South Asian Journal of Socio-Political Studies (SAJOSPS)
ISSN:0972-4613 Vol. 20 No.1 (July-December 2019) PP 108-111

Dynamics of India's Energy Security: Implications on Environment and the Society

Aleena Thomas, Research Scholar, Department of International Relations and Politics, Central University of Kerala, Kasaragod and
Dr. K. Jayaprasad, Dean, School of Global Studies / School of Cultural Studies / Professor and Head, Department of International Relations and Politics, Central University of Kerala, Kasaragod

The economic development, growing industrial sector and the large population have made energy a significant concern for India. However the uneven access of modern energy and the fossil fuel concentrated energy mix are the major issues behind its energy landscape. It is third largest energy consuming nation but a large section of people from rural area does not have access to continuous and reliable modern energy resources. Coal is the major source in the power and industrial sector. Crude oil is not only decides 99% of transport sector but also a main determinant factor of Indian economy. Energy mix of the country includes hydrocarbon resources as a major share. The consumption of finite fossil fuel put tremendous burden on environment and people of earth. So the paper analyses major issues of India's energy choices and its implications on people, environment and climate.

Key words: Energy Security, energy mix, fossil fuel resources, environment, energy choice

Introduction

The concept of energy security is a complex one and energy has played a significant role for social and economic development of the humanity. Conventional energy security concept implies the access of resources without any disruption. Since, the invention of fossil fuel resources, the major powers compete each other for the availability and control over the resource or resource rich area. Affordable and adequate quantity of energy is crucial for the basic needs of every society and it resembles in national and foreign policies of every nations. Global warming and climate change warnings influenced energy security approaches and conservation, efficiency measures, limited use of fossil fuels and the importance of clean source came into mainstream energy discourses. However the world still consumes more than 80% of energy from fossil fuels (WEC 2016). In this oil, contributes a significant role not only because of its highest share of world energy mix but also due to its influence in the world economy by the supply disruptions and the volatile price. Energy is vital for the human being from primitive stage of development to the daily needs of the modern society. It touches all aspects of human well being and the lack of availability of it reduces the progress of the individual as well as society. At the same time abundant availability of energy resources became a curse for several regions like Sudan, Nigeria and Congo etc (Gary & Karl 2003). Instead of economic and social development violent conflicts and environmental degradation are prominent in these areas (Collier 2007). Above all the production, extraction, transportation and consumption of hydrocarbon sources affect human health and environment severely. So there is a need of human and environmental security aspect in this energy landscape. The approach focus on all human beings including future generations are entitled to benefit from modern energy services and at the same time be protected from their negative side effects (Karlsson-Vinkhuyzen & Jollands 2013: 507-23). Linkage with climate change is also another factor in the energy security concept. Limiting the green house gas emissions will be the major challenge in the sector (Verrastro & Ladislaw 2007: 103-04). So energy security is a complex concept which includes access to continuous affordable clean energy resources for sustainable well being of the humanity.

India's Energy Landscape

The economic development and the growing population are the two determinants behind the growth of energy demand from India. It largely depends on industrial growth and electricity production. According to IEA it accounts 25% of the rise in global energy demand by 2040 and the demand will be addressed by strong dependence on coal for next decades. Now India's energy mix includes a large share of coal (56%) and others include oil (29%), Gas (6%), Nuclear (1%), Hydro (4%) and Renewables (3%) are the main sources in India's energy mix (BP 2019).

India's consumption of traditional energy sources increased 3.3% including crude petroleum 5.24%, natural gas 6.12% and electricity 6.50% (CSO, 2018). Coal is the most significant energy source in India which is used in electricity generation and industrial sector abundantly. The cheap availability is the major attraction but the low quality of domestic coal forces the country to import high quality coal. From 2007-08 to during 2016-17 the crude oil import increased from 121.67 to 213.93 MTs and it reveals India's higher dependency on import. India's energy statistics shows the gross crude oil import increased by 12.57% and 8.5 % of natural gas in 2015-16 to 2016-17. The total installed capacity for electricity generation grew with a compound annual growth rate (CAGR) of