

# ASCOPE Response to the Energy Security Issues in ASEAN

by

Secretary In Charge



## ASEAN Council on Petroleum (ASCOPE)

Workshop on development of Natural Gas resources with high CO<sub>2</sub> & Carbon Capture and Storage (CCS) in CCOP

CCOP-Norway Program for Enhancing Public Petroleum Management (EPPM)  
of the CCOP Member Countries

17 – 20 March 2009

Bali, Indonesia

# Presentation Outline

- Overview of ASCOPE
- ASEAN ENERGY COOPERATION
- ASCOPE Response
  1. APSA And Its Annex CERM
  2. Trans ASEAN Gas Pipeline (TAGP) Project
  3. Development of East Natuna Gas Field
  4. Coal Bed Methane
  5. Study On Utilisation Of High CO<sub>2</sub> Gas Field

**ASEAN Council on Petroleum (ASCOPE)**



	Ministry of Energy and Mines LAO PDR
	BRUNEI PETROLEUM CO., BRUNEI DARUSSALAM
	CAMBODIAN NATIONAL PETROLEUM AUTHORITY (CNPA)
	PERTAMINA OF INDONESIA
	PETRONAS OF MALAYSIA
	MYANMA OIL AND GAS ENTERPRISE (MOGE)
	PNOC OF THE PHILIPPINES
	SPC OF SINGAPORE
	PTT OF THAILAND
	PETROVIETNAM OF VIETNAM



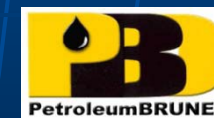
Established on 8th  
of August 1967  
under the Bangkok  
Declaration

ASCOPE was proposed by PERTAMINA  
of Indonesia in June 1975 and established  
on October 15, 1975

Established on October 15, 1975 by five  
founding members from Indonesia, Malaysia,  
the Philippines, Singapore, and Thailand



Brunei Darussalam joined ASCOPE in 1985.  
Vietnam joined ASCOPE on November 5, 1996.



Cambodia and Myanmar became ASCOPE  
members on February 14, 2001.



Lao PDR became an ASCOPE Member in February  
2006.



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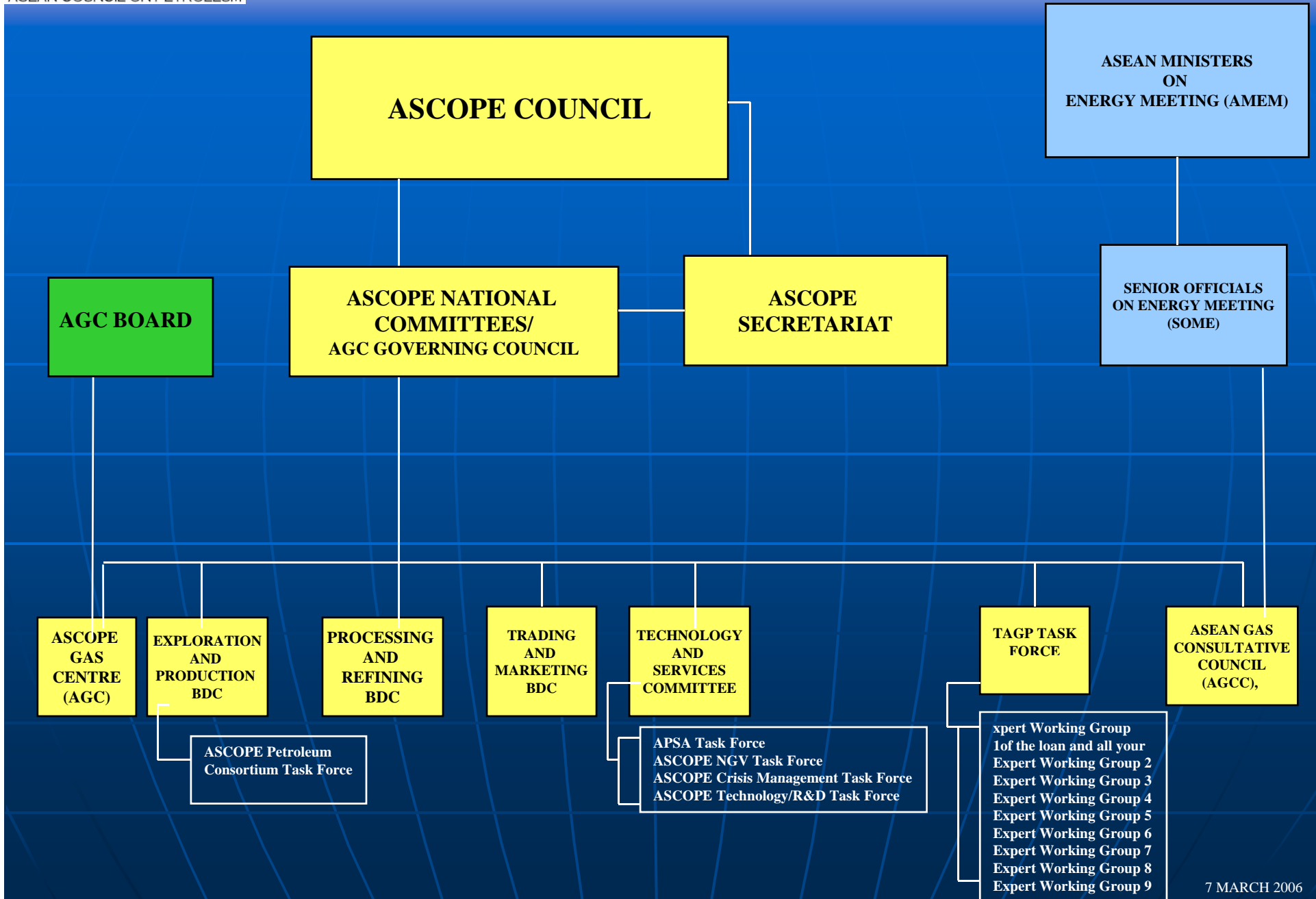
Instrument for regional cooperation among member countries of the Association of South East Asian Nations (ASEAN)

2

### Aims and Purpose

1. Promotion of active collaboration and mutual assistance in the development of petroleum resources in the region through joint endeavors in the spirit of equality and partnership
2. Collaboration in the efficient utilization of petroleum
3. Providing mutual assistance in personnel training and the use of research facilities and services in all phases of the petroleum industry
4. Facilitating exchange of information
5. Holding of Conferences and Seminars
6. Maintenance of close cooperation with existing international and regional organizations with similar aims and purposes.

# Overview of ASCOPE: ORGANIZATIONAL STRUCTURE



# ASEAN Economy

As of 2007, the ASEAN region has

- a population of about 575.5 million
- a total area of 4.5 million square kilometers
- a combined GDP (Nominal/PPP) of USD\$1.1 trillion growing at an average rate of 5.6% per annum
- a total trade of over US\$1.4 trillion.

### **ASEAN Heads of State adopted the ASEAN Vision 2020 on 15 December 1997**

- cooperation to establish inter-connecting arrangements for electricity and natural gas through the ASEAN Power Grid and a Trans-ASEAN Gas Pipeline or the Trans-ASEAN Energy Network.
- Promote cooperation in energy efficiency and conservation
- Development of new and renewable energy sources
- create a clean and green ASEAN, sustainability of its natural resources, protection of the environment and achieve high quality of life of its people.

### **ASEAN Leaders agreed to accelerate the ASEAN Vision 2020 and signed the ASEAN Economic Blueprint on 20 November 2007**

- Address negative impact of prolonged high oil prices in a strategic manner
- seek deeper cooperation on energy.
- implemented through a five year ASEAN Plan of Action on Energy Cooperation (APAEC) now coming to its third term of implementation.



### APSA/CERM and TAGP

1. **Asean Petroleum Security Agreement (APSA)** was signed in 1986.

A revised APSA was completed in July 2008 and recently signed at the 14<sup>th</sup> ASEAN Summit in Thailand in early March 2009.

2. **Trans-ASEAN Gas Pipeline (TAGP).** The MOU was signed by representatives of ASEAN Head of States in 2002.
  - **ASEAN Plan of Action on Energy Cooperation**
  - **Development of East Natuna gas field**
  - **Additional Alternative Supply**

# ASEAN Petroleum Security Agreement (APSA)

## APSA 1986

- An ASEAN petroleum sharing scheme for CRUDE OIL and/or PETROLEUM PRODUCTS during both times of shortages and oversupply and signed in Manila in 1986. APSA 1986 was never activated as any shortfalls were managed through bilateral commercial arrangements with ASEAN/ASCOPE member countries.

## Revision - APSA 2008 - Highlights of the Changes

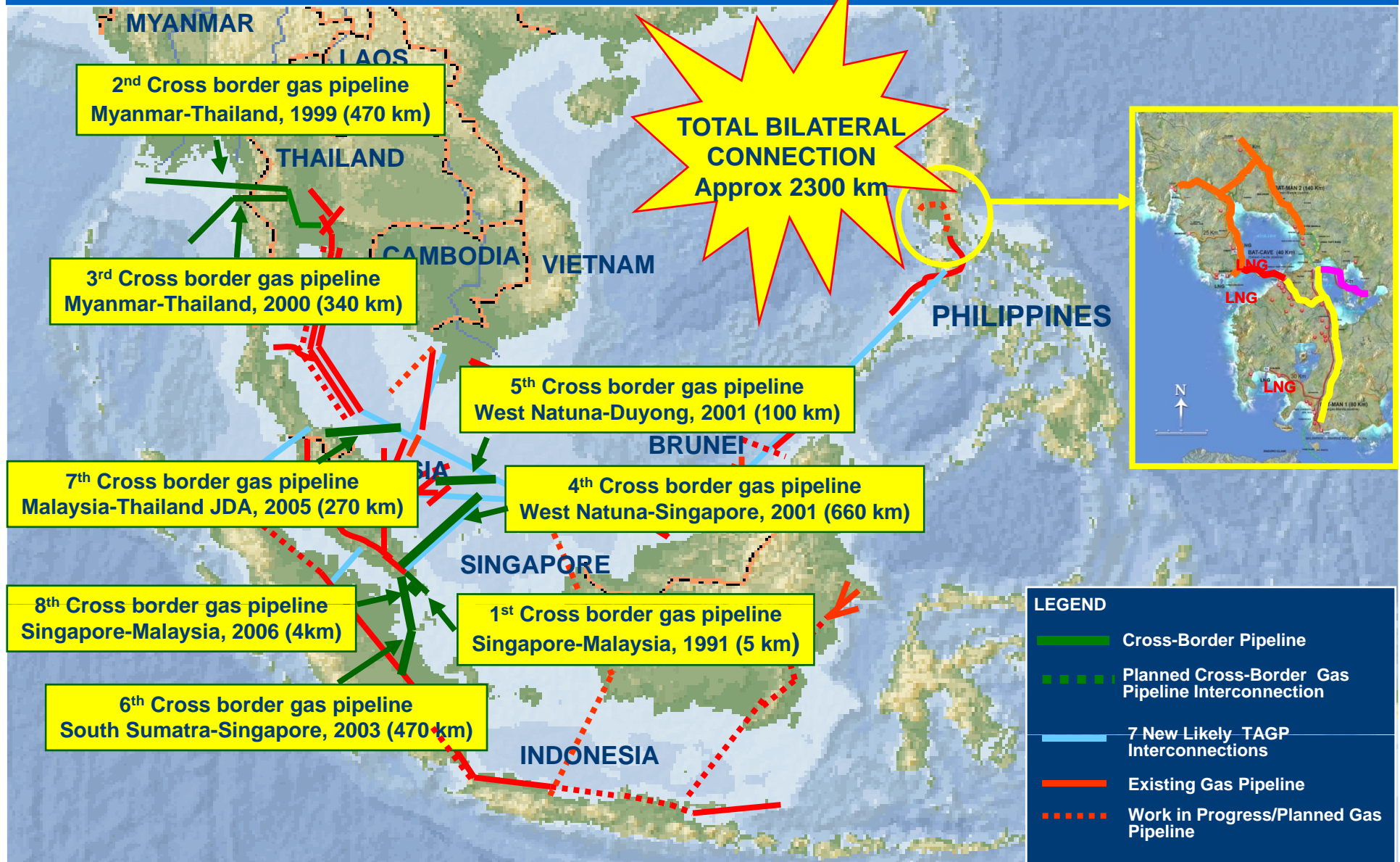
To include short, medium and long term measures in addressing security of energy and to minimize exposure to an emergency situation.  
To include diversification to alternative fuels, supply sources, exploring for new petroleum resources and improving market and utilization efficiency

- not a commitment but on voluntary and commercial basis. Not applicable if the whole ASEAN Region is in crisis.  
Approval is within 48 hours of receipt of request.

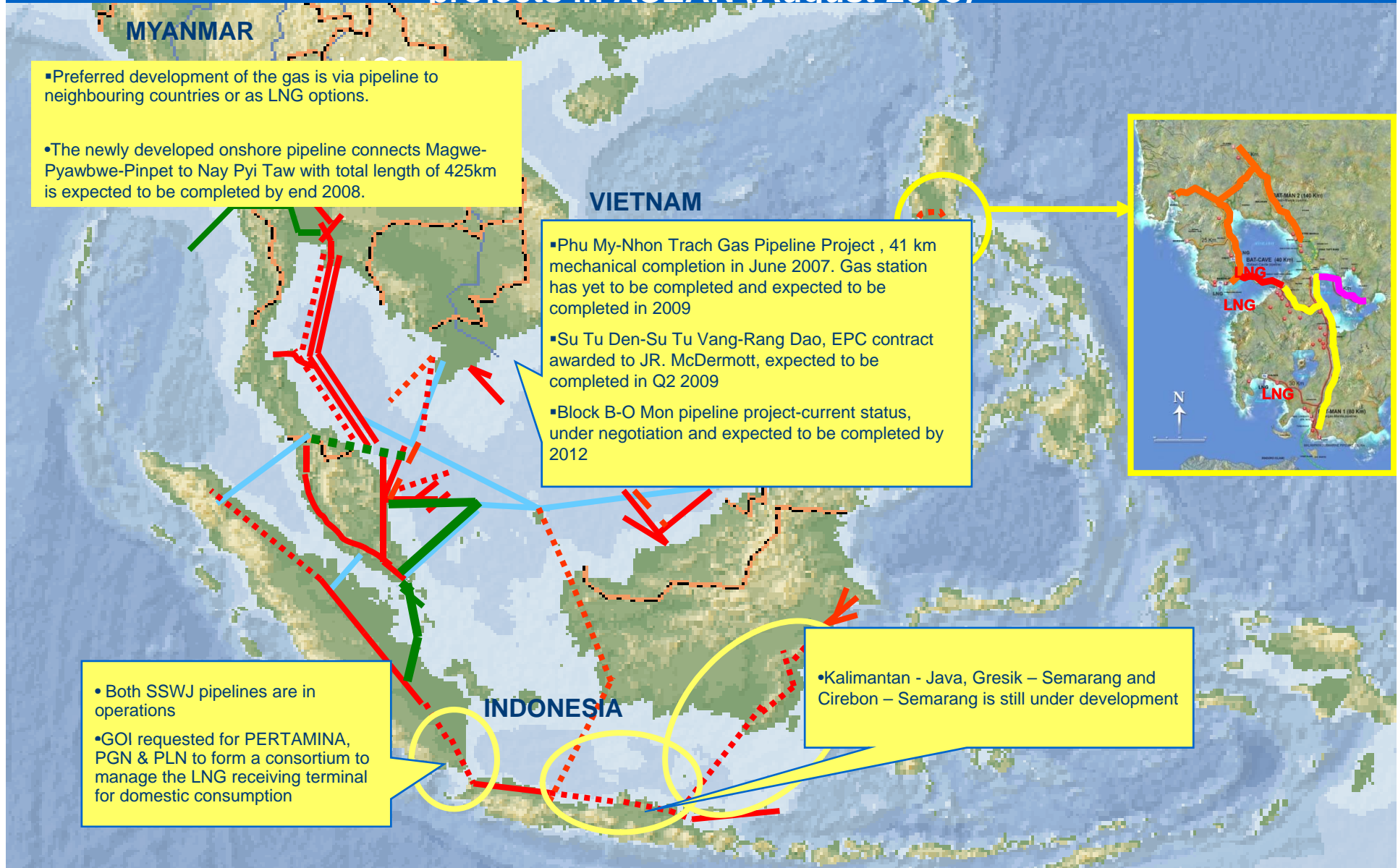
## **Trans-ASEAN Gas Pipeline**

- Completed in October 2000 and approved by the 19th AMEM-SOME in 2001.
  - The Master plan indicates a total of 175 Tscf of proven and 94 Tscf probable natural gas reserves in the 7 member countries.
  - Indonesia has the highest gas reserves with 90 Tscf proven and 42 Tscf probable reserves.
  - Seven gas pipeline interconnections identified for implementation.
  - The ASCOPE Gas Sales and Purchase (GSPA) and Gas Transportation Agreement (GTA) were developed.
  - ASEAN Gas Consultative Council (AGCC) which serve as the advisory body to ASCOPE in the facilitation and implementation of the TAGP Project was established.
  - AGC was incorporated under Malaysian law on 17 March, 2005 to implement the 5 year AGC Business Plan in support of TAGP.
  - Over a period of eight years from 2000, ASEAN gas pipeline infrastructure has grown 180 percent from 815km to 2300km from eight cross border gas pipelines interconnections.
  - Scoping on the ASEAN Potential Pipeline JVC has been finalized. The Gresik-Semarang gas pipeline pilot project has progressed from an MOU to a signed Project Development Agreement (PDA) between Indonesia and Thailand. This will serve as the prototype of a bigger scale ASEAN Pipeline JVC in the future.

**Development of cross-border gas pipelines infrastructure in ASEAN Member Countries. Since 2006, there are no new additional bilateral connections**



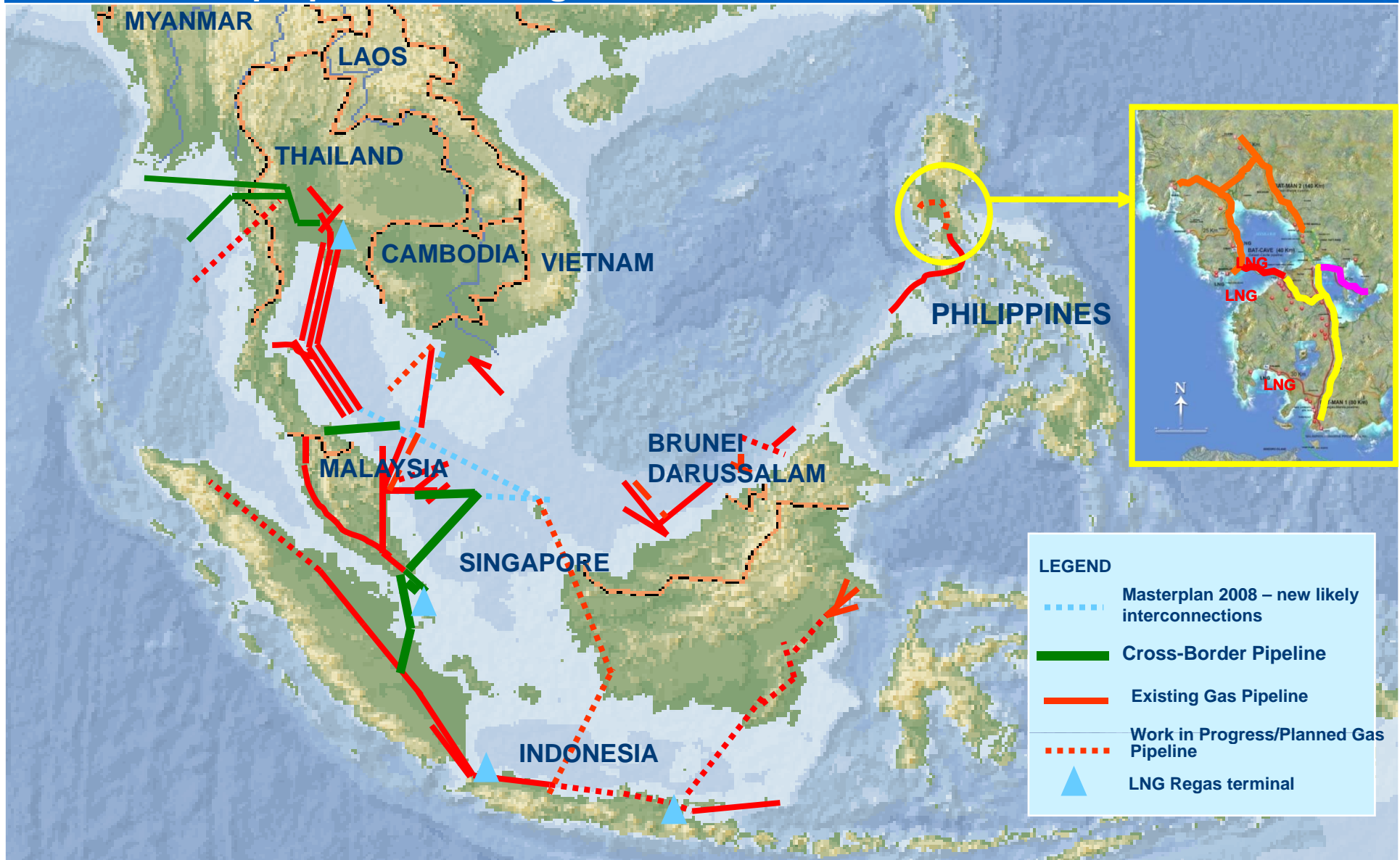
**Current status on Gas Pipeline and gas infrastructure projects in ASEAN (August 2008)**



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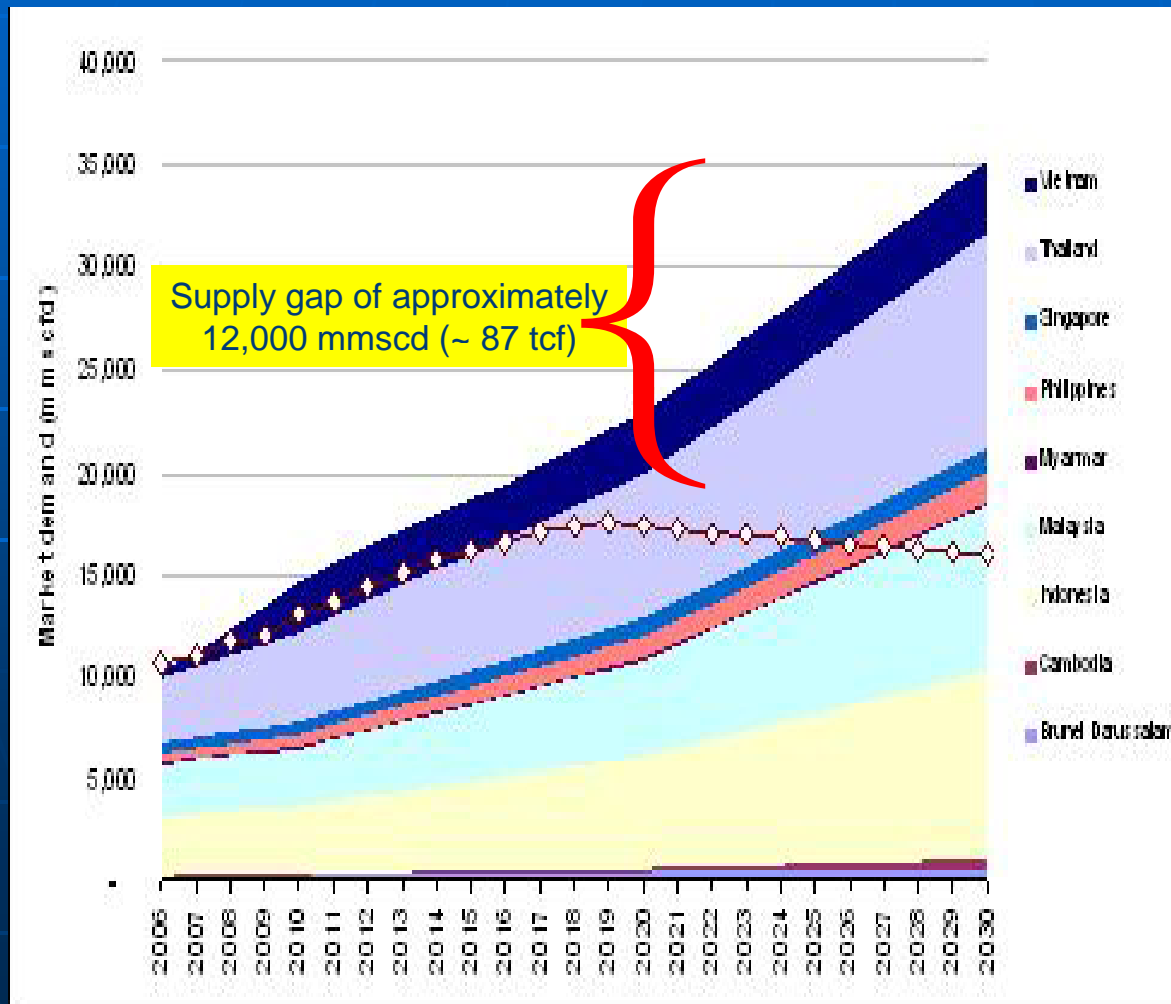


Outcome of the Updated TAGP Masterplan 2008 – Main trunkline from East Natuna and proposed LNG Regas Terminals



## ASEAN Gas Supply Demand Gap

### Regional Supply Vs Demand (Base Case) (inclusive supply from E Natuna)



#### Observations:

- There is a widening supply gap from 2015 rising up to 12,000 mmscfd by 2025.

- This shortfall reflects declining gas reserves causing gas supply to plateau and starts to decline while at the same time demand continues to rise strongly.

- This shortfall could be addressed by new discoveries in the region, or by increased imports of LNG Gas consumption.

(E&P BD has been informed to study at ASCOPE level how best can we further increase supply)

(East Natuna commercialisation is key at ASCOPE level)

- While finalising masterplan, demand figures constantly increases



### Lessons Learnt from the TAGP Task Force

As to date, ASCOPE TAGP Task Force has obtained several lessons learnt from the involvement in the following areas:

- ASEAN MOU
- Gas Supply from East Natuna
- Government Authority/Regulatory Bodies
- Upstream development
- Technical issues

## **ASEAN MOU - More real examples/projects are required to test the appetite of each member countries.**

Requires a long period in reaching common agreements. All Member Countries must understand that the Country offering potential business should have more say as negotiation will be based on business to business. Some points are as follows:

1. Member Countries to be more flexible and to adapt and be receptive to Host Country's requirement.
2. Team underestimated the complexity encountered to finalise a simple document such as a Confidentially Agreement. To consider many views from every member country in terms of the governing law, arbitration etc.
3. Understanding Management's appetite whereby a more secured project is necessary before cooperating.
4. Difficulty in finding a landing for all 5 countries to agree on similar terms when initially discussing the MOU.
5. Regular updates with Management to ensure buy in and support to cooperate in the project.

## **Gas Supply from East Natuna for the region**

- Resource owner is to be more open for ASCOPE Member Countries to assist in resolving the issue on the high CO<sub>2</sub> content of the gas.
- Estimates of the gas resource is to be made available for potential markets to discuss and assess the potential commercial arrangements
- Internal problems within the resource owner should be made more transparent for market to have a better understanding of the situation (without having to disclose confidential and sensitive information)

## Government Authority/Regulatory Bodies

- Difficulties in obtaining buy in from respective regulatory bodies to promote ASEAN plans to be more liberalized, have an open market, be transparent, finalise gas transit principles, unbundling of costs among others as it requires changing the law or regulations of the country.
- Despite having representatives from the Government it is still a big challenge for ASCOPE as the issues may not be of high importance and priority to the respective Country.
- Accelerating implementation of APAEC 2010-2015 for TAGP is a challenge.

## **Areas of upstream and technical issues**

### Upstream development

- Upstream must be more aggressive and creative in securing new gas resources for ASEAN countries

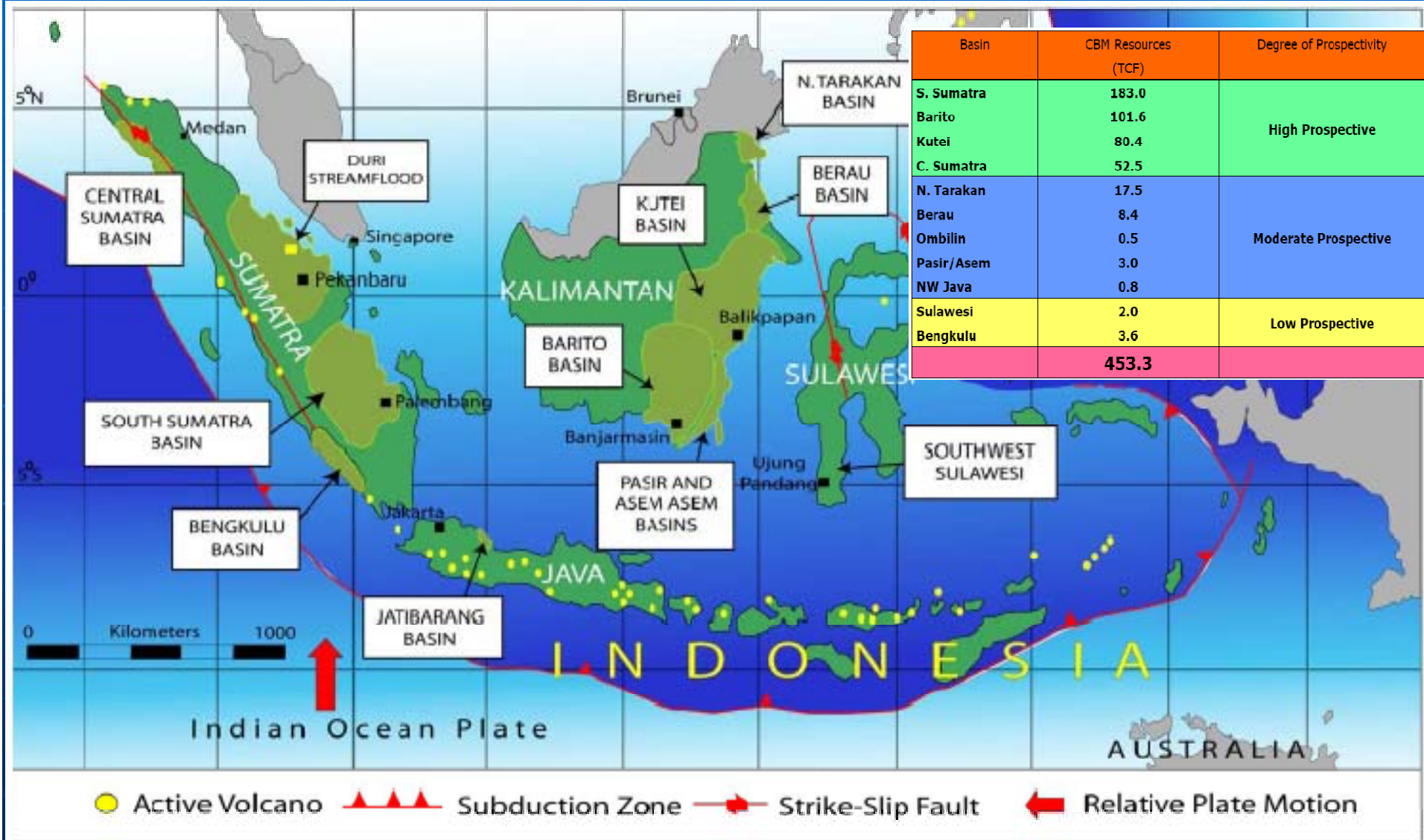
### Technical issues

- General common gas specifications has been achieved but to change existing contracts will be a big challenge. Realistically, only new contracts may adopt to common gas specs

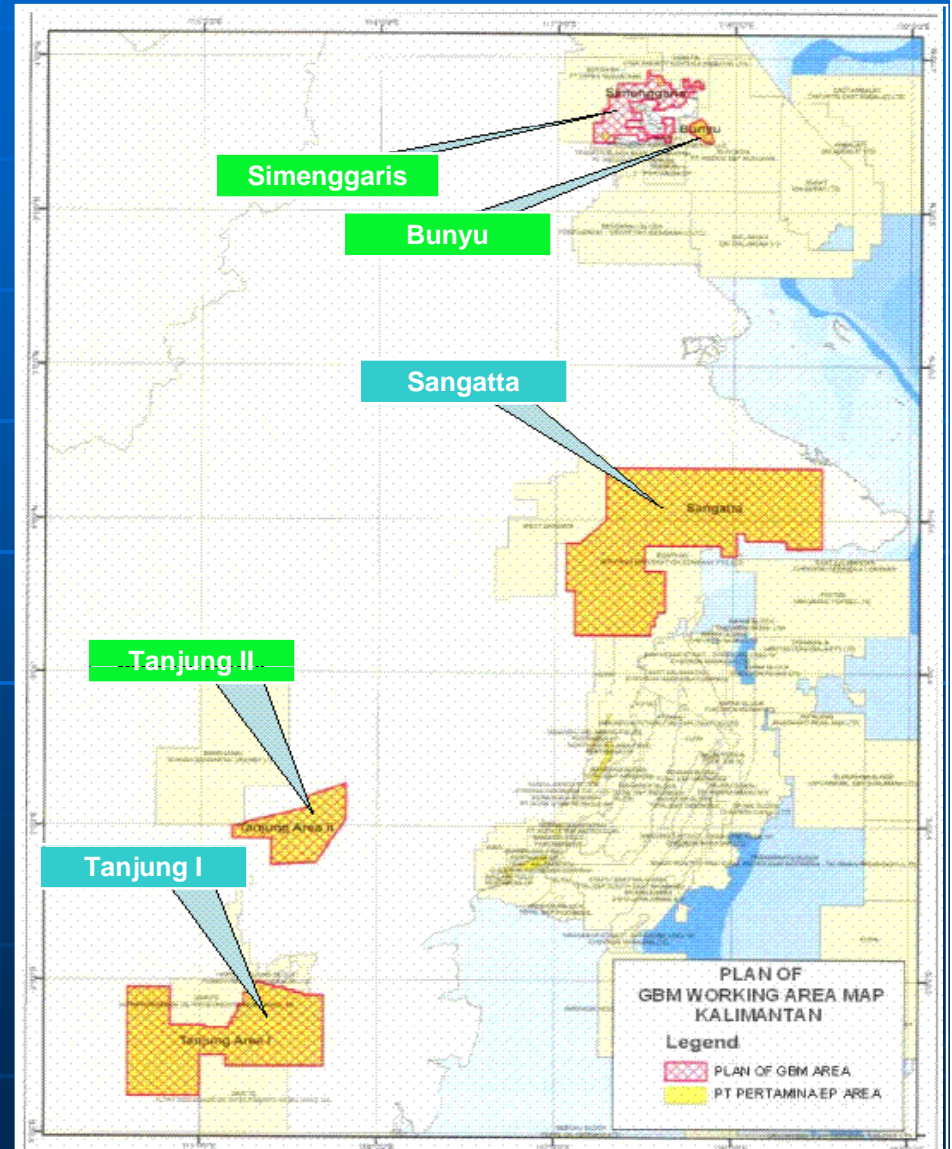
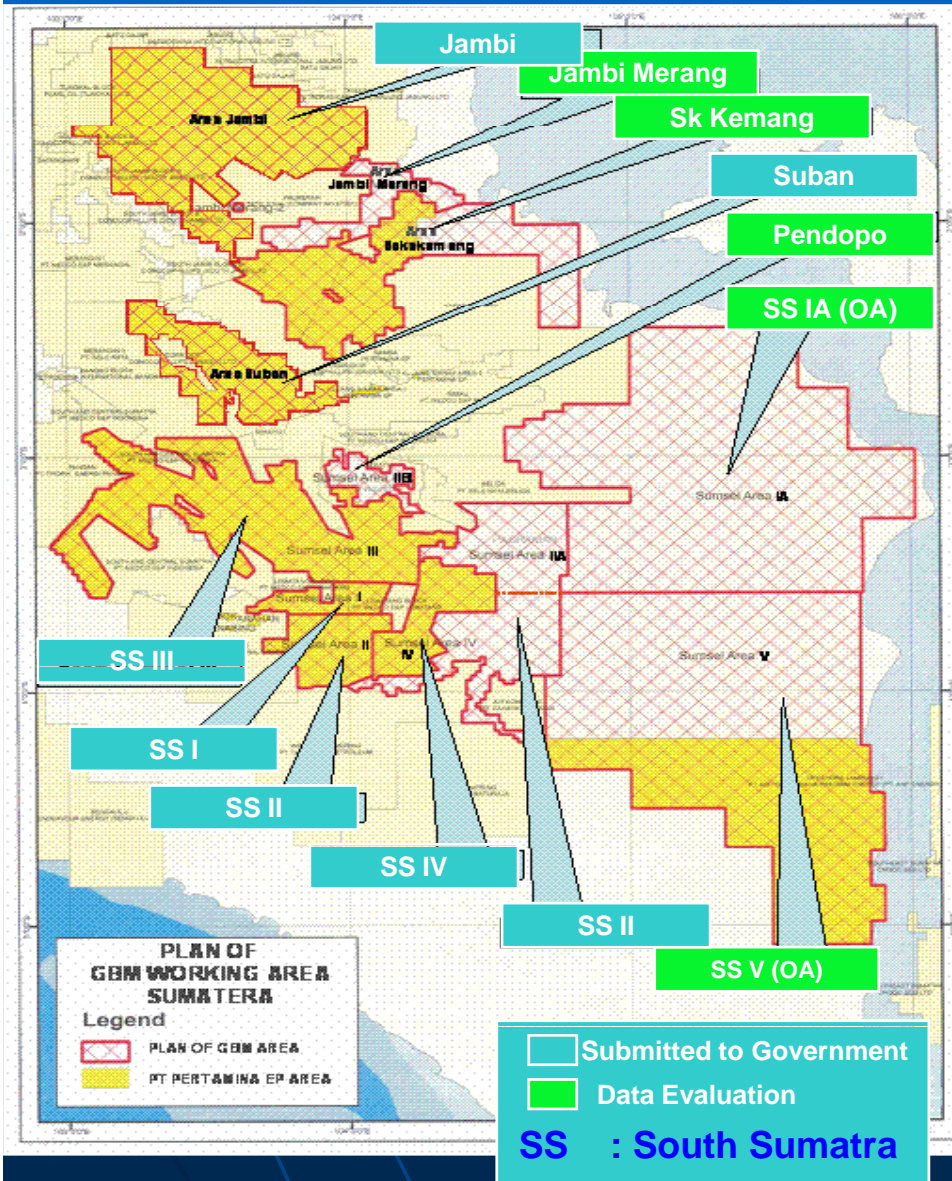
### Alternative Supply: Coal Bed Methane (CBM)

- The AMEM tasked ASCOPE to explore the implementation of the CBM in view of its potential to generate gas as an additional source of supply. ASCOPE reported the study on CBM as follows:
- The E & P BDC in collaboration with ASCOPE Gas Center (AGC) and Coordinating Committee for Geoscience Program (CCOP) and PETRAD is reviewing CBM potentials in the ASEAN Region focusing on the following key issues:
  - Mechanism to address legislative/ regulatory overlap between conflicting CBM, coal and petroleum exploration and production leases (AGC)
  - More detailed characteristics of regional coal reserves for CBM potential (CCOP)
  - World wide experience in utilisation of CBM co-produced water quality and disposal solutions eg for industrial, agricultural and residential markets (AGC)

# Coal Bed Methane (CBM) Basins In Indonesia



# CBM POTENTIAL IN PERTAMINA WORKING AREAS





## Exploration & Production (E&P) BDC

2007/2008 Work Achievements	Remark
1) Initiated concept paper and study on <i>CBM as a potential source of gas supply for ASEAN</i> – an initiative requested by the 25th AMEM to address security of gas supply for the region based on Indonesia CBM study.	E&P BDC with assistance from ASCOPE Gas Center and support from PETRAD & CCOP will further explore the potentials of CBM as an additional gas supply.
2) Development of an “ <i>ASEAN Decommissioning and Removal of Platform Guideline</i> ”	Development of the Guideline is expected to be completed in 2010. This study is to be undertaken with collaboration and technical assistance from PETRAD & CCOP as a consulting body.
3) <i>Commercial Utilization of High CO<sub>2</sub> gas</i> – an initiative requested by the 25 <sup>th</sup> AMEM.	E&P BDC will continue its study program on management of high CO <sub>2</sub> gas and will continue to seek the assistance of third party such as PETRAD and CCOP.
4) <i>On knowledge sharing sessions, several seminars were conducted</i> such as on Pipeline Integrity Issues.	More knowledge sharing and experience learning seminars and workshops for capability building will continue to be organized.

### Study on Utilization of High CO<sub>2</sub> Gas Field

- Tasked by the 25<sup>th</sup> AMEM, the E&P BDC is also pursuing discussion on management of high CO<sub>2</sub> gas field and its commercial utilization with support from third parties.
  
- The E&P BDC of ASCOPE will proceed with the studies pending the support of the 26<sup>th</sup> AMEM to allow usage of East Natuna gas data for this purpose.
  
- Reports of SOME of the 26<sup>th</sup> AMEM:  
Item 14. On the ASCOPE Study on utilisation of CO<sub>2</sub> Management Study, the Meeting noted that Indonesia would support in providing the required data on the content of CO<sub>2</sub> of East Natuna Gas. Indonesia welcomes the prospective joint venture partners to explore the potential of East Natuna.



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Instrument for regional cooperation among member countries of the Association of South East Asian Nations (ASEAN)



2

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1. 4<sup>th</sup> Asian Pipeline Conference & Exhibition (APCE)  
organized by ASCOPE Gas Center

Venue: Kota Kinabalu, Sabah in East Malaysia from 27-28 October 2009.

Pls visit [www.ascopegas.com.my](http://www.ascopegas.com.my)

2. South East Asia Pipeline Operators Group (SEAPOG)

Venue: Pattaya , Thailand from 19-21 May, 2009

3. 9<sup>th</sup> ASCOPE Conference & Exhibition

Venue: Bangkok, Thailand from 18-20 November 2009 at IMPACT Exhibition Center



Fueling  
theFuture  
of **ASEAN** towards  
Sustainable Development

Impact Conference & Exhibition  
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## The number one regional event for stakeholders in Southeast Asia's petroleum industry

***"We look forward to welcoming you to Thailand"***

PTT Public Company Limited is honoured to host the 9<sup>th</sup> ASCOPE Conference and Exhibition in Bangkok Thailand from the 26<sup>th</sup>-28<sup>th</sup> November 2009.

Once every four years the ASEAN Council on Petroleum (ASCOPE) gathers together all of its most senior staff in an atmosphere of mutual cooperation to discuss the major issues facing our industry.

The first ASCOPE event was held in 1977 and since that time it has moved between the member countries that make up the ASCOPE council. The event has always provided an environment for active collaboration within the region with the ultimate objective being the development of its petroleum resources. Over the years ASCOPE's reputation as a platform for business and knowledge has grown and it now attracts not only industry leaders from within the ASCOPE member countries, but from throughout the world.

***"On behalf of ASCOPE and PTT, I would like to invite you to participate in the 9<sup>th</sup> ASCOPE Conference and Exhibition and we look forward to welcoming you to Thailand."***

**Exhibitors at this major exhibition will feature products and services that cover every aspect of the oil and gas industry including the following:**

- Exploration and production equipment and services
- Environmental protection and pollution control
- LNG transportation and storage equipment
- Refining and petrochemicals technologies
- Geoscience technology and services
- Construction and engineering equipment
- Gas to liquids technology and services
- Regasification equipment and services
- Pipeline engineering and equipment
- Marine equipment and services
- Reservoir management technology
- Wellhead products and services
- Drilling technology and services
- Gas processing equipment
- Instrumentation and controls
- Safety systems and equipment

**Mr. Prasert Bunsumpun**  
President & CEO  
Council Member, ASCOPE  
PTT Public Company Limited

**ASEAN COUNCIL ON PETROLEUM (ASCOPE) is the name for both the regional association of national oil companies and its international meeting. Members of the ASCOPE association are drawn from the ASEAN countries, namely:**

**Brunei Darussalam** - Brunei National Petroleum Company Sendirian Berhad (PetroleumBRUNEI)  
**Cambodia** - Cambodian National Petroleum Authority (CNPA)  
**Indonesia** - PT PERTAMINA (PERSERO) (PETAMINA)  
**Lao PDR** - Ministry of Energy and Mines  
**Malaysia** - Petroliaam Nasional Berhad (PETRONAS)  
**Myanmar** - Myanmar Oil and Gas Enterprise (MOGE)  
**Philippines** - Philippines National Oil Company (PNOC)  
**Singapore** - Singapore Petroleum Company Limited (SPC)  
**Thailand** - PTT Public Company Limited (PTT)  
**Vietnam** - Vietnam Oil and Gas Group (PETROVIETNAM)

**The members of the ASCOPE Council have selected PTT as the host of the 9<sup>th</sup> ASCOPE Conference and Exhibition. It will hold this most important petroleum conference and exhibition in Asia Pacific region, at the world class Bangkok International Trade and Exhibition Centre (BITEC).**

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# THANK YOU