Developing Good Practice for Managing the Cumulative Impacts of Coal Mining on Regional Communities in Australia

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Overview

- Working Definition
- Cumulative Impacts and Mining
- The Australian Coal Industry
- Cumulative Impact Approaches and Practice
Our working definition

- The successive, incremental and combined impacts, both positive and negative, of multiple mining and processing operations on a community or region and the environment over time.
Our working definition

- Intensity & spatial/temporal extent.
- Linear & ‘tipping points’.
- Additive & persist over time; not ‘spikes’.
- Positive & negative.
- Source & sink
- ‘Reverse cumulative impacts’: i.e. compounding effects of multiple mine closures.
Mine factors

Mine specific impacts

Inputs & extractions

Outputs

Aggregation
(time & space)

Interaction
(triggers & associations)

Feedback

Receiving Environment

Exogenous factors

Mine A

Mine B

Mine C

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Cumulative Impacts and Mining

- Rapid resource development in several Australian mining regions increased attention on ‘cumulative impacts’.
- In mining context cumulative often ‘multiple mines’.
- Terminology now applied to social as well as environmental.
- Emerging as a focus of government policy.
- At the regional level, mining companies are starting to collaborate more to address multi-mine issues.
The Australian Coal Industry

- World largest exporter of Black Coal; 4th largest producer
- 311 Mt production 2006-7; A$22.3 billion in exports
- Direct employment 28,000 people
- Main regions:
  - **Queensland** (54 mines): Bowen Basin, Surat (emerging), Galilee (emerging).
  - **New South Wales** (>60 mines): Hunter Valley, Gunnedah (emerging).
- Qld Coal industry will double 2000-2010
Bowen Basin

- Mining relatively dispersed
- 37 mines with 22 mines & 8 expansions under development
- FIFO and DIDO
- CI - social and human capital (housing, social services, inflation, employment disparity)
- e.g. rents in Emerald & Moranbah up to A$900 p/w for 4br house – 100% more expensive than Brisbane.
Hunter Valley

- Mining high density
- ‘mature’ mining region
- Sydney Basin = >60 mines with 20 mines under development
- CIs – amenity, noise, water quality (salinity) & quantity, biodiversity, dust, identity, employment (+ve) and company spend (+ve).
Approaches and Practice

Governance and Coordination

- Multi-stakeholder arrangements (e.g. Moranbah Growth Management Group; Pilbara Industry Community Council)
- Industry collaborations
  - networks & forums (e.g. HV Environment Managers Forum)
  - formal organisations (e.g. Kwinana Industry Council; PICC)
- Theme specific coordinating groups (e.g. Commonwealth – MCA MOU)
- Qld Gov Coal Industry Taskforce
Approaches and Practice

Activities

- Mitigation (e.g. Hunter Valley Salinity Trading Scheme)
- Enhancement (e.g. PICC Indigenous Employment)
- Measuring and Monitoring (Data)
- Information Management
- Assessment - required in Qld and NSW but in practice modest
- Research (thresholds) (e.g. Moranbah Town Sustainable Management Framework)
Sustainable Resource Communities Policy
Queensland Government
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- **Statewide Partnership Group** (state & local gov and industry)
- **Local Leadership Groups** (regional planning and key projects)
- **Social Impact Plans** (management plans - condition of tenure)
- **Social Impact Assessment** (new function within government)
- **Emphasis on Regional Planning** (link to gov plans)
Industry Collaboration

Early

- Information exchange
- Advocacy on common issues
- Pooling of resources to support specific initiatives & programs
- Coordination of industry responses to CIs of high concern to stakeholders
- Facilitation of synergies
- Collective management of data

Advanced

- Proactive management (e.g. timing and location of developments)
Questions

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