

# Green Energy and Environment



**Mr. S.K. Chawla**

**(Formerly: GGM (Per) ONGC and Director (HR) Power Grid, Presently Advisor UPES and CEO Winnerspitch)**

It is a common knowledge that energy and environment are two sides of the same coin. Their interdependence and connectivity makes them inseparable. Whenever energy is produced it impacts the environment especially when we look at the energy produced from "Fossil Fuels" (coal and petroleum) and the resultant emissions (Green House gasses)

Human activity, increase in population and economic growth have resulted in rise of ambient temperature across the globe. Climate scientists and activists have drawn the attention of society at large towards visible effects of climate change, melting of glaciers, Tsunamis and ecological imbalances due to "disasters". We cannot blame only nature for these.

The diverse objectives of developed nations toward economic growth and that of sustained development by upcoming economies have remained unresolved even at the highest international level; so far as the "carbon emission" levels are concerned. The conflict between the present social order of "expansion" and well being of our future generations towards sustainability continues unabated.

With this background in mind while the need of development on one side is unquestioned, meeting the energy demand on the other by conventional methods of thermal power production, need of automotive sector and domestic use of fuels is seemingly unavoidable: In fact, this is a challenge.

While there is no single answer to mitigate the effect of this imbalance, the fact remains that we have to address the issue at all levels rather than just pose questions "kya Karein, kaunkare, kaisekare our kabkare".

It is said that when the elephant is too big it should be eaten in a small pieces. In this case, the action has to emerge simultaneously at the level of "AamAdmi" NGO's, Government, Thinkers, academia and industry. The following diagram suggests what is meant by this statement.

The lead has been taken by the government and several national mission documents have come out during the last couple of years. The subject is being dealt at school levels, leave alone the national R&D laboratories, scientific committees and industry. Sadly though, the efforts and awareness campaigns are woefully inadequate in terms of ground facts. Let us ask a few questions to validate this observation.

1. How many of our families have simple solar cookers at home?
2. How many of our houses are equipped with solar water heater?
3. How many buildings have solar panels on their roofs?
4. How many of us are really following the rules and ethics of conservation of energy – car pools, MRTPs, cycles for short distances, solar lamps and are aware of green buildings?
5. Cultivating good habits in our children and grandchildren to use energy efficient appliances, paper saving practices etc.?
6. Are we up to date with knowledge on renewable sources of energy and the work being done by various agencies? Are we contributing our bit in any social forums like RWAs, Senior citizen forums, Campaigns, Exhibitions, imparting knowledge or even small entrepreneurial ventures including stock market in renewable Energy sector?
7. Are we aware of ill effects of Carbon dioxide and Carbon monoxide emission and have even considered using masks or preventive methods?





8. Do we have respect for trees and plants and make sure that we nurture them?

9. Are we taking care of pollutants at our own level?

10. Are most of us not unaware that carbon foot prints also lead to business opportunists and economic well being?

11. Why our Ganga and Yamuna are so badly polluted?

12. Are we willing to go in for CFL lamps in our houses?

13. At our community level are we elders conscious of the fact that "recycling of waste" which is degradable can be used in our kitchen gardens?

14. Those of us who have gone out of

country in the recent past must have seen the large scale application of renewable sources of energy like solar and wind (Turkey, Germany, Holland, Greece etc.). Some more enlightened people must have read about geothermal energy, SHALE gas, ocean & wave energy, hydrogen and others. Knowledge is one thing, but applying in our own life is another.

15. On the industrial scene, biomass fuels have been successful all over and small to medium size entrepreneurs need to be encouraged to use it. Remote locations which are devoid of grid power can use their captive resources for saving energy – Remembering that one unit saved is equal to three units produced (not two)

16. All corporate are taking steps at their own level to introduce schemes for use of "Green Energy" – the one which does not use Fossil Fuels. It may be through CSR route or even a part of their own activity.

ONGC has a mission to meet energy security to maximum extent through solar power. Some oil companies are picking up Wind as an alternate source of energy development program.

17. On the streets we shall hopefully see solar cars soon. Iceland has hydrogen buses as mandatory transport choice. Battery driven cars and carts should come forward for shorter journey. One can see them in malls, airports and golf courses. Why not for short rides for elders in our neighborhood and gated township? BHEL has plans to introduce Battery driven busses and have gone a long way to produce electricity by solar energy and connected it to the grid. At our level why we should not get rid of gen-set and replace them or at least back them up by solar power? Let us think and discover means.

While the job of the government is to govern, the job of industry is to produce goods and services, no one will deny that the job of the individual is to learn and practice: at all level we can do this; let us remember

- Being Green is being energetic
- Being Green is healthy

“To truly transform our economy, protect our security, and save our planet from the ravages of climate change, we need to ultimately make clean, renewable energy the profitable kind of energy.”

- Barack Obama