



SUSTAINABLE
FINANCE HUB

Africa's Public Expenditure on Adaptation

Initial APEA Results and Conclusions

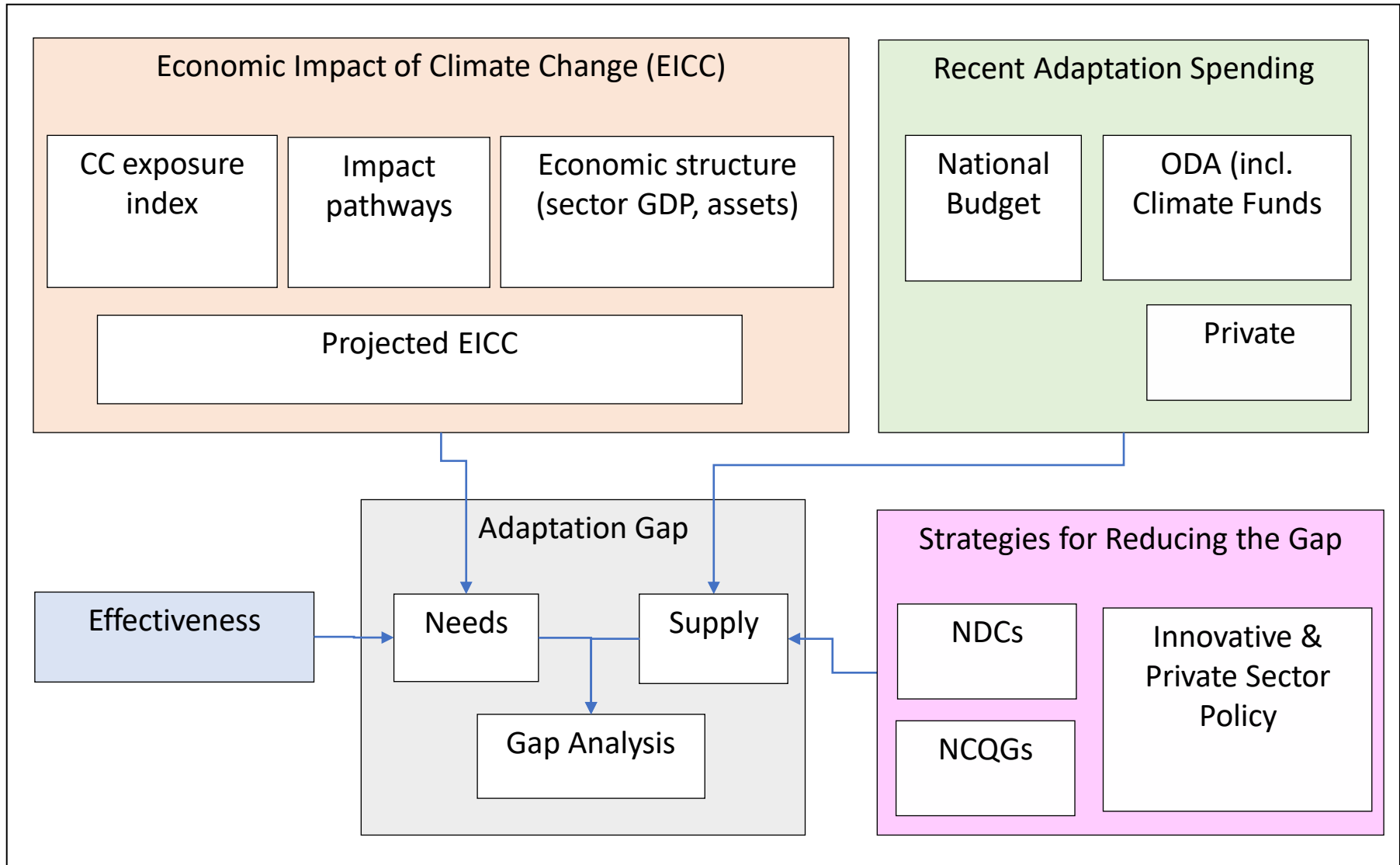
Introduction

- Pan-African review of publicly available evidence on adaptation needs and spending
- Covers 51 out of 54 countries
- Objectives
 - assesses whether existing and planned adaptation expenditure is sufficient to avoid the economic impact from climate change
 - Country level engagement with modelling of adaptation needs, as reviewed in UNEP Adaptation Gap Report
 - Contributing towards consensus on NDC and NCQG Financing Frameworks and Plans
 - Linking work on adaptation gaps to mainstreaming climate into planning and budgeting (ie budget tagging, CPEIRs, CC Impact Appraisal ...)
- Analytical framework a simplified ‘model’ using a spreadsheet

Complementarity with Other Initiatives

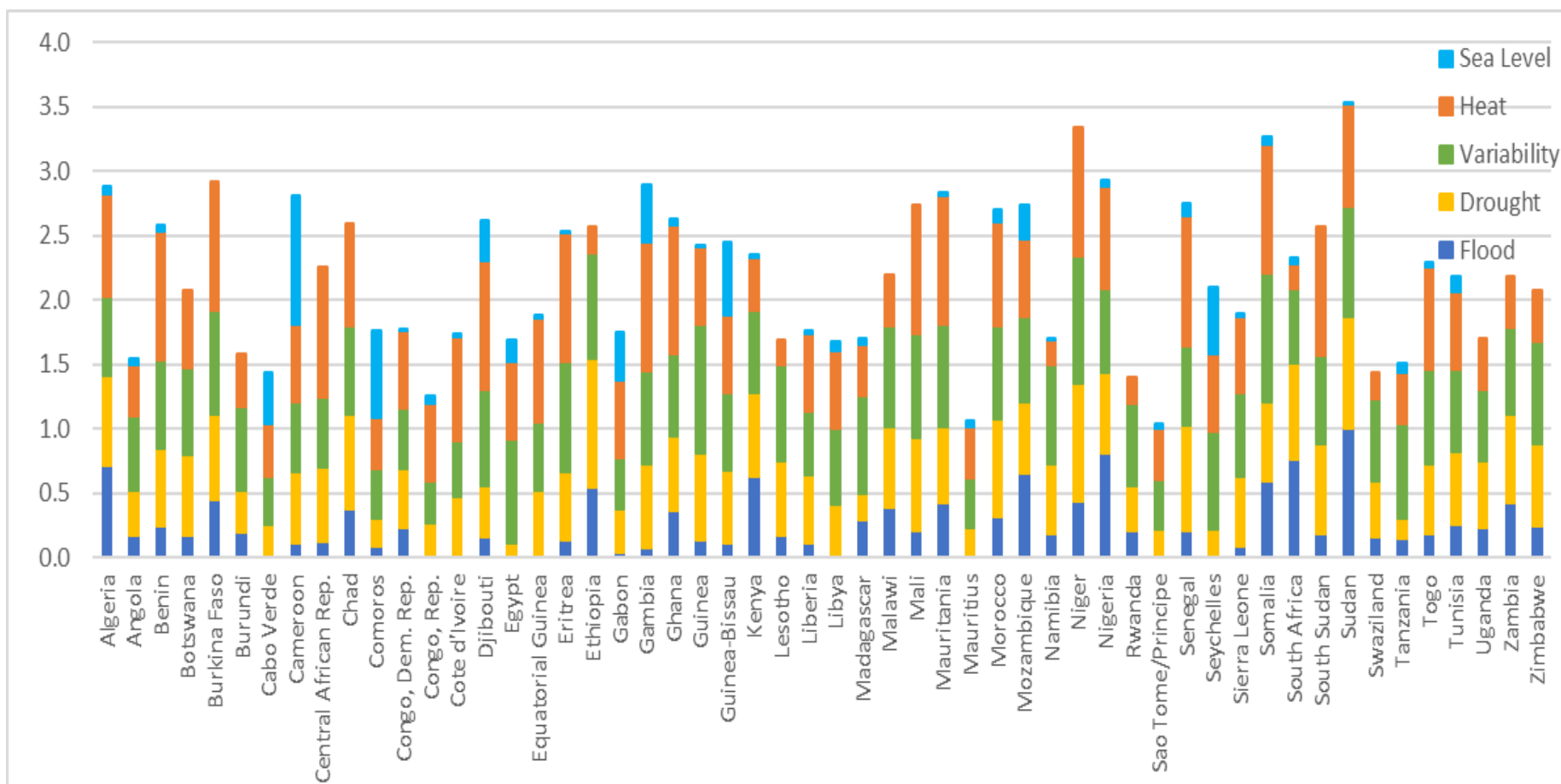
- UNFCCC
 - Adaptation Committee 2021 *Progress in Achieving Global Goal on Adaptation*
 - SCF 2020 *Biennial Assessment of Climate Finance Flows*
 - SCF 2021 *First Report on Determining the Needs for Implementing Paris*
- UNEP Adaptation Gap Report:
 - 6 editions, latest 2021
 - Climate focus in 2016 edition, to be updated in 2023
- African Initiatives
 - AfDB/UNEP/ECA 2019 *Climate Change Impacts on Africa's Economic Growth*
 - AfDB 2018 *Gap Analysis Report: Africa's NDCs*
 - AfDB *Adaptation Benefits Mechanism*
 - GCA 2019 *Adapt Now (Global)*
 - GCA 2021 *State and Trends in Adaptation Report (Africa)*
 - MDBs 2021 *Joint Report on Climate Finance (Global)*
 - WHO 2019 *State of Climate in Africa*
 - CPI *Climate Finance Landscape Reports (Global, Kenya, South Africa)*

Methodology



Exposure

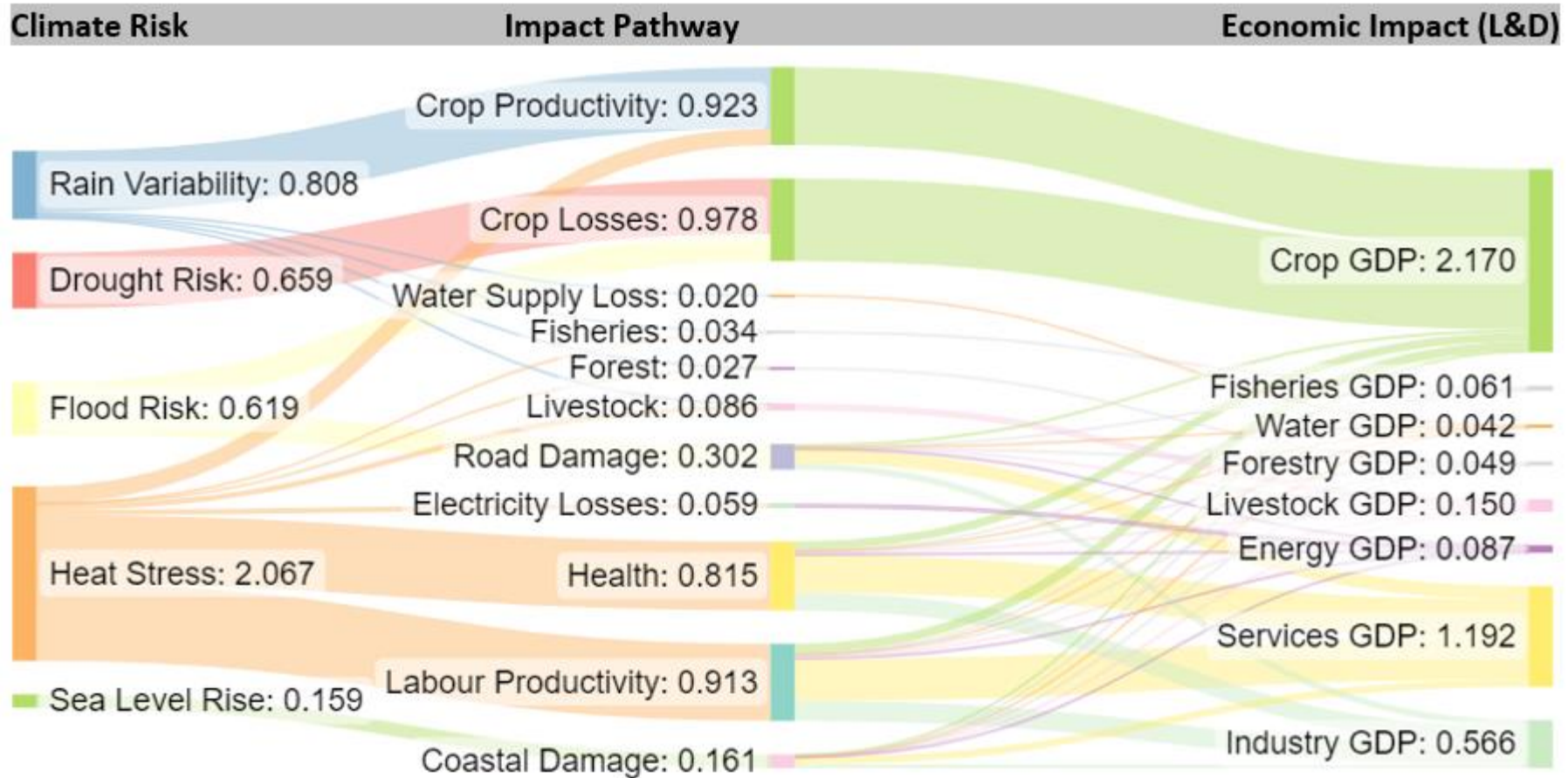
- Exposure to climate change is based on the climate science and evidence from recent climate-related events.
- Most countries are exposed to significant climate risks from heat, drought and rainfall variability. Exposure to flood risks and sea level rise is more varied.



Sensitivity (Economic Structure)

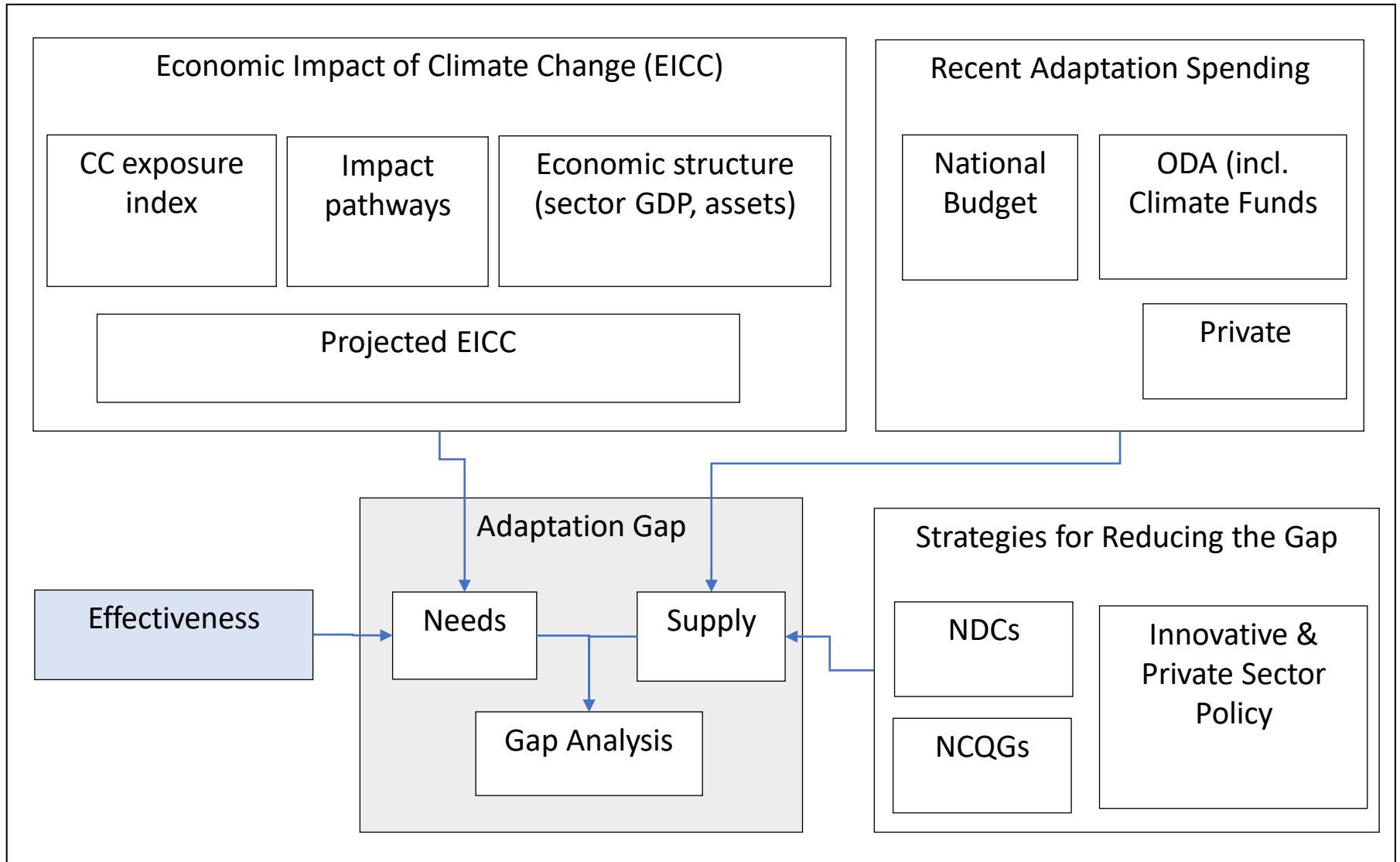
- Each GDP sector affected differently by the impact pathways
- Direct loss of sectoral GDP estimated and applied to GDP sector shares, using AfDB national accounts data
- Damage is based on value of assets (coastal, roads & power) obtained from statistical yearbooks – no direct loss of GDP but reconstruction diverts investment from development and reduces growth, assuming average Incremental Capital Output Ratios from last 10 years
- Reduced labour productivity affects primary, secondary and tertiary sectors differently (max 10%, 5%, 1% loss respectively from recent research)
- Health impact affects all sectors

Climate Risks, Pathways and GDP Impact



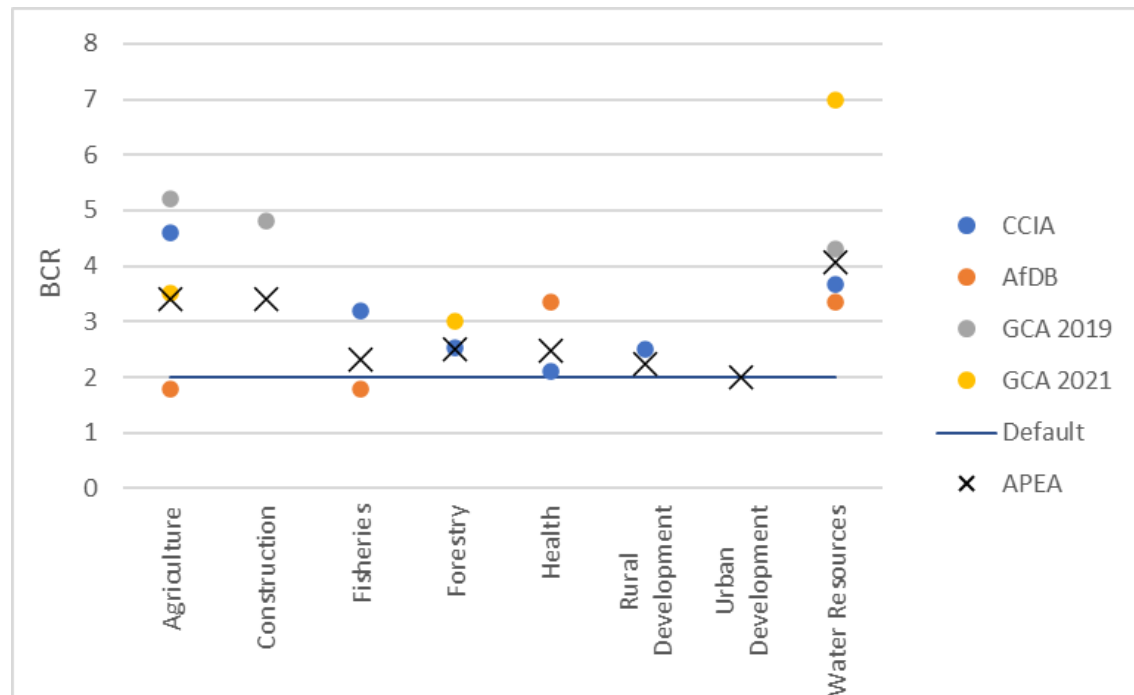
Note: all figures in % GDP, taking the NPV of impact over the period 2023 to 2050 (eg heat stress reduces the NPV of GDP to 2050 by 2.067%, through the various pathways and sectors affected).

Methodology



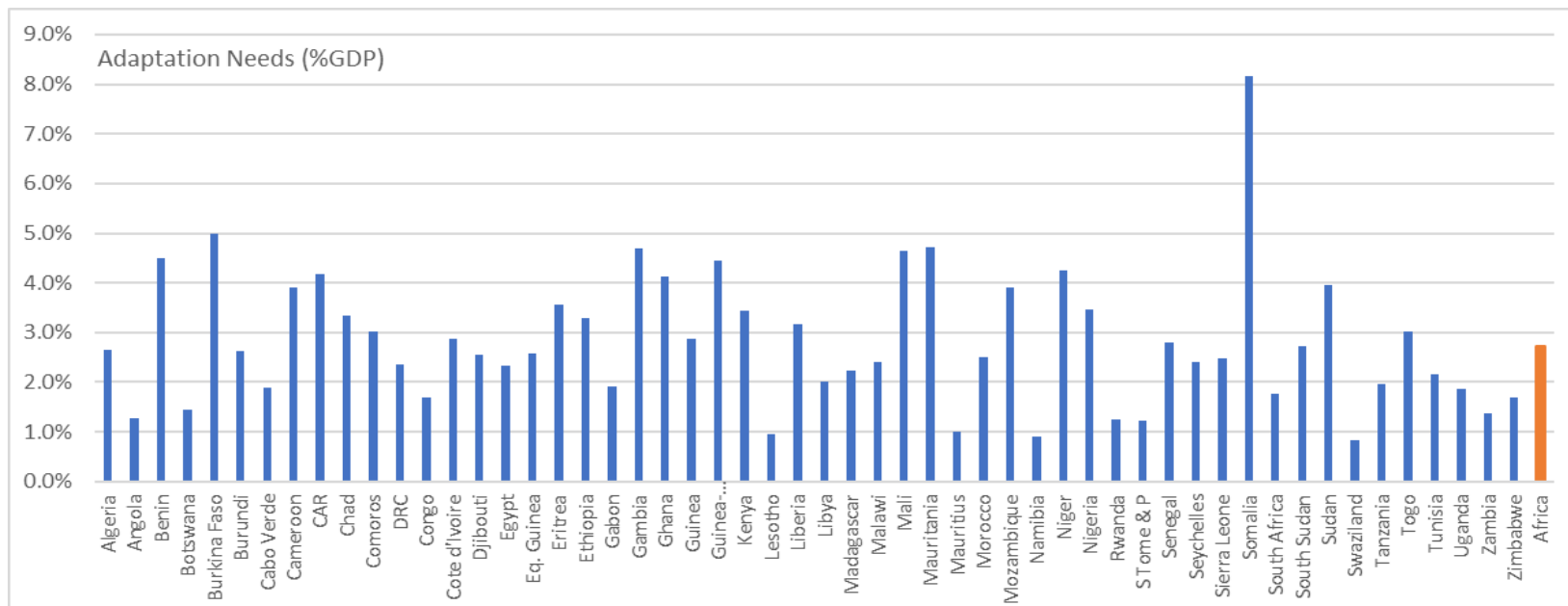
Effectiveness of public expenditure: reducing L&D

- Evidence for BCRs from three global reviews (by AfDB and GCA) and grey literature on Climate Change Impact Appraisal (CCIA) case studies.
- Varies greatly by country, depending on challenges facing country (and efficiency of government)
- Often the weakest link but
 - checks and balances in planning should mean most public expenditure delivers BCR of at least 2
 - ‘no silver bullets’ so high BCRs (eg >5) are rare in practice



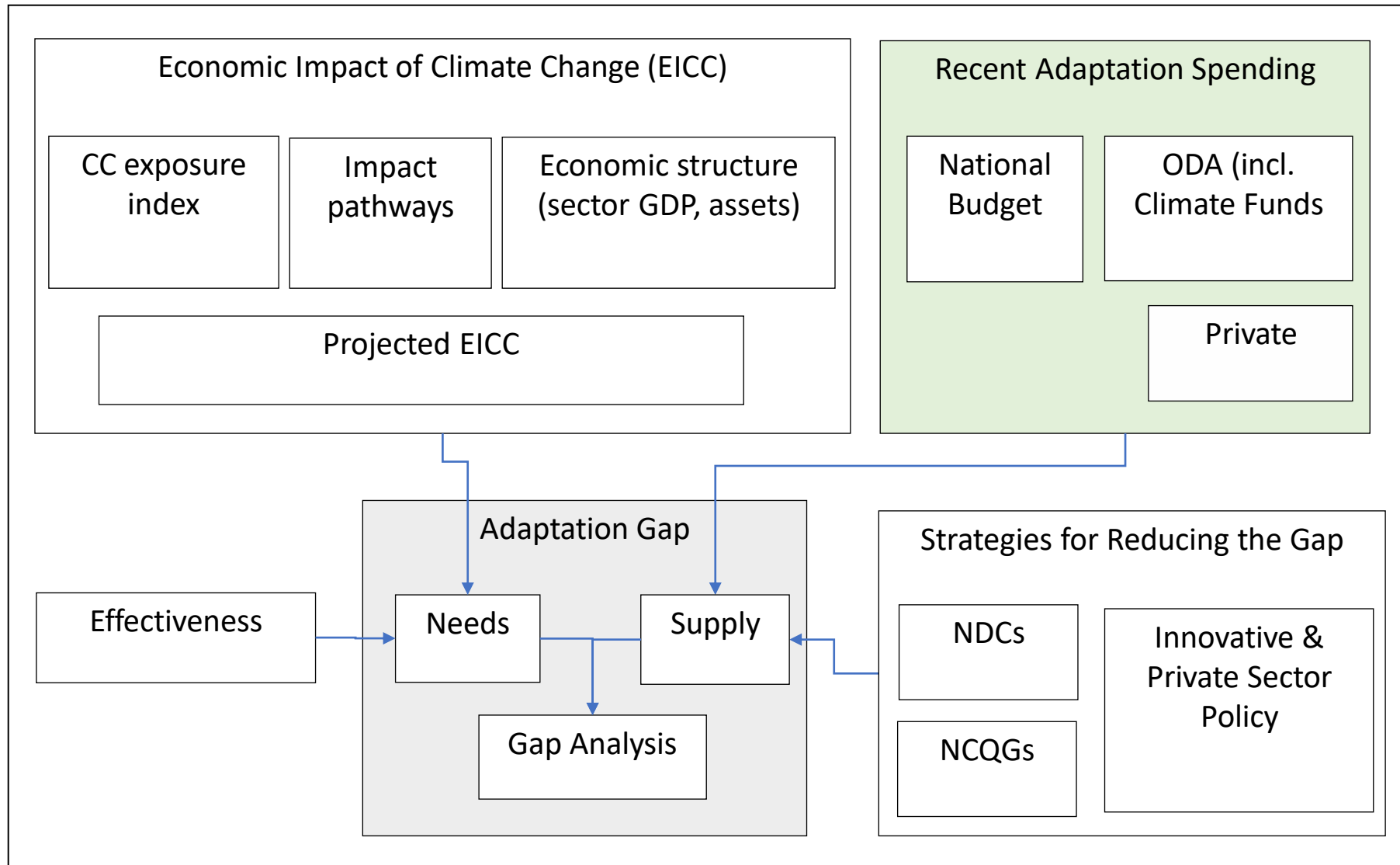
Needs (ie L&D divided by effectiveness)

APEA2 results

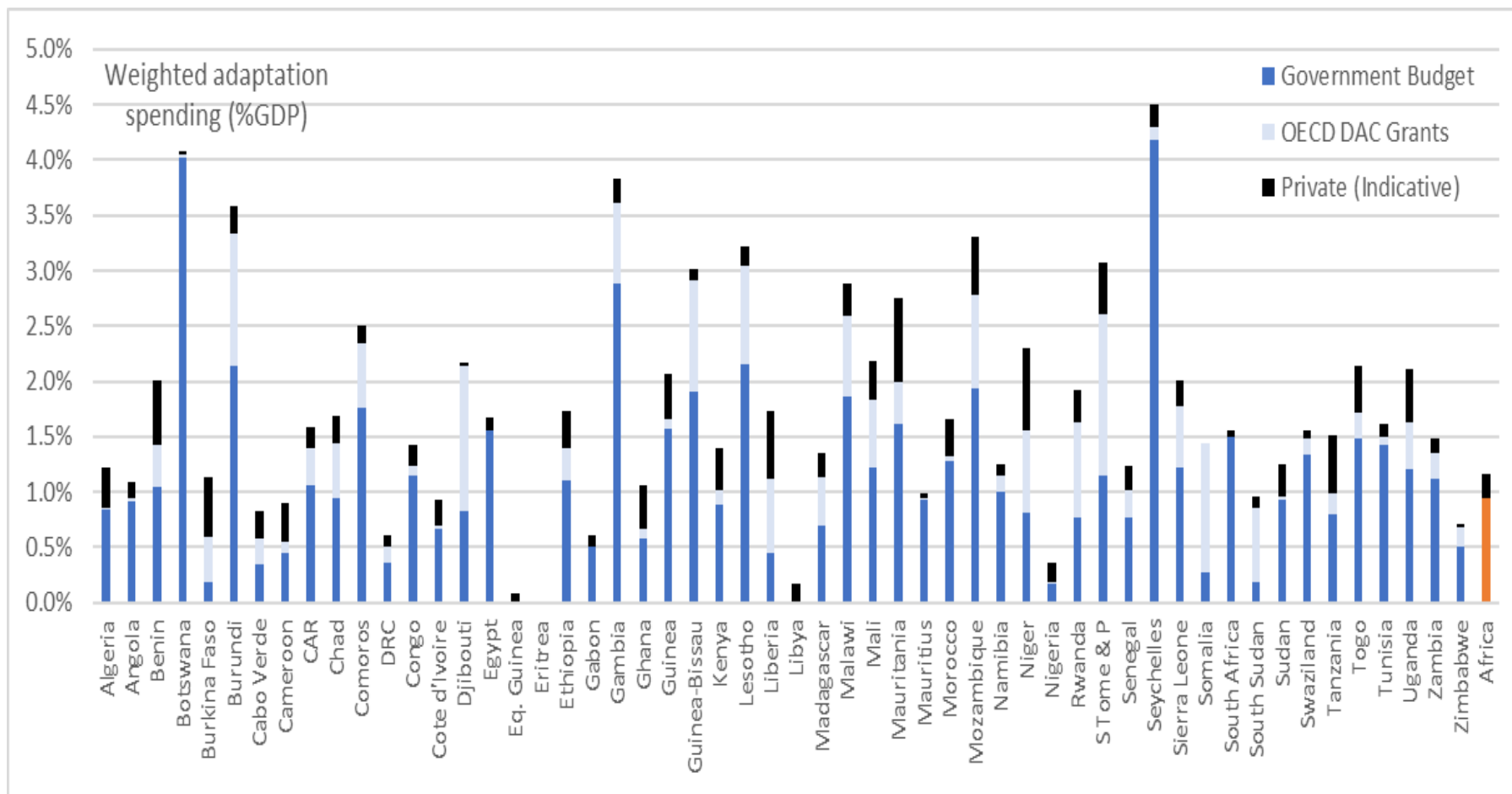


- Roughly comparable with other estimates
 - AfDB 2018 *African NDC Gap Analysis Report* (1% to 6%, Africa)
 - UNEP 2021 *Adaptation Gap Report* (about 1% all developing countries)
 - CPI 2022 *Climate Finance Needs* (2.6%, Africa)
 - WB 2019 *Beyond the Gap* (2% to 8%, LIC/MIC infrastructure all climate)
 - IMF 2020 *Fiscal Monitor* (1.1%, LICs infrastructure only)

Methodology

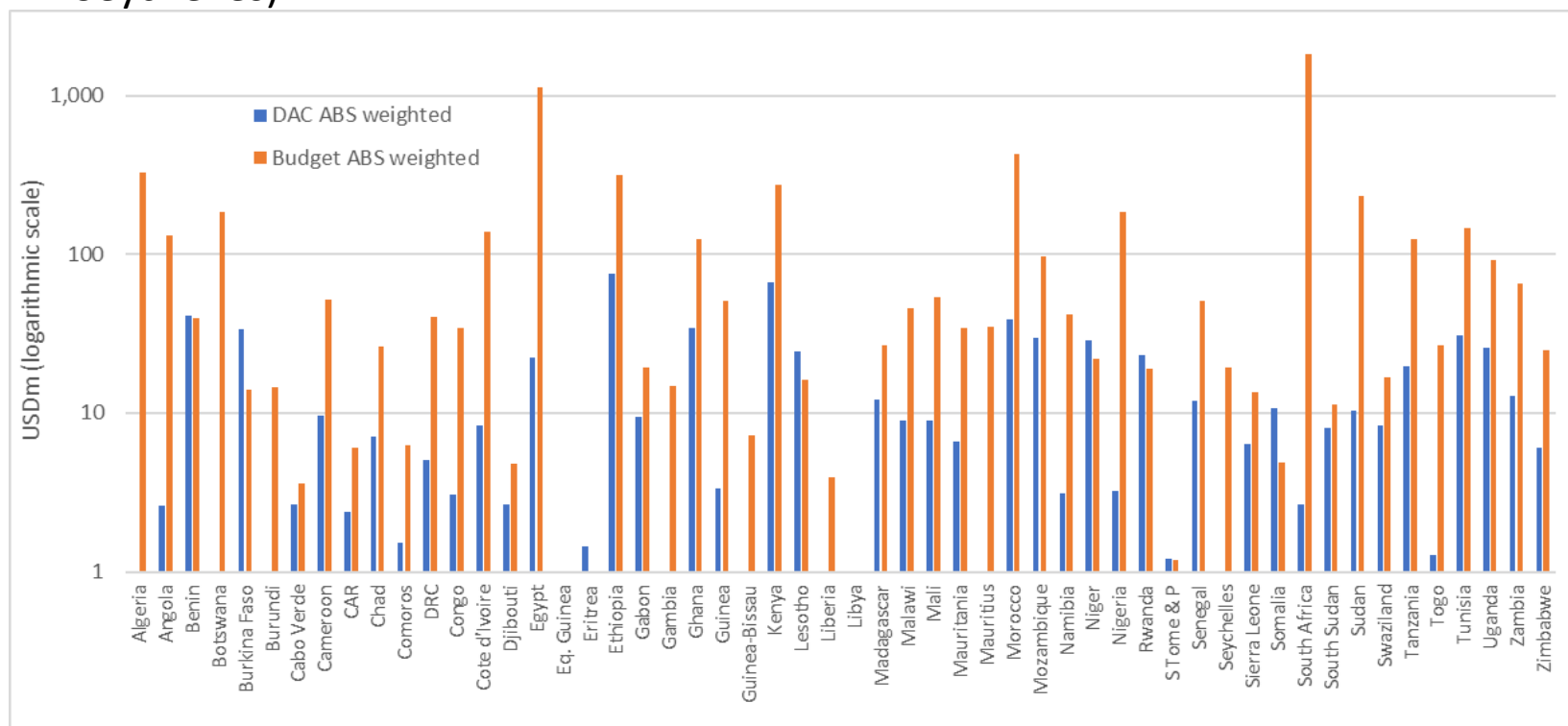


Existing Adaptation Spending

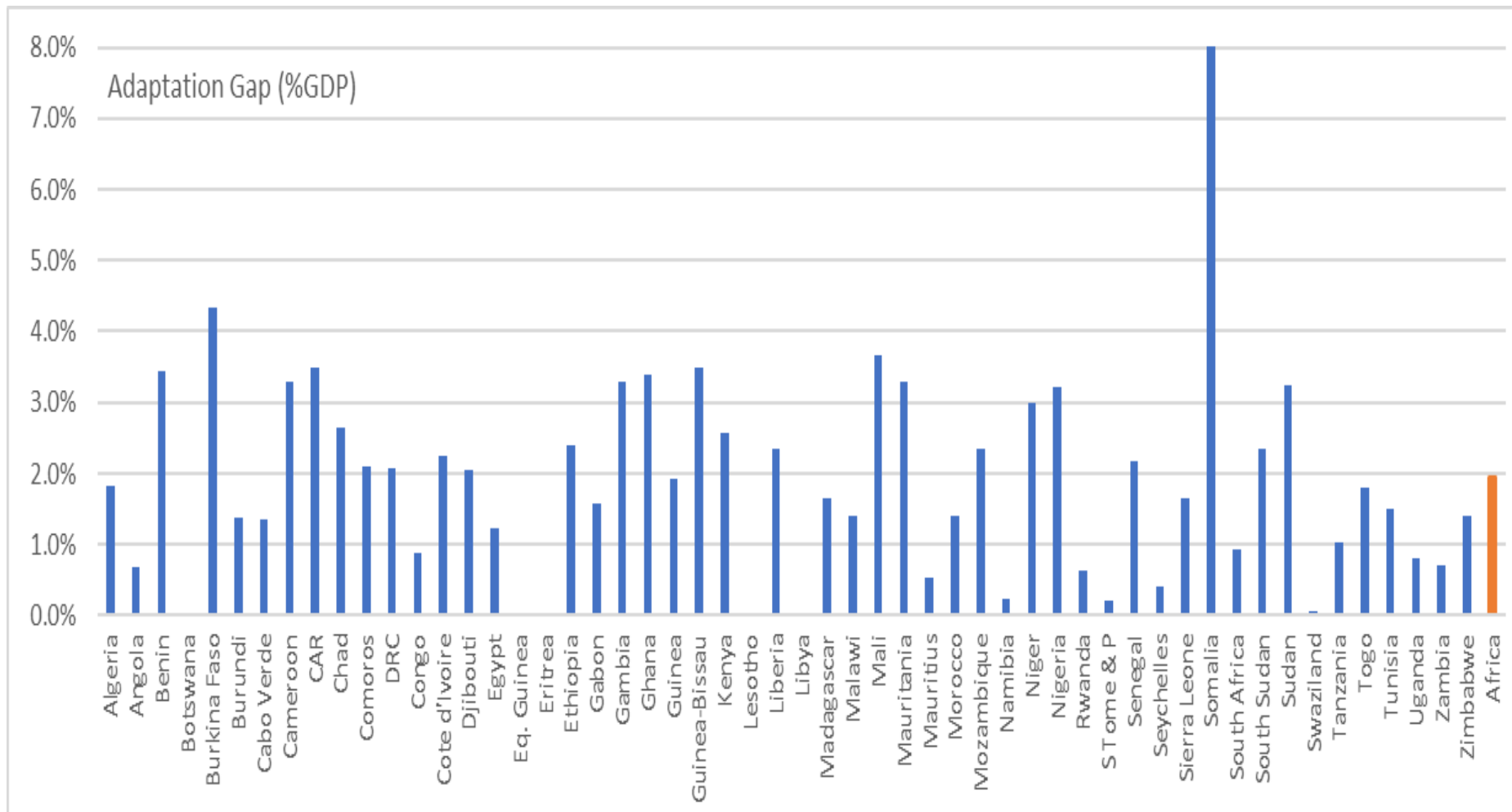


Comparing CC spending in the budget and OECD DAC (same weights)

- OECD DAC mostly lower because budget includes spending funded from domestic revenue
- OECD DAC may include some off-budget (mostly grants, especially to public enterprises -- which is picked up in only 3 APEA countries, Egypt, South Africa, Seychelles)



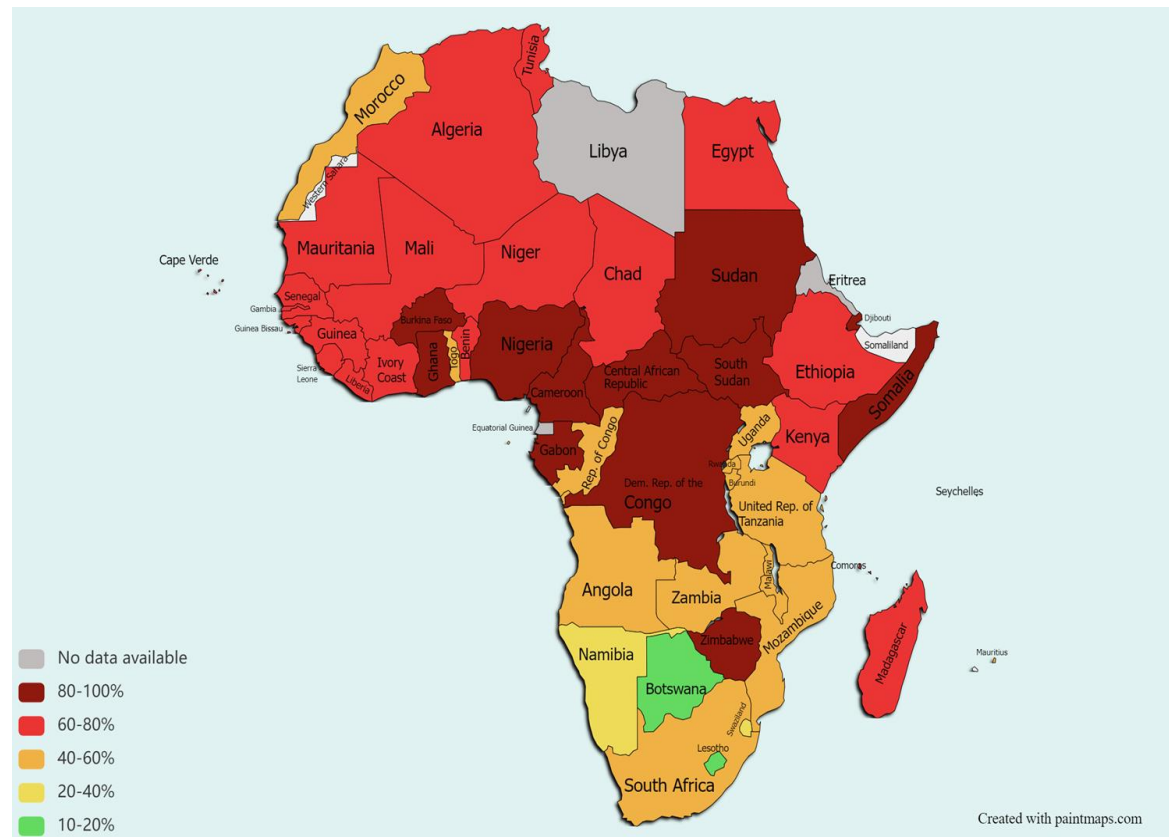
Country Adaptation Gaps (as % GDP)



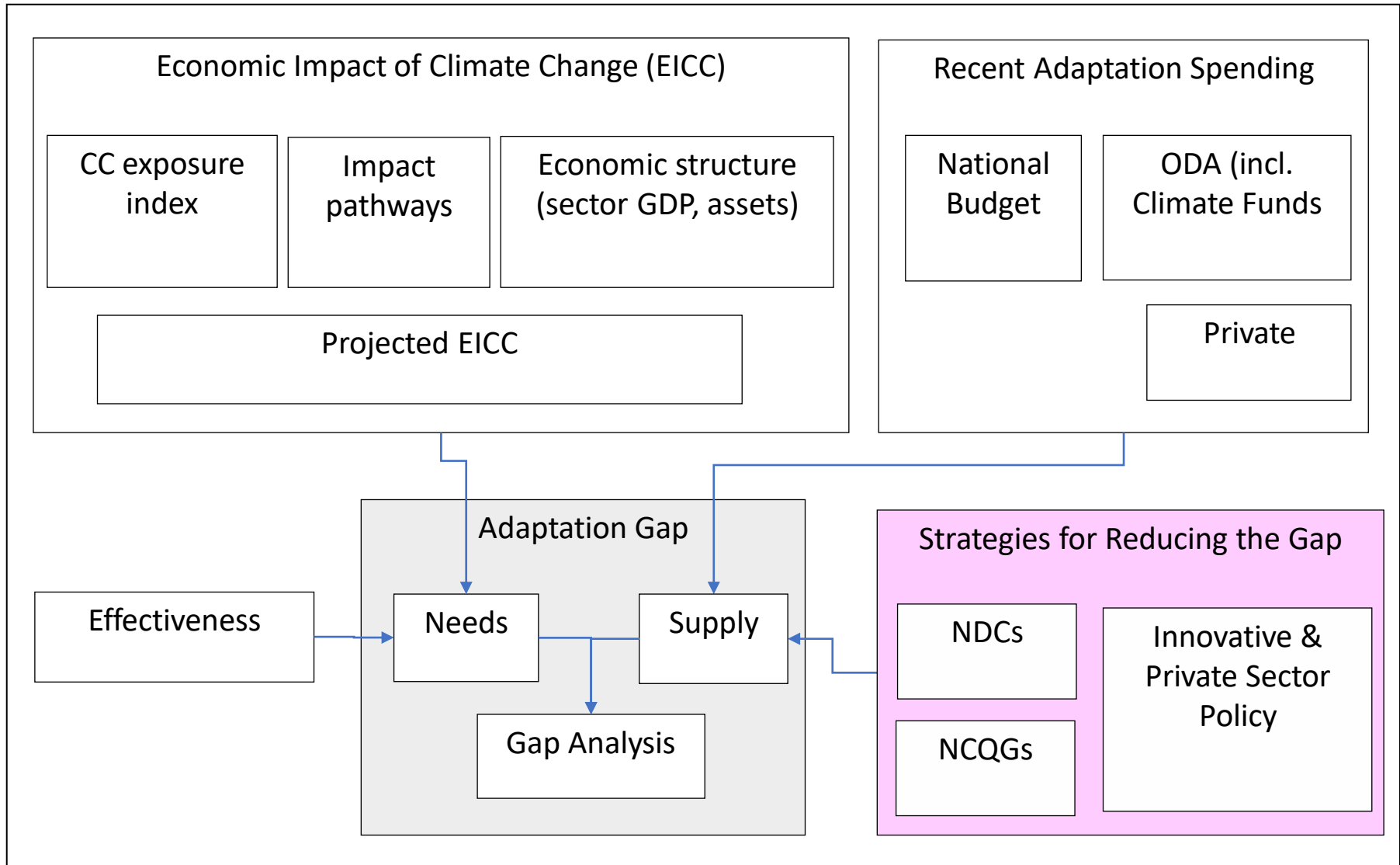
Country Adaptation Gaps (as % of total needs)

Uncovered & Uncoverable Needs as % of Total Needs

- Benefits from existing public expenditure
- Indicative estimates of private expenditure
- ‘Uncoverable gap’ (no cost-effective adaptation options)
- NDC financing frameworks need to closing the uncovered gap



Methodology



Strategy for Closing the Gap

Source/Gap	% Needs	Comments
Public Sector		
Existing	15.0%	Typical budget classification result
Own revenue growth	5.0%	Expanded revenue share of GDP
Budget effectiveness	2.0%	10% improvement in BCR
Grants & program loans	6.0%	If USD 100bn is achieved
Government KPI bonds	2.0%	Fiscal space created
Private Sector		
Existing	15.0%	Indicative from GFCF and banking survey
Private sector, natural growth	5.0%	Some shift to adaptation
Private sector, accelerated	5.0%	Policy dependent acceleration
Country Adaptation Gap		
Uncovered Gap	20.0%	Remaining coverable gap
Uncoverable Gap	25.0%	Needs with no cost-effective adaptation

Conclusion

- For Africa as a whole, the APEA analysis suggests that GDP in 2050 will be 9.3% lower in 2050 as a result of climate change
- The Net Present Value of GDP from 2020 to 2050 will be 3.8% lower.
- The annual adaptation expenditure needed to avoid all avoidable EICC is 10.4% of GDP - Existing adaptation expenditure is 3.3% of GDP and full implementation of NDC actions would cost a further 2.4% of GDP.
- Full funding of current NDC costings would address 55% of needs. The remaining 45% will need to be included in NDC costings as new actions are added (eg relating to health and labour productivity) and the scale of actions is refined.
- The analysis has implications for the scale of New Collectively Quantified Goals for adaptation funding and of the Loss and Damage Fund agreed at CoP27.

Recommendations

1. Coordination is important – multi-sectoral approach
2. Data is critical - Climate Public Expenditure and Institutional Reviews (CPEIRs). Climate Budget Tagging (CBT).
3. Adaptation Strategies and Financing Frameworks. – costing NDCs in broader context of national financing strategies -
4. Using the gap analysis to guide funding strategies - **Adaptation Gap Closing Strategy.**
5. Call for rigorous MRV for Adaptation finance and NCQG