

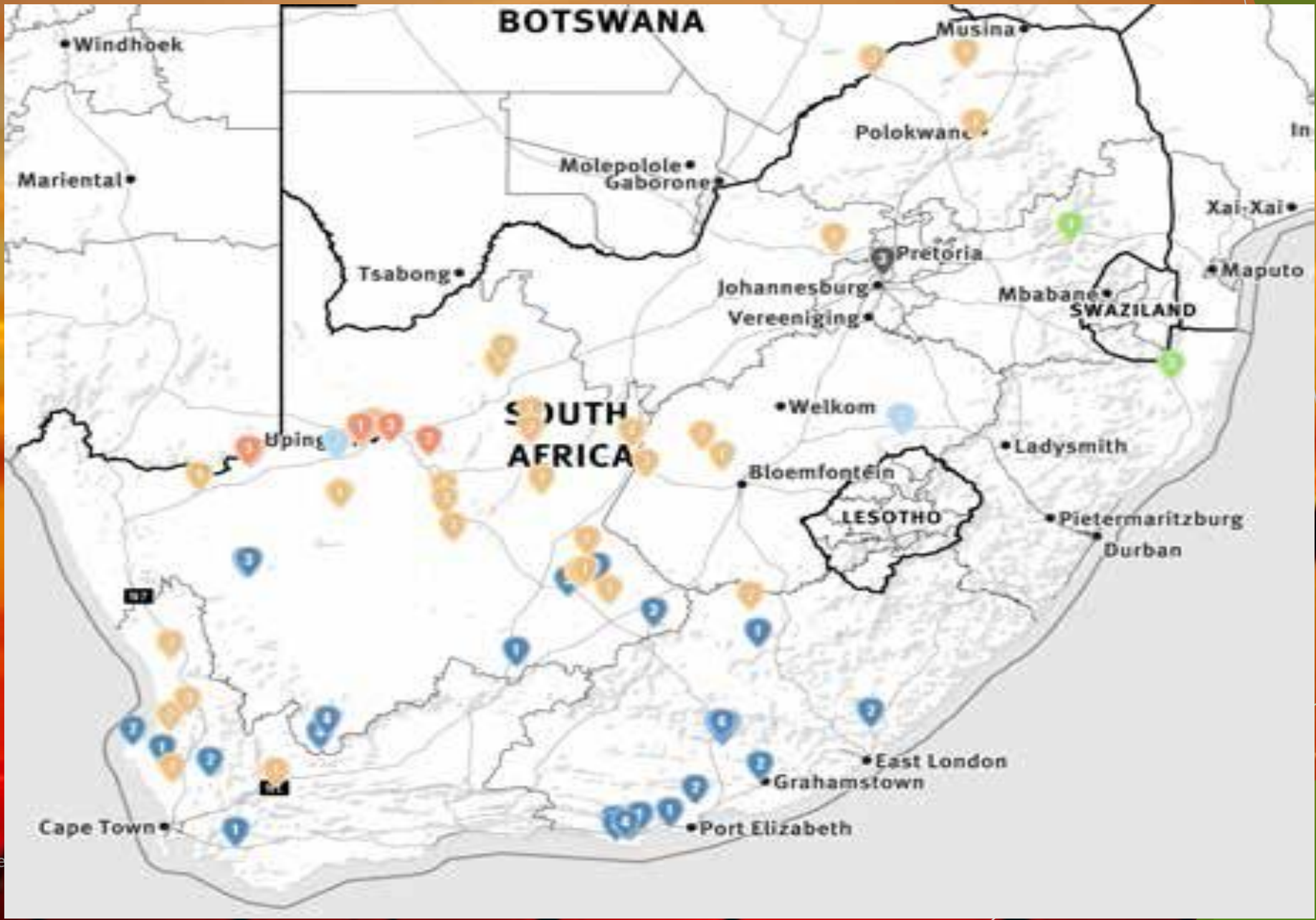
# Figuring out which way the wind blows: Developmental impacts of wind energy projects in South Africa



**Prof Doreen Atkinson**  
Trustee, KDF

Research Associate: University of the Free State





## What the conflict is about ...

... in other countries:

- NIMBY - Not in My Back Yard
- Impacts on landscape - aesthetics, acoustics
- Impacts on biodiversity
- Impacts on tourism
- Impacts on “sense of place”





**The wind farm is built along a Vermont ridgeline.**

Photo courtesy of First Wind

# ARGUMENTS AGAINST-



Joahler OZUN GREEN ENERGY GAZETE

## In South Africa ...

By 2015 - 79 renewable energy projects approved  
Effective, streamlined, rapid roll-out ...

A general acceptance of wind energy projects

Compared to:

- Shale gas mining
- Uranium mining
- Square Kilometer Array

So are we prepared for the impacts?



# NO ONE SIZE FITS ALL!

Very important caution: Boomtowns are not all the same, due to:

- Type of impetus (mining, renewable energy)
- Original conditions
- Socio-economic and demographic structure
- Natural features, location, climate
- Leadership



# Four causal pathways linked to the “boomtown” phenomenon

1. Local economic development/growth
2. Migration patterns
3. Altered social relations
4. The “politics of planning”.





## After the boom ...

- Town may keep booming
- Or may plateau
- Or may decline slowly
- Or may decline catastrophically (“bust”)
- Or may simply change their nature, e.g. from agriculture to mining.

### Communities:

- May adapt and grow
- Or may descend into conflict and dysfunction.



# The South African scenario

- Mining, renewable energy, SKA telescope: Driven by national government
- Investments in rural, remote areas
- Investments on agricultural land
- New sectors unfamiliar to local people
- Municipalities out of their depth - often actively avoided by REIPP companies
- Rapid rate of change ... a change of pace!
- Integrated development planning system not up to scratch, no integration with Spatial Development Frameworks
- Unequal distribution of information between companies and municipalities
- No benefits for municipal revenue (short-term)
- Provincial governments not understanding the issues and not guiding municipalities



## Pathway #1: Local economic multipliers

- (a) Direct impacts - direct spend, jobs, typically construction
  - (b) Indirect impacts - where people spend their money in the locality
  - (c) Induced impacts - leverage new kinds of economic services.
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- Quantitative impacts - circulation (“velocity”) of money
  - Qualitative - shifting between economics sectors.



## Intermediate variables in economic impacts related to renewable projects

1. Local skills - people can take up the jobs (e.g. professionals, artisans)
2. Rentals of land - income for farmers - and their local spending patterns
3. Hospitality sector - contractors
4. Impacts on tourism - good or bad? “Green tourism”?



## Pathway #2: In-migration

1. Job-seekers
2. Itinerant specialised teams
3. Typically young men, without families
4. May create a “migrant path” - find informal housing, encourage other people from home to arrive
5. Pressure on housing
6. Pressures on municipalities - planning, finance, purchasing land, infrastructure, construction



# Changing “sense of place” in Darling ...



# Pathway #3: Altered social relations and institutions

- “**Social disruption thesis**” - inevitable social and psychological dislocation and breakdown of established community social structures
- Rapid influx of strangers - different values, habits, cultures
- Inflationary pressures
- Young people may get jobs - or may lapse into crime and drug abuse
- Marginalisation of local people due to lack of skills
- Crime, sexual exploitation, teenage pregnancies, traffic
- Undermine sense of community; local jealousies
- Decline in local quality of life, uncertainty, anxiety, stress
- Challenges for public services - police, social dev, health ...



## Is it always that bad?

- Decline in crime, due to new jobs
- Increased skills and employability
- New cycles of job creation in other sectors
- Corporate social responsibility!



South Africa's REIPP - Major share of revenue to be spent locally - will release billions of rand for local development.





# “Too much of a good thing”?

1. The 50 km radius ...
2. Double funding in some communities, no funding in others
3. Selection of beneficiaries and projects
4. Management of projects and funding flows
5. Measuring impacts
6. Different companies have different approaches - is anyone comparing them? What works? What lessons?
7. Are municipalities aware of what is going on?

# Pathway #4: The Politics of Planning - affecting remote communities

Complex interaction between national, provincial, municipal government, and private sector

**Schedules 4 and 5 of the Constitution: Municipal functions impacting wind energy:**

Building regulations, firefighting services, local tourism, municipal airports, municipal planning, municipal public works, municipal roads, noise pollution, and traffic management.



# Emerging conundrums ...

- ▶ Who really takes decisions?
- ▶ How decentralized is decision-making?
- ▶ How do levels of government interact?
- ▶ Municipal permits for land use change - are they able to cope with impacts?
- ▶ Internationally: Major disagreement about the desirable level of decentralization.

# Spatial Planning and Land Use Management Act (2013)

- ▶ Municipalities MUST participate in national and provincial development programmes
- ▶ The MUST compile Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs)
- ▶ Must have a coherent approach to spatial development
- ▶ IDPs and SDFs must involve public engagement
- ▶ Must protect high-potential agricultural land
- ▶ Municipalities must have approved land use schemes *with the force of law*, which will bind all organs of state.

Hence municipalities as king-pins.

# The future of Large, Rapid, Novel projects in Remote Areas in SA

- ▶ “Helicoptered projects” channelled by national government
- ▶ Bypass provincial and municipal government (no mention of municipalities in Department of Energy’s *State of Renewable Energy in South Africa*)
- ▶ Work directly with communities
- ▶ Very little Monitoring and Evaluation

AND YET

Municipalities will become the key element in the intergovernmental system (SPLUMA).

# Controversial new themes in rural South Africa (based on WINDAC, thus far ...)

- ▶ “Rural industrialisation” - mix of blessings and problems - preservation of pristine places?  
(The Karoo as a destination of “peace, silence and solitude” ...)
- ▶ Wind resources along the escarpment - impacts on “viewsheds” as well as wildlife
- ▶ Municipalities as electricity selling intermediaries: How will they buy into the *Consumers as “prosumers”* concept?