Welcome

GEEP

GLOBAL 全球
ENVIRONMENTAL 環境
EDUCATION 教育
PARTNERSHIP 夥伴

GEEP Africa

Webinar: 06 December 2023

Webinar Themed Discussions

GEEP Africa

- Unpacking the themes and Agenda 2063
- Climate and Social Justice in Africa
- AI in the face of climate emergency and education
- Q&A session

❖ Dr Ravhee BHOLAH, Mauritius, Associate Professor, Mauritius Institute of Education, Mauritius
❖ Dr Adedoyin Adeleke, Founder and Executive Director of Green Growth Africa, Nigeria
❖ Ms Kerry McLean, Coastal Programmes Manager at Wildlife and Environment Society of South Africa, South Africa

Thank you to all our speakers and NAAEE team!!!

We Want To Hear From You

Have Your Say Here!

Use chat to join conversation & ask questions

Live captioning and translations: click **Closed Caption**

- **Type questions in the chat throughout**
- **For closed captions and translated captions, click Closed Captions**
- **This webinar will be recorded and shared**

Setting the Stage

GEEP Africa

Dr Ravhee Bholah

Associate Professor
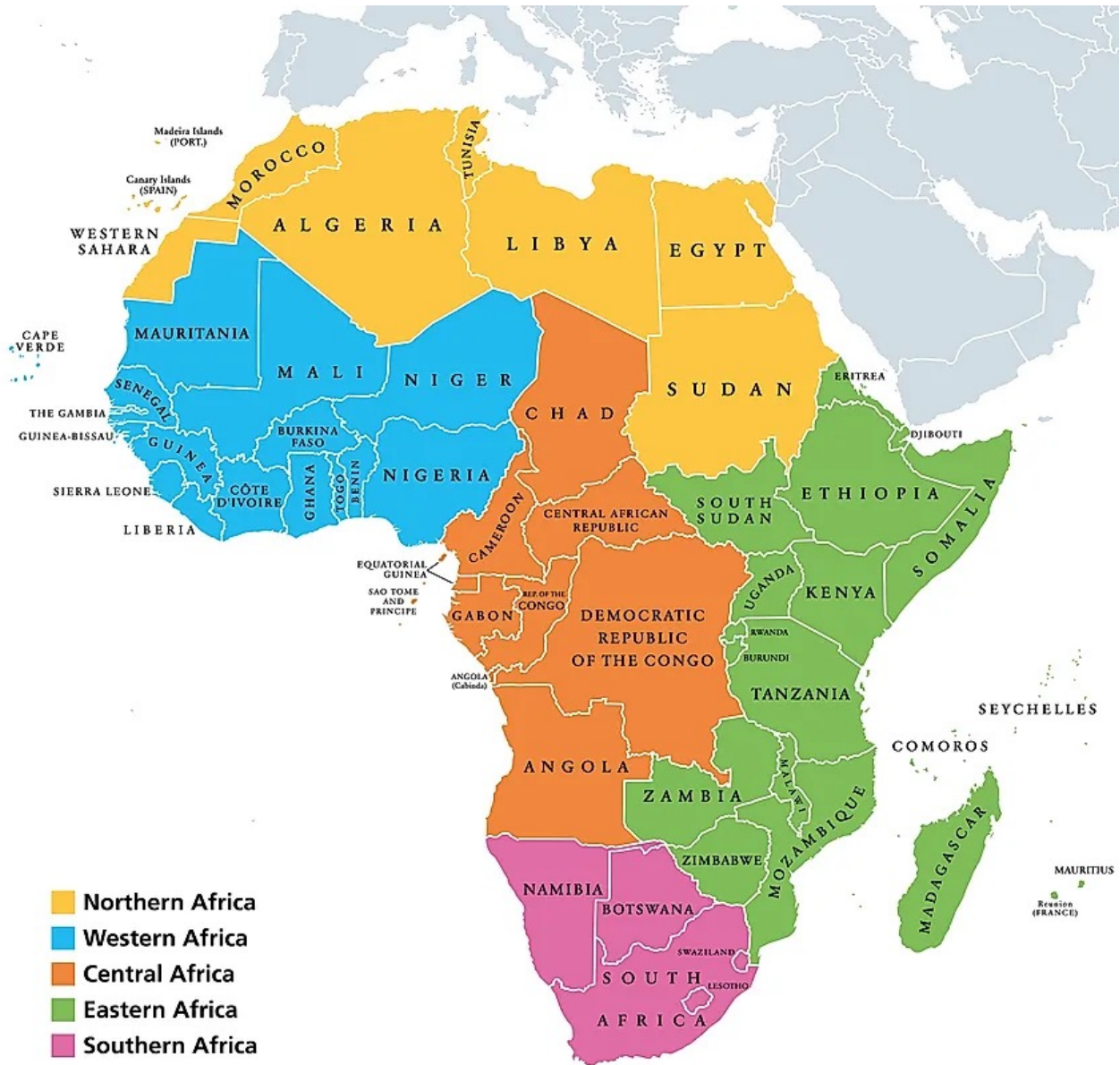*Mauritius Institute of Education*

Transforming Education Across Africa

Dr Ravhee BHOLAH, Mauritius, Associate Professor,

Mauritius Institute of Education, Mauritius

O6 December 2023

Africa

- Second largest and second populous continent

- 20% of Earth's land

- 54 states

- 5 Regions

- African nations - African Union

- 17.89% world's population

- The continent's population reached 1.2 billion in 2015

- Projection:
  - 1.7 billion in 2030 and 3 billion in 2063.
  - An increase to 29% of world population in 2063.
  - About 46 % of Africa's labour force will be
  - young people aged 15-34 (~ be an average of 12.1
  - million a year)

- Africa's youthful population structure provides a significant potential to reap demographic dividend for economic transformation.

Major Challenges facing Africa

- Poverty
  - Lack of access to basic needs, unemployment, income equality
- Political instability
- Conflict and Violence
- Limited Access to adequate Health care
  - Limited access to medical facilities, diseases prevalent in the region, lack of sanitation
- Inaccessible Quality Education
- Inadequate Infrastructure
- Lack of Economic Diversifications

- Climate change
- Loss of biodiversity
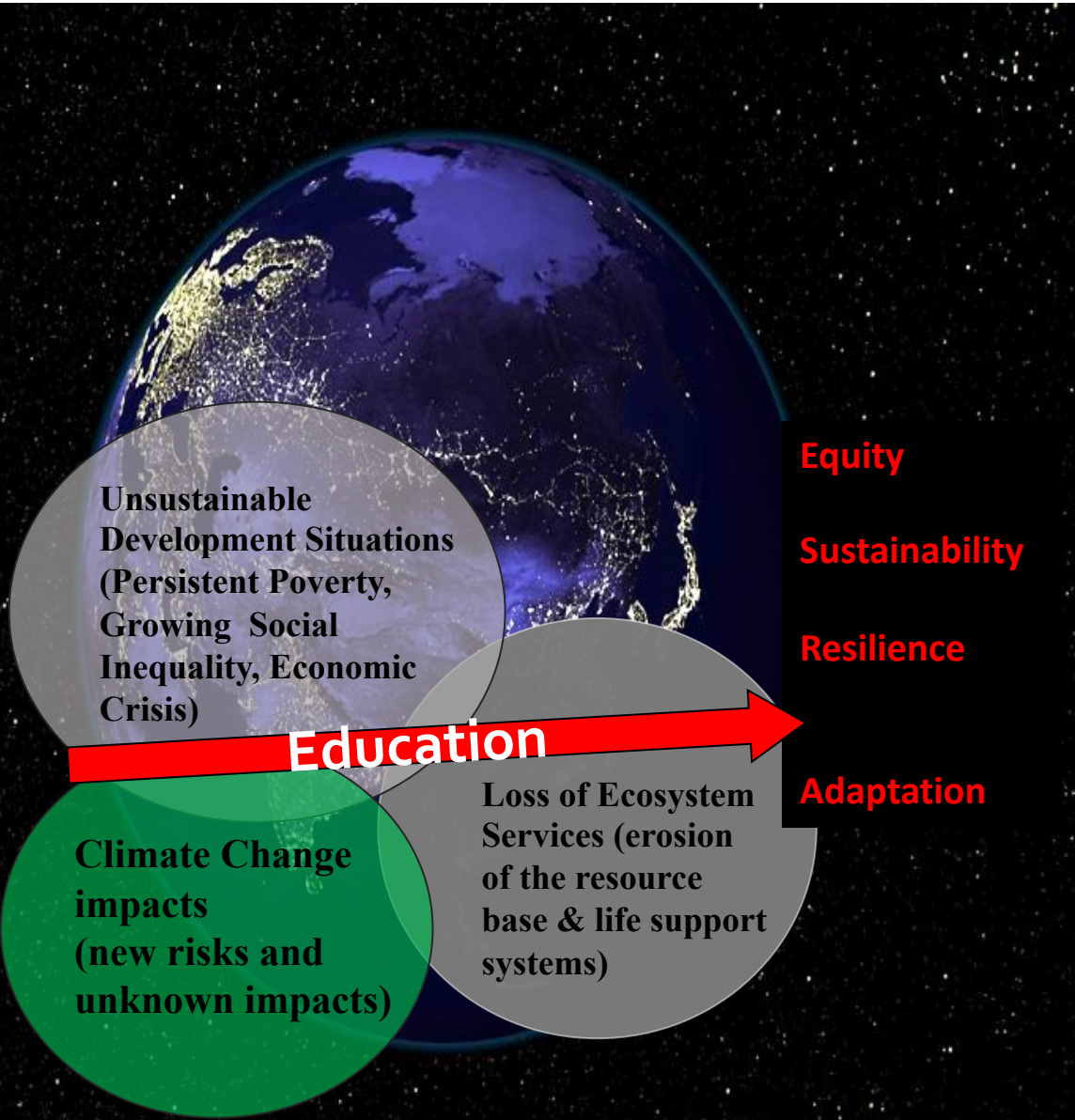- Poor waste management and pollution
- Deforestation and Land degradation
- Water scarcity
- Energy access and transition
- Foor security and Agriculture
- Urbanization and infrastructure challenge

Education as a Remedy

Challenges in Education across Africa

Equity

Sustainability

Resilience

Adaptation

Unsustainable Development Situations (Persistent Poverty, Growing Social Inequality, Economic Crisis)

Loss of Ecosystem Services (erosion of the resource base & life support systems)

Education

Climate Change impacts (new risks and unknown impacts)

(Adapted from Lotz, 2017)

Access to Education

Quality of Education

Equity in Education

Challenges: Access to education

Many Children across Africa still face barriers to accessing education, including inadequate infrastructure, long distances to schools, and cultural or economic obstacles
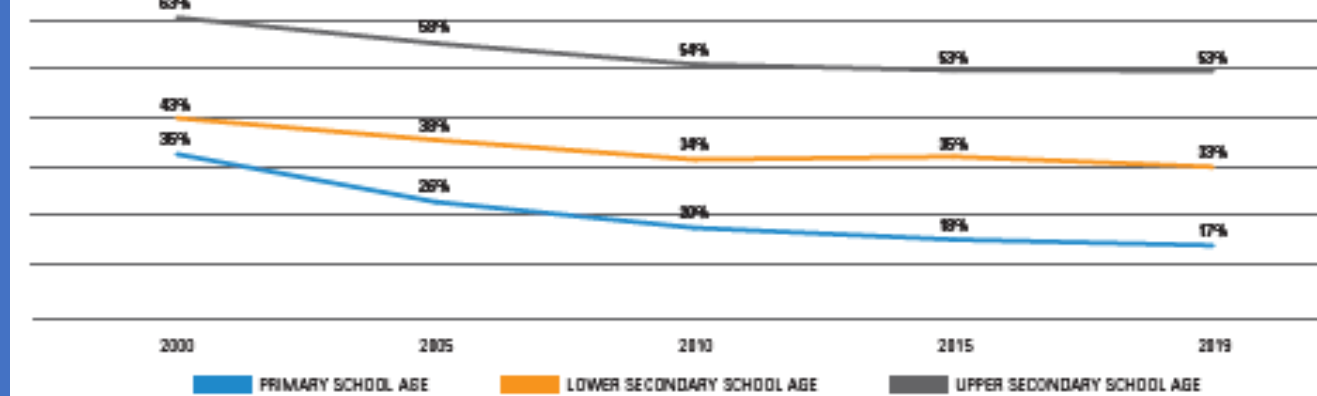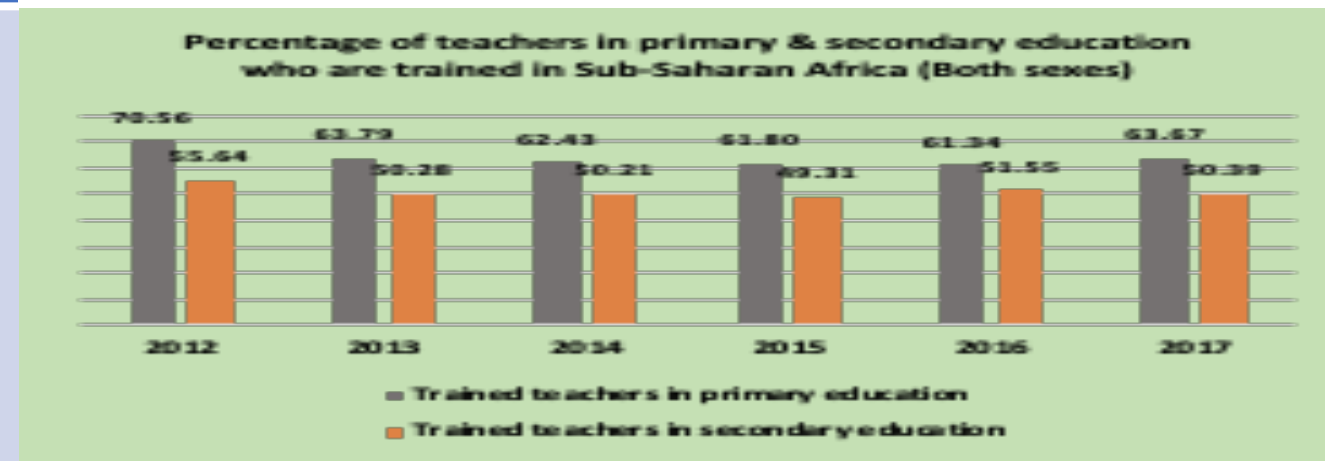

Source: Calculations based on data from the UNESCO Institute for Statistics

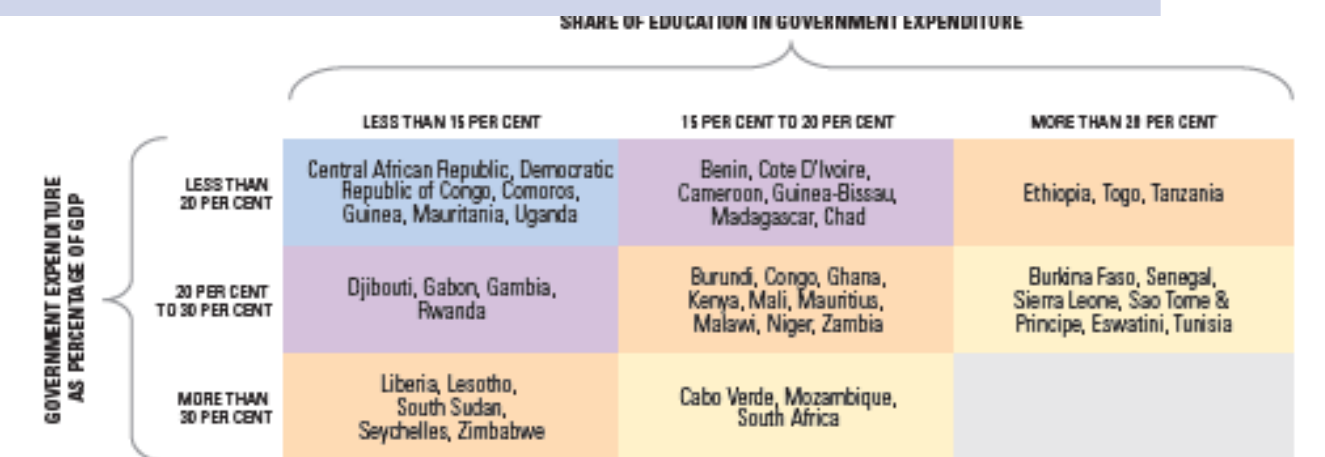Legend: PRIMARY SCHOOL AGE | LOWER SECONDARY SCHOOL AGE | UPPER SECONDARY SCHOOL AGE

Challenges: Quality of education

Issues such as outdated curricula, lack of trained teachers, and limited resources often lead to disparities and inconsistencies in the quality of education across different regions in Africa

Percentage of teachers in primary & secondary education who are trained in Sub-Saharan Africa (Both sexes)

Trained teachers in primary education
Trained teachers in secondary education

Challenges: Equity in Education

Gender disparities, unequal access for marginalized communities, and imbalances in educational funding contribute to inequities in educational opportunities across Africa

SHARE OF EDUCATION IN GOVERNMENT EXPENDITURE

GOVERNMENT EXPENDITURE AS PERCENTAGE OF GDP	LESS THAN 15 PER CENT	15 PER CENT TO 20 PER CENT	MORE THAN 20 PER CENT
LESS THAN 20 PER CENT	Central African Republic, Democratic Republic of Congo, Comoros, Guinea, Mauritania, Uganda	Benin, Cote D'Ivoire, Cameroon, Guinea-Bissau, Madagascar, Chad	Ethiopia, Togo, Tanzania
20 PER CENT TO 30 PER CENT	Djibouti, Gabon, Gambia, Rwanda	Burundi, Congo, Ghana, Kenya, Mali, Mauritius, Malawi, Niger, Zambia	Burkina Faso, Senegal, Sierra Leone, Sao Tome & Principe, Eswatini, Tunisia
MORE THAN 30 PER CENT	Liberia, Lesotho, South Sudan, Seychelles, Zimbabwe	Cabo Verde, Mozambique, South Africa	

Source: Calculations based on data from the UNESCO Institute for Statistics and the IMF

How is education transforming and shaping the future of Africa?

Education in shaping the Future of Africa

Education as a catalyst for Development

Africa Agenda 2063

UN SDG 2030

NDP, AGENDA 2063 AND SDGs

Long term plans that provide a shared development vision for all stakeholders within the country, in the continent and the world

NDP VISION 2030
Fight poverty, inequality and unemployment

AFRICA AGENDA 2063
Prosperous Africa based on inclusive growth and sustainable development

SDGS 2030
End poverty, protect the planet and ensure prosperity for all

Mutually reinforcing agendas: Agenda 2063 focus also relate to the AU's Pan-African drive, African cultural identity, common heritage, values and ethics; the African Renaissance; and the strong focus on the security agenda
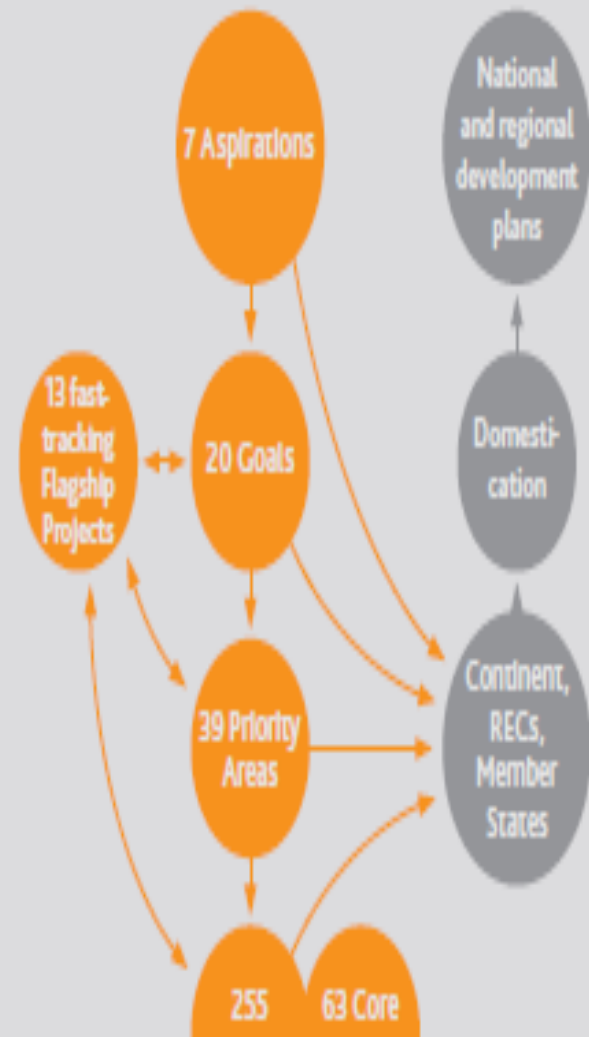
Agenda 2063: Seven Aspirations

1. A prosperous Africa based on inclusive growth and sustainable development

2. An integrated continent, politically united and based on the ideals of Pan- Africanism and the vision of Africa's Renaissance

3. An Africa of good governance, democracy, respect for human rights, justice and the rule of law

4. A peaceful and secure Africa

5. An Africa with a strong cultural identity, common heritage, shared values and ethics

6. An Africa where whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children

7. Africa as a strong, united and influential global player and partner

Environmental Sustainability and Climate Resilience
Inclusive Economic growth

High Standard of Living (income, Jobs, Health, Education)
Transformed economies

Prosperous Africa

Universal principles of human rights, justice and the rule of law observed
Capable Developmental State

Good Governance, Democracy, Human Rights, Justice and rule of law

Political Unity and Integrated Continent

Politically United Africa
Economically integrated
Free movement of people, goods and services

Equal opportunities and Participation of women and youth
Local governance for sustainable development
Civil society contributes to development

Development is people-driven

Agenda 2063

Peaceful and Secure Africa

Security and stability
Capable nation at peace with herself and neighbors

Speaks with one voice in global affairs
Major partner in the process and outcomes of global economic prosperity

A Strong and Influential Global Player and Partner

Strong Cultural Identity Values and Ethic

National culture are recognized and respected

Constitutive Act

African Union Vision

The 8 Priority Areas of the Solemn Declaration

African Aspirations for 2063

Regional and Continental Frameworks

Member States National Plans

Source: AU

The Agendas: Vision and Frameworks

UN SDG 2030 (2015-2030)	Africa Agenda 2063 (2013-2063)	UN SDG 2030 (2015-2030)	Africa Agenda 2063 (2013-2063)
15-Year Global Action Plan	50- Year Continental Integrative and transformative Agenda		
Vision A world that is resolved to free the human race from the tyranny of poverty and want and to heal and secure the planet	**Vision** Pan-African Vision and African Renaissance The Africa We Want: An integrated, prosperous and peaceful Africa, driven by its own citizens, representing a dynamic force in the international arena		
Focus Areas Inclusive socioeconomic development, peaceful societies, accountable institutions, environmental sustainability, climate change, Inequalities	**Focus Areas** Inclusive socioeconomic development, peaceful societies, accountable institutions, environmental sustainability, inclusion, democracy, culture, continental integration		

Linking Agenda 2063 and the SDGs

	Agenda 2063 Goals	SDGs No.
1	A high standard of living, quality of life and well-being for all citizens	1, 2, 8 and 11
2	Well educated citizens and skills revolution underpinned by science, technology and innovation	4
3	Healthy and well-nourished citizens	3
4	Transformed economies	8 and 9
5	Modern agriculture for increased productivity and production	2
6	Blue/ocean economy for accelerated economic growth	14
7	Environmentally sustainable and climate resilient economies and communities	6,7,13 and 15
8	A United Africa (Federal or Confederate)	
9	Continental financial and monetary institutions established and functional	
10	World class infrastructure crisis - crosses Africa	9
11	Democratic values, practices, universal principles of human rights, justice and the rule of law entrenched	16
12	Capable institutions and transformative leadership in place	1
13	Peace, security and stability is preserved	16
14	A stable and peaceful Africa	
15	A fully functional and operational APSA	
16	African cultural renaissance is pre-eminent	5
17	Full gender equality in all spheres of life	5
18	Engaged and empowered youth and children	4 and 5
19	Africa as a major partner in global affairs and peaceful co-existence	17
20	Africa takes full responsibility for financing her development Goals	10 And 17

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Priority Actions
(including Youth in Africa)

Success Stories:
Initiatives, Projects

Partnership and
Collaborations (e.g Networks)

Transforming Education in Africa

Priority actions to advance Education in Africa (1)

1. Implementation of two major strategies through Member States and Partners using the cluster method:

   - Continental Education Strategy for Africa (CESA)

   - Continental strategy on Technical Vocational Education and Training (TVET)

2. Promoting women and girls in education in Africa

- Technology, E-learning and Blended learning
- Teacher Training and Professional Development
- Infrastructure and Resources – School facilities, learning materials and ICT
- Research and Development

Priority actions to advance Education in Africa (2)

Promoting

- Promoting development curation and use of education statistics (e.g M & E – data collection/Impact assessment)

Increasing

- Increasing number of highly qualified citizens in the fields of sciences, technology and innovations with skills that are aligned to the continent's human resource requirements
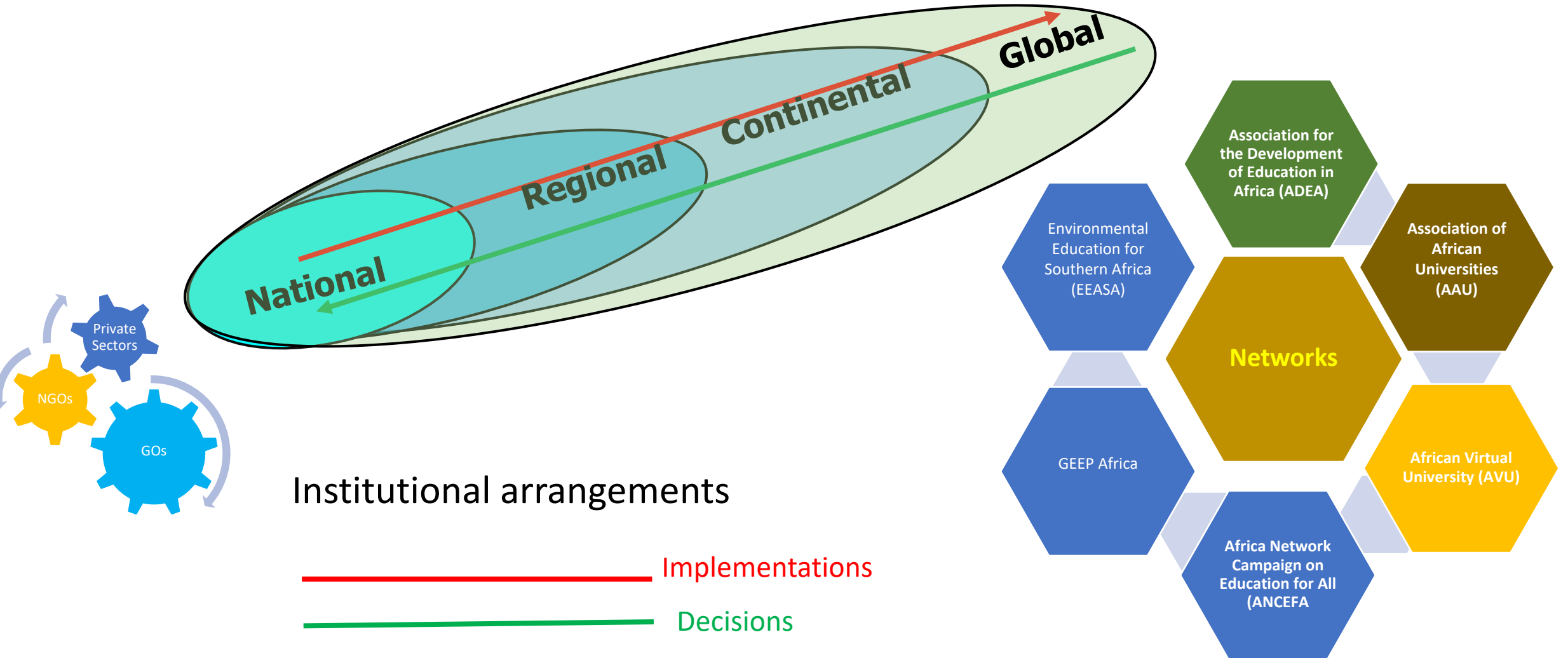

Science & Technology
Innovation
Honoring the Past, Creating the Future

Youth in Africa

06 African Charter on Democracy, Elections and Governance

01 The African Youth Charter

05 The Ouagadougou Declaration & Plan of Action on Employment

02 The AU Demographic Dividend Roadmap

Youth in Africa

04 Continental Strategy on Technical Vocational Education and Training

03 The Continental Education Strategy for Africa (CESA)

Success Stories – Education Initiatives & Projects

Initiatives

- **International Conferences on Education or related themes**
  - AU-EU-UNICEF education event 'Building skills for the future' on 20 April 2021
  - Its follow up at the 76th UNGA in 2021 when the AUC and UNICEF convened Ministers of Education and development partners to discuss 'Reimagining Education in Africa' at the margins of the General Assembly
    - Launch of Transforming Education in Africa Report (AU-UNICEF joint report): 8 specific recommendations to support transforming education systems in Africa

- **International Agreements/Commitment**
  - African Union Commission has a **MOU** with UNICEF, UNESCO, WFP and the EU and are collaborating in areas of common interest including Education and Skills Development, Culture and on Home Grown School Feeding

- **Projects**
  - UNESCO Projects
    - Better Education for Africa's Rise II (BEAR II)
    - ASPnet School Project
  - Fundisa for change
  - Ecoschool Project
  - Others

Partnership and Collaboration (1)

Levels of Implementation

Institutional arrangements

National

Regional

Continental

Global

Private Sectors

NGOs

GOs

Implementations

Decisions

Environmental Education for Southern Africa (EEASA)

Association for the Development of Education in Africa (ADEA)

Association of African Universities (AAU)

GEEP Africa

Networks

African Virtual University (AVU)

Africa Network Campaign on Education for All (ANCEFA

Global Environmental Education Partnership (GEEP) – A global Initiative

Goal:

to create a vibrant and inclusive network designed to build capacities in countries around the world to strengthen environmental education leading to a more and sustainable future

A network of networks

A **just and sustainable Africa** through meaningful thought leadership and lifelong learning to maximise **Africa's potential**
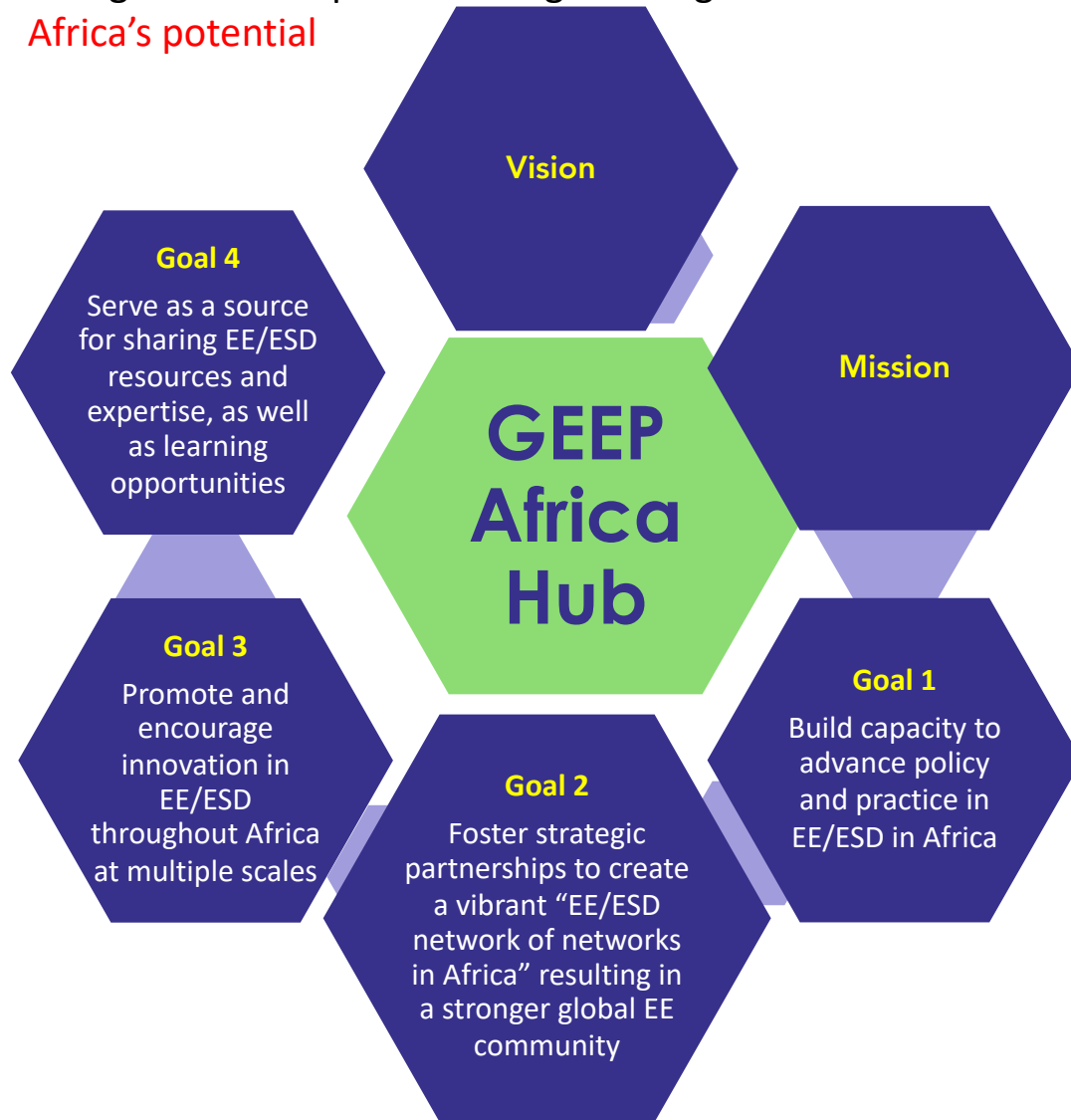
To enable and strengthen a **dynamic regional sustainability movement** that is **transformational**, **collaborative**, and **grassroots oriented**, using multi-sectoral networks, social inclusion, and indigenous knowledge to advance Environmental Education for a just and sustainable Africa.

Vision

Mission

GEEP Africa Hub

Goal 4
Serve as a source for sharing EE/ESD resources and expertise, as well as learning opportunities

Goal 3
Promote and encourage innovation in EE/ESD throughout Africa at multiple scales

Goal 2
Foster strategic partnerships to create a vibrant "EE/ESD network of networks in Africa" resulting in a stronger global EE community

Goal 1
Build capacity to advance policy and practice in EE/ESD in Africa

Thank you

Social and Environmental Justice

Dr Adedoyin Adeleke

Founder and Executive Director of Green Growth Africa, Nigeria

Today's Talking Points

Introduction: Africa at Crossroads

Why Social Justice for Africa?

Why Climate Justice for Africa?

Africa's Ultimate Competitive Advantage: Her Youthful People

Interlinkages between climate justice and social justice & impact on transforming education in Africa
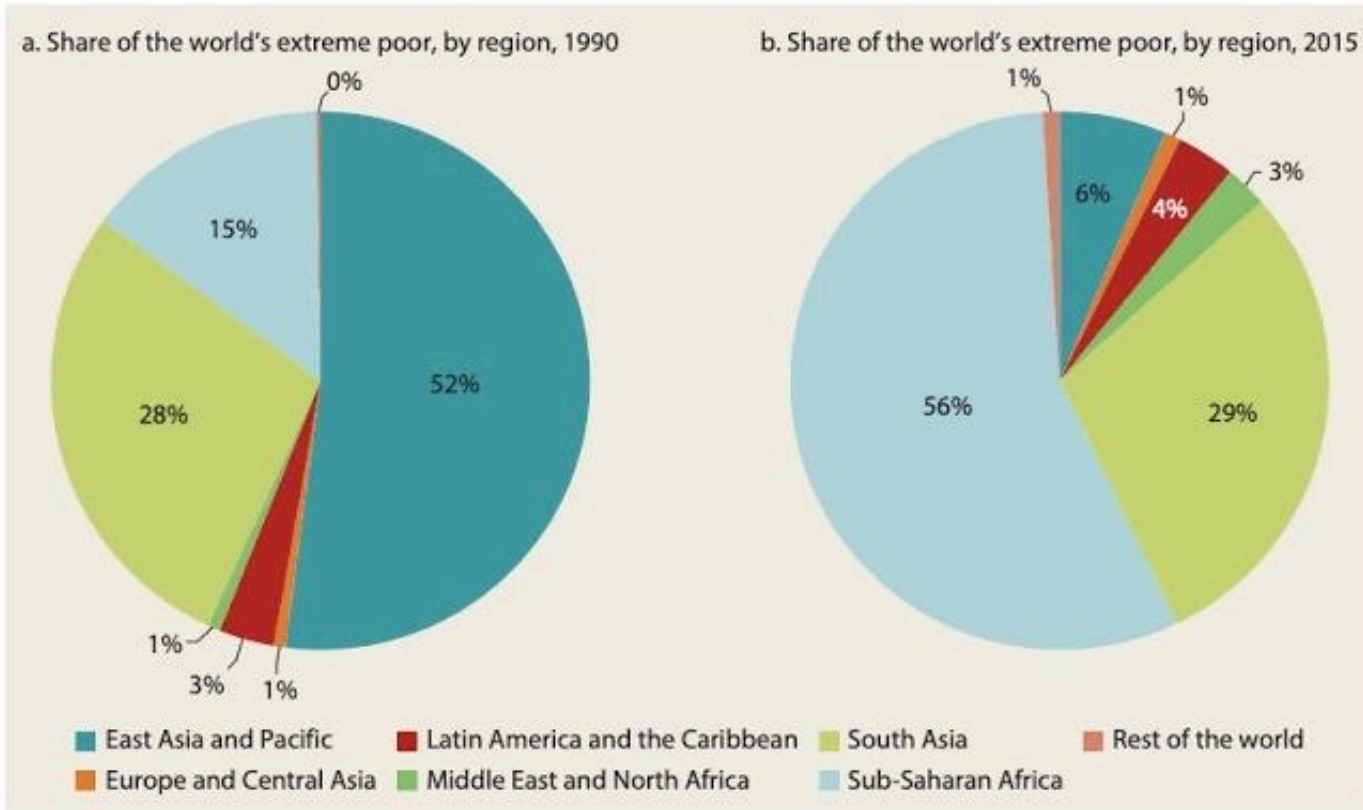
Recommendations for the Way Forward: Mainstreaming E-STEAM & climate education, pedagogical transformation, etc.

1.
Africa at the Crossroads

Africa has historically faced complex, intertwined, wicked problems...

More than half of the world's extreme poor live in Africa

a. Share of the world's extreme poor, by region, 1990
- 0%
- 15%
- 28%
- 52%
- 1%
- 3%
- 1%

b. Share of the world's extreme poor, by region, 2015
- 1%
- 1%
- 6%
- 4%
- 3%
- 56%
- 29%

Legend:
- East Asia and Pacific
- Latin America and the Caribbean
- South Asia
- Rest of the world
- Europe and Central Asia
- Middle East and North Africa
- Sub-Saharan Africa

Source: World Bank 2018.
Note: "Extreme poor" refers to the percentage of the population living below US$1.90 per person per day.

Proportion of the employed population living on less than $1.90 a day, 2019–2021 (percentage)

Region	2019	2020	2021
Sub-Saharan Africa	36.7	38.0	37.9
Oceania*	17.6	19.2	18.8
Central and Southern Asia	7.5	8.1	6.6
Northern Africa and Western Asia	3.7	4.2	4.4
Latin America and the Caribbean	2.9	3.3	3.0
Eastern and South-Eastern Asia	1.0	1.1	1.0
World	6.7	7.2	6.9
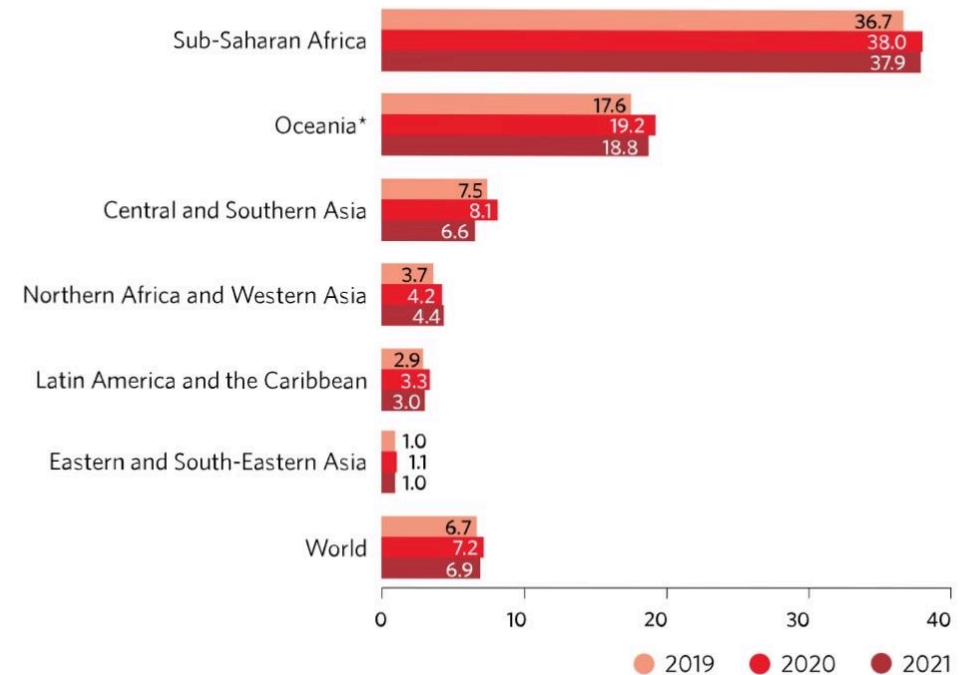
Food Insecurity
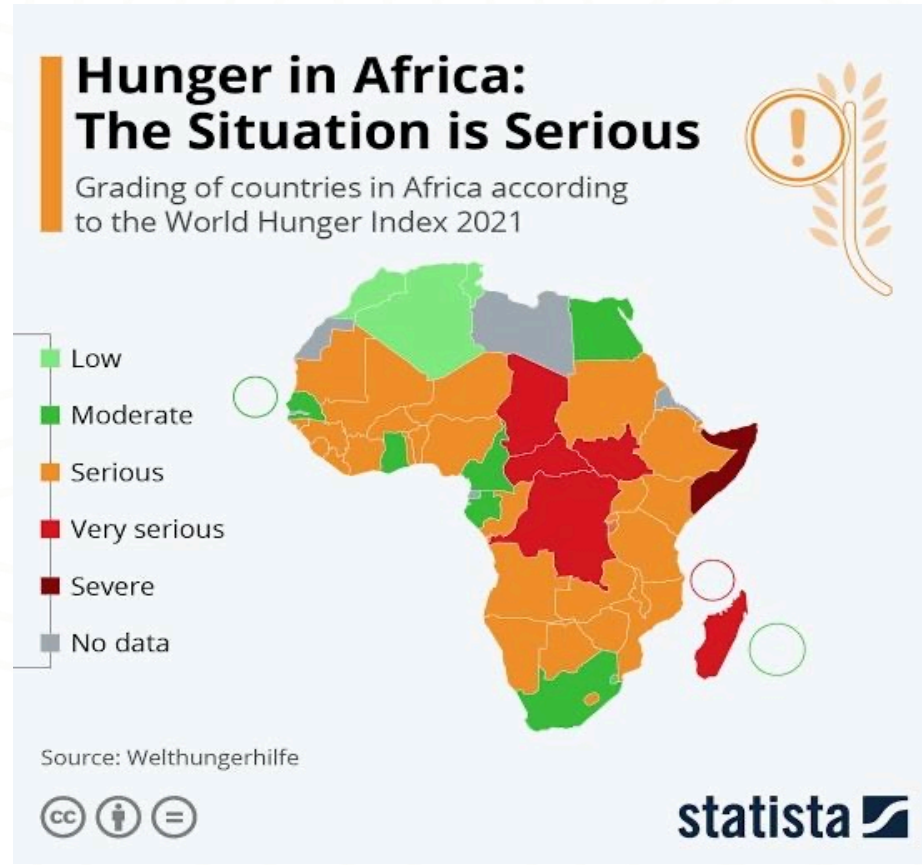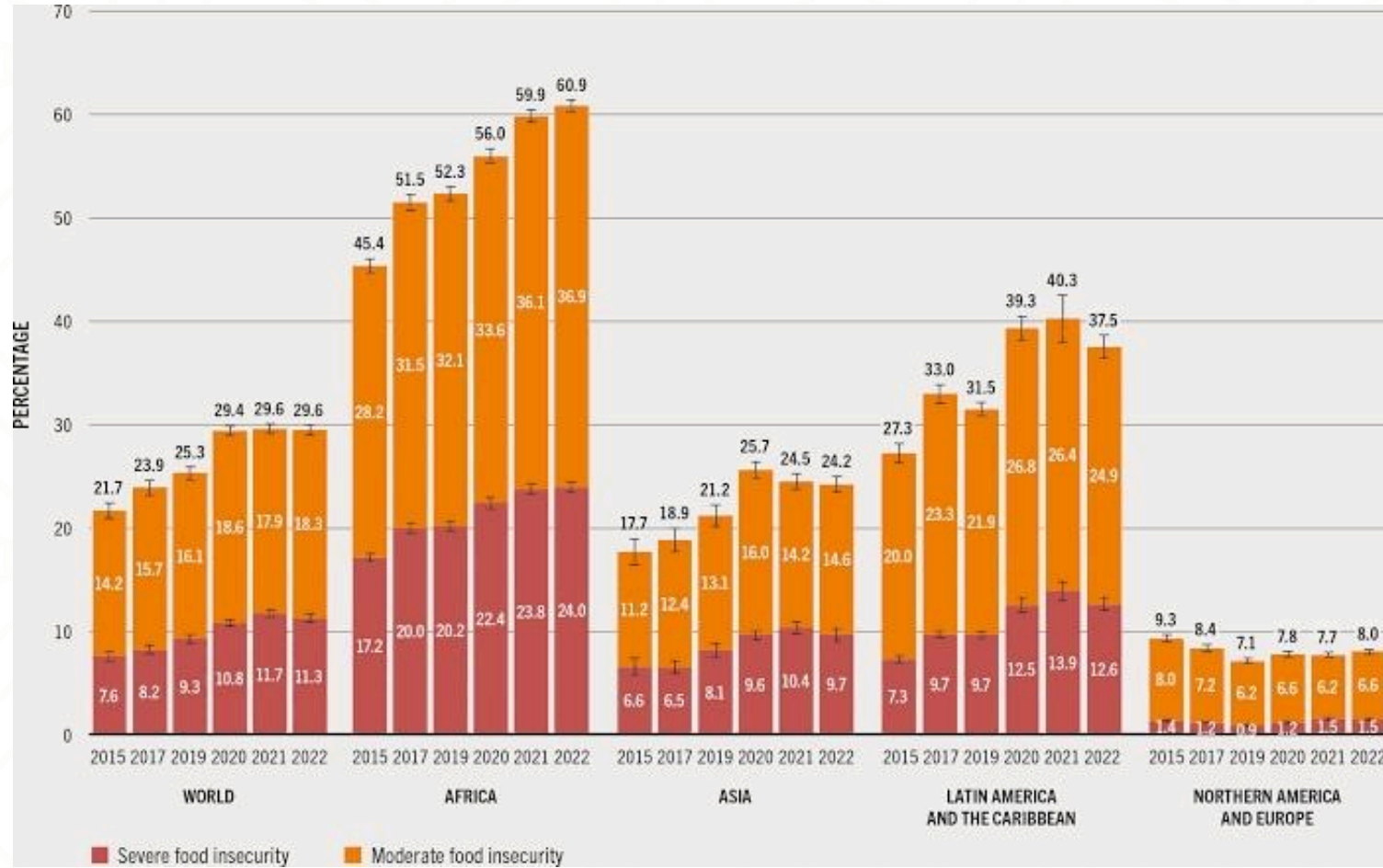
FORCIBLY DISPLACED POPULATIONS FROM AFRICAN COUNTRIES IN CONFLICT

Libya 158,717
Egypt 52,161
Mali 596,234
Niger 381,928
Chad 398,505
Sudan 7,303,959
Burkina Faso 2,136,475
Nigeria 3,982,883
CAR 1,239,149
South Sudan 4,551,651
Ethiopia 3,422,667
Cameroon 1,207,362
Somalia 5,134,298
DRC 7,141,093
Burundi 341,971
Mozambique 842,989

Displaced People
7,141,093–7,303,959
4,551,651–5,134,298
3,422,667–3,982,883
842,989–2,136,475
341,971–596,234
52,161–158,717
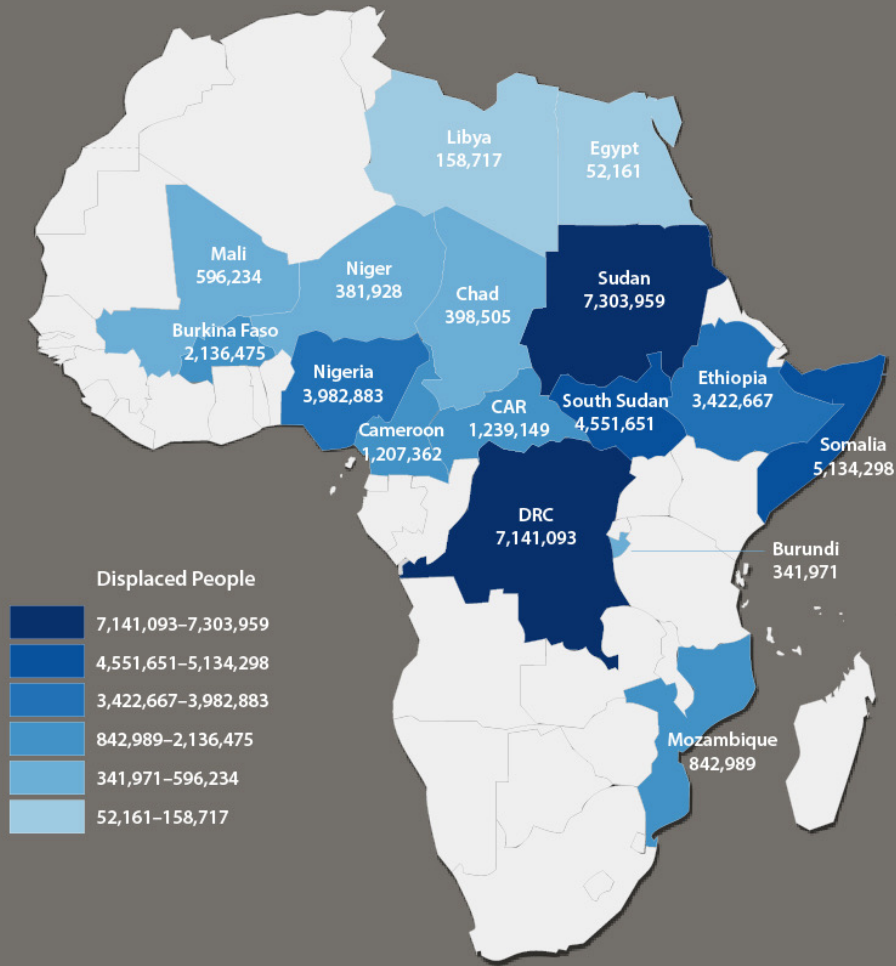
Data sources: UNHCR, IDMC, IOM, as of June 30, 2023

Conflicts & Displacement

- There are now an estimated 40.4 million forcibly displaced Africans (internally displaced persons, refugees, and asylum seekers), more than double the figure in 2016 – *ACLED, 2023*

- *9600* schools (about 2million students) closed due to conflicts as at 2020

Healthcare challenges

Figure 1: Maternal mortality ratio per 100,000 live births in the African Region, 2020 compared to 2017
(Source: UN MMEIG, WHO, UNICEF, UNFPA, World Bank and UNDESA)
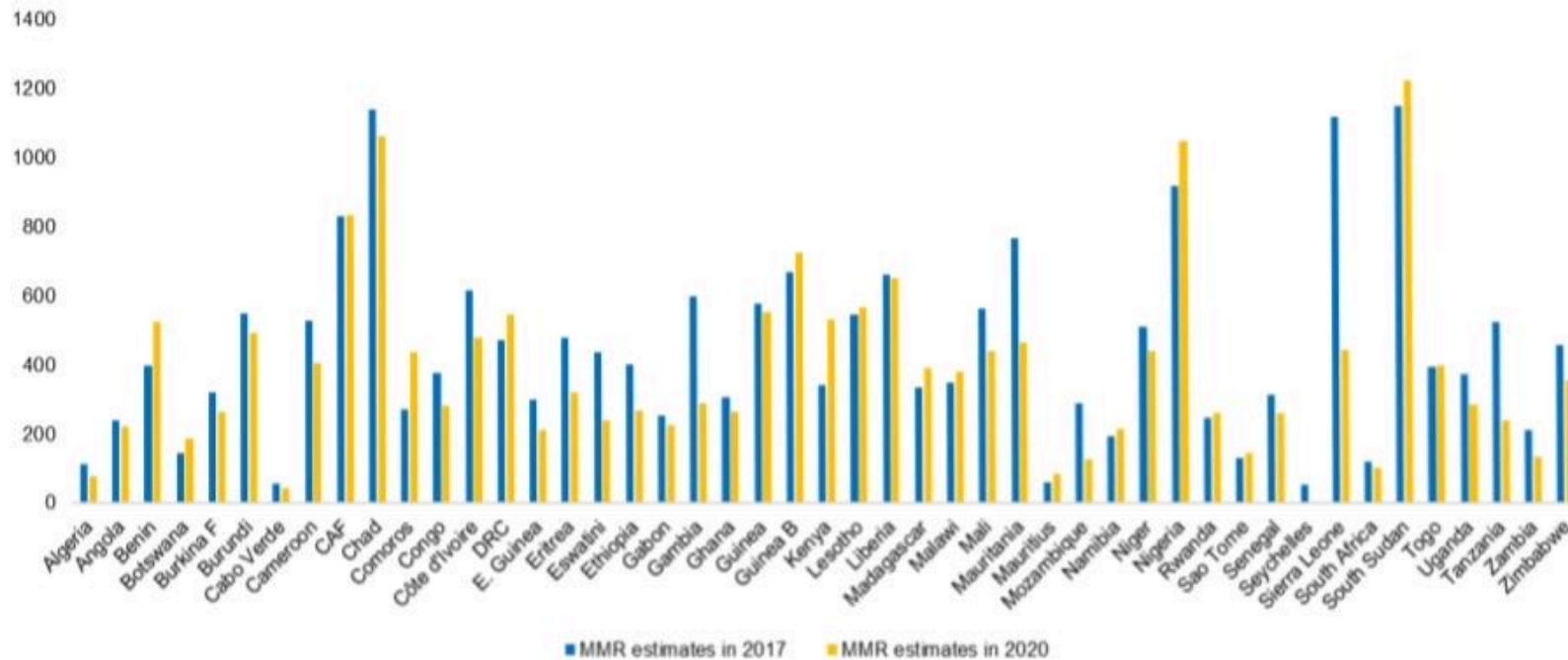
maternal mortality ratio 531 deaths per 100 000 live births

Africa accounted for 69% of global maternal deaths in 2020

2.
Why Social Justice for Africa?

Why Africa Needs Social Justice

Socio-economic Inequality

Intergenerational Inequality

Structural Inequality
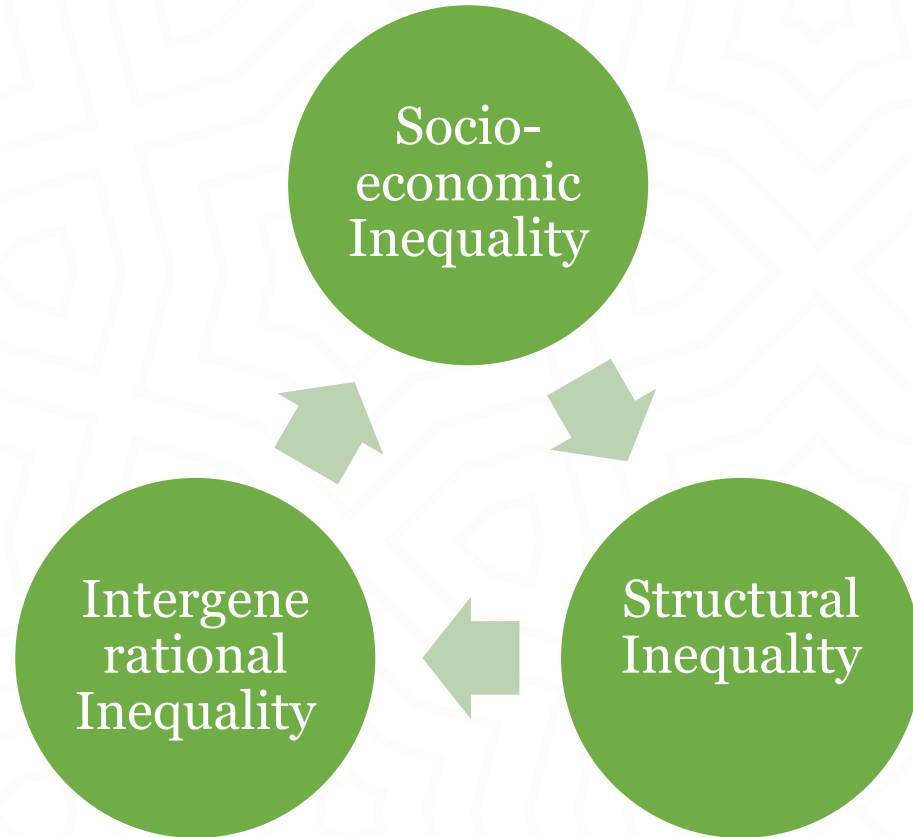
- **Socio-economic Inequality:** The combined wealth of Africa's top three billionaires surpasses that of the bottom 50%, encompassing around 650 million people.

- **Structural Inequality:** Gender Inequality, Ableism, etc

- **Intergenerational Inequality:** Youth unemployment & poverty

Mapping of income inequality in Africa

Very high Gini (>0.60)
High Gini (0.53-0.599)
Medium Gini (0.45-0.529)
Low Gini (0.40-0.449)
Very low Gini (<0.399)
No data
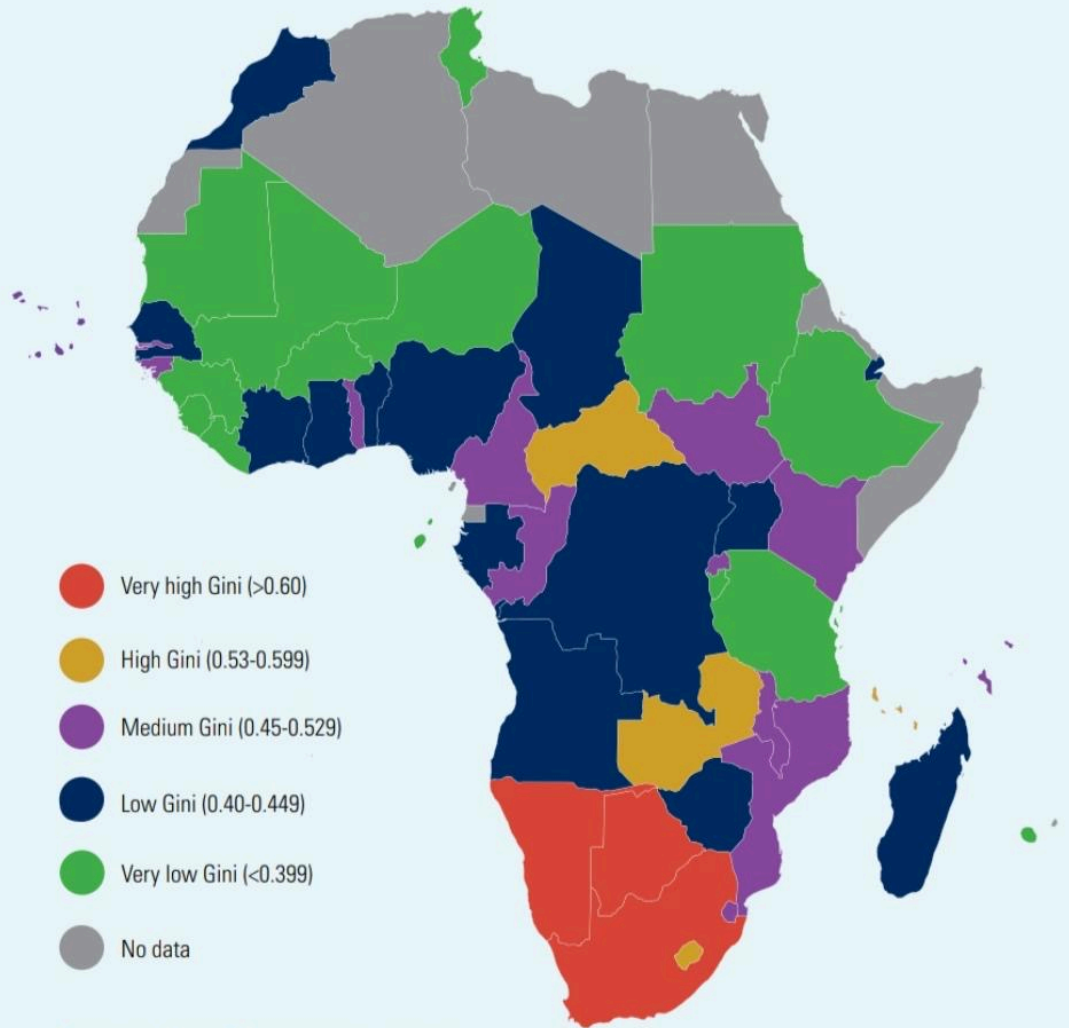
Source: World Bank (WDI), latest year as of December 2016

Youth employment status in Africa, 2015

Contributing to the economy | Not actively contributing to the economy

Vulnerable 35%
Wage 15%
Unemployed and discouraged 31%
Inactive 19%
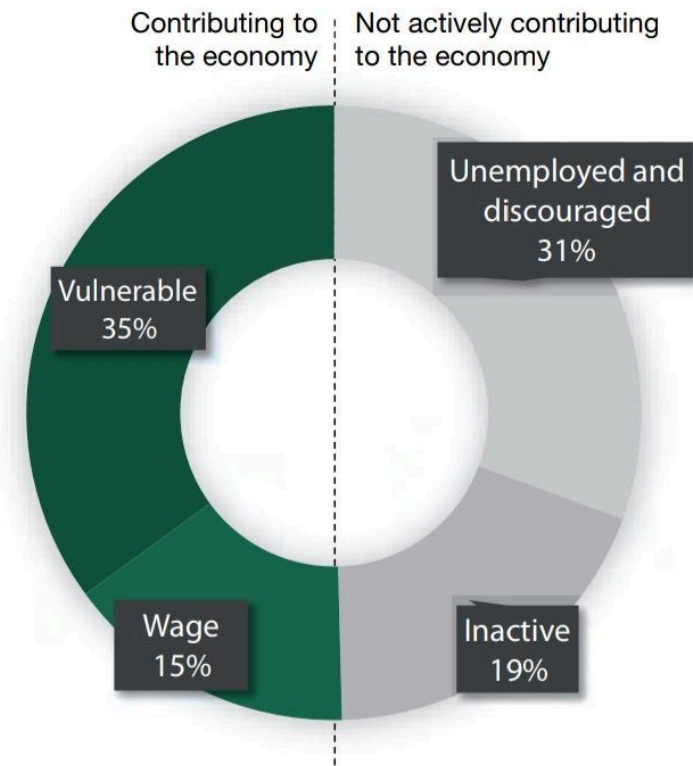
3.
Why Climate Justice for Africa?

- Climate change is an existential crisis & justice issue
- Despite contributing a mere 3% to the global average of greenhouse gas emissions, Africa faces disproportionate vulnerability to climate change impacts.

Flood incidents in Africa have surged tenfold since the 1960s, leading to over 20,000 deaths.

Green Growth Africa

Worsening droughts since the 1960s have led to over 500,000 deaths.

- Climate change impacts amplify existing problems in Africa: extreme poverty, food insecurity, hunger, poor health, conflict, internal displacement, etc

Africa Is on the Frontline of Climate Change

Index scores for climate resilience of African countries in 2022

Higher
>70
40-59

Medium
50-59
40-49

47 Southern Europe*

35-39

Lower
25-29

27 Africa*

15-19

No Data
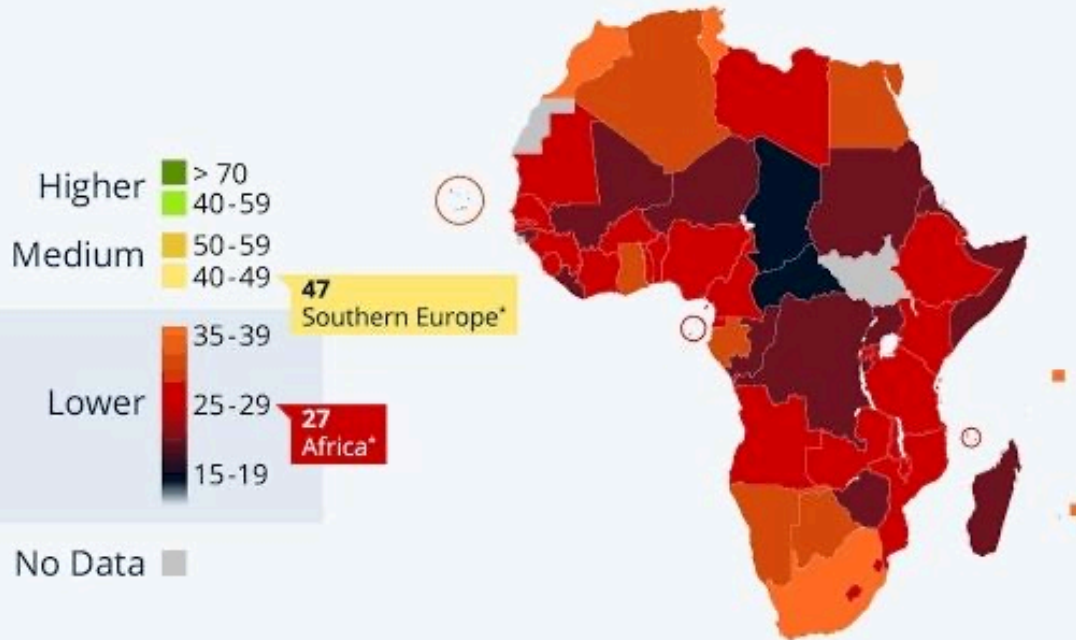
Based on assessment of 180 countries for readiness, vulnerability and GDP.
* Averages based on 10 countries in Southern Europe, 53 in Africa.
Sources: Henley & Partners, Statista calculations

statista

$50 Billion per annum

Cost of adapting to climate change in Africa by 2050

Green Growth Africa

We must close the climate/environmental education gap

50%
Of countries have no reference to climate change in their curriculums
– UNESCO, 2021

>40%
Of teachers in countries with climate change referenced in curriculums feel self assured to teach about climate change
– UNESCO, 2021

4.

Interlinkages between Climate Justice & Social Justice

Climate Justice & Social Justice are two sides of the same coin: the climate crises exacerbates existing inequalities

Socio-economic Inequality

Intergenerational Inequality

Structural Inequality
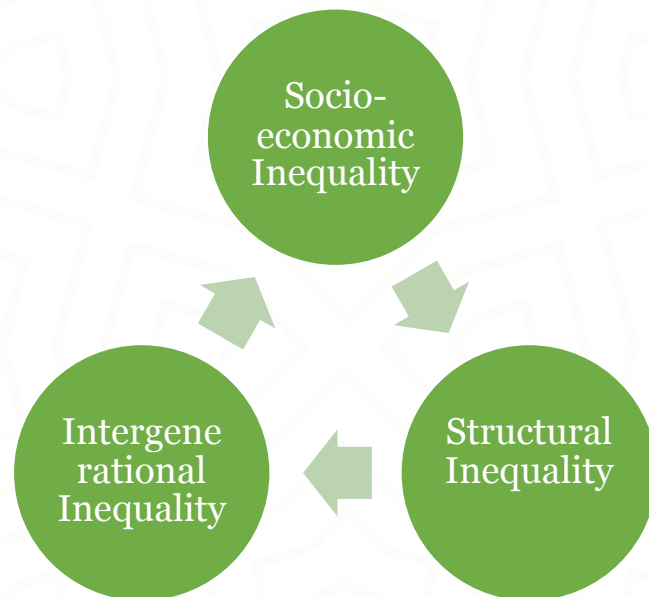
Income-Inequalities: Low-income countries and vulnerable populations within them face heightened susceptibility to climate-induced loss and damage.

Structural Inequalities: Women, persons with disabilities having fewer resources to adapt, are disproportionately affected.

Intergenerational Inequalities: Younger generations, who didn't contribute to the present climate crises, would bear the brunt

What would the nexus of social and climate justice then look like in Africa?

Green Growth Africa

Redistribution (of resources)	Financing Africa's adaptation (Loss & Damages Fund, Global Adaptation Fund) by polluting countries to strengthen the continent's resilience; Shift from non-renewable energy to renewable energy
Recognition (of marginalized groups)	Acknowledging the existence and impact of climate change in Africa & how it compounds existing inequalities and aggregating data on inequalities
Participation (of individuals and groups)	Giving room for effective participation in Climate-related decision-making especially sufficient representation, etc

5.
Africa's Ultimate Advantage: Its Youth

The solution to Africa's problems lie in Africa

– George Ayittey

Africa is the only continent in the world where more than 60% of its population are under age 25

Africa is the only continent where the youth population will almost triple by 2100

PERCENT CHANGE 2010–2100

+195% AFRICA
- 32% ASIA
- 30% LATIN AMERICA & THE CARIBBEAN
- 29% EUROPE
+18% NORTH AMERICA
+40% OCEANIA

YOUTH POPULATION IN MILLIONS
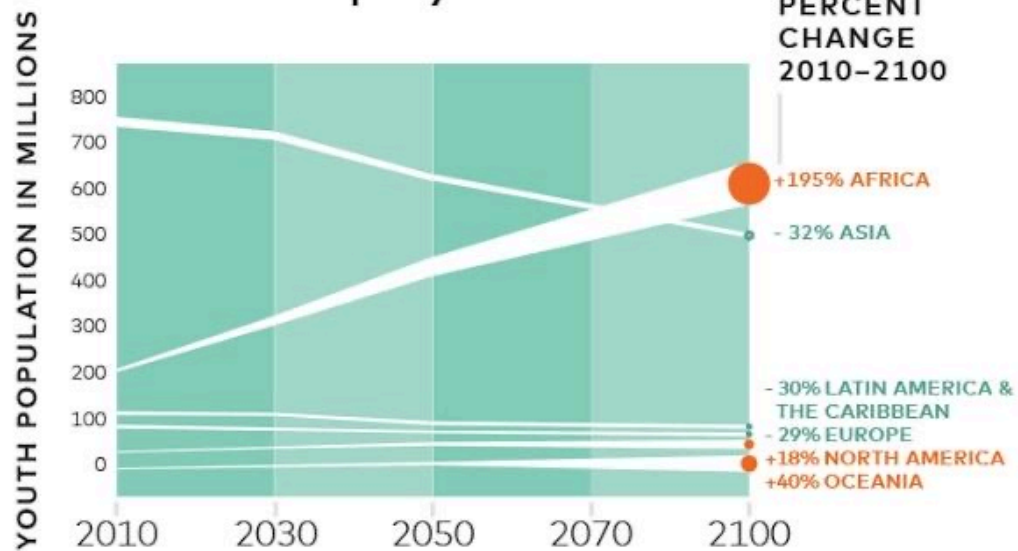
Source: Africa Ahead: The Next 50 Years, 2013 Ibrahim Forum Facts & Figures

AfricaRenewal

AFRICA IS THE MOST YOUTHFUL CONTINENT

% OF THE POPULATION UNDER 25 YEARS OLD

59.9% AFRICA
26.5% EUROPE
31.4% NORTH AMERICA

SOURCE: 2019 World Population Prospects Vol 2 Demographic Profiles
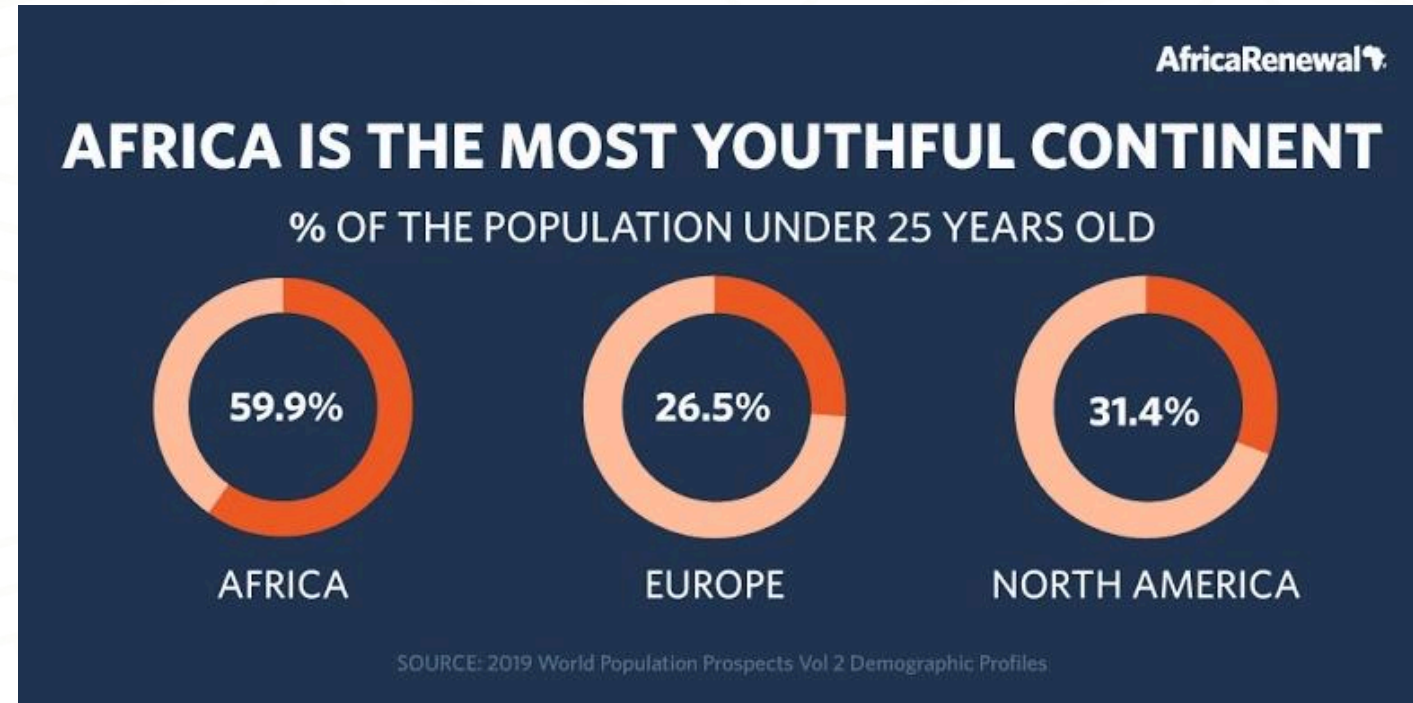
- This demographic dynamic presents a substantial opportunity for Africa
- However, young people in Africa are faced with the continent's many troubles – which affects their ability to harness the potential

6.
Way Forward: Transforming Education in Africa

1. Investing in E-STEAM & Climate Education

- Investing in her youth through quality, **environmental and STEAM-based education** is the only avenue for Africa to keep up with global development dynamics that climate & social justice will bring about

- It also holds the key to leapfrog Africa's development

Zero Carbon Transition → **New questions & new knowledge** → **Changes in Industry & Skills relevance**

"By the end of the decade, the labour needs of the sustainability transition will most likely be different" – Demos Helsinki

3. Pedagogy Change: Adopting Experiential/Active Learning
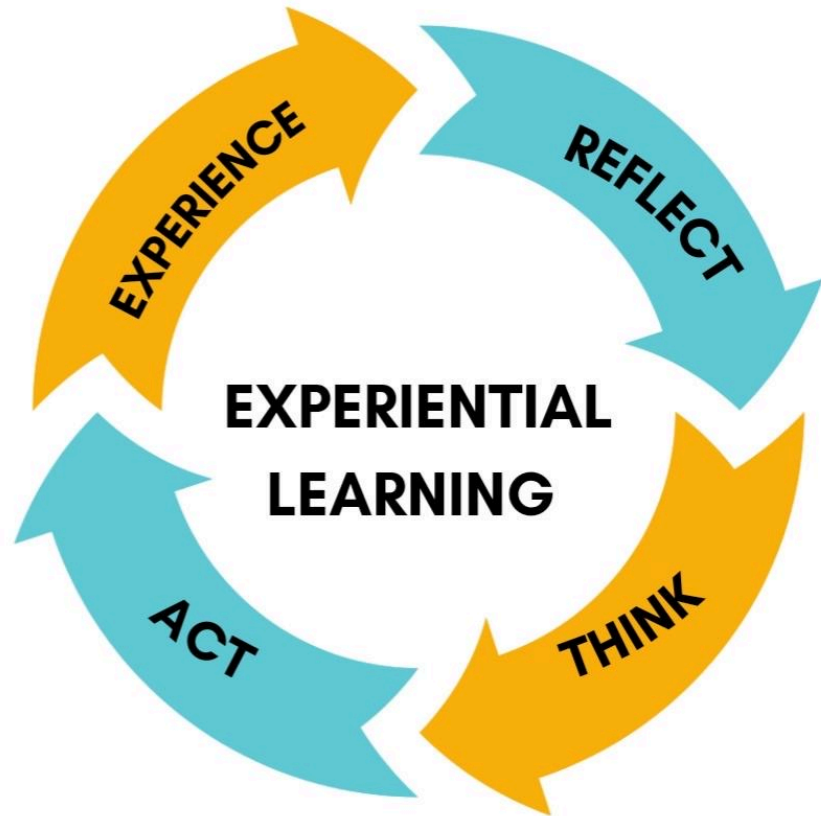
Kolb's Experiential Learning Cycle

rethinking what you already know and connecting it to new ideas, that is, **all learning is relearning!**

Why Experiential Learning?

1. 21st Century Learning Contexts

- Relevant

- Engaging

- Effective

- Learner-centric

– *UN Educational, Scientific and Cultural Organization (UNESCO) 2015*

2. Project and problem-based learning employs the 4Cs Principle

Critical Thinking

Creativity

Collaboration

Communication
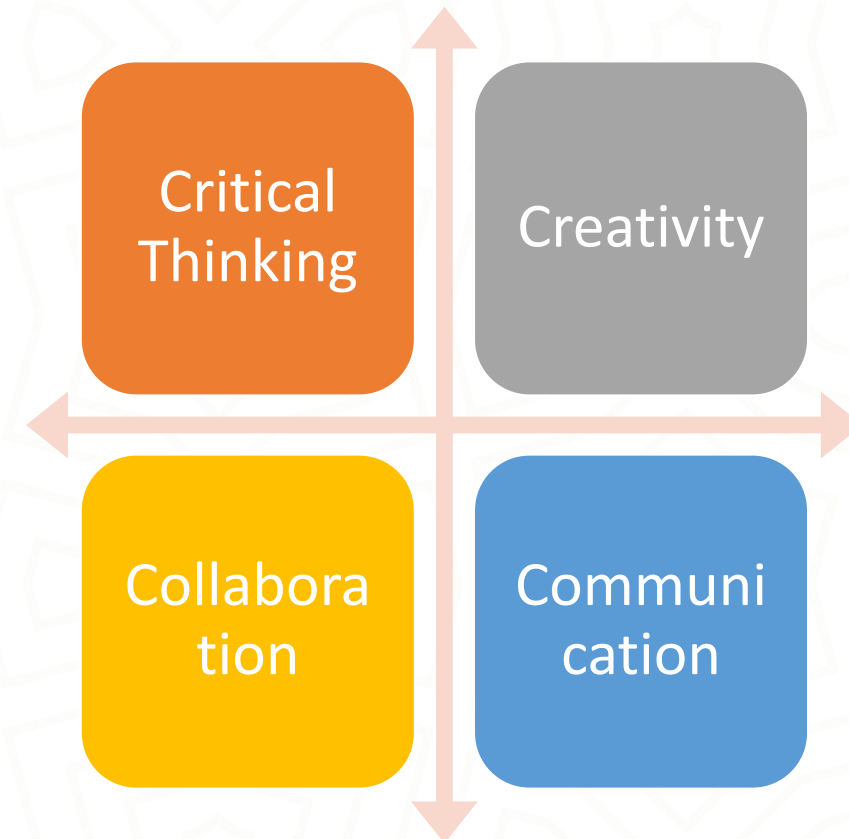
www.thegreengrowth.org

Green
Growth
Africa

THANK YOU!

Reimagining African Development

@GreenGrowthHub

Climate Social Digital Justice

Ms Kerry McLean,

Coastal Programmes Manager at Wildlife and Environment Society of South Africa, South Africa
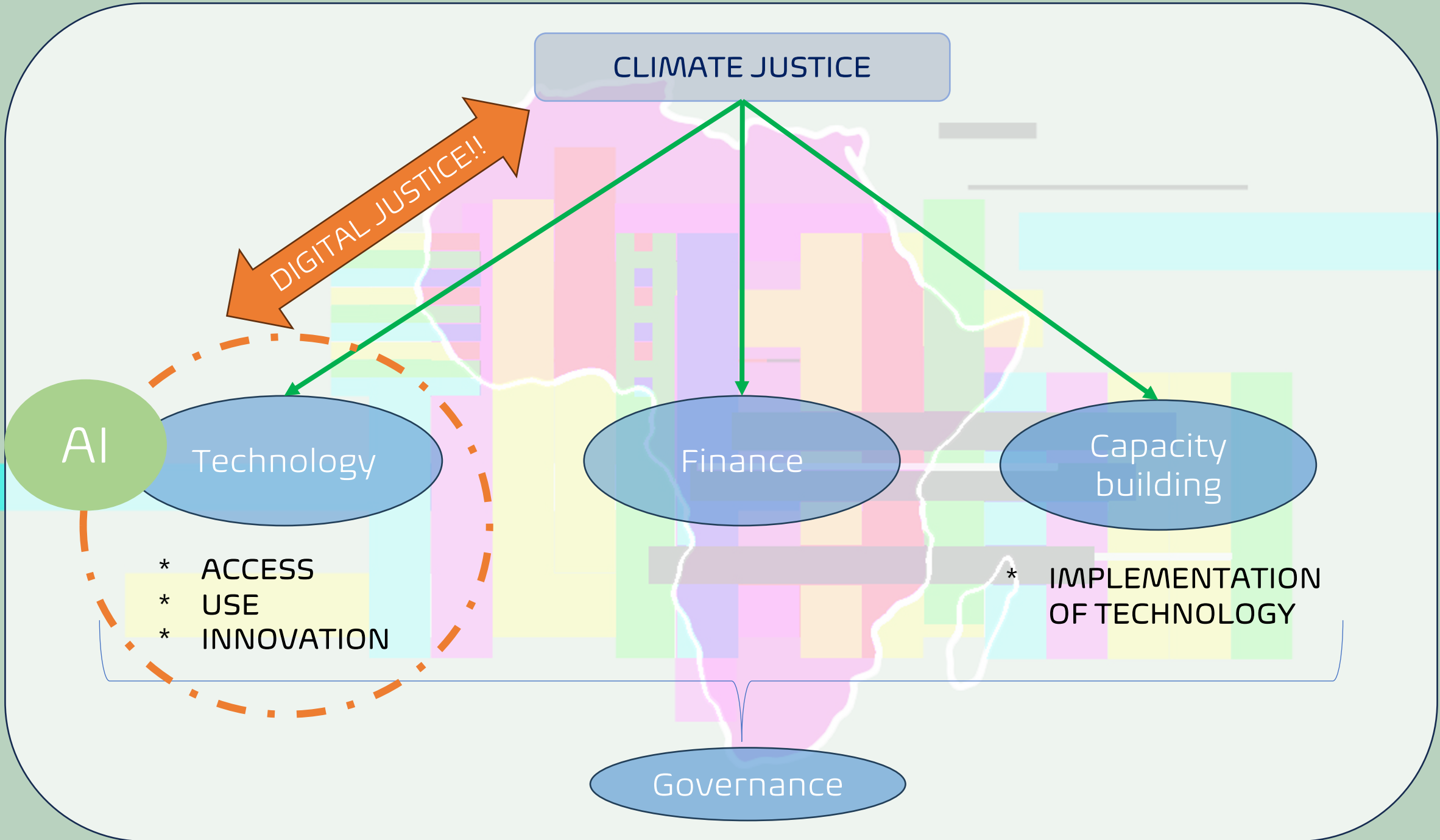
Digital Justice: NB framing questions for local contexts

Who is developing this technology, for *whom* and for *what*, and with *what data*?

Who profits from this technology?

Who holds sovereignty and ownership rights to the data, and *what* is at stake, and *for whom,* in the resulting applications?

Does this technology reinforce an extractive economic system or do these systems contribute to possibilities for environmental and climatic justice?

AINOW - Meredith Whittaker

"Technology should augment human capabilities, not replace them. Our focus is on using technology to solve real problems that Africans face, from access to education and health services to financial inclusion. Technologies like mobile money, e-commerce, and e-learning have the potential to create new opportunities if developed with the needs of African users in mind,"

H.E. Dr Amani Abou-Zeid, AU Commissioner for Infrastructure and Energy

Transformative Education for Sustainable Development

Agenda 2063 - "An Africa with Development Led by the Knowledgeable, Skilled, and Innovative Citizens"

AI Application:

* Personalised learning experiences
* Adaptative learning platforms
* Engaging and effective learning

ADvLEARN at ADvTECH SCHOOLS

Inclusive and sustainable Economic Growth

Agenda 2063 - "A Prosperous Africa Based on Inclusive Growth and Sustainable Development."

AI Application:

* Inclusive and equitable access to quality learning resources.
* Bridge gaps in educational opportunities, aligning with the goal of inclusive growth.

FOONDAMATE APP

Youth Empowerment for Sustainable Development

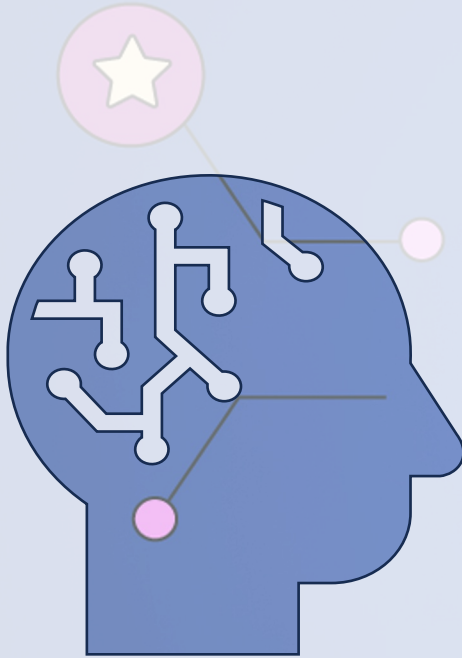Agenda 2063 - "An Africa Whose Development is People-Driven, Relying on the Potential Offered by People, Especially its Women and Youth."

AI Application:

* Relevant skills for the future.
* Emerging fields (artificial intelligence, robotics, and green technologies)
* Preparing the youth for impactful roles in sustainable development.

YOUTH FUTURE LAB IN KENYA

Ethical AI in Education:

Agenda 2063 -"An Africa with a Strong Cultural Identity, Common Heritage, Shared Values, and Ethics."

AI Application:

*   Ethical integration of AI frameworks into educational systems in alignment with cultural values.
*   African Union Digital Education Strategy & Implementation Plan

AFRICAN AI ETHICS ALLIANCE

Lifelong Learning and Innovation :

Agenda 2063 -"Africa as a Strong, United, and Influential Global Player and Partner."

AI Application:

*   Adaptive learning environments encourage continuous skill development and innovation.
*   AI-driven entrepreneurs
*   Accessible, affordable training

AI Adoption & Implementation Challenges

* Digital divide

* Exacerbation of inequalities

* African data is limited

* Job losses

* Complexity & speed - regulatory challenges

* Environmental cost
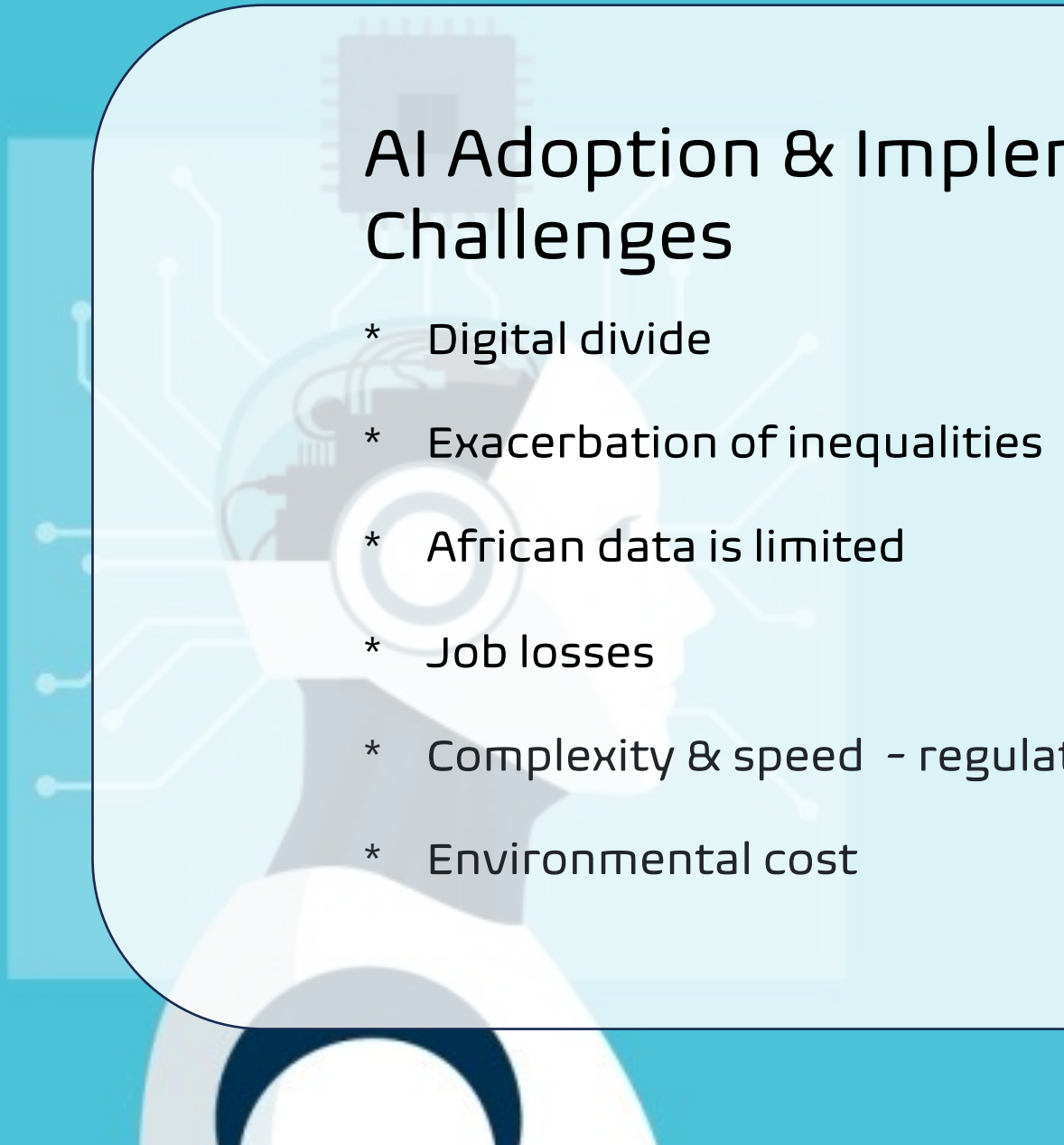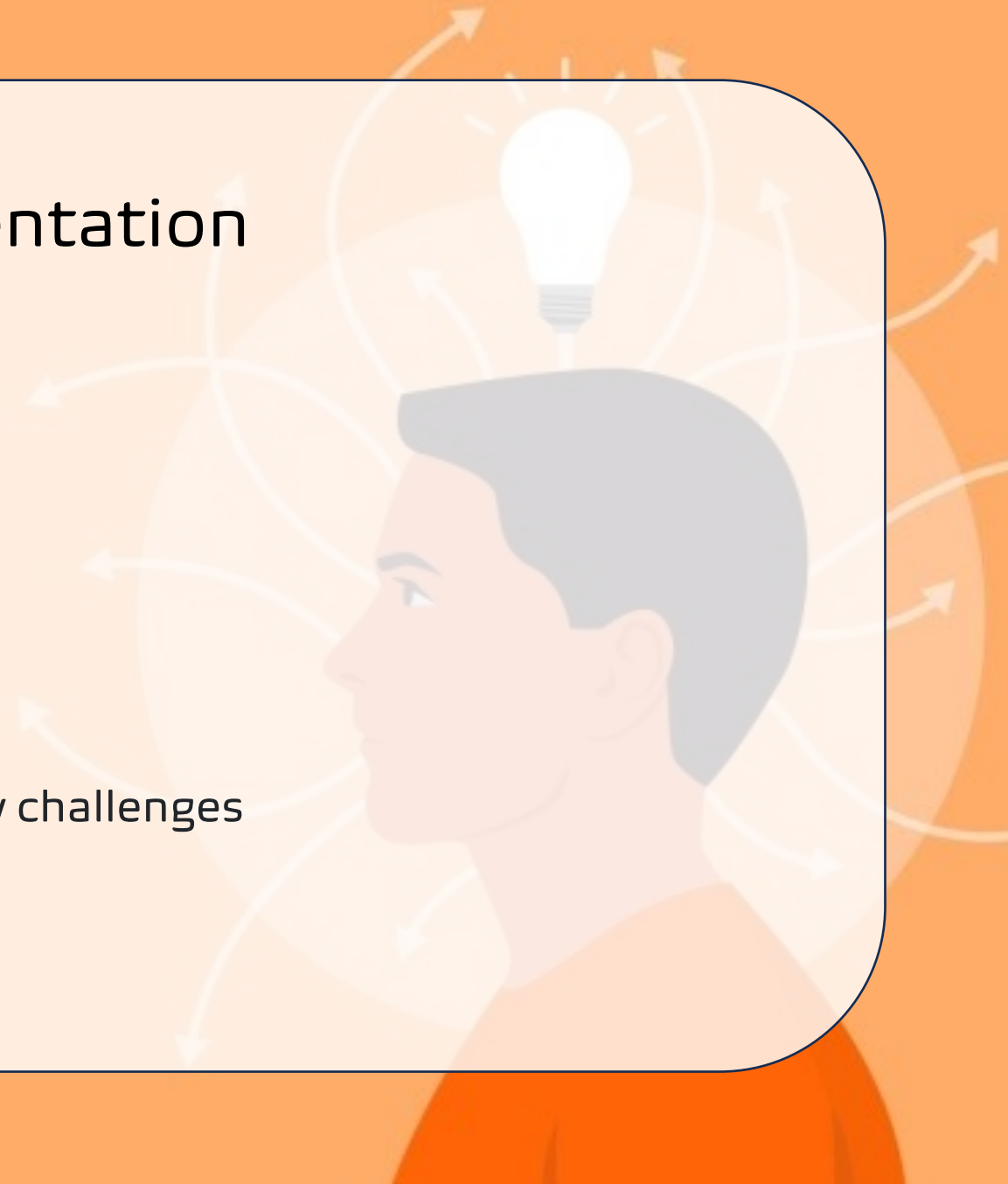
OPPORTUNITIES

CHALLENGES & RISKS

AI POWERED TRANSFORMATION IN AFRICA

Thank you!

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Questions and Comments

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THANK YOU