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
Thank You.

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