CLIMATE CHANGE, ENERGY AND EQUITY:

On 10th of March 2018, Professor Armin Rosencranz delivered a 2 hour discourse to students of NLU, Assam on the topic 'Climate change, Energy and Equity.' With all the talks on climate change today, with nations realising the need to combat climate change and re-strategize on energy consumption methods, he elucidated upon how a very ambitious renewable energy plan/strategy by states may lead to consequential effects on the non-renewable energy sources of the planet, and also stated that the united States and India have taken regressive steps on climate change. Today, with renewable energy in the market equivalent to the cost of fossil fuels, he emphasised on how countries around the globe are trying to better utilise the renewable sources available- such as solar, hydro, wind, geothermal and nuclear energy. This recent change can be a tipping point that may make fighting climate change profitable for energy companies.

In relation to each of these, he elaborated on how each energy source can be and is being put to use for generation of energy in the most efficacious way, with the least amount waste generation. Taking India as an example, he related to how making use of the abundance of solar energy by way of installing rooftop solar panels or photovoltaic cells can help the large population residing in the rural areas, inaccessible to electricity avail the luxury of light.

Nuclear power, to be precise, nuclear fusion, considered 'the future of clean energy' if rightly put to use, can revolutionise energy supply. There, however exists differing views amongst the world community on how its usage can lead to more harm or more good. Issues relating to the vulnerability of the nature of nuclear power, generation of nuclear waste, and safety measures are constantly being debated. Professor Rosencranz threw light on how the world would benefit and lay all questions to rest if the possibility of having a single nuclear reactor can be made true.

Climate change is primarily because of excessive carbon in the atmosphere; this overload is because of a number of reasons- burning fossil fuels, large scale deforestation including burning of forests for cultivation purposes, etc. With developing countries undertaking operations of cutting down their tropical forest lands for trade, (export) and, for reasons such as to habitat their increasing population, stored carbon is released to the atmosphere, contributing to the already carbon-overload in the atmosphere. Soil is another carbon-rich component, which when ploughed for cultivation (agricultural purposes) releases a massive amount of carbon. Solutions to prevent and control such operations include processes such as-

1) Carbon capture and storage- a process of capturing and storing carbon below the ground so that it does not enter the atmosphere.
2) Conservation tillage- a method of soil cultivation which is a system that would conserve soil by improving methods of plating, growing and harvesting of crops with as less erosion of the top soil as possible.

Other strategies that can be followed to control carbon output such as levying carbon tax, having regulations such as Renewable Portfolio Standard (RPS), utilisation of geo-thermal energy, adopting methods that would prevent huge energy loss during transmission were also discussed. Other highlights included discussion on principles of equity in sustainable development, with emphasis on understanding intergenerational equity as well as intra-generational equity. Some core principles that were discussed included the Neighbour's Principle, the Polluter Pays Principle, and the Precautionary Principle. The entire discourse was replete with case laws and judicial analysis, more so in the discussion of the The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act passed by the Indian Parliament in 2006. Two important cases- The Vedanta case *(Orissa Mining Corporation v. Union of India and Ors.* (2013) 6 SCC 476) and *T.N. Godavarman Thirumulkpad v. Union of India* were crucial with regards to the aforementioned legislation. The latter case being particularly related to the North Eastern region of India, wherein, a large number of wood-based industries of the region were affected as a reason of the Hon'ble Court's judgment. The Supreme Court of India developed what is known as a 'continuing mandamus' in this case- which Professor Rosencranz mentioned that it is a concept peculiar to Indian judiciary.

(Discussion ended with Professor Rosencranz answering questions from the enlightened audience.)