# Land Rights and Renewable Energy

## Risks & Recommendations for Responsible RE Development

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Landesa

# Report Outline

I. Background and overview of research

II. Findings of prevalent land-related issues

III. Recommendations for addressing land-related issues

# I. Background and overview of research

# The Importance of Land

***Stronger rights to land*** *have the power to reduce poverty and conflict, increase economic activity, empower women, strengthen food security, and improve environmental stewardship.*


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Photos by Deborah Espinosa, Landesa

# The Research

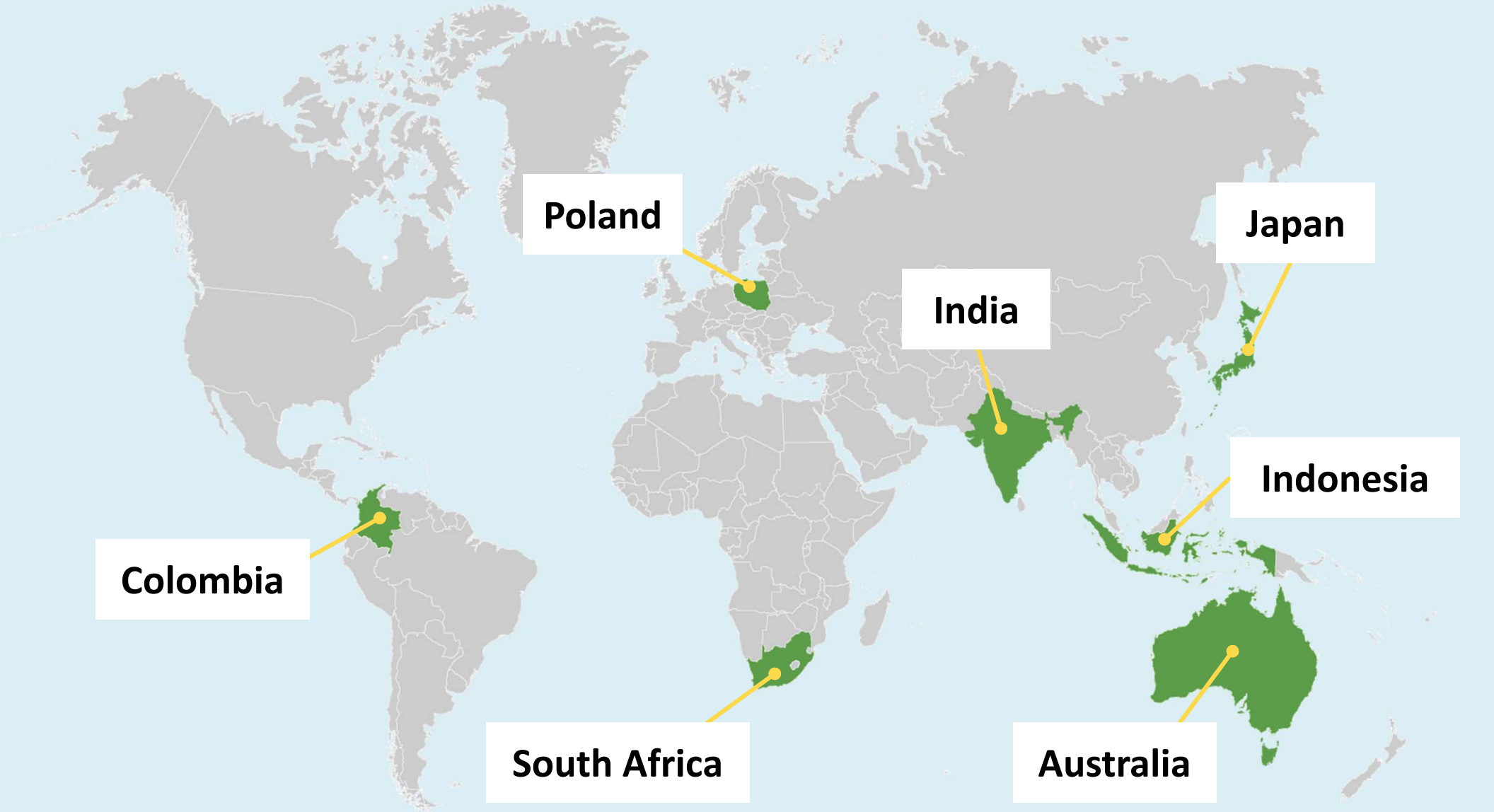
Landesa was commissioned by Growald Climate Fund to look into:

- Footprints of coal and RE (particularly wind, solar, and geothermal)
- Land issues in these contexts
- Risks when RE investments occur, including political economy issues
- Triggers of land conflicts and disagreements
- Potential negative impacts on food security, livelihoods, and access to land, natural resources, and services
- Social justice issues, including disproportionate impacts
- Strategies to avoid negative impacts and address land conflicts

Seven focus countries were selected based on:

- Indications of a mix of insecure land tenure, high potential for land conflicts, and an active RE sector or high potential for RE development
- Desire to reflect a cross-section of geographies

# Overview of Focus Countries

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# Methodology

**Desk research, including review of:**

- Academic literature
- Grey literature (including NGO publications)
- Government statistics

**Semi-structured key informant interviews:**

- 2-3 key informant interviews per country
- Key informants included:
  - Representatives from CSOs, NGOs and funders focused on:
    - Land and natural resource rights
    - Climate change and energy
    - Indigenous rights
    - Business & human rights
    - Environmental issues
  - Academic researchers

Wind turbines on farmland in Theni, Tamil Nadu, India. *Photo by Amalesh thangapachaiyappan on Unsplash*

# Limitations of this research

As this research did not involve field work, results are dependent upon the quality of data and information available online and via key informant interviews, which varies by country.

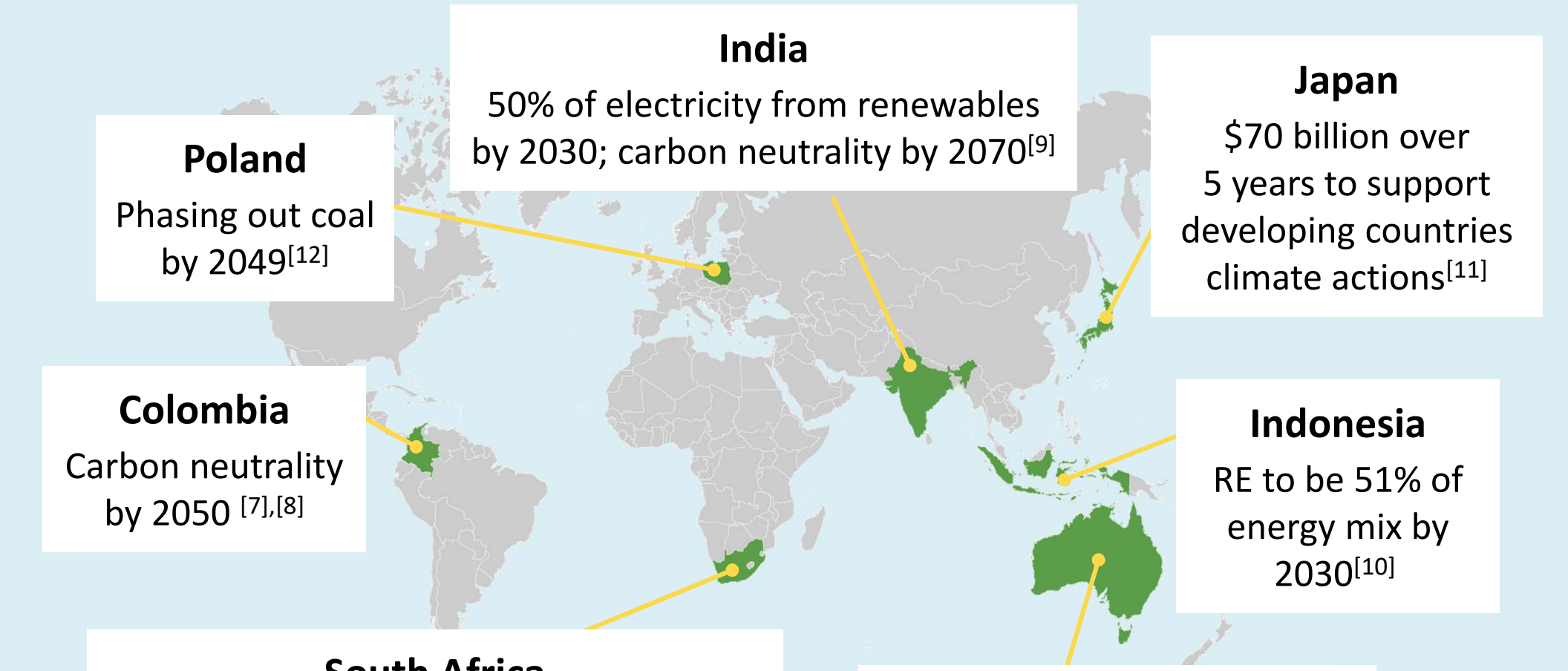
Although some key informants work for NGOs focused on energy and climate change, we were not able to speak to many representatives from government or industry in this round of research.

While we have aimed to capture common themes occurring across countries, land tenure issues are inherently context dependent—other geographies may present additional risks or concerns.

- More detailed results are available for the focus countries.

This research focused on the direct land implications of RE development. Indirect land implications, including those associated with mining for essential raw materials for RE development, were beyond the scope of this study.

# RE Generation Expanding Quickly[5]



**India**

50% of electricity from renewables by 2030; carbon neutrality by 2070[9]

**Japan**

$70 billion over 5 years to support developing countries climate actions[11]

**Poland**

Phasing out coal by 2049[12]

**Colombia**

Carbon neutrality by 2050 [7],[8]

**Indonesia**

RE to be 51% of energy mix by 2030[10]

**South Africa**

Partnership to mobilize $8.5 billion over 3-5 years in support of just transition[13]

**Australia**

RE generation grew at least 11% annually since 2018[6]

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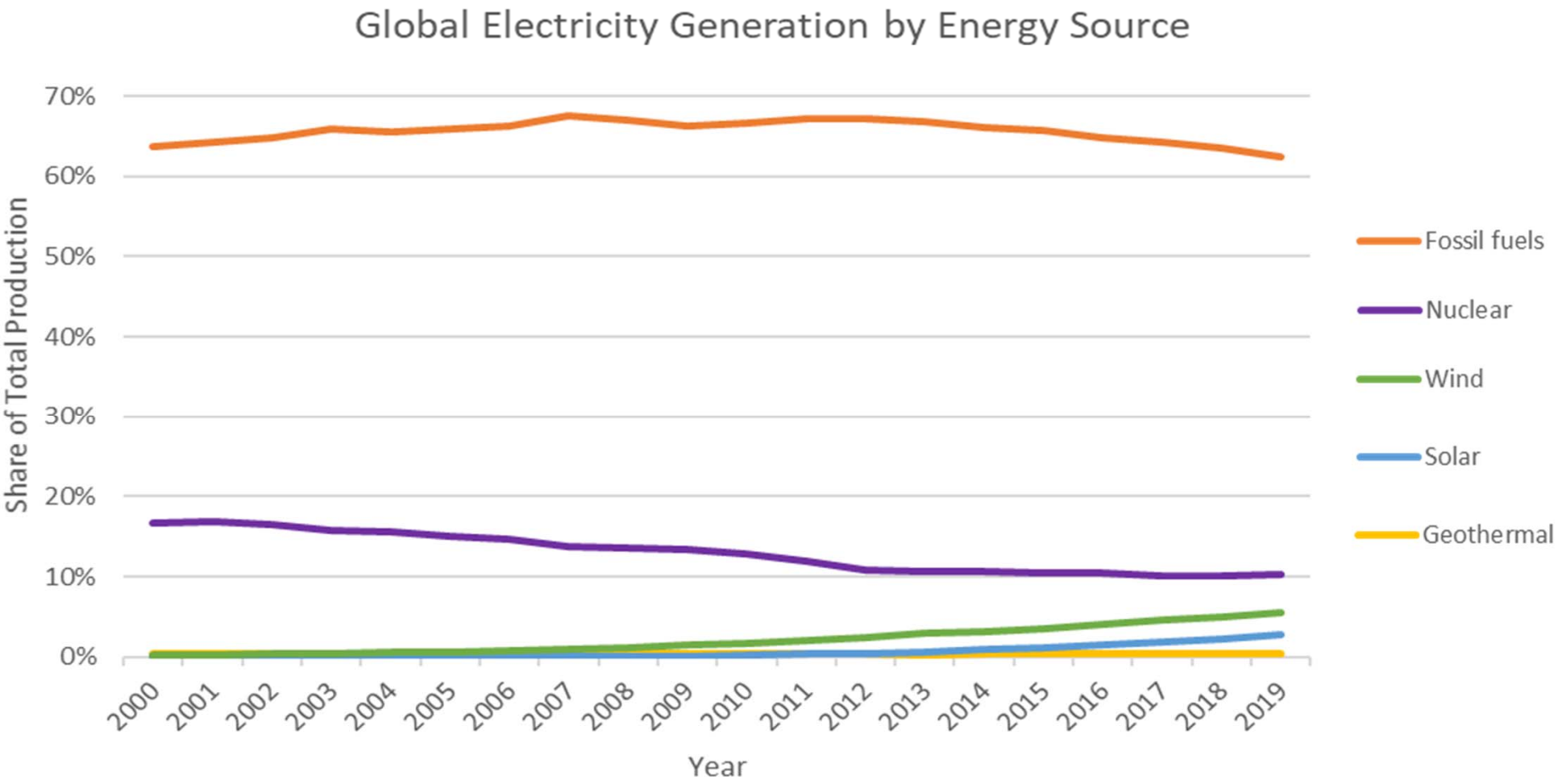
# The Changing Global Energy Mix




Although RE sources are growing, the global energy mix continues to be dominated by fossil fuels. Wind, solar, and geothermal still make up less than 10% combined.[14]

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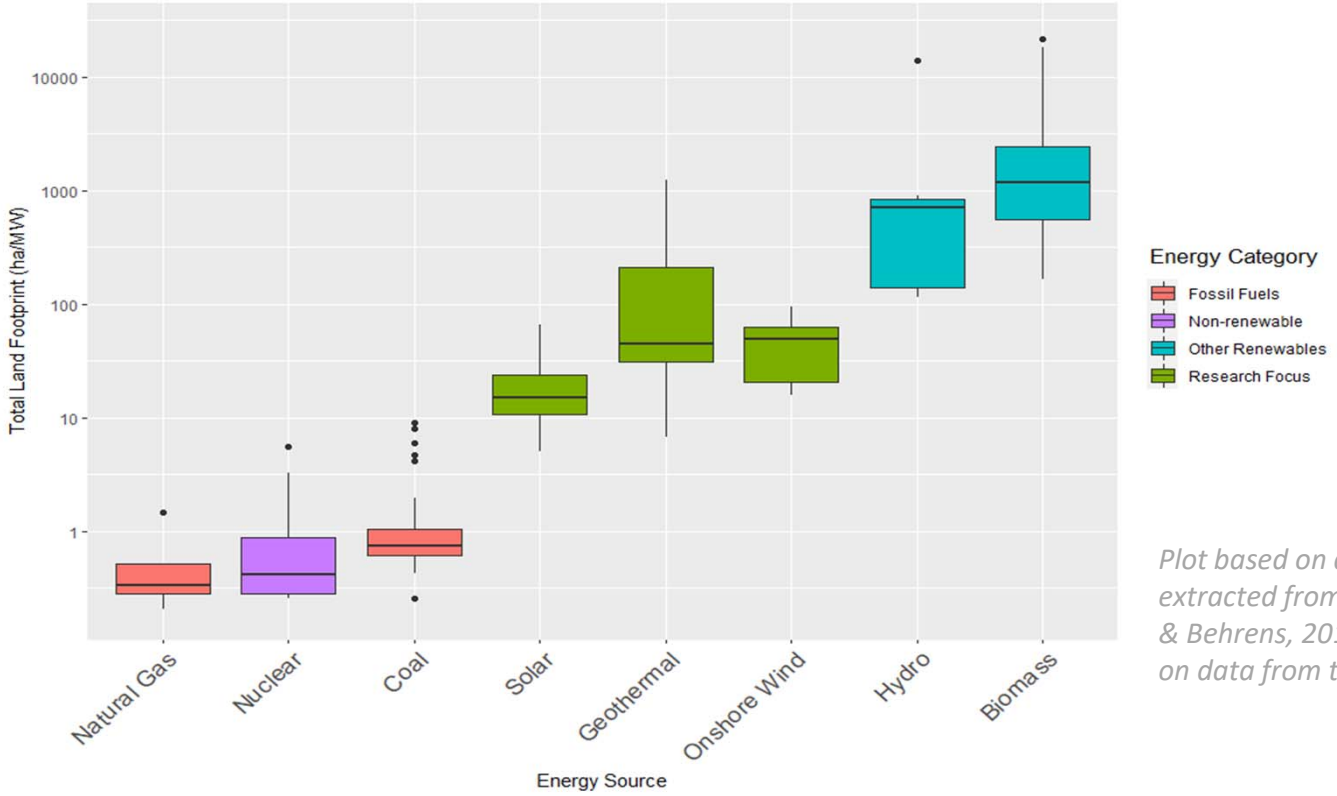
# Land Requirements by Energy Source




*Plot based on data extracted from van Zalk & Behrens, 2018, based on data from the US* [15]

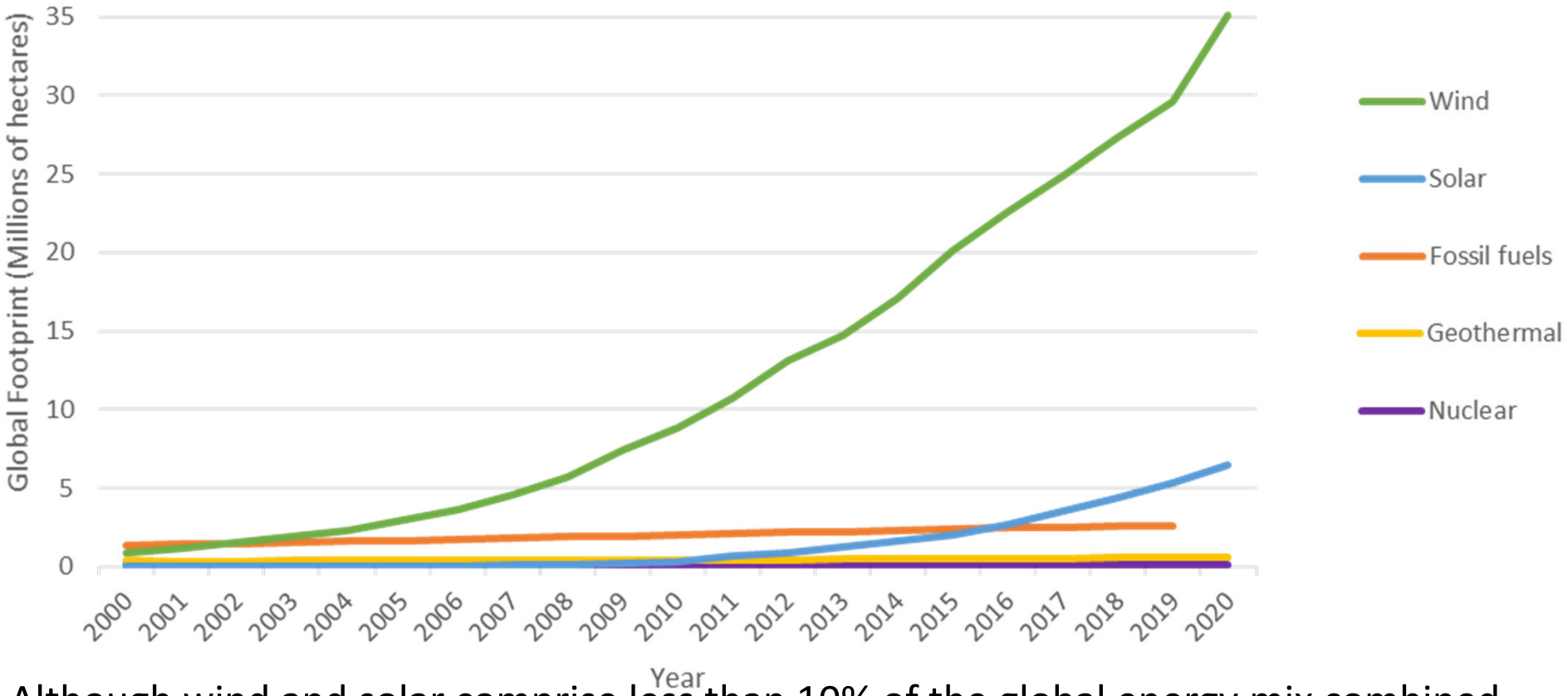
This is what is known as power density—the amount of space required to produce a given amount of energy.

It is estimated that RE projects require more than 10x the amount of land compared to fossil fuels and nuclear.

These figures include surface area required for mines, roads, and transmission lines.

Larger projects (particularly wind projects over 1 MW) tend to have lower power density because they are typically located further from demand centers, requiring additional transmission infrastructure.

# Estimated Total Land Footprint by Source[14],[15],[16],[17]




Although wind and solar comprise less than 10% of the global energy mix combined, their estimated footprints already enormously exceed those of fossil fuels and nuclear.

Given the way these RE sources are poised to continue expanding, this represents a fundamental change in magnitude of the land footprint of global energy production.

# Estimated Total Land Footprint by Source: Notes

- These should be taken only as indicative estimates.
- These figures were calculated by Landesa based on the power densities (median values) from van Zalk & Behrens, 2018.[15] Those power densities were applied to the U.S. Energy Information Administration's global data on installed capacity by energy source.[14]
- For wind energy, this includes the area needed for spacing between blades. Other than land needed for roads and substations, much of the area between turbines can be still be used for agriculture, but with impacts and restrictions (i.e., typically cannot be forested, limitations on building heights, can affect irrigation and drainage systems).
- EIA data does not differentiate between rooftop & ground-mounted solar, or between onshore & offshore wind.
  - Based on Joshi et al., 2021,[16] it was assumed that 60% of solar is ground mounted and the other 40% has no land footprint.
  - The share of offshore wind was accounted for on an annual basis based on data from the Global Wind Energy Council[17] --this varied from ~1% in 2000 to 4.7% in 2020. It was assumed that offshore has no land footprint.

# Land Implications by Renewable Type

| Wind | Solar | Geothermal |
|---|---|---|
| • Although total land requirements are very high, much of the land remains available for use such as farming and grazing<br>• Bird and bat fatalities due to revolving blades [18]<br>• Large projects may contribute to habitat fragmentation<br>• Visual and noise impacts, including aesthetic impacts and strobe effect due to shadows of revolving blades, can be controversial [19] | • Ground-mounted Photovoltaic (PV) usually requires large expanses of flat land—often land ideally suited to farming and grazing [20]<br>• PV plant construction typically entails clearing ground of vegetation, stripping and compaction of topsoil [21]<br>• Concentrated solar power (CSP) plants also pose a risk of depletion of water resources and risks to bird life [22] | • Underground footprint may be much larger than surface footprint<br>• Site specific and little flexibility around positioning, often in natural areas<br>• Potential for negative environmental impacts, including: [23]<br>  ○ Impacts on groundwater levels and quality<br>  ○ Ground deformation, subsidence, and micro-seismicity<br>  ○ Surface water and air pollution |

# II. Findings of prevalent land-related issues

# Prevalent Issues

1. **Gaps and inconsistencies in legal frameworks** related to land and renewable energy projects
2. **Weakening social and environmental regulations** to fast-track RE projects
3. Inadequate community **consultation and consent**
4. **Community opposition** due to RE development
5. Negative **impacts on land & natural resource-based livelihoods**
6. Disproportionate **impacts on Indigenous peoples**
7. **Exacerbating inequalities** between communities and within communities

# 1. Inconsistencies in Legal Frameworks

Legal frameworks around land often include some gaps, inconsistencies, or unanswered questions about:

- Who has rights to decide how RE projects develop on land where there are customary or overlapping claims
- Whether and how existing environmental and social protections are required for many types of development or investment apply to RE, particularly where there are expedited processes for RE development
- There may also be subnational laws or regulations to consider.

In Australia, there is an untested legal question of whether RE projects require agreements with Aboriginal communities. The answer hinges on whether RE projects and their components are of sufficiently similar in scale and nature to development covered by the Native Title Act (1994).

# 2. Fast-Tracking of RE Projects

Given the urgency of expanding RE generation to mitigate climate change, several countries have adopted legislation intended to speed up implementation of RE projects.

Unfortunately, such legislation often entails provisions such as:

- Exemptions from environmental regulations such as requirements for environmental impact assessments
- Exemptions from or reductions to regulations around prior consultation of affected communities
- Enabling forced expropriation of land

RE auction processes can also result in rushed timelines, creating a barrier to early and effective community consultation.[24]

Of the 7 focus countries for this research, 5 have adopted these types of laws:

- Colombia
- India
- Indonesia
- Japan (*for all but the largest solar projects*)
- South Africa *(within designated RE Development Zones*)

# *Example: Omnibus Law in Indonesia[25]*

In Indonesia, the 2020 Omnibus Law on Job Creation removed requirements for environmental impact assessments and community consultation and criminalizes protest against projects of strategic interest, including RE projects. This has contributed to persecution of land and human rights defenders.

Civil society representatives in Indonesia assert that the Omnibus Law has enabled land grabbing: "The Omnibus Law goes against our constitution. It gives the ultimate power to the government and private investors."[26]


Protesters march outside the Banyumas district council in Central Java in July 2019 against the development of the Baturraden geothermal plant, which they say has caused river pollution and deforestation.
*Image by L. Darmawan/Mongabay Indonesia.*

# 3. Inadequate Consultation and Consent

**Across geographies, there is a consistent trend of RE projects being developed without consultation of affected communities.**

- Even when consultation is occurring, in many cases it is very limited in scope and does not provide affected communities the right to consent—that is, the opportunity to say no, which is essential for fair negotiations.
- Inadequate consultation and consent, enabled by weak legal frameworks and poor enforcement, can lead to development of projects with negative community impacts, resulting in community opposition to RE.


Photo by Sunny Tank on Unsplash

- As a result, RE projects can be viewed by host (or potential host) communities as simply another form of extractive industry, in which outsiders seek to appropriate the community's land and resources.

# 4. Community Opposition to RE Projects

Community resistance to renewable energy projects often arises due to visual and noise impacts.

- Communities voice concern over impacts to "landscape values," perceiving that landscape character and aesthetics are diminished due to RE infrastructure.
- This may also be associated with concern for property values.

This is particularly true for wind projects, since the turbines are visible over a large area and can create variable noise as well as a visual strobe effect.

- However, studies have consistently found that acceptance of wind projects increases with familiarity, so these concerns may become less common as wind power continues to expand. [19]

A study from Japan found that approximately 40% of wind projects faced conflicts. [27]

# 5. Impacts on Land & Natural Resource-Based Livelihoods

Negative impacts on natural-resource-based livelihoods are a key concern and one of the primary causes of opposition to RE projects.

**Decreasing agricultural production & food security**

Using land for RE that was previously used for local agricultural production or other livelihoods may affect incomes and food security of local populations and require them shift to less productive lands or previously natural areas.

**Inadequate compensation**

In many cases, RE projects are developed in poor or marginalized rural communities without access to electricity. These communities must bear the negative impacts of projects, but often still do not receive electricity. As with other types of large-scale land-based investments, compensation is often paid only for land but not for loss of livelihoods for those who rely on commons lands.[28] Land valuations are often based on cadastral value or other economic basis, but these do not capture the magnitude of cultural and livelihood values.

# 5. Impacts on Land & Natural Resource-Based Livelihoods (cont'd)

**Environmental degradation**

In Japan, 80% of prefectures have issues with renewable energy development—the primary issue is clearing of vegetation on hilly terrain for the construction of solar parks, causing landslides which impact farms. [29]

In Indonesia and Japan, geothermal development often impacts protected areas

Offshore wind development is in tension with small-scale fisherman in Poland and Japan, and marine environmental impacts are not yet well understood. [30],[31],[32]

Deforestation and heavy rains caused landslides in Japan where solar panels are installed on slopes.

*Source: SBS*

# 6. Impacts on Indigenous Peoples

**Negative impacts are particularly consequential for Indigenous Peoples (IPs).**

IPs are estimated to manage or have tenure rights over ~25% of the world's land area. [33]

In at least 4 of the 7 countries researched,[34] there is substantial overlap between IPs' lands and lands with high potential for renewable energy development, increasing pressure on resources in many Indigenous territories.

Indigenous lands are often less densely populated and therefore may be viewed as targets for land-intensive development such as RE, especially as land scarcity increases due to growing economies and populations.

# 6. Impacts on Indigenous Peoples (cont'd)

However, in many cases, Indigenous communities are limited in their access to the information that allows for fair negotiation and consent:

- Technical knowledge of RE
- Financial resources
- Access to legal and environmental technical advice

A history of Indigenous communities not being sufficiently consulted or respected in agreements and relationships with government and companies related to previous projects may to color perceptions of RE projects.

**As a result of these factors, as well as experiences with RE to date, RE has been identified as a serious threat to Indigenous rights.** [35]

Drilling rig on site of Baturaden geothermal project in Central Java, Indonesia. Geothermal development on forest lands in Indonesia is negatively impacting Indigenous communities there.[36]

*Photo source:* PT SAE

# 6. Impacts on Indigenous Peoples (cont'd)

**International standards for consultation & consent are higher for projects on Indigenous lands. Free, prior, and informed consent (FPIC) is a right of Indigenous Peoples.** [37],[38]

Yet in many cases, projects developed on Indigenous lands without proper community consultation result in negative impacts such as: [39]

- Livelihoods impacts, including displacement, limiting access to water and agricultural lands
- Cultural impacts due to loss of access to or damage to sites with cultural significance (ex. hunting grounds, sacred areas), or noise pollution
- Harassment, threats, and violence against land defenders
- Conflicts within and between indigenous communities, often a result of the planning & development process undermining community cohesion
- Erosion of hard-won rights to sovereignty and self-determination

While conceptions and perceptions of indigeneity differ around the world, similar impacts and risks may occur in other low-resource, land-dependent rural communities.

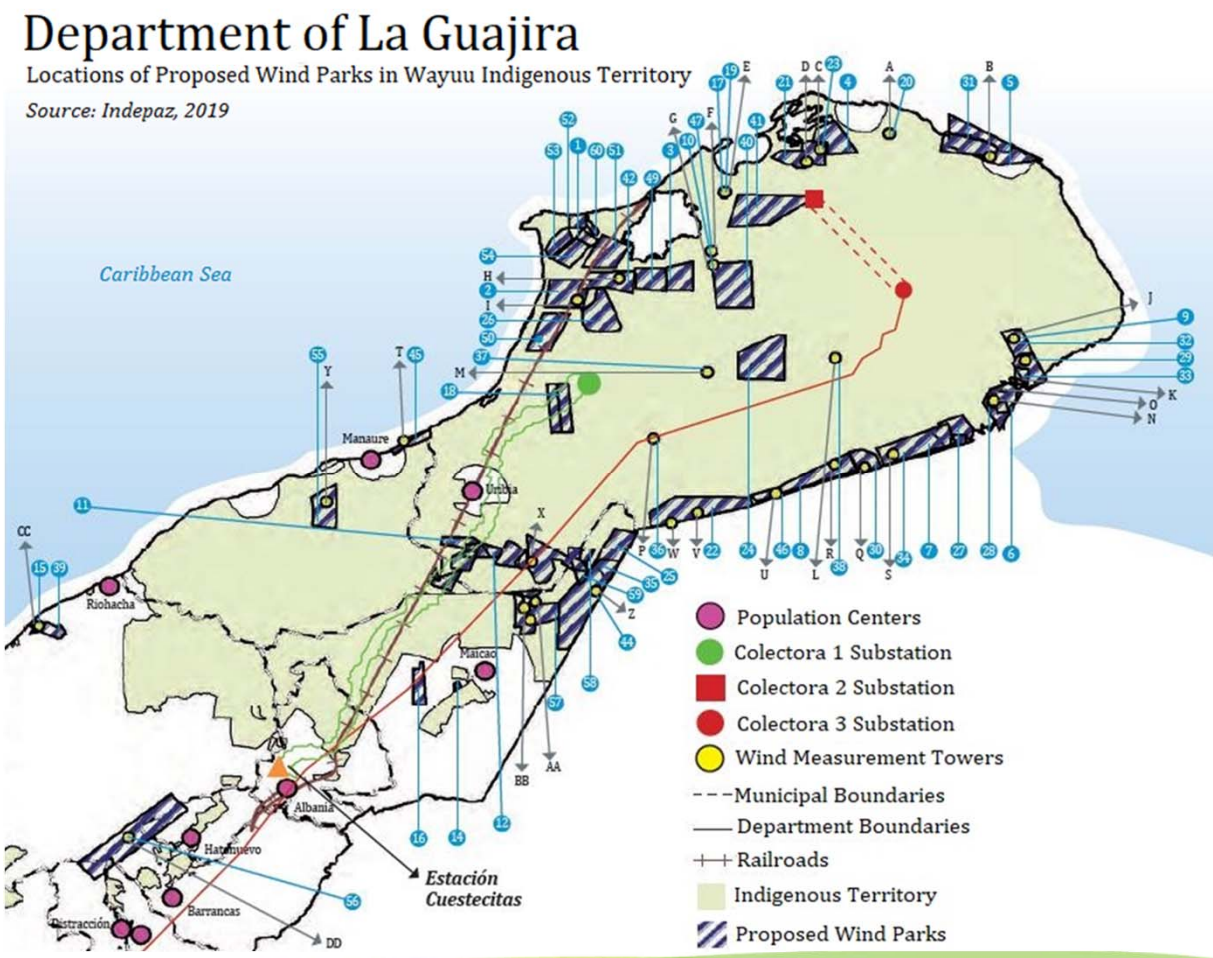
# Example: Guajira Peninsula, Colombia

The majority of the region is the government-recognized territory of the Wayuu people, but it is also home to Colombia's greatest wind potential and some of its best solar potential.

As the government aims to scale up RE, there is intense pressure to develop RE projects in the region, with dozens of projects currently in development. [40]

This has resulted in conflicts between indigenous communities and developers as well as the government over land rights issues including sovereignty and access to water. It has also led to inter-community conflicts due to divisive consultation processes.[41]

CSO observers have alleged that the government is using the energy transition as justification to claim indigenous lands in the name of public interest, in order to open those lands for development.




Map adapted from Indepaz, 2019[41], used with permission.

# 7. Exacerbating Existing Land Inequities

In cases where the present land tenure context is characterized by severely skewed land distribution and/or unresolved dispossession and displacement, renewable energy development may solidify or exacerbate these injustices.

For example, in South Africa, the ownership of communal lands (former homelands, which cover about 13% of the land area) is more complex than privately owned land. Despite a government program that requires some community benefit sharing with new RE investments, investors shy away from siting their projects on communal lands leaving these communities out of potential benefits of RE development. [42],[43]

In Colombia, CSOs allege that companies are taking advantage of ambiguous land tenure situations to acquire large tracts of land, in some cases for RE development, which should be subject to land restitution.

- CSOs also allege that the government is delaying action on pending Indigenous and Afro-descendent land claims in order to facilitate energy development.
- Once RE projects are developed on these lands, it is much less likely that restitution claimants or indigenous communities would be able to reclaim the land.

# 7. Exacerbating Existing Land Inequities (cont'd)

**Within communities, individuals and groups with less access to land already are often left out of decision-making processes and benefits of RE development.**

**For example, in India**

- Social Impact Assessments required prior to land procurement generally fail to consider negative impacts to women from socially disadvantaged parts of the community, including tribal families and dalit (low-caste) families.
- Those who have documented land rights are entitled to consent, compensation, rehabilitation, and resettlement requirements and protections. Most concerns arise from marginalized populations whose land rights are not documented and are thus not entitled to such protections. They fear losing livelihoods, food security and traditional access to natural resources. Roughly 21% of people in India experience land tenure insecurity. [44]

# III. Recommendations for addressing land-related issues

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# Recommendations

1. Support organizations who can help governments to **strengthen legal frameworks** around RE development, including social safeguards
2. Support efforts to conduct **participatory land use planning**
3. Support efforts to **ensure consultation and consent** processes follow international best practice, including FPIC
4. Consider measures and work to **support fair compensation** & benefit sharing
5. **Minimize** negative community **impacts** by promoting land-efficient alternatives
6. Promote **community-led projects**, including partnerships with indigenous communities
7. Sensitize and inform potential host communities through **public education & capacity development**
8. Support organizations that **promote inclusion** of women & marginalized groups in decision-making & benefit sharing
9. Incorporate land issues into **due diligence processes**

# 1. Strengthen legal frameworks and social safeguards

**Strengthening safeguards and legal frameworks may take different forms in different contexts.**

Broadly, the key is to consider different stakeholders involved in these transactions and use resources to push toward inclusive consultation and consent processes, including FPIC.

- In targeting governments, this may be advocacy for more community-friendly regulations and procedures for RE development.
- For investors and RE development companies, this may be pressure for them to adopt such procedures and practices (whether or not required by government) or to make the details of these transactions more transparent.
- For potentially affected communities, this may mean setting the stage for more inclusive processes by being proactive in knowing what lands may be appropriate and available for RE development through participatory land use planning.

# 2. Support participatory land use planning

*"Participatory Land Use Planning (PLUP) is a rights-based approach ensuring inclusive and gender-responsive land governance, especially for those whose rights to land are not fully acknowledged."* [45]

By conducting PLUP in advance, many negative outcomes can be avoided. Without the pressure of an impending project, communities can pursue an inclusive process to determine what locations are suitable for which potential uses, including RE development.

This not only protects the land rights and livelihoods of community members but can also result in a smoother process for future development of RE projects on designated lands, prevent or resolve land disputes, and promote sustainable management of natural resources.

In many contexts, in order to be most effective and inclusive, PLUP should be carried out after or along with awareness-raising and capacity-building activities.

# 3. Ensure consultation and consent processes follow international best practice, including FPIC

Free, Prior and Informed Consent (FPIC) is the right of Indigenous peoples "to give or withhold their consent to a project that may affect them or their territories."[46] Leading international standards such as the FAO's Voluntary Guidelines on Tenure (VGGTs).[47]

**It is <u>essential</u> to obtain FPIC for projects affecting Indigenous lands, but it is also increasingly considered best practice to obtain FPIC for all affected communities with customary rights to or uses of lands and natural resources to be impacted by a project.[46]**

Evidence from Australia shows the importance of early consultation and how this can yield benefits for all parties: [48]

- Consultations with Indigenous communities for a government-led solar project identified sites the communities were amenable to leasing.
- Community input further optimized site selection because communities had rich information about the sites (ex. site is boggy in the wet season) not included in the government's technical information.

# 3. Obtaining FPIC

Proper consideration should be given to each of the four elements of FPIC: [38], [46]

| | |
|---|---|
| **Free** | Communities must be able to decide voluntarily, without coercion, intimidation, manipulation or undue external pressure<br>– The structure of the FPIC process should be determined by the rightsholders |
| **Prior** | FPIC must be sought before authorizing or commencing any project. |
| **Informed** | Rightsholders must be provided with accurate, accessible (considering language and literacy), transparent information on which they can make a sound judgment |
| **Consent** | Rightsholders must provide their explicit, collective consent in order for a project to proceed. This may be “Yes”, “No”, or “Yes with conditions.” |

For more details on FPIC and its implementation, see guidance resources, including those cited on this slide.

# 4. Where communities are negatively affected, ensure fair compensation & benefit sharing

Particularly for utility-scale RE projects, the benefits of RE development accrue at a national or even global level, while local communities bear the negative impacts. To address this gap, it is important to provide compensation and/or benefit sharing to affected parties. [49]

Common forms of benefit-sharing include community benefit funds, often managed by a third party, and in-kind benefits which may include direct provision of electricity.

When land must be acquired for a project, international best practices require going beyond market value to ensure full livelihood replacement for those affected by the project. [50]

It is critical to have clarity in negotiations and agreements with communities related to compensation & benefit sharing to avoid misunderstanding and disputes around distinctions between compensation for land, philanthropy, benefit sharing and local taxes. [19],[41],[49] Funders and organizations should consider activities such as:

- Building community negotiation capacity
- Pressuring governments to set requirements on compensation & benefit sharing

# 5. Consider minimizing negative community impacts through land-efficient alternative approaches

Despite the urgency, we cannot focus solely on large, utility-scale projects—we must promote widely distributed RE generation at a range of scales, including rooftop solar & wind. [51]

Offshore wind is one of the most cost-effective ways to reduce the land requirements of RE development. [52]

- However, note that the environmental impacts of offshore are still not well understood—this is an active area of research. [32], [53]

Brownfield development: RE projects on contaminated lands [54], [55], [56]

- In some cases, such as Poland and Indonesia, solar power is being developed on closed mines[57] to make productive use of the degraded land—potential for more as more coal mines close.
- Mines currently in operation can develop solar (or, in some case, wind) power on land used for tailings. [58]
- A similar approach can also see solar power developed on landfills,[59] old factory sites, and other brownfield sites.
- Brownfields often have better access to supporting infrastructure such as roads and grid connections and may be nearer to demand centers.

# 5. Land-efficient alternative approaches (cont'd)

Alternative PV arrangements not only require less land, but can have co-benefits both for water management and for PV generation:

*Agrivoltaics* - integrated farms/solar parks: [60]

- Raised ground-mounted PV arrays allow for farming underneath
- Greater yields and more efficient water usage than traditional open-sky agriculture
- Resulted in cooler temperatures, and therefore better performance, for PV panels

Pilot agrivoltaic project in Germany. *Photo source: Fraunhofer Institute for Solar Energy Systems* [61]

# 5. Land-efficient alternative approaches (cont'd)

*Floatovoltaics & over-canal arrays* - solar panels floating on or suspended above water infrastructure: [62], [63]

- Floating PV systems on reservoirs and over-canal systems do not require dedicated land space
- Minimize evaporative losses of water resources, and limit algal growth
- Increased performance of PV panels due to evaporative cooling
- Example: Over-canal arrays are expanding in India, with estimated potential of 2-3 MW per km of canal—and there are 1000s of kms of canals in India

Floating PV project on the Peñol-Guatapé Reservoir, Colombia. *Photo source: EPM* [64]

# 6. Promote community-led RE development

Community ownership (partial or full) has gained prominence as a promising model for ensuring responsiveness to local needs and concerns, as well as fair compensation for hosting projects. [65], [66]

- Denmark has highest non-hydro RE share of any country, due in part to enabling and promoting proliferation of community-based wind farms.
- There is a similar community-based movement growing in Japan for wind, solar, and geothermal.
- Such projects contribute to distributed generation of electricity for communities and reduce reliance on the grid and (in some contexts) fuelwoods.[67]

Even for large projects focused on supplying the national grid, host communities should be considered a partner in recognition of the fact that they are providing the land for the project. This ensures that:

- Host communities are able to fully participate in decision-making
- Negative local impacts can be foreseen and minimized at the planning stage (and on a continuous basis as issues arise)
- Host communities will receive appropriate benefits such as electrification and a share of profits
- RE development can reinforce, rather than undermine, other sustainable development efforts by local communities' rights to their lands and natural resources

# 6. Consider working in partnership with Indigenous Communities

Indigenous activists worldwide are advocating for more inclusive, rights-based approaches to renewable energy development which recognize the agency of Indigenous peoples—see the work of the Right Energy Partnership as an example.[67]

For developing RE projects on Indigenous land, it is increasingly considered ideal for the Indigenous host community to be a partner in the project from the start.[35]

There are many examples of successful community-based renewable energy projects in Indigenous communities.

Work to strengthen Indigenous communities' technical understanding of RE and its potential environmental and economic benefits, and strengthening legal capacities, for communities to be better prepared to lead RE development on their terms.

For example, in Indonesia, the Enter Nusantara project[68] (supported by AMAN and Greenpeace), worked with Indigenous communities to support them in becoming energy self-sufficient through small-scale, distributed renewable energy including PV solar and micro-hydro.

This not only helped replace fossil fuel-based energy with RE, it also has social and economic benefits, as well as strengthening Indigenous sovereignty.

# 7. Sensitize and inform potentially impacted communities through public education & capacity development

Communicating with communities with high RE potential about the impacts and benefits of renewable energy can help to prepare those communities for future consultation processes and can potentially reduce conflicts between land rights holders and investors.[69]

Social dialogue and keeping communities informed is seen as a highly effective strategy at mitigating tenure-related risks to businesses. A recent study reported that over 90% of investors surveyed considered social dialogue to be a highly effective way of identifying community needs and achieving social license to operate. [70]

Community education and capacity development can help to alleviate imbalances in bargaining power that make meaningful consultation and true consent impossible to obtain.

# 8. Consider how to promote inclusion of women & marginalized groups in decision-making & benefit sharing

Findings from India and general evidence on gendered land rights[71] (including in large-scale land-based investments) suggest that in many locations for RE investments, we would expect women and other marginalized groups to have less voice in consultation and consent processes and potentially receipt of benefits.

However, gendered or intra-community power, participation, and benefit were not consistently being considered or tracked in the case study countries.

FPIC processes should identify these sub-populations and support their participation & power in consultation & consent.

Agreements & monitoring processes should acknowledge & track how these groups are participating & benefiting.

Resources for promoting inclusion of women and other vulnerable groups in decision-making around land-related projects can be found on the Responsible Investments in Property and Land (RIPL) Resource Platform. [72],[73],[74]

# 9. Where directly involved in RE development, incorporate land issues into due diligence processes

**Adequate and timely due diligence helps protect communities as well as minimizing funders' exposures to financial, operational, or reputational risks associated with community conflicts.**[70], [75], [76]

Key topics to evaluate through due diligence include:

- Prior ownership or use of the land, including registration or title, legal ownership rights, *as well as customary or de facto rights*
- The presence of Indigenous communities
- The community consultation & consent process, including who participated in the decision-making (see slide 34 on FPIC)
- Expropriation of land, displacement and resettlement
- Compensation and benefit sharing plans for impacted communities, and who is included and excluded from those plans (see slide 35)
- Current or historic land disputes and potential for future claims
- Grievance mechanism for impacted communities[77]
- Violence and retaliation against environmental and land rights defenders

In many contexts, following the law is not sufficient to prevent negative community impacts and ensure community acceptance of projects.

**References & Notes:**

[1] Landesa, *Why Land Rights Matter* (2015), https://www.landesa.org/resources/land-rights-matter/.

[2] Landesa, *From the Ground Up*, https://www.landesa.org/land-rights-from-the-ground-up/.

[3] Landesa, *Land Rights, Climate Change, and Environmental Stewardship* (2015), https://www.landesa.org/resources/climate-change/.

[4] Landesa, *Secure Land Rights: A Tool for Strengthening Food Security and Climate Resilience in the Global South* (2018), https://www.landesa.org/resources/food-security-climate-resilience/.

[5] Across all 7 countries, RE capacity has grown more than 33% between 2014 and 2018. From a "total energy production from renewables and other" of 4.932 quad BTU in 2014 to a total of 6.571 quad BTU in 2018. U.S. Energy Information Administration, https://www.eia.gov/international/data/world/total-energy/more-total-energy-data.

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