

The impact of intelligence on renewable energy adoption: evidence from Uzbekistan using micro data

Abstract

Renewable energy is becoming an important component of energy balance in developed countries. However, the speed of renewable energy adoption and its market penetration levels are lower in the developing countries including Uzbekistan.

This paper sheds light on the factors serving as incentives and disincentives for renewable energy penetration based on a micro-level primary data collected in three regions of Uzbekistan. Our outcomes indicate that individuals with high-income level who face power outage issues firstly adopt RES, followed by individuals with high IQ levels. Consequently, we confirm positive association between individual's intelligence level and environmental friendly behavior using household level data as we estimate a positive impact of intelligence on public acceptance of RES.

Word count: 4210

Highlights

- We use micro data to explore the renewable energy perceptions of individuals and their intelligence.
- Contingent valuation method assesses the impact of individual determinants on public acceptance of RES.
- Micro data confirms positive relationship between intelligence and renewable energy adoption
- Three drivers of renewable energy deployment in Uzbekistan are found: knowledge; income; and necessity.

Keywords: *intelligence, renewable energy adoption, microdata, contingent valuation method, Uzbekistan*