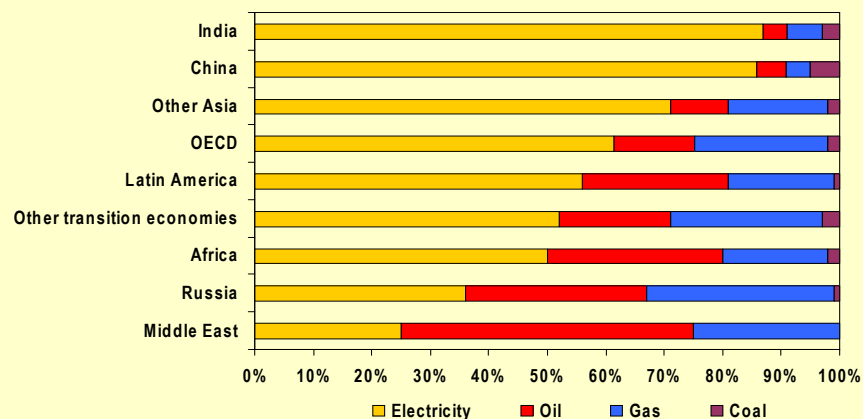


13th Northeast Asia Economic Forum

ISSUES and OPPORTUNITIES for the NORTHEAST ASIA ENERGY COMMUNITY

Robert Priddle
Executive Director, International
Energy Agency, 1994-2002

Fuel Share in Energy Investment Requirements 2001-2030



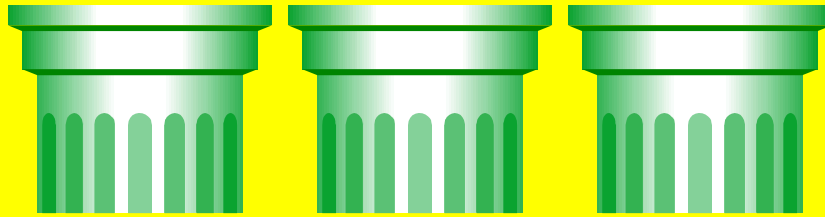
*Electricity sector dominates investment in most regions, but oil
and gas absorb the lion's share in Russia and Middle east*

Three Equal Pillars

Environment

**Economic
Efficiency**

**Energy
Security**



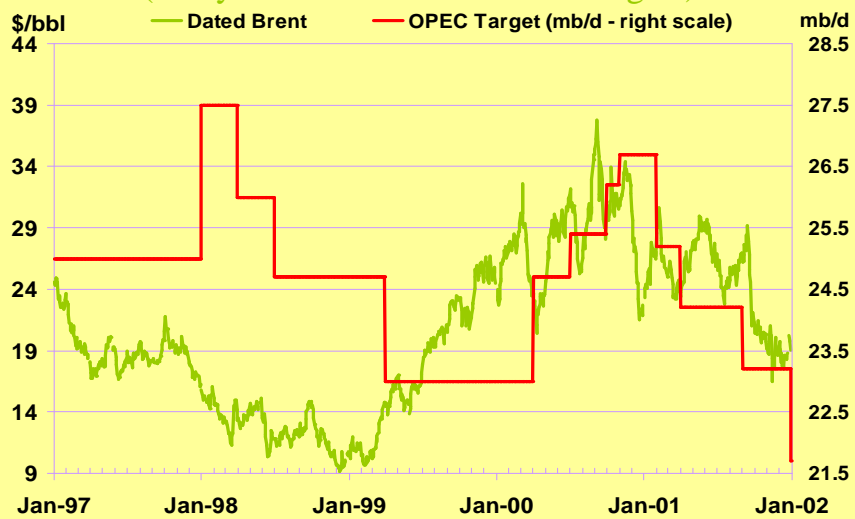
Prophets of Doom

- “Out of Gas: the End of the Age of Oil”
- “The End of Oil: the Decline of the Petroleum Economy and the Rise of a New Energy Order”
- “Hubbert’s Peak: the Impending World Energy Shortage”

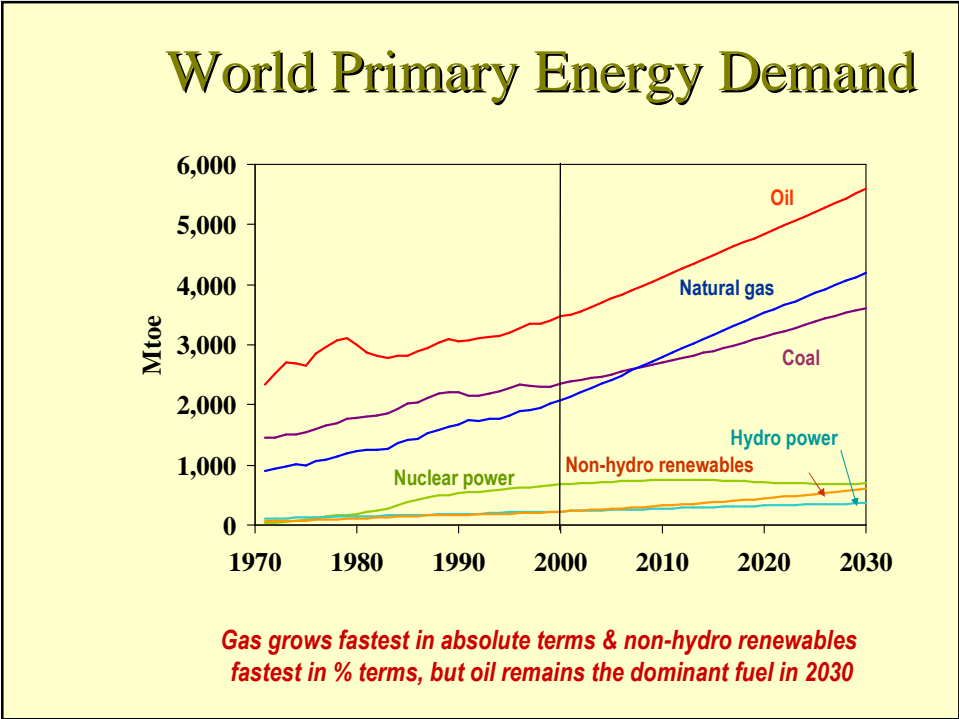
New Sense of Vulnerability



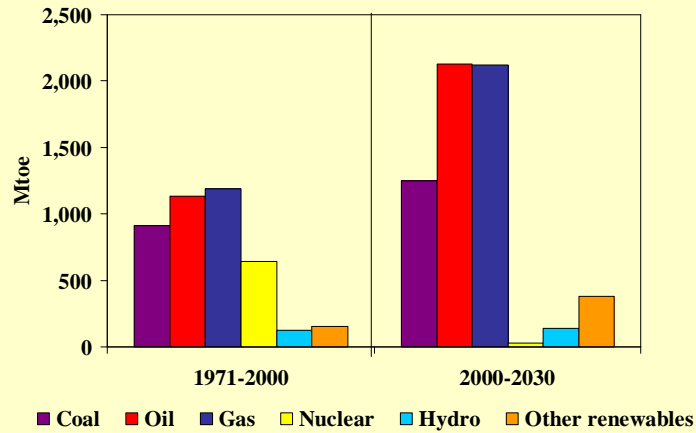
1997 - 2002: OPEC "Management" (Daily Dated Brent Vs OPEC Targets)



WORLD ENERGY INVESTMENT OUTLOOK

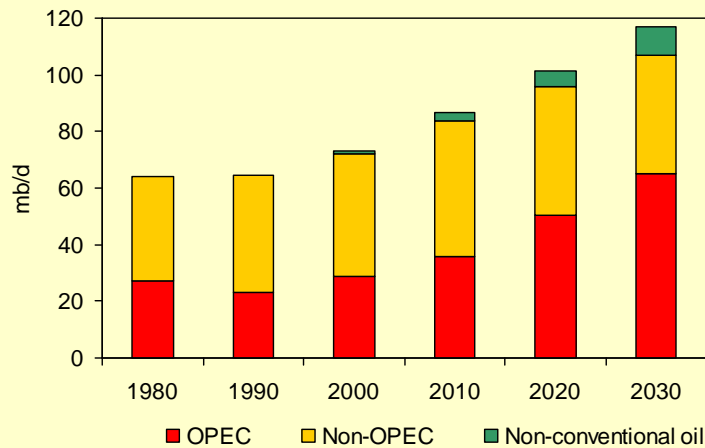


Increase in World Primary Energy Demand by Fuel



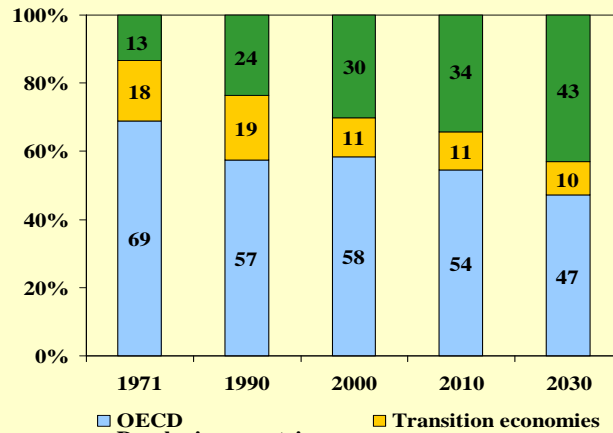
Fossil fuels account for more than 90% of the increase in energy demand in 2000-2030 – a bigger share than in the past

World-Oil Production



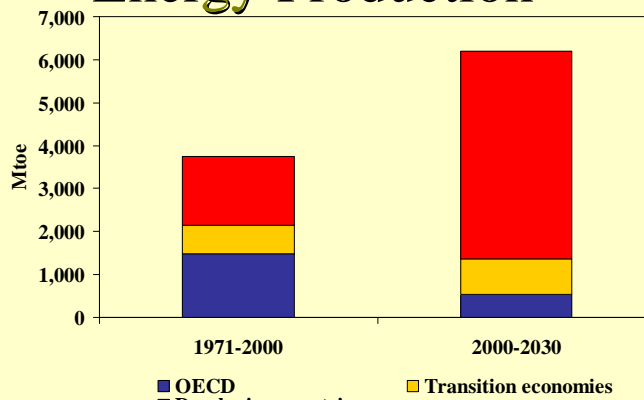
Non-conventional oil emerges as a major new source

Regional Shares in World Primary Energy Demand



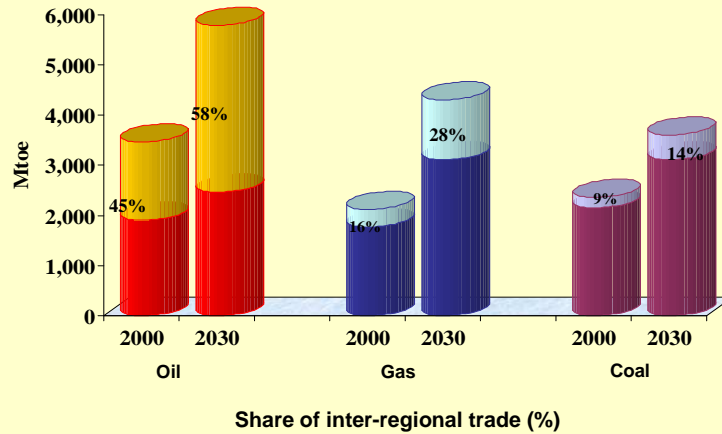
62% of the increase in world demand between 2000 and 2030 comes from developing countries, especially in Asia

Increase in World Primary Energy Production



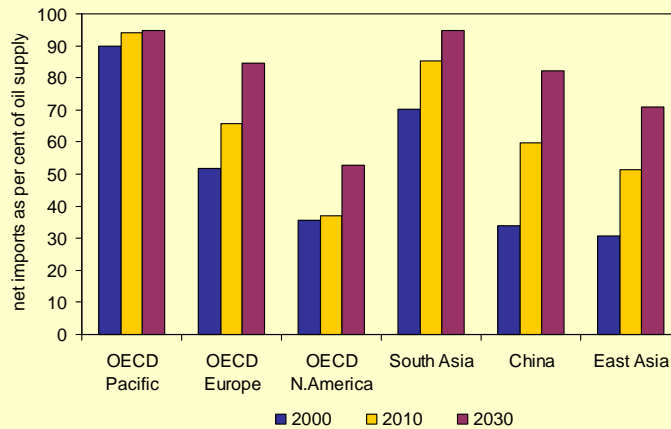
Almost all the increase in production occurs outside the OECD, up from 60% in 1971-2000

Share of Trade in World Fossil-Fuel Production



Energy trade between regions more than doubles between now and 2030, most of it in the form of oil

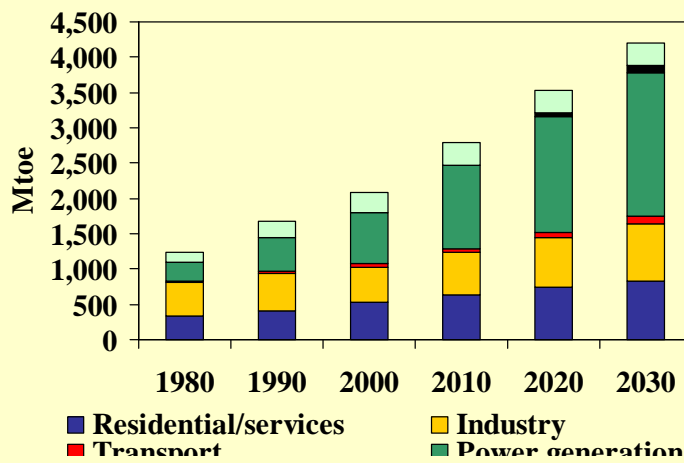
Oil-Import Dependence



Asia sees the biggest jump in import dependence, while OECD imports also continue to rise, especially in Europe



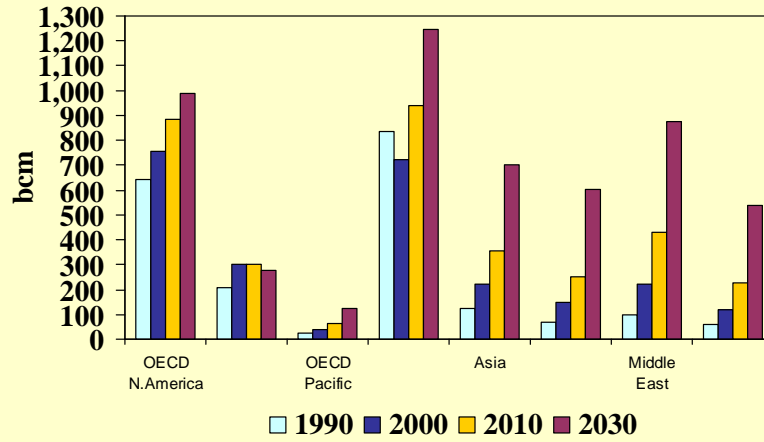
Figure 3
World Natural Gas Demand By Sector



Most of the projected increase in gas demand comes from the power sector, while GTL plants emerge as a new outlet

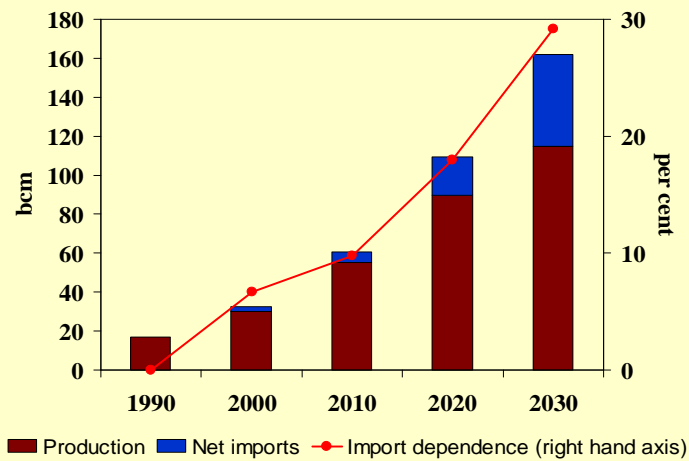
Figure 4

Natural Gas Production By Region



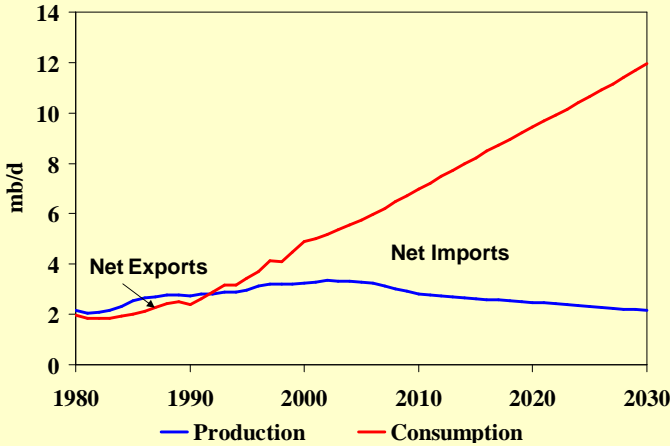
The Middle East sees the biggest jump in production, but the transition economies remain the largest producing region

China: Natural Gas Supply



Gas demand, increasingly met by imports, jumps from 32 bcm in 2000 to 162 bcm in 2030

China: Oil Balance



Net oil imports surge from 1.7mb/d in 2001 to 9.8mb/d in 2030



IEA Oil Stocks Exceed 3 Billion Barrels

