

Policy Options for promotion of Renewable Energy in South Asia

South Asia is blessed with one of the world's oldest civilizations, rich and diverse natural resource base, and a vast pool of intellect including modern day sciences such as information technology that have supported economic development and sustained rural livelihoods over time. It continues to push the world's economic center of gravity to the east with India on track to become the world second largest economy by 2050. The sub-region encompasses an amazing range of mountains, plateaus, intervening structural basins and beaches.

Countries in South Asia are facing acute energy shortage and the gap between supply and demand is ever increasing due to increase in population, urbanization and modern life style. Reason for the energy shortage is primarily lack of long term planning for increased energy production/energy mix coupled with transmission losses and poor governance. Consequently, public is facing increased load management in domestic, commercial and industrial sector. Thus energy security is posing a real threats to the development endeavors in South Asia thereby hampers industrial production and trade besides creating un-employment.

An overview of the energy mix show that most of the South Asian countries are still relying on the tradition sources of energy like hydro and fossil fuel as the gap between energy supply and demand further increased the use of fossil fuel to generate power as a short term solution also increases. Relying on fossil fuel for power generation is not only eating the country's foreign currency reserve besides increasing the risks on increased emission of Green House Gases (GHG) into the atmosphere leading to global warming.

One way to reduce the use of fossil fuels and protect forests from degradation is to devise policies that encourage supply of decentralized sources of renewable energy. This policy option must be based on the principal of encouraging private, public and civil society in installing decentralized energy systems for domestic, commercial or industrial sector to develop their own sources of energy. Public sector must provide a proportion of upfront cost of the development of such decentralized sources of energy through concessional loan besides providing guarantee for purchase of the surplus energy/power by the national grid.

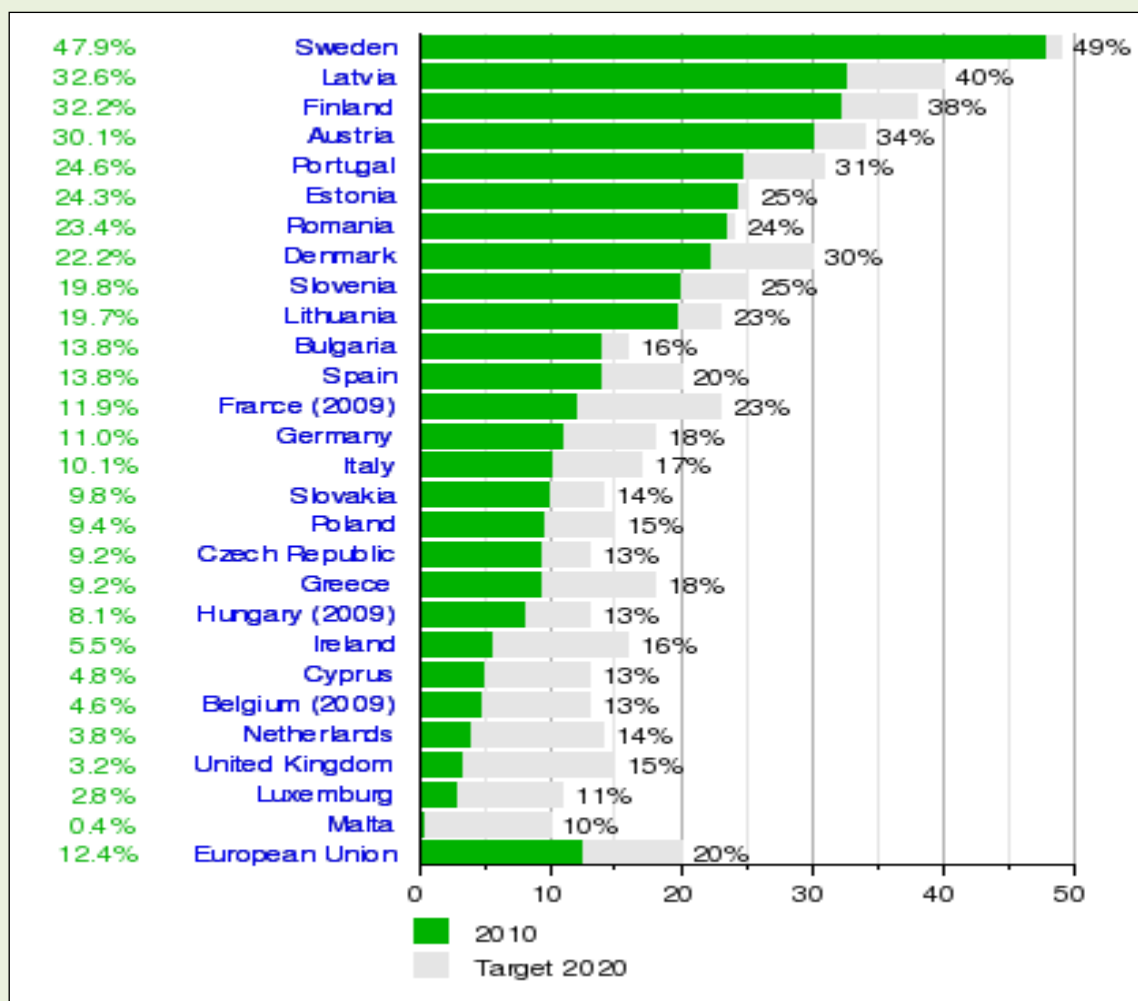
Most of the South Asian countries are blessed with tremendous potential of solar, biomass and wind energy at various places. Biomass energy is available everywhere and it can prove a major source of natural gas for domestic, commercial and industrial sector. Rural areas can have their own sources of domestic energy through the production of biogas as rural household has got plenty of livestock enough to generate the required quantity of natural gas as a decentralized domestic source of energy. This will help in reducing the pressure on the national gas grid for supply of natural gas to the domestic consumers in rural areas. In addition solar energy can be used in integrated form for indoor and street lighting.

Most of the South Asian countries have embarked on developing state of the art decentralized domestic biogas plants in rural areas, which the communities have greatly adopted because of low cost of development and production, the ease in operation, better hygiene and increased gas pressure. Most of these interventions are done by projects loaded with incentives and aimed at minimum cost contribution by the consumers. Solar technology is also getting popular response for solar geysers and lighting purposes. Private sector has to be encouraged through market mechanism for such innovative interventions but the biggest question is their sustainability in the long term.

Countries in the world both developed like USA, UK, EU countries, Japan and developing like China, India, Brazil and many more are working to increase the proportion of renewable sources of energy in the energy mix as sustainable energy policy options. The energy mix of countries in the European Union (EU) shows a sharp rise of the Renewable Energy (RE) sources in their energy mix during the past couple of years. The major reason of increased RE proportion in the energy mix is almost all renewable energy sources are environmentally clean and safe, they are cheap and highly sustainable besides being eligible for earning carbon credits under the Clean Development Mechanism (CDM).

European Union leaders reached agreement in principle in March 2007 that 20 percent of the bloc's final energy consumption should be produced from renewable energy sources and achieve this target by 2020 as part of its drive to cut emissions of carbon di-oxide into the atmosphere. Historically EU has strongly advocated the use of increased RE in the energy mix and therefore supported the Kyoto Protocol aiming at reducing the emission of GHG into the atmosphere.

Graph below show the progress of various EU countries in achieving the RE targets:



Almost all the EU countries are located in temperate zone having cold climate and receive less solar exposure in day time but their commitment and viable policies based on realistic data has enabled them to increase the RE proportion in the energy mix. Most of the South Asian countries on the other hand has got maximum exposure to sun in day time and can therefore produce plenty of biomass besides increased production of solar power. In addition, South Asia is blessed with over thousands of km long coastal belt full of biomass and wind corridors that can easily be exploited for integrated energy generation. South Asia must immediately follow the EU model of renewable energy aiming at developing realistic, achievable and sustainable energy policies based mostly on the increased RE proportion in the energy mix in future.