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WIND ENERGY HARVESTING PROGRAM OF CSIR–NAL: A SAGA OF AEROSPACE SPIN-OFF FOR SOCIETAL BENEFIT AND SUSTAINABILITY

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As an aerospace spin-off, Council of Scientific and Industrial Research-National Aerospace Laboratories (CSIR-NAL) has been actively fostering swadeshi technologies for harvesting wind energy since its inception. CSIR-NAL has played a pivotal role in realizing the first wind map of India, developing different kinds of off-grid and on-grid wind turbine designs for water pumping and energy generation, and hybridizing them with other renewable energy sources. The present article is a technical narration of this adventurous journey of CSIR-NAL in the past decades.

Keywords: COP-28, climate change, carbon footprint, wind turbine, wind-solar hybrid, sustainability, spin-off