



Geopolitics of Shale Gas Revolution

*Dr. Zakir Hussain **

The idea of developing shale oil and gas as a future source of energy, mainly by the United States and Canada, has galvanised the geopolitics of energy market. Approximately, 6,600 trillion cubic feet of shale reserves, which are spread over 48 shale basins in 32 countries has been viewed as a game-changer. The shale revolution is claimed to bring multiple benefits to the world community; it is expected to enhance global energy security, reduce import dependency and potentially lower the cost and energy price volatility. Besides reducing greenhouse gas emissions, it would create millions of employment opportunities as well as economic dividends to the key producing countries.

It is estimated that by 2025-30, the U.S. would not only achieve its stated policy objective of 'zero' dependence on the Gulf from where it still draws more than 20 percent of its total oil import, but would also emerge as one of the largest producer-exporters of gas and oil in the world. According to the U.S. Energy Administration, at a conservative estimate, U.S. and Canada have approximately 862 TCF and 388 TCF of technologically recoverable shale gas reserves respectively, which is enough to provide an assured supply of gas for the next 50 to 80 years.

Indeed, the U.S. plan of developing shale oil-and-gas has generated a big debate not only in the global energy market but also among key energy producing countries. The entry of the

U.S.-Canada as a net gas exporter will have potential cooling down effect on gas and oil prices. At present, U.S. is the largest energy consuming country in the world; it consumes almost a quarter of the total global energy, procuring three-fourth from outside sources, i.e. approximately 18 mb/d. Production of shale oil and gas by the U.S. and Canada will not only spare oil and gas in the international market but also add additional quantum of hydrocarbons. A simple statistics of energy demand and supply may bring following changes in the energy market.

First, the lowered gas prices will force the key gas producers to readjust their production in order to stabilise the gas prices in the global market. The gas-rich countries like Russia, Iran, Qatar, etc., may consider forming a gas cartel, on the lines of the OPEC, which was floated by the Russian President Vladimir Putin during his visit to the Gulf in 2007.

The second likely effect will be on the methodology of gas pricing. Until now, gas has hardly been independently priced; its pricing is associated with oil. The entry of the U.S. in the gas market will initiate independent gas pricing policy.

Third, independent gas pricing would ultimately have an affect upon oil prices as well. The most likely impact of the shale revolution will perhaps be experienced by the key hydrocarbon producing countries. This may potentially alter the geopolitical and geostrategic alignments. As a result, four likely scenarios may occur:

According to the *first scenario*, a possible realignment among the energy producing countries may take place This may bring even the rivals countries like Saudi Arabia, Iran and Russia together to hedge their energy interest. Any unexpected downfall in the oil prices, leading to shortfall in their oil revenues, will have massive repercussions on their domestic politics, which may not be desired by these 'non-representative' regimes. Hence, there is a strong likelihood that these three countries can either openly or tacitly cooperate rather than differ/conflict on developing a common oil and gas production and price policy. The likelihood of the Russia-Saudi Arabia-Iran working together in energy market altogether is not a mere notion. During the peak of their rivalries, Saudi Arabia and Iran did cooperate with each other in the OPEC. As a result, the chances of cooperation in the energy market may impact upon their respective bilateral

relationships, including the geopolitical understandings in and around the region. Consequently, the geopolitics of shale gas may possibly bring the three estranged partners closer and may potentially reshuffle the existing geostrategic equations of the region in medium-term.

The Second scenario may spiral into an altogether reverse direction. The U.S., E.U., Canada, Australia, Saudi Arabia, Qatar, etc. may develop a strong ‘synergy’ to influence the global energy market and squeeze energy-rich countries like Russia and its allies Iran. China, being the second largest energy consuming country and viewed as ‘the new U.S.’ in the Gulf, may be forced to reconsider its overall policy, including energy vis-a-vis the U.S.-led energy caucus.

The third likely scenario of shale revolution may result into OPEC versus non-OPEC tussle. The increased supply from the ‘shale club’, mainly led by the U.S. will not only curtail the OPEC’s dominance in energy market but also possibly weaken it from within. OPEC may become a battleground of hawks and moderates, particularly over the readjustment of oil-quotas to the member countries. As a cartel, OPEC’s task is to stabilise oil prices by readjusting the oil-production-quotas of the members. The organisation is most likely to face stiff internal competition once Iraq and Libya start pumping out their respective planned oil outputs. Keeping the above scenario into account, it is expected that future oil prices would remain below the triple digit.

The fourth scenario is likely to reposit more power to the U.S. The U.S. would be wielding energy as an additional strategic ‘resource-weapon’, besides military, to squeeze the adversarial powers. Both, China and Russia may not be able to influence the energy market either by being the largest producer or the largest importer. The fulcrum of future energy market is likely to shift to the North America; even the Middle East, which has 48 percent oil and 38 percent gas deposits, would not be in a position to leverage the dynamics of the global energy.

Although, shale boom offers immense opportunities, it poses serious challenges as well. Besides enhancing the environmental risks, it also feeds upon the scarce resources, such as fresh water, arable land, sustainability, etc. Shale gas emits relatively more carbon residue and raises the

probability of tremors and explosions due to shale gasification besides contaminating the aquifers lying below the shale sediments through chemical seepage, which is used in fracking the shale stones.

Since there are only a few countries which have shale gas technology, doubts are raised whether those countries would develop their own 'cartel' and dictate the energy market on their terms. Would shale gas really reduce pressure from the energy market is another genuine concern. Nevertheless, whatever consequences of shale gas, it should be hoped that its development is not at the cost of other two vital dimensions of human needs i.e. water and food security.

**Dr. Zakir Hussain is a Research Fellow, Indian Council of World Affairs, New Delhi.*