

The potential of renewable energy in India

Apart from political and social reforms, Prime Minister Narendra Modi also focuses on India's environmental policy. A special committee has been established to suggest "changes" to environmental laws which will be the primary mechanism to weaken key provisions in existing laws.

In 1981, with the establishment of the Ministry of New and Renewable Energy, India was one of the pioneers in the use of renewable power sources, and the first nation worldwide to create a national institution for the promotion of a development leading away from fossil energy sources. This happened in part due to the detection of serious disadvantages for the environment, but above all in order to control the massive energy shortages in the country caused by the rapid economic growth and increased private consumption. In addition, the rising prices of energy from conventional sources forced India to rethink its strategy and search for alternatives. Ensuring the future energy supply is essential, especially in order to guarantee the country's sustainable and lasting economic growth.

Prime Minister Modi places particular importance on the expansion of power networks and ensuring network stability. Today, India has the world's sixth highest installed capacity from renewable sources, and in the past five years, the proportion of renewable energy in total consumption has risen by 20%. However, despite the tremendous potential for electricity generation from renewable energy sources, India also remains one of the



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largest importers and producers of coal. By 2022, the government plans for India to become a "solar superpower" and raise the total output of all solar power plants to 22 gig watts. The share of solar power in the total consumption would then amount to 7%. In order to promote growth, the construction of new solar systems will be subsidized by almost 50%. The Indian government is set on building both conventional photovoltaics and solar thermal systems as well as on promoting wind energy.

IFAT INDIA

IFAT India is India's Leading Trade Fair for Water, Sewage, Refuse and Recycling. In 2014, 5,000 trade visitors took part and around 130 international and local exhibitors presented their products and solutions. Around 63% of the exhibiting companies came from outside India: UK, USA, Germany, China, Italy, Austria and Switzerland which makes IFAT to India's leading platform for environmental technology.

INTERSOLAR INDIA

Intersolar India is the country's largest exhibition and conference for the solar industry. It takes place annually at the Bombay Exhibition Centre (BEC) in Mumbai. The event's exhibition and conference both focus on the areas of photovoltaics, PV production technologies, energy storage systems and solar thermal technologies. In 2014, 160 international exhibitors and around 9,000 visitors attended Intersolar India.

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The Indian peacock birdcall

Modi's reforms and the rise of a new economic power

India has several national symbols. One of them is the Indian peacock, designated as the country's national bird. The peacock represents the unity of vivid colors and finds references in Indian culture. However, unity has unfortunately become a rare find these days in India. What we see a lot of is disappointment, especially when it comes to the government of Prime Minister Narendra Modi.

PM Modi has launched a major campaign to attract entrepreneurs from around the world to India with the goal of establishing the country as an industrial nation. "Come, make in India," he stated in his Independence Day address, attempting to make the Indian market attractive to international companies and encourage them to set up their manufacturing bases in India. In fact, the PR campaign has considerably improved India's reputation: the Prime Minister, elected in 2014, promised foreign investors less bureaucracy and corruption, better infrastructure, a high skilled workforce, protection of intellectual property and a uniform tax. India would also loosen its rules on foreign investment and allow full ownership of Indian companies in the future, even in hitherto exempt sectors such as insurance, the defense industry, the building industry and the railways. He also announced a massive expansion of infrastructure and an increase by 175 gig watts of the electricity generating capacity from renewable energy over the next seven years.

In no other country is the aspiring emerging economy as visible as in India. For 2015/16, the economic growth is expected to amount to over 8%, making India's development faster than China's in the coming financial year.

The new Indian government now faces the dilemma of meeting the



expectations of the poor on the one hand and responding to the needs of the middle and upper classes on the other hand. Unable to solve all social challenges at the same time, Modi focuses mainly on economic development and job creation and less on the direct fight against poverty.

However, even before the new government took office the Indian economy situation had already begun improving significantly. The reforms now announced by the Prime Minister, albeit less radical than promised in the electoral campaign, promoted business confidence and increased optimism about the future. Especially economic and social projects have seen considerable progress in the last year.

Taking a closer look on the achievements of the last year, we see that in Modi's first year as Prime Minister, the index of industrial production for eight core sectors (coal, crude oil, natural gas, refinery products, fertilizers, steel, cement and electricity) has increased by 5% during 2014-15, compared with 4.2% in the previous year. The agricultural sector employing more than 600 million Indians registered a growth of 1.1% in 2014-2015 (0.8% during 2009-2010).



A rise by 10% could be observed in installed electricity generating capacity, while the growth of renewable energy dropped significantly from 17.2% in 2009-2010 to 7.6% in 2014-2015 (Source: IndiaSpend, May 11, 2015)

While India remains for the most part overshadowed by China, it is however worthwhile to keep a close eye on the country. As the largest democracy in the world, India has great potential. Achieving material prosperity has become the top priority for many Indians and the opening of the domestic market in fact provides great economic opportunities. Furthermore, there are more than 800 television channels and an incredible variety of newspapers. This pluralism cannot be ignored and the country's future economic impact we should prepare for. The next few years are said to be the best moment for foreign businesses to invest in the Indian market.



Interview

“India will save the conventional energy, which is produced from coal and fuel. The renewable energy from Sun and Wind will spread all over including villages in the country.” - Dr. Amiya Kumar Sahu

(Founder of NSWAI)

Dr. Amiya Kumar Sahu (Founder of NSWAI) holds a PhD degree from USA in Environmental Sciences and M.E in Solid Waste Management from IHE (Delft), Netherlands.

National Solid Waste Association of India (NSWAI), the only leading professional non-profit organization in the field of Solid Waste Management in India, was established on 25th January 1996. The association is a member of the International Solid Waste Association (ISWA), Copenhagen, Denmark and provides forum for exchange of information and expertise in the field of Solid Waste Management at the National and International level.

NSWAI has been helping the Ministry of Environment and Forest (MoEF), New Delhi in various fields of solid waste management in framing rules, making policies and action plans and has been recognized as an ENVIS Centre in Urban Municipal Solid Waste Sector. Besides, NSWAI represents India in “Zero Garbage for Green Economy Mission for developing countries” initiated by UNCRD, Tokyo. The association is a member of the International Solid Waste Association (ISWA), Vienna, Austria and provides forum for exchange of information and expertise in the field of Solid Waste Management at the National and International level.

How do you evaluate the current development in terms of renewable energy and environmental policy in India?

In all field of waste industry there is great potential in India: liquid waste, solid waste, biomedical waste, industrial and toxic waste. Not a single city in India is clean. We have the potential, the monetary power, the man power and the knowledge power, but I do not know why we are failing to make our country clean. The challenge is to educate the citizens and how they handle the waste. They need to change their mind-set, their behavior and their attitude by educating them.

How do you rate the Indian market compared to Europe, China and North America?

If you compare India to other developing countries, the market is huge. The mind-set has already changed but we need a country comprehensive program focusing on managing the waste. We need technologies to manage the waste: waste energy technology or recycling technology. This kind of technology is very important and needs to be adopted in India.

Despite bureaucratic challenges, what are the main aspects that make the Indian market attractive for foreign / overseas companies?

The great potential for foreign companies is more and more visible. Besides the waste industry, India is aware of the investment into solar as well as wind energy. We are good in hydropower station, we have a lot of hydro power stations, and we also export our idea to Bhutan and other countries.

What needs to happen that development in terms of renewable energy and environmental policy is guaranteed in India?

India will save the conventional energy, which is produced from coal and fuel. The renewable energy from Sun and Wind will spread all over including villages in the country. It will be a great achievement if guaranteed. Also the pollution due to thermal power plant will be reduced drastically.

Namaste ! We love to celebrate

Raksha Bandhan Festival, 29th August

During 'Raksha Bandhan' or 'Rakhi' we celebrate the bonding between brother and sister by tying a holy thread around the wrist. This thread symbolizes sisterly love and sublimes sentiments. The ritual can be observed on the full moon day of the Hindu month of Shraavan, on which sisters tie the sacred Rakhi string on their brothers' right wrists and pray for their long life.



Ganesh Chaturthi, September 17 th - 27 th

The spectacular eleven day Ganesh Chaturthi festival honors the birth of the beloved Hindu elephant-headed god, Lord Ganesha. The start of the festival sees huge, elaborately crafted statues of Ganesha installed in homes and podiums, which have been especially constructed and beautifully decorated. At the end of the festival, the statues are paraded through the streets, accompanied by much singing and dancing, and then submerged in the ocean.

CBC

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