Strategy workshop on "Renewable energy: A new paradigm for growth in agriculture" organized by the National Academy of Agricultural Sciences, New Delhi on 25th September, 2018

A Strategy workshop on "Renewable energy: A new paradigm for growth in agriculture" was organised at the National Academy of Agricultural Science, New Delhi on 25th September, 2018 under the chairmanship of Dr. Panjab Singh, President, NAAS and former Director General, Indian Council of Agricultural Research. Dr. O.P. Yadav, Dierctor, ICAR-CAZRI was convenor of the workshop. Delegates from national organizations, CGIAR institutes and TERI working on renewable energy participated in the workshop. During the opening remarks of the workshop, Dr. Panjab Singh stressed the importance of renewable energy use in agriculture sector since the present day agriculture is becoming more energy intensive than ever before. At the start of the workshop, Dr. O.P. Yadav presented the overall scenario of renewable energy generation and utilization in agriculture with particular emphasis on agri-voltaic system for crop production, PV generation and rainwater harvesting together from a single land unit. For establishment of agri-voltaic system in farmers' field he proposed the RESCO model in which private investor will be the power producer and farmer will be the owner of land for crop production. Dr. K.K. Singh, Director, CIAE Bhopal presented different options for biomass-based energy generation, its present status in the country and future policy requirements. Dr. J.S. Samra presented the options for bio CNG generation from wastes including biomass residue, animal slurry, slaughtering wastes, food waste, sewage, dairy waste, sludge etc. He emphasized the use of anaerobic digestion technology for bio-CNG generation from these wastes having maximum potential from dairy wastes. Dr. Shilp Verma from IWMI-Tata water policy programme presented two case studies of cooperative on solar PV pumping system from which farmers generate income by selling the surplus electricity and selling the pumped water to surrounding farmers and thus augment their income. During discussion following points have been emerged out. Solar PV modules can be treated as one crop in agri-voltaic system which has the potential to improve the land productivity. There is huge scope of implementing solar PV pumping system in agricultural field but due care on overexploitation of groundwater. Even the solar PV pumps may be connected to net metre to sell the surplus electricity to grid for additional income generation to farmers. Solar drying is another avenue which has lot of scope in agriculture sector especially for post-harvest processing and value addition. Government incentives and supports may be required for manufacturing and custom hiring of solar dryer and other potential solar thermal and PV devices and implements in rural hinterlands. For biomass based electricity generation, there should not be any conflict in use of biomass for animal feed and for energy generation.