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### Scope for Solar Energy in Kerala and Karnataka

**Ganesh Hegde, Ramachandra T. V.**

Energy & Wetlands Research Group, Centre for Ecological Sciences,  
Indian Institute of Science, Bangalore – 560 012, INDIA

E-mail: ganeshhegde05@gmail.com; energy@ces.iisc.ernet.in; cestvr@ces.iisc.ernet.in  
<http://ces.iisc.ernet.in/energy>

Solar energy incident on the earth's surface primarily depends on parameters like geographic location, earth-sun movements, tilt of the earth's rotational axis and atmospheric attenuation due to suspended particles. The intensity of solar energy/insolation quantifies the solar resource potential or availability of a region. A techno-economic analysis of the solar power technologies and a prospective utilization of wasteland in each state demonstrate their immense power generation as well as emission reduction potential. Karnataka and Kerala are the neighbouring states located in south India which receive the annual average solar insolation over 5.5 KWh/sq.m/day. Since both the states are power deficit states where the annual energy consumption is more than the energy generated. Kerala state is located in Malbar coast which is a part of western coast of the country, which has a good potential for solar energy harvesting. Karnataka has a mixed geographical area including Konkan coast and Western Ghats with a very good solar potential. State witnessed for major power crisis from last few years and hence power harvesting from renewable energy sources could be the solution for this problem. Since both the states have similar energy using culture and increasing power mismatch every year, scope for solar energy is prominent. Also states have very good potential and favoring energy policies for various solar energy harvesting methods such as roof top solar photovoltaic plants, grid connected plants in wasteland, decentralized wind-solar hybrid plants, off grid solar plants etc.

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