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Stability is in diversity: Policy Perspective on Oil Shortage

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The prevailing shortage of gasoline across Punjab and parts of Khyber Pakhtun Khawa exposes the flimsy foundations of our governance mechanisms, on the one hand, and more gruesomely, the dangerous dependence of our economy on oil. The economic machine of Punjab, the province contributing more than half of annual national output, is effectively on a ventilator for more than one week.

It is not the case that policy makers are clue less or in uncharted waters when it comes to energy security. Contrarily, in the case of energy, there exists a long history of events to realize the importance of developing a proper policy. For example, ever since the first oil price embargo in 1973, that crippled the economies of the Western world, there is an understanding that diversified energy mix should be the strategy for keeping an economy resilient in the face of any untoward oil shortage.

Even from development perspective, securing energy supplies is crucial as demand for energy and living standards enjoys strong positive correlation. Since the oil shocks of 1970s, one observes four routes taken by developed and emerging economies to reduce their reliance on imported fuel: keep a buffer stock of oil or what is termed as strategic oil reserves to smooth out demand and supply fluctuations in the short run; greater reliance on domestically available means of energy like coal; development of alternative and renewable sources of energy like wind or solar energy; and conservation using efficient machinery or curtailing the use of petrol based transportation e.g. use of electric cars, use of public transport or commuting through bicycles.

A related and more recent policy is to grow fuel instead of digging it out. It leads to the development of ethanol and bio fuels. Due to the high cost of production of these fuels, however, they are not very practical in many developing countries with the exception of Brazil.

Two alternatives, among the above mentioned list, showed greater commercial success. One is the use of wind energy and second is the use of freely available sun light. Significant advancements have been made on these fronts in many countries. Energy produced from these sources is environmental friendly and renewable. So much so that many countries like Denmark

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and Germany are getting a large proportion of their total energy needs from these sources. The development of electricity driven cars are also decreasing the reliance of transportation on imported fossil fuel.

Many emerging economies, realizing the importance of energy security, have been relentlessly pursued the policy of diversifying the energy sources and are now relying less on one type of fuel. For instance, India, China, Brazil, and Thailand are importers of oil. But their energy dependence on imported oil is far less compared to Pakistan. To gauge, for instance, the efficiency in the use of energy, one can compare the value of output produced per unit of oil usage. By this measure, Pakistan in 1990 was getting three times the output that of China and almost double compared to India. In 2011, however, the situation was dramatically reversed. China was producing more than 10 times and India more than 4 times the output per unit of oil use compared to Pakistan.

This should not be surprising given the myopic and badly conceived energy policy Pakistan has been pursuing. For example, the usage of natural gas was always encouraged by keeping its price low for end users without earmarking anything for exploration or looking for alternatives. Adding insult to injury, there was the thoughtless conversion of public and private transport to natural gas. A huge network of CNG stations, consequently, came into being. At artificially low price the natural gas became the preferred fuel in private and commercial vehicles alike, thus accelerating the depletion of this non-renewable resource while keeping the true worth of the precious resource remain obscure from the eyes of the end users.

In mega cities the importance of diversified energy mix is even greater because the myriad of economic activities in the city increases the cost of any incident of energy shortage. The two most preferred policies are: to have a cheap public transport system and encouraging natural means of commuting like bicycle and walk. Public transport system offers the advantage of reaping economies of scale in terms of oil usage and, also, public transport system can be invested with more environmental friendly and fuel efficient technologies like electric buses etc. for the larger benefit.

The second way to mitigate the energy shortage risk in mega cities lies in developing a culture of bicycles and walks. Presently, we can see that neither our youth nor elderly are willing to walk even to a nearby market let alone to their work place. Given the warm and humid climate in most parts of our country the physical exertion is understandably avoided. The success of this policy, therefore, requires two things: first, making low cost and efficient bicycles; and secondly,

to reserve a track on each roads for cyclists and pedestrians that is shaded and covered with trees to insulate the cyclists/pedestrians against the direct sunlight in summers. Tragically such provisions are conspicuously absent even on hundreds of new roads built in Punjab in recent years. It only indicates our policymakers' short sightedness and ignorance of the changing realities around us. Given the fact that almost 40 percent of our population lies between 15-40 years age groups we can safely assume that they will be happy to paddle their way to work if given a proper and soothing avenue.

There are other measures to reduce our reliance on energy imports. For instance, the most oil intensive means of commuting is air travel. In Europe many leaders are officially denouncing their air trips and are using other means of communications instead. The objective is to curtail the use of fossil fuels. In contrast, our public officials are crafty and eager in availing all opportunities of international trips not alone but with an army of friends, relatives and officials.

If history has any guide, it is not difficult to discover the fundamentals of energy policy. First, building dams and water reservoirs to ensure hydel-energy; effective railways for easy transfer of coal and other minerals from one part of the country to another. If that is not possible than constructing long pipe lines to transfer coals based electricity to other parts of the country.

The diversification of the sources of energy is necessary for Pakistan because with the improvement in the living standard of the people there will be large number of households in our country that will purchase their first motor bike, motor car, refrigerator, or other energy consuming appliance. There is a strong need to take these 'firsts' into account in making any policy regarding the future supply of energy which should match this increase in demand.