



UNIVERSITY OF
ALBERTA



IAIA19
BRISBANE AUSTRALIA
39th Annual Conference of the International Association for Impact Assessment

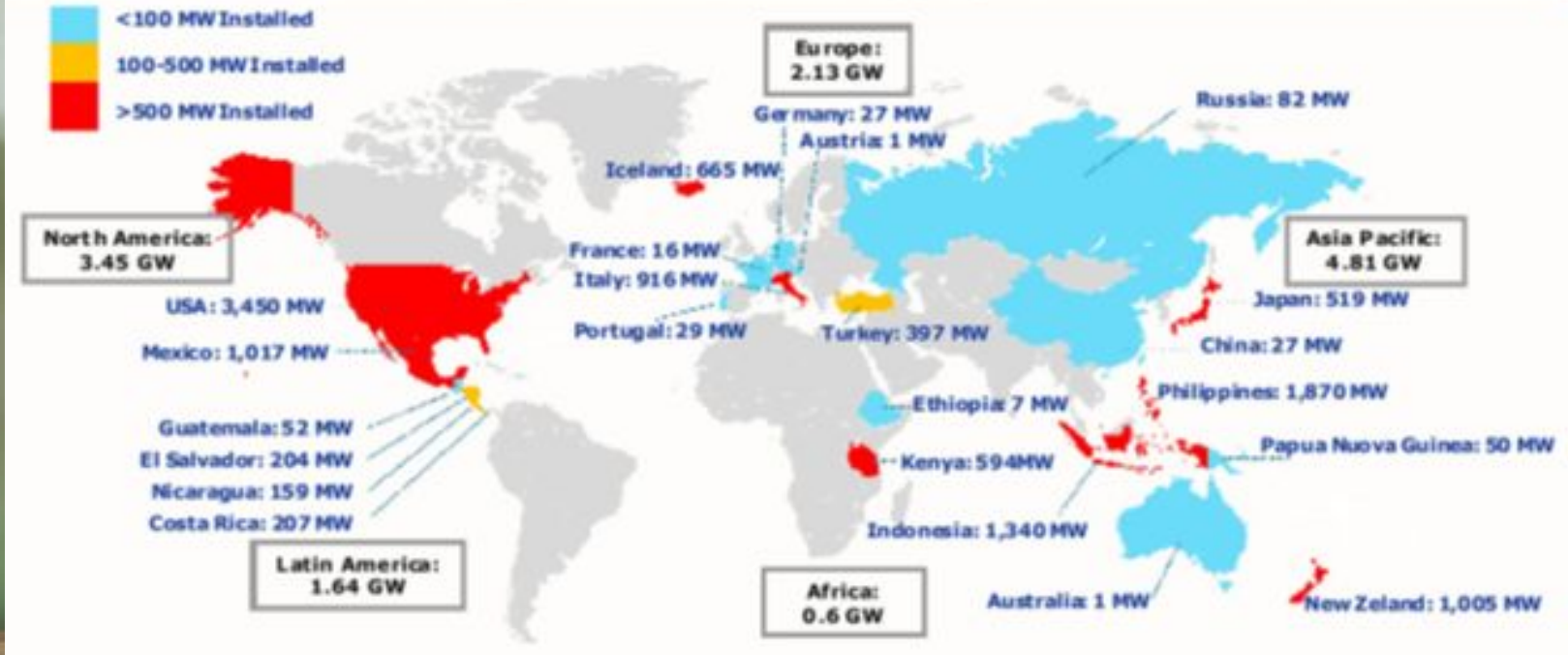
**Developing Evaluation Criteria for SIA
Reports: Application on Geothermal
Project Studies from Ethiopia,
Indonesia and Kenya**
<May, 2019>

Nadine Naguib Suliman

Background

- Renewables facing scrutiny in public spheres
- Geothermal energy - efficiency, cost, potential sources
- Social acceptance and community acceptance
- The (potential) role of SIA

2015 Geothermal Installed Capacity (MW)



Worldwide mapping of geothermal energy installed capacity, image extracted from Lund et al. (2015) p. 82

“SIA is the process of analyzing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions so as to bring about a more sustainable and equitable biophysical and human environment”. - (Becker & Vanclay, 2003, p. 2)

Case studies

- *Ethiopia, Indonesia, Kenya*
- *Varying capacities*
- *Different consultants*
- *ESIA reports*

Evaluation criteria

1. Are all stakeholders of the project/proposed action clearly identified?
2. Are project objectives consistent with the needs, interests and capacity of community members and stakeholders including the most vulnerable/ most affected groups?
3. Are all social and cultural factors which may affect the ability of stakeholders to participate or benefit from the proposed policy or project included in the report/ consultation process?
4. Has there been a thorough public participation process that includes at least 3 of the engagement activities mentioned earlier spanning all phases of project development and SIA process?

Findings

1. Stakeholder Identification

2. Objectives, needs, interests, capacities

3. Social/ Cultural context

4. Public participation process

Kenya report:

“There were no well-defined stakeholders groups.”
(GDC, n.d., p. 19)

No mention of project objectives that address the needs/ interests/ capacities of community members and stakeholders (all 3)

No specific mention of social/ cultural factors (except for Kenya) but participatory approaches were emphasized

All reports stated that stakeholder engagement/ public participation activities were conducted

Evaluation criteria cont'd

5. What institutional arrangements are needed for participation and project delivery?
6. Are there plans to build capacity at appropriate levels?
7. Have the impacts of the project or program on the various stakeholders, especially women and vulnerable groups been identified and addressed?
8. Are there plans to mitigate adverse impacts and has local knowledge been accounted for in the mitigation plans?

Findings

5. Institutional arrangements

Institutional arrangements were not strictly mentioned but plans for improving basic infrastructure were included

6. Capacity building

Highlighted across all 3 reports to varying degrees (from basic training courses to building a training institute)

7. Identifying and addressing impacts

Impacts were generally identified but not specific stakeholder groups

8. Local knowledge and mitigation

Generic mitigation measures identified and do not incorporate local knowledge

“This ESIA concludes that while the ... project has potential adverse social and environmental impacts, they are few in number, site-specific, largely reversible, and readily addressed through mitigation measures.” (ESC, 2012, p. i)

Conclusion and limitations

- *Ambiguity and uncertainty*
- *Standard operating procedure*
- *Divide between interdisciplinary research and practice*
- *Access to information*
- *The role of SIA in the energy transition*



Thank
you

References

- ESC. (2012). *ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT 250MW Rantau Dedap Geothermal Powerplant (Phase 1-92MW) South Sumatra, Indonesia*. Retrieved from <https://www.adb.org/sites/default/files/project-documents/50330/50330-001-eia-en.pdf>
- Esteves, A. M., Franks, D., & Vanclay, F. (2012). Impact Assessment and Project Appraisal Social impact assessment: the state of the art Social impact assessment: the state of the art. *Impact Assessment and Project Appraisal*, 30(1), 34–42. <https://doi.org/10.1080/14615517.2012.660356>
- Lund, J. W., Bertani, R., & Boyd, T. L. (2015). *Worldwide Geothermal Energy Utilization 2015*. GRC Transactions (Vol. 39).
- Magnúsdóttir, A., Thors, S. G., & Jonsson, G. (2017). *Tulu Moye Geothermal Development Project - Phase I: Environmental and Social Impact Assessment*.
- Parkins, J., & Mitchell, R. (2015). Social Impact Assessment: A Review of Academic and Practitioner Perspectives and Emerging Approaches.” In *Environmental Impact Assessment: Process, Practice, and Critique* (pp. 122–140). <https://doi.org/10.13140/RG.2.1.5158.7920>
- Redplan Consultants Ltd. (2013). *Environmental and Social Impact Assessment (ESIA) Study Report Suswa Geothermal Development Project in Narok and Kajiado Counties*. Retrieved from <https://gitpa.org/web/RAPPORT%20ESI%20SUWA%20.pdf>
- Vanclay, F. (2002). Conceptualising social impacts. *Environmental Impact Assessment Review*, 22, 183–211.
- Vanclay, F. (2003). International Principles For Social Impact Assessment. *Impact Assessment and Project Appraisal*, 21(1), 5–11. <https://doi.org/10.3152/147154603781766491>
- Webler Wendell, T., Hans Kastenholz, M., & Renn, O. (1995). Public Participation in Impact Assessment: A Social Learning Perspective. *ENVIRON IMPACT ASSESS REV*, 15, 443–463.

References

- Becker, D. R., Harris, C. C., Mclaughlin, W. J., & Nielsen, E. A. (2003). A participatory approach to social impact assessment: the interactive community forum. *Environmental Impact Assessment Review*, 23, 367–382. [https://doi.org/10.1016/S0195-9255\(02\)00098-7](https://doi.org/10.1016/S0195-9255(02)00098-7)
- Becker, H. (1997). *Social Impact Assessment: Method And Experience In Europe, North America And ...* - Becker, Henk, Henk Becker University of Utrecht, Netherlands. - Google Books. London: UCL Press.
- Becker, H. A., & Vanclay, F. (2003). *The International Handbook of Social Impact Assessment: Conceptual and ...* - Google Books. Cheltenham: Edward Elgar Publishing Limited.
- Burdge, R. J., & Vanclay, F. (1996). SOCIAL IMPACT ASSESSMENT: A CONTRIBUTION TO THE STATE OF THE ART SERIES. *Impact Assessment*, 14(1), 59–86. <https://doi.org/10.1080/07349165.1996.9725886>
- Centre for Good Governance. (2006). *A COMPREHENSIVE GUIDE FOR SOCIAL IMPACT ASSESSMENT*. Retrieved from <http://unpan1.un.org/intradoc/groups/public/documents/cgg/unpan026197.pdf>
- Edelstein, M. R., & Kleese, D. A. (1995). Cultural relativity of impact assessment: Native Hawaiian opposition to geothermal energy development. *Society & Natural Resources*, 8(1), 19–31. <https://doi.org/10.1080/08941929509380896>
- Ellabban, O., Abu-Rub, H., & Blaabjerg, F. (2014). Renewable energy resource: Current status, future prospects and their enabling technology. *Renewable and Sustainable Energy Reviews*, 39, 748–764. <https://doi.org/http://dx.doi.org/10.1016/j.rser.2014.07.113>
- *ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT SUMMARY MENENGAI GEO-THERMAL POWER PROJECT -GDC*. (n.d.). Retrieved from [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Kenya-Menengai Geothermal Power Project-ESIA Summary.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Kenya-Menengai_Geothermal_Power_Project-ESIA_Summary.pdf)