

# SDGs as a development roadmap for Africa: interactions, dynamics and policy

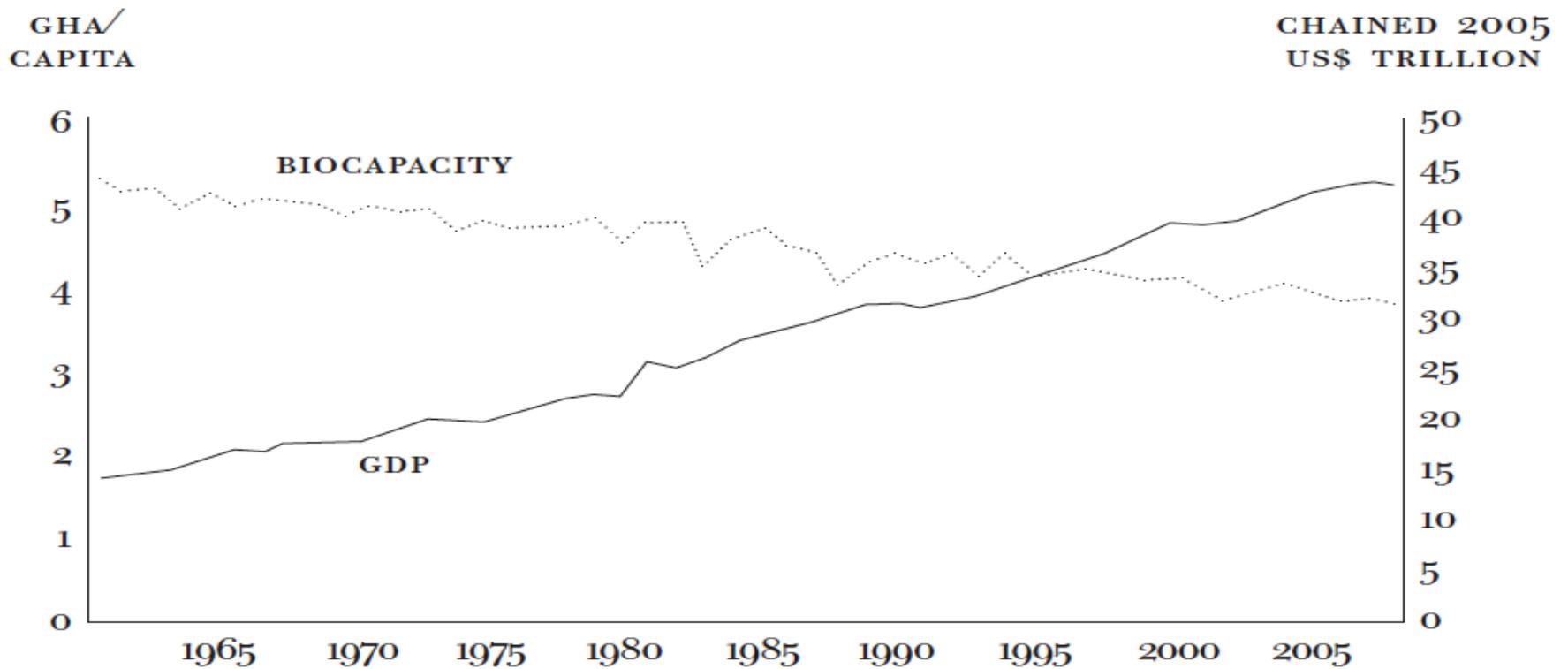


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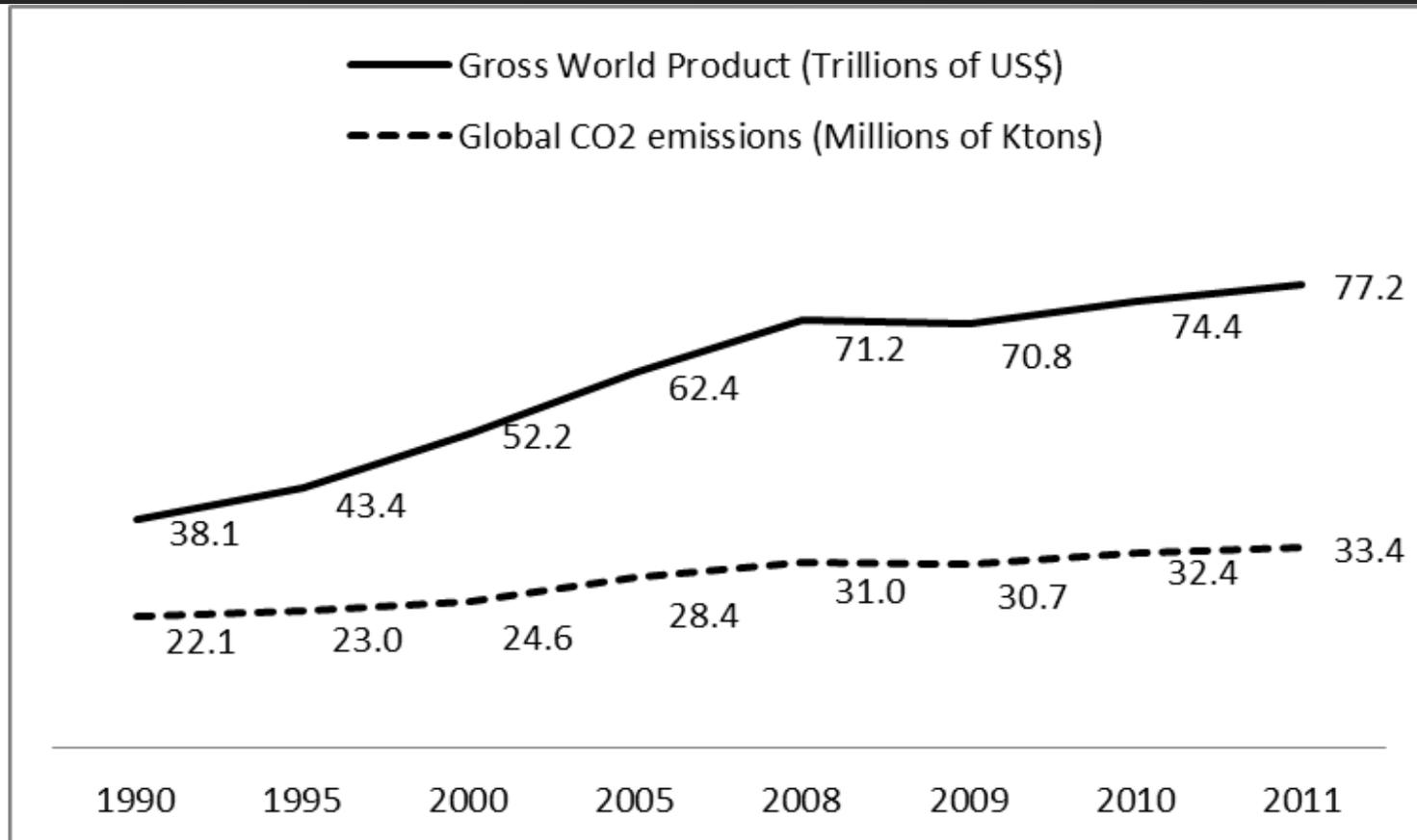
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# GDP vs. Mother Nature

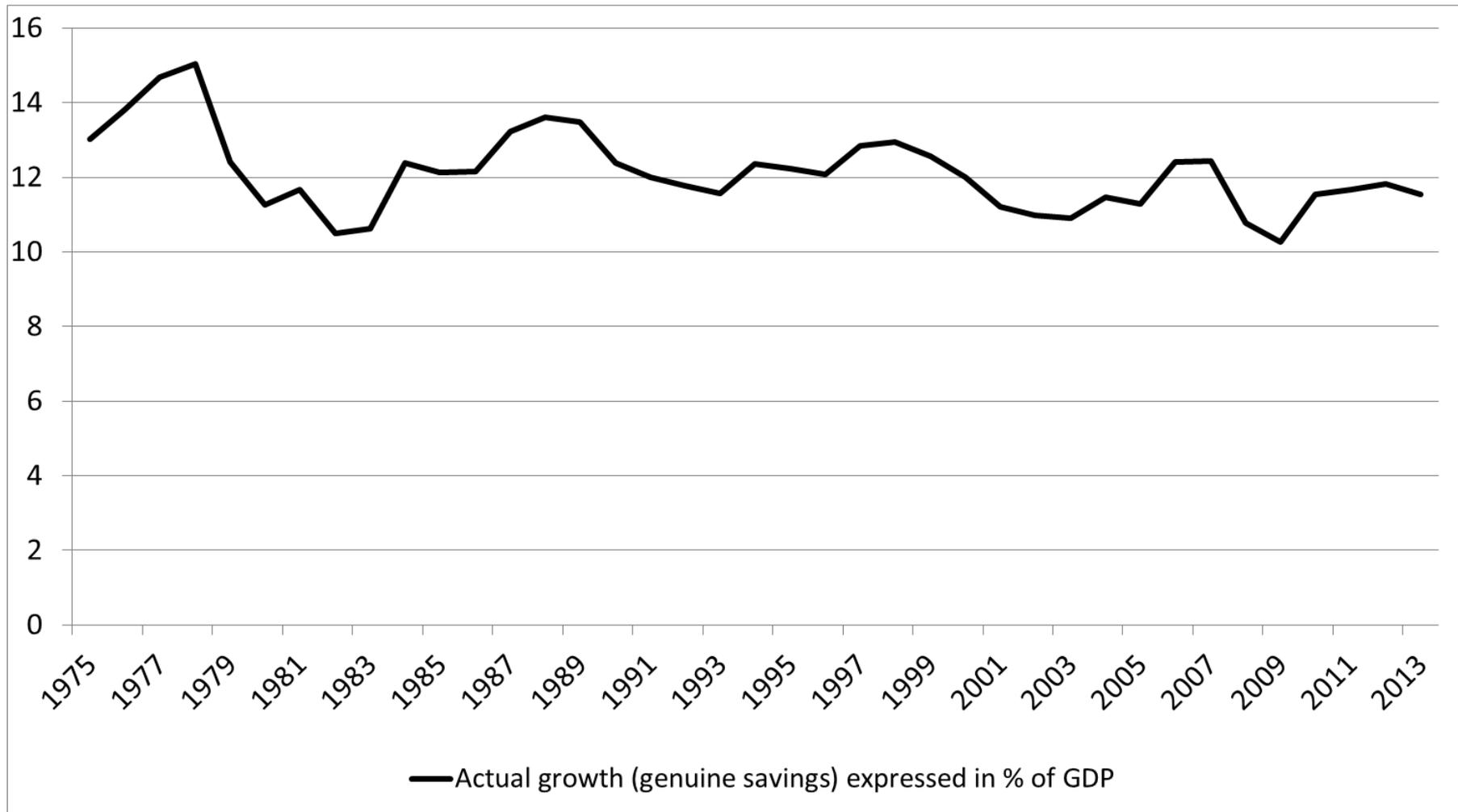


# GDP vs. the climate

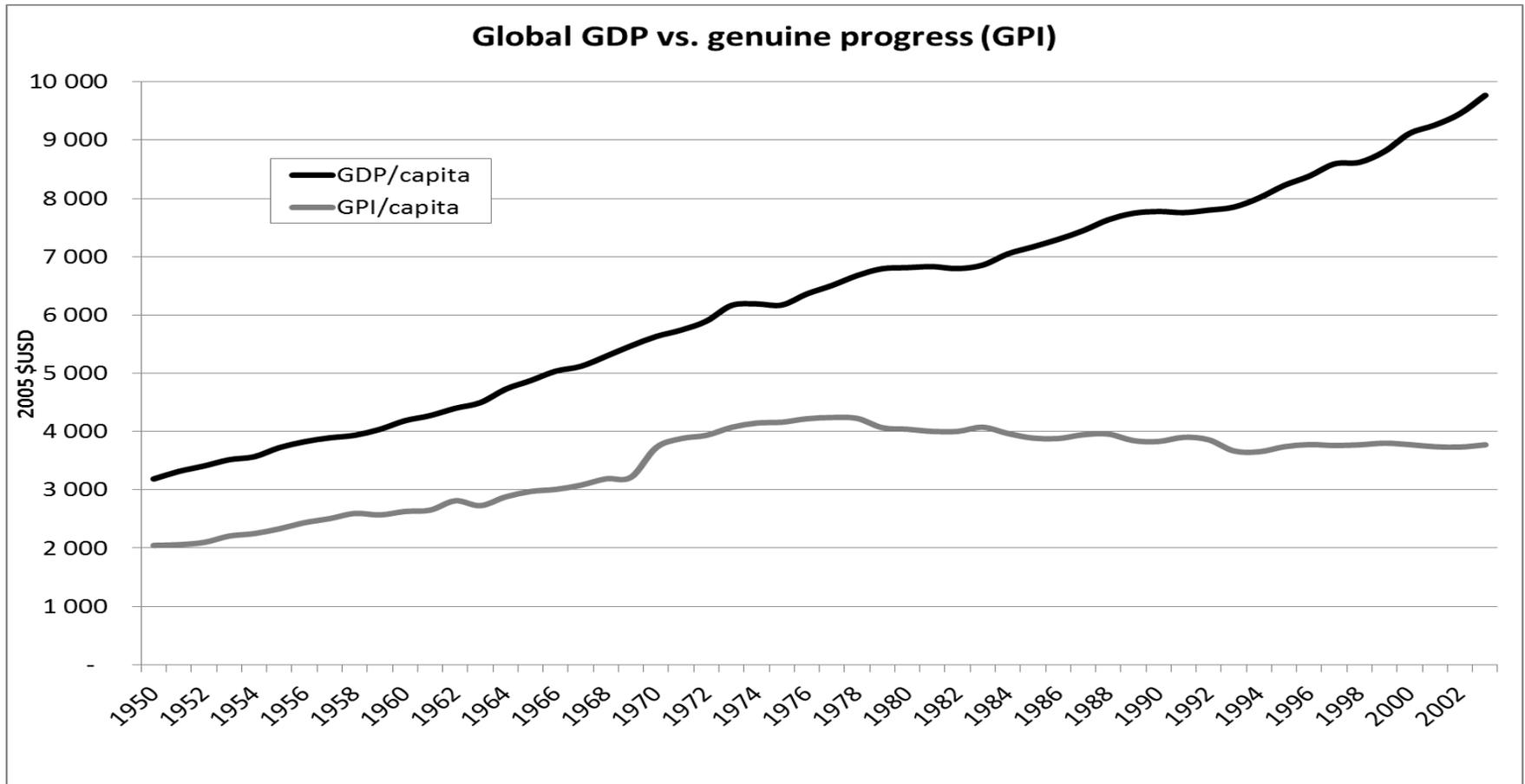


Source: IMF 2011 for GDP and EDGAR 2014 for CO2 emissions data.

# Global GDP growth flattens when environmental damage is accounted for

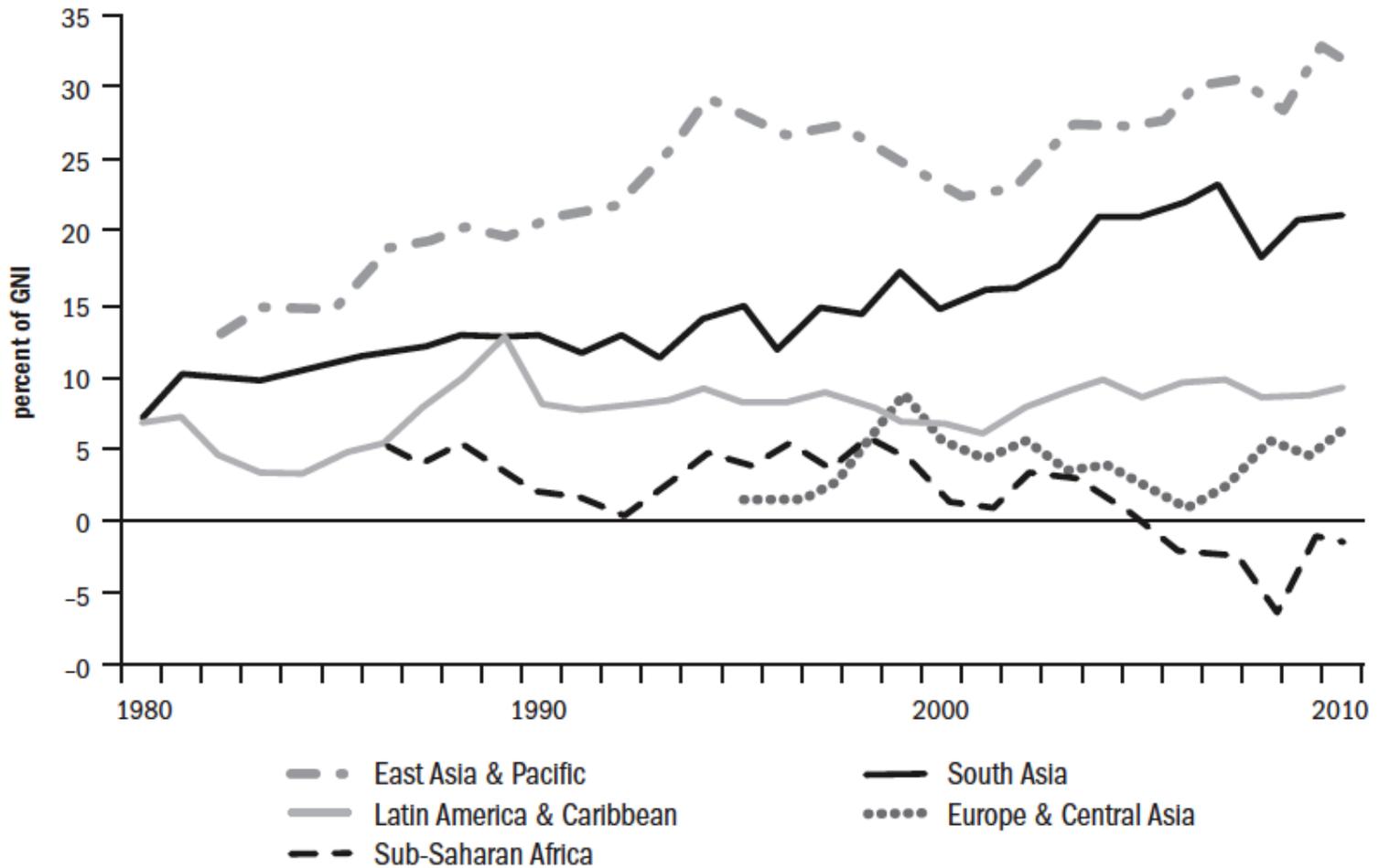


# Global GDP splits from genuine progress



Source: Ida Kubiszewski et al., 'Beyond GDP: measuring and achieving global genuine progress,' *Ecological Economics*, 93, 2013, p.63.

# Africa 'shrinking'



# Sustainable Development Goals

- 17 goals (September 2015)
- 169 targets (December 2015)
- 242 indicators with multiple entries (February 2016)
- Time lags, data collection challenges and quality of data
- “The value of the SDGs is not in what they say, but in what they mean” → should not miss forest for trees
- Replace conventional approaches in the SNA
- Reform incentives, rewards and policy

# Moving forward...quickly

- Connecting the SDGs through a 'coherent narrative' → human and ecosystem wellbeing
- Understanding interactions within the SDGs
- Building on existing tools (genuine progress indicator, inclusive wealth index, natural capital accounting, opinion surveys for social capital and subjective wellbeing)
- Integrating dashboard with aggregate index
- Future: dynamic models and 'data revolution'

# Connecting the SDGs

## Overarching Goal:

A prosperous, high quality of life that is equitably shared and sustainable

**Sustainable Scale:**  
Staying within planetary boundaries

Natural Capital/Ecosystem Services

**Fair Distribution:**  
Protecting capabilities for flourishing

Social Capital/Community (Surveys)

**Efficient Allocation:**  
Building a living economy

Net Economic Contribution (GPI 2.0)

Ecological  
Economics  
Framework

**6.**  
Water & sanitation for all

**14.**  
Conserve marine ecosystems

**1.**  
End poverty for all

**3.**  
Ensure healthy lives for all

**5.**  
Achieve gender equality

**16.**  
Promote justice and accountable institutions

**7.**  
Ensure access to sustainable energy

**12.**  
Ensure sustainable consumption patterns

**13.**  
Urgent action on climate change

**15.**  
Conserve terrestrial ecosystems

**2.**  
End hunger for all

**4.**  
Ensure equitable quality education for all

**10.**  
Reduce inequality within and among countries

**17.**  
Strengthen global partnerships

**8.**  
Promote inclusive economic prosperity

**9.**  
Build resilient infrastructure

**11.**  
Build resilient and sustainable cities

UN SDGs

# Sustainable Wellbeing Index

- $SWI = f(E, N, S)$ 
  - SWI = Sustainable Wellbeing Index
  - E = Net economic contribution
  - N = Natural Capital/Ecosystem Services contribution
  - S = Social capital/Community contribution
- $SWI = L_{max} * (E/(k_e + E)) * (N/(k_n + N)) * (S/(k_s + S))$ 
  - $L_{max}$  = the maximum achievable SWI when all factors are simultaneously at their maximum.
  - $k_e$  = the “half saturation constant” of E – the value of E where the result of this term achieves 1/2 its maximum value.
  - $k_n$  = the “half saturation constant” of N.
  - $k_s$  = the “half saturation constant” of S

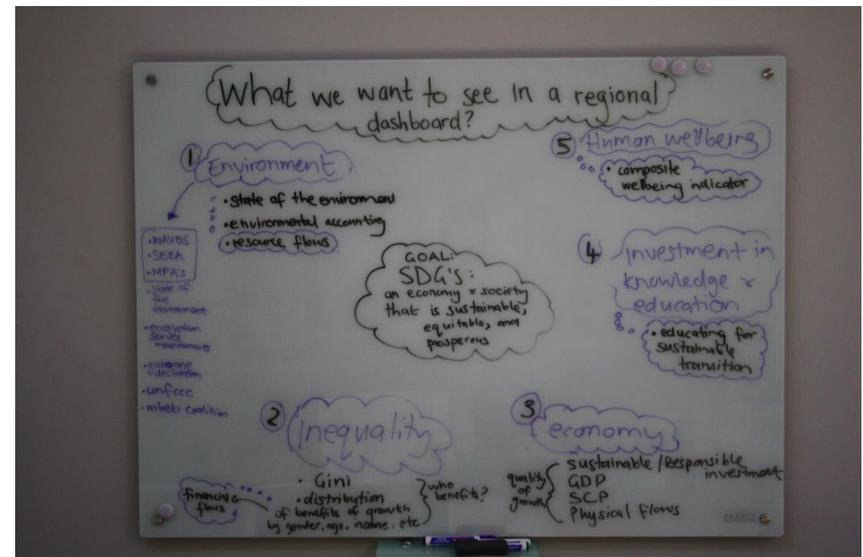
# Linking SDGs with 'Beyond GDP' agenda



- Acknowledging 'misuse' of GDP
- Corrections relevant for Africa:
  - Income inequality
  - Fiscal flows
  - Sustainable consumption and production
  - Lessons to be learned from GPI and Genuine Savings

# Regional dashboard

- Corrected/complemented GDP should be integrated into a regional dashboard
- Dashboard to include:
  - Human development (e.g. education, health, etc.)
  - Quality of the environment
  - Decent work (e.g. beyond mere employment)
  - Governance
  - Inclusion and social capital



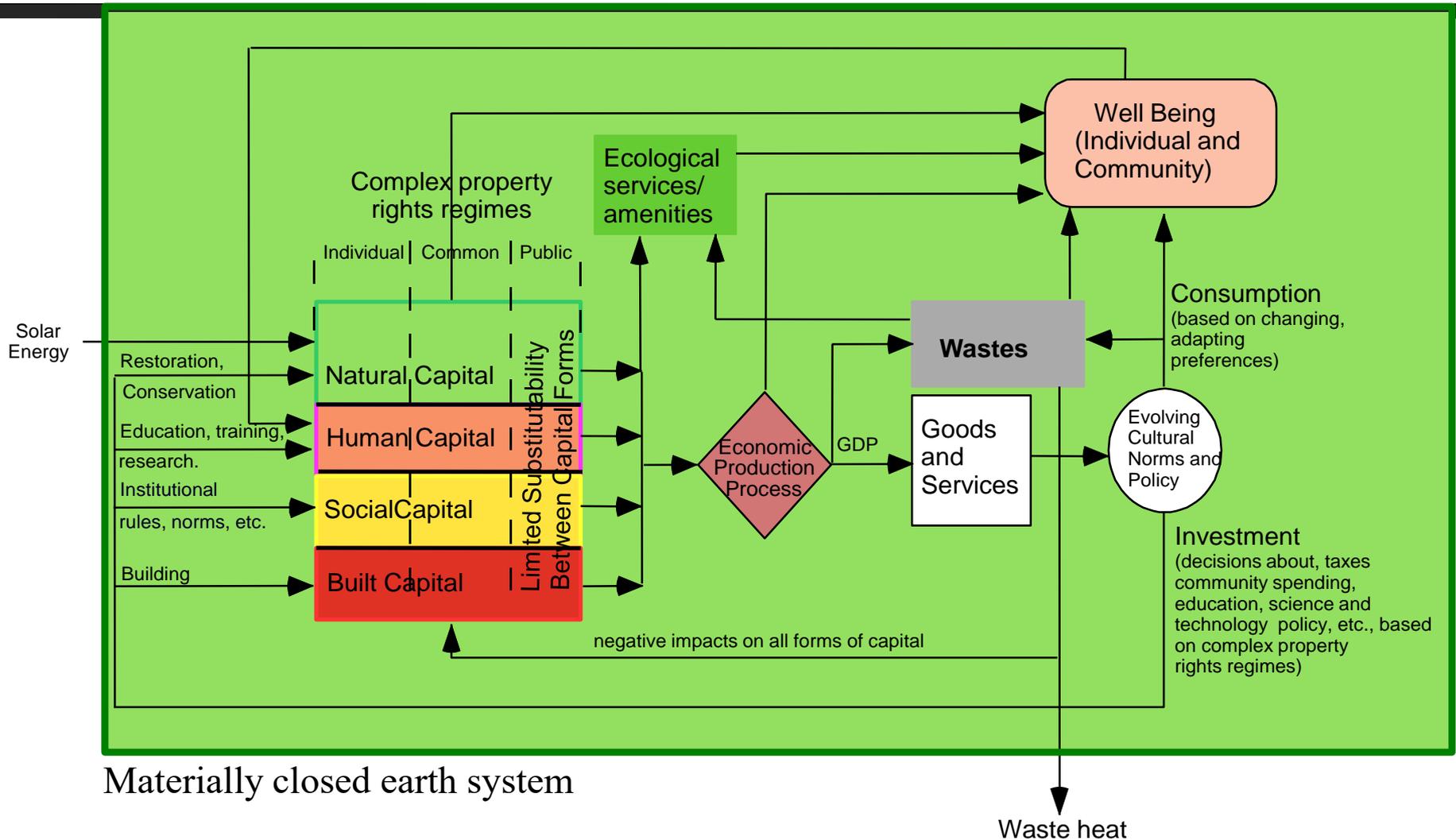
# Pragmatism and policy relevance

- Information already available
  - Human development: investment education, infant mortality, enrolment rates, morbidity rates, doctors to population ratio, crime.
  - Quality environment: air, material flows, land use, ecosystems (through experimental accounts as part of WAVES and SEEA), levels of pollution and waste.
  - Decent work: labour force surveys standardized across Africa (in partnership with ILO).
  - Governance: voters' turnout and Ibrahim Index of African Governance.
  - Social inclusion/social capital: poverty, time use at household levels
- Information that could be gathered if more resources were available:
  - Human development: life expectancy, literacy rates.
  - Quality environment: land cover change, water stress, geological surveys.
  - Decent work: skills development to building economy in touch with local needs.
  - Governance: citizen participation in policy processes.
  - Social inclusion/social capital: mapping social connections in civil society, participation in community activities, multi-dim poverty.

# Reach out to regional initiatives

- African Centre for Statistics at UNECA (for expertise and coordination)
- African Union Commission (for political support and coordination)
- African Development Bank (for infrastructural and economic support).
- Key regional organizations to involve: Southern African Development Community (SADC), the East African Community (EAC) and the Economic Community of West African States (ECOWAS).

# Dynamic non-linear model



# Data revolution in Africa?

- Data obsolescence a 'key problem' for policy making
- Limited reach of conventional statistical tools
- Growing penetration of mobile technology
- Passive 'data tracking'
- Distributed data collection systems
- Dynamic modelling for complex interaction of human and ecosystem wellbeing variables

THANKS!

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