



India - energy challenges in a growing region

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Foreword

India is the country after China that is often highlighted by the West as a major growing region in a variety of areas. A continuation of economic growth which the country experienced during the past decades contains a variety of challenges- not least in the energy field where the domestic energy resources are relatively scarce.

An increasing energy consumption in countries in the Indian Ocean region reveal a changing picture of supply and demand in the area. Some parts of this region are characterized by instability and by a two-sided mistrust. In addition, non-conventional threats such as piracy attacks have had an impact on energy transport in the Indian Ocean region and have, among other things, resulted in agreements on energy security within the framework of regional cooperation organizations.

The NOG-seminar at December 2 begun with a general background. The series of presentations were related to India and the neighboring countries current and future energy supply and safety aspects. The seminar was concluded with a presentation of the Indian household energy at the micro level.

Speakers:

INGOLF KIESOW

(Opening speaker and Session chairman)
Former Ambassador, researcher at
Institute for Security and Development Policy

PONUGOTI VENKATESWAR RAO

Director
Centre for Indian Ocean Studies, Osmania University
Hyderabad

ROLF DANIELSEN

Analysts
Skandinaviska Enskilda Banken (SEB)

SAMUEL STRANDBERG

Former researcher in the field of Indian village development
Stockholm University

This abstract is a summary of the seminar written by the secretariat of NOG.

Mr. Ingolf Kiesow has been working as a diplomat for many years in different Asian countries, and during the years 1997-2000 he was the Consul General in Hong Kong. Besides this Mr. Kiesow has also been working as a Senior Researcher at the National Defense Research Agency in Stockholm and the Central-Asia-Caucasus Institute, Silk Road Studies Program, in Uppsala. Currently Mr. Kiesow is a Senior Research Fellow and Member of the Board at the Institute for Security and Development Policy in Stockholm.

Mr. Kiesow was the chairman for the seminar and also held an opening presentation, giving an introductory background to the current situation in India.

India consists of 28 different states, which makes it a difficult country to govern. For many years India was socialistic, though a planned economy never succeeded in such a widespread country. At the time of economic liberalization a rapid development started and the economic situation has continued to increase rapidly since then. However, there is still a large part of the population that lives in poverty and India is ranked 103 in the world in GDP per capita. Illiteracy is also enormous, currently around 40 % according to statistics from the World Bank.

From the years 1997 to 2007 the GDP growth in India was at an average 6.9 %. Even during 2008 when the world economy experienced a big crisis the Indian GDP growth was 7.4 %. India can, according to Mr. Kiesow, still be considered well integrated in the global economy, especially in the service sector.

The energy mix in India, according to the US EIA, consists of about 53 percent coal, 31 percent oil, and 8 percent natural gas. The rest consists of hydropower and smaller portions of nuclear power and renewable energy sources. Mr. Kiesow notes that this gives a partly misleading picture of the energy situation since many people in India uses wood and manure as their primary energy source, something that is not included in this statistics.

India is a large oil consumer and uses one fifth of the oil that is consumed in Asia at the moment. The domestic oil resources are however very small and they are therefore highly depending on countries in the Middle East. According to Mr. Kiesow this is something that the Indian government strives towards changing.

There are a few conflicts between India and neighboring countries, which has an influence on the energy situation. The conflict with Pakistan has been going on for a long time and the reasons are many, but one of the issues is a competition for energy. Most of the hydropower in northern India comes from the Kashmir area which is the center of the conflict with Pakistan. A discussion is however held about a cooperation where a pipeline is build from Iran, through Pakistan, delivering gas to India. According to Mr. Kiesow this is opposed by the US since they do not want India to be depending on Iran. Because of this the US offers support in form of nuclear power and military cooperation.

P. V. Rao is currently Professor of Political Science and Director of Centre for Indian Ocean Studies, Osmania University, South India. He obtained Master of Philosophy and PH.D on British Labour Party and European Unity from School of International Studies, Jawaharlal Nehru University, New Delhi. Professor Rao has published six books and a number of articles in leading journals on Indian Ocean.

Professor Rao held a presentation titled *Energy Security in Indian Ocean Region*. The presentation was opened by showing a map of the Indian Ocean Region (IOR) and a number of critical geographical “choke points”. These areas have a dominating position for the transport of energy within this region as well as the global export of energy resources. The map also shows that India is surrounded by areas that are important from an energy perspective, such as the Gulf states, and that transport of energy resources often passes India. Issues regarding energy is influencing the politics in IOR to a large extent already and this is likely to increase in the future.

There are forecasts about energy consumption that predicts that Asian countries will account for two thirds of the global energy demand by 2030. This is due to a number of factors, such as increasing population, industrialization and urbanization. China and India are likely to still be the largest consumers though Professor Rao emphasizes that many other countries in the IOR, such as Indonesia, Thailand, Vietnam and Philippines are also increasing their energy demand rapidly. These countries will therefore also be important factors in the competition of the energy resources.

Professor Rao believes that the Asian countries should be given more focus than they are at present when the global energy situation is analyzed. The rural population of India is also often neglected in most analyzes, since these are not depending on the energy sources that are being accounted for in the statistics. A considerable section of the Indian rural population still get there energy from such sources as wood residues and cow dung.

At present large supplies of the IOR energy resources are imported from the Gulf states. For political reasons there is a strong will to be less dependent on this region and India as well as other Asian countries are looking for new regions, which could supply them with fossil fuels. Africa is one of the regions that have been in focus for what Professor Rao refers to as a “Scramble for oil”, but also countries such as Vietnam and Burma. According to Professor Rao China is well ahead India and other Asian countries in this competition for resources.

Although competing for energy resources, Professor Rao claims that China and India are making efforts to cooperate within the energy field. He does not see any risk of warfare between the two countries in the future and although some border clashes have been taking place during the last few years these should be considered as local incidents. An agreement to cooperate in a number of energy projects has been signed by China and India, though the results are yet to come. During the years 2007-2008 India was involved in 38 energy projects in 18 different countries, though many are yet to send supplies home. There have also been a few collaborations trying to establish pipelines in the IOR, though none of these have succeeded so far. For example Professor Rao mentioned that Iran, Pakistan and India tried to establish a common pipeline but failed mostly because USA opposed Indian collaboration with Iran. Another example given was trilateral gas pipeline agreement between Burma,

Bangladesh and India, but it flopped as Bangladesh withdrew from the partnership due to disagreements with India. Instead, China benefitted mostly from the Burmese supplies.

The transportation of resources is also an issue that must be considered when discussing the Indian Ocean energy situation. Pirates have been attacking transports in the IOR during the last few years and Professor Rao also mentions that “terrorists” have been active in the area. For example the Al-Qaida has used LNG tankers to get to the US. These problems also results in increased militarization of the region which is not conducive to regional peace and stability.

Mr. Rolf Danielsen has a background as a macroeconomist from the University of Oslo. He has worked as an economist/advisor at Norges Bank for more than ten years. He has also worked as economist at the International Monetary Fund in Washington DC and as a senior economist at the Institute of International Finance. Currently Mr. Danielsen works at the Skandinaviska Enskilda Banken (SEB) as head of emerging market research.

The presentation held by Mr. Danielsen was titled *India – economic prospects and energy balances*. The presentation began with a few comments on the challenges that India is facing due to widespread poverty and lack of electric power in many rural areas, whereas when in sufficient supply rampant theft (illegal connections to the power grid) discourages further development. The federal structure delegates wide-ranging powers to the state level which may complicate consolidation of local and federal interests.

Recent landslide election victory for the Congress led government coalition has raised hopes for renewed pick up in the reform process to support continued strong growth almost at the level of China's, following a slowdown to 7% in 2009. IT and high tech services will once again spearhead the development.

Despite wide-spread poverty, India is still not among the most unequal countries in the world in terms of personal incomes. The Gini coefficient (a measure of wealth distribution) ranks India somewhere in the middle relative to other countries, well below (more equal than) China, USA and Brazil.

Going forward India is likely to benefit from favorable demographic developments. During the last 20 years the dependency ratio has been in gradual decline, meaning a shrinking share of the non-working population.

About 53 percent of the Indian energy consumption is based on coal. Second largest is gas, making up about 31 percent. Without new discoveries, national oil and gas supply may not be sustained at the present level for much longer than ten years. Consumption of oil and gas is expected to increase rapidly and imports are needed to fulfill this need. IEA predicts that India will be the 4th largest importer of oil by 2025.

The electric power sector is designed to deliver more than 700 TWh per year and new capacity is being added every year. According to Mr. Danielsen there are obstacles to be overcome, regarding the regulatory regime and pricing mechanisms, to ensure supply meets future demand.

Skandinaviska Enskilda Banken has projected Indian GDP developments under various global scenarios using the Oxford Economics world model. The result show clearly higher resilience of the Indian economy against negative external shocks than peers. A drop of 1 percentage points annually in world growth over the next few years will reduce the Indian annual growth rate by less than 0,5 percentage points. By the same token, Indian demand for energy which closely follows growth of GDP should remain relatively independent of world growth.

Mr. Samuel Strandberg has a background as a teacher as well as a researcher within the field of Indian rural development. In 2002 he was elected Honorary doctor of philosophy at the Humanistic Faculty, Stockholm University. He has written numerous books about India and started a travelling agency that specializes in Indian travels.

The focus of Mr. Strandbergs presentation was to explain the Indian development during the last fifty years on a grass root level. He did this by presenting a slide show of photos from his visits to a rural Indian village during the time period 1952 until present time.

In 1952 Mr. Strandberg went to India by boat, a trip that at that time took about three weeks, to live in a small rural village and write a paper about his experience. The aim of the study was to make a detailed description of the village and their economic situation.

The development during the last 50 years or so is in many fields radical, even though the village is still far from having the standard of the larger Indian cities. Electricity has been introduced in the village, giving many advantages that did not exist before, such as lighting and running water in some of the houses. Because of this the need to carry water long distances, a work devoted to the women of the village, is now not at all as common. Telephone, stationary as well as mobile, are also becoming increasingly widespread and thereby connects the village to the rest of the world. And today almost every household has a TV which is a big difference from the mid fifties when there was only one radio in the village.

Apart from the technical development Mr. Strandberg also reflected on the fact that the situation for the so called low caste has improved. Already in the 1950s it was demanded that the city council should have at least one representative from the low caste as well as at least one woman. Today the chairman of the city council is a low caste and he was elected by people from all castes, and according to Mr. Strandberg this is something that would not have happened fifty years ago.

Dried manure from cows is still an important energy source, but the usage decreases and instead gas stoves are becoming more widespread. The manure is instead used as fertilizers. There are also some initiatives to use the waste for biogas production. A family with 4-5 cows can be self-sufficient of energy if managing a proper biogas facility.

The development regarding modernization and material standards in this Indian village, presented by Mr. Strandberg, is evidently somewhat of a success story.