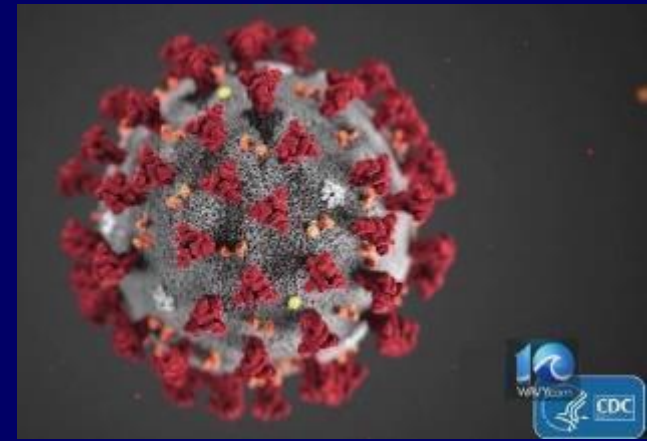


"Building Back Better: the Covid-19 pandemic as a re-set button for natural resource management in Africa"



Prof. Chris Gordon

Institute for Environment and Sanitation Studies

College of Basic and Applied Sciences

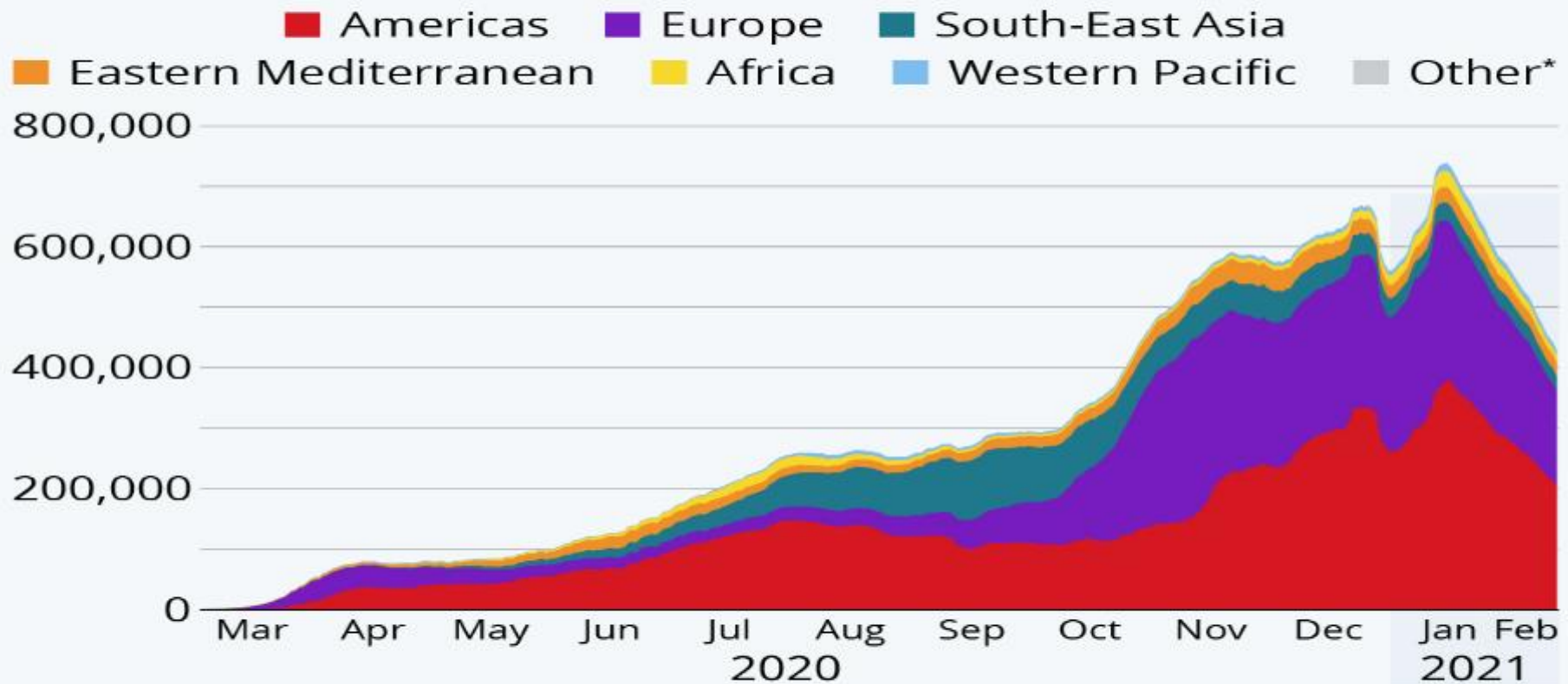
AMENET III Virtual 22 – 23 February 2021



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Light at the End of the Tunnel?

Seven-day moving average of newly confirmed COVID-19 cases worldwide, by WHO region



* includes cases reported from international conveyances

Source: World Health Organization



Framing: Emerging Pandemics

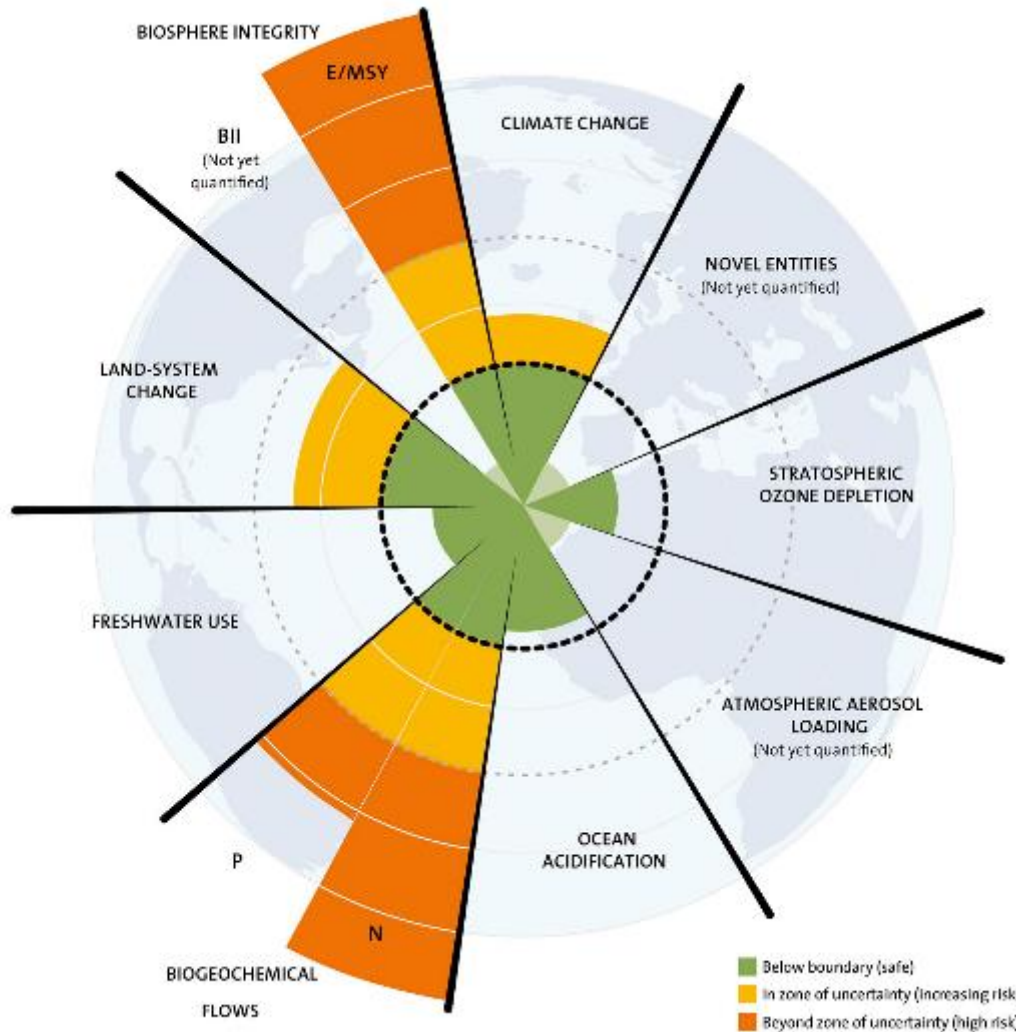
COVID-19 is a crisis that **integrates the natural and the social systems at a truly global scale.**

The emergence of epidemics and pandemics, be they new or reemerging, can be attributed to a set of interlocking stressors:

- **changing environmental factors** (e.g. land use change or urbanization);
- **changing socio-economic factors** (e.g. poor public health services or increased travel);
- and **changing viral profiles** (e.g. changes in drug resistance or emergence of new viruses).



Framing: Planetary Boundaries



Steffen et al. 2015. Planetary Boundaries: Guiding human development on a changing planet. Science Vol. 347 no. 6223

'Reset' and 'Building Back Better'



Reset

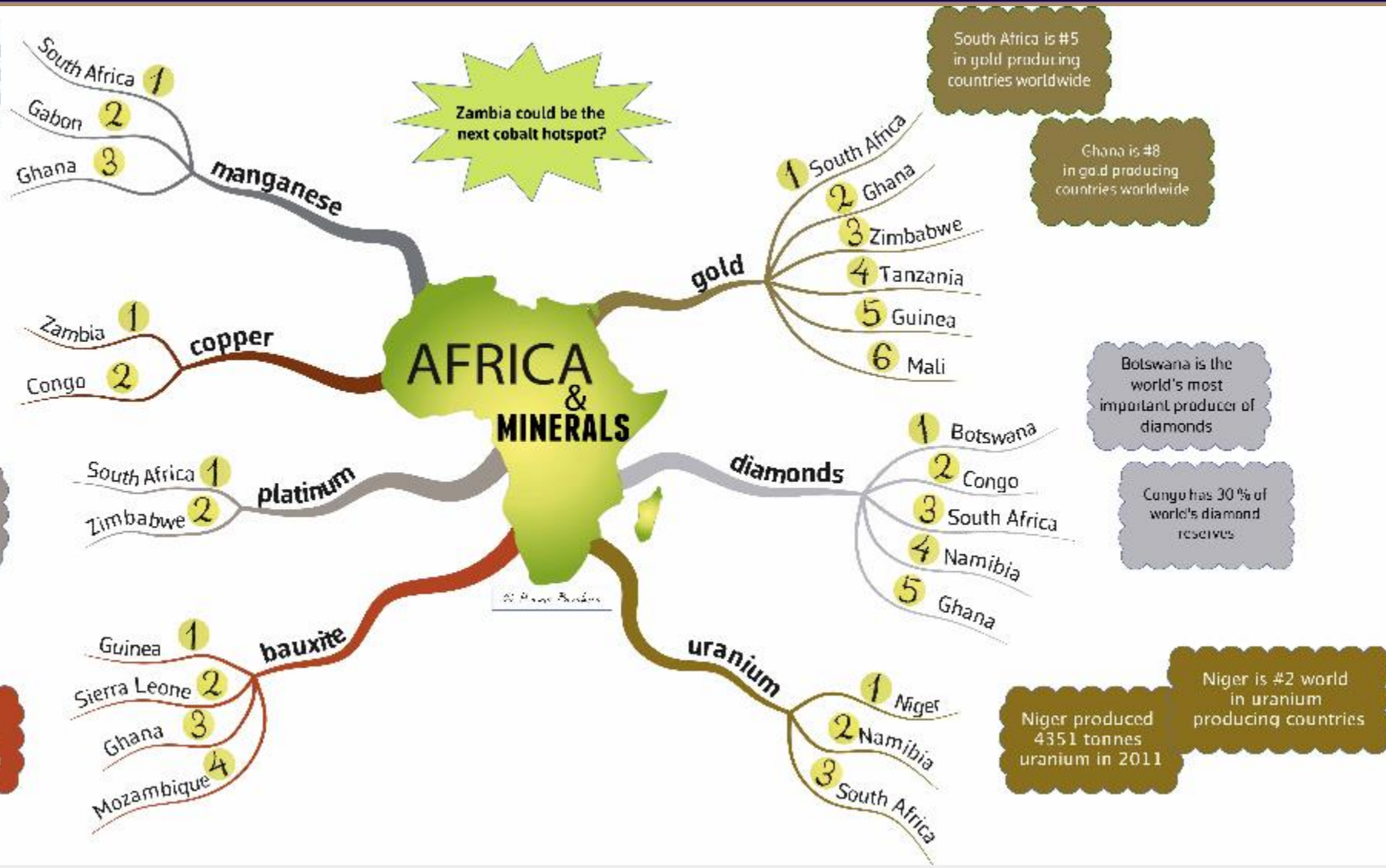
Crises have long been seen as **opportunities to seek and put into place substantial change**. One of the important lessons is that there is no durable conservation nor global environmental goods without health for all—humans, domestic animals, wild animals, and the environment

Building Back Better

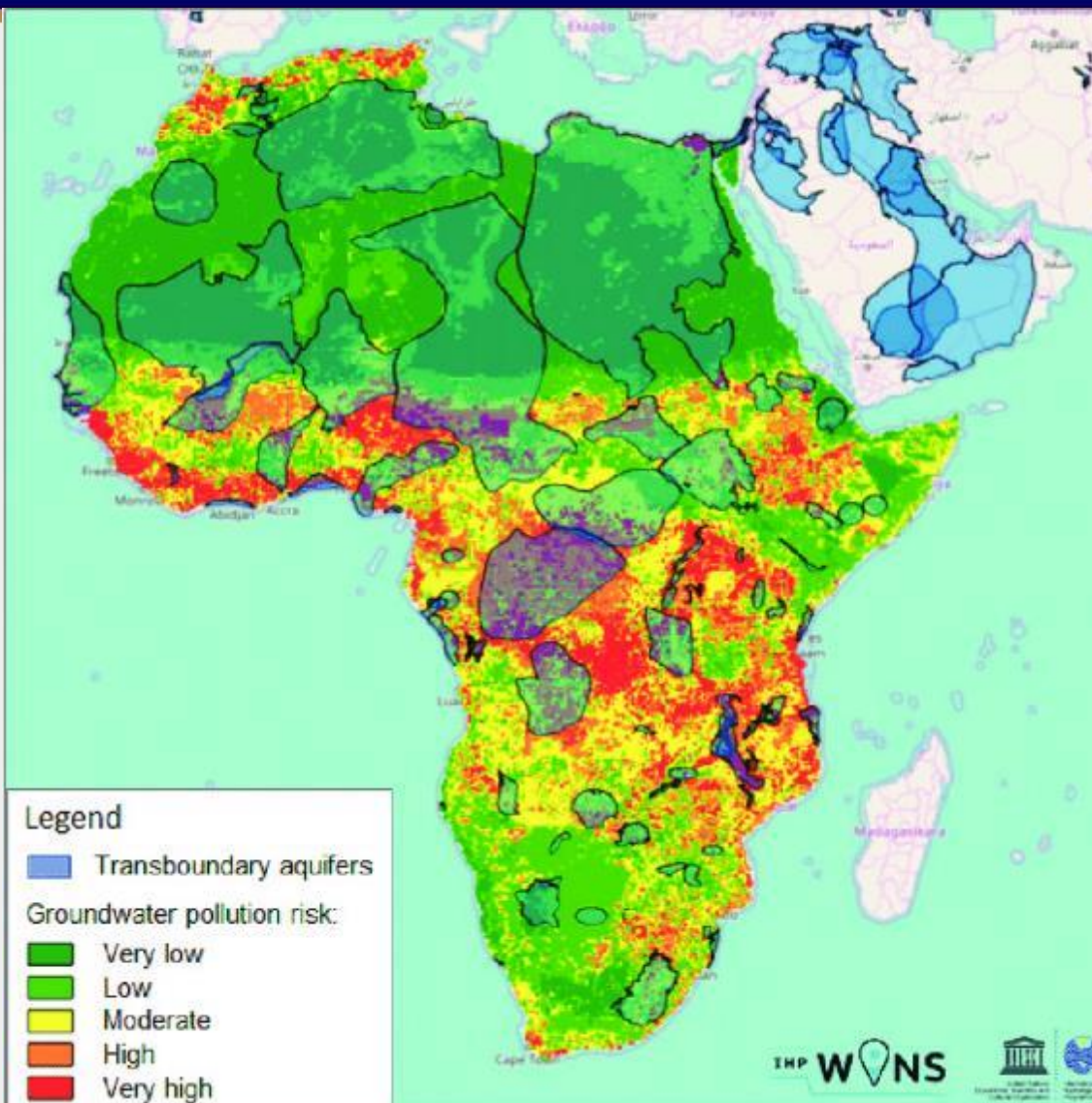
It is essential to reframe the COVID-19 pandemic as a complex system and bring to bear a multi-disciplinary approach, **alive to complexity, uncertainty, and the essential environmental sciences and actions**. There is an important set of efforts flying under the banner of “build back better” a phrase with origins in the UN’s disaster risk reduction work.



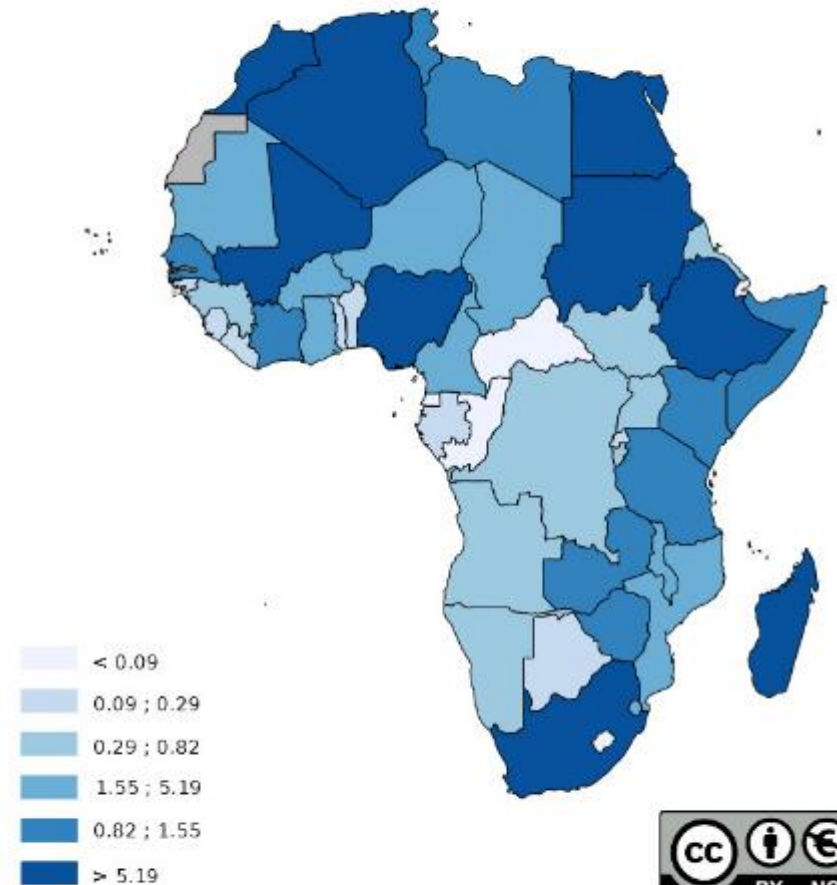
Natural Resources of Africa: Minerals



Natural Resources of Africa: Fresh Water



Annual freshwater withdrawals (billion cubic meters)



Source : The World Bank - 2013

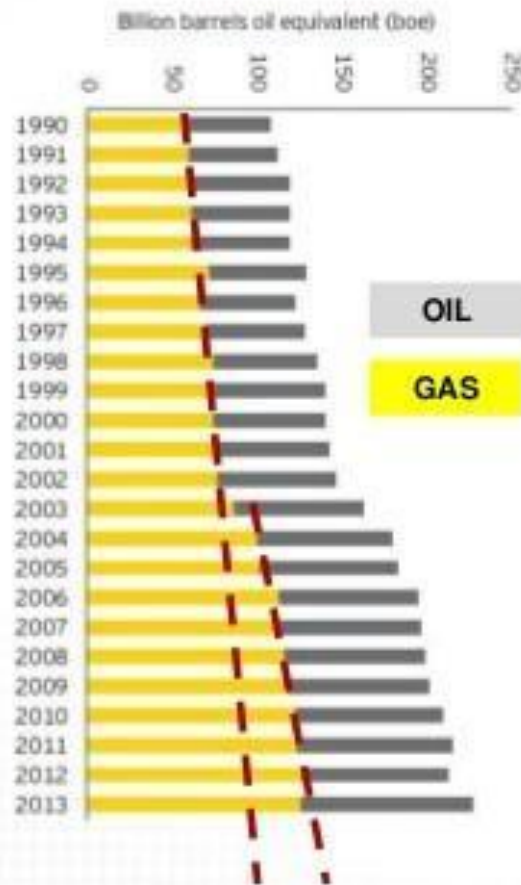
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Oil & Gas Developments – Africa



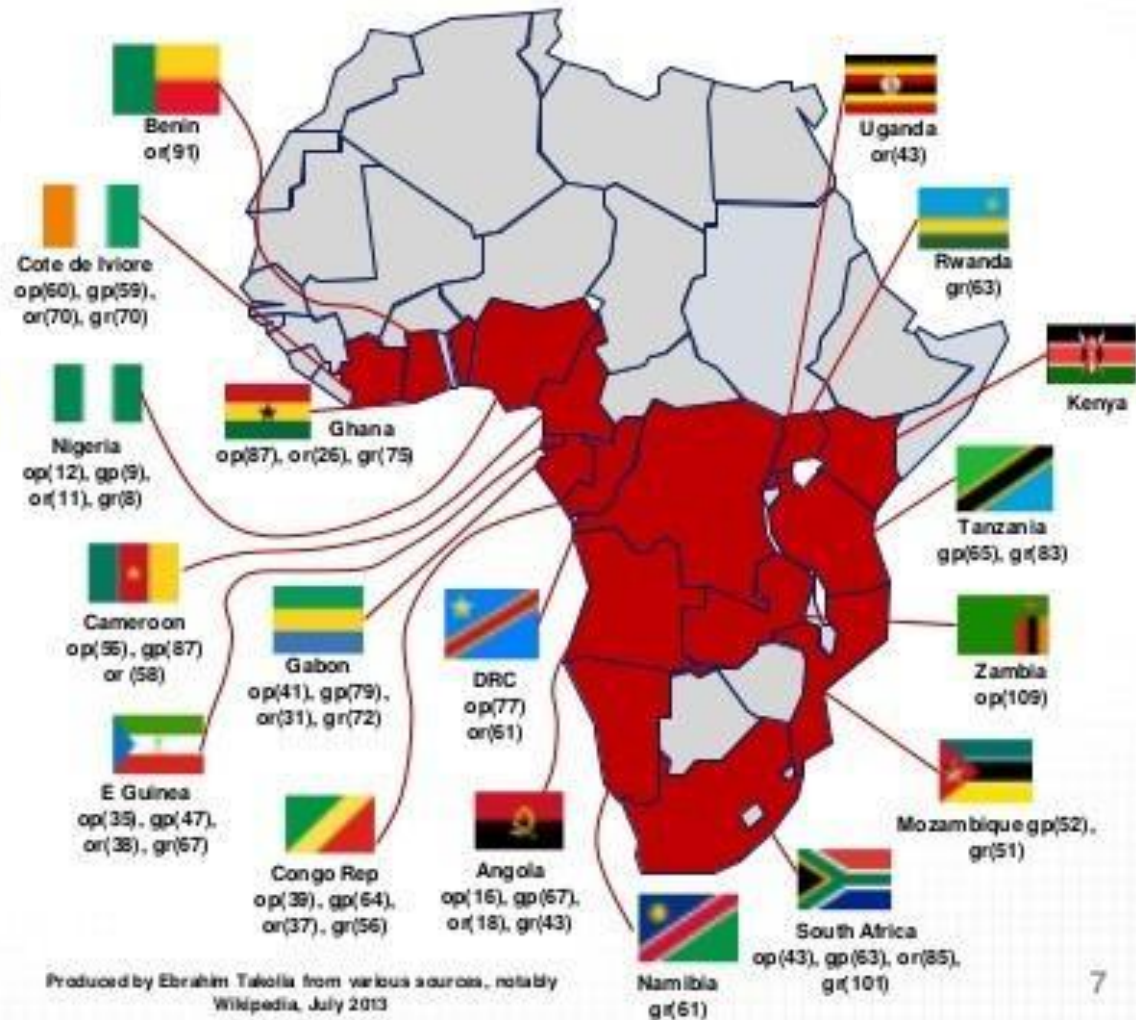
Africa Oil & Gas Reserves



Source: ey.com

Regional snapshot of offshore exploration developments in Southern Africa

Oil Production World Rank op () Natural Gas Production World Rank gp ()
 Proven oil Reserves World Rank or () Proven natural gas Reserves World Rank gr ()



Produced by Ebrahim Takolia from various sources, notably Wikipedia, July 2013

Natural Resources of Africa: Biodiversity



Terrestrial



Marine
and Coasts



Freshwater



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Threats to Africa's Natural Resources:

- Effects of Climate Change
- Bycatch.
- Overfishing
- Illegal Fishing.
- Deforestation and Forest Degradation.
- Illegal Wildlife Trade.
- Infrastructure.
- Oil and Gas Development.
- Loss of Biodiversity
- Desertification
- Natural Disasters
- Human Displacement and Environmental Refugees
- Trans-Boundary Movement of Hazardous Wastes



Poverty often leads to environmental degradation...

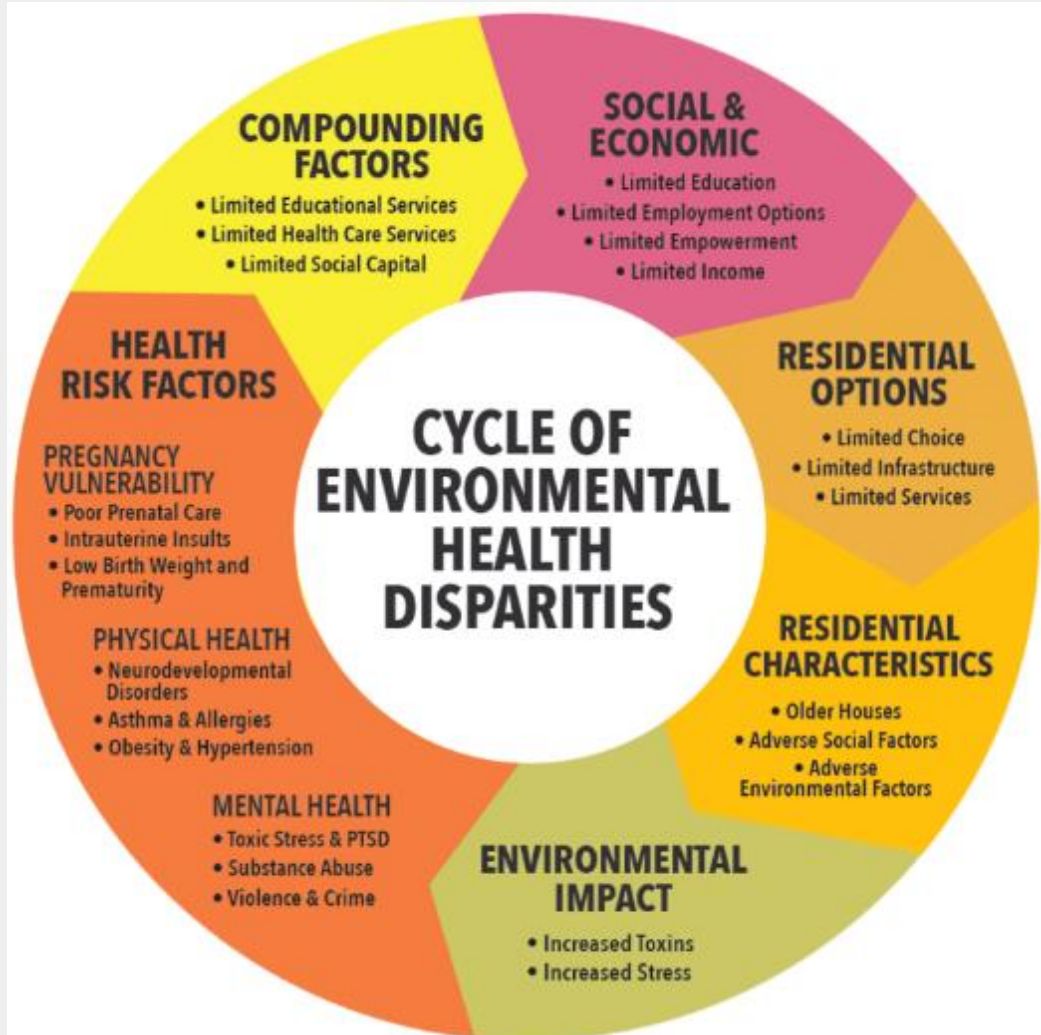


The poverty trap



Degradation leads to poverty and vulnerability...

Links between health, poverty and environmental degradation

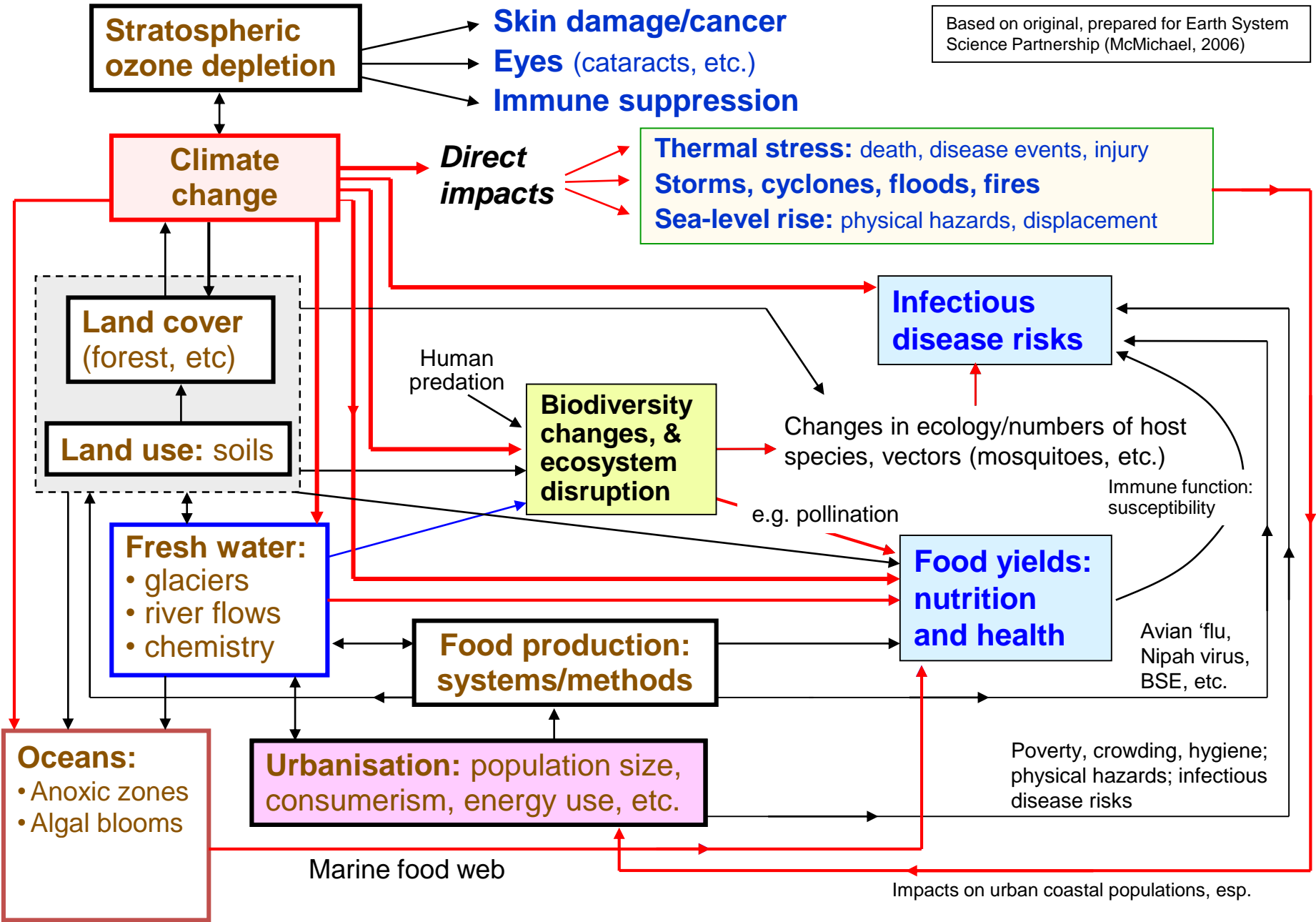


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From: <https://www.breakthecycleprogram.org/>

Global Environmental Changes: health risks

Based on original, prepared for Earth System Science Partnership (McMichael, 2006)



Covid-19 Disease Origins



Who Knows?



Step One



First, hunting, transporting, and consuming wildlife brings people wild species and domestic species together, **often in crowded or poorly-regulated markets** that form mixing bowls ideal for spillover events.



Step Two

Second, **Widespread deforestation** brings even more people into close contact with plants and animals that harbor pathogens that can leap into humans with devastating effect.

Rapid development and competing land uses have cut wide swaths through the world's forests, **undermining vital environment services**, such as the maintenance of biodiversity, climate stability, integrity of land, and delivery of fresh water.



Step Three

Then the degraded ecosystems can also lead to situations where natural, **low-level background pathogens in native species increase in prevalence and shedding rate from stressed wildlife**. The degradation of forests and their associated environmental services also threaten the livelihood of an estimated **1.6 billion forest-dependent people**, with consequences for migration and security



Nipah Virus Disease –
Outbreak in Malaysian
Pig Farmers, 1997-1999:
forests, fires, fruit, Fruit
Bats, 105 fatalities



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Impact on Economy and Natural Resource Management Funding

The pandemic has put pressure on funding on all fronts from public health and national parks budgets to export agriculture, food aid, and poverty alleviation.

Estimates are that it will cost globally, up to **\$82 trillion** over the next five years to recover from the costs of the pandemic.

That is about US\$ 2,400 per person per year for every human on the planet.



Identifying Reset Entry Points:

- Nature Based Solutions
- Green Economy/Green Infrastructure
- Understanding People/Attitudes/Behaviors
- Evidence based Policy
- Citizen Science
- Capacity Building



Source: IIED & UNEP



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Building Back Better (1)

Moving beyond “silver bullets”

- - How do we support the **bundling of innovative solution packages** that serve to amplify impact and minimize tradeoffs?

Leveraging solutions in an inclusive way

- - How do we collectively ensure that **vulnerable populations benefit** from all of this momentum?
- - What are concrete ways that the most vulnerable are/will be included in the **design, sourcing, uptake** AND impacts of these innovative solutions **to affect real positive change?**
- - How can we make sure that the wealth of innovative solutions being sourced from all kinds of contexts **is shared in such a way that groups on the ground** can contribute, benefit, pick up and advance relevant solutions and apply them for use in local settings?



Building Back Better (2)

Removing bottlenecks to uptake of solutions and supporting enabling factors

- Tackling a critical enabling factor has really propelled / facilitated / catalyzed an innovation that was **blocked by a “bottleneck” or some critical limitation**. e.g. road and transport infrastructure improvements reduced limitations in access to nutritious food in X context
- Are there **common key bottlenecks** (financing, policies, consumer awareness and behavior, etc.)

Strengthening collaborations and moving beyond 2021 and the Pandemic

- How do we manage the opportunity to focus beyond the immediate problems?
- How do we **bridge and connect several groups working in this space** - the UN actors, civil society, private sector - in order to leverage innovations for Africa's natural resource management?



The BioTrade Principles and Criteria

- Conservation of biodiversity
- Sustainable use of biodiversity
- Equitable sharing of benefits derived from the use of biodiversity
- Socio-economic sustainability
- Compliance with national and international legislation and agreements
- Respect for the rights of actors involved in BioTrade activities
- Clarity about land tenure, use, and access to natural resources and knowledge



Four different approaches are needed to implement the BioTrade Principles and Criteria:

- The **“value chain approach”**, which involves actors from all parts of the value chain working together to achieve agreed goals.
- The **“adaptive management approach”**, which allows for corrective measures to be adopted on the basis of ongoing monitoring of impacts.
- The **“ecosystem approach”**, which takes a holistic approach to ecological and social issues and the interactions and processes that make up production systems.
- The **“sustainable livelihoods approach”**, which contributes to sustaining livelihoods, in particular of the poor and vulnerable populations



*Ese Ne Tekrema -
Interdependence*

*Denkyem –
Adaptability*



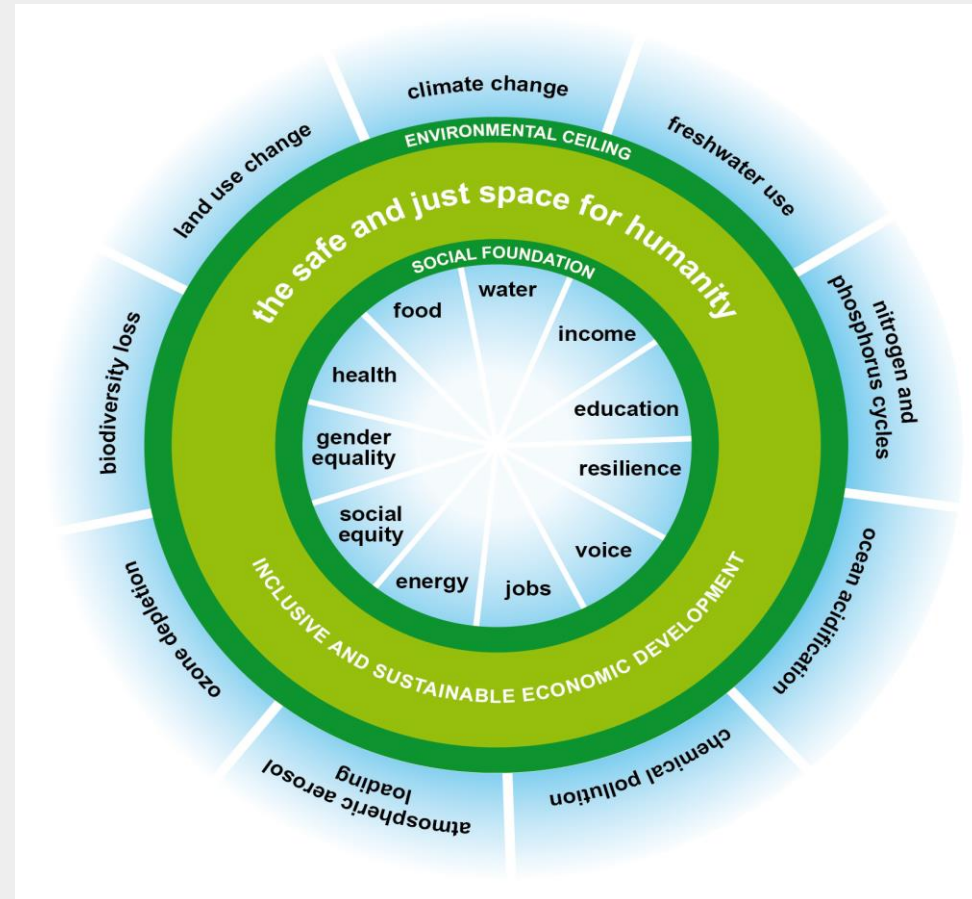
*Asase Ye Duru –
Mother Earth*

*Woforo Dua Pa a
Support*



The Great Balancing Act

The balancing act is how the two fundamental elements of sustainable development and how these must be considered together; that is planetary health and social justice. Together these two elements describe a sustainable vision that respects both **planetary boundaries/environmental limits** and a **social foundation**, which will ensure a safe and just operating space for our existence and defines new pathways for inclusive growth and prosperity.



Source: Oxfam - <http://oxf.am/oef>



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Thank You for your Attention
cgordon@ug.edu.gh



**Make Peace With
Nature NOW**

