Hydropower potential in Pakistan: Current status and future prospects

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Introduction

- Electrical energy crisis is an important issue in Pakistan.
- There is a deficit of 7000 megawatts between demand and supply.
- Urban areas face loadshedding of 10 – 12 hours daily.
- Rural areas face 12 – 14 hours.

Purpose

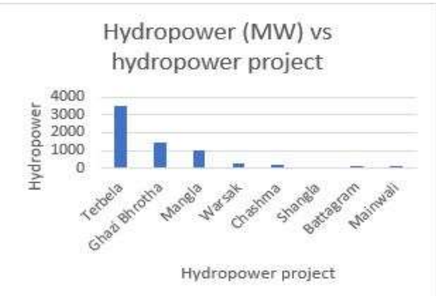
- This work was aimed to synthesize information on existing and proposed potential of hydropower in the country.

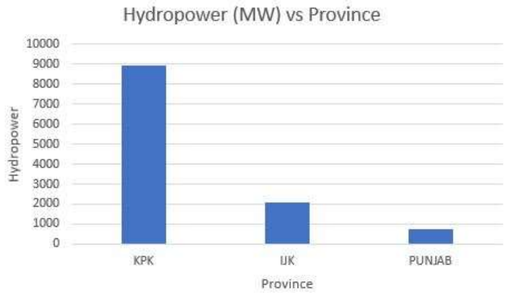
Methods

- This work presents a review of existing literature including articles, papers, and reports on current and future hydropower potential in the country.
- Using a systematic review of existing published literature from 2000 to 2023, we explored current status and future opportunities for hydropower generation.
- Besides, this work also explores the underlying causes that hinders achievement of energy sufficiency from hydropower resources.

Results

- Diameer Basha dam can produce highest electricity (4500MW) and Korat hydropower project can produce small amount of electricity (720MW).
- Khyber Pakhtunkhwa have more hydropower potential then Punjab and Azad Jammu Kashmir
- There are four important discourses on constraints to hydropower development in Pakistan. These discourses include less participation of private sector in running the electricity market operations, incoherent planning, financial barriers and institutional barriers.





Conclusions

- Based on the systematic review it is concluded that, Pakistan has tremendous potential for hydropower production.
- Poor economic situation and lack of technical capacity are the main constraints in harnessing the available potential of hydropower.

Reference

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