the yellow river: a river with very high sediment yield

Processes

- **Transport**
  - In suspension, 40kg/m³
- **Deposition**
  - Causes braiding of the river
  - In lower course
  - Eyots midstream are stabilised by flora
  - Sediment load reduces bankfull discharge
- **Erosion**
  - Monsoon rainfall washes away loess
  - Loess is vulnerable due to lack of vegetation
  - Forms rills & gullies
  - Loess blown into river from plateau

Issues

- **Communication breaks from gulleying**
- **Monsoon climate**
  - Soil baked hard then deluge
  - Droughts
- **Flooding**
  - Heavy human casualties
  - Loss of land
- **Navigation**
  - Boulders must be dynamited
- **Shifting course & mouth**
  - Vagrancy of water supply
  - Movement of 400km in past
  - Danger to farms

Human Causes

- **Deforestation**
  - For firewood and building
- **Overgrazing**
  - Contributes to deforestation
- **Ploughing**
  - Forms gullies for water to flow down, exacerbation erosion

Solutions

- **Dams**
  - Sanmenxia
    - Becomes blocked with sediment , channel floods
    - Reservoir for irrigation
  - HEP
  - Check & control
- **Dredging**
  - Sediment used to strengthen embankments
- **Drought resistant crops**
  - Millet or Wheat
- **Terracing**
  - Allows infiltration on hills
  - Lowers velocity of rain movement downhill, increases lag time to river
- **Dykes**
  - Build up embankments to prevent floods
  - Wing dykes directt flow into the middle of the channel, faster flow= less deposition
- **Reafforestation**
  - Use of seedy mud balls!
  - New legislation for farmers requires it
- **Brush wood**
  - Fills gullies, preventing erosion
  - Catches sediment, stabilises