United Nations
Economic Commission for Africa

12th ARFSD
Twelfth Session of the Africa Regional Forum on Sustainable Development
28 - 30 April 2026
Addis Ababa, Ethiopia

WEF+ Nexus in Africa

The Third Edition of the Dialogue between the OIBC-4, the Regional Collaborative Platform (RCP) Africa and the United Nations Resident Coordinators

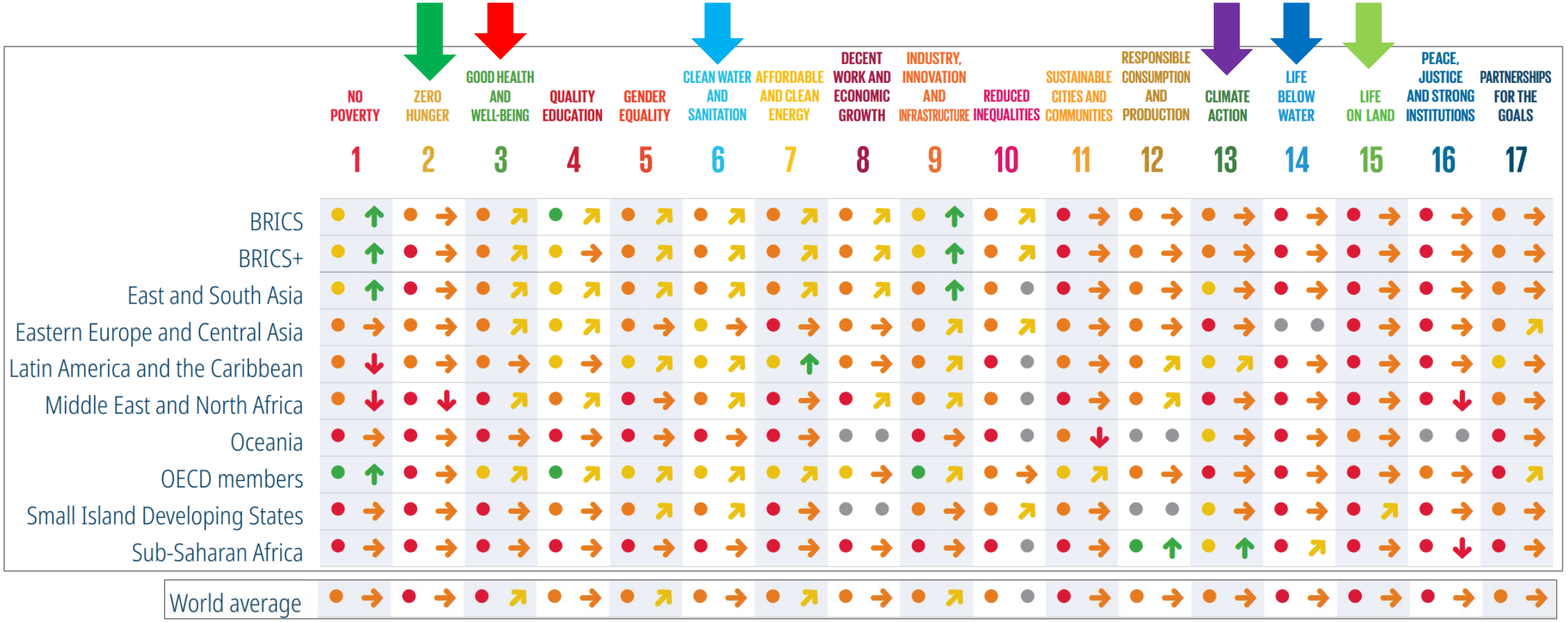
Tafadzwa Mabhaudhi
Professor of Climate Change, Food Systems and Health, LSHTM
Lead: Water-Energy-Food-Environment Nexus, UNU-INWEH
26 April 2026

United Nations
Economic Commission for Africa

African Union

Federal Democratic Republic of Ethiopia

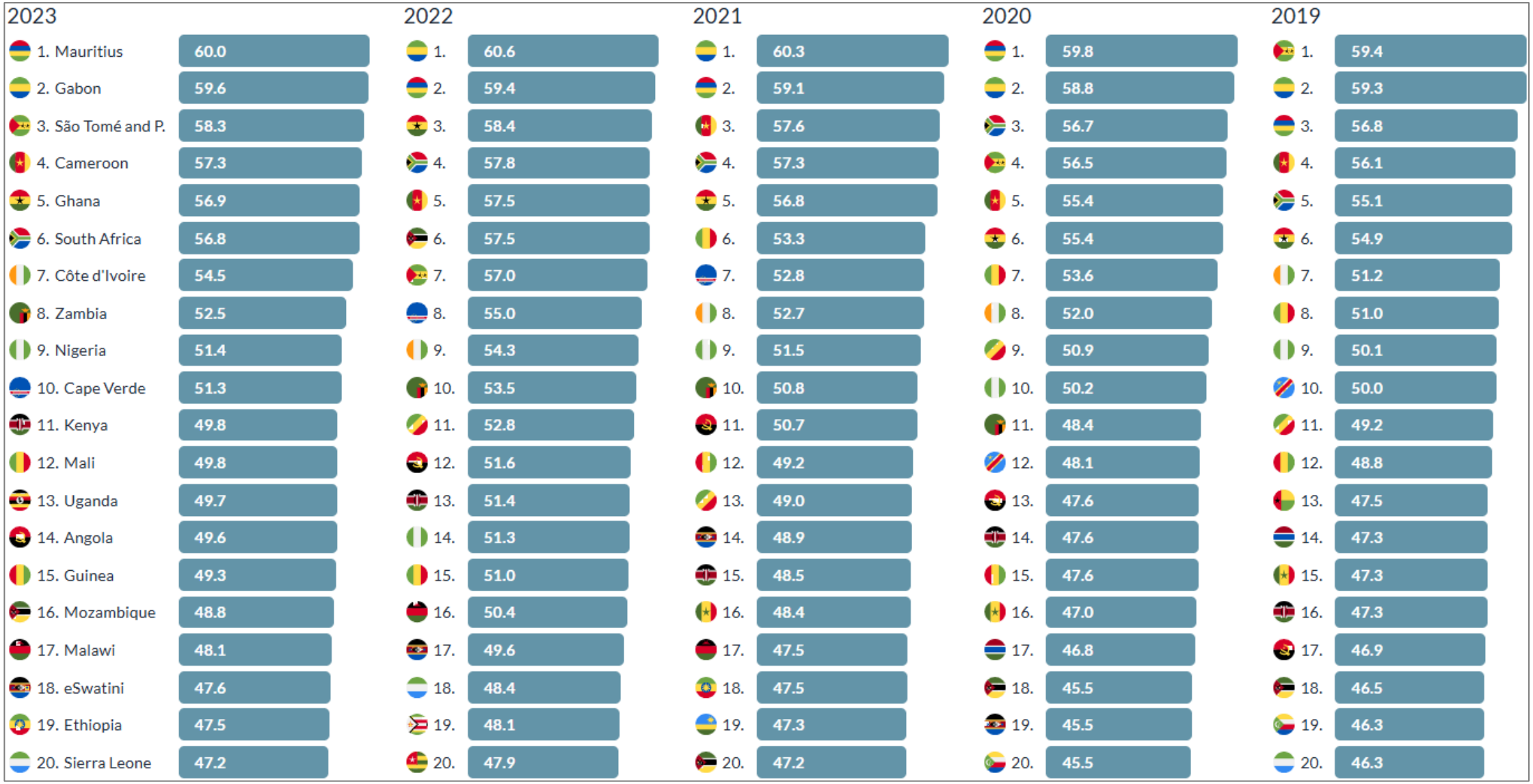
Suboptimal performance in WEFEH-related SDGs and challenges remain (2025)



(Sachs et al., 2025)

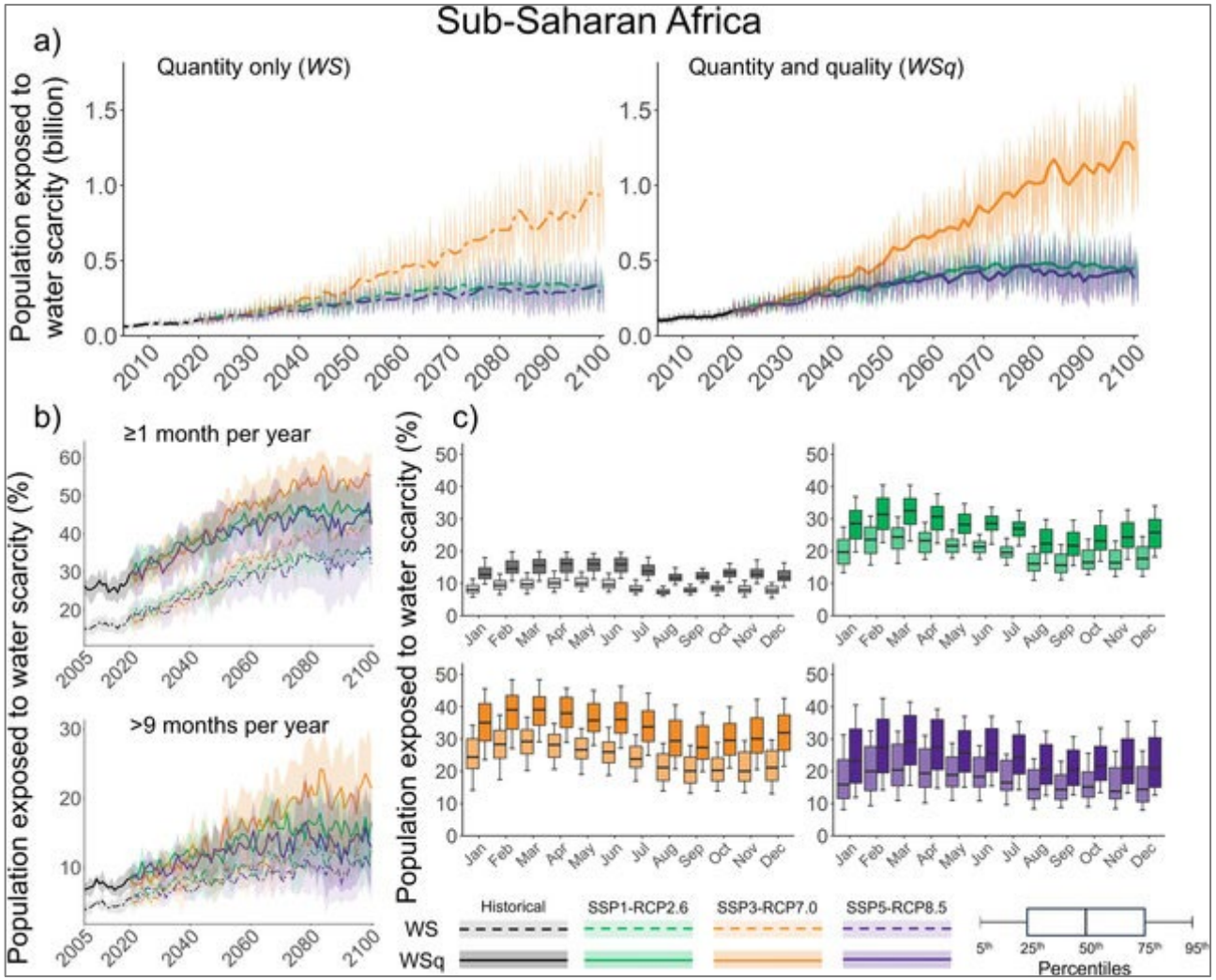
Suboptimal performance in the WEF Nexus Index: Top 10 countries in SSA (2019-2023)

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

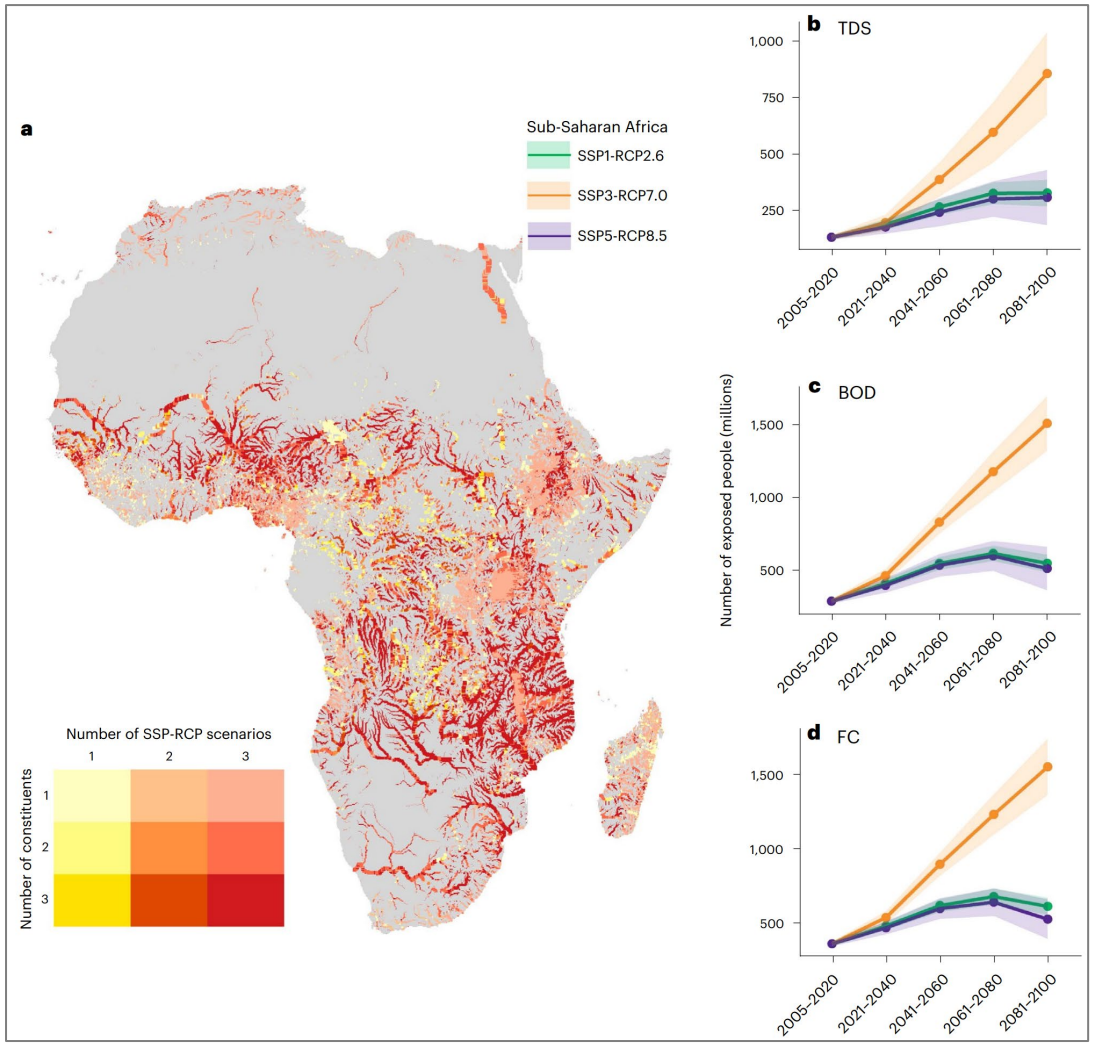


Quantity and quality-driven water scarcity in SSA

1

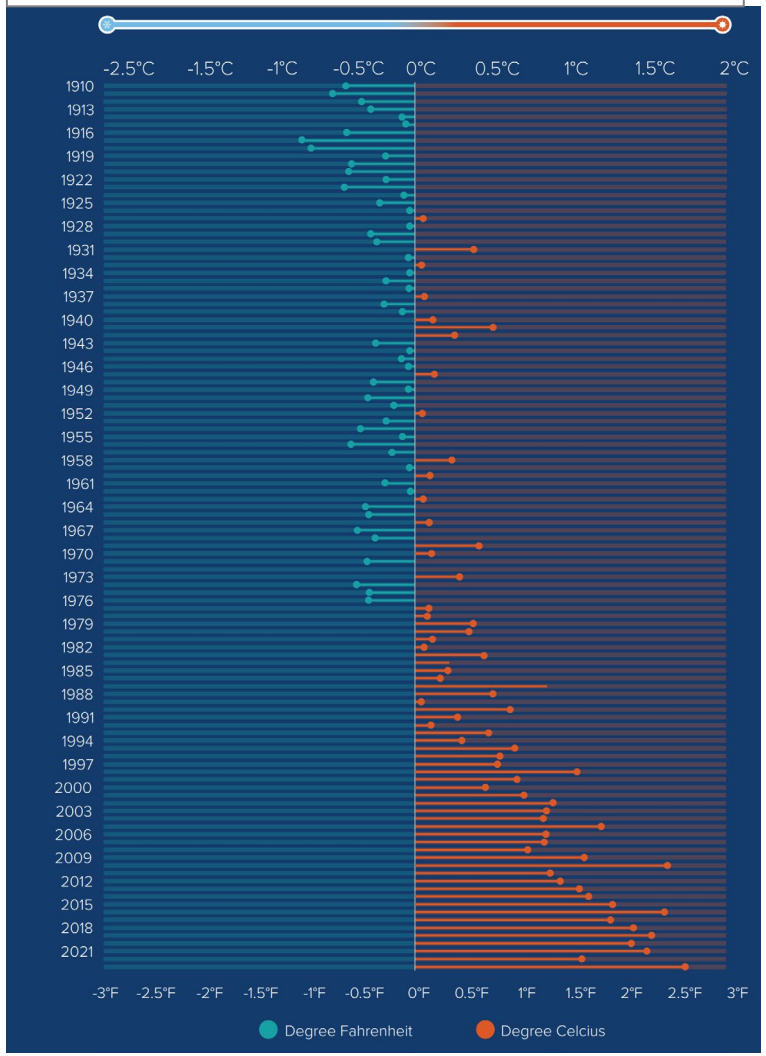


2



Climate change is affecting WEFEH-related systems in SSA

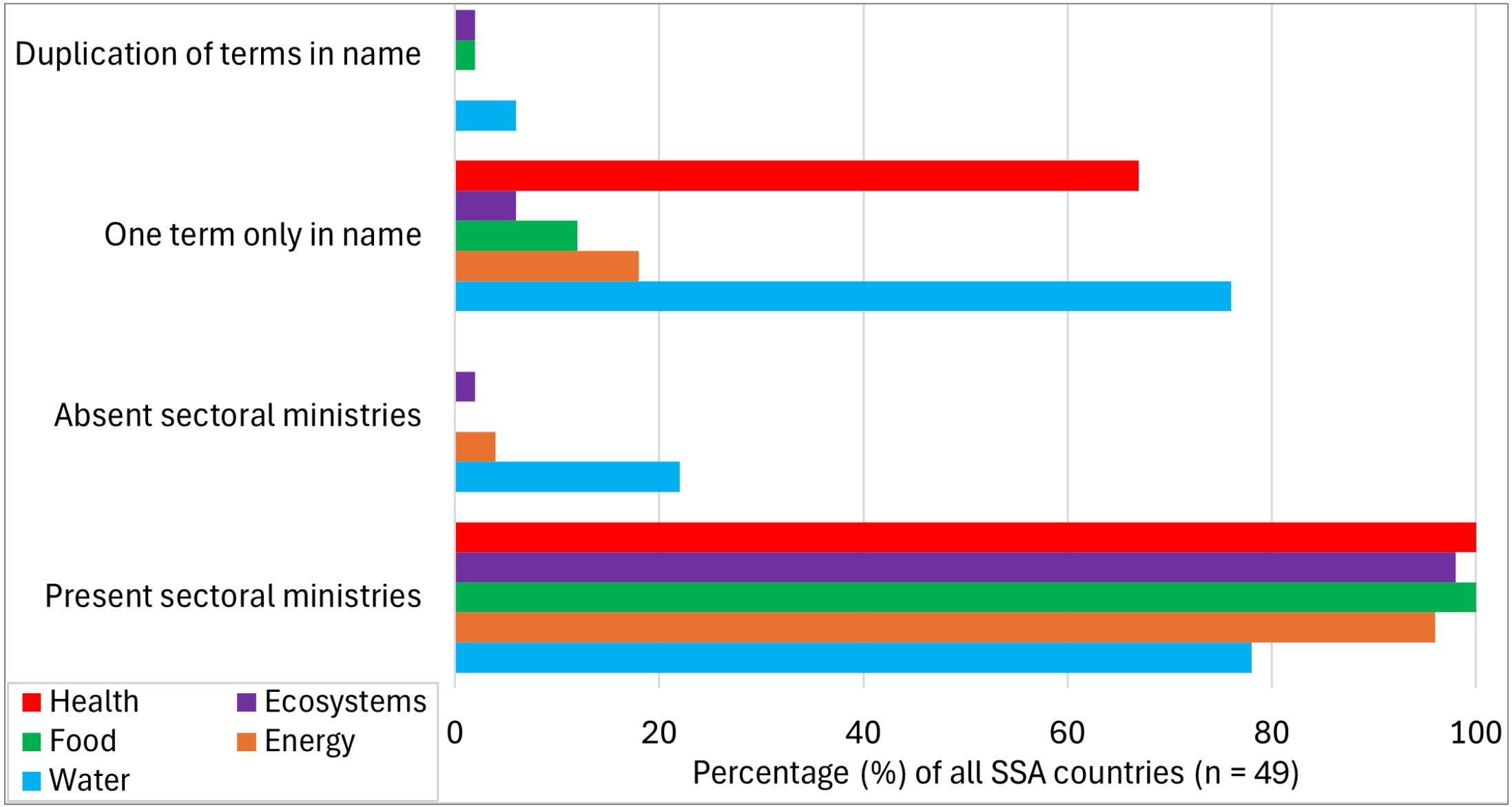
Average temperature anomalies across Africa, 1910 to 2023 (AU, 2024)



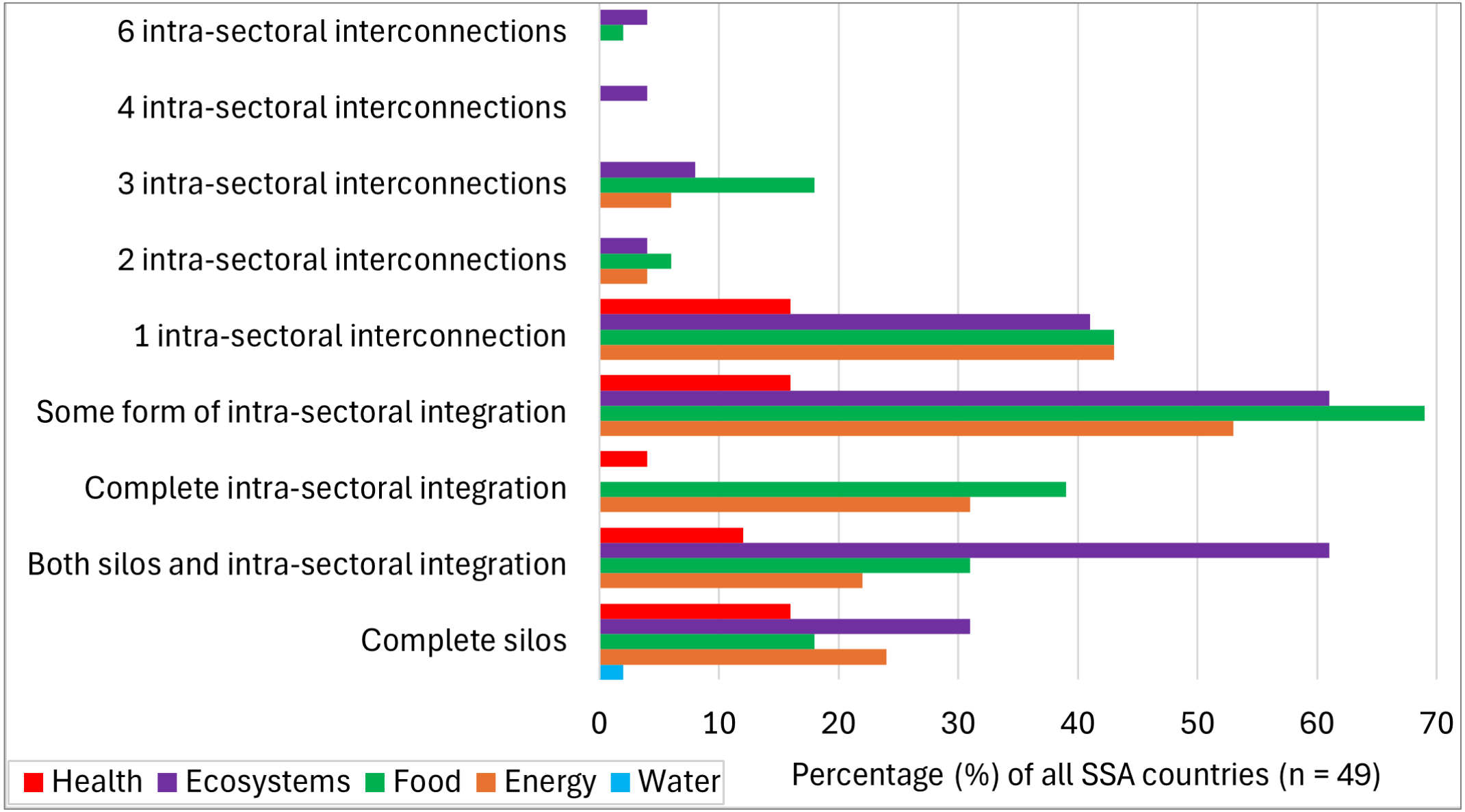
Observed impacts of climate change on human systems (IPCC)

Human systems	Impacts on water scarcity and food production: Water scarcity	Agriculture/ crop production	Animal and livestock health and productivity	Fisheries yields and aquaculture production	Impacts on health and wellbeing: Infectious diseases	Heat, malnutrition and other	Mental health	Displacement	Impacts on cities, settlements and infrastructure: Inland flooding and associated damages	Flood/storm induced damages in coastal areas	Damages to infrastructure	Damages to key economic sectors
Global	±	−		−	−	−	−	−	−	−	−	−
Africa	−	−	−	−	−	−	−	−	−	−	−	−
Asia	±	±	−	−	−	−	−	−	−	−	−	−
Australasia	±	−	±	−	−	−	−	not assessed	−	−	−	−
Central and South America	±	−	±	−	−	−	not assessed	−	−	−	−	−
Europe	±	±	−	±	−	−	−	−	−	−	−	−
North America	±	±	−	±	−	−	−	−	−	−	−	−
Small Islands	−	−	−	−	−	−	−	−	−	−	−	−
Arctic	±	±	−	−	−	−	−	−	−	−	−	±
Cities by the sea				−		−	not assessed	−		−	−	−
Mediterranean region	−	−	−	−	−	−	not assessed	−	±	−		−
Mountain regions	±	±	−		−	−	−	−	−	na	−	−

Status of WEFEH-related ministries in SSA

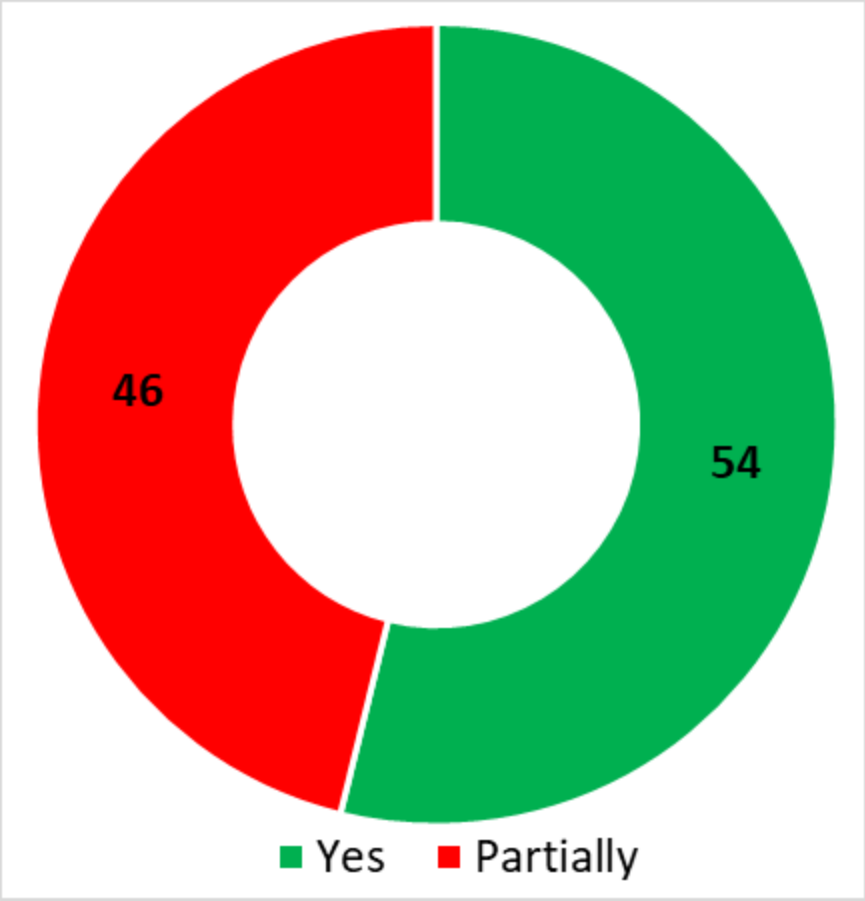


Intra-sectoral integration within WEFEH-related ministries in SSA

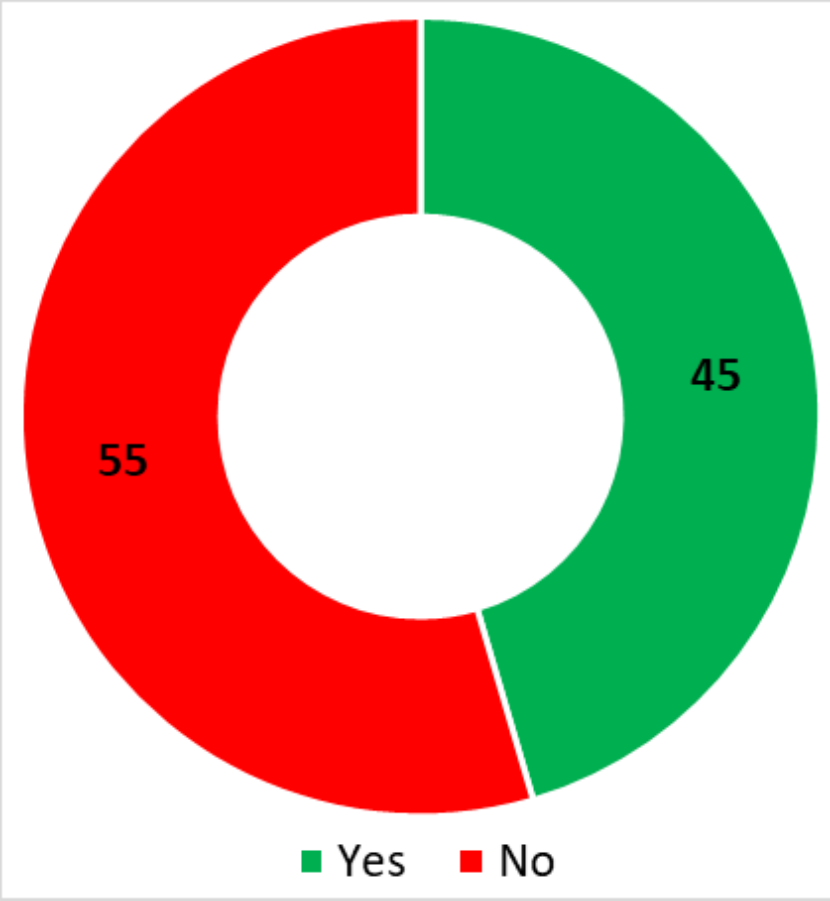


Survey: Mention and nature of integrated nexus approach to solving challenges related to WEFE

Mention of integrated nexus approach to solving challenges related to WEFE in national plan (%)

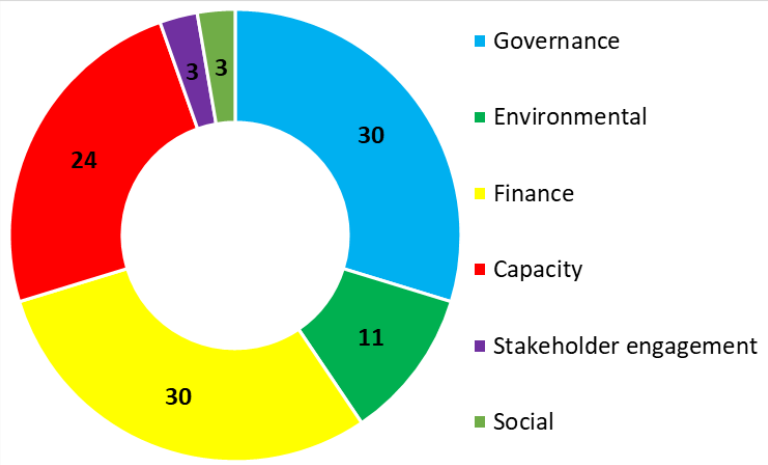


National plans, ministerial plans or inter-ministerial mechanisms focusing on water-energy or water-energy-food as a nexus (%)

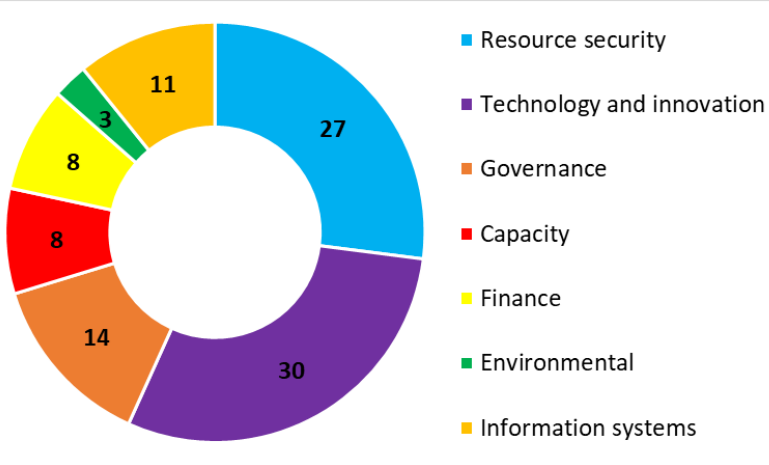


Survey: Top challenges, needs and priorities

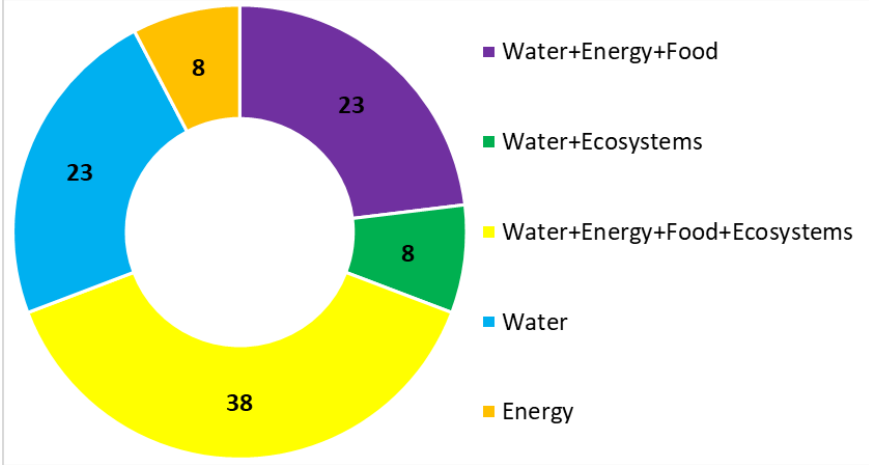
Top 3 challenges to implementing integrated approaches for managing Water-Energy-Food-Ecosystem (WEFE)-related sectors (%)



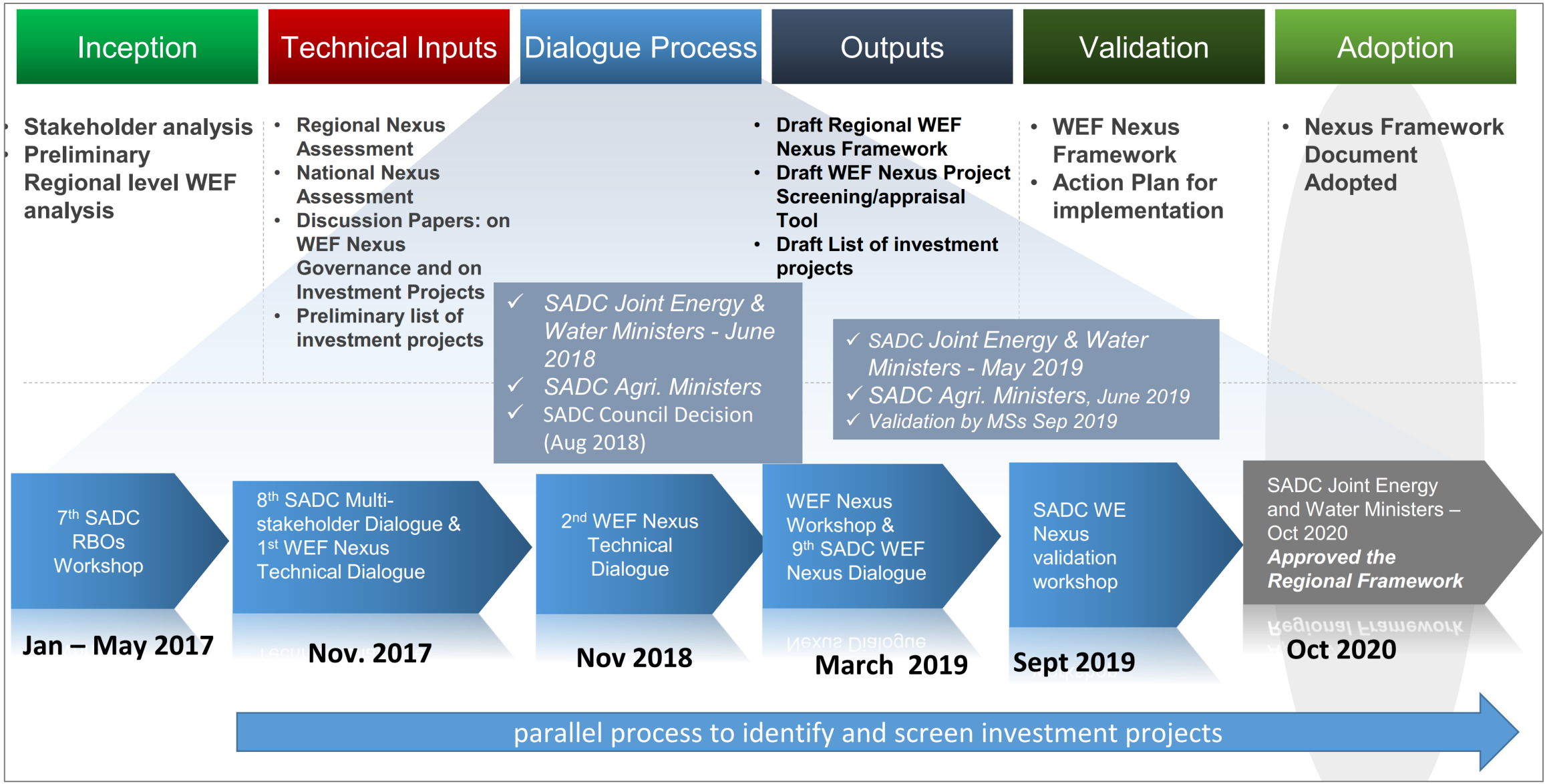
Top 3 needs across the Water-Energy-Food-Ecosystem (WEFE) sectors (%)



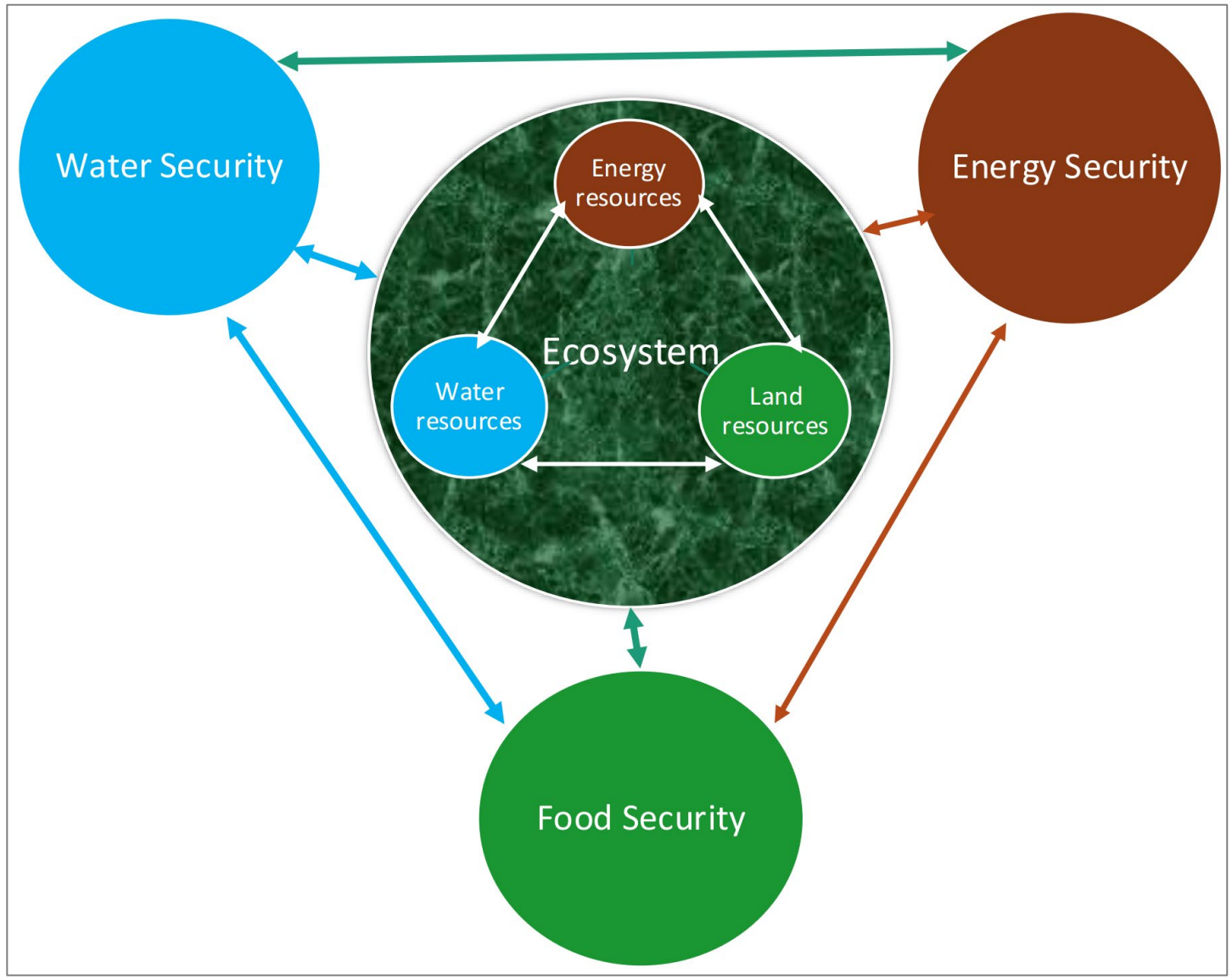
Country priority areas under the Water-Energy-Food-Ecosystem (WEFE) nexus (%)



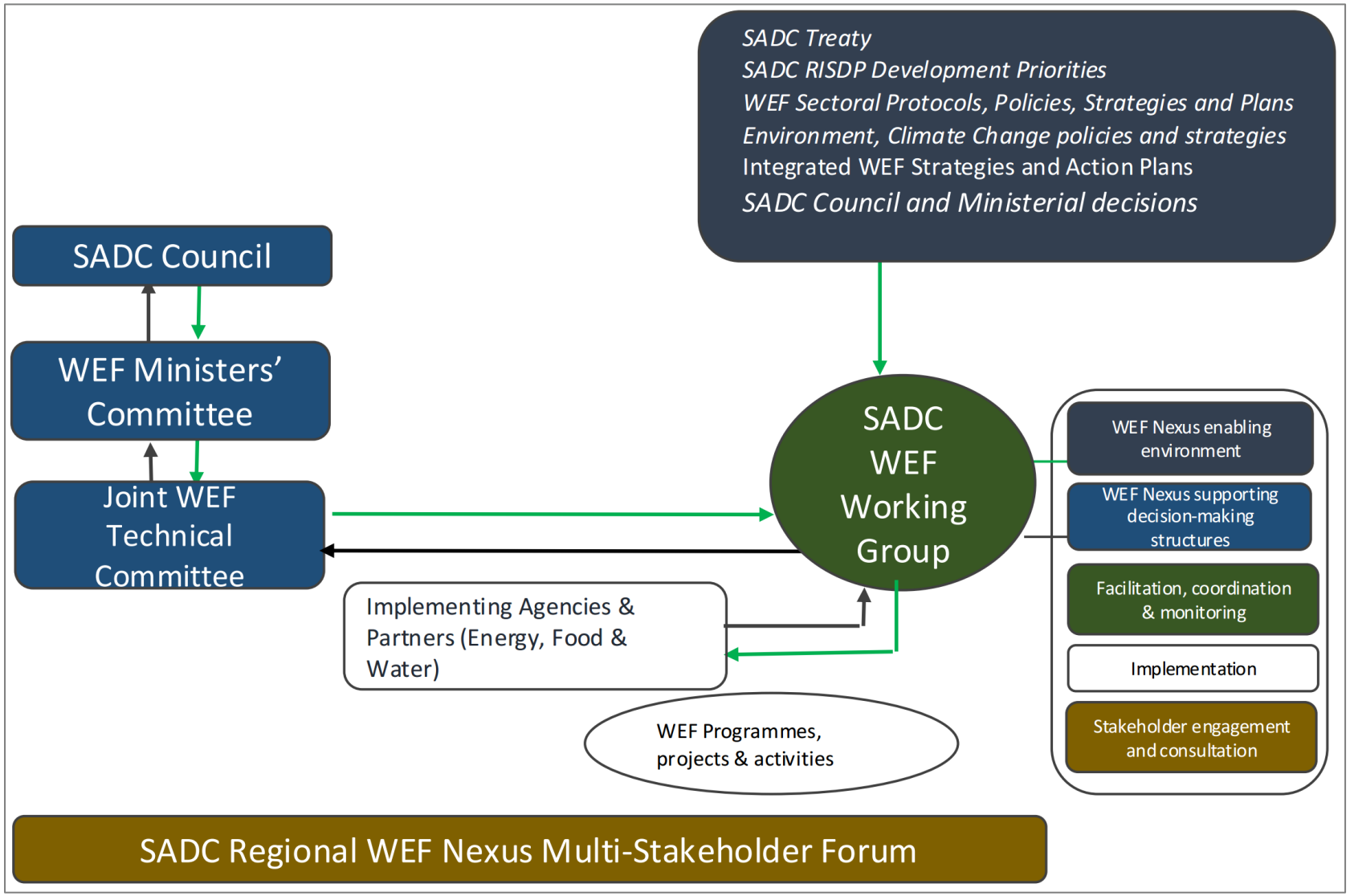
WEFEH nexus success in Southern Africa: The SADC Regional WEF Nexus Dialogues



WEFEH nexus success in Southern Africa: The SADC WEF Nexus Conceptual Framework



WEFEH nexus success in Southern Africa: The SADC Regional WEF Nexus Governance Framework



WEFEH nexus success in Southern Africa: Improving policy coherence in SADC region

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

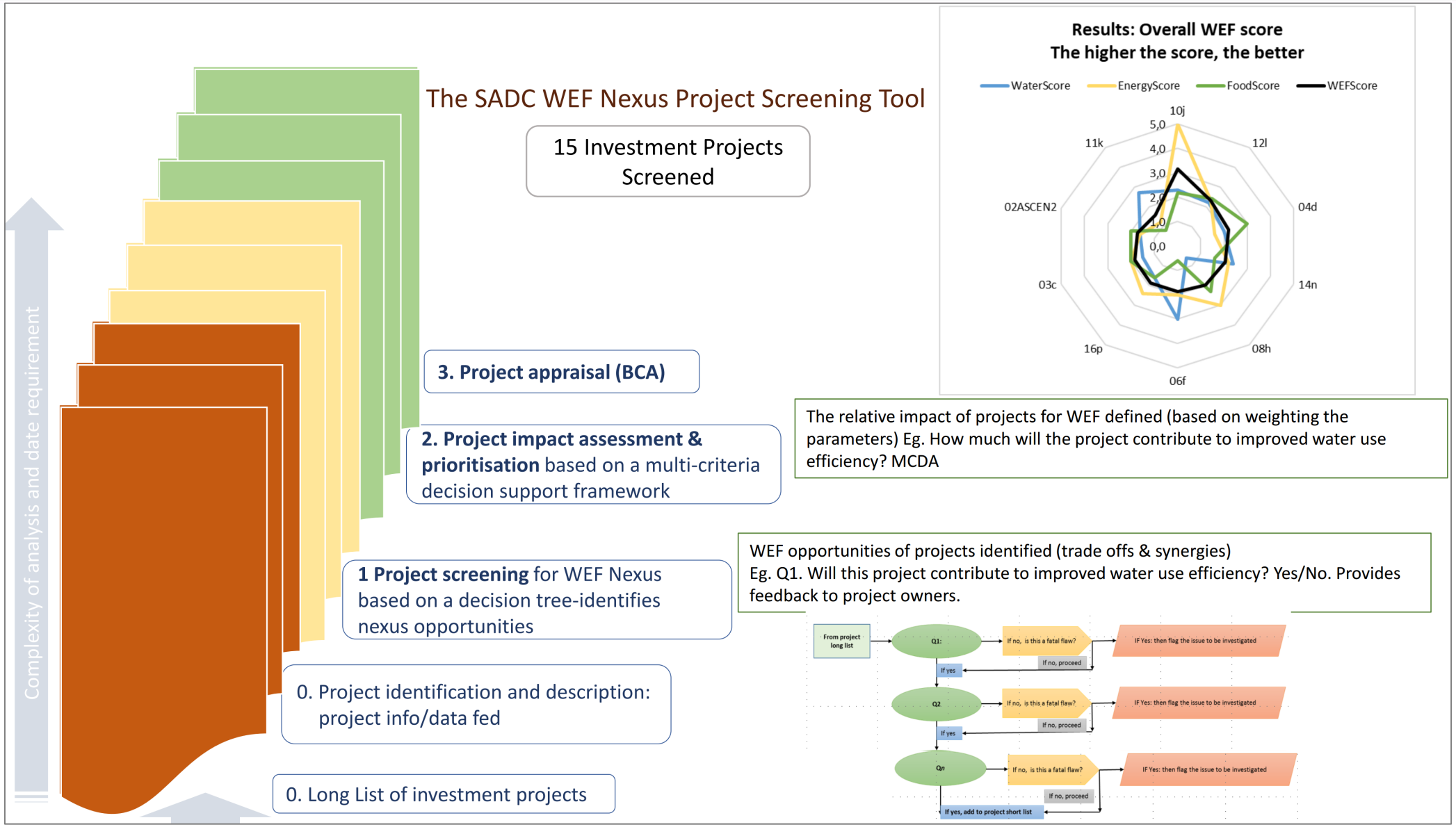
Coherence analysis for WEF

3 (High), 2 (Partial), 1(Limited) & 0 (No) coherence

	WEF Security				WEL Resource Use Efficiency				Overall
	Water	Energy	Food	WEF mean score	Climate change	Biodiversity Ecosystems	Land	WEL mean score	Overall mean score WEF and WEL
Regional Water Policy (SADC, 2005)	-	3	3	**3**	1	2	1	**1,33**	**2.12**
Regional Water Strategy (SADC, 2006)	-	3	3	**3**	3	2	1	**2**	**2.37**
Guidelines for Strengthening RBOs (SADC, 2010a)	-	1	1	**1**	1	3	1	**1,67**	**1.75**
Climate Change Adaptation in SADC, Strategy for the Water Sector (2011)	-	2	2	**2**	-	1	1	**1**	**1.71**
Regional Strategic Action Plan. Integrated Water Resources Development and Management, 2016-2020 (SADC, 2016a)	-	3	3	**3**	3	3	2	**2,67**	**2.85**
Regional Infrastructure Development Master Plan, Energy Sector (2012)	3	-	1	**2**	3	1	1	**1,67**	**1.5**
Renewable Energy and Energy Efficiency Strategy and Action Plan, 2016-2030 (SADC, 2016b)	2	-	2	**2**	3	1	1	**1,67**	**2**
Regional Energy Access Strategy and Action Plan (SADC, 2010b)	1	-	1	**1**	0	0	1	**0,33**	**0.77**
Regional Agricultural Policy (SADC, 2014)	3	3	-	**3**	3	1	3	**2,33**	**2.25**
Regional Food and Nutrition Security Strategy (SADC, 2015a)	2	0	-	**1**	3	0	2	**1,67**	**1.37**
Regional Indicative Strategy Development Plan, 2015-2020 (2015b)	3	2	3	**2.66**	3	2	2	**2,33**	**2.44**
Regional Biodiversity Strategy (2008)	1	1	2	**1.33**	2	-	3	**1,67**	**1.75**
Subject mean coherence	**2.14**	**2**	**2.1**	**-**	**2.27**	**1.45**	**1.58**	**-**	**-**

WEFEH nexus success in Southern Africa: Investment screening and prioritisation in SADC region

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE



Conclusion

- Apparently, ecosystem services are not always prioritised in policies and their integration.
- Some countries lack explicit ministries for water, energy and the environment.
- Ministerial gaps lead to underrepresentation of a sector within the WEF+ nexus.
- Duplications of mandates across WEF+-related ministries can lead to conflicts, inconsistencies, overlaps, inefficiencies and waste of resources.
- Explicitly prioritise WEF+ and related components in ministries.
- Avoid duplication of WEF+ and related components in ministries.
- Harmonise: utilise existing or establish new WEF+-related cross-sectoral integration and coordination mechanisms across, to improve alignment and coherence.
- Implement and operationalise existing frameworks and tools, such as those developed in the SADC region.

Global WEF+ Nexus Community



What's the community about?

- Aimed at knowledge sharing, data and tools, capacity development and engagement on topics related to water, energy, food, environment, health and climate change



What activities do we do together?

- Webinars, training workshops, symposia, podcasts, blogs



Who is the community for?

- Researchers (early-, mid- and senior-career), postgraduates, policymakers, practitioners



What are we most proud of?

- User-inspired and demand-driven organic platform



What are our future plans?

- To be a transdisciplinary community that profiles and amplifies voices from the global South

Thank You