

## Keynote Address 3

---

### **Prof. Abdul P. Salam**

*BSc. Eng. (University of Peradeniya), Mechanical Engineering,  
M. Eng., D. Eng. (AIT, Thailand), Energy Technology,  
Assistant Professor and Thematic Area Leader, School of Environment, Resources  
and Development (SERD), Asian Institute of Technology (AIT), Pathumthani 12120, Thailand.*



### **CLIMATE CHANGE MITIGATION: OPTIONS AND OPPORTUNITIES**

The evidence of climate change is unequivocal. As the Intergovernmental Panel on Climate Change (IPCC) made clear in its Fourth Assessment Report, the past century has seen widespread increases in air and sea temperatures and sea levels, along with shrinking sea ice, glaciers, and snow cover. According to United Nations Department of Economic and Social Affairs (2013), in the past thirty years, emissions of greenhouse gases increased by 70 percent and are projected to rise by 25-90 percent by 2030 compared to 2000.

Climate Change Mitigation which refers to efforts to reduce or prevent the emission of greenhouse gases. Mitigation can mean using new technologies and renewable energies, energy efficient equipment, or changing management practices or consumer behavior. It can be as complex as a plan for a new city, or as simple as improvements to a cook stove design. Efforts underway around the world range from high-tech subway systems to bicycling paths and walkways. Protecting natural carbon sinks like forests or creating new sinks through green agriculture are also elements of mitigation.

The benefits of climate change mitigation are unprecedented in the terms of various opportunities created to the people both economically and socially. Renewable energy, clean fuel and energy efficient technologies have economic impacts like job generation and business opportunities. There will be an enhanced scope for rural area development for bringing in new technologies, which are climate compatible and conducive to generate local opportunities. The local production of renewable energy and clean fuels also provides control of energy production, less susceptibility to global energy supply disruptions and increased energy security and self-sufficiency to the country. Energy efficiency provides energy savings that could defer investment on new power plants. Climate change is a fact of life. We need to act urgently if we are to avoid an irreversible build-up of greenhouse gases (GHGs) and global warming at a potentially huge cost to the economy and society worldwide.