Maturing to Tangible Impact Assessment (IA) on Small-scale Construction Projects

Bharat Gordhan

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Agenda

- Introduction
- Environmental Legislation Evolution
- Environmental Culture on a Construction Site
- Impact Assessment during Construction
- Conclusion
- Questions

Sediment Pollution

Sediment pollution costs $16bn in environmental damage annually and is the most common pollutant affecting watercourses.

- EPA, USA, 2018 Factsheet

In Australia – the effect of sediment on the Great Barrier Reef… $8.2 bn as clean up costs

Environmental Legislative Evolution

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Environmental Legislations

South Africa

National Environmental Management Act, 1998 (Act No. 107 of 1998) (“NEMA”)

NSW, Australia

Environmental Planning and Assessment Act, 1979 (Act No. 203 of 1979) (“EPA Act”)

Universal Principles:

- Stakeholder Consultation
- Impact Identification
- Impact Assessment
- Mitigation Measures

Small-scale Road Project

South Africa

- South African National Roads Agency Limited (SANRAL)
- Independent Consultant appointed for BA / EIA
- SANRAL cannot make environmental decisions as responsibility and jurisdiction with DEA

NSW, Australia

- Roads & Maritime Services (RMS)
- Environmental team within RMS does environmental assessment “fullest extent possible” (using EIS / REF)
- RMS is a determining authority, as delegated by the EPA Act sharing responsibility
- Does not overburden the EPA

What are the results of such an evolution?

One environmental authority model → **Shared determining authority model**

- Focus on infrastructure delivery while considering environmental matters
- Responsible and capable environmental team
- Unsuccessful if subjected to corruption and sub-standard assessment

Environmental Culture on a Construction Site

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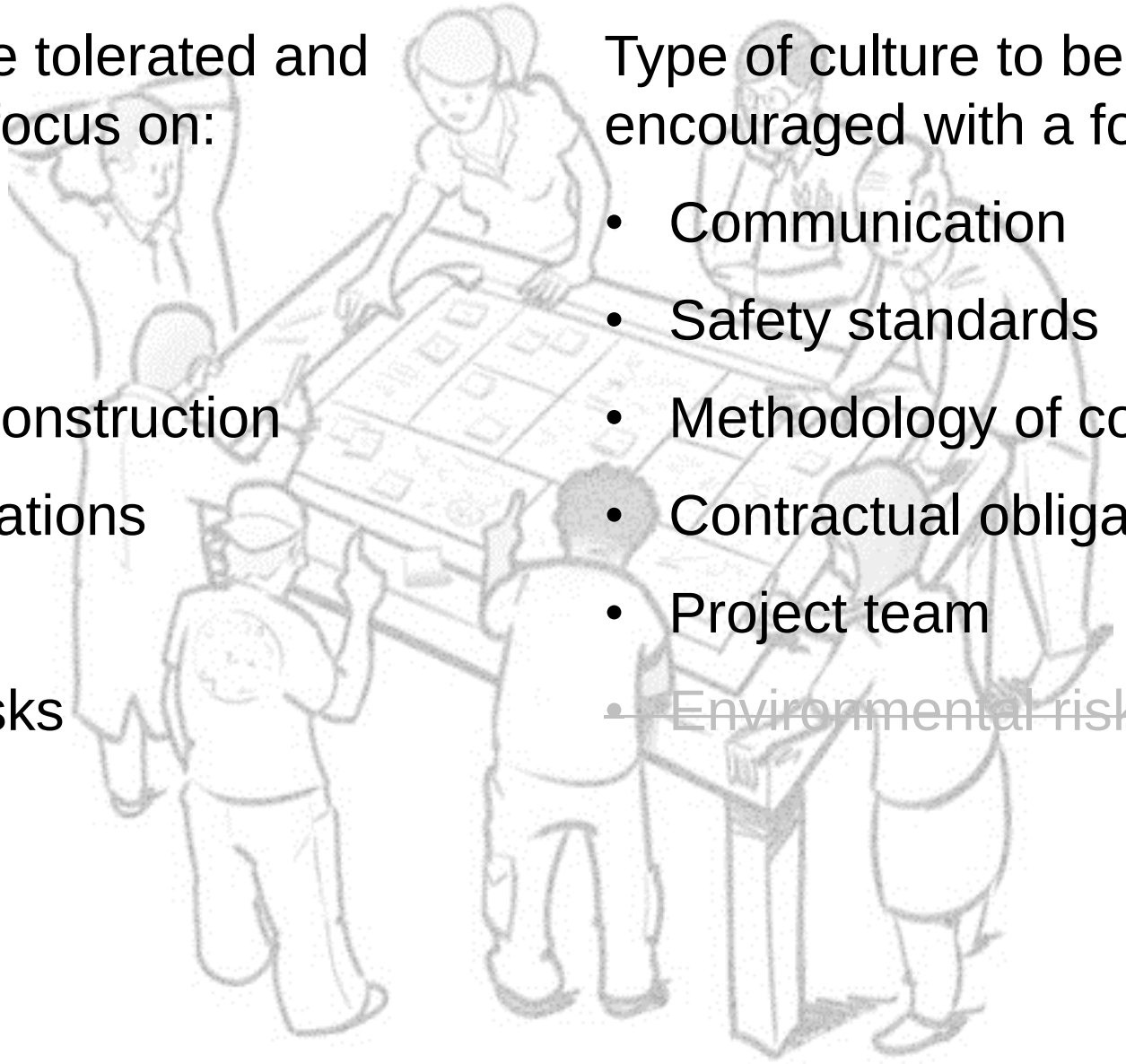
Large-scale Project

Type of culture to be tolerated and encouraged with a focus on:

- Communication
- Safety standards
- Methodology of construction
- Contractual obligations
- Project team
- Environmental risks



Small-scale Project

Type of culture to be tolerated and encouraged with a focus on:

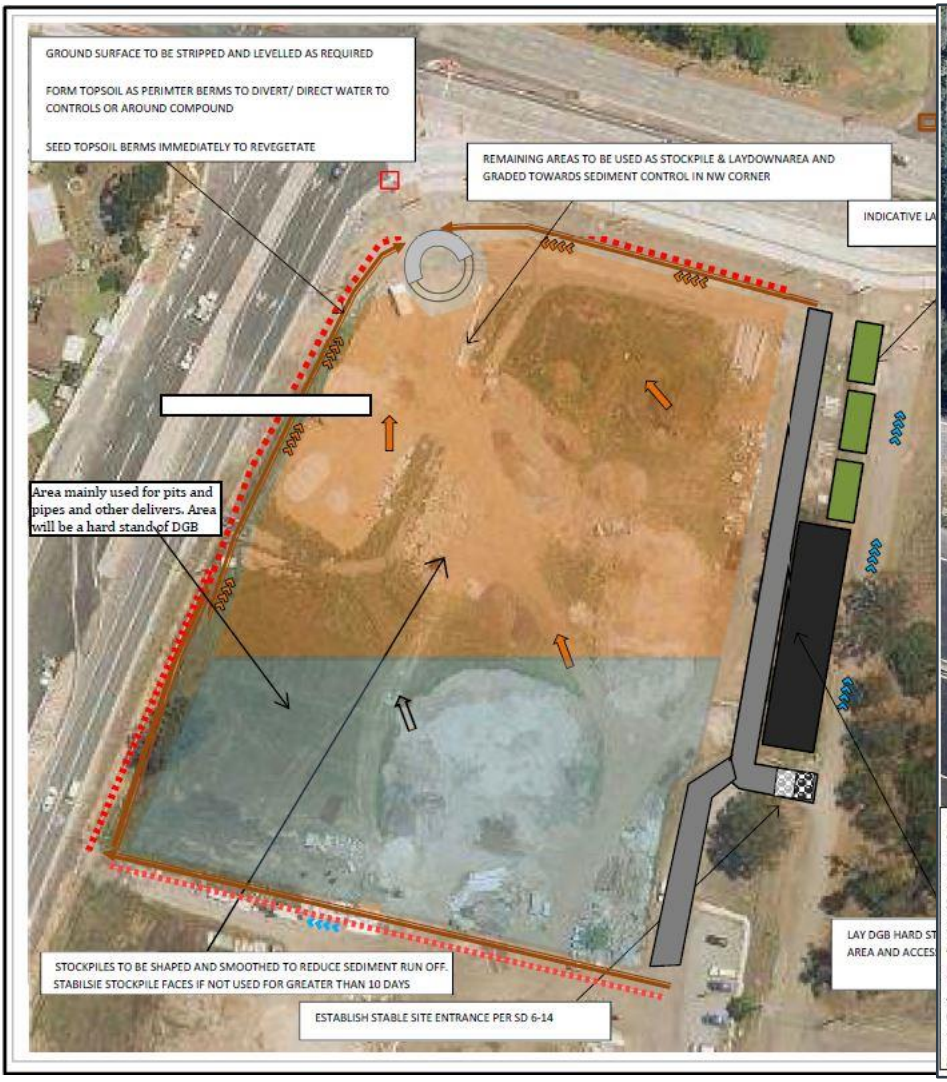
- Communication
- Safety standards
- Methodology of construction
- Contractual obligations
- Project team
- ~~Environmental risks~~

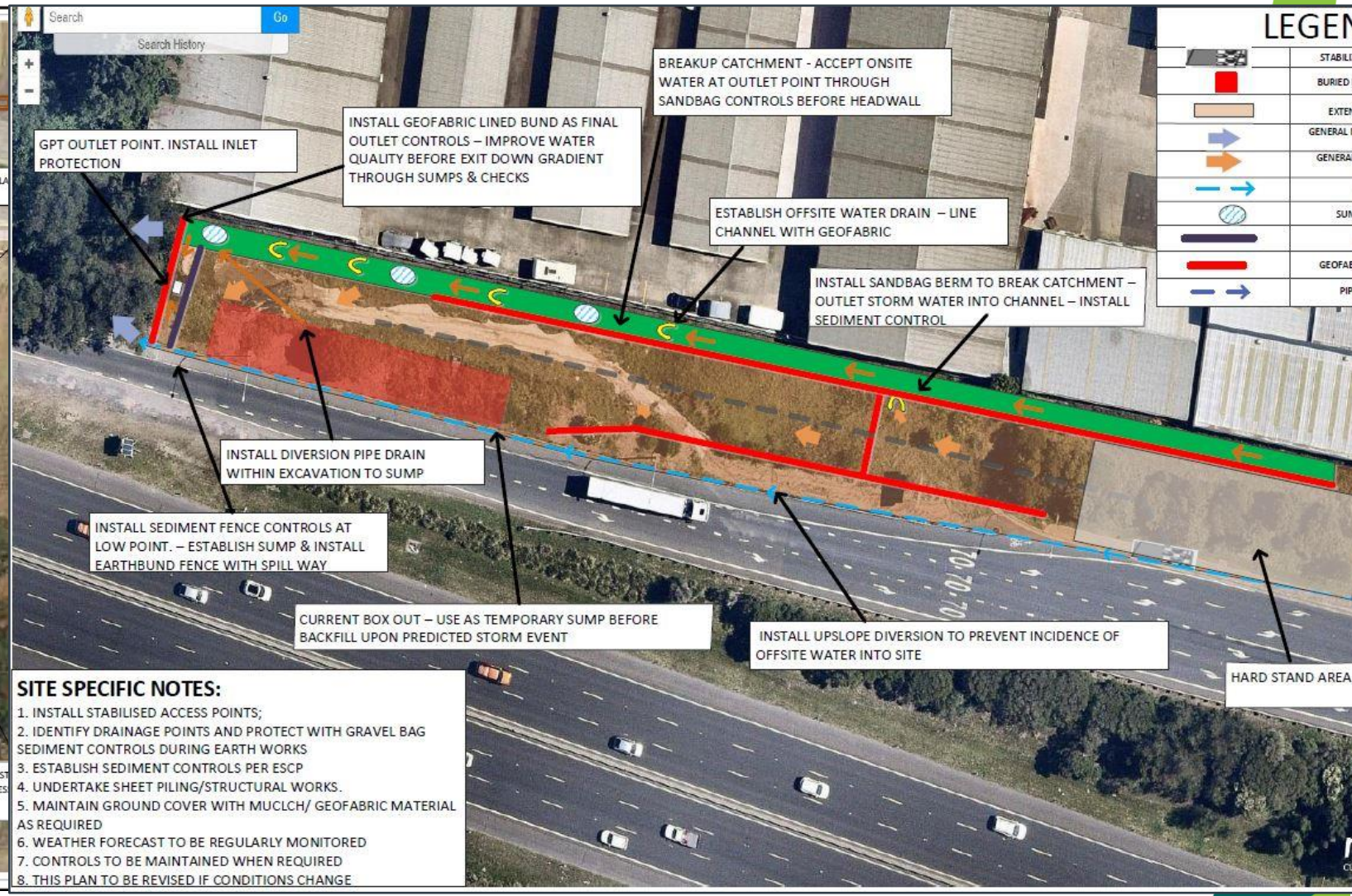
Low Environmental Risk → High Environmental Impact

Impact Assessment During Construction

Significance =
(Duration + Extent + Intensity)
× Probability

Erosion and Sediment Control Plans





What can YOU consider?

1. As the ‘one environmental authority model’ in South Africa evolves and matures, could elements from the ‘shared determining authority model’ of NSW be considered?

2. Environmental representative to advise on small-scale construction projects to help the PM / Engineer manage environmental risks.

3. ESCP for tangible and prompt environmental risk management, even on small-scale construction projects.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