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An Interactive Environmental Economy Model for Energy Cycle in Iran

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Abstract:

The growing world economy calls for saving natural resources with sustainable development framework. This paper intends to look at the environment-energy interface (impacts on the environment stemming from the energy sector) and to propose measures for reducing this impact without trying to impede economic development. In addition, this paper estimates the amounts of energy subsidies about 20% of Gross Domestic Product (GDP) in 2019 if the conditions do not change. Meanwhile, environmental damage from air pollution has been assessed by scaling according to GDP per capita measured in purchase power parity (PPP) terms. Using this approach, the total damage from air pollution in 2001 was assessed about \$7billion; equivalent to 8.4% of nominal GDP. Lacking price reform and control policies, the authors estimate that damage in Iran will grow to 10.9% of GDP by 2019. In line with difficulties of eliminating subsidies, a list of 25 measures has been analyzed, using the environmental cost-benefit analysis and based on cost-effectiveness of the policies to verify which ones would be implemented. Finally the financial effects of implementing different combinations of price reform and carrying out those policies on the state budget, damage costs and subsidies have been calculated.

Keywords:

[Environment degradation](#) . [Energy subsidies](#) . [Internalization](#)

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