

Technology transfer, economic development and carbon emissions – an Input-Output analysis for India

Topic: Input-Output Analysis for Policy Making

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Controlling carbon emissions without restricting economic development is common but differentiated responsibility of all the countries across the world. In this context, debates are also going on at international level and India has been participating in such debate since 1992 after signing keyoto protocol. As a part of this, India has taken several steps to improve energy efficiency in domestic industries. However, the implications of technologies on economic growth are not clear till date. Moreover, the type of technologies and their sources are not known to us.

On the other hand, in the recently held climate change negotiation in Warsaw, the issue of technology transfer among the countries was supposed to be discussed but no such consensus had come yet. However, from the India's perspective, before taking any decision on that a detail study is required to understand implication of various technologies originating from various countries for various sectors on Indian economy. As no such study is available on this issue, this proposed study is an attempt to address the implication of various technologies on key economic and environmental indicators of Indian economy like, employment; GDP; households income; and carbon emissions, for Indian economy. Since, the Input-Output coefficients describe the technology pattern of an economy; this method will be power full for such analysis. Again, the input output multiplier model helps to understand economy wide impact of any exogenous changes in the economy. Therefore, in this proposed study we will collect latest Input-Output tables from some selected developed and developing countries and a cross country comparison will be performed to understand technological pattern and carbon emission for various economies. Finally, the sector specific input output coefficients will be used for simulating input output model to see the impact of on key economic indicators of India. Results of this analysis will help policy makers to understand economic implication of various technologies and can open an option for green technology trade among various countries.