



Externalities in generation expansion planning



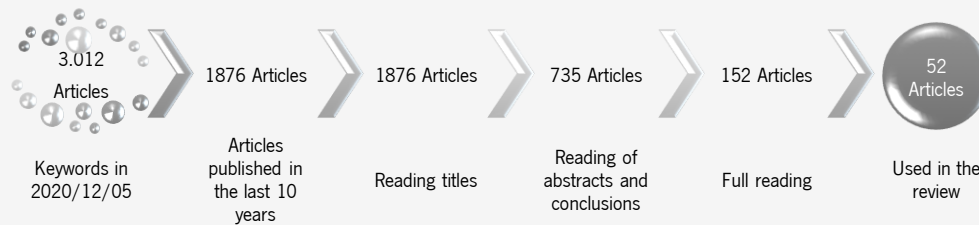
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OBJECTIVE

This research aims to contribute to the design of a new generation expansion planning methodology capable of integrating the Sustainable Development Goals (SDGs) in the decision-making process.

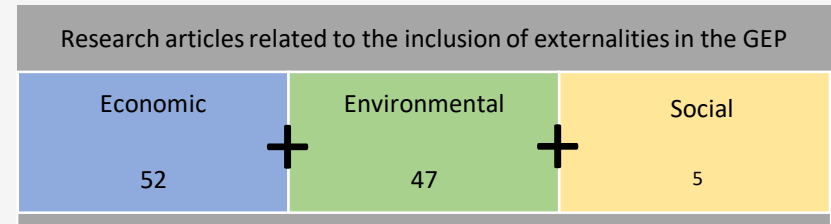
METHODOLOGY

Keywords	Number of articles
"Generation expansion planning" OR GEP	10.734
"Generation expansion planning" OR GEP OR "electricity planning"	11.460
("Generation expansion planning" OR GEP OR "electricity planning" OR "power planning")	14.451
("Generation expansion planning" OR GEP OR "electricity planning" OR "power planning") AND (externality OR "external cost")	3.012



INTERNALIZATION OF EXTERNALITIES ON ENERGY DECISION MAKING

The literature reviewed called attention to the importance of incorporating sustainability assessment on the formal process of energy decision making.



- ✓ Extensive work related to the internalization of externalities in the energy generation plans, **but** the inclusion of social indicators is still far from being fully considered.
- ✓ Of the 47 articles that deal with the internalization of environmental externalities, 36 of them include only CO₂ and other related emissions in the planning model.

CONCLUSION

- ✓ Sustainable energy planning must address the 3 pillars of sustainability.
- ✓ Further studies that seek to internalize social indicators in the Generation Expansion Planning (GEP) problem are required.

