Forging the links between urban development plans and climate action plans

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Development challenges include inequality, poverty, and economic growth. The Gini Coefficient is 0.66, indicating high income inequality. Transport costs range from 20% to 35%. Food insecurity affects more than 42% of the poor population, who live below the minimum level of dietary energy consumption. Unemployment is high, with 25% to 40% unemployment rates.

Climate challenges include heat waves, floods, and water scarcity, which impact city environments.
Spatial challenges closely linked to resource inefficiency

- Spatial inequalities and the job-housing mismatch
- Increasing pressure on the natural environment
- Urban sprawl and fragmentation
- Exclusion and disconnection
- Inefficient residential densities and land use patterns

Urban inefficiency = high carbon emissions

Job Housing Mismatch

Joburg Carbon Footprint

Inefficient Residential Patterns

- Industry & Commerce: 7,047,868 tonnes
- Transport: 6,087,678 tonnes
- Household: 5,973,963 tonnes
- Local Authority: 276,600 tonnes
- Other: 157,963 tonnes

People per square km

Paris (Peaks)
Paris (Average)
Public Transit Threshold

0-300 jobs/km²
301-800 jobs/km²
801-1500 jobs/km²
1501-3000 jobs/km²
3001-5000 jobs/km²
5001-10000 jobs/km²
10001-50000 jobs/km²
Opportunities to create low carbon restructuring zones:

- Modal Density
- Job Density
- Social Density
- Residential Density

City’s Spatial Development Plan – on the backbone of it’s Transport Plan
Nodal and Density policies in support of compaction

Urban Potential Modelling
Impact analysis of the development scenarios

- 2 million more people by 2040

- Compact Strategy

**Transport energy consumption per capita (MJ/cap)**
- Now: 9.3
- Business as Usual: 14.9
- Linear Densification: 13.1
- Compact Strategy: 10.0

**Carbon per capita (kgCo2/cap)**
- Now: 651
- Business as Usual: 1043
- Linear Densification: 919
- Compact Strategy: 700
Strategic alignment between budget and transformative urban plans

Work required to:

- Include *climate change imperatives* into City’s budgeting prioritisation system
- Include *green standards and outcomes* at a project level
- Project budgets to reflect climate change considerations – undertake *detailed financial analysis* on low-carbon infrastructure development, including full cost and co-benefits accounting

Assist to translate climate action into *bankable projects* for access to other sources of finance.
### REQUIREMENT OF THE BILL

#### Provincial Committee on Climate Change
- Mayors expected to participate:
  - Climate Change Needs and Response Assessment
  - Climate Change Implementation Plans
- To be chaired by the MEC (or Premier?)

#### Climate change needs and response assessments
- Mechanism will be put in place to support this action
- To be developed 1 year after the Act.

#### Climate change response implementation plan
- Required 2 years after the implementation of the Bill
- DEA is expected to develop tools to support Cities

#### Sectoral Emissions Targets (SETs)
- GHG emission allowances allocated to an emitting sector or sub-sector over a defined time period
- Mayor must support the implementation of the SETs

#### Carbon Budget
- Refers to GHGs allowance allocated to a Person
- Minister to determine GHG Emission threshold
- Develop Mitigation Plans

#### Monitoring, Evaluation & Assessment
- development and implementation of needs and response assessments
- climate change response implementation plans, National adaptation objectives

### COJ CLIMATE ACTION PLAN PROCESS

#### Governance & coordination of the Climate Action Plan
- Governance structures
- Vertical integration
- Community and business engagement
- Consider Municipal Climate Change Committee (led by the Mayor for political coordination)

#### Status quo analysis
- Assessment of needs (human resource, budget)
- Assessment of climate change projects
- Risk & Vulnerability status

#### Climate Action Plan implementation
- Identification of actions
- Costing of actions (CBA tool)
- Determining implementation period

#### Scenario modelling and target setting
- Targets for Waste, Transport, Energy, AFOLU sectors
- CoJ carbon offset project (Energy, Transport, Waste Water and Waste)

#### Carbon Budget
- Setting of carbon budget (Tones Co2eq/annum) for activities with significant GHG emissions
- CoJ should develop Mitigation Plans for activities above the national threshold

#### Monitoring, Evaluation & Assessment
- Establishing a super M&E (including reporting) system through the SAP
- Understanding co-benefits and impacts
- Linking the system with the national climate change information system
• **Broad governance challenges:**
  - The institutional placement of overall climate governance within the City
  - There should be clear performance indicators linked to the Sustainable Development Framework, cutting across departments and entities
  - Review and alignment of a range of Corporate service policies required
  - Institutionalising sustainability or low-carbon development in the City
  - Broadening the concept of climate governance to include not only the public sector, but the private sector and civil society.

• **Technical challenges:**
  - Policy development is urgent, because there’s a lag between policy development and action implementation
  - Data management systems are not in place yet – implications for establishing baselines; setting of targets and monitoring and evaluation