Department of Humanities and Social Sciences Lecture Series
Indian Institute of Technology Guwahati

Voluntary Environmental Programs

Drivers and Market Implications

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Venue: Seminar Hall, Department of HSS

India has extensive regulations for environmental compliance; the lack of enforcement has resulted in increasing pollution from the industries. The non-compliance has been attributed to high cost of mitigation. The command and control (CAC) type regulations result in high marginal abatement cost and the probability of being caught is so low that the firms prefer to stay non- compliant. Hence studying the determinants of voluntary corporate environmental management of the firm in an economy like India will help the regulator in formulating efficient policies. We examine the motivations for firms in India to participate in voluntary environmental programs (VEP) using a unique data set of cement, power and steel industry for the year 2012. The study examines the effects of regulatory, societal, market and internal factors in influencing voluntary environmental behavior. We estimate both, ordinal (Order Probit) and cardinal (Poisson) models. We find that the firm size, its location, export orientation, intangible valuation and emission intensity has a positive and significant relationship with the number of VEP undertaken by the firm.

Moreover, harnessing the capabilities of capital markets could be a better strategy for environment friendly economic growth. Therefore we also examine a relationship between a firm's environmental performance and its market valuation. The study uses market value as the indicator of the financial performance using the Ohlson (1995) model, which is a better indicator in an emerging economy as compared to Tobin q and is free from the biases that Tobin-q suffers from. The study finds a significant negative relationship between a firm's market value and its pollution index and a positive relationship between the number of the voluntary environment program implemented by the firm and its market value. But the relationship between the resource use index and market value is not found to be statistically significant. Due to the challenges in obtaining firm level environmental data in India, the sample size is relatively small, hence one should exercise caution while interpreting the results.

About the Speaker

Surender Kumar is Professor at the Department of Economics, University of Delhi. His publications include Socio-Economic Implications of Agricultural Residue Burning, 2015 (Co-author Parmod Kumar and Luxmi Josh); Economics of Air Pollution, 2011; Energy Prices and Induced Innovation, 2010; Economics of Sustainable Development, 2009 (Co-author Shunsuke Managi) besides numerous research papers and chapters in peer reviewed journals and edited volumes respectively. He has also written articles for *The Economic Times*, *Financial Express* and *Business Bhaskar*.