

KENNAN W. RAPP

SR. SOCIAL DEVELOPMENT SPECIALIST, ENVCF

ESMAP RENEWABLE ENERGY TRAINING PROGRAM, WIND POWER MODULE

ADDRESSING THE SOCIAL IMPACTS OF WIND POWER DEVELOPMENT



More on “Local Nuisance” Impacts

- **Noise: Often-cited concern, but significant mostly within wind farm boundaries**
- **Need to have a sufficient setback (>300 m suggested, also for blade/ice throw risks)**
- **Radar and telecommunications interference if within line-of-sight**
- **Aircraft safety—airport runways and approach paths (land-use planning); crop spraying**

Visual Impacts of Wind Power

- Visual impacts have been leading socio-environmental constraint to installing wind farms and their transmission lines (Europe and North America)
- Less concern in developing world thus far (turbines viewed as novelty or sign of progress)
- Shadow flicker is special case of visual impacts—and one that tends not to be explicitly regulated



Stakeholder Engagement Issues

- Individual/collective perceptions very important in determining nuisance impacts
- Many people like wind power in general, but not wind farms or transmission lines in their “backyards”: Effective stakeholder engagement is key
- Importance of prior information sharing
- Opportunities for dialogue and negotiation, as appropriate
- Relevant Safeguards: Multiple policies, including Access to Information (IBRD/IDA) and Disclosure of Information (IFC)



Socio-Economic Aspects

- **Local employment:**
Considerable short-term job creation during project construction, more elusive job creation during project O&M
- **Increased income:** Double benefit for rural landowners
- **Income diversification:** Addition of steady income from wind farm leases to income from pre-existing uses of the same land
- **Relevant Safeguards:** OP 4.12-PS 5, OP 4.01-PS 1



Land Acquisition Options

- **Land acquisition for onshore wind farms and their complementary infrastructure: Expropriation, purchase, lease/rental, easements**
 - Trade-offs between voluntary and compulsory approaches
- **Potential displacement, requiring resettlement, when land is expropriated**
 - Standards for compensation for livelihoods impacts and lost income/assets
- **Land purchases and lease/rental tend to be much more common**
- **Imposition of easements and complementary infrastructure**

Socio-Cultural Aspects

- Involvement of indigenous and traditional rural populations: Over-representation in areas most suitable for wind power development
- Impacts on Physical Cultural Resources (archaeological, fossil, historical, religious, sacred sites or objects): Need protection or salvage; chance finds procedures
- Relevant Safeguards: OP 4.10-PS 7, OP 4.11-PS 8, OP 4.01-PS 1



Indigenous Peoples Issues in Relation to Wind Power

- Potential for cultural disruption:
Introduction of changes that IPs may find undesirable or unwelcome
- Need for culturally sensitive consultations
- Evolving international standards for consultations
- Approaches to culturally compatible benefits-sharing:
Often requires the delivery of collective benefits



Social Impact Mitigation/Enhancement Measures During **Project Planning**

- Use of social planning tools: SIA/Social Assessment and SESA, accompanied by social management plans
- Importance of careful site selection, taking into account social as well as environmental criteria
 - Active engagement of multiple stakeholders from the earliest stages
- Selection of wind power equipment in order to reduce noise and visual impacts, including shadow flicker
 - Avoiding the placement of wind turbines in the vicinity of dwellings

Social Impact Mitigation/Enhancement Measures During **Project Construction** and **O&M**

- Inclusion of social management requirements in legal agreements, bidding documents, and contracts
- Importance of diligent field supervision
- Involvement of indigenous and traditional rural populations:
Need culturally compatible approaches
- Importance of appropriate benefits-sharing arrangements

Benefits-Sharing Options

- **Defining who is a “stakeholder”**
- **Types of lease/rent or royalty payment arrangements**
 - Lump-sum, fixed, royalties, royalties with minimum guarantee
- **Importance of local benefits programs**
 - Link between provision of various community-based benefits and CSR
- **Local employment opportunities**
- **Community-based wind power schemes**

KENNAN W. RAPP
SR. SOCIAL DEVELOPMENT SPECIALIST, ENVCF
KRAPP@WORLDBANK.ORG

Thank You.

The World Bank | 1818 H Street, NW | Washington DC, USA
www.esmap.com | esmap@worldbank.org

