

Energy Security and Sustainable Development: Challenges and Prospects

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Abstract : Over the past few years, energy security and sustainable development have moved rapidly into the global agenda. There are two main reasons: first, the impact of high and often volatile energy prices; second, concerns over environmental sustainability particularly about the global climate. Both issues are critically important in which impressive economic growth has boosted the demand for energy and put corresponding strains on the environment. Energy security is a broad concept that focuses on energy availability and pricing. Specifically, it refers to the ability of the energy supply system i.e. suppliers, transporters, distributors and regulatory, financial and R&D institutions to deliver the amount of competitively priced energy that customers demand, within accepted standards of reliability, timeliness, quality, safety. Traditionally, energy security has been defined in the context of the geopolitical risks to external oil supplies but today it is encompassing all energy forms, all the external and internal links bringing the energy to the final consumer, and all the many ways energy supplies can be disrupted including equipment malfunctions, system design flaws, operator errors, malicious computer activities, deficient market and regulatory frameworks, corporate financial problems, labour actions, severe weather and natural events, aggressive acts (e.g. war, terrorism and sabotage), and geopolitical disruptions. In practice, the most challenging disruptions are those linked to: 1) extreme weather events; 2) mismatched electricity supply and demand; 3) regulatory failures; and 4) concentration of oil and gas resources in certain regions of the world. However, insecure energy supplies inhibit development by raising energy costs and imposing expensive cuts in services when disruptions actually occur. The energy supply sector can best advance sustainable development by producing and delivering secure and environmentally-friendly sources of energy and by increasing the efficiency of energy use. With this objective, this paper seeks to highlight the significance of energy security and sustainable development in today's world. Moreover, it critically overhauls the major challenges towards sustainability of energy security and what are the major policies are taken to overcome these challenges by Government is lucidly explicated in this paper.

Keywords : energy, policies, security, sustainability

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