

Tema coastal system

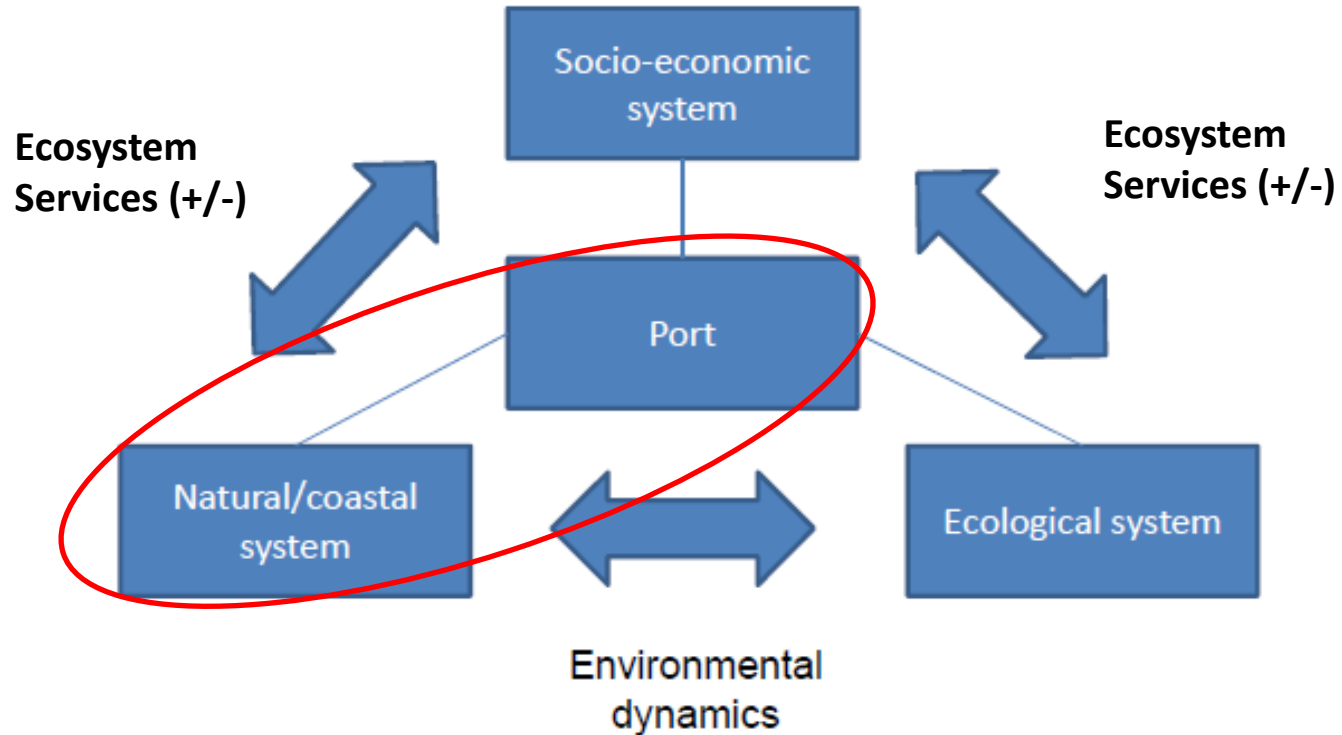
Prof. Kwasi Appeaning-Addo

Ir. Wiebe de Boer

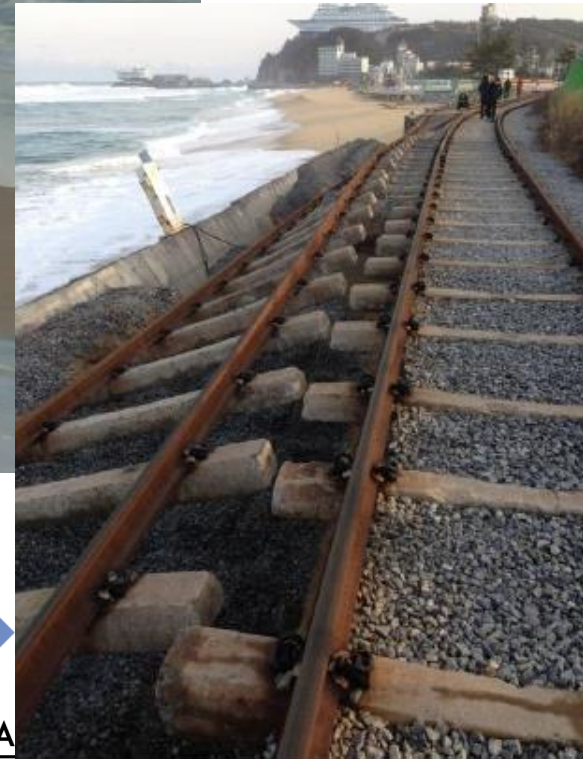


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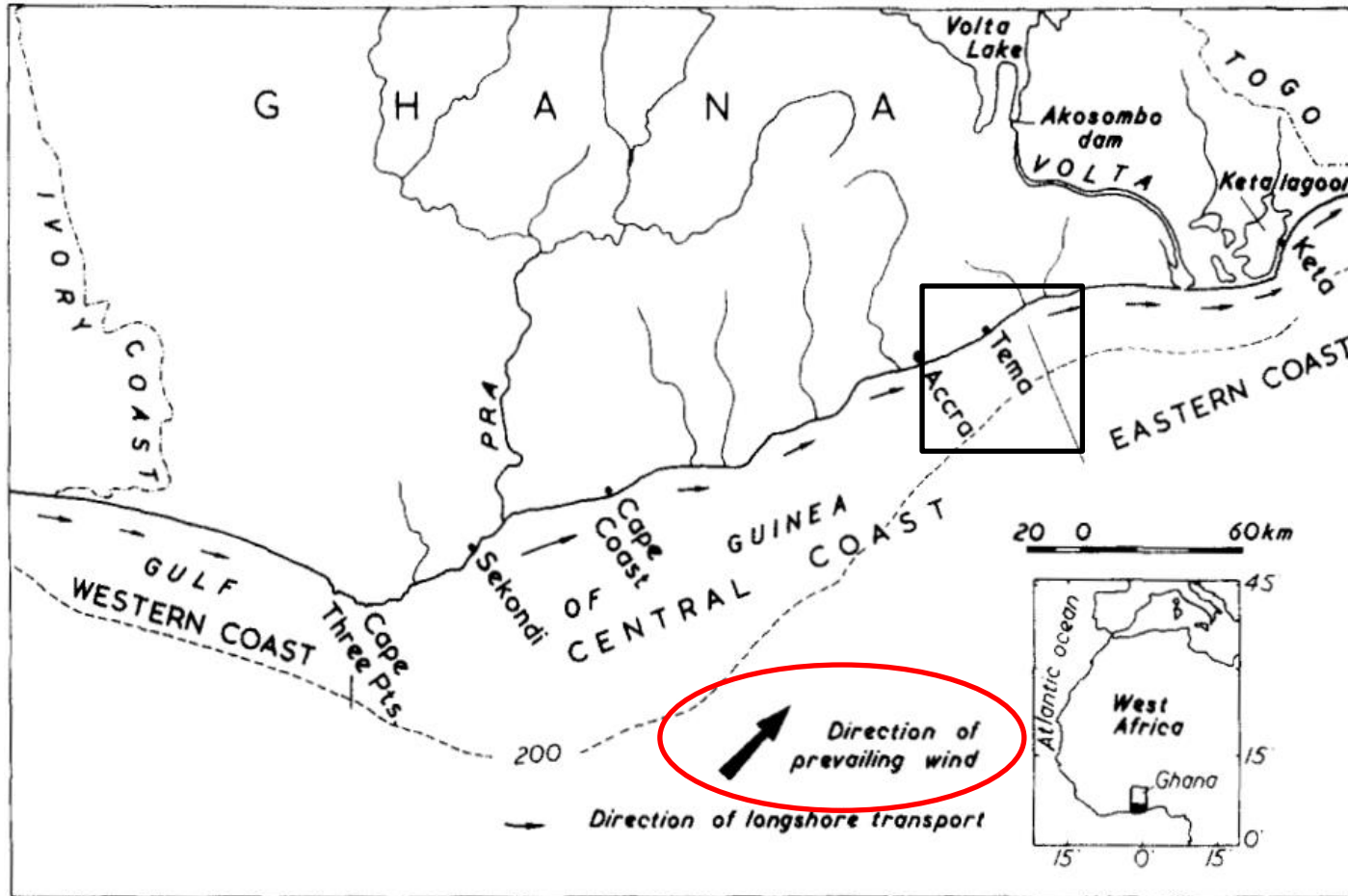
Interaction people, planet and profit



Coastal system dynamics (changing)



Sediment (sand) transport: from West to East



Ly (1981)

Tema sediment budget (book keeping)



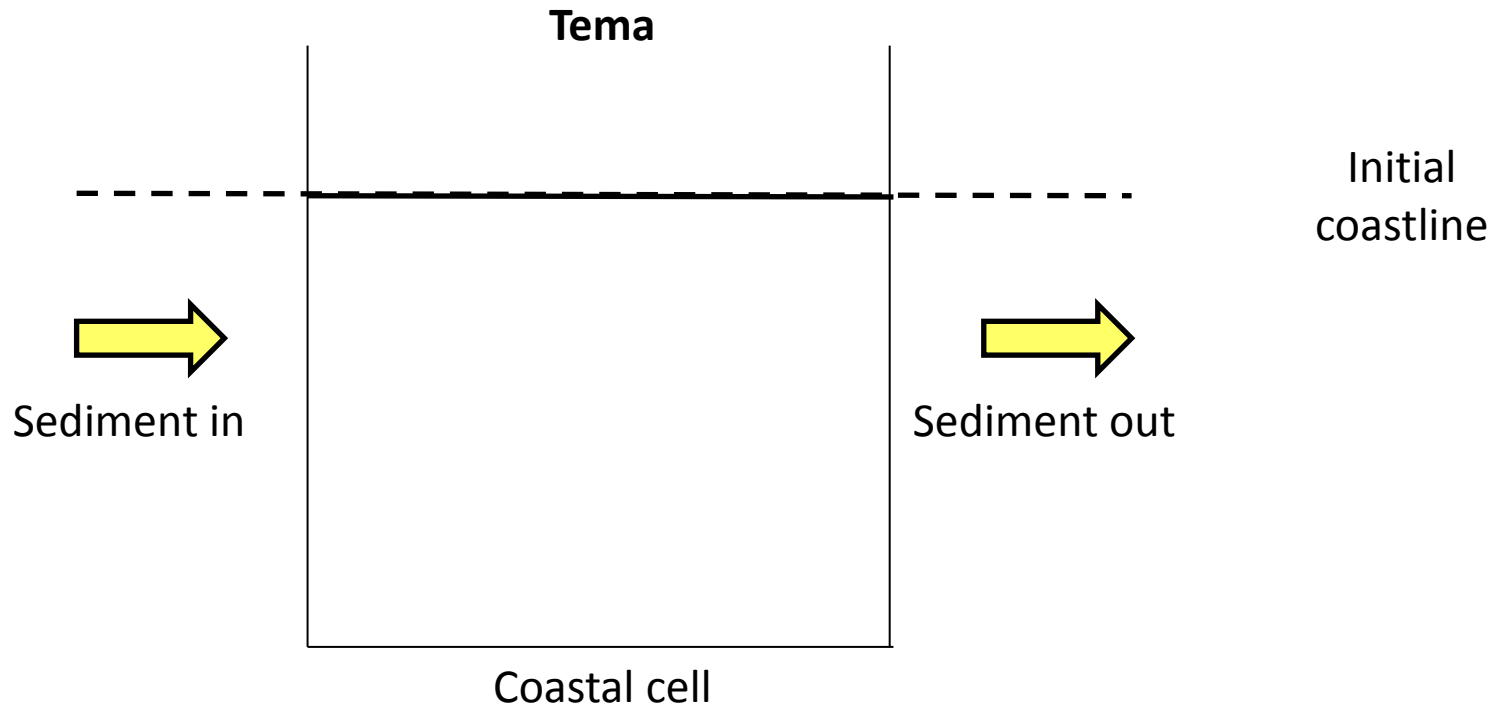
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Tema sediment budget (book keeping)

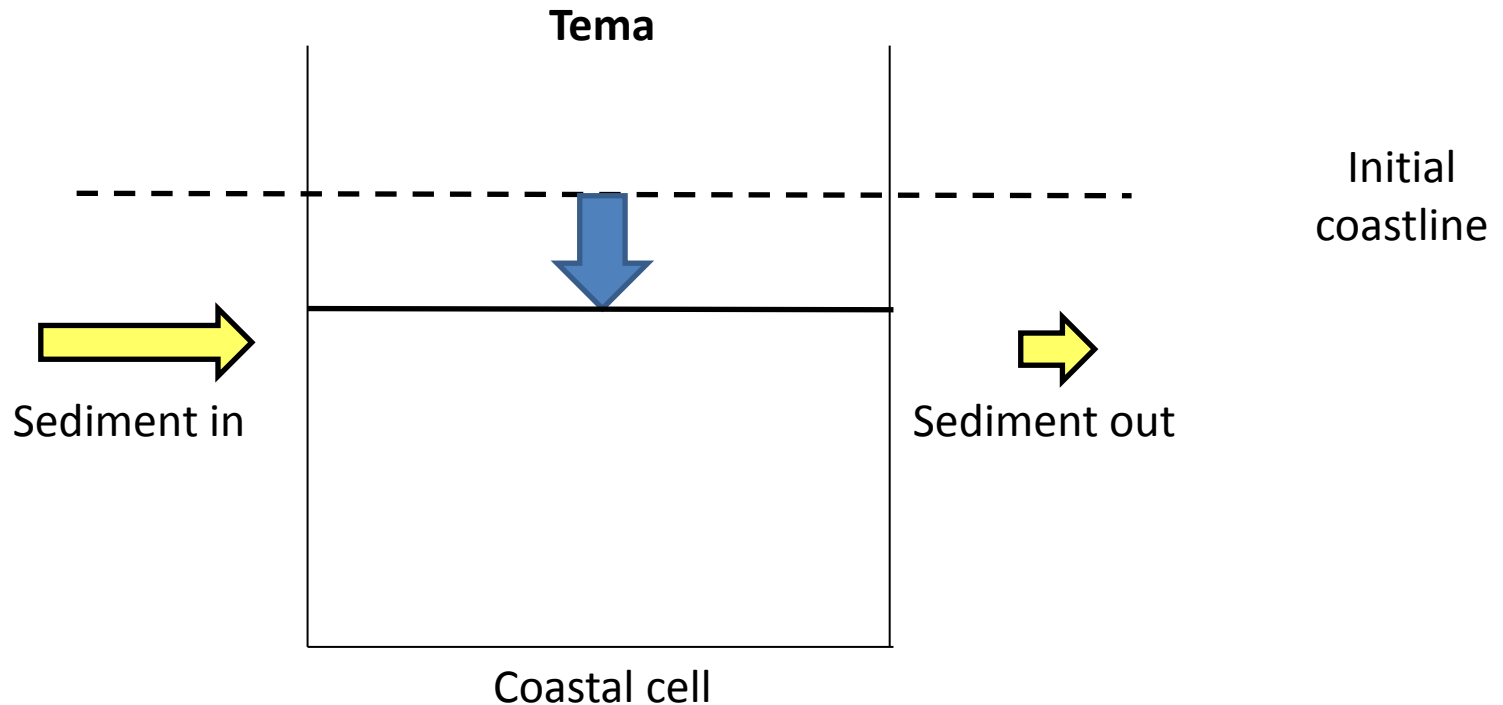


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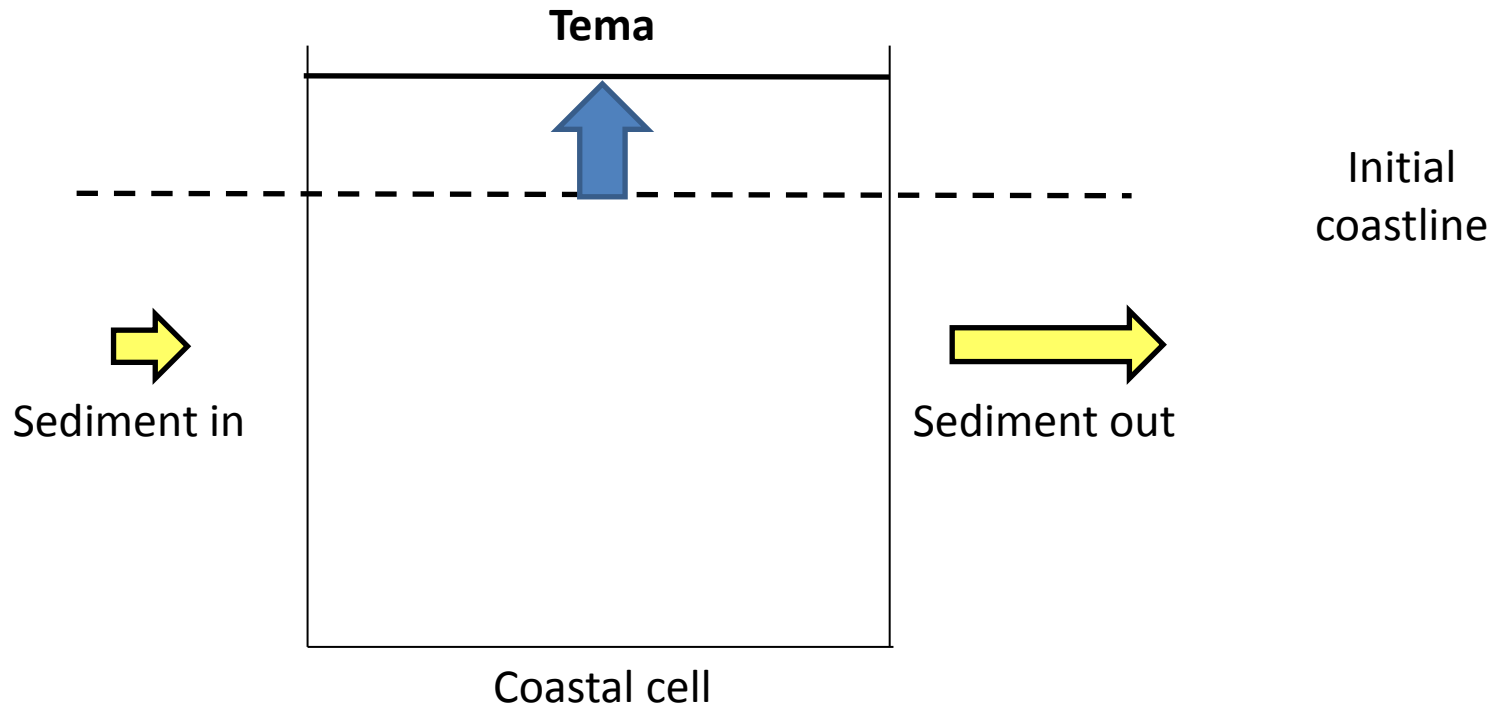
Sediment budget principles: stable coastline



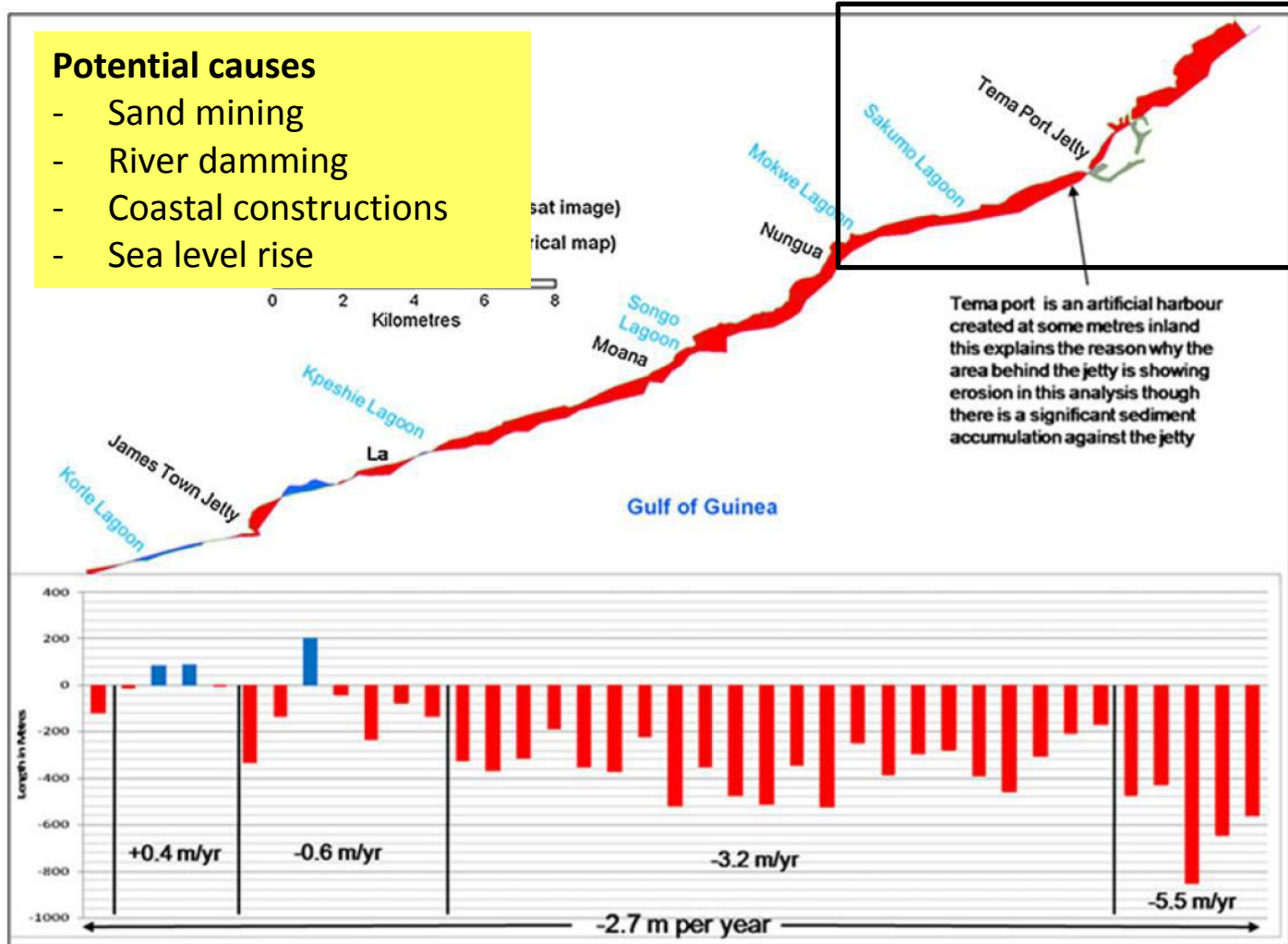
Sediment budget principles: coastline accretion



Sediment budget principles: coastline erosion



Tema past: erosion



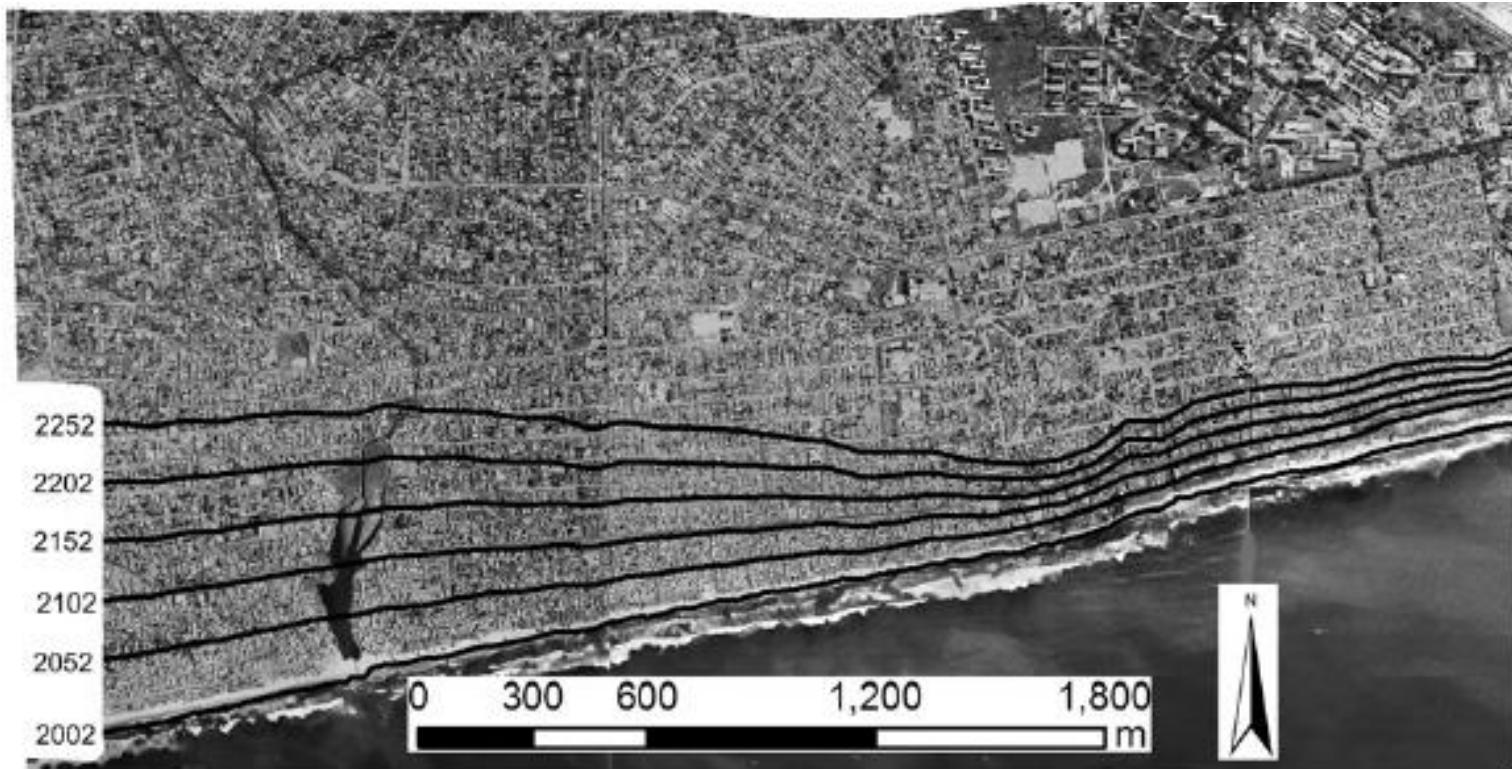
Boateng (2012)

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Tema present: stabilized, sandy beaches scarce

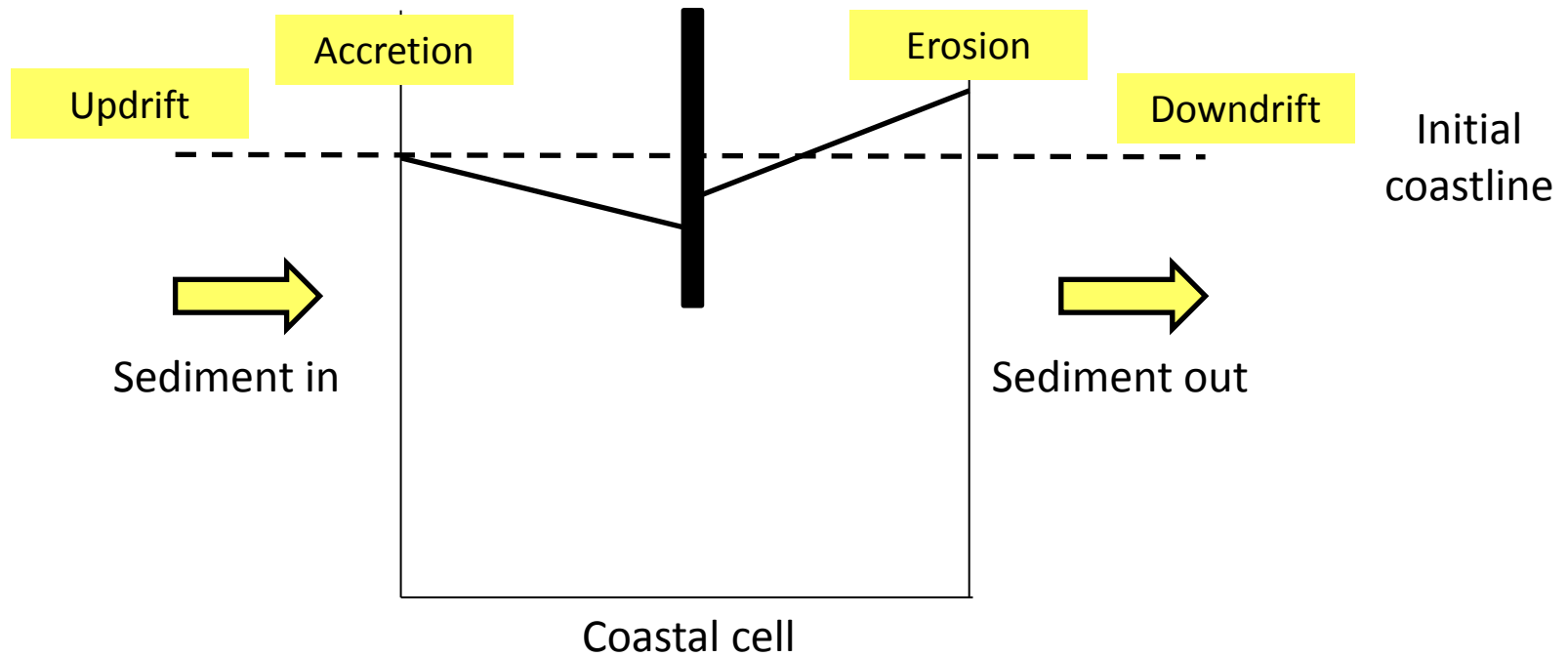


Tema future: climate change



Appeaning-Addo et al (2008)

Port impacts



Port impacts Lome



Port impacts Tema

Sakumono, Greater Accra Region, Ghana



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Wrap-up

- The coastline is a **dynamic** feature



- **Human interventions** affect coastline position
 - Sand mining
 - River damming
 - Coastal constructions (ports)
- **Sand is scarce**



Netherlands Organisation
for Scientific Research



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