

Environmental Policy Analysis in Iran: Application of Energy Input-Output Table

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Energy is a primary recourse used directly and indirectly in the production of all goods and services in the economy. Energy production and use results to carbon dioxide emissions which cause greenhouse effect and climate change problem. Trade-offs among energy security, environmental protection, and economic growth is a major concern for energy policy making. The main aim of this paper is to discuss the use of input-output analysis to model energy-environment-economy interactions in Iran. In an input-output approach, the economic structure is defined in terms of sectors which provide a modelling framework for policy analysis. In its recent applications, input-output model has been extended to reflect the link between the level of economic activity, the corresponding energy requirements and its impact on the environment. This approach can provide a systematic tool to evaluate the impacts of environmental policies. This paper applies input-output technique to analyze the energy-economy-environment interactions in Iran, taking into account the energy intensities and carbon dioxide emissions caused by energy use. The paper presents a description of the appropriate modifications to the basic input-output model as regards the environmental impacts of energy use, followed by an outline of the data used. Finally, some results on energy requirements and carbon dioxide emissions in Iran are reported.

Keywords:

Energy Policy; Input-Output Analysis; Iran