

**Third NIAS-DST Programme on ‘Energy Security and Management’  
(February 8-12, 2010)**

**Concept Note**

The National Institute for Advanced Studies (NIAS), Bangalore, following the suggestion of the Department of Science and Technology, is organising a week long training programme for senior executives between 8<sup>th</sup> and 12<sup>th</sup> February 2010 on Energy Security and Management. The lectures and the interactive sessions will be handled by the Energy specialists covering various forms of non-renewable and renewable forms of energy, the economics of demand and supply with their geo-political overtones and research needs. The main emphasis is, however, on the two keywords in the title of the programme: “Security” and “Management” highlighting our vulnerability as a nation to energy deficit and possible ways to address it.

Strategic management of various energy inputs vitally needed for our rapidly growing economy, requires that energy security issues, and their geopolitical dimensions, are addressed in a comprehensive manner. The challenge of sustainability is also an issue in this regard. With our heavy dependence on oil imports (over 70% currently, and projected to grow to 90% by 2030), and with our modest endowment of hydro, coal and uranium resources, India is vulnerable in the face of its growing energy demand on the one hand, and daunting challenges and uncertainties in international energy markets, on the other.

Energy security is about our ability to ensure availability of required amounts of energy in various forms in conformity with demand patterns, without supply disruptions and, abrupt price escalations. It calls for actions that would minimize our vulnerability to access domestic and imported sources of energy for meeting the energy demand in a sustained manner over a sufficiently long time horizon.

Energy security goes beyond reduced dependence on consumption of oil (and natural gas) and imports. It calls for a better understanding of, and preparedness to, changes in oil and other energy markets. It would also involve actions by way of expanding and diversifying supply sources, exploiting new oil and gas discoveries, making moves and adjustments to circumstances created by situations such as cartel arrangements on supply and price movements, global tensions, regional conflicts, sanctions-driven supply shortages, and building up strategic stockpiles/reserves, short/long-term storage facilities at national, sub-national and regional levels.

The problem of energy security for the poor people assumes importance as has been rightly emphasized in the integrated energy policy document prepared by the Planning Commission, which defines energy security for the country as follows:

*The country is energy secure when we can supply lifeline energy to all our citizens as well as meet their demand for safe and convenient energy to satisfy various needs at affordable costs at all times with a prescribed confidence level considering shocks and disruptions that can be reasonably expected.*

Improving energy security involves minimizing risks by measures such as conservation and increased efficiency, and diversifying indigenous resource base and supply sources including renewable energy sources and by managing risks through better preparedness to market vagaries and strategic actions of others.

The Training Programme will address the following:

- Supplying modern energy services to the majority of our people currently unserved
- Environmental challenges especially those relating to climate change issues
- impacts of liberalization and deregulation, policy initiatives needed to drive diversification and development of indigenous sources of energy
- Initiatives needed to intensify R&D in advanced energy technologies on our own as well as through international collaborations
- Policy environment needed for expanding investments and trade arrangements in energy
- Intensifying the development and use of renewable sources of energy
- Implementing energy conservation and energy efficiency measures.

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