Streamlining environmental planning in Strategic Integrated Projects (SIPs)

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Background

• Government has identified that after 18 years of democracy, poverty, unemployment and inequality is still a challenge
• The New Growth Path
  – sets a goal of 5 million new jobs by 2020
  – Identified that poor coordination and weak integration limits the development impact of infrastructure
  – identified structural problems in the economy to be overcome
  – Identified opportunities in specific sectors and markets or “jobs drivers”
  – the first jobs driver is infrastructure development
• PICC was established to:
  – coordinate, integrate and accelerate implementation of infrastructure projects
  – develop a single common National Infrastructure Plan that will be monitored and centrally driven
  – identify who is responsible and hold them to account
  – develop a 20-year planning framework beyond one administration to avoid a stop-start pattern to the infrastructure roll-out
Overview of needs analysis

SIPs were selected to address the spatial imbalances of the past by addressing the needs of the poorer provinces and enabling socio-economic development.

Needs analysis done –
Indicated possible bulk infrastructure requirements

- Electricity
- Water
- Transport
- Town planning
- Ports etc.
18 Strategic integrated projects identified

- 5 Geographically focussed
- 3 Spatial SIPs
- 3 Energy SIPs
- 3 Social Infrastructure SIPs
- 2 Knowledge SIPs
- 1 Regional Integration SIP
- 1 Water and Sanitation SIP

- Regional clustering of projects linked with major corridor projects
• SIP 1: Unlocking the northern mineral belt
Geographic SIPs

- SIP 2: Durban-Free State-Gauteng logistics and Industrial corridor
  - Strengthen the logistics and transport corridor between SA’s main industrial hubs
  - Improve access to Durban’s export and import facilities
  - Integrate Free State Industrial Strategy activities into the corridor
  - New port in Durban
  - Aerotropolis around OR Tambo International Airport.
Geographic SIPs

- SIP 3: South Eastern node & corridor development
  - New dam at Mzimvubu with irrigation systems
  - N2 Wild Coast Highway – improved access into KZN and national supply chains
  - Strengthen economic development in Port Elizabeth through a manganese rail capacity from Northern Cape
  - A manganese sinter (Northern Cape) and smelter (Eastern Cape)
  - Possible Mthombo refinery (Coega) and trans-shipment hub at Ngqura and port and rail upgrades to improve industrial capacity and performance of the automotive sector.
Geographic SIPs

• SIP 4: Unlocking the economic opportunities in the NW Province
  – Acceleration of investments in road, rail, bulk water, water treatment and transmission infrastructure
  – Enabling reliable supply and basic service delivery
  – Facilitate development of mining, agricultural activities and tourism opportunities
  – Open up beneficiation opportunities in North West Province.

• SIP 5: Saldanha-Northern Cape development corridor
  – Integrated rail and port expansion
  – Back of port industrial capacity
  – Strengthening maritime support capacity for oil and gas along African West Coast
  – Expansion of iron ore mining production and beneficiation
Energy SIPs

SIP 8: Green energy in support of the South African economy

- Support sustainable green energy initiatives envisaged in the Integrated Resource Plan (IRP2010) and
- support bio-fuel production facilities.

SIP 9: Electricity generation to support socioeconomic development

- Accelerated construction of new electricity generation capacity in accordance with the IRP2010 to meet the needs of the economy and address historical imbalances.

SIP 10: Electricity transmission and distribution for all

- Expand the transmission and distribution network to address historical imbalances, provide access to electricity for all and support economic development
Spatial SIPS

SIP 6: Integrated Municipal infrastructure project
- Support sustainable green energy initiatives envisaged in the Integrated Resource Plan (IRP2010) and
- Support bio-fuel production facilities

SIP 7: Integrated urban space and public transport programme
- Integrated public transportation network such as commuter rail, taxis, buses, BRT, integrated ticketing and intelligent transport systems
- Housing
- Water and sanitation

SIP 11: Agri-logistics and rural infrastructure
- Expand the transmission and distribution network to address historical imbalances, provide access to electricity for all and support economic development
Social Infrastructure SIPs

SIP 12: Revitalisation of public hospitals and other health facilities

- Refurbish hospitals & other public health facilities
- revamp 122 nursing
- 6 new hospitals

SIP 13: National school build programme

- address national backlogs in classrooms, libraries, computer labs and admin buildings

SIP 14: Higher education infrastructure

- lecture rooms, student accommodation, libraries and laboratories, as well as ICT connectivity.
- Development of university towns with a combination of facilities from residence, retail to recreation and transport.
- Two new universities - in Northern Cape and Mpumalanga.
Knowledge SIPs

- SIP 15: Expanding access to communication technology
  - Provide for broadband coverage to all households by 2020
  - Private sector will invest in ICT infrastructure for urban and corporate networks
  - Township and rural access, as well as for e-government, school and health connectivity
  - TV migration, nationally from analogue to digital broadcasting.
Knowledge SIPs

- SIP 16: SKA & Meerkat (include this into the mining SIPs due to hydraulic fracturing) – opportunity for Africa and South Africa to contribute towards global advanced science projects
Regional SIP

SIP 17: Regional integration for African cooperation and development

Participate in mutually beneficial infrastructure projects to unlock long-term socio-economic benefits by partnering with fast growing African economies with projected growth ranging between 3% and 10%.

- **Bulk Water Resources:** Lesotho Highlands
- **Electricity Transmission:** Mozambique (Cesul)
- **Transport:** Regional Interconnectors
- **Hydro Power:** DRC (Grand Inga), Zambia, Lesotho, and Mozambique (Mphanda Nkuwa)
Water and Sanitation SIPS

- **SIP 18: Water and sanitation infrastructure**

Provide for new infrastructure, rehabilitation and upgrading of existing infrastructure, as well as improve management of water infrastructure.
Environmental Authorisation - SIPS

- SIP approach represents a new way of developing projects - Integration of components into overall plan – to achieve a specific outcome
- Very large projects – will trigger a significant number of environmental authorisations
- Many projects are corridor projects or clustered in one region
- Components are interrelated, run to different timeframes and have a number of different proponents
- Oversight by one central body at high level – PICC
- Department of Economic Development – drafted Infrastructure Development Bill to ensure the effective implementation of the SIP program

Infrastructure Development Bill

- Objectives
  - Continued existence of PICC
  - Defines a SIP and identifies how a projects becomes a SIP – Cabinet approval
  - Ensure the unimpeded implementation of SIPS
  - Determines the establishment, appointment and functioning of Steering committees
  - Allows for expropriation of land required for SIPS
  - Requires coordination of Departments with mandates for authorisations
  - Provides for Management Committees – chaired by DGs to ensure cooperation and facilitation of authorisations and implementation

- Chapter on approvals, authorisations, licences, permissions, and exemptions
  - Simultaneous applications
  - Timeframes for authorisations – 250 days
Revised EIA process/IDB proposal

Pre-application (Optional)

Application
- 7 days: Acknowledge & accept or reject
- 30 days public participation
- 10 days for EAP to incorporate PP comments

Draft Scoping Report

Scoping Report
- 60 days

Draft EIR & Draft EMPr
- 30 days Public Participation
- 14 days to finalise

EIR and EMPr

No substantive changes to Draft (V3)
- 7 days Acknowledge
- Additional 30 days for PP if substantially Different
- 30 days Accept or Reject
- 20 days for decision

Substantive changes to Draft (V3)

Review Committee

Review Committee

193 days

7 days: Acknowledge & accept or reject

14 days: Finalise

60 days

14 days

57 days

DECISION

Total 250 days or 300

Total 263 days

Project plan approved and steering committee determines that scoping and environmental impact assessment required.

Developer\(^1\) compiles and submits scoping report and plan of study and public\(^2\) participation commences.

Steering committee requests comments from organs of state and public.

Organs of state comment and public participate.

Steering committee, including the developer, considers comments and representations made by public and organs of state.

Developer compiles and submits final scoping report and plan of study.

Department of Environmental Affairs\(^3\) considers and decides on final scoping report and plan of study.

Department of Environmental Affairs and other members of steering committee consider and comment.

Developer compiles and submits final environmental impact report and environmental management plan and commence participation by public and organs of state.

Department of Environmental Affairs considers reports and issues decision.
DMR decides upon Mining right within 50 days (10 days MLA, 10 days RM, 10 days RLC, 20 days National Licensing). If MR is not approved EA and WUL also not approved. If approved DWA notified to approve as recommended. DWA sits on RLC. EA Decision made together with granting / Refusal of right.
Environmental Authorisation - SIPS

SIP 8: Green Energy in support of South African economy

- DEA – Environmental Authorization
  - Monitoring towers/facility/grid
- DWA – WUL
  - Use of open water bodies for construction
    - river/wetland crossings
- DAFF
  - Registering Servitude/long lease of agricultural land/sub-division of agricultural land/site location on agricultural land (marginal)
- SAWS/Heritage/DMR/Air Traffic and Navigation Services
- Provincial authority
  - Change of land use
- Local Government
  - Building plans
- Land acquisition – Department of Labour

Current EA process

- Cascading Environmental Authorisations
  - Mining licence, EIA, WUL, LUPO
- Limited coordination between departments
- Possible to receive conflicting authorisations – Mining
- For environment only use EIA tool

Current EIA process

- Initiated once project has been approved by the board/post feasibility
- Does not address policy issues – tolling, nuclear safety, nuclear waste – used in appeals
- Site specific process – limited ability to consider cumulative impacts
- Current EIA process does not set timeframes for receiving of documents
- Unlikely that every Competent Authority is aware of every national and provincial guideline
- Does not address a program/plan
Cumulative impacts in forestry

Satellite imagery showing the expansion of commercial forestry near Belfast in Mpumalanga Province (red denotes plantations, blue-green denotes natural vegetation)
Scale of projects – PV facility
Brandenburg Germany
Authorisations response to SIPs

Set up coordinating structures

- SIPs item on MinTech & MinMec agenda
- SIP WG set up –
  - SIP coordinators
  - Competent authorities
  - Other authorising departments (land, air, water)
- Matrix of authorisations to be populated – time, type, CA
- Attend SIP coordinating meetings

Group SIPs into similar authorisation components

- Grouping of SIPs
  - Corridor developments – pipelines, transmission lines
  - Large development projects – ports, IDZ’s
  - Nodal projects and recurring components – transport nodes
  - Coal based projects with climate change and air emissions impacts – refinery, Coal 4
  - Mining related projects – new mines
  - Projects not requiring authorisation
- Proposed an authorisation approach using new IEM tools for each grouping
Proposed authorisation approach

SIP 8 – example of approach

Adopting a strategic and innovative approach offered by SEA

- Identify geographical areas most suitable for the rollout of renewable energy projects

- Methodology – positive and negative mapping
  - Positively map wind and solar radiation resources
  - Negatively map environmental sensitivity
  - Scenario analysis – trade offs
  - Site specific protocol at construction

- Aim
  - Cabinet approval of corridors/zones – all Departments buy into process
  - Delist energy activities (including the grid expansion) in the corridors/zones identified – subject to conformance to site specific protocol and EMP (only do assessments where issues identified)
  - Allow opportunity to explore cooperation between authorising Departments to identify streamlined approaches
Wind Potential
Positive mapping - resources
Environmental sensitivity

Strategic Environmental Framework for the Selection of Sites for Wind Farms in South Africa

Location of EIA Applications i.e., All Criteria

- Low Suitability
- Medium Suitability
- High Suitability
- Farms Related to EIA Applications
Corridor projects – SIP 10
(pipeline, road, rail)

Response plans to needs of bulk electricity demand and supply
Proposed authorisation process SIP 10

Constraints with current authorising approach

• Long term planning required
• Thousands of km of lines
• Several thousand sub-stations – resources significant
• Authorisations expire
• Direct grid extension over specific land parcels – inflexible & high costs
• Cumulative impacts not determined
• High instances of appeal – no agreement on land acquisition prior to EIA
• Routing to be amended due to additional users – new EIA or amendments – advertising and risk of appeal
Proposed authorisation process SIP 10

Advantages

- Scope for discussion with land owners and affected parties prior to submission of final layout
- Limited risk of appeal
- Ability to avoid sensitive areas – large area approved
- Reduced costs of assessment – don’t do studies where no sensitivity is identified
- Broad participation – high level agreement on graded sensitive areas
- Full participation on site specific protocols – done upfront
- Coordination of environmental authorisation requirements through SEA
- Possibility of general exemptions if issues assessed through SEA – WUL
- Belts and braces approach to environmental protection – through SEA high level – site specific through requirement to adhere to site protocol – 3rd assessment on construction
- EMPR is specific and relevant – done at time of construction

- SEA on the entire expansion proposal
- Assessment of sensitivities over a 60km wide study area
- Identification of no-go areas
- Grading of sensitive areas
- Identification and mapping of site specific protocols based on graded sensitive areas
- Approval of routes on condition to submission of final layouts conforming to site specific protocols
- No sensitivity – no requirement
- Sensitivity to heritage –
  - heritage impact assessment assessed by heritage specialist
  - Mitigation measures approved and EMPR approved by heritage specialist submitted
- Site specific public participation
- Approval of standard EMPRs for substations – site specific chapter for review – reviewed through a transparent process every three years
Consideration of Mining SIPs
SIPs and Biodiversity

• Have mainstreamed biodiversity into mining

• SIPs is an opportunity to mainstream biodiversity into infrastructure development

• Can influence planning in three phases
  – Identified levels of acceptable change
  – Screen out entire areas – no go development areas
  – Influence the site protocols – types, scale and siting of developments
SIPs – an opportunity for mainstreaming Biodiversity into SIPs development & implementation plans

• Biodiversity planning forum
  – Consider how the information on biodiversity priority areas can be repackaged to support the SIPs process
  – Identify “no go mining areas” and “no go development areas”
  – Use the opportunity to include “no go mining areas” into section 49 of the MRRD
  – Use the opportunity to list “no go development areas” in terms of NEMA

• With the understanding of the authorisation process
  – identify any areas for expansion of information
Thank you for your attention I hope that the SIPs program can stimulate debate and can provide an opportunity for further mainstreaming of Biodiversity.