>2</sub> and other emissions from aviation.
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# ASEAN Agreement on Transboundary Haze Pollution



**prevent, monitor, and mitigate land and forest fires to control transboundary haze pollution through concerted national efforts, regional and international cooperation**

through :

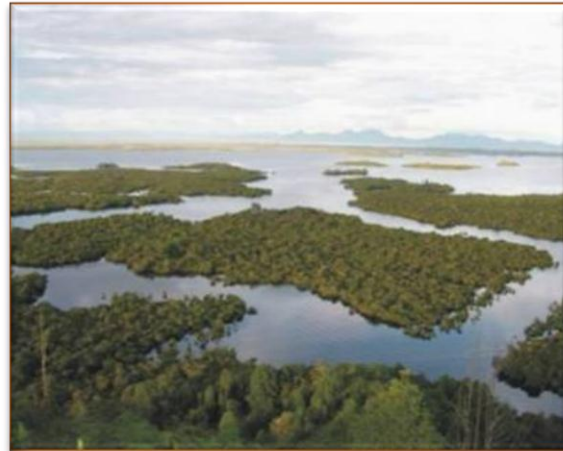
- ❖ monitoring and assessment
- ❖ prevention
- ❖ preparedness
- ❖ national and joint regional emergency response
- ❖ technical and scientific cooperation
- ❖ capacity building and public awareness



# IFAD-GEF Project on Rehabilitation and Sustainable Use of Peatland Forests in Southeast Asia



**Riau,  
Sumatera**



**Lake Sentarum,  
West Kalimantan**



**North Selangor  
Peat Swamp Forest,  
Malaysia**

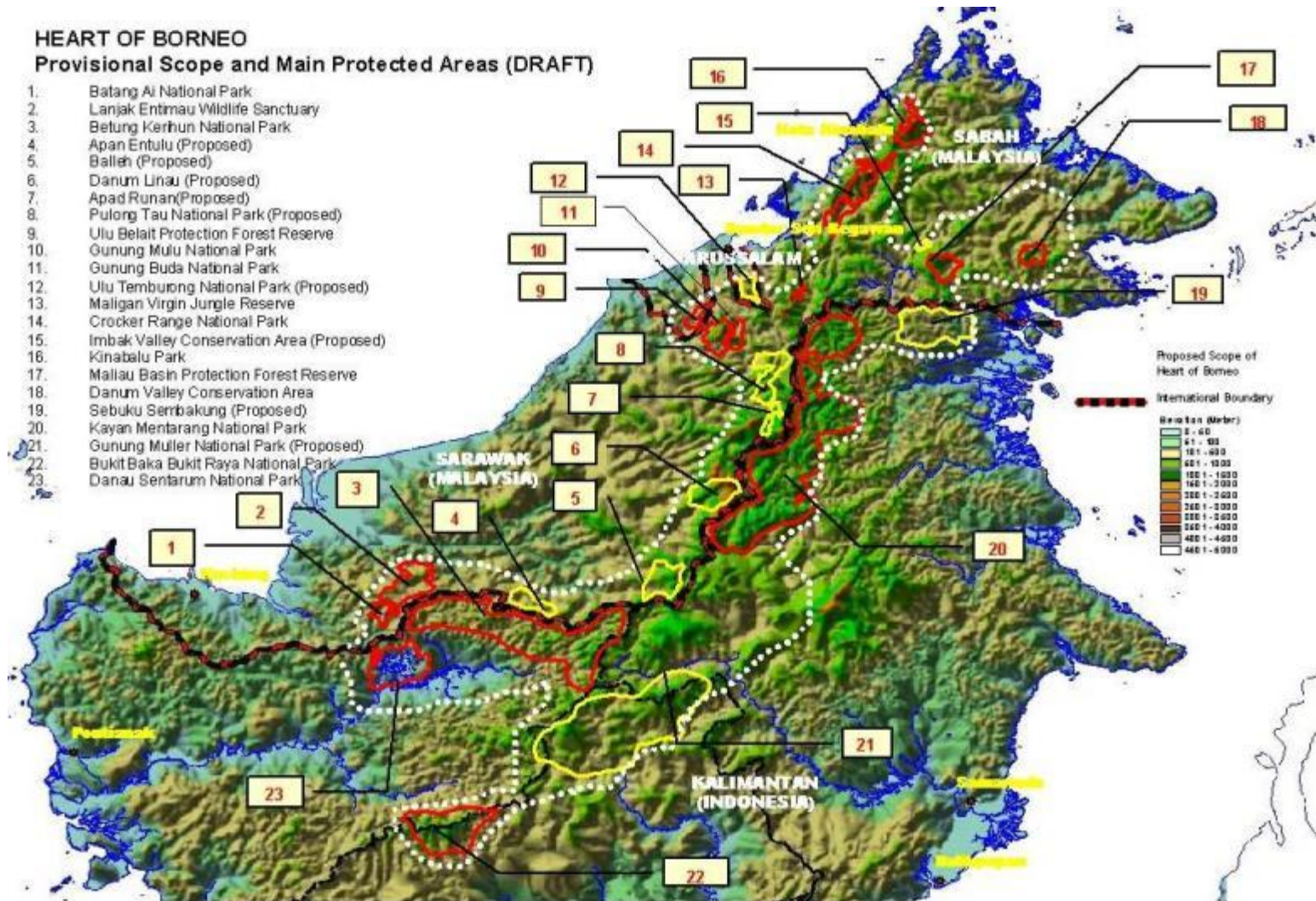


# Heart of Borneo Initiative (HoB)

## HEART OF BORNEO

### Provisional Scope and Main Protected Areas (DRAFT)

1. Batang Ai National Park
2. Lanjak Entimau Wildlife Sanctuary
3. Betung Keruh National Park
4. Apan Entulu (Proposed)
5. Balih (Proposed)
6. Danum Linau (Proposed)
7. Apad Runan (Proposed)
8. Pulong Tau National Park (Proposed)
9. Ulu Belait Protection Forest Reserve
10. Gunung Mulu National Park
11. Gunung Buda National Park
12. Ulu Tembuong National Park (Proposed)
13. Maligan Virgin Jungle Reserve
14. Crocker Range National Park
15. Imbak Valley Conservation Area (Proposed)
16. Kinabalu Park
17. Mallau Basin Protection Forest Reserve
18. Danum Valley Conservation Area
19. Sebuku Sembakung (Proposed)
20. Kayan Mentarang National Park
21. Gunung Muller National Park (Proposed)
22. Bukit Baka Bukit Raya National Park
23. Danau Sentarum National Park



# Coral Triangle Initiative (CTI)



- 6 countries: Indonesia, Malaysia, Papua New Guinea, Philippines, the Solomon Islands & Timor Leste
- Two major criteria to define the boundaries of the CT regions are coral and reef fish diversity.

# ASEAN Heritage Parks (AHP) Programme



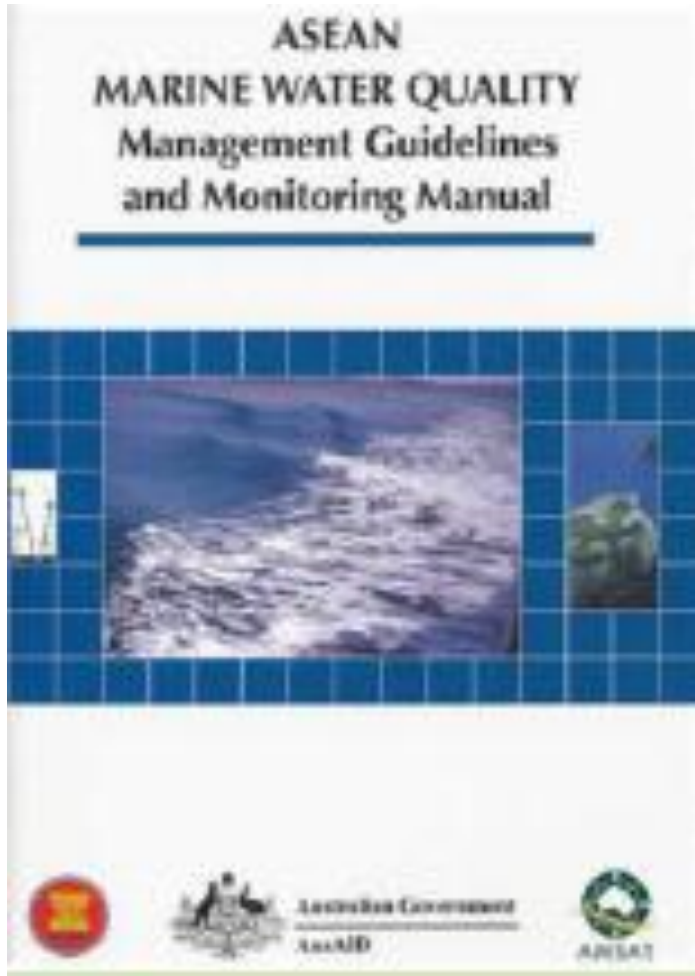
# ASEAN Strategic Plan of Action on Water Resources Management



Promoting **sustainability of water resources to ensure equitable accessibility, and sufficient water quantity of acceptable quality** to meet the needs of the people of ASEAN



# ASEAN Marine Water Quality Management Guidelines & Monitoring Manual



serving as a  
**regional mechanism** for  
collective and harmonized  
efforts at the national level  
**to sustain the quality  
of marine waters**  
by providing management  
guidelines, and building  
capacity  
for monitoring and  
analytical capability





# ASEAN Initiative on Environmentally Sustainable Cities (AIESC)

## 25 ASEAN participating cities in ASEAN ESC Network (as of 17 November 2008)

Country	City
Brunei Darussalam	Bandar Seri Begawan
Cambodia	Phnom Penh, Siem Reap
Indonesia	Padang, Palembang, Pekanbaru
Lao PDR	Luang Prabang, Vientiane, Xayabourie
Malaysia	Kuantan, Putrajaya, North Kuching City Hall
Myanmar	Mandalay, Yangon
Philippines	Cagayon de Oro, Iloilo, Quezon City
Singapore	Singapore
Thailand	Bangkok, Chiang Mai, Krabi, Phuket
Viet Nam	Da Nang, Ha Long, Ha Noi



# ASEAN Environmentally Sustainable City (ESC) Award Programme

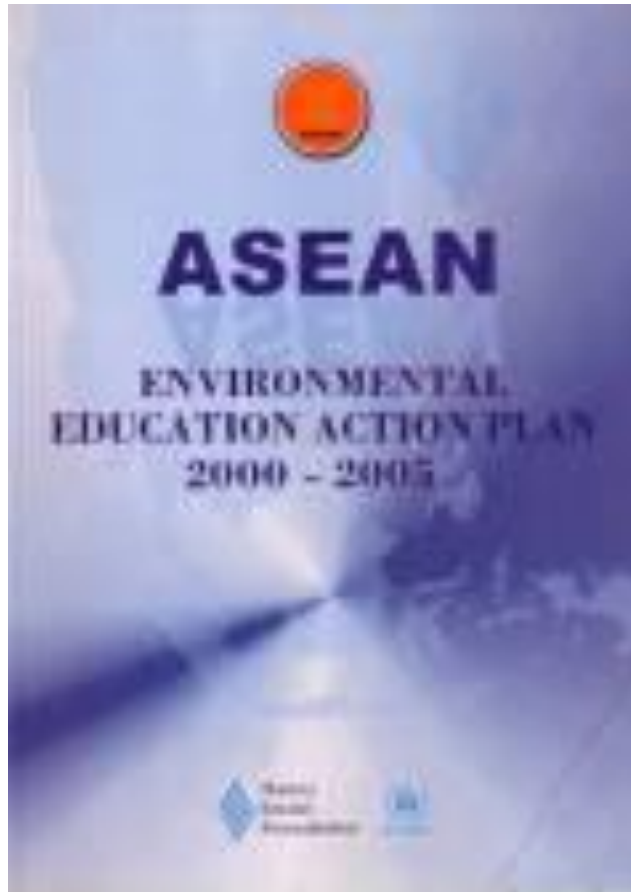


## Recipients of the ASEAN ESC Award 2008

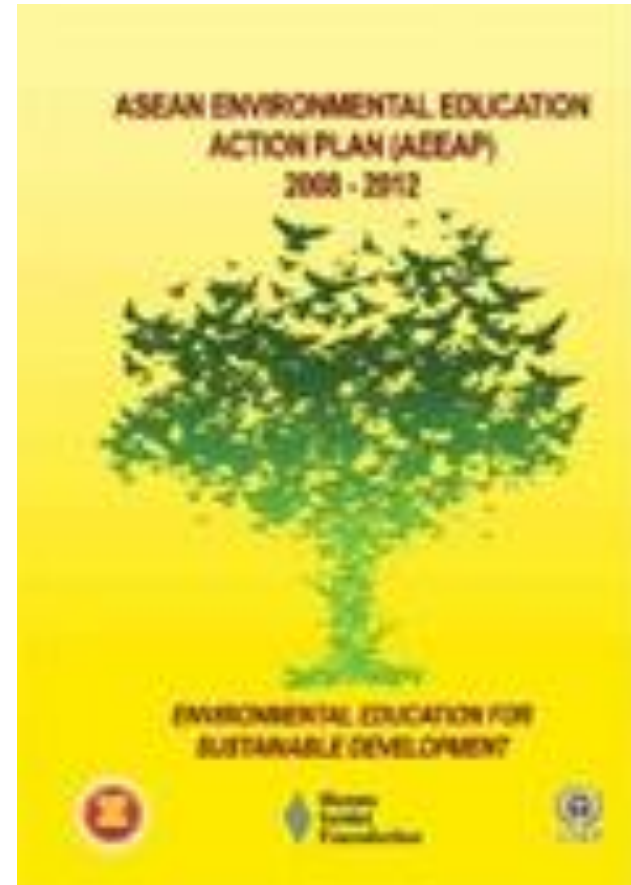
Brunei Darussalam:	Temburong District
Cambodia:	Municipality of Phnom Penh
Indonesia:	Palembang City
Lao PDR:	Luang Prabang District
Malaysia:	North Kuching City Hall
Myanmar:	Taungyi City
Philippines:	Puerto Princesa City
Singapore:	South West Community Development Council
Thailand:	Bangkok City
Viet Nam:	Ha Long City



# ASEAN ENVIRONMENTAL EDUCATION ACTION PLAN (AEEAP)



**AEEAP 2000 - 2005**



**AEEAP 2008 - 2012**



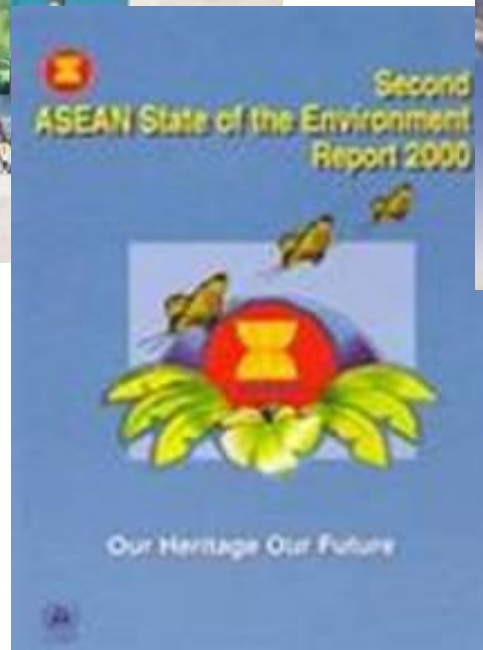
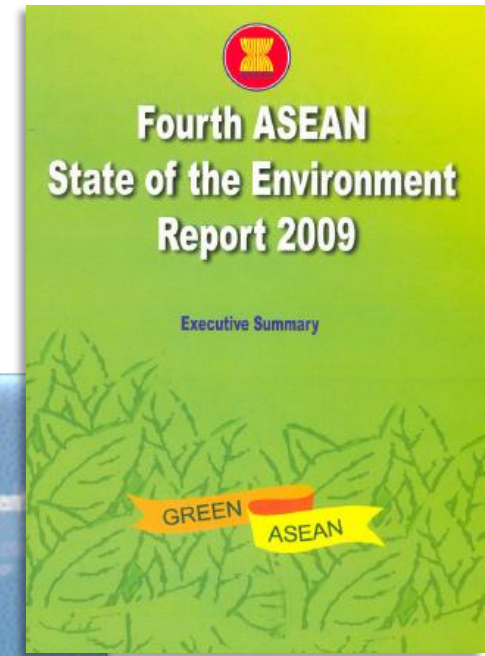
# ASEAN ENVIRONMENT YEAR (AEY)



**promoting environmental awareness at all levels of society, highlighting ASEAN's environmental achievements, and strengthening partnerships among ASEAN Member States, with dialogue partners, private sector, civil society and non-governmental organisations to address environmental challenges in the region.**



# ASEAN STATE OF THE ENVIRONMENT REPORTS



# THANK YOU

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