Energy: Geopolitics and Development

Adolfo Calatrava García
Universidad Autónoma de Madrid

Alejandro V. Lorca Corrons
Jean Monnet Chair
Universidad Autónoma de Madrid

Energy can be viewed as a basic factor of any civilization in the course of History. At present, and for more than 200 years, our societies' energy supply is provided mostly by fossil fuels: oil, gas and coal. Between them, they account for almost 90% of primary energy consumption in 2002. Although the use of nuclear and renewable (wind, hydroelectric, solar…) energies has increased in recent years, it is unable to cover the demand. In addition, nuclear energy is rejected by a large part of society because of the danger posed by accidents in nuclear power plants and the problem of dealing with radioactive waste. Within these fuels, the main energy source is oil. This resource dominates energy geopolitics and is an essential factor in general geopolitics. In 2002, oil accounted for 37.5% of the primary energy consumed in the world, compared with 24.2% and 25.4% for natural gas and coal, respectively. However, it should be remembered that oil derivatives are virtually the only fuel used in a vital strategic sector: transport. In addition, at present, the crude oil market is the only one that is flexible enough to create a world trade space, although natural gas will become increasingly important in coming years.

Because of this, an indispensable component of any geopolitical energy study, whether at global or regional level, is the study of the oil market. Since 1970, world energy consumption has almost doubled. Between 2001 and 2002, primary energy consumption increased 2.6%. In spite of this, oil consumption decreased slightly, falling 0.7%, and this decrease has continued in the first months of 2003. However, the forecasts are for growth in coming years. It is vital to take into account increases in energy consumption in any analysis of the evolution of the energy situation and its geopolitical implications. The reason is that it is vital that the energy markets, and the oil market in particular, be able to cover increases in demand. If imbalances should arise due to excessive competition caused by a decrease in supply, oil prices would quickly escalate, triggering severe economic crises in net consumer countries. Another important data for analysing the energy markets is the evolution of oil prices per barrel. The prices can be used to measure different market situations, although they only have a serious impact if the changes are abrupt. In July 2002, a barrel of Brent costed about 25 dollars. This price was maintained until the end of 2002. From then on, the price increased until it reached almost 35 dollars per barrel in July 2003. The other types of crude have followed a similar trend. The reasons for this increase are, first of all, the strike at the State-run Venezuelan oil company during the first weeks of December 2002, which drastically reduced oil exports from Venezuela (the world's fourth largest exporter in 2002, with almost 2.5 million barrels per day). And, with a deeper impact, the Iraq crisis since the beginning of 2003, culminating in the invasion of the country in March. Although the end of open fighting, in May 2003, raised hopes that the country would be pacified and its oil production would be developed (Iraq is the country with the second largest proven oil reserves, with more than 10.5% of world reserves in 2002), the uncertainties continue due to the attacks by resistance groups. Since the 70's, the oil markets have undergone a regionalization process by which each of the three main centres of energy consumption, USA, EU and Asia-Pacific (basically Japan, China and India), have obtained their supplies from the closest producing markets. In the case of the United States and the EU, this policy sought to decrease the high dependence these regions had on imports from the Persian Gulf. These regions produce less oil than they consume. Even so, North America accounts for almost 20% of oil production in 2002 and West Europe almost 10% (EU plus Norway). During the same period, USA consumed 26% of the world oil production and the EU countries almost 18%.

The world's oil-producing regions are headed by the Persian Gulf, with 65% of proven reserves in 2002; the Eurasian area (Europe, Russia and the Caspian region) accounted for barely 10%, with South and Central America having the same percentage. The North American reserves amount to less than 5% while those of Africa account for 7.5%; of this, 4% is concentrated in the South Mediterranean countries. The remainder corresponds to Asia-Pacific. Although these figures may vary as new oilfields are found, since late 2002, most of the new finds have been concentrated in the Gulf of Guinea. Thus, the fundamental importance of the Mid-

dle East (Persian Gulf and North Africa) in the world oil market is undeniable. In 2002, the United States imported about 11.4 million barrels per day of oil and it is the world's largest importer. 20% of this was supplied from the Persian Gulf region, and another 20% from Venezuela, Nigeria and North Africa. For 40% of its imports, it depends on OPEC countries. Another 30% is imported from its neighbours Canada and Mexico, while the rest is bought from South America, North Sea and various African countries. The country's intention is to increase its purchases on the American continent and the Gulf of Guinea. However, in spite of this, the foreseeable significant growth in its demand will inevitably increase its dependence on the Persian Gulf in coming years.

In 2002, Japan imported almost 80% of its crude oil from the Persian Gulf. Although the percentages are lower, the same trend can be observed for the other countries in the Asia-Pacific region, due to the lack of reserves in that region. In 2002, China imported nearly 40% of its oil needs from the Persian Gulf. However, in coming years, this percentage will increase drastically.

In 2002, the EU imported almost 12 million barrels per day, 80% of its total requirements. According to Eurostat, 27.5% of this was supplied from East Europe, mainly from the Russian Federation; 24.6% from the Persian Gulf; almost 20% from Norway; 16.4% from North Africa; and 4.1% from West Africa. In other words, about 45% of imports cross the Mediterranean, amounting to almost 5.5 million barrels per day.

The Mediterranean is one of the planet's main energy exchange centres, concentrating the oil and natural gas exports to the EU from North Africa, the Persian Gulf (through the Suez Canal and the Sumed oil pipeline) and from the Russian Black Sea port of Novorosiisk (through Turkish straits). A small proportion of the exports heading for the United States also passes through the Mediterranean. There is also a traffic of refined products in the reverse direction, from north to south, although this is decreasing as the Middle East oil exporting countries build their own refineries, both to cover domestic consumption and to export this type of product. Between July 2002 and May 2003, about 300,000 barrels per day of oil crossed the Suez Canal southwards, of which 80% were refined products.

During 2002, about 3.5 million barrels per day entered the Suez Canal and the Egyptian port of Sidi Kerir on the Mediterranean from the Persian Gulf region. More than 90% of this was bound for the EU. During the same period, 2.6 million barrels per day were exported from the North African countries, of which 1.75 million barrels per day were destined for European countries. Finally, about 1.7 million barrels per day crossed the Turkish straits, almost all of it bound for the EU. In total, the movement of crude oil in the Mediterranean amounted to 7.8 million barrels per day in 2002, somewhat less than 18% of the total world crude oil trade in 2002. These figures will tend to increase, at least in absolute figures, due to the growing demand for oil.

As regards natural gas, Algeria is the source of most of the exports sent across the Mediterranean. In 2002, 29.3 billion cubic metres were sold through the gas pipelines that connects Algeria with Spain and Italy (and its branches to Portugal and Slovenia). Also, 32.1 billion cubic metres were exported as liquefied gas in tankers. Of this, 26.8 billion was supplied from Algeria and the rest from the Persian Gulf countries (particularly Qatar). This trade has the French, Spanish and Turkish ports as its main destinations. As liquefaction of natural gas becomes more commonplace, which makes it much easier to transport, trade of this energy source will increase significantly in the Mediterranean. From July 2002 to July 2003, about 21.5% of the world's liquefied gas trade took place around the Mediterranean.

These figures alone are ample proof of the importance of the Mediterranean in the energy field. However, we should also consider a qualitative value: a two-way dependence is created across the Mediterranean, in energy terms, between its north and south shores. The EU, and in particularly the southern EU countries, import a significant percentage of their energy requirements from the North African countries. At the same time, these countries receive an essential cash flow to carry out their economic and social development.[1] This dual dependence was already observed in the Declaration of Barcelona in 1995, which gave birth to the Euro-Mediterranean Partnership, and which devotes a specific chapter to the subject of energy. From that year onwards, a series of Ministerial Conferences have been organised among the associate countries, stressing security of supply, free trade and environmental protection. In May 2003, an Euro-Mediterranean Ministerial Conference was held in Athens. At this Conference, it was agreed to develop the goals that had already been proposed, specifying that all the sectors involved should draw up the «Priorities for the period 2003-2006». These priorities should include shipping safety problems due to the increase in energy traffic and the development and funding of North-South and South-South trade networks. In any case, the priorities will be given final form at the meetings that follow of the Energy Forum.

[1] At least in theory, as resources are distributed unequally in each country.