

Review of: "Nigeria's Implementation of the Sustainable Development Goals"

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Potential competing interests: No potential competing interests to declare.

A Projection Based Quantitative Analysis of Hydrogen Demand for Major Fuel Consuming Sectors in Bangladesh by 2040 by Mazumder *et al*

The paper examines the potential of hydrogen demand in Bangladesh by the year 2040 using scenario-based analysis, each with a specific percentage of fuel mix.

Introducing hydrogen as an energy carrier in a country like Bangladesh involves major changes in the country's energy infrastructure. Technical challenges, costs, and risks will be very high since the market is small. Hence, while conducting scenario analyses, one has to explore the costs and tradeoffs of different options for hydrogen production, delivery, and utilization. At the same time, one has to understand the geographic and spatial layouts of fueling stations, hydrogen production and delivery options. Finally, it is important to devise policies that might be cost-effective in sustaining the early years of hydrogen technology development and adoption. Without understanding any of these issues, just developing scenarios does not provide any new value addition.

By way of improving this paper, I would recommend that, if the author wishes to pursue this subject, it would be interesting to repeat this analysis with the incorporation of *uncertainty* into the problem. What are the limitations associated with hydrogen use? What are the critical factors that hinder the scaling up of the hydrogen economy in Bangladesh?. The author should also look at issues relating to the absence of a value chain for clean hydrogen, storage and transportation of hydrogen, high cost of production, lack of international standards, and risks in investment.

I'm not sure that these suggestions alone would merit a publishable paper, but I think it would make it a more interesting paper and perhaps lead to a different conclusion – namely, that unless perceived and actual risks can be decreased, it is unlikely that hydrogen energy will penetrate the market by replacing fossil fuels.

No references are provided in the text. Similarly, data sources are not given for the Tables presented. Percentage shares are given in the text but not in Tables. Actual shares vary with the figures that are provided in the text. The paper, with typographical errors, grammatical mistakes, and repetitive statements, is not the one that should be expected from an International Institute!.

Decision – Reject

