Prioritising ecological infrastructure to maintain livelihoods and water security in Lesotho

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Soil as Ecological Infrastructure

Provisioning
- Clean water through infiltration
- Production of food, fodder, fuel, fibre and raw materials

Regulating
- Mitigation of floods & droughts through water retention
- Erosion control

Supporting or Habitat
- Nutrient cycling
- Soil formation

Cultural
- Spiritual and aesthetic
- Recreation
Overview of study area

[Map showing regions and catchments]
Method for identifying priority areas

Factors affecting erosion potential:
- Soil type:
  - Lithosols on lava
  - Lithosols on lava / calcimorphic soils
  - Vertisols / calcimorphic soils
- Slope:
  - 0-7%
  - 7-22%
  - 22-37%
  - 37-55%
  - >55%
- Land cover:
  - Agriculture
  - Settlement
  - Gullied land
  - Natural good
  - Natural fair
  - Natural poor

Factors affecting sediment delivery potential:
- Basin shape
- Drainage density
- Relief ratio

Sediment yield potential
Where are the priority areas?
Combined priority areas
Key discussion points

- General lack of rapid and reliable methods
- How do we integrate methodologies and/or priority areas?
- How much should we restore or conserve?
Thank you

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