



The Conference of Panchayats 2022 also witnessed the launch of the framework for risk integrated gram panchayat development planning— Road to Resilience 2030— jointly developed by Department of Environment, Forest & Climate Change, Government of Uttar Pradesh, GIZ India and Gorakhpur Environmental Action Group (GEAG). The framework provides for participation of local governance institutions and local actors including women groups for need based climate adaptation planning at village level.

While addressing the gathering, Honourable Chief Minister of Uttar Pradesh - Shri Yogi Adityanath stressed on the importance of gram panchayats towards ensuring a green, clean and a healthy environment and said that any goal can only be achieved if the government's vision reaches the villages.

As a next step, the Government of Uttar Pradesh will be engaging with Panchayats to pilot the framework and develop village level climate action plans to establish 27 climate resilient Panchayats from 27 highly vulnerable districts in the State that encompass local climate, disaster and SDG goals and challenges.





Eduardo Leão de Sousa

Executive Director, UNICA

Ethanol: turning the energy matrix green

A global consensus is emerging on the need to transition from traditional fossil fuels to cleaner, greener alternatives. Nations across the world are working on a viable policy roadmap to usher in this shift, with the aim to mitigate the effects of climate change and decarbonize our future. Biofuels are now increasingly being viewed as the fuel for the future.

Countries are making individual and collective efforts to promote and adopt sustainable practices such as energy efficiency and low-carbon sources, with the aim of mitigating global warming and urban pollution. As they do this, they should ensure that the low-carbon development pathways should also have positive social and economic impact.

Brazil started along this path a few decades ago with ethanol, which proved to be one of the most efficient agents for decarbonizing the energy mix.

The sugarcane sector is one of the richest examples of this trend in the global economy, given that from sugarcane everything can be reused. In addition to sugar and ethanol produced from sugarcane juice, we also produce electricity from bagasse, which already represents 5% of Brazil's energy consumption. The treated vinasse returns to fertilize the fields and, together with other production residues, such as filter cake and sugarcane straw, also produces biogas for electricity, and biomethane, which replaces diesel in agricultural machinery and trucks. Sugarcane is therefore a source of renewable energy to feed our bodies, move cars and trucks, light our homes and run our factories.

India too has undertaken several initiatives over the years towards its goal of net zero emissions as part of its Paris COP21 commitments. It has been successful in driving the growth of renewable energy and is now looking at other ways to curb emissions, one of which is to produce ethanol on a large scale. India has the potential to become one of the major ethanol producers in the world due to the large quantities of sugarcane that is grown in the country.

In the midst of these efforts, on the World Environment Day, India has achieved another milestone, announced by the Honourable Prime Minister Shri Narendra Modi : India has achieved the target of 10% of ethanol blending in petrol, five months ahead of its schedule.

Brazil and India can collaborate with each other to usher in a sustainable energy transition while achieving decarbonization, social development and environment protection. Knowledge exchange should also encompass public policies, sustainable practices, and the lessons learned so far. By strengthening trade and investments in the business and infrastructure of biofuel production, we can build greater momentum towards our respective climate commitments and the transition to carbon-neutral economies.

Biofuels, especially ethanol has tremendous potential to reduce India's emission intensity and play a key role in helping it meet its climate goals. With its relative abundance and availability, along with remarkably low emissions, ethanol makes a strong case for becoming an integral part of India's energy mix.





SAITO Mitsunori

Chief Representative, JICA India Office

Role of international cooperation in building a sustainable & energy secure future

We are witnessing the formation of a global consensus in combating climate change. Organizations and agencies from across the world are working towards ushering in a sustainable and greener tomorrow, with an array of climate projects in the pipeline. There has also been an increased collaboration between the nations and the agencies, who are working in a mutable, geographically agnostic ecosystem. The COP26 conference in Glasgow was a key steppingstone towards the formulation of global alliances that can help in building cross-border clean energy mechanisms.

International cooperation is imperative to ensure the continued progress and development of coordinated global efforts on sustainable water and energy solutions. It is also critical to create widespread awareness and disseminate knowledge on the advantages of such a coordinated and integrated approach.

Large-scale water and energy projects, that transcend borders to benefit people in multiple nations will be the key going forward. For example, interconnections of power grids can play a significant role in balancing structural differences or temporary fluctuations in renewable power generation, demand and supply. It can also enable efficient, sustainable and climate friendly usage of the available energy resources. Countries have general requirements for improved air quality and reduced emissions and pollution. International energy cooperation and governance must adapt to these new changes; promote the transition to clean, low-carbon, efficient and secure global energy; and drive high-quality development of global energy.

Thus, it is amply clear that international cooperation is critical to achieving global energy objectives. For us to combat the global challenge of enhancing energy security and decarbonizing the energy sector, governments have to look beyond unilateral decision making.

Regional cooperation, both within India and involving other countries, has now become especially pivotal, as it can enable technical, financial and research cooperation to help facilitate cross-border renewable energy transfer projects. For example, JICA is conducting a survey on cross-border electricity trade (CBET) in Bhutan, Bangladesh, India, and Nepal to identify opportunities to facilitate a cross-border power transmission line. Several recommendations for desirable modalities (Long-term PPA, electricity trading market, etc.) and steps to formulate CBET projects will be provided as an outcome of the survey. This will hasten the creation of a global ecosystem of interconnected renewables. Such trans-national projects, supported by multilateral organizations and global financial institutions can be true gamechangers.

Further, to support ambitious transition needed for India's net-zero target in 2070, decarbonization of thermal power plants by introducing ammonia co-firing, grid stabilization measures for mass introduction of variable renewable energy (VRE), optimization of power distribution system operation, and improvement of energy efficiency in industrial sector are the required focus areas of assistance in energy sector.





Dr. Iftakhar Ahmed Chowdhury (IRS)

**Add. Secretary, Health & Medical Education
Department, Ladakh**

A granular approach towards energy efficiency is now imperative

Energy efficiency is increasingly being acknowledged as the catalyst in keeping the burgeoning energy demand in check. Efficiency of energy use through innovative interventions is now more pivotal than ever before.

We have already seen remarkable efficacy of integrating energy efficiency solutions into the energy mix. In fact, according to International Energy Agency (IEA), energy efficiency improvements in India since 2010 have prevented 12 percent of additional energy use.

India's commitment to achieve net zero emissions by 2070 and to meet 50 percent of its electricity requirements from renewable energy sources by 2030 is significant for our collective global fight against climate change. India is pioneering a new model of economic development that could avoid carbon-intensive approaches that many countries have pursued in the past and provide a blueprint for other developing economies. To achieve these targets, Energy Efficiency has become imperative for India.

The scale of transformation in India is impressive. Its economic growth has been among the highest in the world over the past two decades, uplifting millions of people out of poverty. Every year, India adds a city the size of London to its urban population, involving vast construction of new buildings, factories, and transportation networks. Coal and oil have so far served as bedrocks of India's industrial growth and modernization, giving a rising number of Indian citizens access to modern energy services. This includes adding new electricity connections for 50 million citizens each year over the past decade.

Ladakh is one among few States and Union Territories, having set the target for becoming Carbon Neutral in near future. This target was set by Honourable Prime Minister of India Shri Narendra Modi during his Independence Day speech on 15th August 2020. Since the PM's announcement of a carbon-neutral Ladakh, various initiatives and projects in this direction are being undertaken by UT Administration such as installation of solar cooking device in households, promoting construction of solar passive buildings, sustainable home stay tourism, introduction of electric vehicles and solar powered charging stations, focus on drip irrigation and other energy efficient methods of micro-irrigation such as ponds to maximize the use of existing water resources etc., are being planned and worked out.

The healthcare sector, with its extensive energy usage and hitherto untapped potential for energy conservation measures, presents an ocean of opportunity for energy savings and emission reduction. What we need now is a mindset shift from the industry towards adopting energy efficiency measures.

India's healthcare industry has been growing at a brisk rate of around 22 percent since 2016. Healthcare has become one of the largest sectors in the Indian economy, in terms of both revenue and the employment opportunities generated. The rising investment in the sector has seen the development of state-of-the-art healthcare infrastructure, modern equipment, and technologies.

