and ten billion years. The energy from the sun, or solar energy, is received through the renewable subsystems of light, heat, wind, water movement and photosynthesis. Sunlight that falls on Earth only in around one hour contains the amount of energy we use globally in an entire year.[5]

In addition to direct or natural uses, we need to technologically convert only a fraction of the solar energy to meet the global energy need. The extraordinary variety of renewable energy technologies such as photovoltaics, wind turbines, hydro-electric generators, solar water heaters, solar greenhouses, bio-gas plants and solar cookers -- ranging from microwatt to megawatt scales -- are being applied for a wide range of domestic, industrial and consumer products and purposes.

Sunlight that falls on Earth only in around one hour contains the amount of energy we use globally in an entire year

Large scale utilisation of other options -- solar hydrogen, bio-fuels, geo-thermal -- are on the horizon as these mature through criteria such as cost advantages and equitable and ecological considerations. The promise of renewable energy lies in its diversity, in the amazingly diverse natural and technological means through which the energy sources can be utilised.

The transition to a renewable energy path will not be easy, especially because of the extent to which we have become entrenched in the non-renewable path and the powerful vested interests that guard and reinforce this entrenchment. Investment in renewable energy technologies at various public and private levels is growing around the world, but it doesn't come close to allowing us to avoid a catastrophe.

The Energy Information Administration (EIA) of the US government projects world energy consumption to nearly double between 2004 and 2030. In the face of a growing energy shortage from non-renewables and escalating energy need, barely seven percent of the world's energy is generated from renewable energy technologies.

On the hopeful side, people around the world are becoming increasingly conscious of the problems -- environmental, health, economic, social, philosophical, political, legal, moral, even spiritual -- arising from dependence on nonrenewables. Al Gore and the UN's Intergovernmental Panel on Climate Change (IPCC) being awarded the 2008 Nobel Prize for Peace is a recognition of the consensus of the global scientific community and the global public concern over the climate change crisisand an urgent call for action. At the same time, the costs of an increasing variety of renewable energy technologies are decreasing. A growing number of incentives such as subsidies, tax benefits and financing options are being offered. Individuals and communities around the worldfrom rural to urban settings, from a village home in Bangladesh to a skyscraper in New York Cityare tapping into these opportunities and acting on solutions. Even countries as a whole, like Germany, Denmark, Iceland and Cuba, combining national policies and practical actions, are setting into motion an up to one hundred percent transition to the renewable energy path within the foreseeable future.

The Bangladesh Energy Scenario

"*We have for over a century been dragged by the preposterous West behind its chariot, choked by dust, deafened by noise, humbled by our own helplessness, and overwhelmed by the speed. If we ever ventured to ask 'progress towards what, and progress for whom', it was considered oriental to entertain such doubts about the absoluteness of progress.*"[6]
Rabindranath Tagore

Tagore speaks to us today with only more relevance and urgency than in 1941. No statement speaks as pointedly about the dragging which still continues -- only with worsening consequences -- even though the West's chariot of progress itself is caught in a dead-end street of dust and noise, propelled by its own speed, and its power humbled by a rapidly depleting non-renewable fuel tank.

As with the world as a whole, the energy crisis has reached a critical point in Bangladesh.