

# **Fostering Technological Capabilities in the Wind Power Sector of Sri Lanka via Effective Technology Transfer**

*Withanaarachchi, A.S.*

## **Abstract**

Globally, harnessing wind energy for electricity generation is one of the fastest growing technologies for the last decade or so and has become well developed and mature (REN21, 2012). The wind-mapping studies performed by the US National Renewable Energy Laboratory (NREL) found that Sri Lanka has the potentiality of 2000 MW of wind power that could be absorbed gradually into the national grid over the period of time (Ratnasiri, 2008). However by the end of October 2012, the private sector has developed wind power plants around coastal and central hill areas adding 74MW to the national grid. Further, power purchase agreements have been signed for another 31MW (Ceylon Electricity Board, 2013).

Schnepp et al. define technology transfer as ‘a process by which expertise or knowledge related to some aspect of technology is passed from one user to another for the purpose of economic gain’ (in Karakosta, Doukas, and Psarras, 2010: 1547). Although the deployment of technological goods is what matters to address climate change, the transfer of technological capabilities is indeed the key to developing countries obtaining a share of the green business pie. Technology capacity building begins with learning by doing followed by learning by adapting, aiming at augmenting productivity through efficient utilisation and adaptation of technologies at the shop floor (Lall, 1978).

Accordingly the objective of this study is to evaluate the use of technology transfer and cooperation in strengthening the technological capabilities of the wind power sector of Sri Lanka. A qualitative approach will be taken to answer the research question. Thus the study will comprises with a comprehensive literature survey on technological capabilities, technology transfer, and wind power sector. Experts in the renewable energy sector of the country, wind power produces (IPPs), and scholars will be interviewed to answer the research question.

**Key words:** electricity generation, wind power, technology transfer,