

# A HISTORIC BEGINNING FOR ASIAN OIL ECONOMY



**Ministry of Petroleum & Natural Gas**  
Government of India

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ROUNDTABLE OF ASIAN MINISTERS  
ON  
REGIONAL COOPERATION IN THE OIL ECONOMY  
JANUARY 6, 2005, NEW DELHI  
STABILITY, SECURITY, SUSTAINABILITY  
THROUGH  
MUTUAL INTERDEPENDENCE

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**Round Table of Asian Ministers  
on  
Regional Cooperation in the Oil Economy  
Stability, Security, Sustainability  
Through  
Mutual Interdependence**

New Delhi, 6 January, 2005



**Ministry of Petroleum & Natural Gas**  
Government of India

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**CHAIRMAN'S STATEMENT  
ON THE CONCLUSION  
OF THE FIRST ROUND TABLE OF ASIAN MINISTERS  
ON REGIONAL COOPERATION IN THE OIL AND GAS ECONOMY  
NEW DELHI**

**JANUARY 6, 2005**

**A. GENERAL**

1. The Asian oil economy is integral to, and inseparable from, the global oil economy.
2. With Asian destinations emerging as the principal consumers for Asian production, and the share of Asia in global production and consumption likely to progressively increase, cooperation between Asian producers and Asian consumers is crucial to ensuring  
Stability,  
Security and  
Sustainability  
through  
mutual interdependence  
in the Asian oil and gas economy.
3. The fundamentals of such cooperation must include moderation, dialogue, mutual understanding and respect, security of international supplies, demand-supply equilibrium, and strategic partnerships based on a reciprocity of interests.
4. To this end, an Asian dialogue is both welcome and indispensable aimed at evolving and elaborating an Asian consensus.
5. It is, therefore, agreed that the instrumentality of Round Tables of Asian Ministers on Regional Cooperation in the Oil and Gas Economy, initiated here in New Delhi, must be maintained. The following countries have kindly agreed to host/co-host subsequent Round Tables :

Second Round Table	:	Saudi Arabia, Co-host: Japan
Third Round Table	:	Japan, Co-Host : Qatar
Fourth Round Table	:	Kuwait, Co-host: Republic of Korea

The Round Tables may follow the pattern of alternating between net importing and net exporting countries

6. For the preparation of Ministerial Round Tables, the Secretariat of the International Energy Forum might convene experts, operators and officials to prepare position papers and agenda documents.

7. To reinforce Ministerial-level discussions at the Round Tables, a parallel effort may be initiated to bring together Asian business operators belonging to the countries represented at the Round Table.

## **B. STABILITY AND SECURITY**

1. There is scope for improving Asian markets for petroleum and petroleum products. The issue requires careful study and detailed consideration, primarily among experts and operators with a view to indentifying broad policy parameters that might require further consideration.

2. Prices should be sustained at levels which encourage Asian consumers to increase their purchases of Asian produce; at the same time, prices should be such as to encourage Asian producers to promote investment in oil and gas for Asian consumer destinations as an economic priority

3. Crisscross investments all along the entire oil and gas products chain through reciprocal investment interlocking of producers and consumers will guarantee security of both supply and demand, thus contributing to stability of prices and thereby security of both supply and demand. Thus stability of prices would encourage domestic and cross-country investment in all streams of the petroleum sector and other energy-related projects.

4. Caution must be exercised in promoting balanced investment so that over-investment does not lead to excess capacity nor under-investment to shortage of supplies.

5. Strategic storage and stockpiling contribute to security, and in this regard the valuable experience of Japan might hold significant lessons for other major consumers. However, there must be no abuse for illegitimate commercial purposes of such strategic storage and stockpiles.

6. The exchange of information and knowledge is the key to increasing confidence on the part of both buyers and sellers.

7. The Sustainable and Flexible Energy system (“SAFE”) proposed by Japan constitutes a useful framework for further consideration of issues of energy security.

8. The Iranian proposal for an Asian Bank for Energy Development merits deeper consideration.

## **C. SUSTAINABILITY**

1. Endorsing the importance of energy conservation for the protection of the environment and issues of climate change, the need for technological cooperation in the pursuit of cleaner and more environmentally-sound fossil fuel technologies was emphasized.

2. To this end, cooperation among Asian research and development centers and the promotion of conservation awareness among the general public were recognized a key instrumentalities.

ADDRESSES  
&  
PRESENTATIONS

## Welcome Speech

**Shri S.C.Tripathi, Secretary**

Ministry of Petroleum & Natural Gas, Government of India

Honorable Minister of Petroleum and Natural Gas, India, Shri Mani Shankar Aiyar, Honourable Ministers, Excellencies, Colleagues from Asian Oil Community, Ladies and Gentlemen;

May I welcome you all to India and to New Delhi? A city that is as old as civilization itself, nurtured by several Dynasties through the ages and strewn with magnificent monuments, glorious forts and tombs, evidence of the city's rich past coexisting with the new structures signifying its emergence as the capital of the largest democracy in the world.

It is a great pleasure to extend a very warm welcome to all of you to this Round table of Asian Oil Ministers.

This Round Table is culmination of an idea which was deliberated at length in September at Vienna by several participants, and I believe, whose time has come. Our Minister, Honorable Shri Aiyar promised to take it forward. This conference, I trust, is the first of its kind and, may I add, not the last but a new beginning towards an Asian Oil Economy. Kuwait has graciously agreed to co-host the Round Table and I very much welcome **H.E. Dr. Yousuf Al-Ibrahim, Special Economic Advisor to the Prime Minister and Former Finance Minister, Kuwait.**

I have great pleasure in extending a very warm welcome in particular to

1. **H.E. Mr. Bijan Namdar Zangeneh,**  
Minister of Oil, **Iran**
2. **H.E. Mr. Shoichi Nakagawa,**  
Minister of Economy, Trade and Industries,  
**Japan**
3. **H.E. Mr. Datuk Mustapa Mohamed,**  
Minister in the Prime Minister's  
Department, **Malaysia**
4. **H.E. Mr. Mohammed bin Hamad Al Ruhmy,**  
Minister of Oil and Gas, **Oman**
5. **H.E. Mr. Abdulla Bin Hamad Al Attiyah,**  
Second Deputy Premier, Minister of Energy  
and Industry, **Qatar**

6. **H.E. Mr. Ali I Al Naimi,**  
Minister of Petroleum and Mineral Resources,  
**Saudi Arabia**
7. **H.E. Mr. Mohamed Bin Dha'en Al Hamli,**  
Minister of Energy, **UAE**
8. **H.E. Mr. Zhang Xiao Qiang,**  
Vice Chairman, NDRC, **China**
9. **H.E. Mr. Hwan-Eik Cho,**  
Vice Minister of Commerce, Industry and  
Energy, **Korea**

And also to heads of delegation from OPEC, IEA, and IEF.

Indonesia and many countries in South East Asia and South Asia including India have suffered huge human catastrophe last week due to the earthquake and Tsunami. I express my heartfelt grief and offer condolences for the victims of this natural calamity. It is a reminder that we live in an uncertain environment where natural calamities do not recognize national boundaries.

Delivering Oil and Gas security and stability in a sustainable manner is a vital and crucial issue facing Asian Nations whether developing or developed, standing at the door step of explosive growth, at the onset of the 21st century.

Asia, as a region, though differently endowed, is more than self sufficient to meet its oil & gas needs. While producers seek secure markets and stable revenues, consumers desire assurance of supplies and efficient markets. Goals that are complementary to each other, if examined closely and indicating our mutual interdependence. Our relationship can be cemented by deepening this relationship through mutual investments, long term agreement, having a common emergency response mechanism and perhaps institutionalizing the Asian Dialogue.

I am certain that you will find the day's deliberations, a forerunner to a new beginning. With these words I once again welcome you all to India, New Delhi and the Round Table.

Thank you.

## Inaugural Address

by

Round Table Chairman,

**Shri Mani Shankar Aiyar**

Minister of Petroleum & Natural Gas and Panchayati Raj, Govt. of India

Your Excellency, the co-host of this conclave, the distinguished Head of Delegation of the Emirate of Kuwait,

Your Excellencies,  
Ministers and Heads of Delegation  
from the principal Asian suppliers and consumers  
of petroleum,

Your Excellencies, Ambassadors to New Delhi of  
these countries,

Distinguished representatives of the Governments  
of participating countries,

Distinguished representatives of National Oil  
Companies and the Asian Oil Industry,

Distinguished delegates of the principal  
international organizations here present, our  
co-sponsor, the Secretary-General of the  
International Energy Forum, the distinguished  
representative of the International Energy Agency,  
and the distinguished Acting Secretary-General of  
OPEC-the Organisation of Petroleum Exporting  
Countries,

My fellow-Minister,  
the distinguished Minister of State for External  
Affairs of India, Shri E. Ahamed,  
Ladies and Gentlemen,  
Fellow Asians,

We meet in the shadow of the terrible Tsunami  
tragedy that has struck our shared continent of  
Asia. Might I request you to please stand and  
observe a minute's silence in memory of the  
125,000 or more who have been snatched so  
cruelly from our midst?... Thank you.

This is a moment that might yet be recorded as  
"historic" in the annals of regional cooperation in  
Asia. For this is the first gathering together of the  
principal Asian ministers charged with  
responsibility for the most crucial sector of the

economy-petroleum and natural gas. Whether  
our meeting today does get recorded as "historic"  
does, of course, depend on the outcome of our  
deliberations and of our resolves to persist on the  
path of such dialogue. I have little doubt,  
however, that it will-for in the very act of  
journeying to our capital you have registered your  
commitment to our shared destiny. Through  
almost all of the advancement of human  
civilization, it is Asia that has been in the  
vanguard. For the last few centuries, we fell to the  
sway of others. Now, once again, are we the  
captains of our ship and the masters of our fate. I  
thank you most warmly and sincerely, on behalf  
of our Government and all our one billion  
people, for having done us the unforgettable  
honour of being present here at the creation.  
Thank you, indeed.

Excellencies, in the sector of our concern,  
hydrocarbons, the dawn of the 21st century  
heralds an unprecedented, dare I say  
revolutionary change in international oil and gas  
relations. In the last quarter of the last century,  
Asian oil producers came into their own when  
OPEC secured fair and just remuneration for the  
most vital element of growth and prosperity-oil.  
Now has come Asia's turn to consume that oil-  
and thus fuel the resurgence of Asia as the  
harbinger of the further advancement of human  
civilization. The total consumption of the Asian  
countries here present almost equals the total  
production of the Asian countries here present.  
No longer are we labouring so that others might  
profit. We have already emerged as the world's  
principal source of supply; we are emerging as the  
world's principal destination for the consumption  
of that supply. Already, some two thirds of the  
fossil fuel that principal producers around this  
table extract from the bosom of Mother Nature is  
bought by the principal consumers represented at  
this very table. That trend will only accelerate as

we traverse the 21st century-the Asian Century. We are gathered here to rise to that challenge and to avail of that opportunity.

The Challenge, Your Excellencies, lies in eschewing the errors of the past. The opportunity, Your Excellencies, lies in Fashioning a more fair, more just and more remunerative oil order for all of us in Asia-in which the Asian producer is ensured a stable, secure and sustainable return for a most precious but depleting natural resource, and the Asian consumer is assured a stable, secure and sustainable regime within which to promote progress and prosperity for that deprived one-half of humankind that inhabits our shared continent of Asia. We commence here a dialogue to meet that challenge and rise to that opportunity.

### How do we do so?

First let me deal with stability. Last year has seen the worst roller-coaster ride in oil prices for the better part of a generation. OPEC has behaved most responsibly through this period of turmoil and turbulence. Instead of pursuing short-term advantage, OPEC, led by its Asian members, has persistently striven for moderating volatility and dampening speculation. For this, OPEC and its membership have earned the world's gratitude. Moreover, OPEC's production plans give the world the reassurance that global oil supply will keep pace with booming global demand, and that over the next twenty years at least there will be no market disequilibrium to warrant any wild fluctuation in prices. If, nevertheless, volatility rather than stability has marked international prices in the last twelve months that is largely because of speculation and apprehensions-that have been mostly belied-of the fallout on oil production of exogenous political developments. The fact is that however uncertain developments in the world political order have been, the underlying global oil economy has held a steady course.

For us in Asia to convert that underlying stability in production (and the prognosis for production) into stability in oil markets, it is essential that we develop a sophisticated Asian market for

petroleum and petroleum products. That is how the West converted their abundance of natural resources into abundance of production and consumption.

Unfortunately, we in Asia continue to behave as if we were still a residual consumer of Asian oil production when, in fact, we are the principal consumer.

Your Excellencies, for Asia to be the residual consumer made some economic sense when there was large and growing production on both sides of the Atlantic, on-land in the Americas and off-shore in Europe. It was in that era that Western Texas Intermediate (WTI) and Brent emerged as markers. But as the world wheels into the 21<sup>st</sup> century, WTI output is down by three-quarter compared to two decades ago and Brent output is down by two-third compared to just a decade ago-and both are set decline even further, and to decline quite precipitately at that. Meanwhile, it is Asia, from Eastern Siberia through the Caspian, Central Asia and China, to South-East Asia and to some extent even South Asia, and, if course, above all, Iran and West Asia, that is booming in both the output and throughput of oil. Yet, Asia has little in terms of a global marker. And even less in terms of a well-prepared oil and oil products market.

With a view to bringing about greater stability in Asian trade in petroleum and petroleum products, can we think in term of an Asian market

- where long-term contracts become longer,
- where price discovery through the market is more transparent,
- where such transparency facilitates greater stability in formulate for pricing in long-term contracts,
- where spot purchases occupy a progressively larger share of market transactions,
- where petroleum exchanges are establishes and used,
- where derivatives are integrated into market practice,
- where, in short, an Asian marker emerges

which reflects Asian realities and the real role in the global oil economy of Asian production, Asian consumption and Asian trade?

To pose the problem, Your Excellencies, is easier than to find the answers. But I do submit, Your Excellencies, that through sustained dialogue among ourselves, buttressed by dialogue among our experts and market operators, we might be able to find an Asian solution to the imperatives of Asian stability.

As for the second theme of our meeting—security—the answer there too lies in promoting mutual interdependence. Security has two aspects. One is security against unexpected disruption of supplies. As a joint emergency response mechanism, perhaps we should consider jointly building storages which would enable consumers to enjoy an uninterrupted flow of supplies and producers to enjoy an uninterrupted flow of oil revenue till normalcy is restored.

The second aspect of security relates to assurance of markets for producers and assurance of supplies for consumers. This calls for mutual interdependence through mutual investments in each other's countries by producer and consumer nations of the Asian oil community. Hitherto, we have looked West for much of the investment in Asian petroleum exploration and production, Asian petroleum refining, and Asian petroleum marketing—and in saying so I include gas as well. Now, increasingly, Asia itself is merging as a significant source of investment in Asia. Japan is, of course, a long-established Asian investor in other Asian countries. China in the last decade, as also Malaysia, have become key players in E&P in Asia and, indeed, the world over. So has India. We are already in E&P, refining and marketing projects in more than ten countries and much of our overseas investment is in Asia. Reciprocally, in refining, we in India have been the beneficiary of investments by Iran in the Chennai Petroleum Corporation and of Qatar in LNG. These are but illustrative examples. A future beckons in which Asian countries can become major participants in the massive investments which need to be made in the Asian countries represented at this table,

running to an estimated 1580 billion dollars over the next 25 years in upstream, midstream and downstream oil and gas development in all our countries put together. Investment on this humungous scale, to the extent possible mutual and reciprocal intra-Asia investment, would hugely enhance security of production and consumption for all of us around this table, for all our fellow-Asians and, indeed, for all of humankind the world over. The oil and gas sector in India welcomes the world with open arms, and reserves a particular welcome for Asian investors. Equally, we stand ready to do our share for the promotion of the global oil economy in general and the Asian oil economy in particular. We believe we should continue and intensify this dialogue in the interests of facilitating mutual investments to ensure mutual security.

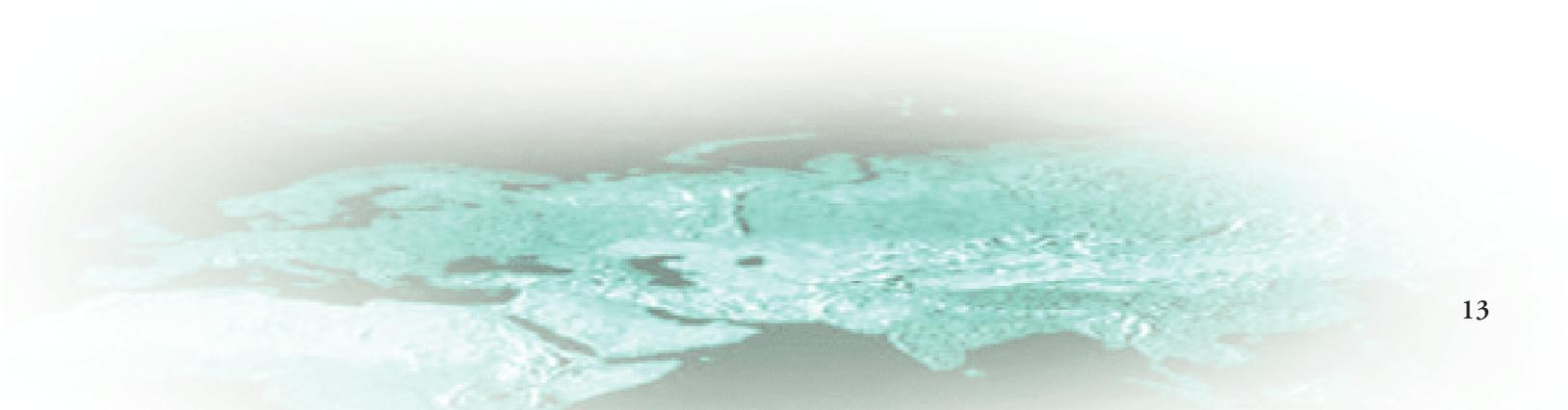
The third great theme of our meeting today is sustainability. It has taken millions of years, indeed, hundreds of millions of years for Nature to create and store what we have substantially exhausted in a mere one hundred years or so. What remains we can use only if used with great care. That calls for conservation, on the one hand, and technology, on the other. Japan has shown the way to both conservation and the technology for conservation, as perhaps no other country in the world has. India has had no alternative but to conserve and innovate, although we still have a long, long way to go. China has taken significant initiatives. So has the Republic of Korea. Asian oil exporting countries have demonstrated a commendable awareness of the importance of sustainability. The time now is for us to pool together our experience, forge them into a shared, common experience, and build on that experience in concert. Sustainability in Asia calls for sustained dialogue among Asians. We stand ready and willing to place our Petroleum Conservation Research Association, the Indian Institute of Petroleum, the University of Petroleum Studies, The Energy and Research Institute of India (TERI), our Center for High Technology, our Oil Industry Safety Directorate, IndianOil's R&D Centre, and all our other scientific and technological research and

development institutions at the service of all Asia. It is said that one in every three Information Technologists in the world is an Indian. Our achievement in petroleum technology is perhaps less spectacular. But we would be more than happy to share what we know with our fellow-Asians and even more to learn from others, above all to learn from our fellow-Asians.

As we embark on this historic initiative which

will, I hope, bring us together frequently, even up to once or preferably twice a year, perhaps alternately in a net oil exporting and a net oil importing country of Asia, and perhaps progressively expanding our ambit while keeping our core intact, I welcome all of you once again to our national capital and wish you all a pleasant and fruitful stay in our midst.

Your Excellencies, I thank you, one and all.



## Inaugural Address

by

Round Table Co-Chairman,

**H.E. Dr. Yousuf Al-Ibrahim**

Special Economic Advisor to Prime Minister and Former Finance Minister, Kuwait

Honorable Minister Aiyar, Excellencies, distinguished guests, ladies and gentlemen

It gives me great pleasure to be with you this morning and to extend the greeting of his Excellency Sheikh Ahmed Fahad Al-Sabah, Minister of Energy and his apology for not joining in this important and distinguished meeting.

First of All I would like to express on behalf of the government and the people of Kuwait our deepest sorrow and heartfelt condolences to all who had lost their beloved ones in the massive earthquake and ensuing devastation from the tsunami on the 26th December of last year. The appalling images of mass destruction and loss of life has deeply touched us all, and will be forever etched in our memories of 2004.

Distinguished Guests, Ladies and Gentlemen,

I feel privileged to be here today in this great country of India with its many colours and contrasts; for the opportunity to share some thoughts and perspective with you concerning the great interest there is in Kuwait and other countries in the Gulf with the rapid developments that are taking place in Asia, and the new optimism sweeping our region.

When such rapid developments take place in a region the size of Asia and in countries of the size of India it is most significant, not only for the countries of the Gulf but for the whole world.

We all have a large stake in the continuing success of these developments in Asia as our futures are linked together.

Distinguished Guests, Ladies and Gentlemen,

During 2004 the global economy experienced the strongest growth for more than 20 years. World oil demand unexpectedly surged. Most of the

demand growth was led by developing countries such as China and India.

Meanwhile, several factors as you many know contributed to oil supplies being very constrained including the ongoing disruption of oil flow in Iraq. The resulting of very limited spare OPEC capacity, low stocks and concerns about possible supply disruption from terrorist activities led to record high oil prices.

Also the shortfalls in refining and in upgrading capacity led to imbalances, unusual trade flows and exceptional differentials, such as between light sweet crude oils and the heavier, sour crude oils.

The industry now faces a number of challenges in the coming years. Governments are increasingly mandating higher quality products. In this regard India has very recently announced some reductions in its sulphur specification in gasoil and gasoline.

Demand for oil increases are forecast to continue to be largely in terms of fuels for transportation and petrochemical feedstock's. While additional crude supply is largely going to be in terms of heavy, sour quality. Also additional refining and upgrading capacity will be required especially in Asia.

Security of oil supply concerns is rightly high on the agenda for consuming countries. Equally, security of demand is a major concern to producing countries such as Kuwait.

I will say more about this subject and Kuwait's interest to participate in partnerships with consuming countries later on.

The rapid development of Asian economies, especially those such as China and India, is of vital importance for the global economy.

The Asian Market, with its huge potential arising from continuing rapid economic growth, is already the single most important market for our crude and petroleum products. It is also one of the fastest growing markets for oil in the world, where half of the total incremental oil demand is forecast to take place during the next few years.

India, together with China, stands out in terms of recent and forecast growth in demand. The four largest consuming nations in Asia are India, China, Japan and South Korea. Indian demand has now overtaken South Korean demand while China has overtaken Japan as a larger consumer.

To meet its increasing demand for fuels and energy Asia imports more crude oil and products than any other region in the world. Increasing volumes of crude oil are being imported as the region's own production now only meets less than half of its requirements. In addition Asia, due to shortage of refining capacity and its feedstock requirements, needs to import large quantities of finished products and feedstocks to meet the requirements of its large and growing population.

Gulf producers such as Kuwait thus have huge and growing interest in the Asian region.

The Gulf is the major source for supplying the bulk of the Asian region's crude oil as well as product imports. Some three quarters of Asia's total crude oil requirement comes from the Gulf, while at the same time Gulf refineries provide the majority of Asia's refined product imports.

This trade pattern is of great significance and mutual benefit for both the Gulf countries and Asia. Asia has to meet large and growing energy requirements in order to support its rapid economic growth and to improve the standard of living for its large and expanding population.

Where the Gulf countries have enormous, easily extractable reserves and abundant supply potential which can provide the means to satisfy Asia's present and future requirements.

What is equally if not more important is that this interdependence of the two regions is going to grow in the future. Asia will increasingly depend

on the Gulf to supply its oil requirements. The reason for this is the limited reserves in Asia coupled with its growing demand for energy, especially for transportation fuels and feedstocks.

On the other hand Gulf producers will increasingly rely on Asia as its natural market to support planned growth in oil production levels.

In the short term it is expected that demand growth in Asia will exceed planned increases in its refining capacity and that more product imports will be required from the Gulf to support continuing rapid economic growth.

Longer term we expect tightness in product supply and healthy refining margins to support additional refining capacity in Asia. This is an area in which Kuwait would like to become involved and I will say more about this in a moment.

As I said earlier just as security of supply is a key issue for consuming countries, security of demand is one for producers such as Kuwait. Our interest is in long term, secure, stable outlets for our hydrocarbons.

One way to satisfy this long term interest would be for Kuwait to participate in the development of Asia's oil and energy sector by way of investment in joint ventures in the refining and petrochemical sectors, as well as in projects that facilitate and improve logistics to make supplies available more efficiently and economically.

Such projects and associated supply agreements would assist in securing long term supply and, secure outlets for Kuwait hydrocarbons.

### Concluding remarks

In conclusion Asia is the natural market for the Gulf oil and the two regions are becoming increasingly interdependent. The Gulf countries will continue to be the primary supplier of crude and products to the Asian region.

There is tremendous mutual advantage in promoting economic relations and trading opportunities to meet each other's needs.

In particular with the countries of the Indian sub continent Kuwait has long standing commercial

relations. These go back decades if not centuries. Our forefathers used to sail to the vast coastline of the subcontinent and then on to the South East and Far East Asia for trade. We, in the Gulf, therefore, have a good understanding of this ancient world and great civilization, not only of its cultural and social customs, but also of its business and trade dealings.

Kuwait will continue to ensure supply during difficult times and use its resources and flexibility in operations to ensure it.

Development of partnerships between producers and consumers will go a long way to address

mutual concerns about security both of supply and demand. To this end Kuwait is ready to explore potential investments in developing countries such as India for mutual benefit.

As a reliable and trusted supplier Kuwait is ready to fully play its part in meeting the challenges of the future to the mutual benefit of producers and consumers alike.

Ladies and Gentlemen, lets join hands to build a better future for our people and future generation.

Thank you

## A New Asian Energy Identity

by

**Ambassador Arne Walther**

Secretary General, International Energy Forum

For the first time, energy ministers of the principal oil and gas importing and exporting countries in Asia are gathered for informal discussions on a regional basis of an issue of utmost national and international concern - energy security.

The number of countries around the table is not great. But your clout as energy producers and consumers is. You represent more than half of the world's population, the bulk of the World's oil and gas reserves and the greater part of the surging global energy demand expected in the decades ahead.

Asian economies have taken off. The gross domestic products of China, Japan and India are surpassed only by the USA. Few would dispute the vision that the 21st Century is Asia's Century. Asian energy co-operation will be crucial for that vision. Energy co-operation will have wider economic and political consequence in your region as well. The impact will be global.

India has taken an important international initiative in convening this Round table with Kuwait as co-host, in association with the Secretariat of the International Energy Forum. It could well be that we will look back on our discussions today as the gathering that gave a decisive political spark to the development of a new and evolving Asia Energy Identity.

### The need for dialogue

The increase in global energy demand in the years ahead will be substantial. An add-on of almost two-thirds of today's level is foreseen by the year 2030. 85% of that increase will be met by fossil fuels. Most of this increase will come in the developing countries, especially those in Asia, as they industrialise and their economic grow. Total investment of USD 16 trillion are required for the energy supply infrastructure needed to satisfy global demand the next 25 years.

For both energy exporting and importing countries, energy is crucial for economic and social development. Energy is important for commercial and political relations between countries. It fuels the world economy. Production and consumption of energy impact the environment. Energy influences, and is influenced by, international politics. It is difficult, indeed, to imagine an area, where nations are more interdependent than in the confluence of energy, environment and economic development.

### Energy Security

Your discussions of energy security in the Asian regional context today, will no doubt pick upon discussion and shared global perspectives from the IEF Ministerial in Amsterdam in May last year. One might say that energy security is what the producer-consumer dialogue boils down to. Your more detailed discussions, and what your governments choose to operationalise in terms of policy, can feed constructively into the next full IEF Ministerial that Deputy Prime Minister Al-Attiah will host in Doha in 2006.

Energy security is a complex and broad-based issue. It is more than oil, diversification of supplies and energy mix. And it is more than investments, technical arrangements and infrastructure. Because it also has to do with overarching imperatives of economy, politics and the environment. Energy security has domestic and foreign policy implications. It translates into producer-consumer interdependence, where mutual vulnerability and win-win opportunity is the name of the game.

Nowhere could this be more true than in Asia. With energy hungry, growing economies in the East and South. With ample reserves of oil and gas in the West. East and South Asia rely on West

Asia for four out of every five barrels of their imported oil. West Asian nations send two out of every three barrels of their oil exports eastwards and southwards in Asia.

And global energy trade, almost entirely in fossil fuels, is set to expand rapidly. Inter-and intra-regional trade in oil can double in the next 25 years. The mismatch between where these sources of energy are produced and where they are used will increase, linking regions and sub-regions closer together, but also posing new challenges. Vulnerability to disruptions of energy supply, due to politically motivated sabotage or technical mishap, can increase. Maintaining the security of international sea-lanes and pipelines on-and offshore will assume increasing importance for energy security.

There is, of course, no quick and lasting fix to the challenge of global energy security. The cluster of energy security issues must be addressed in on-going dialogue not only between nations at political level, regionally and globally, but also in dialogue and partnerships between government and industry.

## The International Energy Forum

As active participants in the International Energy Forum, you know first hand how unique the IEF is with its global perspective and participation. It gathers the industrialised economies of the IEA, the petroleum exporting countries of OPEC, and, very importantly, energy producing and consuming countries outside these two main producer and consumer organisations, countries such as China and India at this table, that will increasingly impact the global energy scenario. In the IEF, ministers exchange policy views and look for consensus-oriented approaches to energy challenges ahead, across traditional economic, political and energy dividing lines.

A cardinal task for the IEF Secretariat in the months ahead is support host country Qatar, and

co-hosts China and Italy, in preparing for the Doha Ministerial next year. The Secretariat will also help to ensure the continuity of the ministerial level energy dialogue between the biannual meetings by facilitating supportive meetings and roundtables in co-operation with governments and organisations. While our perspective is global, we recognize how key regional co-operation is to global energy security in a multi-polar energy world. The Secretariat has a catalyst role to play in linking regional and inter-regional activities to the global dialogue in the IEF.

In October last year, at the request of the Energy Minister of Russia, we took part in the 4th Russian Oil and Gas Week and held a joint roundtable on Eurasian energy co-operation. Our meeting today will see follow-up in the meeting later this year that ASEAN+3 (China, Japan and Korea) have requested us to facilitate with a larger group of Asian (Middle-East) oil and gas exporting countries.

We are planning for meetings in other regional contexts to be hosted by South Africa and Mexico later this year as well. These meetings, and our meeting today, emanate from proposals by Ministers at the Amsterdam IEF for Secretariat activity leading up to the Doha Ministerial next year.

The Secretariat has been set up to serve your global energy dialogue endeavour in the IEF. The Asian dimensions of this global dialogue can assume only increasing importance in the years ahead. We are looking forward to the findings of this timely, top-level round table and to its follow up. Your conclusions and policies do make a global difference. We are encouraged, Ministers, by your commitment to energy dialogue and co-operation, and by your support, politically and financially, to IEF Secretariat activity. Our mission is to cater to your energy policy priorities.

## Producer-Consumer Dialogue : Global Energy Security

by

**H.E. Bijan Zangeneh**

I.R. Iran's Minister of Petroleum

Excellencies,  
Ladies & Gentlemen,

I would like to begin with expressing appreciation to the organizers of this Roundtable of Asian Ministers on Regional Cooperation in the Oil Economy, especially, HE Mani Shanker Aiyar, Minister of Petroleum and Natural Gas of India, HE Sheikh Ahmad Fahad Al-Ahmad Al-Sabah, Minister of Energy of Kuwait, and Dr. Arne Walther, Secretary General of the International Energy Forum.

I also would like to express sympathy and condolence over the incidence of the recent catastrophic Tsunami and its sad consequences of extensive loss of life and damage in this part of Asia including India and Indonesia. I sympathise with the great nations of India and Indonesia, their respective governments and the survivors of the shocking and tragic calamity.

I am confident that these great nations of Asia backed by their rich histories and cultures will overcome these difficult times.

- In my opinion, the presence of major Asian oil producers and major Asian Consumers in this roundtable in New Delhi, is an indication of the growing importance attached to the need for exchange of views on the critical issue of energy security and stability.

- The Importance of energy security in international debates has grown considerably in recent years. Energy supply security is defined as accessibility of energy carriers, at acceptable prices and with proper observation of environmental considerations.

- This issue has become vitally important for the rapidly growing economies of Asia that are

aiming at the improvement of the living standards of billions of Asians in the coming years.

- Major oil producers have also recognized this fact, and have been supplying a major part of this energy requirement in recent years.

- The consumers' concern of energy supply security, however, should also include the producers' concern for the security of demand.

- Enhanced investment, especially in the upstream sector, has been the top agenda item in global energy programs and policies. The current oil production capacity shortfall, resulting from a lack of adequate long term investments in the past, is the result of challenges that still persist in the oil market. Falling actual oil prices in the last several decades has been among the most important challenges blocking the flow of investments to the major producing countries. Energy policy-makers have neglected the continuous decline in actual prices versus unstable nominal prices, resulting in very low national savings in producing countries especially those of the Middle East, that are facing major challenges such as sharp youth population growth and their inability to invest adequately on their resources which has consequently led to the erosion of the existing surplus production capacity.

- Political stability of producing countries, is the pre-condition for the flow of investments, and Imposition of crisis, from economic sanctions to wars, on major oil

and gas produces can never serve or ensure the global energy supply security.

In recent decades, whenever the issue of energy supply security was brought up, the ongoing producer-consumer dialogue has usually come up with the expansion of cooperation of IOCs as the practical agents of the major consumers, namely Europe and the US, and major NOCs as owners of oil and gas resources.

IOCs as holders of capital and technology (including management) have always expect more attractive conditions from oil and gas rich countries, as a pre-requisite for their operations.

Now in the early years of the 21st century, there is no doubt that both the energy consumption geography and its related technological structure are basically changing. With the emergence of Asian giant consumers, Asia is set to become the gravity center of the world's energy consumption.

Within the framework of this changing pattern, attention has to be paid to several important points:

First, Asia's energy demand growth rate, is highest in the world. And interestingly, Asia includes the world's largest oil reserves.

Asian countries, specially the rapidly growing economies of the region, like China and India are in need of a long term energy supply security.

Oil producing countries, on the other hand, are concerned about the demand security. This is where an Asian interdependence may best serve the interests of all parties that are concerned about energy supply and demand, in the long run.

Secondly, top ranking and major International oil companies are not the commercial agents of this group of consumers like China, Japan, South-Korea and others.

Thirdly, the major Asian energy consumers do not hold the required international qualifications for upstream oil operations, yet they are capable of meeting the financial needs of developing petroleum resources of the main producing countries.

In some cases, They even have the required contractorship and equipment manufacturing capabilities.

The said points demonstrate the necessity of a structural interdependence of Asia's major energy consumers and producers and their interests.

Expansion of cooperation of major Asian producers with oil and service companies in the region will strengthen regional interests, and will lead to profound economic ties in this continent.

The establishment of financial institutionals like an Asian Bank for Energy Development, can effectively back-up energy projects.

Creating a win-win structure is, very naturally, one of the pre-conditions for a long term and sustainable cooperation.

The structure should be devised in such a way that the price of energy supplies from Asian producers-that are mainly in the Persian Gulf-region-for Asian consumers, will be lower than the price charged by other producers. At the same time, it should encourage Asian producers to produce their oil and gas for Asian consumer destinations, as an economic priority.

Your excellencies, on the "stability" and towards "the Asian Maker Crude" and petroleum exchange, we welcome the offer for a sustained dialogue and support it.

Measures for "security" is, however, more sophisticated and complicated.

Although joint storage and reciprocal investment, do help in this respect, Production capacity

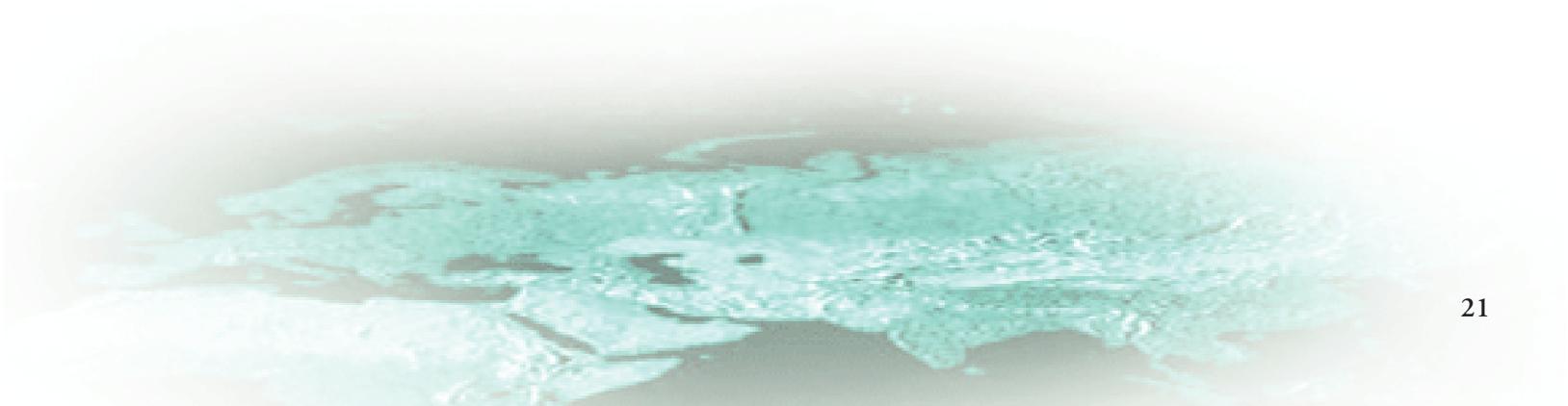
expansion proportionate with oil and gas resources and the unhindered market behavior from investment to consumption, should be guaranteed.

This requires multi dimensional actions by our governments as a major issue that has to be address by the IEF Secretariat.

- I would like to conclude my remarks by saying that within the context of

international synergy, Iran's oil and gas production capacity has to be developed, to meet the growing future supply needs of the world. However, only through a better understanding and recognition of the opportunities and realities of Iran, we will be able to prepare the grounds for a constructive cooperation.

Thank you for the attention



## Sustainable and Flexible Energy (SAFE) System

H.E. Shoichi NAKAGAWA

Minister of Economy, Trade and Industry, JAPAN

First of all, I would like to express my heartfelt condolence on the tragic losses of many lives caused by the great tidal waves in past December. Japan is a country that has experienced many earthquakes and tsunami, and we are determined to do everything we can for the rehabilitation of the regions and people who suffered from this disaster as soon as possible.

I would like to express my deep gratitude and appreciation, both to H.E. Aiyar, Minister of Petroleum & Natural Gas of the Government of India, for hosting this splendid conference in the beautiful and historical city of New Delhi, and to H.E. Al-Ibrahim, Special Economic Advisor to Prime Minister of the Government of Kuwait, for co-chairing this conference. At the 9th IEF meeting in Amsterdam in May 2004, I noted the importance of regional cooperation, and proposed facilitation of a dialogue between Asian countries and the Middle East producers. It is extremely valuable for energy ministers of oil and gas producing and concerning countries of Asia to sit at the same table, and to exchange views on various energy-related issues.

(Mega-consumers; and mega-producers in Asian and Middle Eastern region)

Energy supply and demand is volatile by nature. In particular, supply of hydrocarbon comes from natural resources, and involves factors that contribute to volatility, such as the volume of oil reserves, the capacity of production facilities, weather, and the geopolitical situation. Demand is connected to economic activities of industries and consumers, and is influenced by economic growth, economic cycles, seasonal factors and geopolitical risk as well as security of transportation routes.

Currently, about 60% of Middle East crude oil exports go to Asian consumer countries, and this accounts for about 70% of Asian crude oil imports. World energy demand is predicted to

grow and become 1.6 times larger in 2030 than it is today. In particular, energy demand will increase substantially in the Asian region, including China, which accounts for one half of the world population and is undergoing remarkable economic development. On the supply side, oil, natural gas, and coal will remain the primary energy sources. The Asian consumer countries, in particular, will depend much more on oil imported from the Middle East and Middle Eastern countries will become increasingly interdependent as mega-consumers and mega-producers.

(Sustainable and Flexible Energy (SAFE) System)

This past October, Japan published a report on medium-to long-term energy strategy towards 2030. The report focuses on various energy policies, including energy conservation, diversification of energy supplies including greater use of natural gas and promotion of nuclear power generation, solar energy, biomass, waste use, and fuel cell research. The 2005 Aichi Exposition which will be held in Aichi prefecture from March will be a large scale demonstration of these technologies. As a major consumer country in the Asian region, Japan will contribute to the implementation of these energy policies in accordance with the report.

It is crucial to ensure long-term energy security in Asia and Middle East, by which I mean to say we need a stable supply at a reasonable cost, and in an environmentally-friendly manner. Today, I would like to propose the establishment of the "Sustainable and Flexible System," or SAFE System. as a core energy policy for this region. The "SAFE System," is flexible enough to accommodate volatility in the market and at the same time is very sustainable. For this reason, I would like to propose that we promote the use of new energy sources, energy conservation, environment protection and other new technologies. and also cooperate in stockpiling.

It is only through partnership between producers and consumers that the SAFE System will fully function. Now I would like to discuss measures to be taken by consumers and producers individually, as well as joint measures to be implemented by both sides.

(I. Measures by consumers)

First, I would like to point out two measures to be taken by consumer countries.

(Facilitation of energy conservation and environmental protection)

The first measure focuses on facilitating energy conservation in order to use our precious fossil-fuels in a more efficient manner. Energy conservation will also help us solve environmental issues.

After experiencing two oil crises in the 1970s, Japanese industry made enormous efforts in the area of saving energy, and achieved substantial energy conservation. The total primary energy supply per GDP today in Japan is 0.09 tonnes of oil equivalent per thousand US dollars (toe/ thousand US\$), which is half the average of OECD countries, and a third of the world average. Energy consumption in the industrial sector in Japan has hardly changed from the levels thirty years ago when we had the first oil crisis. Japan is currently preparing amendments to the Law concerning the Rational Use of Energy, in order to promote further energy conservation efforts in the transportation sector and by consumers, and also provide for the overall enforcement of energy conservation measures.

In the fields of environmental protection and energy conservation, breakthroughs resulting from advanced technology are key. With its advanced technologies and expertise, Japan is ready to provide such resources through technological cooperation and economic relations to contribute to actions against global warming in the Asian and Middle Eastern region.

(Implementation and enhancement of oil stockpiling)

The second measure is the implementing and encompassment of oil stockpiling. Even with energy conservation efforts, we will depend much more on oil and natural gas in the future.

Therefore while we look to producing countries to provide a sufficient energy supply, for consuming countries the creation and maintenance of oil stockpiles is a crucial action in the context of energy security, in order to be prepared for large unexpected fluctuations in supply disruptions. Currently, Japan holds 173 days ' worth of oil, including government and industry stocks. India and China are preparing to start national oil stockpiling projects, and with the projected increases in energy demand, it is critical for Asian countries to implement and reinforce their own oil stockpiling system. Japan has experience and expertise in this field, and is now cooperating with ASEAN countries to conduct feasibility studies related to oil stockpiling system, based on my proposal at the ASEAN+3 Energy Ministers Meeting in Manila last June.

(2. Measures by producers)

Next, I expect the following two important measures to be implemented by producer countries.

(Provide sufficient energy to meet growing demand)

First, I expect the producer countries to carefully analyze market conditions, and ensure a sufficient supply of oil and gas to meet growing demand. Last year we noticed that even slight changes in the supply and demand balance could lead to drastic price fluctuations, due to very limited spare production capacity. I believe that producer countries will continue the responsible actions they took last year in response to surging oil prices, and contribute to a stable world oil market.

(Increase investment in upstream facilities)

For the second measure and from the medium-to long-term perspective, I would like to point out the importance of increased investment in upstream facilities. It is predicted that production facilities will not keep pace with the substantial

increase in energy demand, even though we have abundant energy resources. Investment in upstream facilities is becoming more costly, because areas with exploration potential are now found in more technically challenging areas, such as deep underground. Investors also have to face numerous risks, including the geological risk of not finding sufficient oil resources, and geopolitical risk. Furthermore, there are still many barriers that discourage foreign direct investment, such as non-transparent legal systems, and insufficient legal protection for foreign investors. As investment activities are based on economic rationality in the private sector, it is important for producer countries to create an environment where investment in upstream facilities can be done smoothly and comfortably.

(3. Joint measures to be implemented by both consumers and producers)

(Deepening economic ties via trade and investment)

Measures taken by consumers and producers must move forward based on a strong partnership between the two sides.

For example, energy conservation measures need to be implemented not only in the consumer countries, but also in producer countries with abundant energy resources, taking into account of their growing populations and economies.

We can also maximize the results of upstream investment in producer countries by fully utilizing the advanced technologies available in consumer countries.

Moreover, technologies related to natural gas, such as GTL (gas-to-liquid) and DME (dimethyl ether) have to be developed via cooperative efforts between the producing countries, which have the resources, and the consuming countries, which hold the necessary technology.

Japan is ready to contribute in these areas, through technology development in drilling oil and gas, technology cooperation, and the exchange of human resources between consuming countries and producing countries.

For consumer countries in Asia, geopolitical stability and reliable energy supply in the producing region is indispensable. At the same time, for countries in the producing areas, economic growth in the Asian consumer countries is crucial. Therefore, we must view reciprocal economic developments in both regions as our goal. To this end, the consumers and producers in Asian and Middle Eastern region should further expand economic ties in various fields, through greater trade and investment activities.

(Development of oil markets in Asian consumer countries)

The next important joint action is to further develop oil markets in Asian consumer countries. It is said that oil prices in Asian consumer countries are not formulated in a competitive environment, and therefore an "Asia Premium" is included in the price. This is partly because the Asian region depends so heavily on the Middle East for its oil supply. Recently we are witnessing a reversed situation, where oil prices in the US and Europe are higher than those in Asia. Nevertheless, we have a strong need to develop a pricing mechanism that correctly reflects the supply-demand balance in the Asian region.

It is frequently pointed out that speculation has pushed up oil prices. In order to have correct pricing, it is crucial to have accurate and real-time market data which is freely available to the public. Currently, 6 international institutions including APEC, the IEA and OPEC are collaborating on the Joint Oil Data Initiative, now known as "JODI". 93 countries, accounting for more than 90% of world oil production, have already joined the initiative. The IEF Secretariat in Riyadh is now preparing to take the role of coordinator. Japan will continue to encourage countries that have not yet joined to participate in the initiative, and will also support the development of the initiative including technical support.

Moreover, I would like to reiterate that sufficient spare capacity in the oil producing countries is extremely important in order to create a stable oil market in Asian consumer countries.

(Closing)

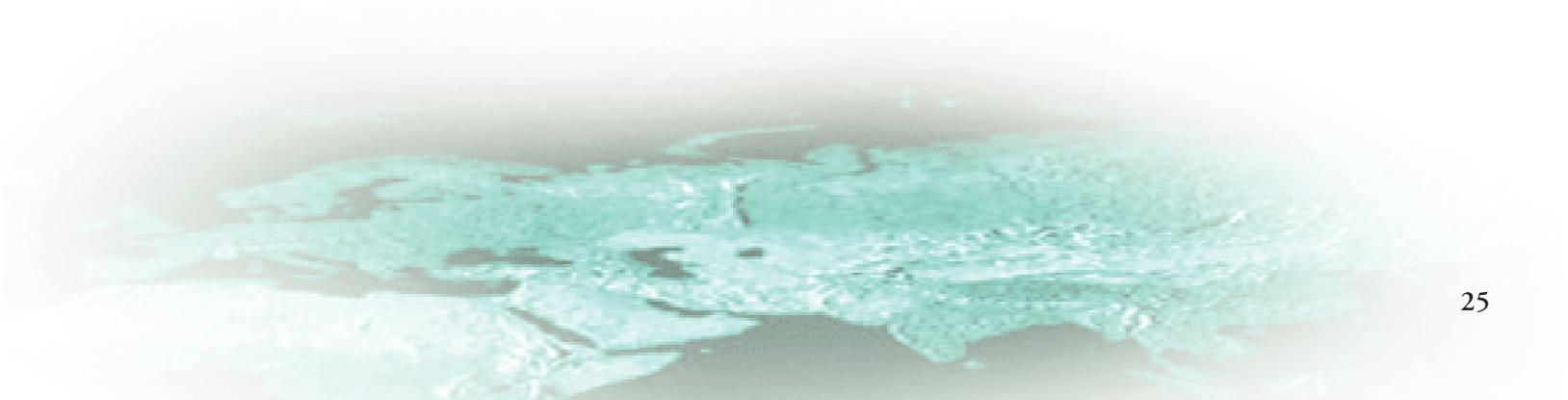
Back in history, the “Silk Road” and “Spice Road” connected Asia and the Middle East. Although the phrase itself originates in a European point of view, these roads brought us economic and cultural prosperity. In Japan, handicrafts including beautiful cut glasses and other cultural riches were important from India and the Middle East, and can be seen in our museums today. Since the 20th century, the “Oil Road” has connected our two regions. Massive oil tankers, not camel caravans, continuously go back and forth, carrying the crucial energy that makes our affluent life-style possible. I sincerely hope that this road will broaden and expand through stronger economic ties, and will foster mutually beneficial economic development in both the Asian and Middle Eastern regions.

Let me stress once again that today energy related issues have evolved from a one-on-one

bilateral relationship between producer and consumer countries to a relationship involving the whole region of producers and consumers and a matter bearing on the future of this earth. We, friends that live here together in Asia, need to share this understanding.

I am confident that today's roundtable will contribute to a closer relationship among consumers and producers in Asia, and thereby bring us greater energy security and sustainable prosperity. In this context, Japan has proposed the “Asian Energy Partnership”, at the ASEAN+3 Energy Ministers Meeting last year. We will make every effort to enhance energy security in the Asian region. I look forward to taking the results of today's informative discussions back to Tokyo, and further refining and developing the producer-consumer dialogue in connection with various channels including the IEF.

Thank you for your attention.



# Sustainable and Flexible Energy “SAFE” System

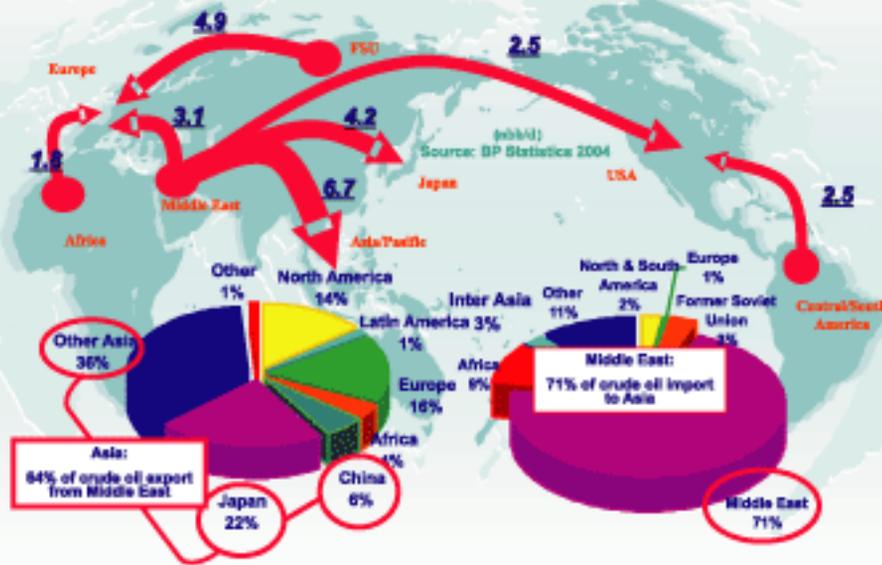
**Shoichi NAKAGAWA**  
Minister of Economy, Trade and Industry  
JAPAN

January 6, 2005  
Round Table Conference at New Delhi

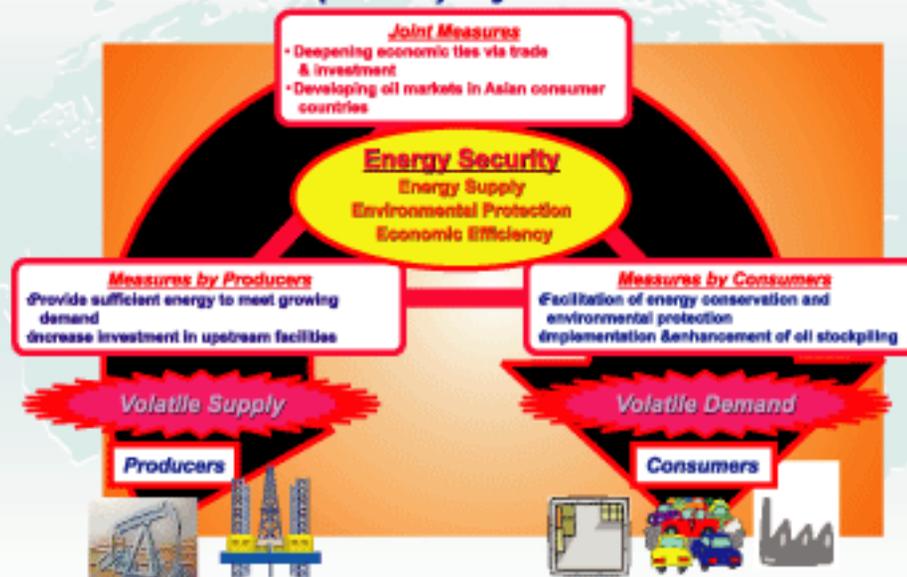
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- Measures by Consumers
- Measures by Producers
- Joint Measures by Producers / Consumers

## Mega Consumers & Mega Producers in Asian & Middle Eastern Region



## Sustainable and Flexible Energy (SAFE) System



## Measures by Consumers

- Facilitation of energy conservation & environmental protection
  - Japan will introduce further energy conservation measures (amendments to laws).
  - Breakthroughs from advanced technologies are crucial.
- Implementation & enhancement of oil stockpiling
  - Japan cooperates with Asian feasibility studies.

## Measures by Producers

- Provide sufficient energy supply to meet growing demand
  - Limited spare capacity: slight change in supply/demand balance => major price fluctuation.
  - Responsible action by producer countries is needed.
- Increase investment in upstream facilities
  - Production facilities < increasing energy demand
  - “Investment-friendly” environment is needed.

## Joint Measures by Producers & Consumers

- Deepening economic ties via trade & investment
  - Cooperation is needed between consumer / producer countries in the fields of energy conservation, upstream investment and utilizing natural gas.
  - Japan will contribute to technology development & cooperation, as well as exchange of human resources.
  - Consumer / producer countries should deepen economic ties to promote reciprocal economic development.
- Developing oil markets in Asian consumer countries
  - Need development of pricing mechanisms that correctly reflect the supply-demand balance.
  - Improving transparency of statistical data via JODI.

**धन्यवाद**  
**Thank You**

## Opening Remarks

by

### H.E. Dato' Mustapa Mohamed

Minister in the Prime Minister's Department of Malaysia

Hon'ble Chairman  
Shri Mani Shankar Aiyar  
Minister of Petroleum and Natural Gas of India

Honorable Ministers,  
Excellencies,  
Distinguished Delegates,  
Ladies and Gentlemen

I wish to express my deep appreciation to the Government of India for the warm welcome and the generous hospitality extended to my delegation. My sincere thanks, in particular to the Honorable Chairman, for co-hosting this Round Table of Asian Ministers in this historical city of New Delhi. I agree with you Sir that this is a historic meeting.

India has gone through a remarkable transformation. India has a bright future ahead. Its demand for oil big and growing. New Delhi is therefore an appropriate venue for this Roundtable Meeting.

Distinguished Delegates,  
Ladies and Gentlemen,

Allow me also to take this opportunity to express my country's condolences to those families who had lost their loved ones in the recent calamity. I note with humble respect that India, although has suffered great loss of lives, is extending much needed assistance to its neighbours. Malaysia was also affected by the Tsunami but we will do what we can within our means to assist countries worst affected.

The lesson for us is that Humans are by nature resourceful and will strive to survive in any crisis, caused by forces of nature of man-made and would create a better future. We note the considerable goodwill and commitments shown

by Governments, international agencies, NGOs, in the ongoing meeting in Jakarta to enable the speedy reconstruction of Indonesia, Sri Lanka and other affected countries.

In the same cooperative spirit, we are gathered here today to find practical solutions to issues relating to stability, security and sustainability of energy supply that would help to promote our goal to bring about sustainable development of our economies. The recent high oil price had impacted many of the Asian economies, although its effects are different for different countries. The spike nevertheless caused great concerns on the economic well-being of many net oil importing countries and prompted them to look for ways in mitigating the adverse impact.

Although Malaysia is a net oil exporter, the recent steep increase in the price of oil has resulted in several Government initiatives including looking into alternative fuels and implement measures to enhance fuel efficiency and at the same time try to reduce the dependence on oil as a primary energy source.

Looking at the global energy demand, oil and gas have been important sources of energy. These energy resources are depletable assets. For oil to remain a sustainable source of energy, adequate investments must be made to find new oil and gas resources, to add new oil production capacity to meet the growing demand, especially in Asia. If the demand for oil grow faster than the ability to supply, oil prices will increase as the market becomes tighter, creating a "scarcity premium" as we experienced recently.

In this regard, we all recognize that West Asia is indeed very strategic to the interests of the world energy supply. West Asia has more than

60% of the proven world oil reserves and more than 40% of the proven world gas reserves. Oil reserve replenishment outside West Asia and Russia, is on a declining trend. Asia has been primarily dependent on the oil supply from West Asia. Increasingly, the consuming countries in Asia will be more and more dependent on the secure supply of oil and gas from West Asia for sustainable economic growth if there are no new oil and gas discoveries made in the region.

Additionally, geo-political stability, economic prosperity and security of oil supply are increasingly very closely inter-related. Although there have been many geo-political hotspots and tensions around the globe, the tensions in West Asia have caused greater fears over oil supply disruption and the security of supply particularly among the major consuming countries.

On the demand side, energy must be utilized more efficiently. Technological innovations should be encouraged while energy conservation policy must be introduced and adhered to. The objective is to ensure that the consumers are not too hard hit during the energy supply disruptions. In addition, the infrastructure for energy supply needs to be continually upgraded and developed. This capital-intensive infrastructure require large investments. To ensure fair returns on investments, appropriate regulatory framework should be in place. Incentives may need to be granted to attract investment for infrastructure development.

Energy security is one of the most important themes of this Round Table Meeting. We are gratified that there is increasing recognition of the need for greater cooperation; cooperation to ensure greater access to adequate, reliable and cost-effective energy supply to achieve economic, social and environmental objectives.

More importantly at this Meeting, we are able to bring together key oil producing and consuming countries in Asia to address in a more focused manner energy security issues relating to Asia. Hopefully there will be more regular meetings to promote dialogue and regional cooperation that could be subsequently translated into concrete plans of action to further enhance energy security, and greater cooperation between oil producing and consuming countries.

In addition, in my view, this dialogue and cooperation should be promoted amongst key industry players of both producing and consuming countries in Asia to implement the various energy security initiatives and strengthen the regional Asia collaboration and cooperation through business joint ventures and strategic alliances.

Various choices and strategic options on energy security initiatives could be identified at this Roundtable to be pursued collectively by interested countries such as emergency preparedness measures, oil stockpiling for net oil importing countries, energy diversification and substitution, energy efficiency as well as conservation programs. There could be new initiatives to create value and 'win-win' relationship such as new business development, joint ventures that could be undertaken to further enhance security of supply and promote sustainable socio-economic development in Asia.

Distinguished Delegates,  
Ladies and Gentlemen,

Malaysia is actively participating in regional cooperation in oil and gas in ASEAN, ASEAN+3 and other international fora. We have established bilateral cooperation and business ventures in 35 countries in both upstream and downstream activities of the oil and gas industry. We are prepared to further extend this cooperation and mutual investment

to explore new sources of oil and gas supply to further enhance energy security. The business community should also forge cooperation to jointly undertake investments in exploration and production activities to replenish regional oil and gas consumption and to meet growing energy demand.

The forum is very timely to forge greater regional cooperation in addressing issues relating to stability, security, exchange of information and knowledge to reduce uncertainties and inefficiencies in the oil and

gas industry. In this regard, Malaysia supports sustained dialogues to meet and discuss issues of common concern to Asian producers and consumers of oil and hopefully seek an Asian consensus in these issues.

In conclusion, once again I would like to take this opportunity to thank the Honorable Shri Mani Shankar Aiyar, Minister of Petroleum and Natural Gas of India for initiating this historic Roundtable, the excellent arrangements and the gracious hospitality showered upon us by our host.

## Regional Cooperation : Key to Energy Security

**H.E. Dr. Mohammed bin Hamad Bin Saif Al Ruhmi**

Minister of Oil & Gas, Oman

Honorable Chairman, Minister (Shri Mani Shankar Aiyar), Your Excellencies, Colleagues and friends.

I will like first and foremost to express my sincere and heartfelt condolences to the government and people of India for the loss of life and destruction caused by Tsunami. I extend similar feelings of sorry to all other victims particularly in Sri Lanka, Indonesia, Thailand, Maldives and other nations that suffered this unfortunate disaster.

Secondly, may I extend my gratitude and thanks to you Mr. Chairman, & your govt., for hosting this important get together to discuss this very important subject of energy security in our region. I am sure all of us who are here today are very impressed with the organization and the warm welcome we have received; but then again Indian hospitality is well known to many of us. Thank you Mr. Chairman and to all of you who have worked hard to bring us together today, particularly in these difficult days.

Mr. Chairman, the very fact that you managed to bring us together, us from energy exporting countries of West Asia to the consuming nations from India all the way to China, Japan and Korea is in itself a positive statement toward achieving Regional Cooperation. The common issues raised by distinguished speakers, so far, demonstrate and is a living proof that our thoughts are common, our understanding of issues are mutual and shared by all of us. The challenge now is to merge our actions on the ground where it matters. For too long in our recent energy history, there has been tug of war between consumers & exporters. Consumers tries to introduce measures to push price down and exporters do the opposite. This is not sustainable and actions on understanding is needed between the 2 sides. There are many challenges that our region faces in this important area of energy. We in the producing and

exporting side of this equation are concern when comes to security of Demand. We need large investment now and in coming years to sustain a steady flow of production in both Oil and Gas. Large investment in Energy development project needs cooperation not only on regional scale but also on global scale too. Figures mentioned in investment requirements runs into hundred of billion of dollars if not more, as mentioned by you, Mr. Chairman.

Recent history have taught us many lessons which the current prices or economics of this business ensure that we do not become complacency and forget the painful lessons of cyclic trends – or to put it bluntly there are bad cycle as well as good ones and even the young among us remembers. Having said all this, I do acknowledge that Cooperation is indeed a way forward when all embrace it in good faith, hence our presence here.

In addition to supply / demand issues, we have to face many other factors such as currency fluctuation, political and security issues, commodities prices (such as steel) and the list keeps on growing... all these are difficulties and challenges that influences in one way or another security of supply and indeed security of demand.

Having listed some of the challenges, let me highlight achievements towards better cooperation and understanding between exporters and consumers; specifically in our field of energy.

In recent years we have seen investments crisscrossing between producers and consumers. In Oman, for example, we have Korean, Japanese, Chinese investors in our energy related projects – indeed in both oil and gas projects. Entities from Oman have invested or on the verge of investing in energy related projects in both Korea, Japan and Thailand and we are currently looking at

investments in other projects in Asia and beyond. In addition, we are always ready to discuss investing in Energy related projects in these and other Asian countries as well as extending welcome to all Asian countries to come and invest in Oman. It is these cross nations investment and links that will guarantee security of both supply and demand. I am sure this is not unique to Oman only. Investment or indeed investments between producers and consumers is ever growing in Asia. Perhaps, if I may we should promote more of it and make it

easier and more attractive between nations of our region.

Mr. Chairman, once again, I thank you and your government for hosting this important gathering to discuss cooperation in our region and I am sure efforts such as these will enhance a better understanding among us all particularly **in this very important subject of energy.**

**I Thank You All.**

## Regional Co-operation : Key to Energy Security

by

**H.E. Abdulla Bin Hamad Al-Attiyah**

Second Deputy Premier and Minister of Energy & Industry  
State of Qatar

Mr. Chairman

Excellencies, Ladies and Gentlemen

Good morning,

May I start with expressing our condolences to the people and government of India and all the countries of South East Asia for the tragic losses they suffered as a result of the recent natural disasters in the area.

I would like to thank our host and co-host for giving us this opportunity to exchange views on issues so vital for our present and future generations. We in Qatar, in the light of our national and regional energy interests, consider dialogue of this nature very helpful for policy and planning decisions. There are two main issues that can be considered as the challenges for energy security in the future. One is related to supply and demand and the other relates to the environment, climate change and global warming attributed to greenhouse gases.

We cannot have economic growth without increasing energy use and we do not have, as yet, the technical solutions that will allow us to have more energy without carbon dioxide.

Besides coal; oil and natural gas will continue to be the main sources of energy, simply because they are the least expensive and most flexible. The demand for energy will continue to grow mainly due to the increase in population numbers and general spread of prosperity especially in China, India and parts of Latin America.

Over the past thirty years, each 1% annual growth in GDP translated into 0.65% growth in primary energy consumption.

However in 2003 and 2004 the growth in demand for oil has been so strong that, for first time in 30 years, growth in oil demand almost matched the growth of GDP. Recently China's

economy was often mentioned as a key factor in the strong growth in world oil demand and recent high prices for crude oil and petroleum products.

Let us now examine the case of China, which has become the second biggest consumer of oil products after the U.S. and rapidly gaining on Japan in total net crude oil imports. It is a good example of demand growth linkage to GDP and the spread of prosperity.

China's GDP per capita reached 1000 U.S. dollars in 2003, a level which generally triggers marked increase in travel by bus, car and aeroplane. Car Sales jumped from 222 thousands in 1999 to over 4 million in 2003 and recorded a further rise of 30 percent during the first half of 2004.

In 2004 demand growth was 23 percent for gasoline and 34 percent for jet fuel.

Demand for electricity is increasing at over 10% per year and electricity blackouts are causing additional petroleum product demand for generators in factories and households.

Because of the growth of heavy industries and capital goods manufacturing as well as the improved standards of living, the expected increase in energy demand in China, and for that matter India, will increasingly dominate the global energy scene.

If we were to add the demand of Japan and Korea, the other two main economies in the East, makes Asia needing an ever-increasing share of the global energy pool.

While there is no foreseeable worry about energy supplies for a few decades to come; but the fact that supply is not co-located with demand, might represent some challenge for energy security.

The major consuming regions will, irrespective of their efforts to diversify their supply sources, will

still need to import substantial volumes of oil and gas from distant suppliers.

This increased dependence on distant suppliers make us need to focus on international trade as well as security of supply and the consequences and implications of political and strategic agendas.

If we were to examine some aspects of today's global energy scene we find many issue that deserve analysis and discussion. The fear factor, which had more than its fair share of media time, is related to possible problems in some of the main producing areas.

This factor will remain with us as long as spare production capacities remain low.

Today's spare oil production capacities are the lowest in twenty years and are in fact total less than the production capacities of several individual produces, This means that the loss of the production of any of these producers will create a shortage in supply and higher prices.

Therefore the solution is increasing the global production capacity. With decreased chances of new major discoveries outside the OPEC member countries then most of the increases must come from the OPEC area and mainly the middle East where most of the proven reserves are.

New capacities mean extensive investments. OPEC producers, and for that matter all oil producers, are aware that increased spare capacities, if not controlled, will mean lower prices and no net gain.

Many OPEC producers are under increasing pressure to invest in improving the standard of living of their large youthful populations and in diversifying their economies away from oil. The

incentive for investing in additional capacities, with the risk of lowering price, is not strong.

They always mention the 1980s when more than half their capacities were left idle waiting for demand to grow.

Therefore, it is obvious that resource holders and consumers must come to an arrangement where both sides feel secure and protected.

While consumers seek security of supply, suppliers seek security of demand to justify investing in new capacities.

In short it is a question of cooperation and mutual trust. A possible solution might be the establishment of an oil/ product Chain similar to that in LNG ventures where there is reciprocal investment locking production and consumption.

As always the global energy industry is trying hard to prepare for the challenges ahead but unfortunately some residuals of the past are hindering the moves towards increased transparency and full cooperation between producers and consumers.

We hope that developments on the dialogue front in the International Energy Forum will help in removing the obstacles and pave the way towards mutual understanding, respect and cooperation for a world with a real security of energy supply to all consumers.

In my capacity as Host Minister of the 10th International Energy Forum and its ministerial meetings that will take place in Doha in April 2006, I welcome this regional meeting as part of our efforts to promote global dialogue towards transparency, stability of markets and energy security.

Thank you for your attention.

## Fundamentals of the Saudi Petroleum Relationship with Asia

by

**H.E. Ali I. Al-Naimi**

Minister of Petroleum and Mineral Resources  
Kingdom of Saudi Arabia

Let me begin by expressing my appreciation to the Indian government, and in particular H.E. Mr. Mani Shankar Aiyar, Minister of Petroleum and Natural Gas, for organizing this well-timed conference and inviting me to participate. I would also like to express my deep condolences to the people and Government of India and other nations for the tragic loss of lives resulting from the Tsunami.

I believe it is both important and helpful for us to meet in forums such as this and engage in frank, constructive dialogue. I am very grateful and privileged to be here to share the Saudi Arabian perspective with members of this distinguished gathering.

Ladies and Gentlemen, we all know that Asia has been and will continue to be a high petroleum demand growth area. Its share of global petroleum consumption has grown over the years and is forecast to continue growing. Development of the Asian economies and the high rates of growth in GDP require more energy. As a result, the importance of petroleum has increased dramatically.

We also know that currently much of the petroleum production of the Gulf countries, including that of Saudi Arabia, is exported to Asia. It is also clear that for the foreseeable future, Asia will continue to rely on petroleum imports from the Gulf countries. As a result, I believe the importance of petroleum interdependence between Asia and Gulf countries cannot be over-emphasized. Alternatives to Gulf petroleum are untried, which makes them riskier, and less economic, and as you all know, we operate in a single global market with price being the most important factor in the equation. Moreover, diversification of supply sources offers no protection from price volatility.

The Gulf region, Saudi Arabia in particular, is the most important factor in the global

petroleum market. The interdependence between Asia and the Gulf States is strong and requires sustained efforts to achieve a degree of strategic alliance, integration and development of reciprocal interests in the area of petroleum as well as other economic areas. Saudi Arabia recognizes petroleum as a common bond linking us with the importing countries of Asia. We also recognize that this bond is vitally important to the welfare and economic development of both sides.

Ladies and Gentlemen; today, I would like to share with you the fundamentals of the Saudi petroleum relationship with our partners in Asia. In general, these fundamentals consist of the following principles:

First : Moderation : Saudi Arabia believes in maintaining a balance between extremism and negligence. We have been and will always be ready to listen and negotiate under the principle of fairness and allowing no harm to either our partners or ourselves when adopting a petroleum policy or negotiating mutual interests with others.

Saudi Arabia believes in dialogue, and has historically played an important role in creating and maintaining fruitful dialogue between petroleum producers and consumers. This has helped the world avoid major energy crises, and has helped keep the prices of petroleum at acceptable levels. Yet we believe that such dialogue must be ongoing and should not be limited to times of crises. Moreover, we believe that dialogue should include a wide range of bilateral as well as multinational issues.

On the bilateral level, we have many joint economic and petroleum commissions comprised of representatives from both the consuming and producing countries. These commissions work to foster deeper relationships between the parties.

On the multinational level, Saudi Arabia is working to build stronger relationships and

commitments between all parties in the field of petroleum, including related international organizations. In this regard, Saudi Arabia proposed the creation of a Secretariat for the International Energy Forum to cultivate better relationships between energy producers, consumers and other interests.

We are pleased that the Secretariat has been established, and we are honored to host it in Riyadh. We are certain that the IEF Secretariat is on the right path to achieve its objectives and responsibilities, and will set the stage for the continuation of moderate and fruitful dialogue between all parties. The basis of these relationships is and will remain mutual understanding and respect for everyone's viewpoint. We sincerely thank you for your participation in and support for the Secretariat and the Forum.

The second principal of our petroleum policy is the security of international petroleum supplies. Commitment to our petroleum customers especially Asia is a fundamental feature of the Saudi petroleum policy. We serve three major consuming regions: North America, Europe, and Asia. To meet the needs of our customers, we have been producing about 9.5 million barrels per day throughout the second half of 2004, and could produce more on short notice.

Asia has become our number one customer. Today, we ship more than (4.5) million barrels of petroleum per day to Asia, or about 60 percent of our exports. This is about 20 percent of Asia's current petroleum consumption. We are fully committed to all our customers, and in particular Asia, and believe the record shows that no other producing country has gone as far as Saudi Arabia in serving its customers and shoring up weaknesses in the market.

We have a solid track record as a responsible and reliable energy supplier. I would like to assure our customers in Asia that Saudi Arabia is both capable of and committed to meeting the petroleum needs of its Asian partners. We are dedicated to maintaining spare production capacity in the range of 1.5-2 million barrels per

day to meet additional demand should the need arise.

We closely monitor the growth of petroleum demand in Asia to anticipate future needs, so we can meet them without delay. At the same time, we watch closely the growth in future world demand and the fluctuations in supply to maintain a suitable spare production capacity.

We know that recently there have been attempts to create doubts about the future ability of Saudi Arabia to maintain reliable delivery of petroleum. They have been and will continue to be proven wrong. The customers of Saudi petroleum have acknowledged this and have indicated that no other producer can replace Saudi Arabia in filling this role. We have been referred as the central bankers of the petroleum world, and we take that role seriously.

Saudi Arabia is pledged to absolute reliability in times of scarcity and in times of abundance, and we will not misunderstand of this sort to affect our relationships.

The third principal is stability of the global petroleum market: Saudi Arabia has always come forward to fulfill global petroleum requirements under both normal and extreme conditions, making sure that prices stay at a reasonable level and that supply meets demand at all times. We work to achieve such stability in the world petroleum market through close cooperation with our fellow OPEC members and other major producers. Market stability cannot be achieved without close cooperation between all oil producers.

Cooperation has played an important and positive role in maintaining the stability of the international petroleum market over the years. Saudi Arabia in particular, and OPEC in general, played an important role in avoiding the negative impact of the energy difficulties of recent years.

Saudi Arabia has proven that it is committed to the stability of the world petroleum market and to maintaining prices that do no harm global economic growth. With the world's largest petroleum reserves and production capacity, Saudi

Arabia has always been prepared to help meet the world's energy needs. OPEC and Saudi Arabia in particular have increased production over the past two years and this has prevented prices from spiraling out of control.

The fourth principal is Downstream Joint Partnership: Saudi Arabia is the largest producer and exporter to the largest consuming continent. We feel that an interdependent petroleum relationship requires strategic partnership. That is to say, there is a need to cement our petroleum linkage by making it more durable through increased interdependency, and additional reciprocal benefits.

Over the last 15 years, Saudi Arabia has invested in the refining and marketing sector of several Asian countries. The aim has been to ensure continuity of petroleum supplies to those countries as well as to ensure continuity of demand.

Restructuring of the industry in some Asian countries has brought more opportunities for joint investment in downstream activities. These include South Korea, the Philippines, China and Japan. Such partnerships provide these countries with reliable, timely delivery of products that meet the requirements of their markets as well as other benefits.

For instance, when Saudi Arabia invested in S-Oil Refining Company of South Korea fourteen years ago, the company was about (180) thousand barrels per day. Since partnering with Saudi Aramco, its capacity stands today at more than 550 thousand barrels per day.

In the Philippines, the joint venture, Petron is performing better because of new programs made possible through Saudi investment. Petron is now running at about (180) thousand barrels per day compared to about (120) thousand barrels per day a few years ago.

Last year Saudi Aramco signed an agreement with Sumitomo Chemical of Japan to up grade and build a large refining and petrochemical complex on the west coast of Saudi Arabia. The value of this project is about (4.3) billion dollars. When

finished, this refining and petrochemical complex is expected to be one of the most competitive in the world. Additionally, Saudi Aramco became a partner in Showa Shell Sekiyu Co. by buying about (15) percent of Shell's stocks in this company. This makes Saudi Aramco the second largest shareholder in the company. Like all Saudi Aramco joint ventures this will ensure crude supply to Showa Shell at all times. We are certain that this deal will lead to strengthening Showa Shell's competitive position in the local market and increasing its production capacity.

Moreover, Saudi Aramco is a partner in a new multi billion dollar refining, marketing and petrochemical project in Fujian Province, in Southeast China, holding a (25) percent stake with Sinopec and ExxonMobil.

We are also in negotiations with several local companies in Asia for joint investment in refining and marketing sectors with the aim of increasing partnership and capacity abroad for demand security to ensure that our partners have reliable petroleum supplies. In indicating our stance to strengthen our ties with Asia, we will continue looking for partners across the continent for refining and marketing investments. We have the capacity to supply crude to our joint ventures throughout Asia, and let me assure you that supplies are and will remain secure.

We believe that the relationship that binds Saudi Arabia and the countries of Asia is not one based on buyer and seller but rather mutually beneficial partners. Geography, good relationships, and the absence of political misunderstanding between our countries is helping in this matter, and we expect to see more Asian joint ventures over the next few years.

Ladies and Gentlemen, allow me to say a few words about our economy. Saudi Arabia is the largest economic power in West Asia, and the sixth largest economy in Asia, with one fifth of the GDP of the entire Middle East. Economic growth rate during 2004 is expected to be more than 7 percent.

In addition to oil, gas, and petrochemicals, other sectors of our economy are steadily growing. This

is attributed to the economic reforms begun a few years ago. Many government agencies have been restructured, and a Supreme Economic Council was established in 1999 to advance the reform process. This led to the establishment of the Saudi Arabian General Investment Authority, the Saudi Telecommunication and Information Technology Authority, the Capital Market Authority, as well as implementation of a host of investment laws. This has resulted in greater efficiency, transparency, reduced governmental regulations and more opportunities for foreign investment.

Saudi Arabia has seen a remarkable resurgence of investor confidence, and we expect it to continue. Both national and international direct investments have been rapidly increasing in the different sectors of our economy. And I assure you that our economy, with all of its sectors, is on the right path of reform.

We fully intend to maximize the full use of our resources, and are planning for many large projects based on the comparative advantage of abundant energy in the fields of petrochemicals, minerals, electricity, and water desalination.

Ladies and Gentlemen, I would like to end by reiterating the importance of the reciprocity of interests between our countries in all areas of trade and investment. At the same time I would like to thank our Asian partners with direct investment in Saudi Arabia. The projects I mentioned earlier, I believe, are suitable for more partnership with companies from your countries. We look forward to working closely with you to further trade and investment in petroleum as well as other fields of interest. We will continue the process initiated by our Indian host in enhancing this kind of dialogue among the Asian countries. We hope to host the next round table conference in Saudi Arabia.

**Address**  
of  
**H.E. Mohammed Bin Dhaen Al-Hamli**  
Minister of Energy  
The United Arab Emirates

Your Excellency Mani Shankar Aiyar,  
Minister of Petroleum & Natural Gas of India,  
Excellencies, Ministers and Heads of Delegation,  
Ladies and Gentlemen,

I would like first to thank H.E. Mani Shankar Aiyar, Minister of Petroleum and Natural Gas of India for his initiative to hold this important Meeting between the main suppliers and users of oil in Asia and also for the excellent arrangement of this Meeting.

This Meeting should give us the opportunity to exchange views on energy matters and to discuss issues related to oil supplies and demand in Asia and challenges that may be facing the producers and consumers.

This regional Meeting between oil producers and consumers is part of a wider dialogue between the two sides, as represented by the wider dialogue between the two sides, as represented by the biennial Ministerial Meeting of International Energy Forum (IEF). The participation of three International Organizations, OPEC, the IEA, and the IEF, which represent both the producing and consuming nations, is clear indication of the importance of this regional dialogue.

Issues such as, whether the future performances of major economies in the region, like those of China and India will continue growing at current rates or stabilize at lower levels, are of great important to the producers. As they have direct impact on the demand for oil in the future. Producing countries would like to ensure the availability of demand for their oil before embarking on major investment projects to expand oil production capacity. Therefore, security of oil supply in the future has direct link to transparency and growth in oil demand.

At present, the demand for oil in Asia is sharply rising and this growth in oil demand is

considered the fastest in the world. It is driven by the rapid expansion in economic activity of region. The region, including the Middle East Countries, consumes around 25 million barrels of petroleum refined products or nearly 35% of total world oil consumption.

Future forecasts show that the demand for oil in Asia will expand by nearly 50% from current level by 2010 and more than double by 2020. This Asian demand growth, if materialized, will require reliable sources of oil supply. The Middle East region, with its vast oil and gas resources will continue to be a major supplier of energy to world markets and particularly Asia.

The Middle East and particularly the Gulf region is blessed with substantial hydrocarbon resources. The proven oil reserves of the Middle East region is currently estimated at nearly 700 billion barrels of oil, which constitute around 65% of total world proven reserves. And the proven natural gas reserves are assessed at 72 trillion cubic meters, or 40% of total world.

These reserves would last for nearly 100 years in the case of oil and more than 150 years for natural gas, at current production levels. Meanwhile, world averages do not exceed 45 years for oil and around 55 years for natural gas respectively.

The Middle East region currently produces around 22 mb/d of crude oil and has additional productions capacity of 2-3 mb/d, thus making total available production capacity at 25 mb/d. In order to meet future rising need for energy from Asian and other countries in the world, additional investments will be required in the region to develop its vast resources and to expand its output capacity.

Future projections indicate that by the year 2020, the Middle East production capacity could

expand to the level of 40 mb/d, in order to satisfy future growth in world oil demand. In order to reach this level of output, oil producing nations must generate sufficient oil revenues to be reinvested in oil production capacity expansion projects and this can only be achieved when oil prices are at fair levels.

Excellencies,  
Ladies and Gentlemen,

I would like now to turn to the United Arab Emirates and to briefly highlight its role in world oil and gas markets.

The UAE holds the fourth largest proven oil reserves in the world currently estimated at 98 billion barrels and the fifth largest proven natural gas reserves in the world, assessed at more than 6 trillion cubic meters.

The UAE has production capacity of around 2.8 mb/d, at present, and there are ongoing projects to expand it further to meet the rising global demand for oil, and particularly in Asia.

The availability of the hydrocarbon resource base in the UAE, will enable it to expand its oil and gas production capacity to higher levels to meet future growth in world need for energy.

UAE exports of crude oil to world markets averaged at around 2 million barrels per day in 2004, of which around 98% was exported to Asia, with Japan taking the highest share.

The UAE will be ready to supply more oil and gas in the future to the Asian markets to meet their growing need for energy, as the country is continuing its investment projects in the oil and gas sectors in order to expand its output capacity.

Excellencies,  
Ladies and Gentlemen,

Once again, I would like to thank H.E. Mani Shankar Aiyar for hosting this meeting and for his generous hospitality.

Thank you for your attention.

## Strengthen Oil Cooperation and Safeguard Energy Security

**H.E. Mr. Zhang Xiaoqiang**

Vice Chairman  
National Development and Reform Commission,  
People Republic of China

Honorable Mr. Chairman,  
Ladies and Gentlemen,  
Good Morning

First of all, please allow me to express my sympathy and deepest condolence to India and other nations concerned for the huge loss caused by the devastating tsunami at the end of last year.

I feel honored to attend this Round Table Conference between principal suppliers and buyers of oil in Asia, and would like to thank our host for their excellent preparation and organization. Today, energy officials and specialists from Asian countries gather here to discuss common concerns on regional oil cooperation and energy security. It is an event with practical and long-term significance and will promote development and economic prosperity in the Asian region. I would like to take this opportunity to brief you on the status and strategies of China's energy and oil sector and share with you my view on how to strengthen regional oil cooperation.

### I. A Brief Introduction to China's Energy Sector

Over the past two decades, China's energy output has been growing rapidly, with the energy consumption mix being optimized and the ratio of high quality clean energy increased. China's energy industry has been further modernized. The reform of the administrative system for energy industry is advancing smoothly and the sector is increasingly market-oriented. Substantial achievements have been made in energy conservation. Issues concerning energy and environment have been attached great importance. From 1980 to 2000, China quadrupled its GDP on the basis of only doubling its energy consumption.

China is a major energy producer as well as a major consumer. In 2003, China's total primary energy output reached 1.603 billion tons of coal equivalent, among which crude oil production amounted to 170 million tons. The share of coal in total primary energy consumption fell from 76.2% in 1990 to 67.1% in 2003, while the share of oil rose from 16.6% to 22.7%. The share composed of natural gas, hydropower, nuclear power, wind and solar power grew from 7.2% to 10.2%.

China attaches great importance to the sustainability of social and economic development, and initiated the Scientific Concept of Development focusing people-centered and all-rounded balanced sustainable development, with a view to achieving coordinated advancement among economy, society and nature. The stable growth of energy supply provides favorable conditions to sustained, rapid, sound and coordinated development of the Chinese economy. Meanwhile, the Chinese government makes continuous efforts on optimizing the energy mix and improving energy quality and efficiency. These efforts play an active and effective role in improving air quality and reducing energy waste. Meanwhile, by implementing macroeconomic control policies, the government also endeavors to optimize industrial structure and pursue a new path of industrialization that features low energy consumption. China is confident to quadruple its GDP again by only doubling energy consumption in the first twenty years of this century.

### II. China's Oil Strategy

China's oil consumption has been growing along with rapid economic growth and structural adjustment. In 2003, China's total oil

consumption reached 266 million tons, with net oil import amounting to 97.41 million tons. In 2004, China's oil production is estimated to reach 174 million tons. Meanwhile, China will see a growth in oil import with net import volume exceeding 130 million tons.

The Chinese government also puts great emphasis on oil market stability and oil supply security, and has adopted accordingly. The **first** measure is to strengthen the exploration of domestic oil resources, maintain the growth of proven oil reserves, increase domestic crude oil production and keep domestic supply as the dominating source. The **second** measure is to give priority to energy conservation, encourage and support development and application of oil-saving technologies, so as to improve oil utilization efficiency. For example, in October, 2004, competent authorities of the Chinese government promulgated standards for automobile fuel consumption, adopting economic punishment on the production and sale of high fuel consumption automobiles that do not comply with the standards. The **third** measure is to accelerate the exploration and utilization of natural gas resources to meet the increasing demand for oil and needs for environment protection. The West-East Natural Gas Pipeline Project started commercial operation at the end of last year, which opens a new chapter for China's natural gas industry. In 2004 China's natural gas production exceeded 39 billion cubic meters, increasing by 13% over the previous year. The **fourth** measure is to further open to the outside world. In the past three years after China's entry into WTO, the Chinese government has honored its commitments and further opened up both upstream and downstream oil markets. The **fifth** measure is to diversify oil supply sources. The **sixth** measure is to actively promote alternatives to oil, such as clean coal technology, coal liquefaction pilot project, fuel ethanol and etc. The **seventh** measure is to implement the plan of national oil strategic reserve to safeguard oil security. The **eighth** measure is to strengthen international cooperation, carry out careful studies on LNG import and pipelined natural gas, take an active role in international oil and gas

exploration, and make contributions to the stability of global oil market.

### III. Strengthen Regional Oil Cooperation in Asia

#### i. Views on International Oil Price

Since the beginning of 2004, international oil price has kept hitting record heights with great volatility, and has become a focus of global attention. Some people blamed the surge of oil price on China's increasing demand, but such assertion is not fact-based. Although China's oil import increased in recent years, it takes mere 6% of the world's total oil trade volume, and the share of imported oil in China's oil consumption mix is less than 40%. Therefore, the growth of China's oil consumption is not the root that causes the surge of international oil price.

According to the analyses of many energy institutes and media, global supply and demand of oil are balanced in general, and factors that have lead to high oil price include unexpected incidents, regional turbulence and speculating operation. I agree with this view. As one of the major net oil importers in Asia, China has also suffered great loss due to high oil price.

The surge of international oil price leads to the rise of production cost in oil consuming nations, and to some extent slows down their economic growth, which will further affect global economy and the economic development of oil supplies. The rise of oil price may also reduce oil demand and stimulate the development of alternative energies. In view of this, high and volatile oil price will bring no benefits to both oil exporters and importers in the long term.

Both oil producers and consumers need to study this important question: how to maintain international oil price on a reasonable level and achieve mutual benefits for oil importers and exporters. By strengthening dialogue and cooperation between oil suppliers and consumers and jointly stabilizing international oil price, it will be helpful to maintain the global oil market order and promote sound development of global economy. Strengthening oil cooperation,

information exchange and communication in Asia will have positive impact on achieving the above goal.

#### **ii. Mutual Oil Investment in the Region**

Asia, especially the Middle-East, is the world's major oil producing area. Meanwhile, Asia is also one of the regions with the most rapid growth of oil consumption in the world. Asian countries have many commonly concerned issues in the oil sector and there is great potential for cooperation. I believe that is of great importance to strengthen mutual investment in the oil sector among Asian countries, in terms of increasing oil supply capacity and safeguarding regional oil security.

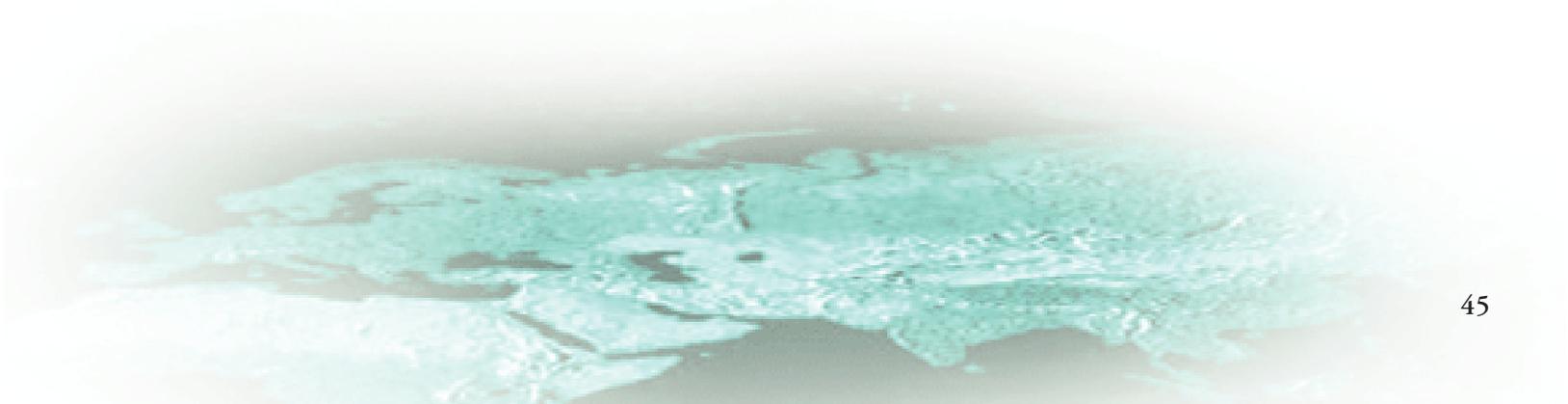
Through decades of development, China's oil corporations have established integrated industry and service system, and have developed a number of unique technologies, such as those related to exploration in geographically complicated regions and enhanced recovery in old oil fields. Chinese corporations are willing to expand cooperation with Asian oil suppliers, play an active role in investment projects such as venture exploration and oil field enhanced recovery, conduct further all-round cooperation both in upstream and downstream and make contribution to the growth of oil supply capacity in Asia.

#### **iii. Asian Oil Market**

At present the layout of global oil market still needs to be improved. For instance, differences exist in crude oil price among different regions, and East Asian nations usually have to pay a higher price for crude oil than European and American countries. This is not in line with the market principle of fairness, and impedes regional economic development. How to eliminate such unfairness is an important issue deserving careful study. Asian countries have common interests on similar topics and it is necessary to further strengthen cooperation in Asia.

In the new century, the world economy has seen rise and fall in globalization. Although the road is uneven, peace, development and cooperation are still the mainstream of the time, and only through cooperation can we achieve common development and mutual benefits. Oil has been a regional as well as global common concern. Oil exporters and importers need to make joint efforts, share experiences and lessons in the oil sector, and further optimize the allocation of oil resources. China is willing to play an active role in regional and international energy cooperation. We should joint hands and work together to promote energy dialogue and communication, and promote the advancement and prosperity of the global economy.

Thank you !





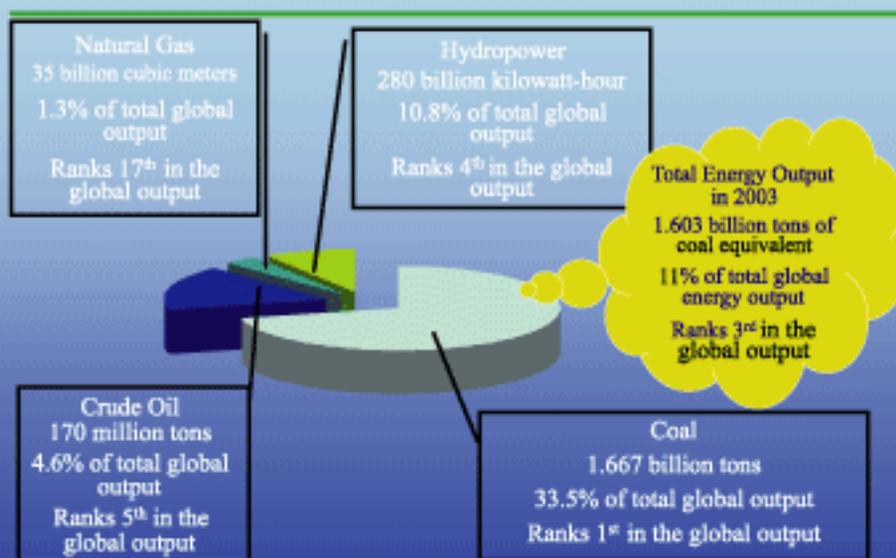
**National Development and  
Reform Commission of P.R.CHINA**

## **Strengthen Oil Cooperation and Safeguard Energy Security**

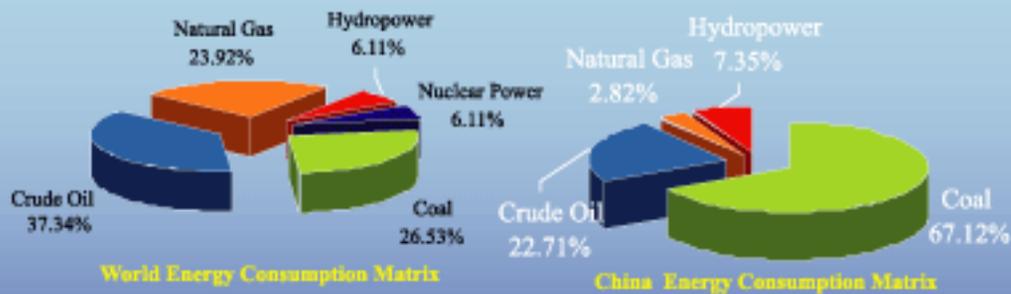
**Mr. Zhang Xiaoqiang, Vice Chairman,  
NDRC, P.R. China**

**Jan 6, 2005**

### **I- Brief Introduction to China's Energy Sector**



## I- Brief Introduction to China's Energy Sector



In 2003, China's total primary energy output reached 1.603 billion tons of coal equivalent, among which crude oil production amounted to 170 million tons.

Share in total primary energy consumption, From 1990 to 2003

Coal fell from 76.2% to 67.1%

Oil rose from 16.6% to 22.7%

Natural Gas, Hydropower, Nuclear Power, Wind Power and Solar Power : rose from 7.2% to 10.2%

## I- Brief Introduction to China's Energy Sector

China attaches great importance to the sustainability of social and economic development, and initiated the Scientific Concept of Development focusing people-centered and all-round balanced sustainable development, with a view to achieving coordinated advancement among economy, society and nature. China is confident to quadruple its GDP again by only doubling energy consumption in the first twenty years of this century.

## **I- Brief Introduction to China's Energy Sector**

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\* The stable growth of energy supply provides favorable conditions to sustained, rapid, sound and coordinated development of the Chinese economy. Meanwhile, the Chinese government makes continuous efforts on optimizing the energy mix and improving energy quality and efficiency.

\* These efforts play an active and effective role in improving air quality and reducing energy waste.

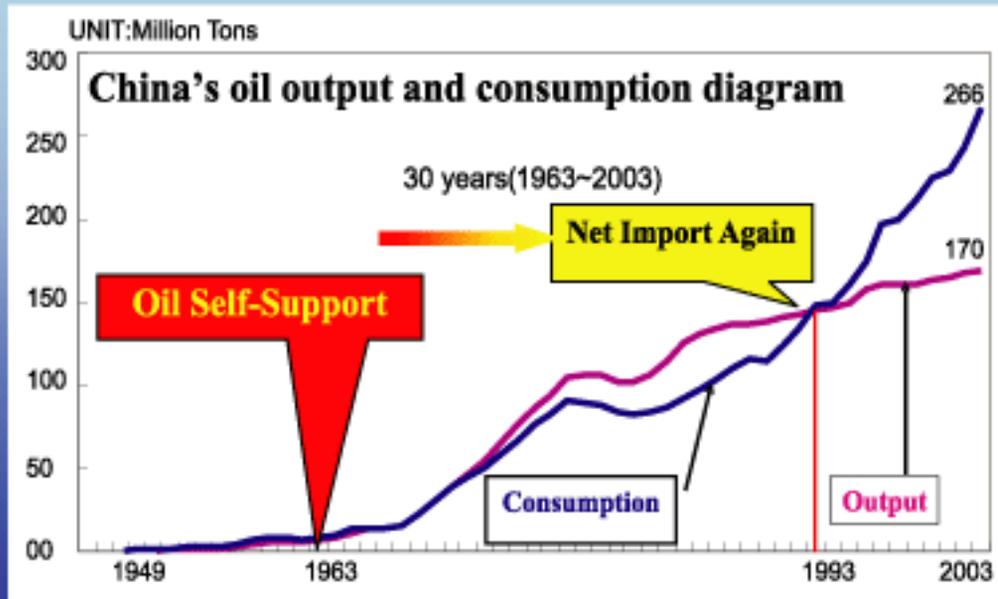
## **I- Brief Introduction to China's Energy Sector**

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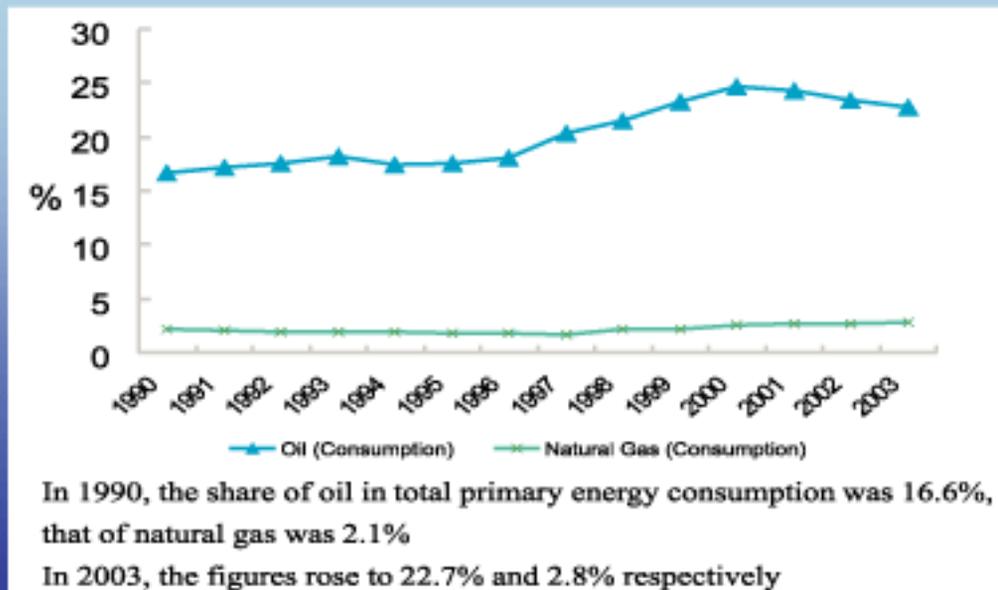
■ Give priority to energy conservation, encourage and support development and application of oil-saving technologies, as so to improve oil utilization efficiency.

■ Meanwhile, by implementing macroeconomic control policies, the government also endeavors to optimize industrial structure and pursue a new path of industrialization that features low energy consumption.

## II-China's Oil Strategy



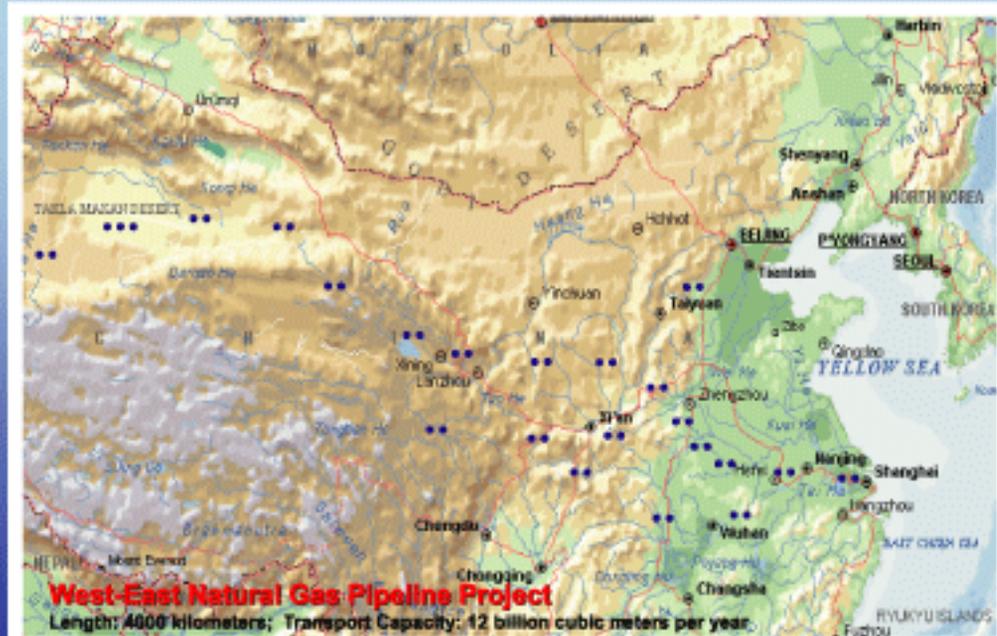
## II-China's Oil Strategy



## II-China's Oil Strategy

1. Strengthen the exploration of domestic oil resources
2. Give priority to energy conservation, improve oil utilization efficiency
3. Accelerate the exploration and utilization of natural gas resources

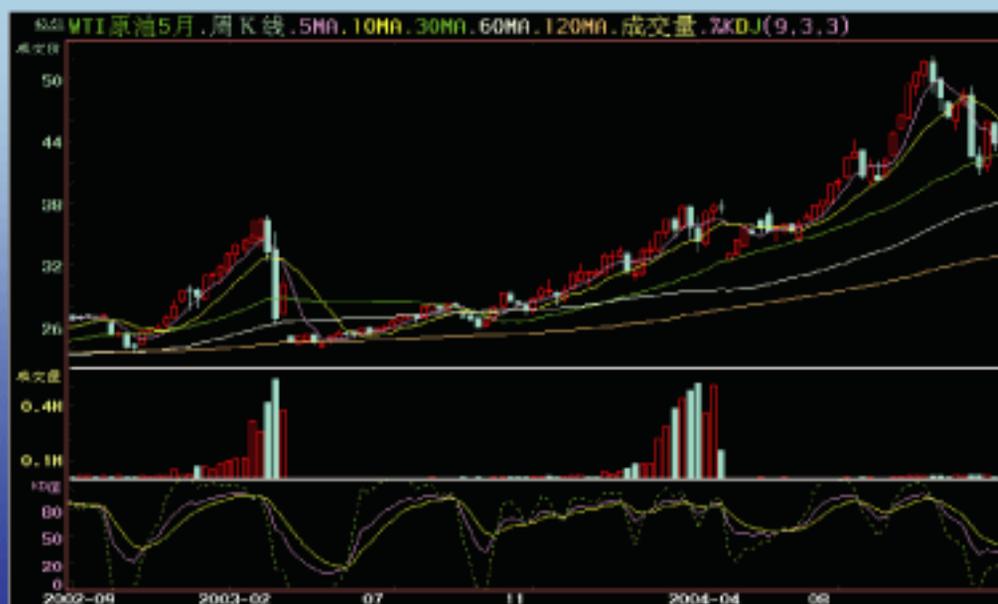
## II-China's Oil Strategy



## II-China's Oil Strategy

4. Further open to the outside world
5. Diversify oil supply sources
6. Actively promote alternatives to oil
7. Implement the plan of national oil strategic reserve to safeguard oil security
8. Strengthen international cooperation

## III-Strengthen Regional Oil Cooperation in Asia



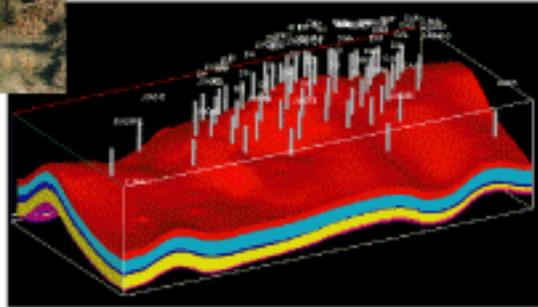
### III-Strengthen Regional Oil Cooperation in Asia

#### ii. Mutual Oil Investment in the Region



Exploration in geographically complicated regions

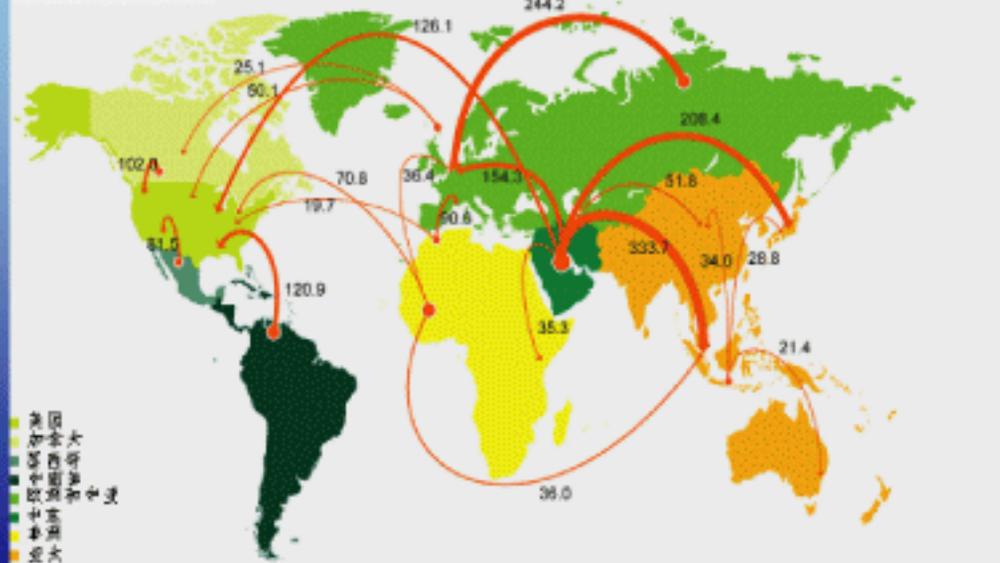
Enhanced recovery in old oil fields.



### III-Strengthen Regional Oil Cooperation in Asia

#### iii. Asian Oil Market

Unit: Million tons



- In the new century, the world economy has seen rise and fall in globalization. Although the road is uneven, peace, development and cooperation are still the mainstream of the time, and only through cooperation can we achieve common development and mutual benefits.
- Oil has been a regional as well as global common concern. Oil exporters and importers need to make joint efforts, share experiences and lessons in the oil sector, and further optimize the allocation of oil resources.
- China is willing to play an active role in regional and international energy cooperation. We should joint hands and work together to promote energy dialogue and communication, and promote the advancement and prosperity of the global economy.



## Regional Cooperation : Key to Energy Security

**H.E. Mr. Hwan Eik Cho**

Vice Minister of Commerce, Industry & Energy  
Republic of Korea

Chairman Aiyar, Minister of Petroleum and Natural Gas of India, Co-Chairman Dr. Yousuf Al-Ibrahim, Special Economic Advisor to Prime Minister of Kuwait. Distinguished Delegates.

Before I begin, a word goes out to all those whose lives have been shaken from the recent devastating earthquake in Southeast Asia.

The Korean government and the Korean people extend the sincere condolences and will make every effort for the region together with the international community.

I also take this opportunity to thank today's Chairman, Mr. Aiyar, who did his best to make today's meeting possible even in the historical tragedy.

His efforts show the strong willingness toward energy cooperation in the region. And it is a great honor for me to share wisdom with the energy policy makers from oil producing and consuming countries.

Ladies and Gentlemen,

This is the first multilateral conference that brings together oil producers from the Middle East and oil consumers from Asia. Our common objective is to enhance energy security of the region.

### Recent trend and outlook of international oil market

In 2004, although there was no severe physical oil supply shortage, the world oil market went through the record-high oil prices and large price volatility.

A combination of factors contributed to such conditions, including rapid growth of oil demand from BRIC nations such as China and India, increasing speculation in the international crude oil market, as well as geo-political instability.

It was also partly caused by the insufficient spare production capacity from oil producing countries, a trend which has been prevalent since the 1990s when oil prices were relatively low and investment for exploration and development slowed.

International bodies such as IEA expect that high oil prices will continue for the foreseeable future, given the high demand of global oil market and unstable supplies.

It is therefore that oil importing countries such as Korea are deeply concerned about the impact of rising oil prices, since they are heavily dependent on overseas energy supplies.

In this regard, I would like to request the oil producing countries in the Middle East to continue their efforts to stabilize oil prices.

### Importance of energy security

The Middle East, always a center of cultural exchange between East and West, is now a major energy supplier to the world, meeting 45% of global oil demand.

Asia, vibrant as it has always been, now receives more than 70% of its oil from the Middle East, and is emerging as the most dynamic energy market in the world.

This is a result of the rapid growth in demand for oil caused by the explosive economic growth in the region, such as in India and China. Korea is not entirely an exception to this. From 1983 to 2003, Korea's oil consumption grew by 7.6% per year, where oil now accounts for 47.6% of total primary energy consumption.

As a result, Korea is now the world's 7th largest oil consumer, 4th largest oil importer, and consumes an average of 2.12 million barrels per day, and this volume is expected to continue

until year 2015. In particular, as of 2003, Korea imported 79.5% of its oil from the Middle East, and is thus a main buyer of Middle Eastern oil.

For oil consumer countries, a stable supply is the key to ensuring sustainable economic growth. In Korea's case, raw material and consumer prices increased sharply due to high oil prices from early last year, stalling production and domestic consumption, thus leading to economic slowdown.

This feature played itself out to similar extent to all developing nations in Asia, underscoring once again the importance of stable oil prices to the region.

I would like to say that supplying oil at stable prices must also be an important matter for oil producing countries.

In particular, stable oil prices will promote investments to develop oil resources in the long run. And investments, in turn, contribute to stabilizing oil prices and to strengthening oil producers' abilities to better respond to the oil demand increase, thus helping to achieve energy security of the region.

Therefore, it is no doubt that pricestability is extremely crucial for oil producing economies as well as consuming economies.

The stable price enables oil consuming countries to manage their economy with less uncertainties. On the same token, oil producing countries can get stable national revenues, which results in their economic prosperity.

### Why Energy Cooperation in Asia is needed

Along with the global trend of creating economic blocks, the international energy market is becoming more regionalized, especially in North America and Europe. Against this backdrop, interdependency among countries is growing.

As you know, North American and European economies tend to respond to energy crisis in collaborative effort.

In Asia, oil consuming economies do not have a consolidated international institutional

mechanism to react to energy crises. As a result, they have to make an individual effort to handle energy security.

It is true that we have IEA, an international organization for OECD member countries to jointly respond to energy crisis. But its ability falls short of reflecting characteristics of oil producers and oil consumers in Asia.

Today's meeting aims, therefore, for enhancing cooperation between oil producers and consumers, and will be a starting point to build cooperation.

Judging from the excitement of today's meeting and the strong interest shown from the respective country representatives, I saw a potential for greater cooperation between oil producing and oil consuming countries in Asia.

I sincerely hope that a meeting between Asian oil producers and consumers will be held regularly, developing further into an Asian Energy Policy Forum at ministerial level.

In this forum, key policy issues are comprehensively addressed such as supply and demand balance of the region, energy security response mechanism and development of energy cooperation program.

Hoping for this, I would like to talk about how cooperation between oil consumers and producers can be made.

First is to hold joint oil stockpile in Asia.

To respond to oil supply shortage, it would be ideal that each country reserves its own strategic oil stockpile, but it requires huge capital investment. As an alternative to this, I propose to keep oil jointly with countries that already hold stockpiling facilities available to them. This can provide additional oil to a disrupted market during contingencies.

The joint oil stockpiling initiative needs the participation of Middle East oil producers. Middle East producers, the largest oil provider for Asia, can strengthen their supply capacity to the fast growing market during supply emergencies such as blockade of transportation route.

Another initiative is to develop oil and gas resources in collaboration between producers and consumers.

Developing oil and gas resources requires large amount of capital investment, whereas it is typically exposed to large risks in financing and exploration.

Therefore, if key consumers and producers in Asia invest jointly to develop these fields, it can minimize investment risk and will be a better way to pool capital.

Lastly, I understand that oil producers in Middle East are ambitiously seeking to diversify their economic structure by moving from a crude oil supplier to a more complex center of the world petroleum industry which includes other industries, not to mention of oil refining and petrochemical facilities.

In the diversification process, mutual benefits for

consuming and producing economies are realized when the companies from oil consuming countries like Korea are allowed to participate in such areas as oil refinery and petrochemical plants building.

### Closing remarks

Distinguished guests, and ladies and gentlemen!

Korean wisdom says that 'a long journey is made short, if made with a friend'

If we are devoted to seek ways to strengthen cooperation on energy security and to develop feasible business opportunities, it will pave a way for stable economic growth in Asia.

Lastly, I would like to thank once again Mr. Aiyar, Chairman of today's meeting, and people of Indian Ministry of Petroleum and Natural Gas, for their strenuous efforts.

Thank you.



# Asian Oil Outlook & Challenges

New Delhi, 6 January 2005

Ambassador William C. Ramsay  
Deputy Executive Director  
International Energy Agency, Paris

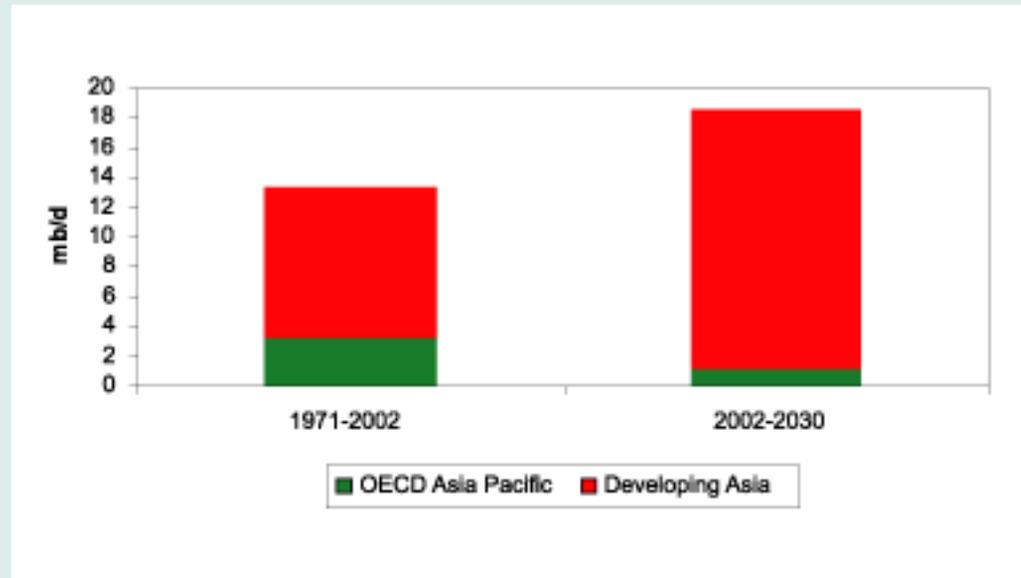
## Asian Oil – Current Trends, Outlook and Issues

- Your Excellencies, Distinguished guests ladies and gentleman.
- I am delighted to participate in this Asian regional roundtable meeting, hosted by our Indian colleagues, to discuss some of the opportunities and challenges that will arise as the mid-point of world energy markets, moves towards Asia.
- I will highlight what the I and the IEA believes are the most important areas for ensuring the security and sustainability of the Asian Oil Supply.





## Incremental Oil Demand of OECD and Developing Asia



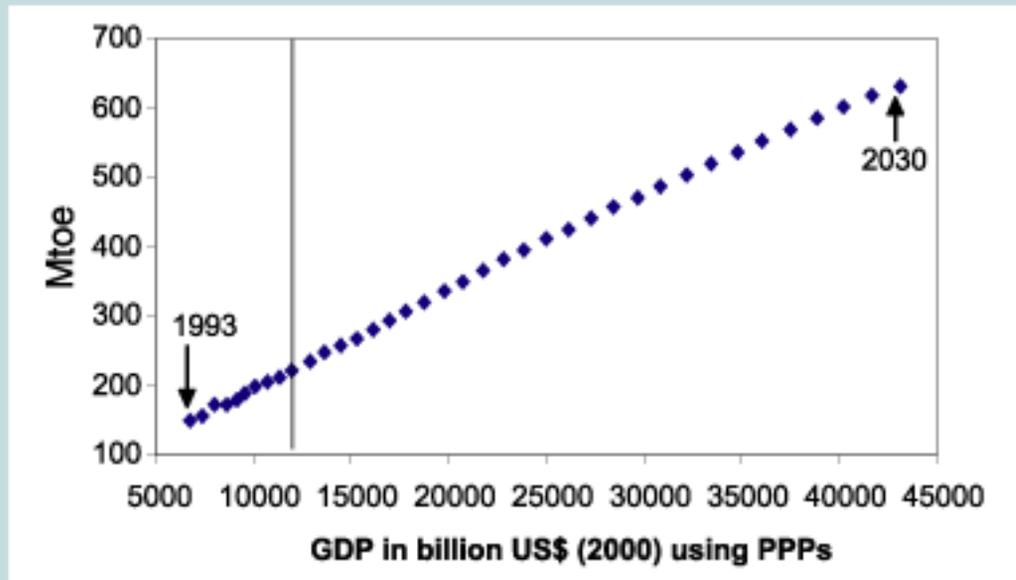
Developing Asia will play an increasing role in global oil markets.

In 2030, its oil demand will exceed that of the United States and Canada combined and will account for 26% of the world total. Oil production in China is expected to start declining very soon. Output elsewhere in the region including Indonesia, will be more or less flat over the projection period.

The region will account for 21% of world incremental gas demand by 2030 and 80% of the growth in world coal demand over the same period.



## Transport Oil Demand and GDP in Developing Asia, 1993-2030

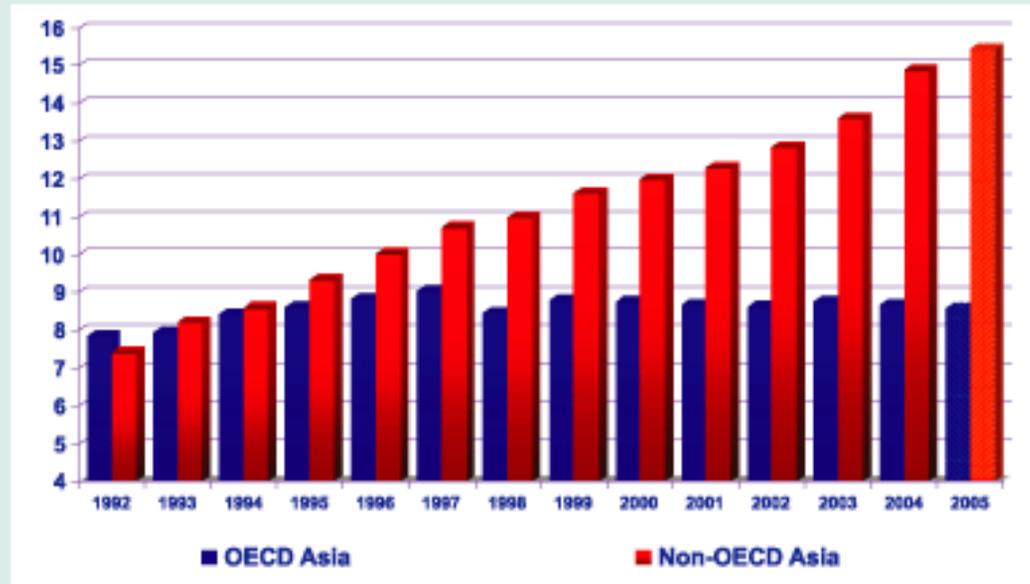


### Transport Oil Demand and GDP

- Transport will be the main driver for global and regional oil demand growth.
- The correlation between oil demand in transport and GDP growth around the world is striking.
- Each government will need to assess how to address this challenge, not only the additional pressure the demand exerts on available oil supplies and the increasing vulnerability of the transport sector to oil supply disruptions, but also the emissions and congestion this fuel consumption will generate.
- If developing Asia consumes the anticipated 600 MToe of oil in transport by 2030, the health and social costs alone will be painful.
- Economically, pollution is inefficient. Reducing emissions provides for greater social productivity, but there has to be a sensible balance.
- Pricing subsidies on oil products will provide further encouragement for oil consumption and aggravate these challenges. Invariably, subsidies cannot be removed immediately but should be phased out as soon as possible.



## Asia Pacific Demand: OECD V. Non-OECD (mb/d)

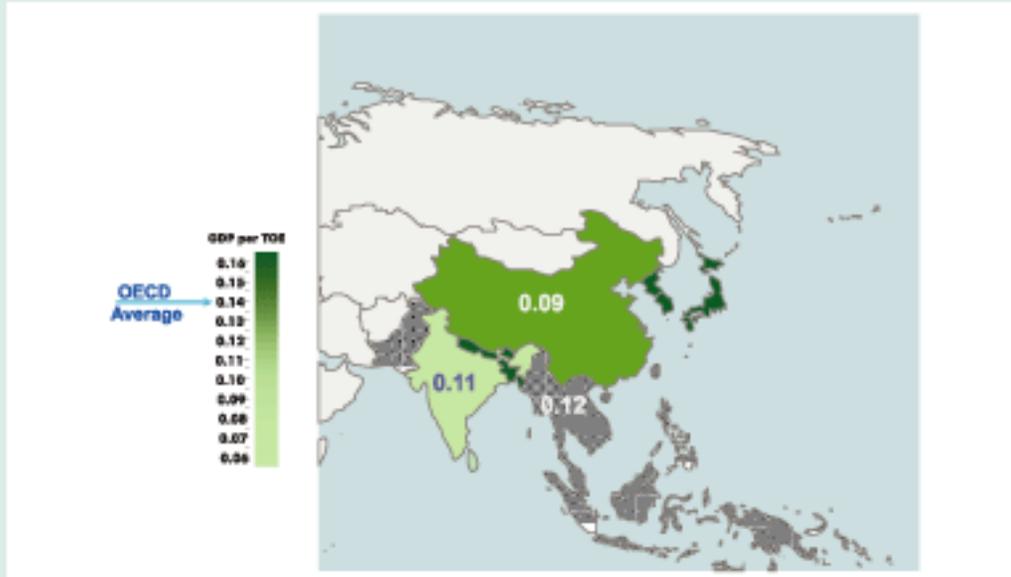


### Asia Pacific Demand: OECD v. Non-OECD

- Overall, Developing Asia is projected to account for 42% of the increase in world primary energy demand between 2002 and 2030.
- Specifically on oil within Asia, there is a sharp difference between IEA countries (Japan, Korea, New Zealand and Australia) whose oil demand growth has been relatively flat over the last decade and emerging economies outside the IEA (India, China and larger ASEAN nations) shown in red above.
- Demand is actually edging lower in Japan, although lately there has been a temporary reversal in that trend due to nuclear plant problems, short-term fuel switching into oil for power generation.

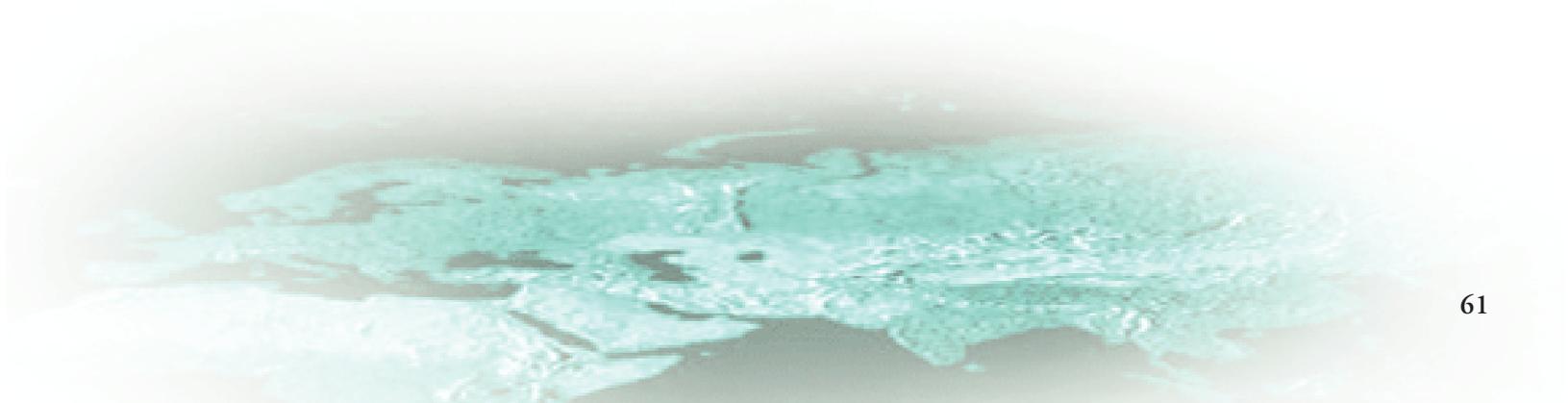


## Energy Intensity in Asia GDP/Energy Consumption



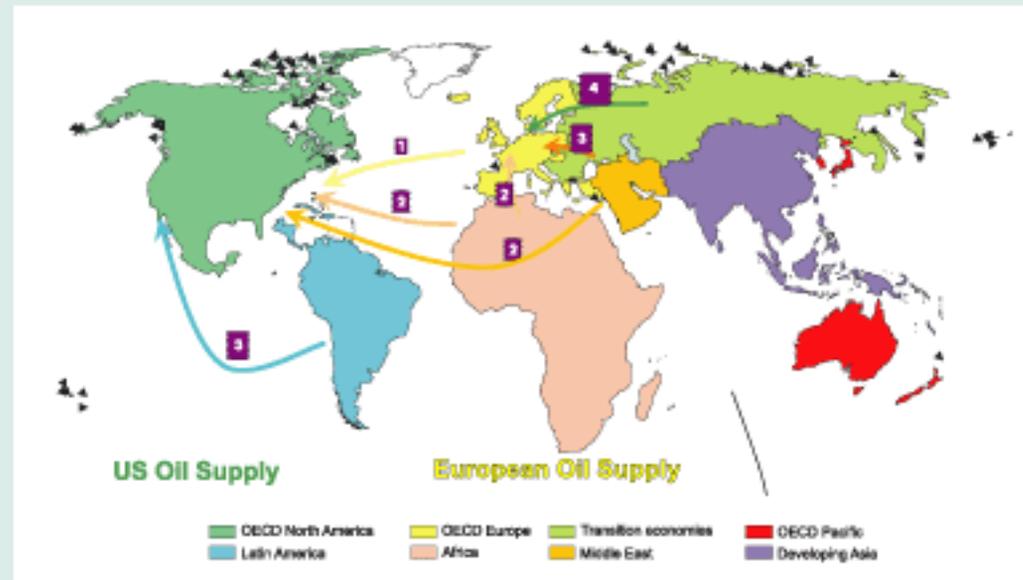
### Energy Intensity in Developing Asia

- Energy use per unit of GDP is much higher in developing Asia than in the IEA, but within Asia too there are some large differentials as we see here.
- Asian countries, like many others in the world, need to implement policies aimed at improving energy efficiency – a significant way of moving towards sustainable economic growth.
- Most IEA countries have gained considerable experience in energy efficiency programs which they are prepared to share with others. Asia may be able to benefit from these programs at an earlier stage of their development, thereby skipping costly steps.





## Regional Oil Supply Diversification Net Trade 2002

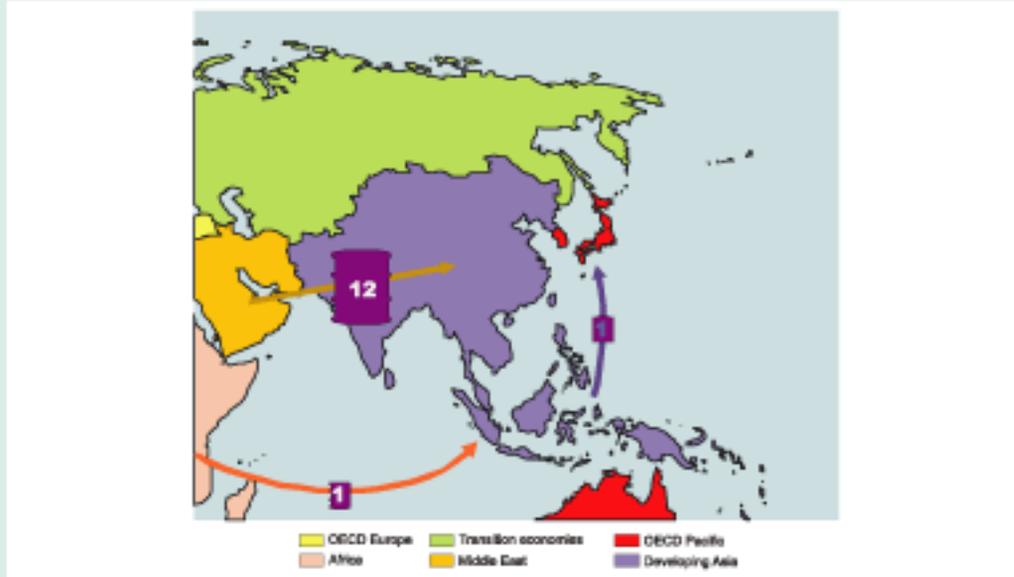


### Regional Oil Supply Diversification

- US oil supply is well diversified with large indigenous production plus imports from South America, the Middle East, Africa and Europe – where arbitrage provides an economic window for traders.
- [CLICK]
- So too in Europe where oil imports are well diversified from Africa, the Middle East and Russia.
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## Asian Net Oil Trade 2002



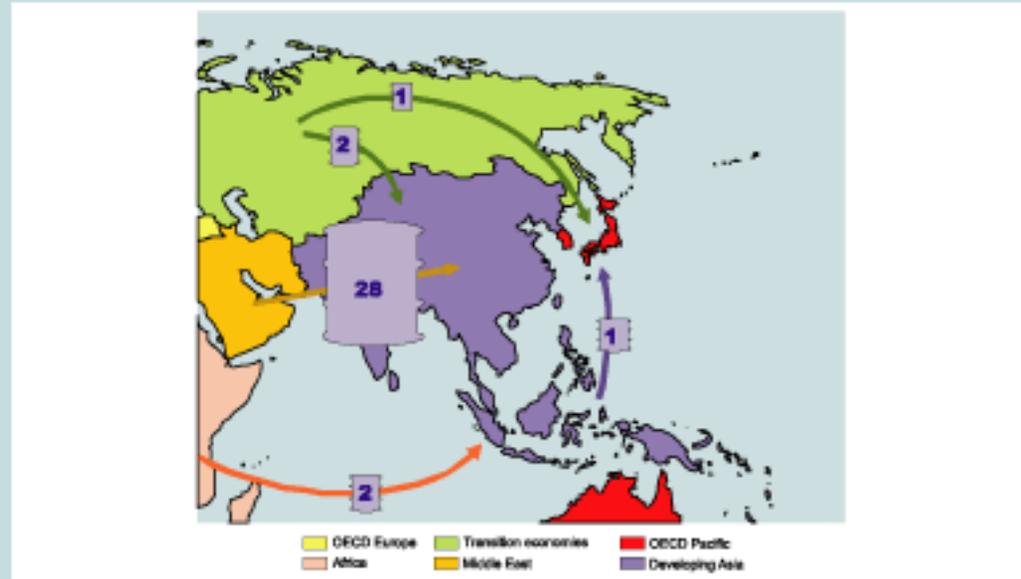
### Asian Net Oil Trade 2002

But partly due to geographical location, and partly due to slower development of its markets, Asia doesn't yet benefit from such diversity. In 2002, the vast majority (12mb/d) of its oil imports were sourced in the Middle East with only a small portion (1mb/d) from Africa.





## Asian Net Oil Trade 2030

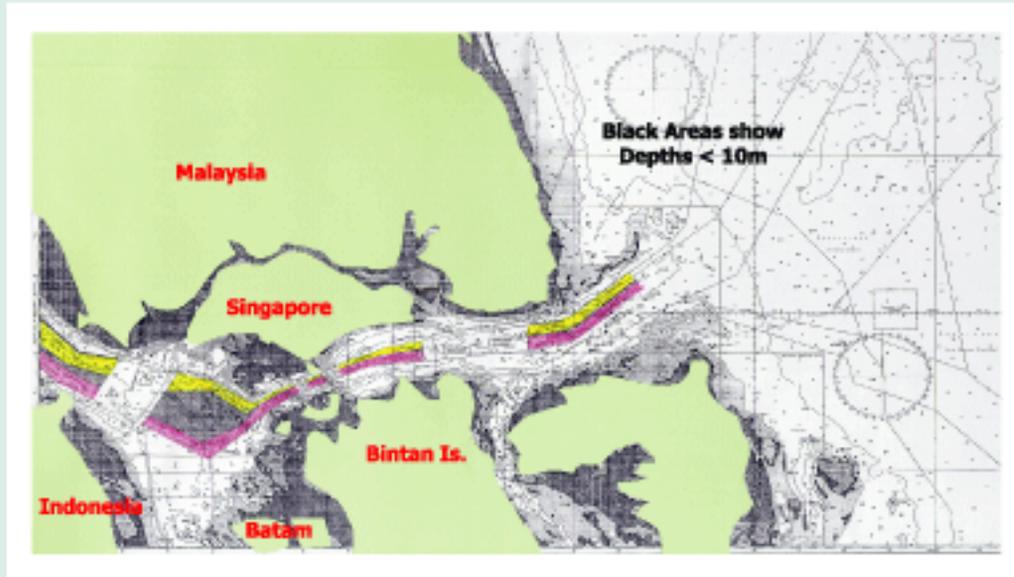


### Asian Oil Trade 2030

- IEA forecasts to 2030 show the volume of traded oil from the Middle East into Asia growing quickly to 28mb/d, with some limited diversity of supply from Eastern Russia/FSU into North East Asia.
- Oil Pipelines from Siberia and other Central Asian supply routes can provide alternatives and reduce the dependence on Middle Eastern oil. But regional co-operation rather than competition will be the preferable climate to facilitate these projects – and even with co-operation, these pipelines are not without risk – both commercial and sovereign.
- As a consequence of this flow of oil, Asian countries once shielded geographically from the turbulence of the Middle East will no longer be able to leave it on the margins of their geopolitical agendas.
- With the result that there may be greater common cause in the search for regional stability.



## Malacca Straits



### Malacca Straits

- But closer to home, as Asian imports increase so does the flow of oil through the Malacca straits.
- Narrow channels, shallow reefs, thousands of tiny islands, slow traffic and some 900 commercial vessels passing through each day make the waters around Singapore, Malaysia and neighboring Indonesia a pirate's or perhaps a terrorist's dream.
- Around 11 mb/d of oil flow through the Malacca straits today. To skip the straits and transit through Lombok or Sunda would force a ship to travel an extra 1,000 miles from the Gulf - adding approximately 1.5 days to the shipping time. This would effectively remove 17million barrels of oil from the market and 10-15 tankers.
- Oil traffic through the Straits of Malacca is expected to double to 22 mb/d by 2030.





## Security still a problem in Asia

Piracy is rife in Asia  
 Many attacks and kidnappings are unreported.  
 Increased flow of oil to region increases the potential for attacks  
 Implications for insurance  
 Alternative routes increase travel time and tie up shipping capacity  
 Information sharing and coordinated patrols between ASEAN countries helps, but more action needed.



Business reports suggest that over the past decade Indonesia has been losing between US\$560 million and \$660 million annually in customs and excise duties due to smuggling.

The overall cost of smuggling and piracy is not just calculated in its financial consequences, as much of this money ends up in the hands of those with aggressive political agendas.



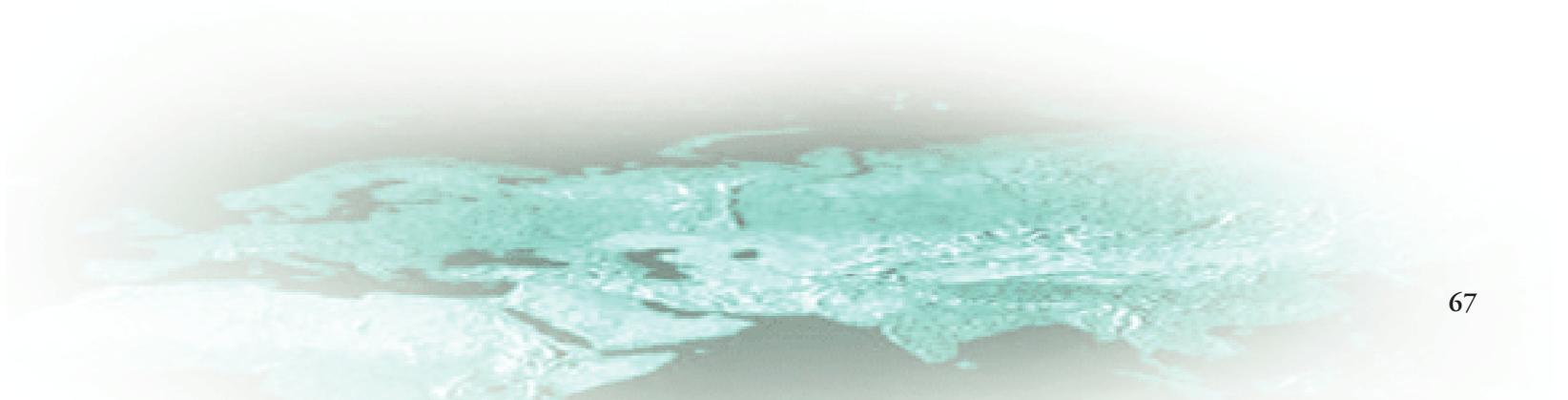
## Asia-Implied IEA Strategic Oil Stock Levels

Country	Amount of oil imported (mb/d)		Suggested IEA stock level* (mb)	
	2010	2020	2010	2020
India	2.7	3.9	243	351
China	4.6	7.9	414	711
Indonesia	0.2	0.6	18	54
East Asia (excl. Indonesia)	2.8	4.7	252	423

\*90days of oil imported

### Asia – Implied IEA Strategic

- As oil security becomes more important in Asia, commitments to build strategic stocks – in particular in China, India and some increasing interest among ASEAN countries are quite welcome.
- Strategic oil stocks and close collaboration with key oil producers are the most effective means to mitigate an oil supply disruption.
- We have found among IEA member countries that coordinated joint action is the key to any emergency response. But as the balance of global oil trade shifts towards Asia it is important that IEA and Asian countries further develop a common perception of the global oil market, identifying key risks and the appropriate actions to mitigate these risks should they become real.
- Global markets problems require global actions and solutions.



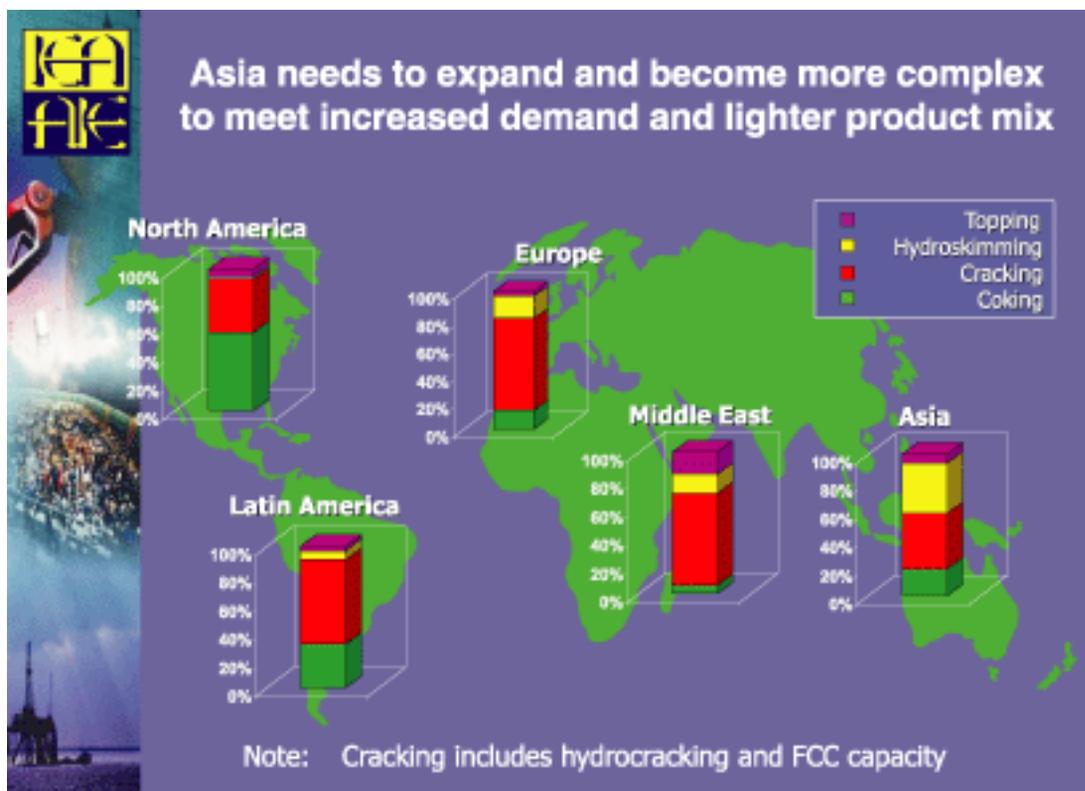


## "Asian Premium"



### Turning briefly to the so-called “Asian Premium”

- I have no single answer here, as several issues are at play.
- A partial explanation of why Asian refiners might pay more for their oil is that they have fewer oil sourcing options as I noted earlier, so they can be charged more for their crude than buyers elsewhere
- On the other hand, Asia imports mostly sour crude, which at least this year has traded at unusually deep discounts to light benchmark grades, providing a crude discount compared to other markets
- The switching “premium” of Arab heavy between the US and Asia has shown, “sticky” prices can work both ways – even though Asian oil demand growth far surpassed that seen in the US.
- Term deals in particular give some degree of price “stickiness” aggravated by
  - resale restrictions
  - liquidity problems with regional benchmarks and
  - Essentially no regional crude futures market
- But it is also the case that, to some extent, higher prices associated with term deals could be likened to a modest insurance premium
- Over the longer term:
  - Arbitrage in spot and futures markets makes premiums less likely, and increasing demand for sweet crudes in Asia, particularly from West Africa will increase regional competition and help reduce price spreads
  - Increased regional spot trade in other crudes would further liberalise the market, and dissipate premiums.
- In general, moving away from long term deals to spot markets should lead to the diminution of the Asian premium, cheaper feedstocks and better margins.



World wide, refinery configurations broadly match regional product demand patterns. The US has the highest concentration of cokers, which convert low-priced fuel oil into lighter products. Asia however has traditionally been a high middle distillate and fuel oil consumer, which accounts for the relatively high proportion of hydroskimming refineries.

Rapid demand growth in the past few years has eaten away at the surplus Asian refinery capacity. What at first seemed a premature expansion of capacity in the mid-1990s now seems prescient. But this also contributed to lower rates of return for the industry.

Asian oil demand is expected to double from 20 mb/d in 2002 to 39 mb/d by 2030, with transportation fuels accounting for the lion's share of that growth. Fuel oil demand growth for power generation is expected to be relatively flat for most of that period.

But the incremental supplies from the Middle East are expected to get heavier and sourer, producing a glut of fuel oil if the refinery system does not evolve.

Asian refining capacity is already adapting, but large investments are needed in capacity to meet the future demand that will accommodate the inevitable switch to lower sulphur fuels.

The region is already moving towards a European-based model with a higher proportion of cracking activity. But the move towards more rigorous emission standards will ultimately force a shift towards a US-style refinery composition.

Refinery capacity expansions and de-bottlenecking currently underway are expected to raise Asian capacity by 700 kb/d in 2005. This is roughly in line with demand. Asian countries will need to improve their investment climates, liberalise markets and remove pricing restrictions to attract the necessary foreign investment into the sector on a timely basis.



## Conclusions

- Regional Co-operation trumps exuberant competition
- Energy efficiency programs
- Oil Supply Diversification
- Stable Investment Climate for Oil and Gas Development
  - Refinery Capacity Expansion
  - Transportation
  - LNG Markets
- Producer Consumer Dialogue – **more efforts needed**

### Conclusions

- Among Asian consumers, competition for oil supplies is not an answer. Countries in Asia will need to join others to find mutually beneficial solutions to these shared market challenges.
- Energy efficiency and supply diversification and the accumulation of strategic stocks should figure prominently in Asian energy strategy to provide greater regional oil supply security. IEA countries are prepared to share their experiences in these areas
- Asian countries may need to review their investment climates, liberalize markets and remove pricing restrictions to draw foreign investment into the oil value chain.
- This is probably more important in gas markets which are even more capital intensive - particularly LNG infrastructure. But if the climate is right Asian domestic gas production can provide a viable and regionally balanced alternative to oil.
- The Producer Consumer Dialogue has come a long way over the past years. It needs to be reinforced as we seek common approaches to enhancing global oil security. It will be necessary to strengthening world markets. We need to take greater advantage of existing mechanisms and forums to accomplish this, but I won't steal any of the thunder from our next speaker, and I leave the podium for him to make this point.

Thank you.

## OPEC Statement

### Adnan Shihab-Eldin

Director Research Division, Acting for the Secretary General, OPEC

Excellencies, Distinguished Guests,  
Ladies and Gentlemen,

It gives me great pleasure to extend to you the greetings of H.E. Sheikh Ahmad Fahad Al-Ahmad Al-Sabah, Kuwait's Energy Minister, and President of the OPEC Conference, and to thank the organizers for inviting OPEC to participate in this timely and important high-level roundtable discussion on 'Regional Cooperation : Key to Energy Security.' I speak on behalf of the President and all OPEC Member Countries in expressing our deepest sorrow and great sadness over the catastrophic earthquake and tidal waves that recently devastated parts of the Asian region, including India. No words can adequately describe the extent of this unprecedented disaster. OPEC Members have been quick to join the international effort to help the countries involved in the relief and recovery efforts, but the sheer scope of the damage inflicted on these areas could take many years to put right.

#### MARKET STABILITY & OPEC ROLE

As we venture into 2005, we leave behind us one of the busiest and most eventful years in the history of the oil market, a period which saw crude oil prices soar to record levels. Prior to 2004, following the Asian financial crisis in the late 1990s, the introduction of the OPEC Price Band in 2000 ensured the maintenance of relative stability in the international oil market for 4 years (2000 to 2003). During this period, the price of the OPEC Reference Basket of seven crudes remained comfortably within the range of our price band of 22-28 dollar a barrel.

However, 2004 saw unusual developments on many fronts in the marketplace, in particular the unanticipated demand surge in Asia and the United States, accompanied by geopolitical tensions, refining and distribution bottlenecks, which were exacerbated by the effects of the hurricanes seen in the Americas, and

compounded by speculation in the futures markets. Together, these factors pushed prices to record levels in nominal terms, although they were still well below the highs of the early 1980s in real terms (by about 50 per cent).

Consistent with its objectives and the leading role it has always played to stabilize the market, OPEC responded by increasing production to near capacity levels last year. The official OPEC output ceiling, excluding Iraq, was increased three times during the year - by a total of 3.5 million b/d [- to 27 million b/d.] Actual OPEC production reached around 30 million b/d in the third and fourth quarters, resulting in well over 1 million b/d of excess supply for most of the year. OPEC's actions, in addition, sent a powerful psychological signal that the Organisation was doing all in its power to ensure that markets remained well supplied. Once concerns about OPEC'S production capability dissipated, prices started to fall considerably, and today they are converging more in line with the fundamentals of the market, with OECD stock levels back to normal. Today, the price of the OPEC Reference Basket is around the 36 dollar a barrel mark, the average for 2004 (vs. \$28.1 average in 2003), and some 30 per cent lower than the highs observed in October last year. At the same time, OPEC Member Countries have speeded up plans designed to boost their spare production capacity to over 2.5 million b/d this year, from the current 1.5 million b/d.

Looking at the outlook for oil in 2005, we foresee a continued and healthy global economic growth rate of 4.1 percent, compared with 4.9 percent in 2004. Consequently, the oil demand growth forecast for 2005 stands at 1.6 million b/d. Asia is expected to account for a significant proportion of this growth. OPEC Members will be expected to supply an average of around 28.2 million b/d of oil this year (similar to 2004.)

## LONG-TERM OUTLOOK

Even though global economies are now much more resilient in their ability to absorb the affects of exceptional price movements, producers must endeavour to ensure that adequate and reliable supplies continue to be available in the future at reasonable prices, to meet the growth in demand - especially if the developing countries are to benefit fully from this valuable energy resource, just as the developed countries did in the 20th century.

There is a convergence of views that the world's petroleum resources, with world's current proven crude oil reserve placed at around 1,100 billion barrels, are still plentiful and will be sufficient to meet demand over many decades to come. Based on our figures, using the reference case from the OPEC World Energy Model (OWEM) global oil demand is set to rise by 33 million b/d to 115 million b/d by 2025. That represents an annual average growth of 1.6 million b/d, or 1.7 percent, over the next 20 years. (This is based on a global economic growth forecast of 3.6 percent annually up to 2020.)

Almost three-quarters of the marginal increase in global demand will come from the developing world. Asian countries will remain the key source of oil demand in the developing states. With this region containing over 50 per cent of the global population, it has emerged as a key player in global markets for commodities, manufacturing and services. Again, our figures show that up to 2025 the region is expected to account for a rise of 18 million b/d in oil demand, which represents 65 percent of the total in all developing states. India, along with China, is central to this growth, with the boom in the transportation sector a particularly important factor. The huge potential for growth is clear from the low density of vehicles in these two countries, which stands at just over 10 vehicles per 1,000 inhabitants in the OECD region. Of course, we are fully cognisant of the fact that many factors may constrain the rise in oil demand in the future, but the region is moving at such a pace that one cannot fail to recognise the huge potential it offers.

OPEC will increasingly be called upon to supply the incremental barrel. Its Member Countries, in particular those in the West Asia, have the willingness, the resources, and the capabilities to meet the increasing demand. As they have done so in the past. OPEC possesses around four-fifth of the world's proven crude oil reserves, but currently only accounts for only about two-fifths of global output. In 2025, we project that our Members will be meeting more than half the world's oil demand, with total production of over 58 million b/d.

In tandem with the oil growth comes gas, which OPEC Member countries also have in abundance. Our estimates show that world gas demand will expand by an average of around 3 percent a year up to 2025. That spells good news for our Members, who together possess almost 50 per cent of the global total. And when one considers that their total marketed output today accounts for just 16 percent of the global figure, the room for future development is considerable.

## INVESTMENT

Naturally, one of the primary objectives of OPEC - and for that matter all oil producers - is to ensure that sufficient production capacity is available at all times to meet the forecast rise in oil demand in the coming years. Investment is needed to meet the increase in demand; to replace exhausted reserves; and to make sufficient spare capacity available to cope with sudden, unexpected surges in demand, or shortages in supply. And just as consumers need security of supply, so do producers require security of demand. The required investment for boosting capacity will be considerable, although not much different than that seen in the recent past - of the order of 100 billion dollars a year. However, it will be much less in OPEC Member Countries than in other producing states, since OPEC oil is more accessible and cheaper to bring to market, yielding more than 40 fold multiple in terms of new productions capacity for same investment. Nonetheless, the exact magnitude of the required capital injection is subject to large uncertainty, due to uncertainty over future economic growth

and a number of other factors, including the extent of the industry's technological development and policies of consuming countries. Over investments may result in excessive, costly idle capacity, while under-investment may lead to a shortage of crude. Both inevitably, lead to undesirable boom-bust cycles.

## CO-OPERATION

So what of the future for OPEC in Asia, Well, the kind of developments we have been witnessing, in the last year especially, again demonstrate the need for concerted cooperation and coordination in our industry. Only by working together can we ensure that the global oil market is stable, and operates with prices that are fair to both producers and consumers, especially the energy-exporting and energy-importing developing countries in Asia. It remains imperative that all players associated with the industry - producers, consumers, governments, oil companies, and financial institutions - join hands in cooperation. Market order and stability is a shared responsibility for all parties. Advances in dialogue and cooperation among the producers, and the producers and the consumers, have been an encouraging feature of the past couple of decades - from large-scale international ministerial gatherings, such as the meetings of the now-institutionalised International Energy Forum, to bilateral or regional contacts that extend across national boundaries. Indeed, the establishment of the Forum's Secretariat in an OPEC Member Country - Saudi Arabia - bears witness to the Organisation's commitment to this cause. Relations between OPEC and several leading non-OPEC producers have been enhanced and strengthened. In addition to active dialogue and exchanges at OPEC Ministerial Conferences, we are now involved in a series of high level technical exchanges among OPEC and non-OPEC producers. Recent years have also witnessed the development of a closer working relationship between OPEC and the International Energy Agency, to exchange ideas and information and we collaborate with IEA and other international organization in one of the most important collaborative projects to promote the compilation

and dissemination of more timely and reliable data on global oil market. All this is indeed a step in the right direction, since there is little doubt that the industry is much better off if there is an underlying consensus on the means of addressing issues that concern all parties.

Excellencies, distinguished guests, ladies and gentlemen,

The global economy is clearly less sensitive to oil price shocks, compared with the situation seen in the 1970s and 1980s. The fact remain that an oil market that is stable, with a fair and equitable price, is still the best way forward for attaining global economic prosperity - something OPEC has been professing for many years. And with demand for oil and gas set to increase markedly in the years ahead, there is now an ever-greater need to achieve - and sustain - lasting market order. OPEC has the proven ability to be innovative and constructive in the policies and decisions it takes. The world has recently come to appreciate the benefit of OPEC's spare production capacity in providing sufficient supplies in times of need. It is now understood just how valuable the investments OPEC Member Countries have made in developing their spare capacities are to the planet's future welfare. Also recognized and appreciated in contributing to oil market stability is the price band concept introduced by OPEC in 2000.

Today, **Globalisation and technological process** have turned our world into a small village, characterized by an **increasing interdependence** between nations. Our futures are intertwined and we therefore share common destinies. This interdependence is seen as a powerful requisite for establishing lasting security and stability.

**Dialogue, exchange of views**, and understanding, are required for attaining this goal in the future.

Excellencies, Ladies and Gentlemen

Let me conclude with the following observations :

1. There is a convergence of views that Asia will become more and more important for the

petroleum industry in the years ahead, both in terms of supply and demand. Oil trade in this region will increase dramatically in the future.

2. This growth scenario for Asia brings with it tremendous potential and opportunities for development and cooperation.

3. There will be room for increased investment, both in upstream and downstream activities, as well as opportunities for bilateral and possibly multilateral transactions, involving the transit countries, and covering such areas as joint storage farms, refineries, petrochemical installations, and distribution systems, to name just a few. Crossed investments (upstream versus downstream) are a real possibility.

4. Cooperation in Technology Research and Development is also path to be explored, both in upstream and downstream sectors, and in the pursuit of cleaner and more environmentally-sound fossil fuel technologies.

5. Public and private partnerships among Asian countries should be facilitated through the creation of a better framework and improved conditions for enabling increased investment and trade.

6. There is an ever-increasing importance attached to regular dialogue between West Asia oil producers and Asian countries to promote stable and secure energy markets and achieve sustainable development; consideration should be given to convening meetings similar to this one periodically.

7. Concerted cooperation and coordination among all players in the industry are essential for achieving lasting oil market stability.

Much has been achieved over the years, but the learning curve never ends. We can and must benefit from our past experiences and from enhanced dialogue exchanges to analyse the key issues. I believe we are now better prepared than ever to meet the future challenges. If a united front can be established, to meet the challenges ahead, then we all stand to benefit - and the industry will go from strength to strength, to the benefit of all parties. Oil has played a key role in fuelling the development of the industrialized countries in the 20th century - it should now play just as important a role in supporting the future growth of the economies of the developing world.

Thank you.

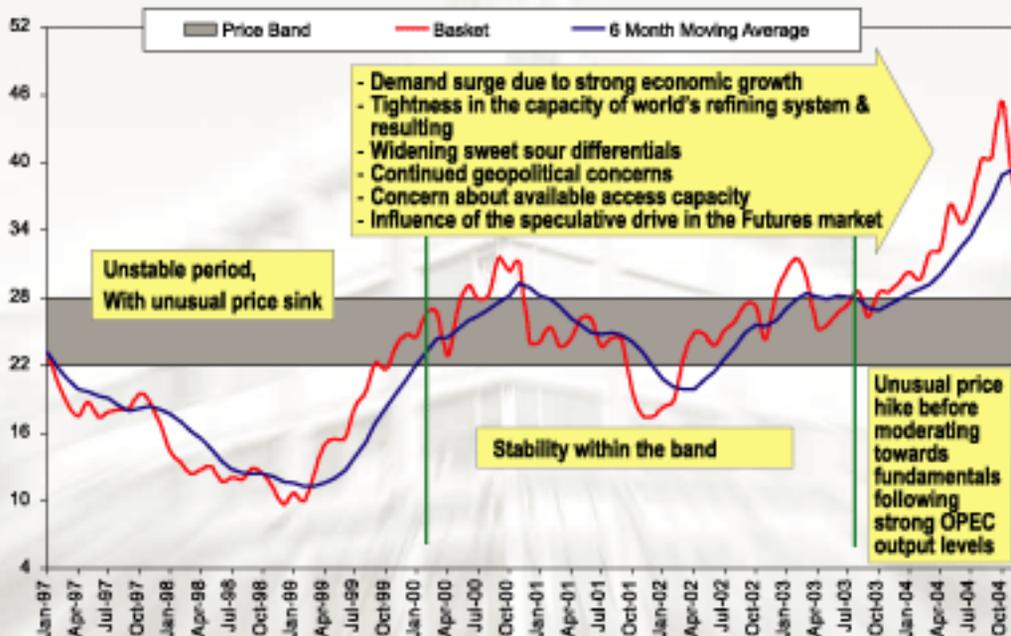
**"Energy Security in an Interdependent World,  
OPEC's Role and Objectives"**

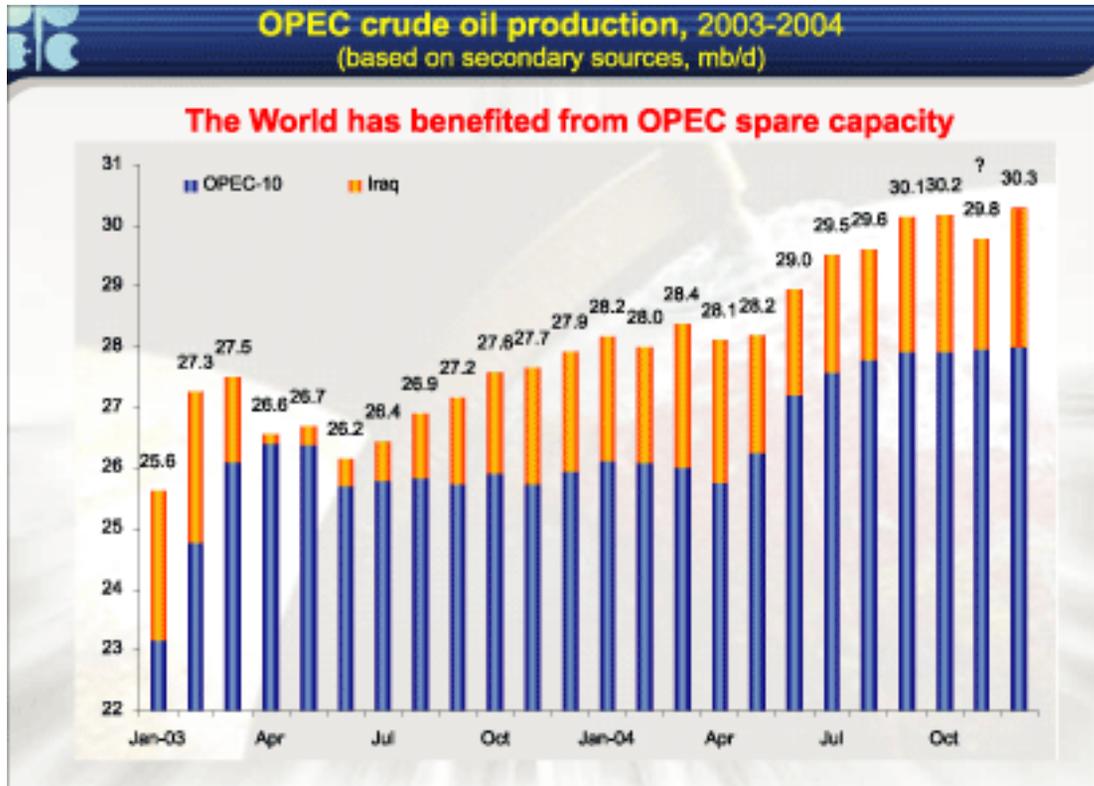
New Delhi  
January 6, 2005

Presented by  
Dr. Adnan Shihab-Eldin

Research Division  
Organization of the Petroleum Exporting Countries  
Vienna, Austria

**OPEC Reference Basket (\$US/b)**



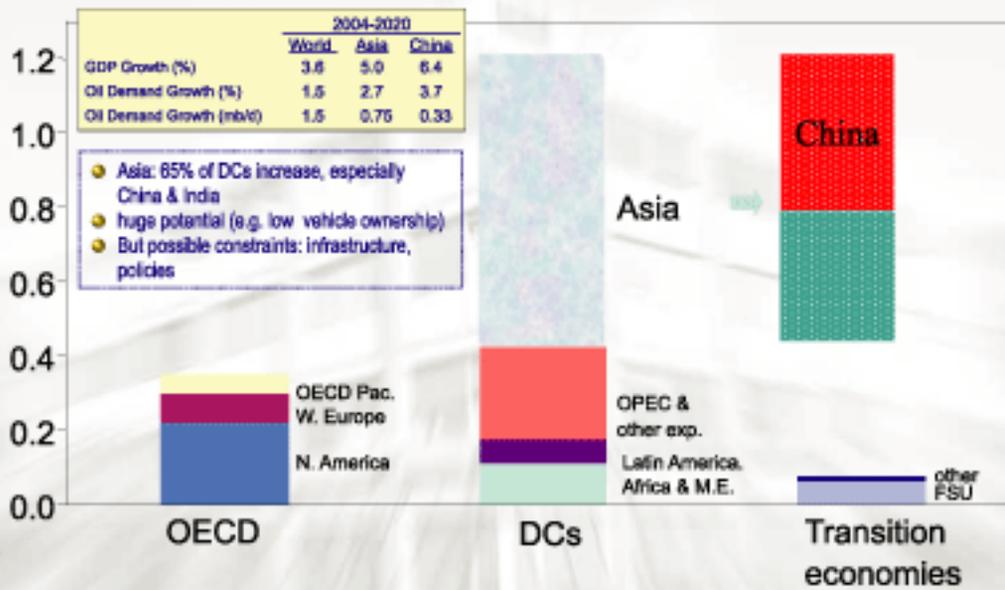


### Oil Demand Outlook, mb/d

Reference	2010	2015	2020	2025
OECD	51.2	52.9	54.5	55.8
DCs	32.3	38.5	45.3	52.5
Trans. Econ.	5.3	5.7	6.0	6.3
<b>Total World</b>	<b>88.7</b>	<b>97.1</b>	<b>105.8</b>	<b>114.6</b>
Low economic growth scenario	84.2	88.8	93.2	97.4
(diff. to DAU)	-4.5	-8.2	-12.6	-17.3

- "Dynamics-as-usual": observed patterns, no new strong policy drives
- Oil demand increases by an average of 1.6 mb/d annually
- Almost three-quarters of the increase in demand of 38 mb/d over the period 2002–2025 comes from developing countries
- Transportation continues to be the dominant source of growth (~60 %)
- Many uncertainties: GDP, technology, policy – substantial downside risks
- Issue of security of demand

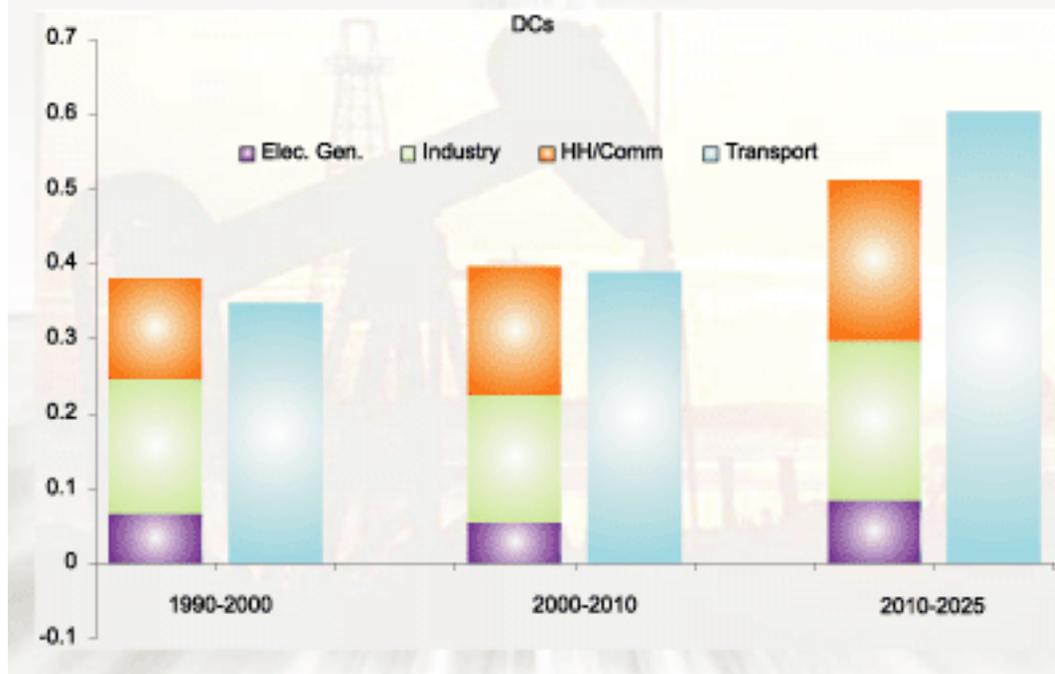
## Annual growth in oil demand, 2004-2025 Reference, mb/d pa



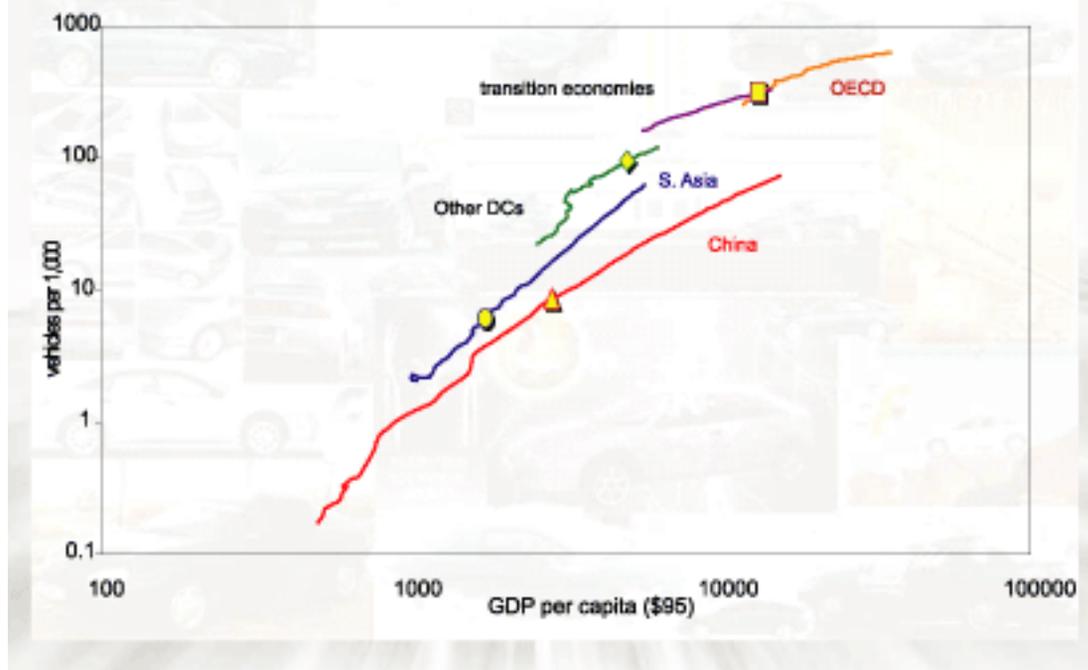
## Oil Demand & Net Oil Requirements in Asia 2005-2020, (mb/d)

	2005	2010	2020	growth (2005-2020)	
				% pa	mb/d
<b>Oil demand</b>					
OECD Pacific	8.5	8.7	8.9	0.3	0.03
South Asia	3.1	4.0	6.4	5.0	0.22
South-East Asia	4.3	5.1	6.9	3.2	0.17
China	6.7	8.3	11.6	3.7	0.33
<b>Total Asia</b>	<b>22.6</b>	<b>26.1</b>	<b>33.8</b>	<b>2.7</b>	<b>0.75</b>
Asian share in total World	27%	29%	33%		
<b>Oil supply</b>					
OECD Pacific	0.5	0.7	1.0	4.7	0.03
China	3.5	3.6	3.6	0.2	0.01
Other Asia	2.5	2.6	2.5	0.0	0.00
<b>Total Asia</b>	<b>6.5</b>	<b>6.9</b>	<b>7.1</b>	<b>0.6</b>	<b>0.04</b>
<b>Total Asia Net oil import req.</b>	<b>16.1</b>	<b>19.2</b>	<b>26.7</b>	<b>3.4</b>	<b>0.71</b>
OPEC supply	32.1	35.0	46.8		
OPEC share in total World	39%	39%	45%		

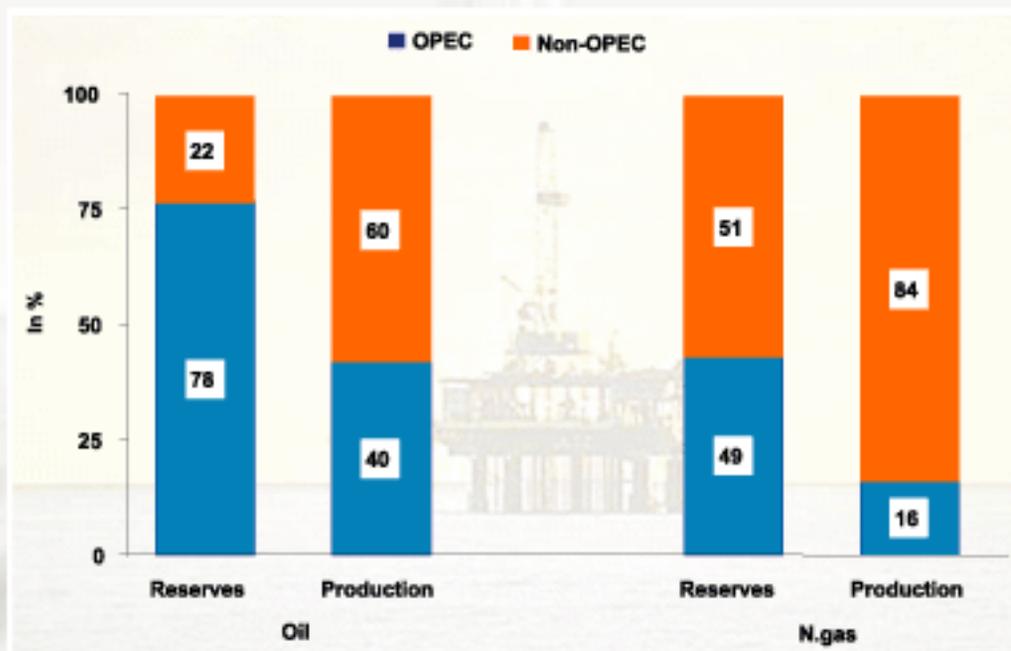
### Annual growth in oil demand by sector (mb/d)



### Vehicle intensities 1970-2025



## Shares in Oil & Natural Gas %



## OPEC's objectives

- Stable markets
  - Reasonable prices
    - Steady revenues
    - Secure adequate and economically efficient supply
    - Fair returns to investors
- ⇒ Consistent with robust economic growth

## Investment in production capacity

The bulk of incremental supply to meet demand growths will come from OPEC, in particular the ME:

- To meet increase in overall demand
- To replace exhausted reserves
- To cope with unexpected shortages (adequate spare capacity)

⇒ Oil must & can be cleaner, safer and more efficient

Partnership for

Sustained Growth & Sustained Supply

## Dialogue and cooperation

- Big advances in recent years
- The industry is much better off if there is an underlying consensus on such major issues as price stability, outlook for demand growth and investments to assure adequate supply, the environment and sustainable development. (2 sides of Energy Security)
- But large uncertainties remain and require continuous review and adjustments
- Downstream just as important

***Thank You***

## **Asian Oil Ministers Meet**

# **Regional Cooperation in the Asian Oil Economy**

**Stability, Security, Sustainability  
through  
Mutual Interdependence**

**Ivo Bozon**  
McKinsey&Company

January 6, 2005

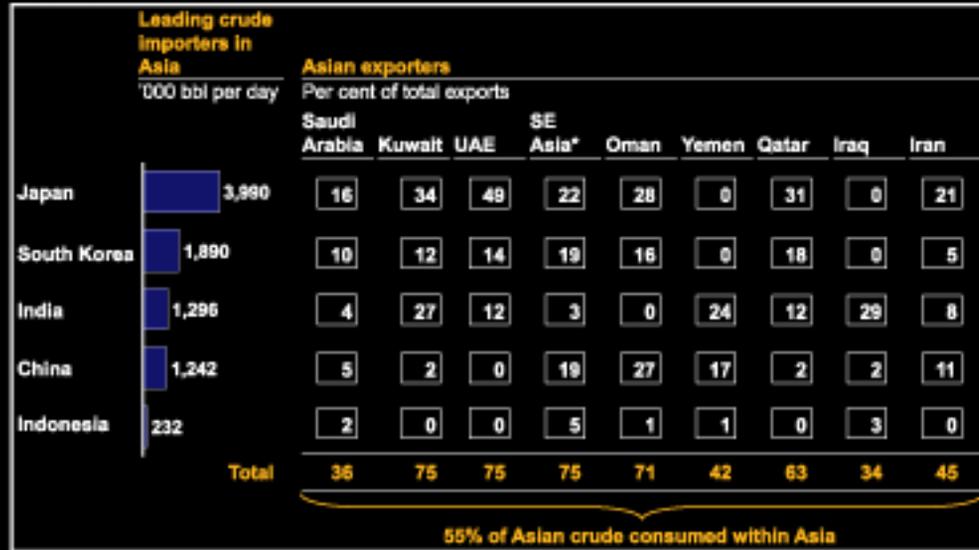
## **THREE KEY MESSAGES**

- **Interdependence within Asia is vital for major suppliers as well as major consumers**
- **However, several factors impede Asian interdependence today**
- **Energy stability, security and sustainability could provide common ground between nations – numerous opportunities to increase collaboration**

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## 55% OF ASIAN CRUDE CURRENTLY CONSUMED WITHIN ASIA

FY2003



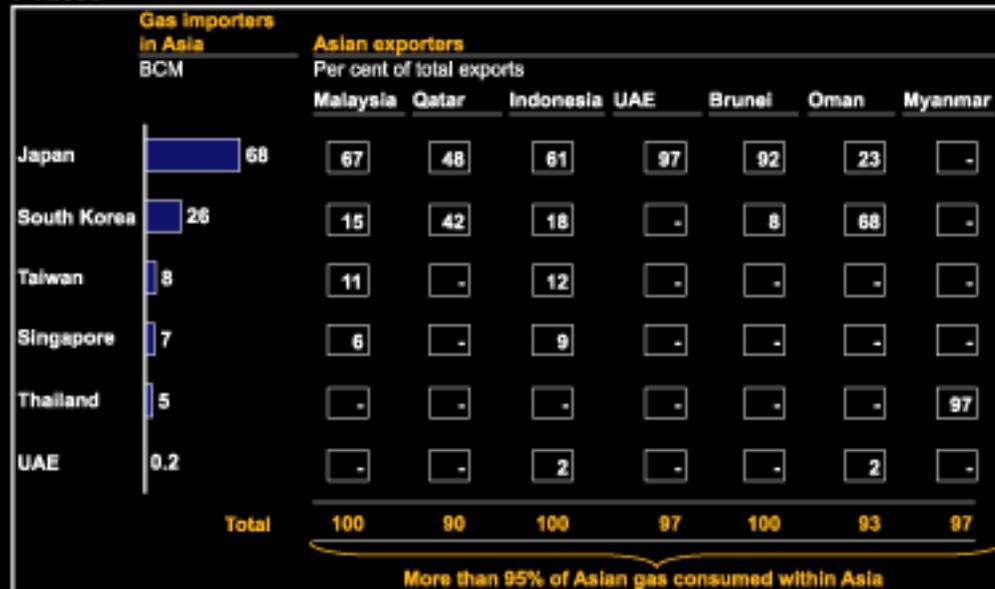
\*Indonesia, Malaysia, Brunei

Source: BP Statistical Review of World Energy 2004; World Oil Trading 2003

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## MORE THAN 95% OF ASIAN GAS CONSUMED WITHIN ASIA

FY2003

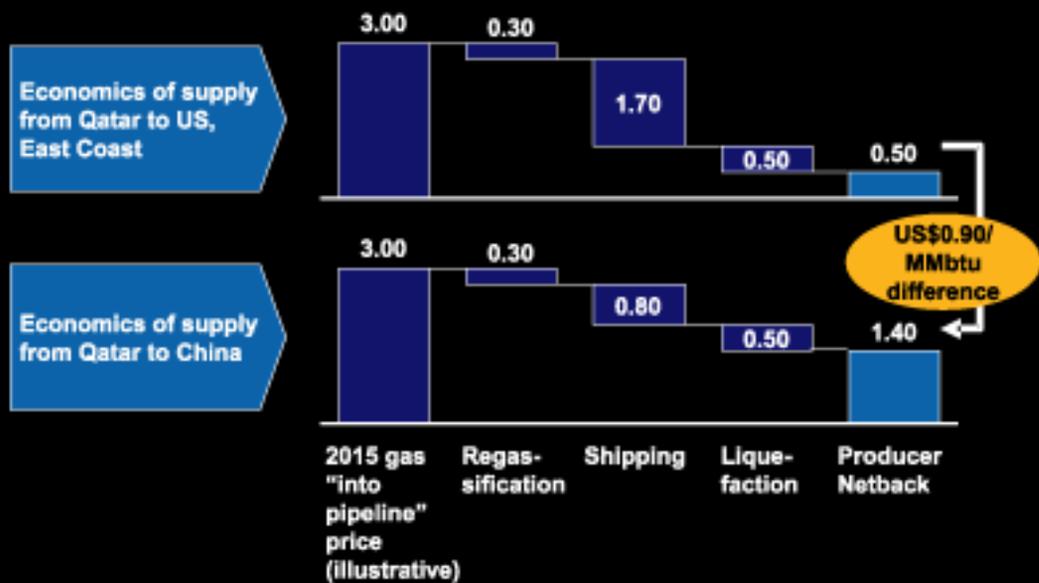


BP Statistical Review of World Energy 2004; World Oil Trade 2003

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## SUPPLYING WITHIN ASIA POTENTIALLY MORE PROFITABLE: GAS EXAMPLE

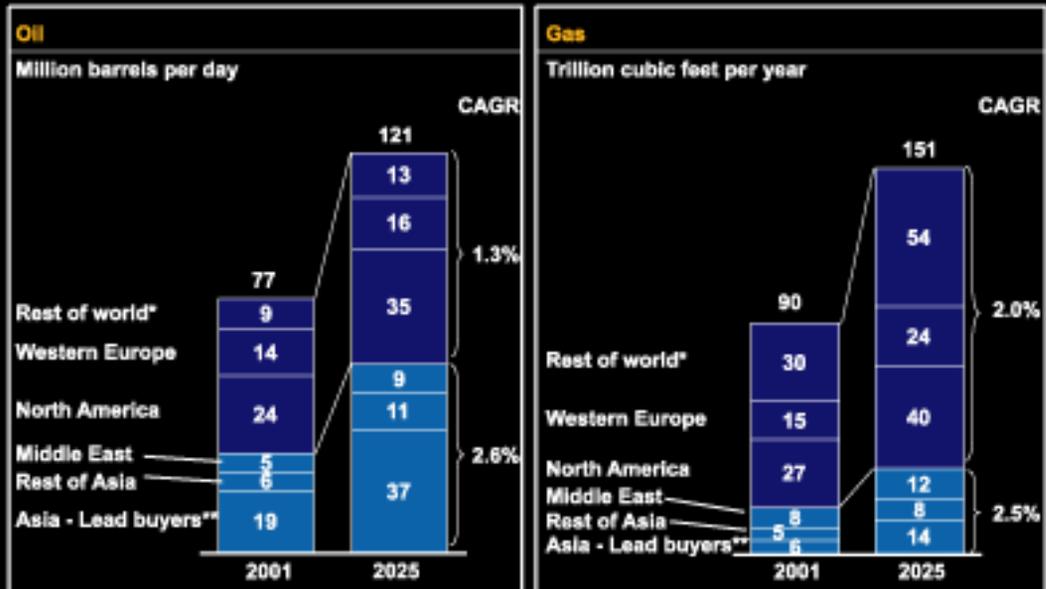
US\$/MMbtu; FY2015



Source: McKinsey Global Gas Model

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## ASIA WILL BE THE DOMINANT CONSUMER OF OIL AND GAS



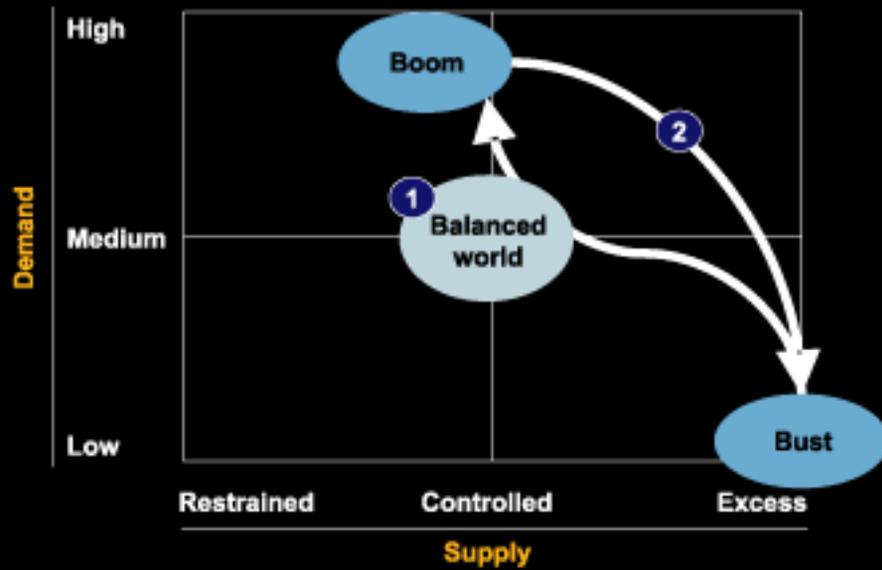
\*Includes Africa, Eastern Europe, New Zealand, Australia and former Soviet Union countries

\*\*India, China, South Korea, Japan

Source: International Annual Outlook (IEA)

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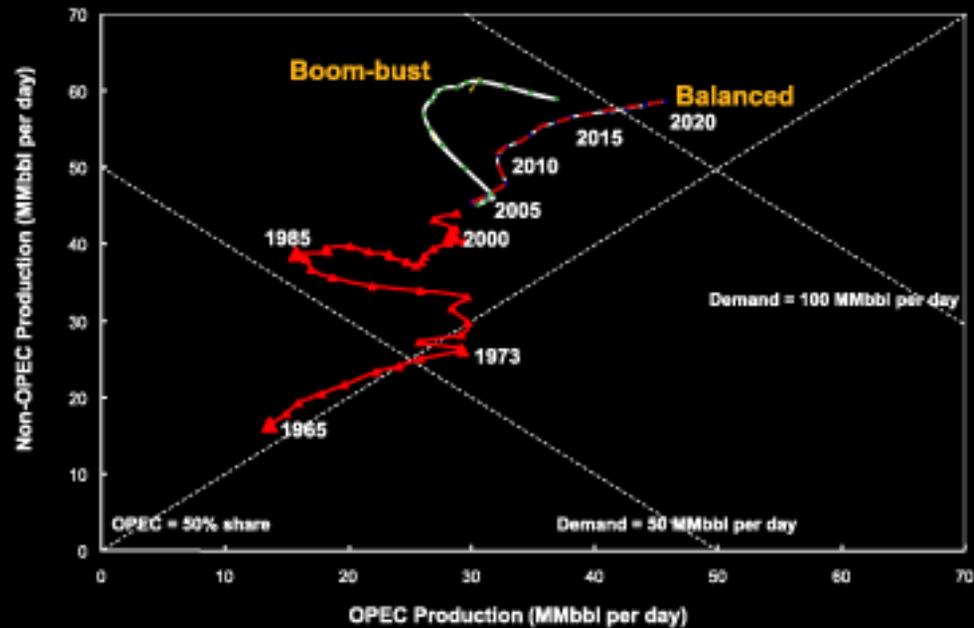
## APPROACH TO UPSTREAM CAPACITY ADDITION: BOOM-BUST OR BALANCED?



Source: McKinsey analysis

McKinsey&Company

## BALANCED APPROACH HELPS INCREASE SHARE AND VOLUMES

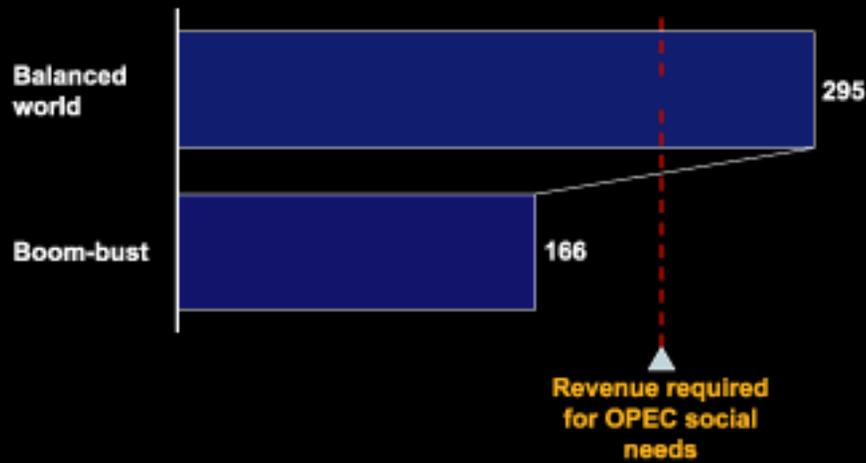


Source: McKinsey Global Oil Model

McKinsey&Company

## MARKET STABILITY CRITICAL FOR SUPPLIER NATIONS: OPEC EXAMPLE

Annual revenue in US\$ Billion; FY2009



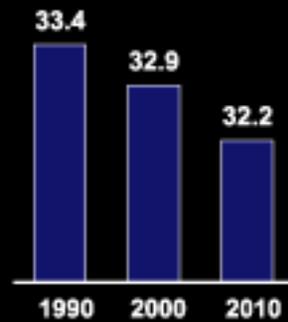
Source: McKinsey Global Oil Model

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## ASIA NEEDS INVESTMENTS IN COMPLEX REFINING CAPACITY

OPEC crude becoming heavier, more sour

Average API

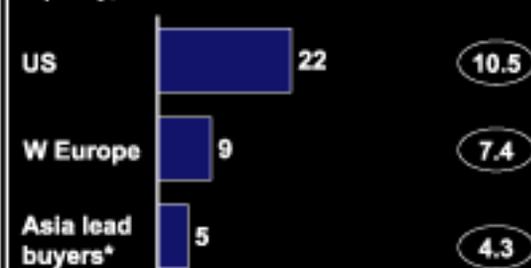


Asia has low complex refining capacity

Coking + Hydrocracking capacity

Per cent of distillation capacity; FY2004

Refining complexity  
Nelson index; FY2004



\* China, Japan, India and South Korea

Source: FACTS

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## MARKET STABILITY ALSO CRITICAL FOR CONSUMING NATIONS: CHINA EXAMPLE

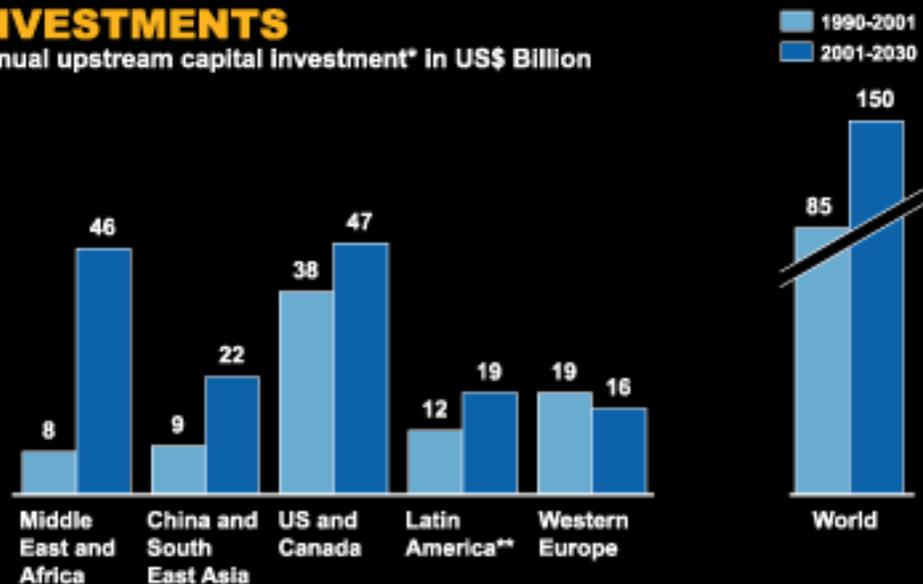
Type of shock	Lost GDP growth Per cent of GDP
<b>Financial</b> <ul style="list-style-type: none"> <li>Local liquidity crisis</li> <li>Local non performing loan implosion</li> </ul>	10-20%
<b>Energy</b> <ul style="list-style-type: none"> <li>Input price shock</li> <li>Distribution shock</li> </ul>	5-10%
<b>Natural disaster</b> <ul style="list-style-type: none"> <li>Grains shortage (floods)</li> <li>Destruction of major cities or transport hub</li> </ul>	2%
<b>Public health</b> <ul style="list-style-type: none"> <li>Infectious disease</li> </ul>	N.A.

Source: Interviews; McKinsey analysis

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## SUPPLIER COUNTRIES NEED LARGE INVESTMENTS

Annual upstream capital investment\* in US\$ Billion

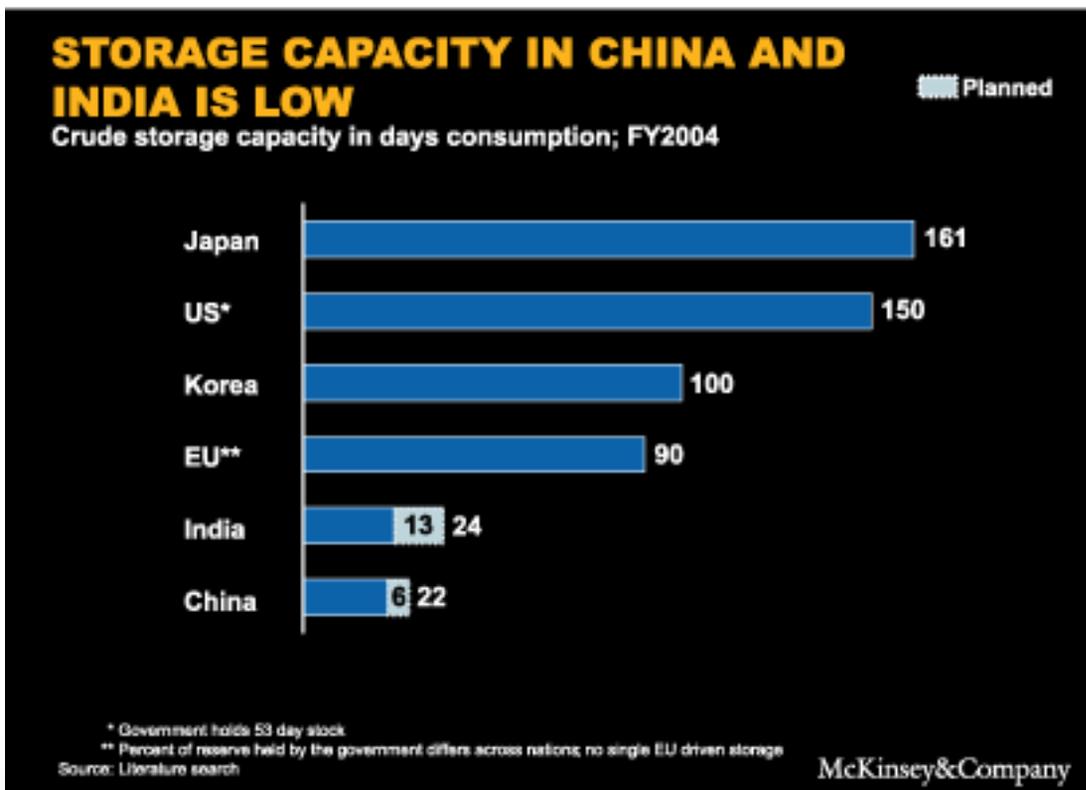
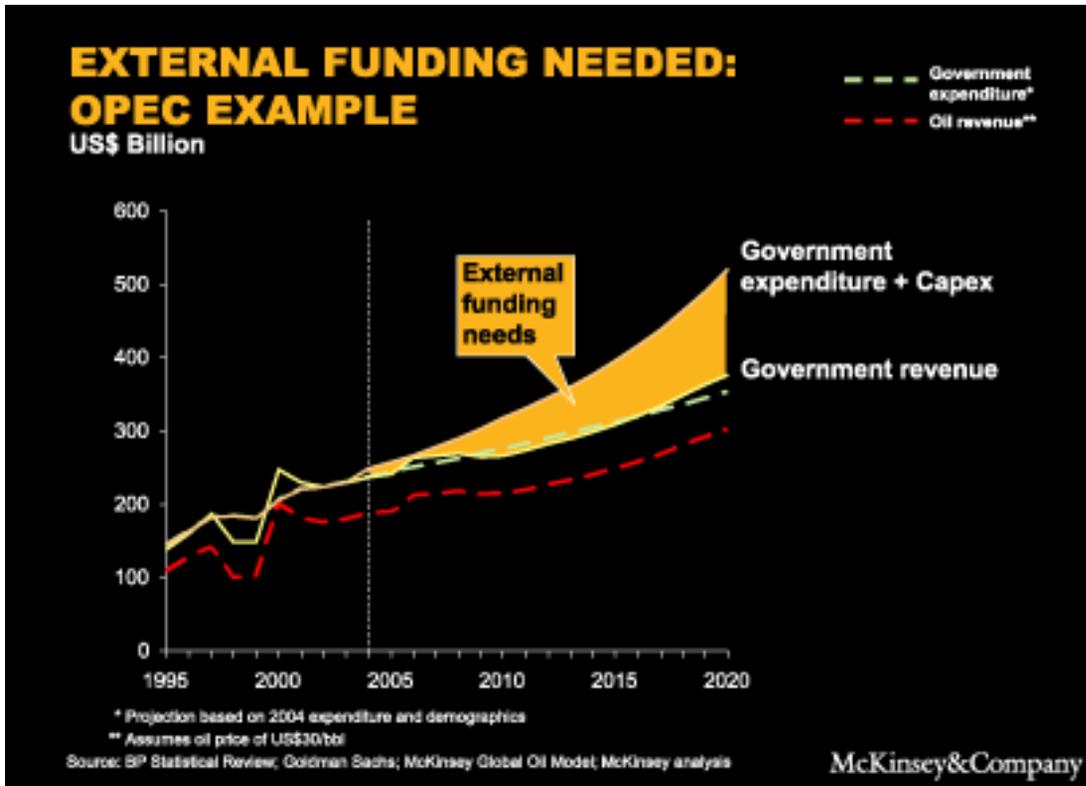


\* Both oil and gas – Oil includes investment for E&P, non conventional oil, and refining; Natural gas includes E&P, transmission storage, LNG and distribution

\*\* Includes Mexico

Source: IEA World Energy Investment Outlook 2003; Worldwide Petroleum Industry Outlook

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## ASIAN OIL AND GAS MARKETS NOT EFFICIENT

● Good  
● Poor

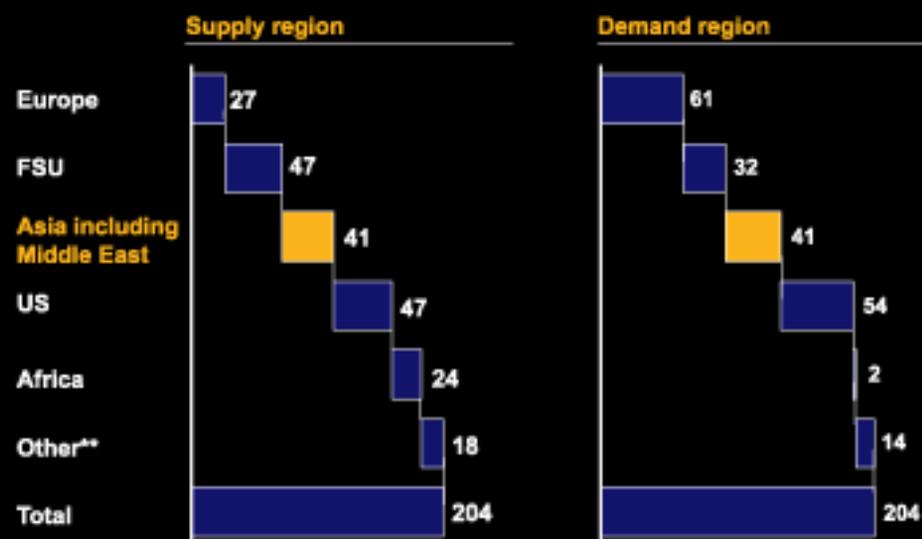
Key requirements	Why is it important	Asian market situation
1 Active backing of key demand or supply centre	<ul style="list-style-type: none"> <li>Shallow markets lack credibility</li> <li>Reduces speculation</li> </ul>	●
2 Adequate storage and delivery	<ul style="list-style-type: none"> <li>Reduces speculation</li> <li>Encourages participation of all serious buyers and sellers</li> </ul>	●
3 Regulations and governance	<ul style="list-style-type: none"> <li>Minimise legal and financial hurdles</li> <li>Transparent clearance, settlement and arbitration process</li> </ul>	●
4 Large number of contracts – Spot and futures	<ul style="list-style-type: none"> <li>Enhances liquidity</li> <li>Encourages hedging</li> </ul>	●

Source: McKinsey analysis

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## ASIA OFFERS THE THIRD LARGEST MARGIN POOL IN GAS

Annual margin\* in US\$ Billion; FY2015



\* Margin defined as total net-back in chain, i.e., gas price in demand region minus regas, shipping, liquefaction and production cost

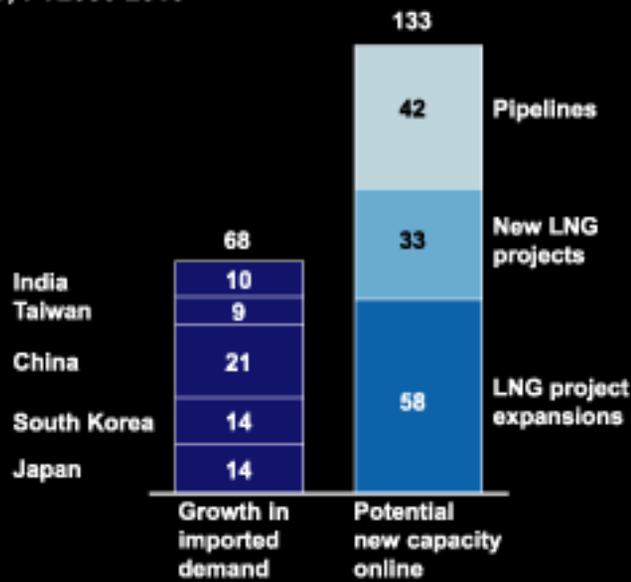
\*\* Latin America (including Mexico), Canada, Australia, New Zealand

Source: McKinsey Global Gas Model

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## SEVERAL NEW GAS PROJECTS PLANNED IN ASIA

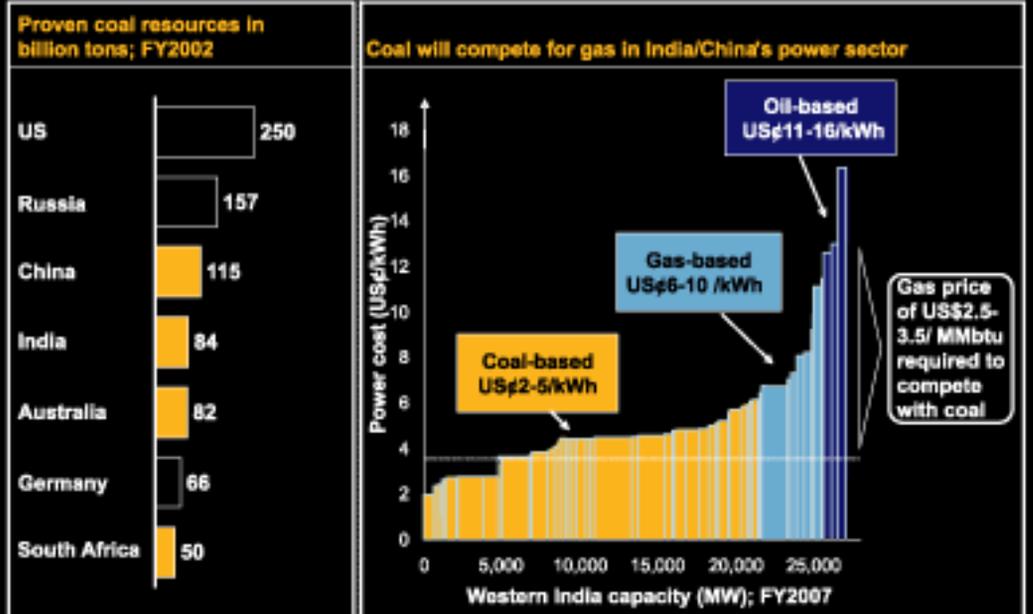
BCM per year; FY2000-2010



\* New capacity includes Asia-Pacific countries, Oman, Qatar, UAE and Russia  
 Source: BP Statistical Review 2001; Energy Information Administration; Prase Research

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## ABUNDANT COAL RESERVES WILL CAP KEY ASIAN CONSUMERS' ABILITY TO PAY FOR GAS

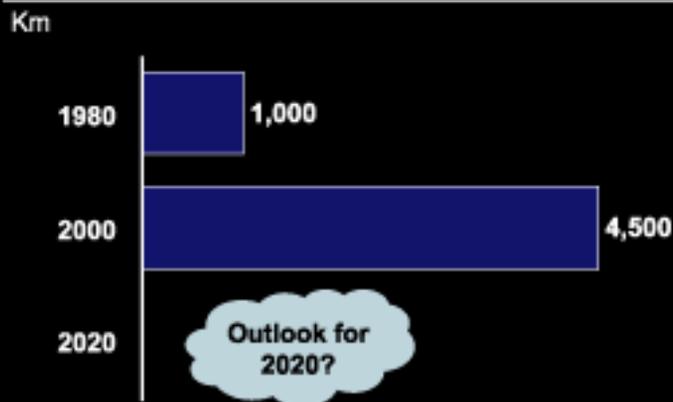


\* Assumes gas price of US\$4/MMbtu  
 Source: International Coal Handbook; BP Statistical Review; McKinsey analysis

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## ECONOMICS OF PIPELINE VS. LNG ARE EVOLVING

Distance up to which pipeline transportation is more economical than LNG



Source: McKinsey analysis

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## EIGHT POTENTIAL IDEAS FOR COLLABORATION

	Objectives	Potential win-win areas
Stability	Stable prices, revenue growth	1. Create a deep, liquid and transparent Asian energy market
Security	Capacity creation and physical supply	1. Share information on supply, demand, inventory positions 2. Co-invest in building emergency response mechanisms, e.g., strategic reserves, cross-border inventories 3. Increase scale and pace of joint investments in upstream and feedstock-related downstream 4. Create a pan-Asian gas grid
Sustainability	Making the partnerships endure	1. Pursue multilateral projects to strengthen cooperation, e.g., joint research on energy technologies, standardised product specifications 2. Strengthen National Oil Companies through corporatisation and regional cooperation 3. Extend this conference into an ongoing annual forum to define and pursue an Asian agenda

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**Asian Oil Ministers Meet**

**Regional Cooperation in the  
Asian Oil Economy**  
**Stability, Security, Sustainability**  
**through**  
**Mutual Interdependence**

**Ivo Bozon**

McKinsey&Company

January 6, 2005



## Presentation

by

McKinsey&Company

Your Excellencies, Ladies and Gentlemen,

I am thankful to all of you for giving McKinsey & Company an opportunity to address this distinguished gathering. The global energy industry is on the threshold of some very exciting changes and you are at the centre of these changes. Leaders in this room have both the power and the responsibility to shape the future of the world's energy landscape. Therefore, it is a privilege for me to share McKinsey's views on key energy issues at this industry-shaping event.

Today, I would like to convey three key messages in my speech (Exhibit I) :

- First, we believe interdependence in energy among Asian countries is vital for the economic development of all countries represented here
- Second, there are several key impediments to increasing Asian interdependence; we believe addressing these impediments should be central to your conversations today
- Finally, I would like to leave behind with this group, some ideas on opportunities for your nations to find common ground on energy security, stability and sustainability.

### INTERDEPENDENCE WITHIN ASIA IS VITAL

Let me start by reiterating why Asian interdependence is vital for both consuming and supplying nations. In general, I will use the term Asia in its widest sense, including the Middle East, South and South East Asia and the Far East. When it comes to specific issues, though, I will refer to the relevant sub-region like the Middle East, or to individual countries. There are four main reasons why Asian interdependence is vital:

- **First, much of Asia's oil and gas production is already consumed within the region, driven by economic logic** - 55% of crude in 2003, with Japan and South Korea as primary consumers as

shown in this exhibit (Exhibit 2). For gas, as you can see in the next exhibit (Exhibit 3), this picture is even more extreme: 95% of Asian gas is currently consumed within Asia. Maintaining and even increasing the inter-Asia supply interdependence makes economic sense. As an illustration, this exhibit (Exhibit 4) shows how supplying gas from the Middle East to China (or India) could result in higher netbacks for producers relative to the US due to lower transport costs, assuming that longer term market prices for gas tend to be similar across regions. This also applies to crude. But other concerns such as diversity in supply and terrorism are increasingly influencing the choice of supply source. For example, a terrorist attack in the straits of Malacca could disrupt supplies to the Far East.

- **Second, Asia is likely to become a dominant consumer in both the global and regional energy industry.** Asian buyers already account for about 20% of global oil demand and 6% of global gas demand. As you can see from this exhibit (Exhibit 5), over the next 20 years, Asian demand is likely to be the primary growth engine accounting for 38% of global oil demand and 14% of global gas demand in 2025. The implications of this are dramatic - by 2010, Asian oil demand will be higher than that of North America. By 2025, it will be 2½ times the size of Western European demand, with China, India, South Korea and Japan being the primary consumers.

- **Third, improved Asian linkages are critical for Middle East and South East Asian suppliers to grow their share in global energy revenues.** We are at a critical juncture in the development of world energy markets. To illustrate this, I would like to share two key scenarios distilled from McKinsey's extensive research on the future of energy markets. As shown in the next exhibit (Exhibit 6), in the first scenario, OPEC and non-OPEC nations follow a balanced approach, keeping capacity addition in line with demand growth, and maintaining current market shares.

The second scenario is a boom-bust scenario, where supply tightness drives prices up, triggering significant non-OPEC supply and market share growth for non-OPEC countries. This market dynamic in turn, could induce aggressive capacity building by OPEC, a pattern that we saw in the eighties; this would help OPEC regain share, but at the cost of lower oil prices and significant revenue loss. As we can see from the next exhibit (Exhibit 7), the balanced world approach will lead to higher economic growth, higher demand for oil and a larger share and size of OPEC production. The size of the prize is large; the next exhibit (Exhibit 8) shows how a boom-bust scenario can cause substantial damage to supplier nations by slowing down investments targeted at improving social infrastructure like education and healthcare.

There is an additional reason why Asian linkages are critical for major producers. As you can see on this exhibit (Exhibit 9), the crude slate from the Middle East is getting heavier and sourer and Asia has low availability of complex refining capacity to process such crudes. Therefore, additional investments will be needed in consuming nations to realize the full economic value of the Middle Eastern crudes.

■ **Fourth, greater interdependence is also critical for Asian consuming nations to reduce energy market volatility and ensure greater stability.** Continued economic development of consuming countries hinges on stable energy prices. For example, as you can see here (Exhibit 10), domestic and international experts believe that volatility in energy prices can easily shave off 5-10% of China's potential GDP growth, and is the second largest potential shock to growth.

As the potential upside and the downside for all of your countries is very high, we believe that this conference is an excellent opportunity for you to start a dialogue on how to enhance Asia-to-Asia collaboration and interdependence, in order to achieve sustained economic development for your respective nations.

## IMPEDIMENTS TO GREATER ASIAN INTERDEPENDENCE

### DO EXIST TODAY

Given the importance for this group to find common ground and collaborate, I wanted to

share with you what we believe are the key issues that will need to be addressed to clear the way for true Asian interdependence. We hope these issues will set the context for your conversations in this forum.

### The first set of issues pertains to Asian interdependence in oil.

We believe that three issues currently hinder interdependence in Asian oil :

■ **The first issue is that oil supply is projected to remain tight and large, risky investments are needed to increase supply.** While supply is expected to remain tight, we believe significant options still exist to increase future production. Longer term, most supply growth will need to come from OPEC, Russia and unconventional sources. However, realizing these production increases will entail significantly higher investments. As shown in this exhibit (Exhibit 11), investments to increase supply will be larger and more risky. For the Middle East and Africa alone, capital investment will need to increase from \$8bn p.a. in the last decade to \$45bn p.a. for the next three decades. Despite their strong financial position, as shown here (Exhibit 12), supplier countries are likely to require external funding to sustain such large capital investments, if they are to ensure adequate focus on social investments and nation building, assuming an oil price of \$30/bbl. A subject for your consideration, therefore, is whether collaboration within Asia could help bridge this investment gap.

■ **The second issue is that significant downstream investments are needed in consuming nations to meet Kyoto commitments.** All the Asian consuming nations represented here have signed the Kyoto protocol. To meet the environmental standards specified in the Kyoto protocol, substantial de-sulphurisation and coking investments are needed. Therefore, another area for you to discuss is the relative economics for consuming nations between desulphurization investments in refining vs. upstream investments in securing sweeter crudes from regions other than the Middle East.

■ **Third, Asian energy markets are currently neither deep nor transparent, relative to the**

**developed markets in North America and Europe.** To start with, as shown here (Exhibit 13), Asia has lower levels of crude storage compared to North America and Western Europe. Moreover, as shown in the next exhibit (Exhibit 14), the oil market in Asia falls short on all the key elements that characterize an efficient market. First, there is no Asian market with the active backing of key demand and supply centers and sophisticated financial markets. Second, the markets are not backed by adequate storage and delivery facilities that can control excessive speculation. Third, appropriate regulatory mechanisms need to be put in place, for example, clear settlement, clearance and arbitration processes. Finally, the market doesn't have adequate scale to offer participants liquidity. Such an under-developed market results in buyers not being able to hedge risks and heightens supply security concerns. Sellers also lose out as they leave significant money on the table because of the 'noise' caused by volatility in marker crudes that do not reflect physical trades in Asian markets. Putting in place the building blocks for creating a vibrant Asian market would be another topic for you to consider.

**The second set of issues pertains to Asian interdependence in gas.**

Asia offers a large margin pool for investors in gas over the next 10 years. In fact as shown in this exhibit (Exhibit 15), the Asian margin pool is expected to be the third largest in the world. Therefore, as the next exhibit shows, (Exhibit 16) several large LNG and pipeline investments have been planned to meet growing demand.

McKinsey's assessment of the future of the global gas market suggests that the Asian market for gas will be even more difficult than oil, making interdependence even more critical. There are four main impediments for collaboration that you need to consider.

■ **First, the lack of a liquid market for gas in Asia will make investments risky.** Asia does not yet have the number of buyers and sellers, liquidity, physical infrastructure or institutional trading mechanisms necessary to sustain a traded gas market. One of the key reasons for the absence of liquidity is the lack of cross-border pipelines linking multiple demand and supply

centers—such pipelines have been instrumental in creating liquidity in Europe.

■ **Second, gas investment plans, particularly in India and China, will need to factor in competition from coal in power generation.** As you can see on this exhibit (Exhibit 17), with some of the largest reserves of coal in the world available in the Asian region, Asian power generators are unlikely to be able to pay much more than about US\$3 per mmbtu.

■ **Third, LNG and pipeline projects will compete for markets.** As this exhibit shows (Exhibit 18), the relative economics of LNG and pipelines are changing, with pipelines becoming competitive over longer distances. LNG, however, will continue to offer advantages over longer distances; over politically risky routes, and for market seeding.

■ **Fourth, gas pipelines inherently require nations to work together.** Already, gas pipelines from the Middle East to India, from South East Asia to India, and within South East Asia appear economically viable.

Creating a vibrant gas market and accelerating these various gas infrastructure projects will require a high level of collaboration and orchestration amongst several of you present here today.

**OPPORTUNITIES TO INCREASE COLLABORATION WITHIN ASIA**

If we agree that it is important for all of you to pursue common ground and that the above factors are impeding greater interdependence in Asia, I would like to leave behind some preliminary ideas for this group to consider. Most of these ideas require debate and careful evaluation by yourselves, but we believe they could help move this dialogue forward and create win-win opportunities.

Increasing **energy stability** (Exhibit 19) in the region will require buyers and seller to build a deep, liquid and transparent market in Asia for crude, oil products and gas. A strong Asian market will require you to put five building blocks in place:

■ A marker crude that is relevant for the region and available in sufficient volume

- Support from key buyers and sellers to ensure adequate trading volumes and flexibility in trades,
- Adequate physical storage infrastructure
- A conducive regulatory framework - specifically, standard contracts, settlement and eligibility processes and arbitration mechanisms; and
- Robust financial markets to support hedging and trading.

We strongly believe that creating a vibrant oil and gas market in the region will go a long way in addressing the stability concerns of both buyers and sellers

To build energy security in the region (Exhibit 19), you have a wide range of options.

1. You could start with sharing detailed information on demand, supply an inventory positions among Asian and Middle Eastern countries, Higher information transparency between buyers and sellers will help improve energy security and avoid speculative tendencies. Experiences of agencies like the IEA will corroborate the positive impact of greater information sharing.
2. If you wish to take this a step forward, buyers and sellers could co-invest in building emergency response mechanisms by increasing physical supply security in Asia through strategic reserves and cross-border inventories.
3. A more intense form of co-operation to build security will be for buyers and sellers to increase the scale and pace of joint investments in oil and gas in the region. This would entail consumers making upstream investments in producing countries and suppliers making downstream investments in refining and gas. This might also require some longer term price

and volume agreements to underpin the investments.

4. Finally, an enduring mechanism to improve energy security in the region will be to create a pan-Asian gas grid linking multiple demand and supply sources.

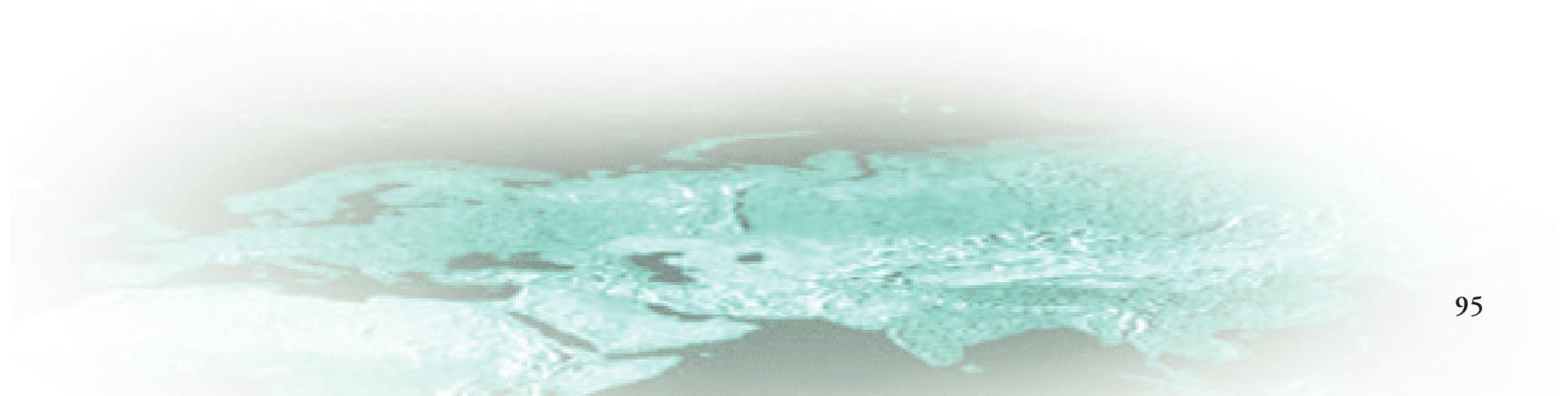
Ensuring **sustainability** (Exhibit 19) will require you to build enduring multilateral partnerships. Specifically, you could take the following steps :

1. Pursue longer term multilateral projects to strengthen cooperation, such as joint research on energy technologies relevant to Asia, jointly addressing key environmental priorities like standardizing specifications for gasoline and diesel across Asia, and broader sharing of mutual capabilities, including human resource development.
2. Strengthen National Oil Companies in the region through further corporatization and far-reaching regional cooperation.
3. Extend this conference into an ongoing forum where members meet once a year to define and pursue an Asian energy agenda. You may also benefit by creating multi-nation taskforces or working groups to address specific issues in a time-bound manner. Over time, a small, dedicated secretariat may also be necessary to support the forum's activities.

I realize that the ideas that I have described are not exhaustive, and there are several other areas of cooperation that you can pursue. We believe Asia is well-positioned to shape the future of the world's energy landscape. All of you in this room will determine what you will leave behind for future generations.

On behalf of McKinsey & Company, it has been a privilege to address you.

Thank you.



by  
**Fereidun Fesharaki**  
President  
FACTS Inc.

For Presentation To  
Energy Roundtable

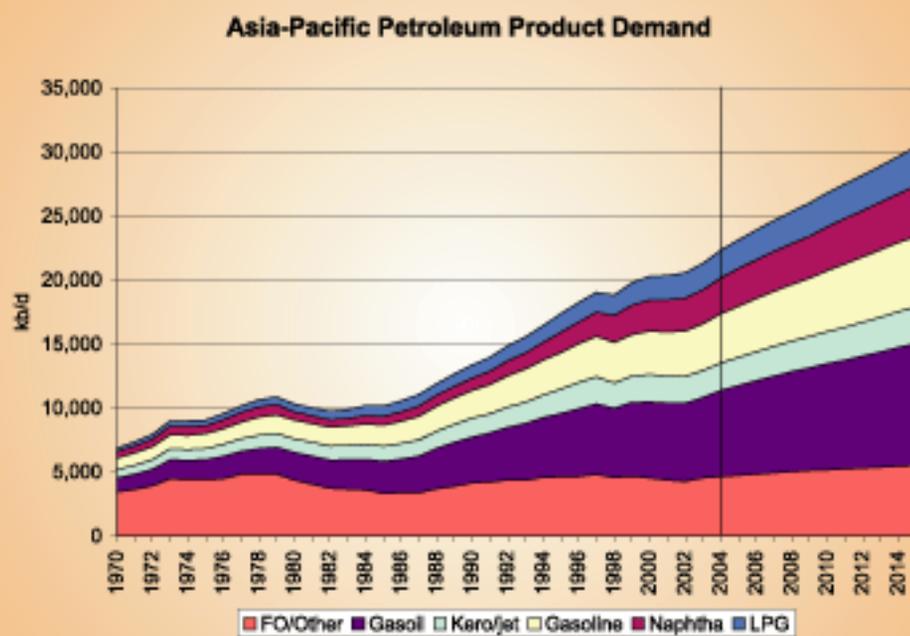
Ministry of Petroleum and  
Natural Gas  
India  
January 6, 2005



## **The Market Context**

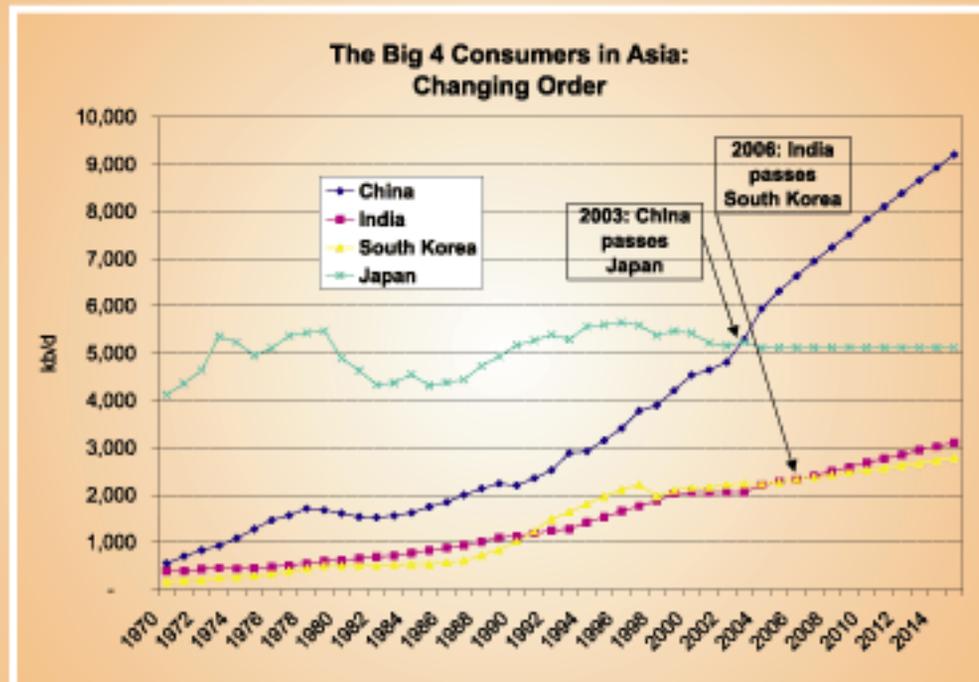
- The Asian oil market is today the most important oil market in the world. Oil demand in Asia is the largest in the world and incremental annual demand growth is over 50% of the global oil demand growth.
- Despite its size and importance, the Asian oil market remains fragmented and heavily government controlled. The market fragmentation divides the consuming nations into four groups: East Asia, Southeast Asia, Australasia, and the Subcontinent with huge distances amongst them and a thin crude and products market in Singapore.

- The government-owned companies account for nearly one half of the companies operating in Asia and many private companies are controlled by large conglomerates and often heavily influenced by the governments.
- Most sales are still on contract basis versus spot.
- The level of market liberalization varies from country to country, but some two-thirds of the market remains partially or somewhat controlled, although most countries are slowly moving towards liberalization. In short, the Asian oil market, despite its size, is not very efficient and market signals are not well transmitted to the consumers.

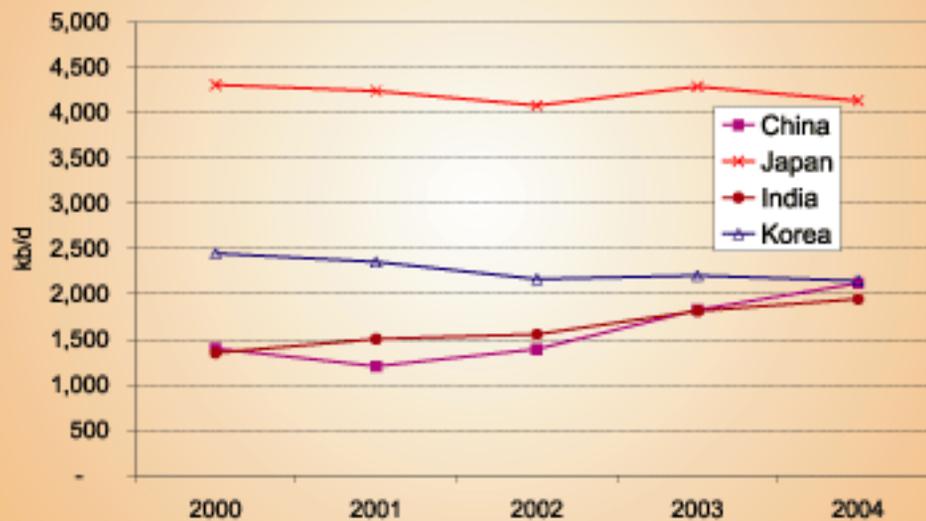


## Role of the Big Four

- Four key consumers in Asia dominate the market: China, Japan, South Korea, and India.
- China surpassed Japan as the largest consumer in Asia and India is likely to surpass Korea in 2006.
- Today, the big 4 account for some 70% of the Asia-Pacific total consumption and in the next 10 years, their share will remain more or less steady. In short, the big 4 will continue to dominate the Asia-Pacific oil consumption.



### Crude Oil Imports by the Big 4 Asian Consumers



### Asian Crude Production and Imports

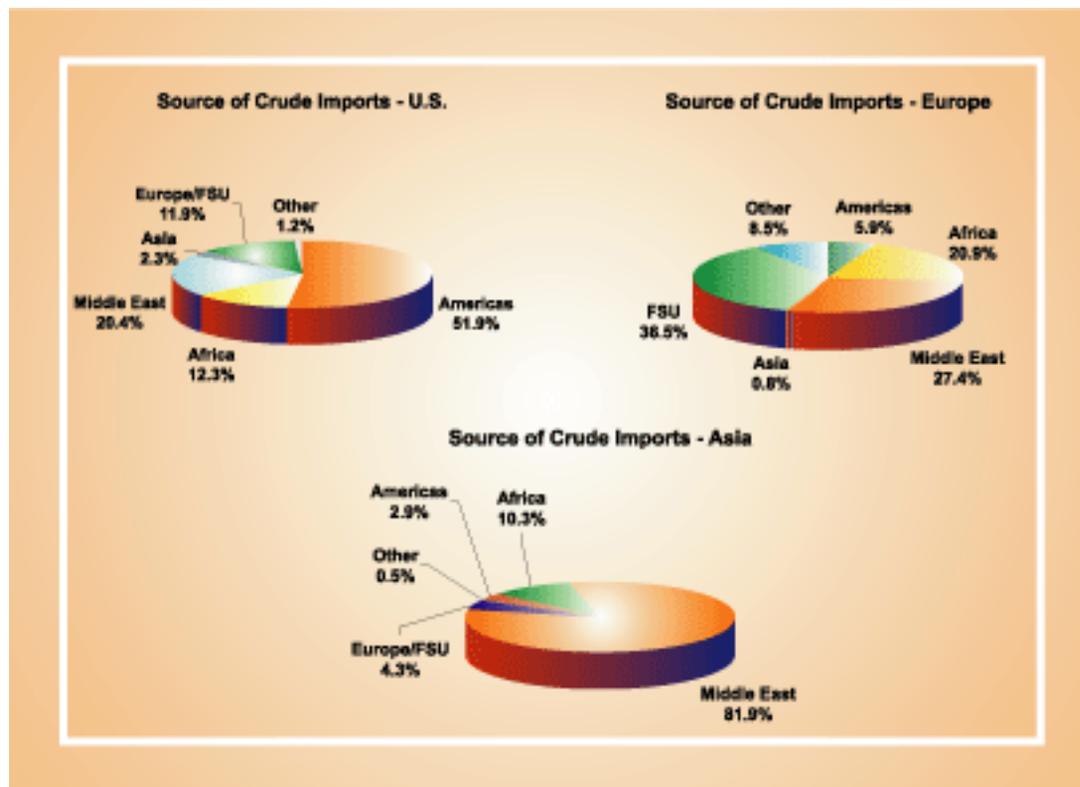
- Asian crude oil production is in the range of 7.5-8 million b/d. Its future points towards a declining production trend.
- In 1990, only a few million barrels per day of oil was imported into Asia. In 1999, the imports reached 12.2 million b/d and in 2005, imports are forecasted at 15.5 million b/d. By 2010, over 19.3 million b/d of imports are expected.
- China alone is expected to import some 5 million b/d in 2010 of which 60-70 percent will come from the Middle East.

### Asia-Pacific Oil Production and Net Import Requirements, 1999-2010



## Middle East and Asia : Natural Trading Partners

- Some two-thirds of Middle East oil exports went to Asia in 2003. With the new re-direction of Iraqi exports to Asia, the number is likely to reach over 70% in 2005.
- The Asian market dependence on the Middle East for imports is 82% compared to 20-27% for the U.S. and Europe.
- Asian buyers clearly have fewer alternative supply sources than the U.S. and Europe.
- The growth in Asian refining capacity in the next few years is heavily dominated by China and India, and almost all new refineries are planned on Middle Eastern crudes.



## Deregulation in the Asia-Pacific Region

- The Asian oil market remains partially regulated. Indeed, there is great government influence in the oil market.
- Over 44% of refining capacity is controlled by national oil companies, while local oil companies, sometimes with close links to governments, control another 35%. International oil companies control some 19% and Middle East oil exporters own less than 2% of the Asian refining system.

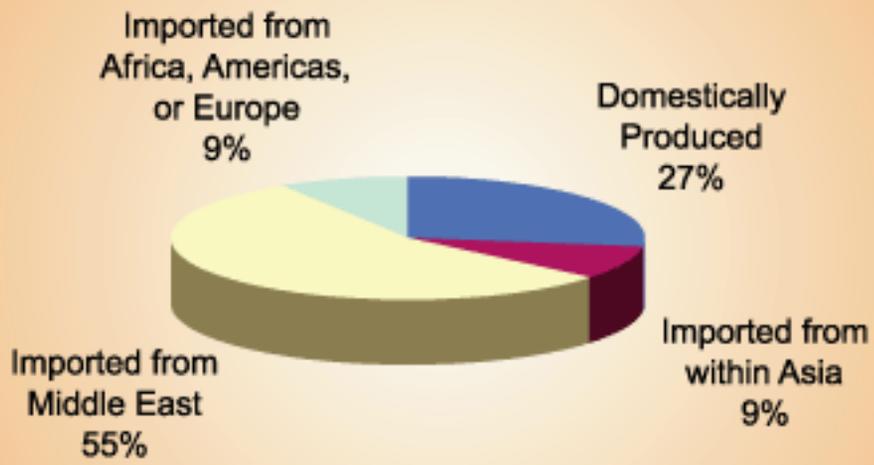
The deregulation process in Asia is moving forward positively. Indeed, large consumers such as India and China have made positive moves, but there is still some way to go before full deregulation.

Tariff rate differentials between crude and products provide some measure of protection for Asian refiners. In most countries, tariff reduction is not a part of the deregulation process as it is often under the jurisdiction of the Ministry of Finance!

### **Crude Pricing in the Asia-Pacific Market**

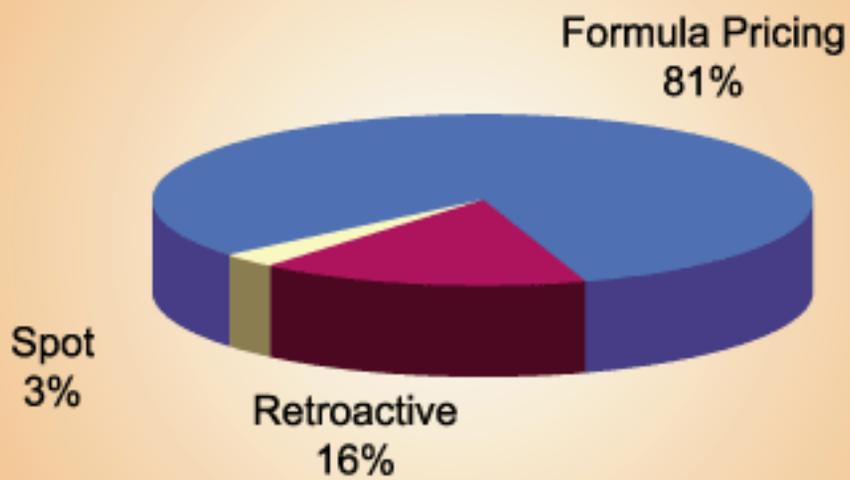
- Approximately 27% of the crudes used by Asian refiners are produced domestically. Pricing is heavily dictated by the governments and is often regulated, though the trend is a gradual move towards alignment with international parity.
- Almost 9% of the crude is imported from other Asian countries, most notably from Malaysia, Indonesia, Australia, and Vietnam. These volumes are generally pegged to some regional benchmarks, e.g., ICP or Tapis.
- Almost all of the crude imported from the Atlantic Basin is priced off Brent.
- Middle Eastern grades account for the lion's share in the overall crude use by Asian refiners—almost 55% in 2004. Most of these volumes are priced on the basis of formulae pegged to a thin volume of Dubai benchmark grade which is freely traded.

### Asian Crude Use: Classified by Source



Based on total crude oil demand in 2004, estimated at 20.3 mmb/d

### Middle East Crude Oil Exports: Pricing Basis



Based on crude oil exports in 2004; estimated at 15.6 mmb/d.

## Crude Pricing in the Asia-Pacific Market: Dubai & Oman

- As shown in the previous chart a minute 3% of the crude exported from the Middle East Gulf is traded freely in the spot market. This constitutes the exports of Dubai crude and some 50% of Oman volumes.
- Almost all of the crude exports from Middle East are sold on the basis of Dubai and Oman, either directly pegged, as in the case of formula pricing or indirectly, for retroactive/OSP pricing.
- Dubai crude has entered a situation of irreversible decline which has made its viability as a marker rather questionable. For this reason the market is considering adopting Oman as an outright marker.

## Crude Pricing in the Asia-Pacific Market: Dubai & Oman

- In the absence of a formal futures exchange in Asia/Middle East region, benchmark price is assessed by journalists surveying the market.
- The participants fulfill hedging needs through the use of OTC Swaps—market for which is estimated to be anywhere in the range of 2–10 mmb/d.

	Dubai	Oman	
Export volumes	~ 120	~ 600	kb/d
Spot trades	100 – 120	200 – 300	kb/d
Swap volumes	2,000 – 10,000	none	kb/d

## Crude Pricing in the Asia-Pacific Market : Oman as a Benchmarks

- The market is looking at Oman to take up the role of the benchmark—which is clearly the only viable option after Dubai.
  - Oman, already has quasi-marker status, obtained at the time Platts made Oman deliverable into the Dubai trading window.
- The impediments for Oman becoming a benchmark:
  - The retrospective X factor set by MOG weighs heavily on the industry.
  - Almost, one-third of the production of Oman is controlled by Shell.
  - A major portion of the current customer base of Oman crude tend to be passive users—i.e., they do not contribute to the spot trades.

## Crude Pricing in the Asia-Pacific Market : A Feasible Scenario

- A Feasible Scenario – which is closest to reality entails the following:
  - Oman crude as an outright benchmark for Middle Eastern crude sales to the Far East.
  - A successful and liquid futures contract trading Oman crude in a Future Exchange established either in the Middle East or the Far East (e.g., Dubai Mercantile Exchange).
- Such a scenario provides the following:
  - Reliable price discovery for sour crude in the Far East—dictated purely by the market forces,
  - Linking of the Far East/Middle East market with U.S. and Europe,
  - Reliable hedging mechanism for both buyers and sellers.

## High Prices, Lower Premium?

- Higher oil prices lead to higher sweet/sour and light/heavy differentials.
- At the time of limited refining capacity to process sour crudes and limited sweet crude supply, inevitably, the differentials will widen.

- Prospects for large speculative paper market play in the West is likely to add to pressure to widen WTI/Brent differentials compared to Dubai.
- In the short to medium term, this *might* lead to a lower Eastern Premium. Since we expect higher prices to continue for some time, the issue *might* be less critical than it has been in the past.

## The Market Realities

- The market reality is that Asia and the Middle East oil exporters are linked together *indefinitely*. The big four are and will be the *most oil import dependent* and are also the *best customers* of Mideast crudes.
- In short, both sides need each other for the foreseeable future. This is a natural relationship, cemented by political and economic ties.

## A Final Thought....

- The Asian oil market needs to become more efficient and more transparent. It needs a better marker. It needs a futures market as an aid for benchmarking. It needs more liquidity, more deregulation and an even playing field.
- Most importantly, the market needs greater investment by the Middle East oil exporters in refining and marketing in the oil importing countries. Conversely, the Asian companies need to invest in upstream assets in the Middle East. These governments need to find ways of accommodating such investments, by removing impediments and red tape.

- Asia and the Middle East are bound together in an intense relationship in the oil business. They must find ways of working together and accommodate each other's concerns. *This is a marriage where divorce is not an option.*
- We are today living in a world which is moving fast towards globalization. It is our collective responsibility to create an environment which allows the Asian market to become fully integrated into a globalized oil market.



## East-West Energy Partnership to Sustain Asia's Development

Kensuke Kanekiyo

Managing Director, The Institute of Energy Economics, Japan

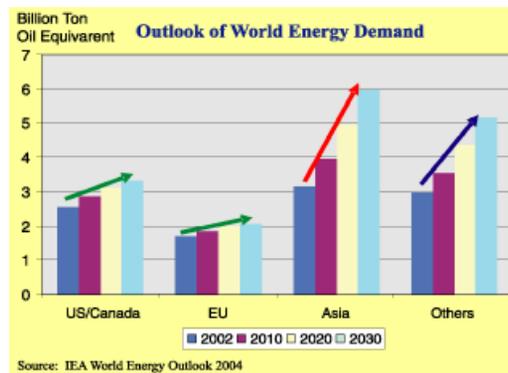
### Role of India to link the East and West of Asia

Today, it is our great concern to secure stable energy supply for the sustainable development of the world and, especially, Asia. Therefore, it is very meaningful that representatives of Asian countries get together and discuss on various energy issues facing Asia, and I greatly respect the efforts of the governments of India and Kuwait organizing this conference thoughtfully.

As you are aware, Asia comprises a big oil-producing region of the Middle East and the big oil-consuming region comprising India and the eastern countries. Some 70% of Asia's crude oil import comes from the Middle East. India is located in between the Middle East and the East Asia geographically, having within the country a variety of cultures and religions, and especially its Muslim population amounts to 20%. With various proximities to the East and West, India is in a position to fully understand their politics, culture and religion deeply. In this context, India can play an important role as a hub of Asia linking the East and West. As it is forecast that India's oil and gas import will grow fast along with its remarkable economic growth, India is facing energy issues and challenges common for East Asian countries. In this regard, India is very important country when viewed from the East as well as West of Asia.

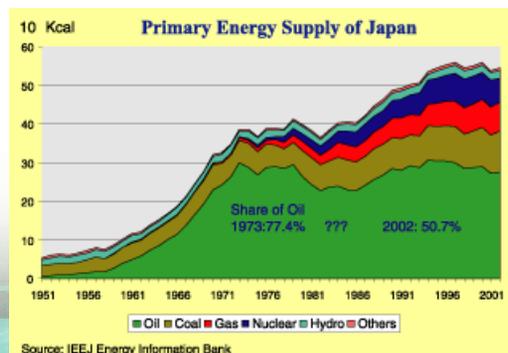
According to the recent projection of IEA, the world energy demand will expand 1.6 fold by 2030, but that of Asia 1.9 fold. Securing stable supply of energy is of paramount importance for the sustainable development of Asia. While the energy markets of Japan and Korea are nearing to maturity, energy demand of developing Asia is just to take-off. Among them, India and China, having vast land and big population, had kept self-sufficient energy structure endowed with rich coal resources. However, exploding

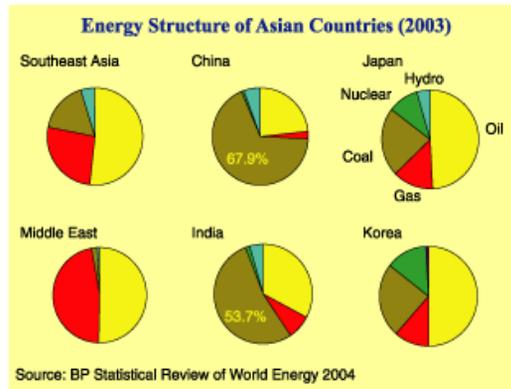
motorization in these countries has caused abrupt increase in oil consumption and import, giving a great impact on the world oil market.



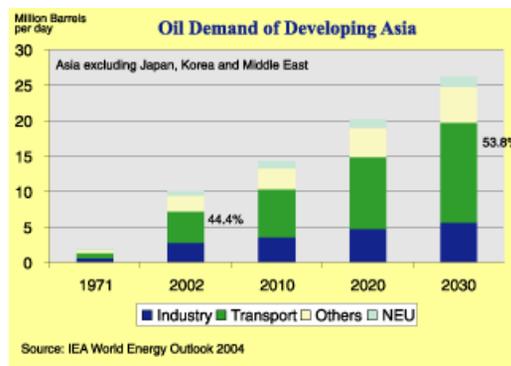
Here, I would like to attract your attention to the fact that the current situation is substantially different from the one we experienced during the oil crises of 1970s. In 1973, Japan depended on oil 77.4% of its energy supply. We were consuming 56% of oil supply in the industrial and power sectors. Thus, Japan was successful to curb its oil demand switching to natural gas, nuclear and coal. In 1973, oil shared 74.5% of power generation of nine major power companies, which is now less than 10%. However, share of oil in power generation is quite limited in China and India; 3% for China and 4.5% for India in 2002. Therefore, capability of replacing oil with other fuel is least in these countries while their energy demand increases, but their oil demand is forecast to grow steadily into the future.

Likewise, IEA forecasts that the transport sector will share a substantial part of the incremental oil





demand in developing Asia. Although natural gas and hydrogen technologies for transport use are being intensively developed, they are still in the infant stage and need some time before widely and commercially used in the market. Transport fuel will keep heavily depending on oil. Under the circumstance, securing stable supply of oil continues to be important in order to ensure sustainable development of Asia.

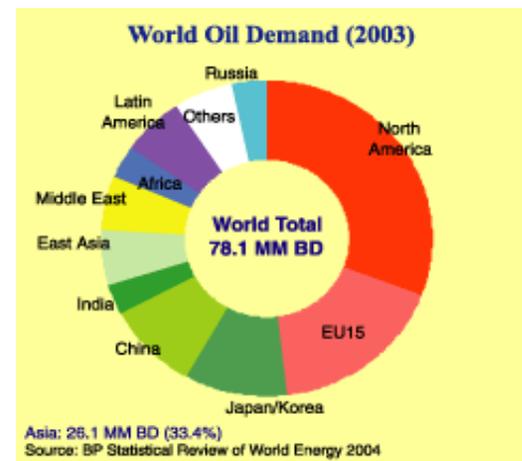


### Transparent and Efficient Crude Oil Market

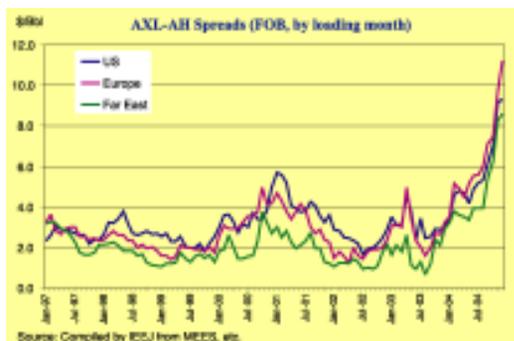
In the past two years, we have experienced extraordinary fluctuation of oil price. Such volatile oil market may have entertained speculators in the market, but is definitely not desirable for both producer and consumer. Economic theory teaches us that the relationship of supply and demand may be adjusted through price parameter as a signal. However, this signal works capriciously if not carefully designed. We should note, firstly, that a price parameter makes a move only when market supply-demand balance becomes apparent to change, but, secondly that, during the demand expansion phase, the supply side needs long lead time and huge investment to catch up, or, during the demand shrinking phase, the oil industry would

collapse as we have experienced in 1980s. To avoid supply shortage, excess investment and/or market volatilities that would cause violent price fluctuation, we need to have good foresight on the market trend and to mobilize proper counter measures timely and efficiently with well-organized plan.

Asia is a huge oil market, consuming one third of the world oil production, and its global share is expected to grow further. However, we are not equipped with a good system where quick and reliable information on the oil and gas market is readily available. In the past two years, demand for white oil mainly used in transport sector, like gasoline and diesel gas oil, has been expanding at an unexpectedly high speed. As a result, requirement for lighter crude oils is increasing extremely.



For example, let us look into movement of the price spread between the Middle East light and heavy crude oils, namely, Arabian Extra Light and Arabian Heavy. The spread is generally recognized to reflect cracking and desulfurization costs incurred in the refining process, and used to be about two dollars per barrel (\$2/Bbl) in the Asian market. However, as the requirement for lighter crude oil expands, it rose to \$3.4 in the second quarter of this year, \$4.4 in the third quarter, and jumped up to \$8.3 in November. Now the world is experiencing an extremely abnormal phenomenon. Not only consumers but also producers are seriously affected, while the producing countries cannot accommodate the requirement being not able to change the nature of crude oil that is reserved underground.



This phenomenon has been caused mainly by demand explosion for transport fuel in developing Asia. However, equally responsible are developed countries like Japan and the United States where reliable information is available.

The Japanese oil industry has decided to advance the 10-ppm sulfur content regulation of gasoline and diesel gas oil, voluntarily starting on January 1, 2005. Japanese refineries are known to be well equipped with cracking and desulfurization facilities, but they are still in short of desulfurization capacity. Therefore, some refineries are switching the feedstock of RFCC from residual heavy fuel to lighter distillates. This has caused their crude oil selection shifting to lighter ones. Further, feedstock switching from heavier components to lighter staff has reduced process gain at FCC, incurring more requirements for lighter crude oils. A similar phenomenon is occurring in the US market where environment regulation is progressing rapidly and in different manners among states requiring supply of Boutique Fuels of different specification. In addition, increase of Asia's demand for petrochemical products is absorbing BTX and polyxylene, leading to shortage of gasoline base stock. Like this, we need reliable information, in depth analysis and appropriate preparation in order to reduce market volatility.

It is widely told that the recent oil price hike has been aggravated by bulk of speculation, while it was also accelerated by upset buying of developing Asia facing abrupt demand increase. As a reaction, oil price has dropped sharply in December. Contemporary oil market looks like anarchy and the world of violence. To stabilize the market, players should anticipate the market

trend properly and act rationally. To enable this, it is necessary to enhance transparency of the market through timely disclosure of information by the countries of the world.

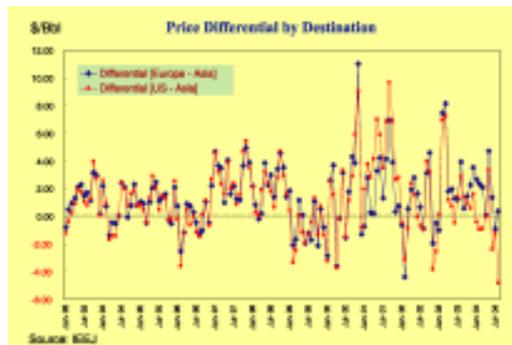
In this regard, at the 8<sup>th</sup> APEC Energy Working Group meeting held in Port Douglas, Australia, on November 3<sup>rd</sup> and 4<sup>th</sup>, the EWG adopted "Cairns Initiative", which aims to improve data transparency, energy emergency response, energy investment, energy efficiency, the development of renewable and alternative energy, and to promote energy for sustainable development and poverty reduction. This Initiative includes Joint Oil Data Initiative (JODI) and Real-Time Emergency Information Sharing System (RTEISS). It was endorsed at the 16<sup>th</sup> APEC Ministerial Meeting held in Santiago, Chile, on November 17<sup>th</sup> and 18<sup>th</sup>, 2005.

Under the JODI program, six international institutions, namely APEC, EUROSTAT, OECD/IEA, OLADE, OPEC and UNSD will collaborate to compile monthly energy data worldwide. Ninety-three (93) countries of the world will join the program and the JODI system will cover over 90% of the world oil production and consumption, and hence expected to make important contribution to provide quick information to the world. IEEJ's Asia-Pacific Energy Research Center (APERC) will serve for both systems as the secretariat. As we are determined to mobilize our full capability, taking advantage of this opportunity, I would like to ask on behalf of IEEJ for your support and cooperation in developing and perfecting this system as our trustworthy weapon.

In the Asian market, pricing formula of crude oil has been controversial for quite some time. Among others, the price differential by destination has been an issue of concern for the East Asian consumers. Why has such price differential prevailed for over a decade? In addition to exploding regional oil demand, there are several reasons that reflect unique aspects of the Asian market, for example,

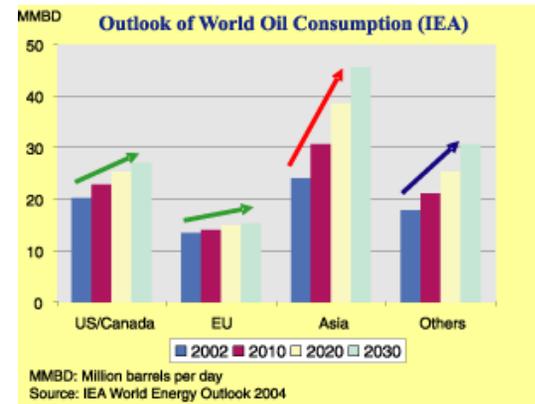
1. Lack of powerful alternate supply sources to effectively compete,

2. Lack of market where crude oil and petroleum products effectively compete and interrelate reflecting the market reality, and
3. Lack of a reliable marker crude oil to send out proper and timely signal catching the market movement, although the East Asia is now emerging as a big oil market.



In the US and European market, NYMEX, ARA and London Exchange are functioning to effectively signal the market trends with reliable markers like WTI or Brent. However, in Asia, the marker crude oils are Dubai and Oman with very limited production. Prices are those cited at Singapore among traders, which is almost a cyber price with very limited actual transactions. This has caused to keep market volatility high and stability and reliability low, and has brought tremendous disadvantages to both producer and consumer in the Asian market.

Today, East Asia is already a giant oil market. Among them, China, the world second largest oil consumer after the United States, is forecast to increase oil import up to 8 million barrels per day in the coming two decades, according to IEA. A huge import requirement is to emerge additionally that will exceed the current import amount of Japan, currently the world second largest importer. Under the circumstance, it is extremely necessary for us to create a proper oil price signal that shall reflect the reality of Asian market, so that we can design the future oil market appropriately. Otherwise, oil market volatility might further deteriorate. In order to improve market stability, we should mobilize all of our wisdom to consider an appropriate Asian marker or a price signal mechanism that will be acceptable to both producing and consuming countries.



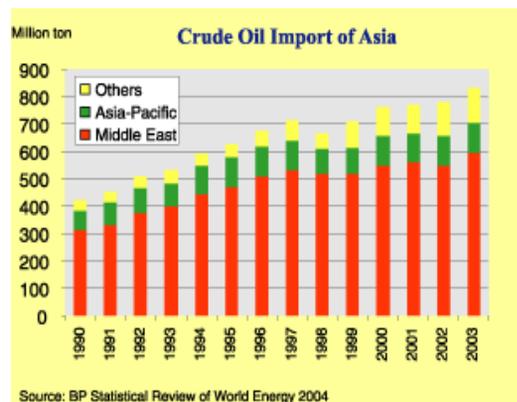
### Acceleration of Mutual Investment

In addition to realizing an equitable and efficient trade system, it is also important for us to accelerate mutual investment of the East and West. A huge amount of investment is needed to accommodate increasing energy demand to make sustainable development of Asia more certain. Mutual investment implies sharing of risks in countries of our partners and therefore it is an expression of ultimate mutual trust. Hopefully, it should be extended to engagement in actual operations but not limited to investment on portfolio only. Sharing risks in daily operations, we can understand issues and challenges facing our partners more in depth and collaborate for a solution hand in hand.

Recently, many of Asian companies announced investments in other regions of Asia. East Asian countries such as Japan, Korea, China and India have been promoting investments in the Middle East countries such as Saudi Arabia, Iran and UAE in the upstream, gas development, LNG and petrochemicals. Vice versa, Middle East countries such as Saudi Arabia and UAE are accelerating their investments in the downstream sector of the East Asia. While Japan's Mitsubishi has been operating in the petrochemical sector of Saudi Arabia since 1980s, they have decided recently to construct new petrochemical plants at Jubail as the phase 4 of SHARQ comprising ethylene production of 1.2 million tons per annum (MTPA), etc. Mitsubishi Gas Chemicals will also invest in the construction of the world largest methanol plant of 3.2 MTPA as the phase 5 of Saudi Methanol. In addition, Sumitomo decided to newly

participate in construction of petrochemical plants at Rabig, Red Sea coast, with ethylene production of 1.3 MPTA, etc. These are the evidences that the petrochemical joint ventures of Japan and Saudi Arabia have been successful. Mitsubishi and Sumitomo investing in petrochemical projects in Saudi Arabia, Sinopec of China in Rub-Al-Khali natural gas development and various companies participating in LNG/GTL projects, all of these are very significant decisions in view of the implication of mutual investment.

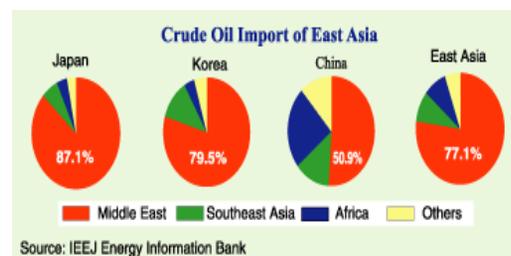
Observing the accelerated velocity of Asia's development, however, mutual investments of the East and West Asia need to be further promoted in the upstream and downstream sectors of the oil and gas industry.



For example, the extremely abnormal oil price in the recent market indicates shrinkage of surplus supply capacity both in the upstream and downstream, as the uprising trend of oil demand is expected to remain. To accommodate it, it is ultimately important to expand supply capacity in the upstream as well as downstream. This requires huge investment as well as mobilization of most modern technologies, which should be programmed and organized deliberately with a proper lead-time.

Taking a glance on East Asian crude oil import, Japan and Korea highly depend on the Middle East, while China's import is relatively diversified. Overall, East Asia imports over three quarters of crude oil from the Middle East. The Japanese oil industry anticipating the trend of rising Middle East dependence has expanded its cracking and desulfurization facilities. Despite

the fact, we observe mismatches in the market as explained earlier. Reviewing the Asia's present status, on the other hand, even statistics on crude oil import by source are not readily available in many countries. Disclosure and improving transparency of information are the important first step to improve stability of the oil market, and compile and implement proper long-term plans.



It is very important to secure sufficient supply capacity in the upstream as well as downstream of the oil industry in order to realize sustainable development of Asia. To facilitate it, we need to remove impediments, and prepare suitable playgrounds and transparent institutions to accommodate investments. In addition, as we have experienced in successfully developing Asia, it is most desirable to mobilize vital power of the private sector. To this end, the government sector is responsible to provide proper and attractive play ground, such as a mechanism to promote upstream sector investment with appropriate consideration on sovereignty of producing countries and their social and financial needs, on one hand, and opening of downstream investment opportunities in refining and marketing sectors, on the other.

### Implication of Multilateral Forum

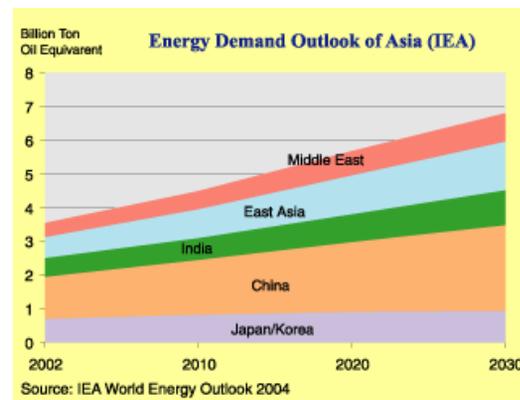
As you are aware, the contemporary world is facing diversity of issues and challenges, and it is an important measure to form a multilateral forum in response to such each item for rational solution. While the East Asia Summit was held in Laos recently and discussed on international trade, it is very thoughtful that today energy issues are discussed in India, the ideal hub linking the East and West Asia.

Regarding such regional dialogue, we IEEJ is promoting "Northeast Asia Petroleum Forum" in

collaboration with oil industries of Japan, Korea and China, and the next session will be held in Seoul next summer. These three countries are all big oil importing countries, located farthest from the oil producing provinces of the world and three quarters of their import depend upon the Middle East. The share of the latter is expected to increase further. They all need to go through the choke point of Malacca straight on its transport route. In many other aspects, we share very similar issues in energy securities.

This forum aims to clarify the present status and problems facing the oil industry of three countries exchanging frank views and opinions. We trust that it is very valuable for an Asian sub-region with geographical proximity and closely related common issues to discuss, clarify and disclose their common problems to the other part of Asia in promoting cooperation with other sub-regions, in particular that between producing and consuming countries. We trust that the fruitful result of such sub-regional cooperation will contribute to promote broader dialogues of the whole Asia toward establishment of Asian Energy Partnership.

Ladies and gentlemen, Asia is a world of diversity in view of their culture, religion and history. When it is difficult to explain such



diversity, people tend to explain it as “Asian Chaos”. However, in order to realize stable energy supply that is definitely necessary for sustainable development, we need to liberate Asia from chaos, and construct an orderly energy market. Asian countries, with their politics, economies and societies in diverse, may pursue different development paths individually and the overall trend may be foreseen only as a broad band. In this sense, it will become increasingly important that countries from broader areas get together, disclose issues facing each member, discuss broadly on them, and formulate common recognition on challenges, counter measures and the feasible development path of Asia. I sincerely hope that this conference will evolve into the Energy Partnership of the East and West Asia.

Thank you for your kind attention.

## Vote of thanks

by

**Shri M. S. Ramachandran**

Chairman, Indian Oil Corporation Ltd.

Hon'ble Minister of Petroleum & Natural Gas,  
Govt. of India  
Mr. Mani Shankar Aiyar  
Your Excellencies,  
Ministers and Heads of Delegation,  
Your Excellencies, Ambassadors of Asian  
countries to India,  
Secretary General of the International Energy  
Forum,  
Distinguished Representatives of the  
International Energy Agency,  
Distinguished Representatives from OPEC,  
Representatives of National Oil Companies and  
Asian Oil Industry,  
Members of the Media,  
Fellow Asians,  
Ladies and Gentlemen

Today is a historic day in the annals of the Indian petroleum industry and indeed India is privileged to have brought together under one roof, the main constituents of the Asian oil community through this one-day round-table Conference. Perhaps, this is just the beginning of many more such conclaves in the future, which will provide opportunities for crystallizing and cementing the thoughts and ideas, germinated in today's meeting.

The resurgence of Asia, as a major economic force, in this millennium, make no mistake about it, will be primarily driven by the Asian oil community-both oil producing and oil consuming countries. And the future of the Asian Oil Markets, it appears, is in safe hands, from what we heard from the galaxy of speakers, who shared their hopes and aspirations even as they aired some of our shared concerns.

The Asian Oil Market is indeed both exciting and challenging. The sheer volume of projected investments in this region estimated at USD 1580 billion over the next 25 years, is indeed both staggering and indicative of the potential and challenges that we have to face collectively. Its here that the spirit of Asian co-operation, that will be fully tested. But from what we have seen today, the response to the challenges has been both spontaneous and overwhelming. And that augurs well for all of us in the Asian oil community.

The stability, security and sustainability of oil markets that the high-level delegations from

Asian countries deliberated today, I am sure, will be a forerunner for regional co-operation, leading to several new initiatives and mutual investments, besides sharing of thoughts and experiences amongst us.

This Conference has clearly drawn our attention to the areas of mutual interest like investment opportunities, trade possibilities and knowledge-sharing potential that exists in our midst, all of which calls for continuous dialogue and proactive interventions. This is the only way we can capitalize on the opportunities to benefit the entire Asian continent.

On behalf of the Ministry of Petroleum & Natural Gas, Govt. of India; IEA, the sponsor and IndianOil, the co-sponsor of this round-table Conference, I wish to express my gratitude and sincere thanks to all the Excellencies, Ministers and Heads of Delegations and other representatives from IEF, OPEC, etc., who spontaneously consented to join this round-table Conference here today to share their views and experiences. Our special thanks are also due to the Government of Kuwait for coming forwards to co-host this conclave.

I would also like to thank the Embassies and High Commissions of the participating countries for extending their support and assistance as also the Ministries of Home and External Affairs, Government of India, for their continuous guidance and active involvement in the successful conduct of this Conclave. I would also like to thank the print and electronic media for their active interest and elaborate coverage of this event.

There are several others who have contributed to the success of today's Conclave and it would be difficult to mention all their names. But I take the opportunity to thank each and every individual, who partook in the successful conduct of today's event.

As we all realize, the path forward is certainly not going to be easy. But at least, we have made a beginning to understand each other's views more closely, so that we can jointly nurture the Asian Oil Market.

I would like to once again thank you all, for your esteemed presence here today, to make this round table Conference a grand success.

Au Revoir!

## LIST OF DELEGATES

Country	S.No.	Delegates	
<b>China</b>	1.	H.E. Mr. Zhang Xiaoqiang	Vice Chairman, NDRC
	2.	Mr. Wu Gui Hui	Dy Director General, NDRC
	3.	Mr. Yuan Ye	Dy Director, NDRC
	4.	Mr. Lixuedong	Dy Director, NDRC
	5.	Mr. Yang Lei	Program Director, NDRC
	6.	Mr. LI Cong	Program Official, NDRC
	7.	Mr. LE Chang	Third Secretary
	8.	Mr. Yang Yang	Attache
<b>Iran</b>	1.	H.E. Mr. Bijan Namdar Zangeneh	Minister of OIL of I.R. of Iran
	2.	H.E. Mr. Siyavash Zargar Yaghoubi	Ambassador E&P of I.R. of Iran In New Delhi
	3.	Mr. Hussein Kazempoor Ardabili	Economic Adviser to The Minister & Representative of The I.R. of Iran In OPEC.
	4.	Mr. Mansoor Yavari	Member of Parliament
	5.	Mr. Morteza Tamaddon	Member of Parliament
	6.	Mr. Rukhnudeen Jawadi Abhari	Director General of National Iran Gas Co.
	7.	Mr. Ghanimi Fard	Director for International Affairs
	8.	Mr. Jawad Yarjani	Director for OPEC Affairs
	9.	Mr. Mohsen Ghamsari	Director for Marketing of Crude OIL
	10.	Mr. Gauhar Doost	Director of The Prtocol of The Minister Office
<b>Japan</b>	1.	H.E. Mr. Shoichi Nakagawa	Minister of Economy, Trade & Industry
	2.	Mr. Nobuyori Kodaira	Director-General, Agency For Natural Resources & Energy
	3.	Mr. Kenji Goto	Director, International Affairs Division
	4.	Mr. Hirofumi Katase	Director, Petroleum & Natural Gas Divn
	5.	Mr. Taizo Takahashi	Secretary To Minister
	6.	Mr. Toshiaki Kitamura	Director-General, Trade Policy Bureau
	7.	Mr. Shinichi Kihara	Deputy Director, International Affairs Division
	8.	Mr. Eiichi Umekita	Deputy Director, Petroleum & Natural Gas Division
	9.	Mr. Ken Watanabe	Deputy Director, International Affairs Division
	10.	Mr. Koji Takahashi	Assistant Director, International Affairs Division
<b>Korea</b>	1.	H.E Mr. Cho Hwan-eik	Vice Minister, Ministry of Commerce, Industry & Energy
	2.	Mr. Yoon Sang-soo	Director, Int'l Energy and Logistic Division, Ministry of Foreign Affairs and Trade

	3.	Mr. Suh Moon-kyu	Vice President, Korea National OIL Company
	4.	Mr. Kim Jin-oh	Vice President, Korea Energy Economics Institute
	5.	Mr. Choi Yeong-soo	Deputy Director, Petroleum Industry Div., (MOCIE)
	6.	Mr. Han Jin Hyun	Director, Petroleum Industry Division, MOCIE
	7.	Mr. Kim Soon-chul	Director, Export & Import Div. (MOCIE)
	8.	Mr. Choi Yeon-woo	Secretary to The Vice Minister, (MOCIE)
	9.	Mr. Lee Joon-beam	Manager, Research Team, Korea National OIL Company
<b>Kuwait</b>	1.	H.E. Dr. Yousuf Al-Ebraheem	Advisor to Prime Minister and Former Finance Minister
	2.	Mr. Suhail Al-Mutari	
	3.	Mr. Ali Al-Asfar	
	4.	H.E. Mr. Khalaf Abass Khalaf Al-Faudari	Ambassador of Kuwait in New Delhi
	5.	Mr. Jamal A. Alnouri	Managing Director, International Marketing
	6.	Mr. Abdullatif A Al-Houti	Chairman & MD, KPC Holdings (Aruba)
	7.	Mr. Mohammad K AL-Shatti	Manager, Marketing Research
	8.	Miss Nawal Al Fezai	Director, Energy Research Ministry of Energy (Oil)
	9.	Mr. Naser B Al-Mudhaf	EAMD- Marketing (KPC)
	10.	Mr. Khalid Jassim Al-Yassin	Third Secretary in the Embassy of State of Kuwait, New Delhi
<b>Malaysia</b>	1.	H.E.Mr. Dato Mustapa Mohamed	Minister in the Prime Minister's Department
	2.	H.E. Dato' Zulkifly Ab. Rahman	High Commissioner of Malaysia to India
	3.	Mr. Leong Yee Him	Senior Director, Energy Section of the Economic Planning Unit
	4.	Mr. Mohd. Farid Mohd. Amin,	General Manager, Petronas
	5.	Mr. Adnan Che Muda	Counsellor, Malaysian High Commission
	6.	Mr. Mohamed Irwan Mansor	Senior Private Secretary to the Honourable Minister
<b>Oman</b>	1.	H.E. Dr. Mohammed Bin Hamed	Minister, Ministry of Petroleum & Gas Rumhi (Head of Delegation)
	2.	H.E. Mr. Khalifa Bin Ali Al-Harthy	Ambassador, Embassy of the Sultanate of Oman, New Delhi
	3.	H.E. Mr. Salah Salim Al-Harthy	Director of Minister's Office, Ministry of Petroleum & Gas
	4.	Mr. Said Salim Al-Sinawi	Second Secretary, Embassy of the Sultanate of Oman, New Delhi

<b>Qatar</b>	1.	H.E. Mr. Abdullah Hamad Al-Attiyah	Second Deputy Prime Minister and Minister of Energy and Industry
	2.	H.E. Mr. Yousef Bin Hasan Al Sai	Ambassador of the State of Qatar in India
	3.	Mr. Al Tayyeb Bal Mahdi	
	4.	Mr. Abdullah Hussain Al-Salat	Sr. Advisor in the office of Second DPM & Minister of Energy and Industry Minister
	5.	Mr. Abdulaziz Ahmed Al-Malki	Director in the office of Second DPM & Minister of Energy and Industry Minister
	6.	Mr. Jassim Mohammed Niamah	Marketing Manager, Qatar Petroleum
	7.	Mr. Saad Shareeda Al-Kaabi	Director of Gas Development
	8.	Mr. Mohd. Hamad Al-Naimi	Secretary in the office of Second DPM & Minister of Energy and Industry Minister
	9.	Dr. Ramzi Salman	Advisor in the office of Second DPM & Minister of Energy and Industry Minister
<b>Saudi Arabia</b>	1.	H.E. Dr. Ali Ibrahim Al Naimi	Minister of Petroleum & Mineral Resources
	2.	Dr. Ibrahim Al Muhanna	Advisor to the Minister
	3.	Dr. Majed Al Moneef	Governor of OPEC
	4.	Dr. Ahmad A. Al Ghamdi	Advisor to the Minister
	5.	Mr. Ali Al-Twairqi	Director General, Private Office
	6.	Mr. Abdullah Shafi Al Dassari	Special Attendant
	7.	Mr. Yasir Mufti	National Representative to OPEC
<b>United Arab Emirates</b>	1.	H.E. Mr. Mohammed Bin Dhaen Al Hamli	Minister of Energy
	2.	Mr. Abdull Jassim Kashwani	Charge d' Affaires a.l., Embassy of UAE, New Delhi
	3.	Mr. Hamdan Mubarak Al-Akbari	Director of the Economic Department
	4.	Mr. Mohammed Ahmed Al-Hosni	Director of the Minister's Office
	5.	Dr. Ibrahim Abel Hameed Ismael	Advisor of Petroleum & Economic Affairs
<b>International Energy Forum</b>	1.	Ambassador Arne Walther	Secretary General
	2.	Mr. Kazuo Kawahara	Director of Energy Division
<b>IEA</b>	1.	Ambassador William C.Ramsay	Dy. Executive Director
	2.	Ms. Dagmar Graczyk	Manager for South Asia
<b>IEEJ</b>	1.	Mr.Kensuke Kanekiyo	
<b>OPEC</b>	1.	Dr. Adnan Shihab-Eldin	Director, Research Division, Acting for Secretary General
<b>FACTS</b>	1.	Dr. Fereidun Fesharaki	

<b>India</b>	1.	Mr. Mani Shankar Aiyar	Minister of Petroleum & Natural Gas and Panchayati Raj
	2.	Mr. E. Ahmad	Minister of State for External Affairs
	3.	Mr. S.C. Tripathi	Secretary, Ministry of Petroleum & Natural Gas
	4.	Mrs. Suryakanti Tripathi	AS(ER), Ministry of External Affairs
	5.	Mr. M.S. Srinivasan	Addl. Secretary, Ministry of Petroleum & Natural Gas
	6.	Mr. Talmiz Ahmad	Addl. Secretary (Ad) Ministry of External Affairs
	7.	Mr. Prabh Das	Joint Secretary, Ministry of Petroleum & Natural Gas
	8.	Shri P.K. Sinha	Joint Secretary & Financial Advisor, MOP & NG
	9.	Mr. A.K. Srivastava	Joint Secretary, Ministry of Petroleum & Natural Gas
	10.	Mr. Sanjoy Joshi	Joint Secretary, Ministry of Petroleum & Natural Gas
	11.	Mr. Ajay Tyagi	Director, Ministry of Petroleum & Natural Gas
	12.	Mr. A.K. Jain	Director, Ministry of Petroleum & Natural Gas
	13.	Mr. S. Vijayraghvan	Joint Secretary & Director, PPAC
	14.	Mr. M.S. Ramachandran	Chairman, Indian Oil Corpn. Ltd.
	15.	Mr. Subir Raha	C & MD, ONGC
	16.	Mr. S. Behuria	C & MD, BPCL
	17.	Mr. M.B. Lal	C & MD, HPCL
	18.	Mr. Prashanto Bannerjee	C & MD, GAIL (India) Ltd.
	19.	Mr. R.K. Dutta	C & MD, OIL India Ltd.
	20.	Mr. G.P. Aggarwal	GM (IT), Indian Oil Corpn. Ltd.
	21.	Mr. S. Mutto	DGM (C), Indian Oil Corpn. Ltd.
	22.	Mr. T. Srinivas	Sr. Manager, Indian Oil Corpn. Ltd.
	23.	Mr. Varun Gujral	SACO, Indian Oil Corpn. Ltd.

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## LIST OF OBSERVERS

Country	S.No.	Name	Designation
<b>Iran</b>	1.	Mr. Shams Dolatabadi	Economic & Commercial Trade Counsellor
	2.	Mr. Ahmed Reza Ashari	Counsellor
<b>Japan</b>	1.	Mr. Hidenao Yanagi	Minister, Embassy of Japan, New Delhi
	2.	Mr. Kenichiro Toyofuku	First Secretary (Commercial), Embassy of Japan, New Delhi
<b>Korea</b>	1.	Mr. Lee Dal-sok	Vice President, Korea Energy Economics Institute
	2.	Mr. Lee Kyu-sun	Vice President, Korea Gas Corporation
	3.	Mr. Huh Jin	Chief Representative Singapore Office. S.K. Corpn.
	4.	Mr. Kim Jae-duk	Commercial Attache (First Secretary) Embassy of The Republic of Korea, N.Delhi
	5.	Mr. Lee Young-hwan	Chief Representative Singapore Office, LG-Caltex Oil Corporation
<b>India</b>	1.	Mr. R.K. Pachauri	Director, TERI
	2.	Mrs. Leena Srivastav	TERI
	3.	Mr. Prabir Sengupta	DG (IIFT) & Ex-Petroleum Secy.
	4.	Mr. T.N.R. Rao	Ex. Petroleum Secy.
	5.	Mrs. Sanjay Kaul	President, Institute of Petroleum Studies
	6.	Mr. M.hamid Ansari	
	7.	Mr. V.K. Sibal	Director Gen. DGH.
	8.	Mr. R. Dayakar	Joint Secy. (Gulf/Haj) MEA
	9.	Mr. Ashok Kantha	Joint Secy. (EA), MEA
	10.	Mr. Biren Nanda	Joint Secy. (SEA-II) MEA
	11.	Mr. Sanjay Singh	Joint Secy. (Gulf Haj)-designated MEA

**ROUND TABLE OF ASIAN MINISTERS  
ON  
REGIONAL COOPERATION IN THE OIL ECONOMY**

**STABILITY, SECURITY, SUSTAINABILITY  
THROUGH  
MUTUAL INTERDEPENDENCE**

**PROGRAMME  
NEW DELHI, 6 JANUARY, 2005**

SESSION & TIME	ACTIVITY	REMARKS
<b>Opening Session</b> 9:00 am to 9:50 am	<ol style="list-style-type: none"> <li>1. Welcome speech by <b>Shri S.C. Tripathi, Secretary (P&amp;NG), India</b> (5mins)</li> <li>2. Inaugural Address               <ol style="list-style-type: none"> <li>(a) <b>Chairman, Shri Mani Shankar Aiyar, Hon'ble Minister (P&amp;NG), India</b> [20mins]</li> <li>(b) <b>Co-Chairman, H.E. Dr. Yousuf Al-Ibrahim, Special Economic Advisor to Prime Minister and former Finance Minister, Kuwait</b> (15 mins)</li> <li>(c) <b>Ambassador Arne Walther, Sec-General, IEF</b> (10 mins)</li> </ol> </li> </ol>	Open to Media
<b>Second Session</b> 10:00 am to 1:00 pm	<ol style="list-style-type: none"> <li>1. Opening remarks by the Head of the delegations of participating countries (15 mins each):               <ol style="list-style-type: none"> <li>(a) <b>Iran (H.E. Mr. Bijan Namdar Zangeneh, Minister of Oil)</b></li> <li>(b) <b>Japan (H.E. Mr. Shoichi Nakagawa, Minister of Economy, Trade and Industry)</b></li> <li>(c) <b>Malaysia (H.E. Mr. Dato' Mustapa Mohamed, Minister in the Prime Minister's Office)</b></li> <li>(d) <b>Oman (H.E. Dr. Mohammed bin Hamad Bin Saif Al Ruhmi, Minister of Oil &amp; Gas)</b></li> <li>(e) <b>Qatar (H.E. Mr. Abdullah Bin Hammd Al Atiya, Second Deputy Prime Minister and Minister of Energy and Industry)</b></li> <li>(f) <b>Saudi Arabia (H.E. Dr. Ali Ibrahim Al Naimi, Minister of Petroleum and Mineral Resources)</b></li> <li>(g) <b>UAE (H.E. Mr. Mohammed Bin Dhaen Al-Hamli, Minister of Energy)</b></li> <li>(h) <b>China (H.E. Mr. Zhang Xiaoqiang, Vice Chairman, NDRC)</b></li> <li>(i) <b>Indonesia (H.E. Mr. Donnilo Anwar, Ambassador Extraordinary and Plenipotentiary, Embassy of Indonesia)</b></li> <li>(j) <b>Korea (Rep.of) (H.E. Mr. Hwan-Eik Cho, Vice Minister, Ministry of Commerce, Industry and Energy)</b></li> </ol> </li> <li>2. Address by Participants from International Organisations (10 mins each):               <ol style="list-style-type: none"> <li>(a) <b>Ambassador William Ramsay, Dy. Executive Director, IEA</b></li> <li>(b) <b>Dr. Adnan Shihab-Eldin, Director, Research Division, Acting for the Secretary General, OPEC</b></li> </ol> </li> </ol>	Open to Media
1:00 pm to 2:30 pm	<b>Lunch Break and Group Photo Session</b>	
<b>Third Session</b> 2:30 pm to 4:30 pm	<ol style="list-style-type: none"> <li>1. Presentations on:               <ol style="list-style-type: none"> <li>a. <b>Stability, Security and Sustainability through interdependence in the Asian oil economy and Mutual Investments to increase Asian output of oil and gas by McKinsey &amp; Co. (20 mins)</b></li> <li>b. <b>Development of actively traded oil markets in Asia geared to emerging realities by Dr. Fereidun Fesharaki, FACTS.(15 mins)</b></li> </ol> </li> <li>2. <b>Presentation of the highlights of the already circulated Paper by the International Institute of Energy Economics, Japan (10 mins)</b></li> <li>3. <b>Closed door discussion: (1 hour 15 mins)</b> Discussion on the proceedings to the day, suggestions from participating countries; remarks</li> </ol>	Closed Door
4:30 pm to 5:00 pm	Tea Break	
<b>Closing Session</b> 5:00 pm to 5:30 pm	<ol style="list-style-type: none"> <li>1. <b>Way forward-Co-Chairman, H.E. Dr. Yousuf Al-Ibrahim, Special Economic Advisor to Prime Minister and Former Finance Minister, Kuwait (15 mins)</b></li> <li>2. <b>Summing up and closing remarks-Chairman, Shri Mani Shankar Aiyar, Hon'ble Minister (P&amp;NG), India (10 mins)</b></li> <li>3. <b>Vote of Thanks - by Shri. M.S. Ramachandran, Chairman, IOC (5 mins)</b></li> </ol>	Open to Media



*Organised by*



**Ministry of Petroleum & Natural Gas**

Government of India

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