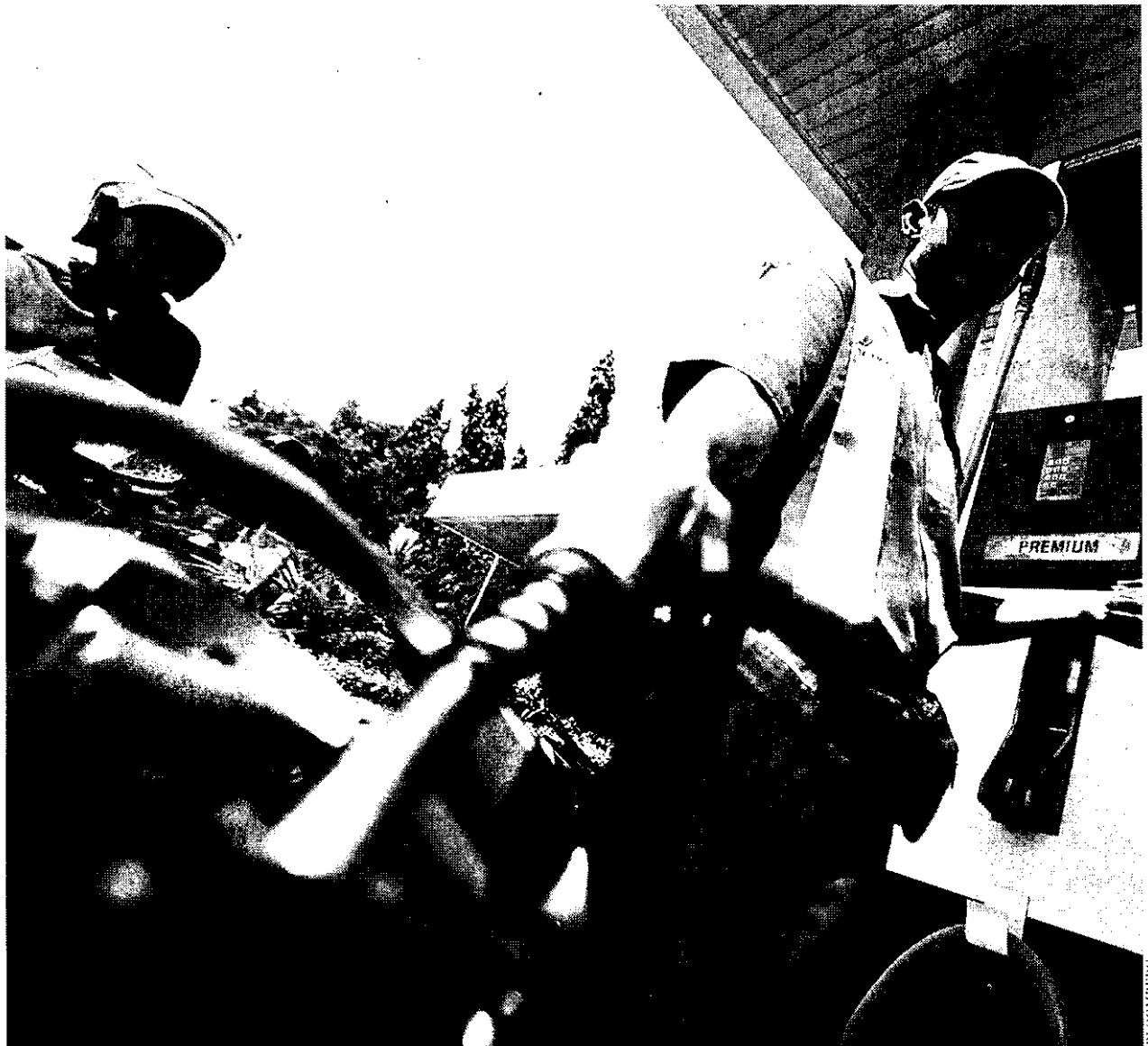


OIL SHOCK AND REVOLUTION reshape Indonesia's fortunes

FORTY YEARS AFTER THE GLOBAL OIL CRISIS, INDONESIA AND THE WORLD
ARE ON THE VERGE OF ANOTHER ENERGY GAME CHANGER



A motorbike is refuelled at a petrol station in Jakarta. Indonesia has moved from exporter to importer of oil.

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THE DIPLOMAT
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Last October marked the 40th anniversary of the 1973 oil embargo that brought the

world to its knees. The Organisation of the Petroleum Exporting Countries (Opec), led by Saudi Arabia, cut oil production and shipments to the United States and other countries that were supporting Israel in the Yom Kippur

War. By March 1974, oil prices had quadrupled from around US\$3 to \$12 a barrel.

"The oil crisis set off an upheaval in global politics and the world economy," wrote renowned energy expert Daniel Yergin in the *Wall*

Street Journal. After the shock, it was widely perceived that the era of cheap and plentiful oil was over and the world would have to live in an age of limitations. The sudden realisation of the vulnerability of countries to wild fluctuations in oil prices has brought profound global changes. Through it all, the shifts have reshaped the fortunes and international position of Indonesia.

Consider the differences between Indonesia in 1973 and the country today. First, Indonesia has moved from exporter to importer of oil. Four decades ago, Indonesia produced more than a million barrels of oil per day, accounting for 60 per cent of its exports, with oil revenues contributing about 70 per cent to the state budget. The windfall spurred high economic growth into the early 1980s. But the boon also led to some unfortunate excesses: rampant corruption, political repression and fuel subsidies that distorted price and handicapped Indonesia's finances.

Now the 1970s daydream of an oil-rich Indonesia is confronting the realities of the 2010s – a painful process. The high economic growth rate and the artificially low price of fuel in Indonesia for the past 40 years pushed domestic demand for oil to 1.5 million barrels a day in 2012, even as production has fallen from the heights of the 1970s, to about 850,000 barrels a day presently. To relieve the pressure on its finances, Indonesia is slowly weaning itself away from fossil-fuel subsidies – an unpopular and politically precarious move that Indonesia must continue to make. To meet its immediate domestic demand, Indonesia must continue to rely on imported oil, especially from the Middle East. But unconventional sources of oil and gas may present a promising option down the road.

Second, the shale oil and gas revolution is a game changer. For many years, geologists have found huge quantities of shale oil and gas locked in shale-rock formations beneath the earth's surface. But they were too expensive and technically too difficult to extract. Until now. Bryan Walsh wrote in *Time* magazine that two innovations made it economical to pump oil and gas out

of the formations. Pioneering companies drill vertically down into the shale and horizontally through the rock while forcing millions of litres of water mixed with chemicals at high pressure to fracture the rock. This technique, known as "fracking," unlocks the trapped oil and gas from the rock structures.

From the "age of limitations" that began the 1970s, the promise of abundant shale oil and gas is transforming the world's energy industry, economy, geopolitics and environment. A Wall Street Journal report says that the US is overtaking Russia as the world's largest producer of oil and gas. US imports of natural gas and oil have fallen 32 percent and 15 per cent, respectively, over the last five years.

A PricewaterhouseCoopers analysis found that potential production from shale oil could reach up to 14 million barrels of oil per day by 2035, or about 12 per cent of the world's total oil supply. The technology to produce shale oil and gas is already being introduced elsewhere, including Indonesia. In the long term, the energy self-sufficiency of the US and to a lesser extent of Indonesia and other countries as well as the possibility of Iranian oil and gas fields coming online for the world's market – the latter helped by the recent thawing of US-Iran relations – will increase global oil capacity, introduce changes in the geopolitical order and amplify the risk of upheaval in oil-export dependent countries.

Finally, cheap fossil fuels are discouraging the climate agenda. The 1973 oil embargo "saved the planet" wrote Michael L Ross in *Foreign Affairs*, and it "gave the rest of the world a head start against climate change." After the oil crisis, countries dependent on oil-imports rushed to invest in alternative energy and improvements in energy efficiency. Alternatives such as solar, wind and biofuel are increasingly represented in country energy mixes. Since 1975 automobile and aircraft fuel efficiency standards in the United States, and elsewhere have doubled. The average car in the US gets 11.5 kilometres per litre (27 miles per gallon), a figure that is set to surge again over the coming decade. Automobile and aircraft

efficiency standards in the US matter to Indonesia and the rest of the world. Rapidly growing Indonesian commercial airliners use many Boeing aircraft. What's more, because of the sheer size of the automotive market in the US, especially in California, environmental standards for US cars are adopted in Indonesia and other countries. In the process, they become de facto world standards.

Despite those improvements, the argument that high oil prices and a shortage of fossil-fuel can promote a climate plan no longer has traction because of the impact of shale oil and gas. Breaking free of fossil-based fuel is one of the primary objectives of the elusive global climate treaty. Countries around the world had high hopes that voluntary unilateral actions by a number of countries might nudge the process forward for a truly world-wide solution. Indonesia is one such country that under the leadership of President Susilo Bambang Yudhoyono has embarked voluntarily to cut carbon emissions, while protecting and sustainably managing its forest resources and coral reefs. However, plentiful shale oil and gas is changing the equation and extending the age of fossil fuels, making it hard to break our oil habit.

As we enter this new age of plentiful energy, it is worth again listening to the voice of Rachel Carson, author of "Silent Spring", a book published more than 50 years ago that became the primary source of environmental awareness. She says: "The human race is challenged more than ever before to demonstrate our mastery, not over nature but of ourselves."

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