

# DevPulse

NEDA Development Advocacy Factsheet

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## How to deal with an energy crisis

**E**ight decades ago, a group of scientists wanted to know whether a typical sedan could run for long distances on a kind of fuel that had 50 percent ethanol, 45 percent gasoline and 5 percent sulfur and other chemicals. For five years, the sedan ran for 50,000 kilometers without major glitches; the experiment was a success.

Given today's conditions, an experiment like this could have encouraged government to at least explore the possibility of using alternative fuels to lessen dependence on oil imports. During that time, however, oil prices were low and there weren't a lot of people who drove cars, because the experiment took place not during the oil crisis of the 1970's, but in 1929. And it wasn't conducted by Americans or Brazilians, but by Filipino scientists from the sleepy town of Los Baños, Laguna.

Almost 80 years later, the picture has changed dramatically. Oil prices in the international market have hit successive record highs in a span of seven months, and since the country is heavily dependent on imported oil to drive the economy, it has put upward pressure on local fuel prices as well.

Higher fuel prices translate to higher transportation costs, and higher transportation costs mean higher prices for other commodities such as vegetables and electronics. Higher international oil prices also makes things more difficult for the power sector since many of our power plants run on imported oil. Because of this, government is aggressively pushing for greater energy self sufficiency.

### **Why oil prices are rising**

A lot of factors affect oil prices, but the ones that drive the current increases are higher demand, dwindling oil resources, increased price speculation, greater geopolitical threats and to some extent, weather disturbances that affect access to supply.

The increasing appetite for oil from emerging economies like China and India is driving prices up. As their economies grow, so does their demand for oil. Demand from the world's biggest oil consumer, the United States, has also risen 38 percent since the oil shock of the 1970's. At the same time, output from major oil exporting countries has remained stagnant in recent years due to dwindling oil resources. All these are putting pressure on prices worldwide.

As oil prices rise, some economists and policymakers believe speculators are also part of the problem. Although the U.S. Commodity Futures Trading Commission recently said that demand and supply factors are mostly to blame for the price spikes, some experts nonetheless believe increasing price speculation is artificially inflating prices. They say the weak dollar also encouraged holders of strong currencies like the euro, or even the Philippine peso, to buy oil futures since it's cheaper for them to do so now. Those who have a lot of dollars, on the other hand, also bought oil futures to "hedge" or counterbalance the losses they incur by holding on to their (weak) dollars.

Rising tension in West Asia is another major factor. Iran, for instance, threatened to block the Strait of Hormuz, where about 30 percent of world oil supply passes through, if Israel or the U.S. attacks their country. Growing instability in Nigeria, which is a major oil exporter, is also a problem.

Weather disturbances may also be a factor. For instance, offshore oil fields in the Gulf of Mexico were evacuated just recently in anticipation of a major hurricane. The result is thousands of barrels in lost production.

### **Encouraging oil exploration**

The Philippines imports almost all of its oil requirements. Of the 349,000 barrels per day (bbl/d) that the country needs, more than 300,000 bbl/d is imported. Domestic

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production is a mere 40,000 bbl/d, which is already an improvement from the earlier 25,000 bbl/d, thanks to the recently-opened Galoc Oil Field in Palawan.

Experts believe that the Philippines has 138 million barrels of proven oil reserves and between 3.9-20 trillion cubic feet of natural gas, so government is encouraging the private sector to invest in oil exploration and development. Exxon Mobil recently announced plans to invest US\$100 million to explore offshore oil sources in the country, and government hopes that other companies will follow suit.

### **Promoting alternative and renewable sources**

Government has also been pursuing an aggressive policy on alternative fuels as well as increasing production of indigenous and renewable energy sources to address the country's energy needs.

The country has over 3 million hectares of sugarcane, corn and cassava plantations for biofuels production, producing 70 million liters annually; by 2010, production is expected to hit almost 300 million liters.

Eight decades after Los Baños scientists performed their first experiment with ethanol, authorities have returned south and asked experts from the University of the Philippines campus there to spearhead the research and development efforts for the National Biofuels Program.

One of the promising crops is jathropa, which doesn't directly compete with food crops since it can be planted almost anywhere including rock crevices and sandy soil. Acting Socioeconomic Planning Secretary Augusto B. Santos said that "we currently have about 700 hectares of jathropa plantations, with an additional 1,000 hectares to be put up by September this year. Other possible sources are cassava and sweet sorghum."

For electricity production, the country is becoming less dependent on imports to run its power plants as more renewable sources are put up. Santos, who is also acting director-general of the National Economic and Development Authority, explained that the Philippines "is the world's second-largest producer of geothermal energy, and government is continually pushing for more hydro (water), wind and solar plants to be put up." Some reports say that the country currently has Southeast Asia's largest wind and solar farms.

### **Other measures**

Santos added that other measures are also being implemented, like fast-tracking power sector privatization as mandated by the Electric Power Industry Reform Act,

allotting PhP4 billion of value-added tax collections for energy security, providing discounts on the pump for public utility vehicles (PUVs), reducing tariff rates on imported crude and refined petroleum, and converting PUVs to compressed natural gas or liquefied petroleum gas (LPG) which is cheaper than diesel and gasoline.

Government continued with its austerity measures to address the rising cost of energy. An administrative order released early this year mandated government offices to reduce fuel consumption by 10 percent, turnoff air conditioners at 4:30pm, replace all incandescent bulbs with fluorescent lights, convert 20 percent of their vehicles to LPG and adopt other energy saving technologies.

The Department of Energy also launched the SWITCH movement, which will encourage households to switch from incandescent to compact fluorescent lamps (CFL). CFLs consume less electricity and gives off more light than traditional bulbs. The project aims to prepare Filipinos for the complete phase-out of incandescent light by 2010.

### **Reaping what we sowed**

Achieving energy security is a policy explicitly indicated in the 2004-2010 Medium-term Philippine Development Plan (MTPDP). The country's self-sufficiency ratio stands at 55.7 percent as of 2007, a big improvement from 2002's 51.33 percent and is well on its way to achieve the 60 percent target by 2010.

Thanks to government efforts in improving the Philippines' self-sufficiency ratio since 2001, the country is in a better position to deal with rising oil prices in the international market than it was seven years ago. However, there's much more to be done.

We can do our part by saving electricity at our households and offices. Switching from incandescent to CFL, using the timer on the airconditioner, using just one television for the whole family instead of two or more, are just some of the ways we can conserve. Conserving energy not only trims our monthly bill but also defers the need to put up new power plants.

We are all responsible for ensuring sustainable energy supply for today and for the coming generations. While government is doing everything it can to promote energy security, ordinary citizens should also play their part in making sure that we have enough energy to fuel our future.

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