

# Africa Alive Corridors

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Journeys through Africa's autobiography with everyone a stakeholder

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**AEON**  
AFRICA EARTH OBSERVATORY NETWORK  
EARTH STEWARDSHIP THROUGH SCIENCE

# **Africa Alive Corridors**

**Journeys through Africa's autobiography  
with everyone a stakeholder**

# Africa, the world's heritage colossus

Africa is the heritage colossus amongst the continents of the world. It is here that we emerged step-by-step from the primate world over the past 10-million years, and from here—as *Homo sapiens*—that we colonised the world. All 7-billion humans alive today are one close-knit family, born on African soil less than 200,000 years ago. It is here that our earliest cultures, languages and technologies arose.

Africa is the geological hotspot of the world. The largest, best-preserved fragment of the Earth's earliest emerging continents, along with the earliest known life forms (micro-organisms), are found here. And the most prodigious mineral deposits anywhere are preserved here.

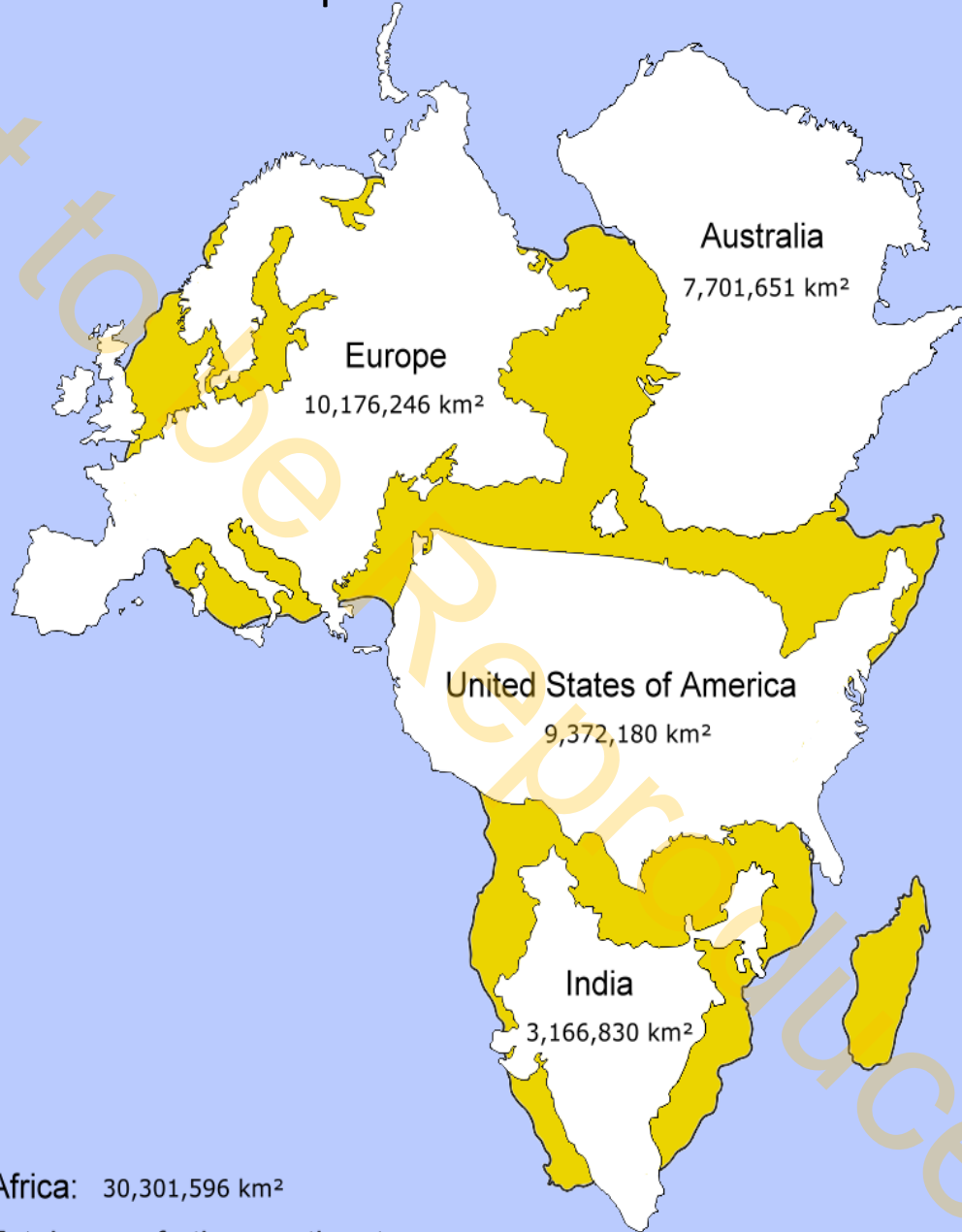
Africa is the biological hotspot of the world. The world's top terrestrial plant (Cape Fynbos) and animal biodiversity hotspots (tropical Africa) occur here. Of all the continents of our planet, only Africa still supports intact ecosystems with their diverse megafauna (herbivores and carnivores).

- **International Africa, by its people for its people**
- The people of Africa join in telling the autobiography of their continent. Together they write and celebrate their epic 4-billion-year story along 20 'Heritage Corridors'. The corridors—averaging 2,000 to 3,000 km in length—criss-cross the continent taking in all 53 nations (including Madagascar).
- 
- Heritage Corridors are international, with most linking three or more countries. They embrace two tightly related concepts. Each is a chapter in the African autobiography: archived in its rocks, minerals, fossils, extant plants and animals, archaeological and historical sites, and its living pulsating cities and rural communities. And each is a focus for international, holistic, sustainable management by all for the enrichment of all.

- **But, place of greatest human suffering**
- In spite of standing unparalleled atop Earth's heritage podium, Africa's people suffer the greatest spectrum of ills anywhere.  
Considering the UN Millennium Goals, addressing poverty, hunger, education etc, Africans are in the deepest grip of suffering. This is the most astonishing irony!

Africa makes up 20% of the earth's surface

The size  
of Africa  
alone  
tells of  
the  
enormous  
task that  
lies  
ahead...  
*.....are  
we ready  
for this?*



Africa: 30,301,596 km²

Total area of other continents: 30,416,907 km²

# **The 20 Heritage Corridors**

Here follows a selection of four of 20 proposed corridors to give a sense of their international character and of their unmatched place in the unfolding story of Africa, indeed of the Earth.

- **Prime Heritage Nodes**
- Each corridor includes 20 prime heritage nodes (World Heritage Sites, Biosphere Reserves, biodiversity hotspots, Geoparks etc): pages in the chapters of the African story. The nodes might be seen as a string of pearls, each a priceless treasure.



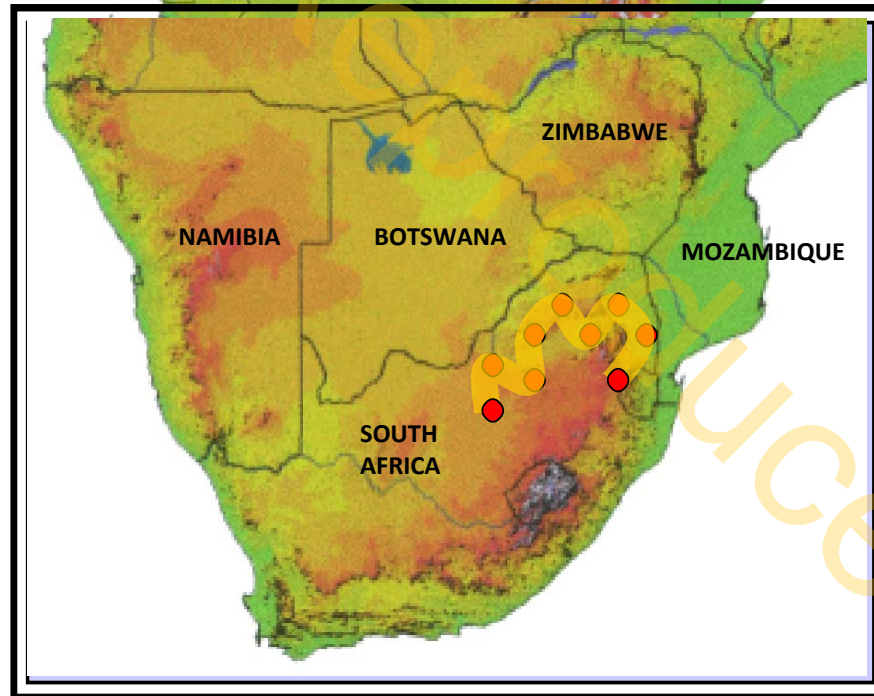
# 1. Cradle to Cradle Corridor (South Africa)

3,500 million years-present

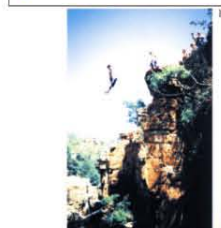
*'Celebrating 3,5 billion years of life on Earth'*

**'Cradle of Humanity'** WHS (3,5-1,0 Ma)—richest hominid deposits

- **Vredefort Dome** (2023 Ma)—oldest, largest meteorite impact
- **Witwatersrand Supergroup** (3,000-2714 Ma)—world's greatest goldfield
- **Barberton Mountains** (3,570-3,060 Ma)—earliest fossil bacteria







Marethwane, Magaliesberg

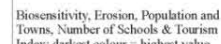
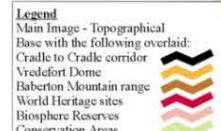


*Australopithecus robustus*  
Pretorius, 48, Tvl. Mus.  
1.7 Ma, Swartkops



*Australopithecus africanus*  
Mrs. Ples, 50, Tvl. Mus.  
2.6 Ma, Sterkfontein

Cradle of Humanity  
Sterkfontein World Heritage Site



## Cradle of life to Cradle of Humanity Corridor (CCC)



Blyde River Valley



Londolozi

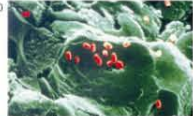


Londolozi

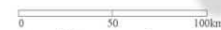


Standing in the Barberton Greenstone Belt looking towards the world's oldest  
penicline across which the Transvaal  
sea transgressed 2.6 billion years ago

Cradle of Life  
Barberton Mts.



The world's oldest known  
bacteria (red) embedded in  
a quartz matrix (green).  
Barberton Mountains



Topographic base: courtesy of  
Peace Parks Foundation

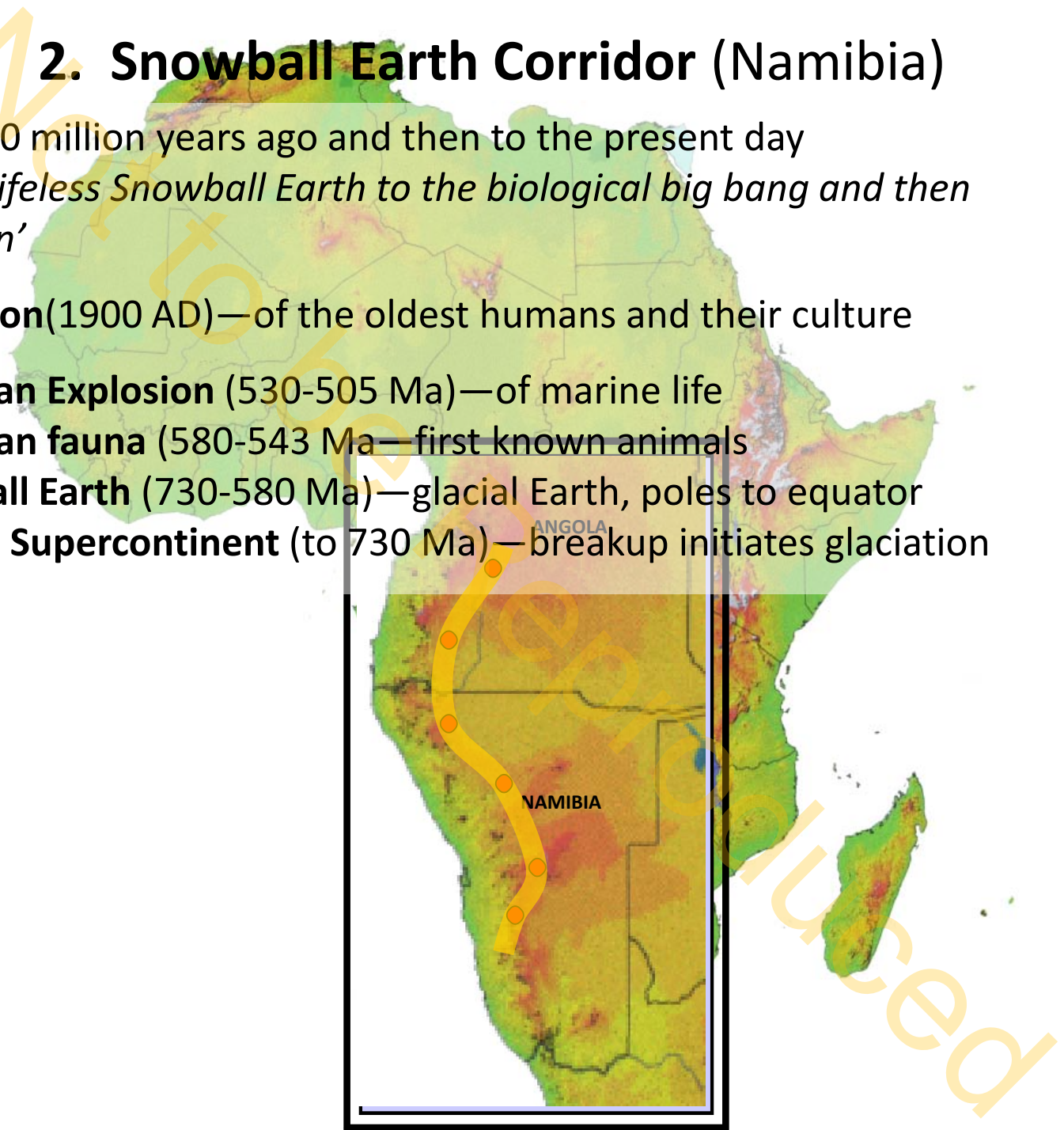


## 2. Snowball Earth Corridor (Namibia)

1,000-500 million years ago and then to the present day

*'From a lifeless Snowball Earth to the biological big bang and then extinction'*

- **Extinction**(1900 AD)—of the oldest humans and their culture
- **Cambrian Explosion** (530-505 Ma)—of marine life
- **Ediacaran fauna** (580-543 Ma)—first known animals
- **Snowball Earth** (730-580 Ma)—glacial Earth, poles to equator
- **Rodinia Supercontinent** (to 730 Ma)—breakup initiates glaciation

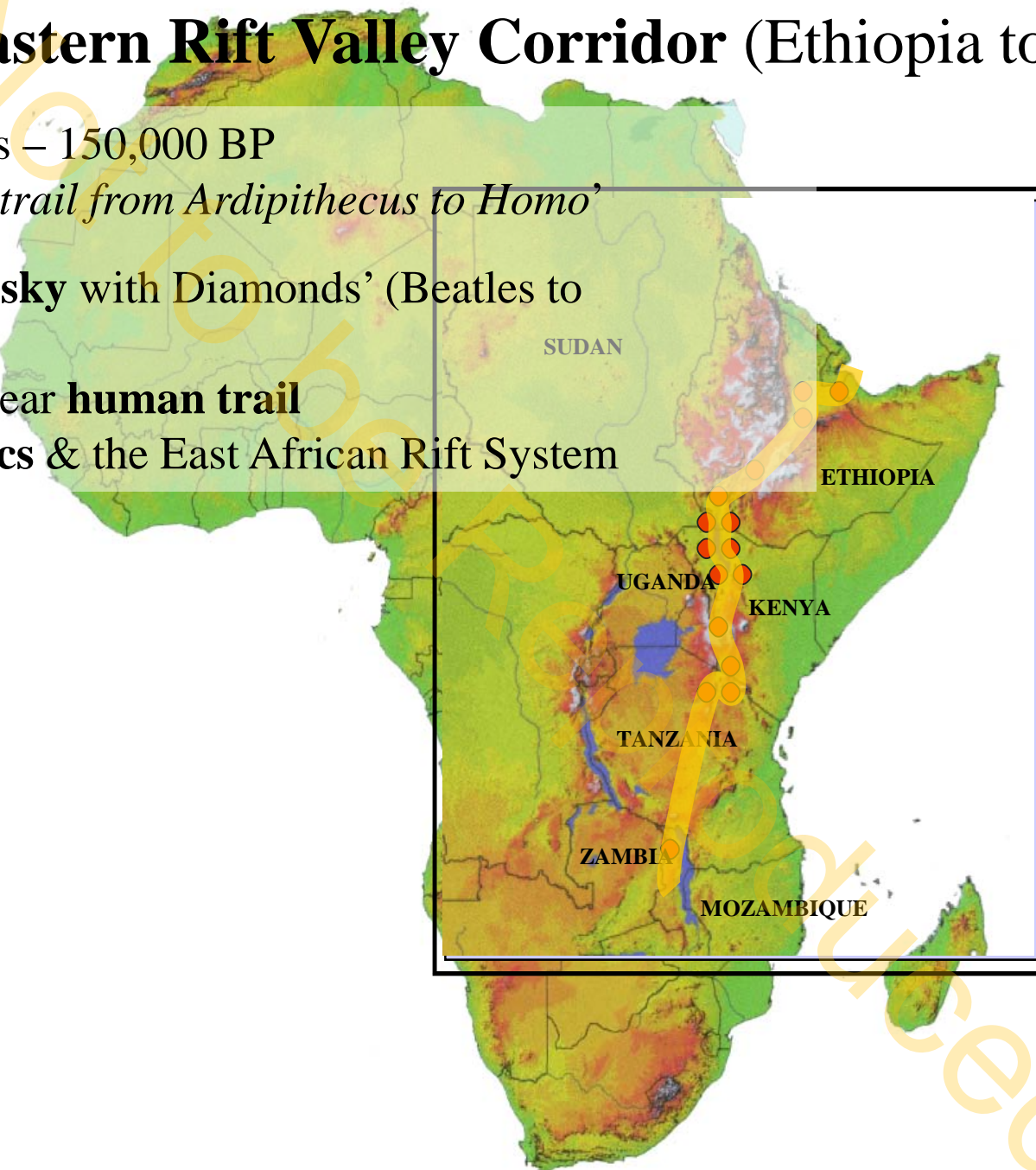


## 8. Eastern Rift Valley Corridor (Ethiopia to Malawi)

5 million years – 150,000 BP

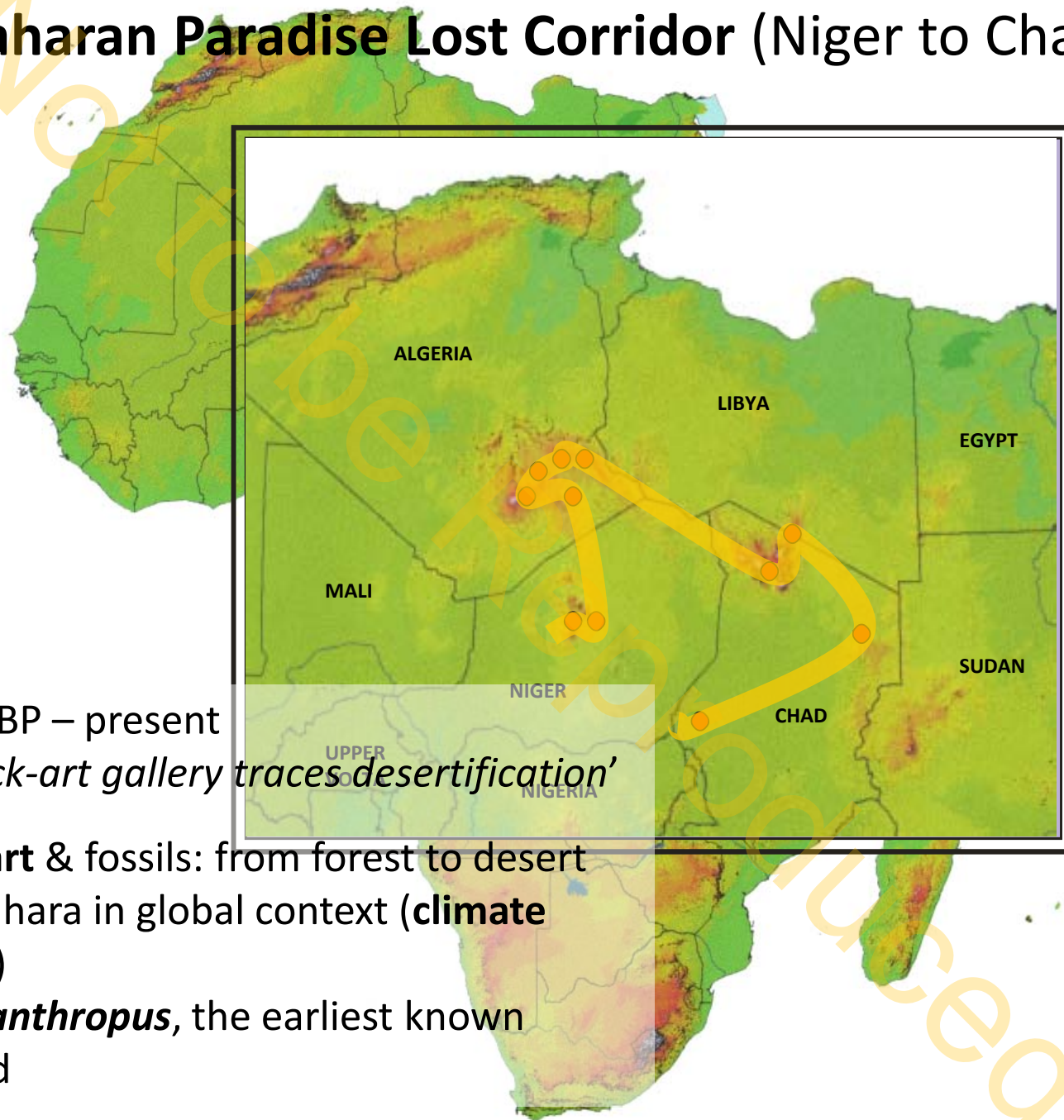
*‘Our hominid trail from *Ardipithecus* to *Homo*’*

- **‘Lucy in the sky with Diamonds’** (Beatles to anthropology)
- A 4-million year **human trail**
- **Plate tectonics & the East African Rift System**





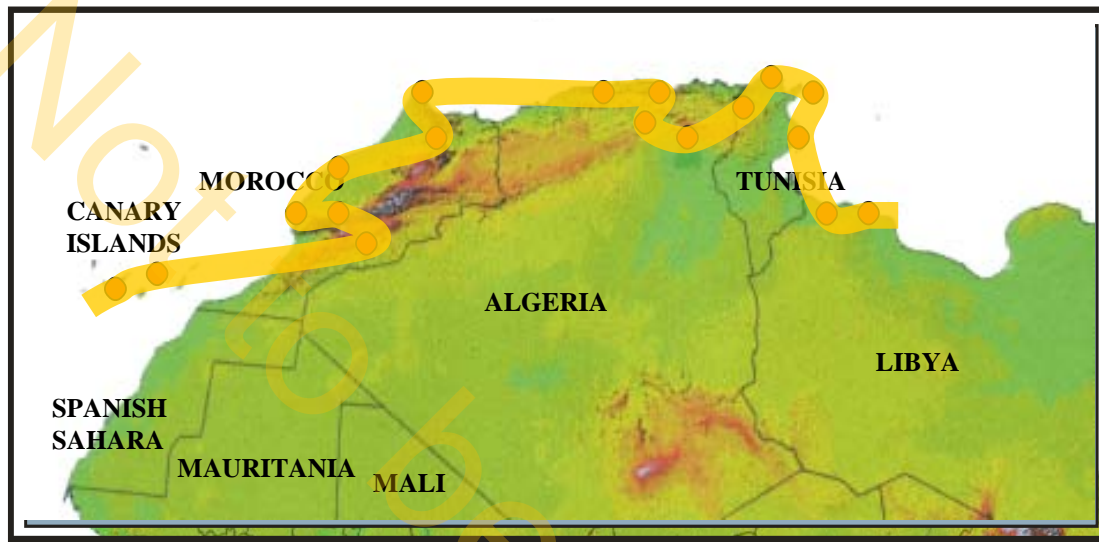
## 12. Saharan Paradise Lost Corridor (Niger to Chad)



22,000 BP – present

*'The rock-art gallery traces desertification'*

- **Rock art & fossils:** from forest to desert
- The Sahara in global context (**climate change**)
- ***Sahelanthropus***, the earliest known hominid



## 5. Colliding Continents Corridor (Morocco to Tunisia)

200 million years – present

*‘Rifting, drifting, folding along the Atlas Mountains’*

- **Atlas Mountains:** a geological gallery of continental drift
- A succession of **Civilizations & Empires** (Roman, Byzantine, British, French)
- **World Heritage Sites & Biosphere Reserves** (United Nations)

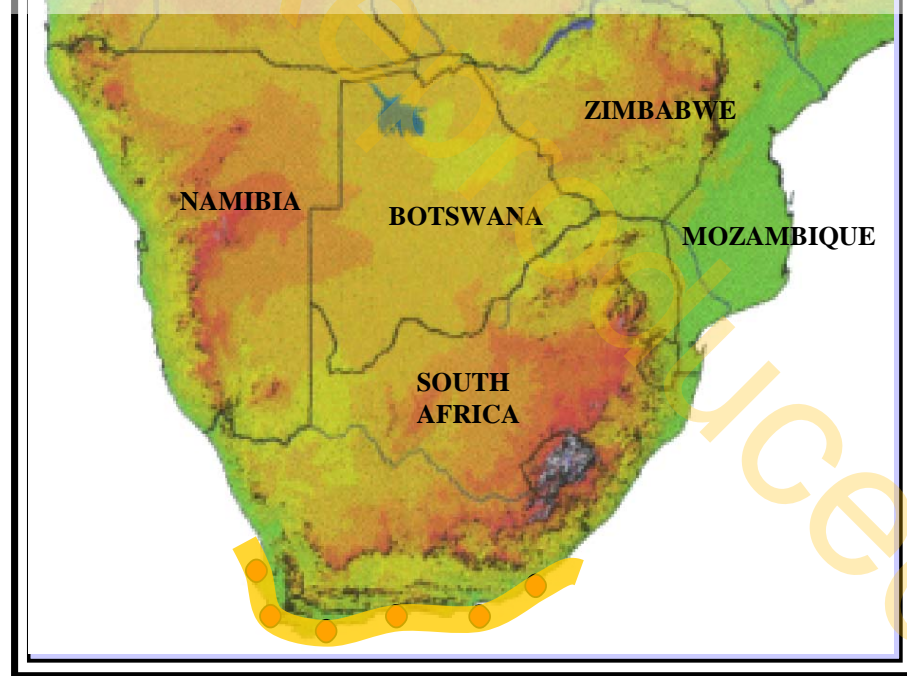


## 10. *Homo sapiens sapiens* Corridor (South Africa)

140,000-60,000 BP

*'The first half of our sojourn on Earth'*

- Fynbos Biome—**World's richest flora** (present)
- **Blombos cave**—earliest symbolic art (70,000 BC)
- **Klasies Rivier Mouth**—earliest skeletal remains (100,000 BC)
- **Langebaan**—earliest human footprints (117,000 BC)
- **Mitochondrial Eve**—our mutual ancestor (140,000 BC)





## AEON's Imizila – *finding a new way forward*

AEON has developed a new strategic board game - **Imizila** - for sustainable development along 21 geo-bio-cultural corridors across Africa (Africa Alive Corridors program). Imizila ('*finding a new way forward*') consists of a holistic set of 101 strategies aimed at stimulating debate seeking this path into a safer, kinder future. Teams of scholars— together with parents, teachers and others— play the game at workshops and at home. Imizila seeks togetherness; Ubuntu!



Imizila was introduced to the Africa-wide community in Arusha, Tanzania, at the Africa launch of IYPE (***International Year of Planet Earth***), in April 2008. The director of AEON and two AEON associate members took 10 young learners from South Africa to play the board game during the IYPE Africa discussions. The 10 selected South African learners met and challenged 10 Tanzanian counterparts in an exploratory IYPE competition. The game drew lots of attention, including participation by H.E. Mr Jakaya Mrisho Kikwete, President of Tanzania, and is presently being adopted, through AAC by UNESCO for further development









# Africa Alive Corridors [strategic game] live-competition Arusha







# What since Lisbon?



The background is split vertically into two colors: a dark magenta on the left and a golden-yellow on the right. Both sections feature faint, stylized African patterns, including a large circular motif on the left and a face-like mask on the right. A large, diagonal watermark in a golden-yellow color reads "Not to be reproduced" across the entire image.

# Africa Alive Corridors

Structure and Opportunities

# Corridor Themes – experience a unique chapter of Africa's Autobiography

- Timelines & time capsules
- Continent Adrift
- Rock-systems and Landscapes
- Fossils and the deep history of life
- Flora, fauna, biodiversity & ecosystems
- Our human roots
- Culture and spirituality
- Climate change, footprints and 6<sup>th</sup> extinction
- Mega-hazards and their impacts

# Corridor Content

- Each corridor has a team assigned
  - Script Team
    - Story and timelines
    - Specific themed focus
  - Production Team
    - Creating usable content
    - Graphic design
    - Outputs include timeline assets, posters, cards and themed booklets
  - Post Production Choreography Team
    - Real adventures & survival tours -Tourism Content Packages; DVD & virtual tours

# Corridor Packs - Cards

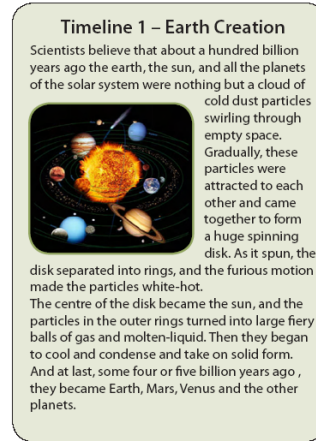
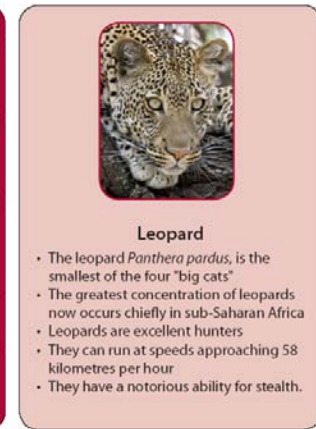
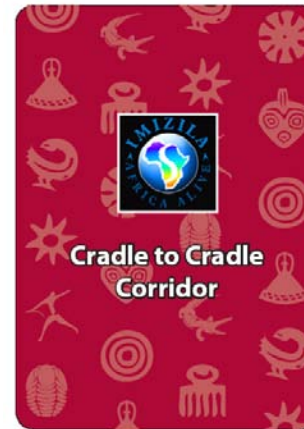
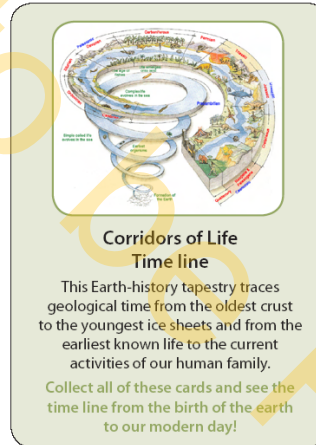
- Tells the story of each corridor
- Collectors Cards – high quality
- Game Play possibilities



# Tourism Options – Self Drive

- Content is collated and moulded for use by tourists
- Loaded onto GPS based navigator (e.g. Garmin Nuvi).
- Advantages:
  - Delivery of information specific to current location
  - Data storage capacity can provide audio, video and photo streams (no need to download)
  - GPS device is a guide, giving tourists options of destinations and plotting their course for them and signposts:
    - Tourism services
    - Attractions
    - Accommodation
    - Experienced guides
    - Experts
    - Local flavour

# Card Examples

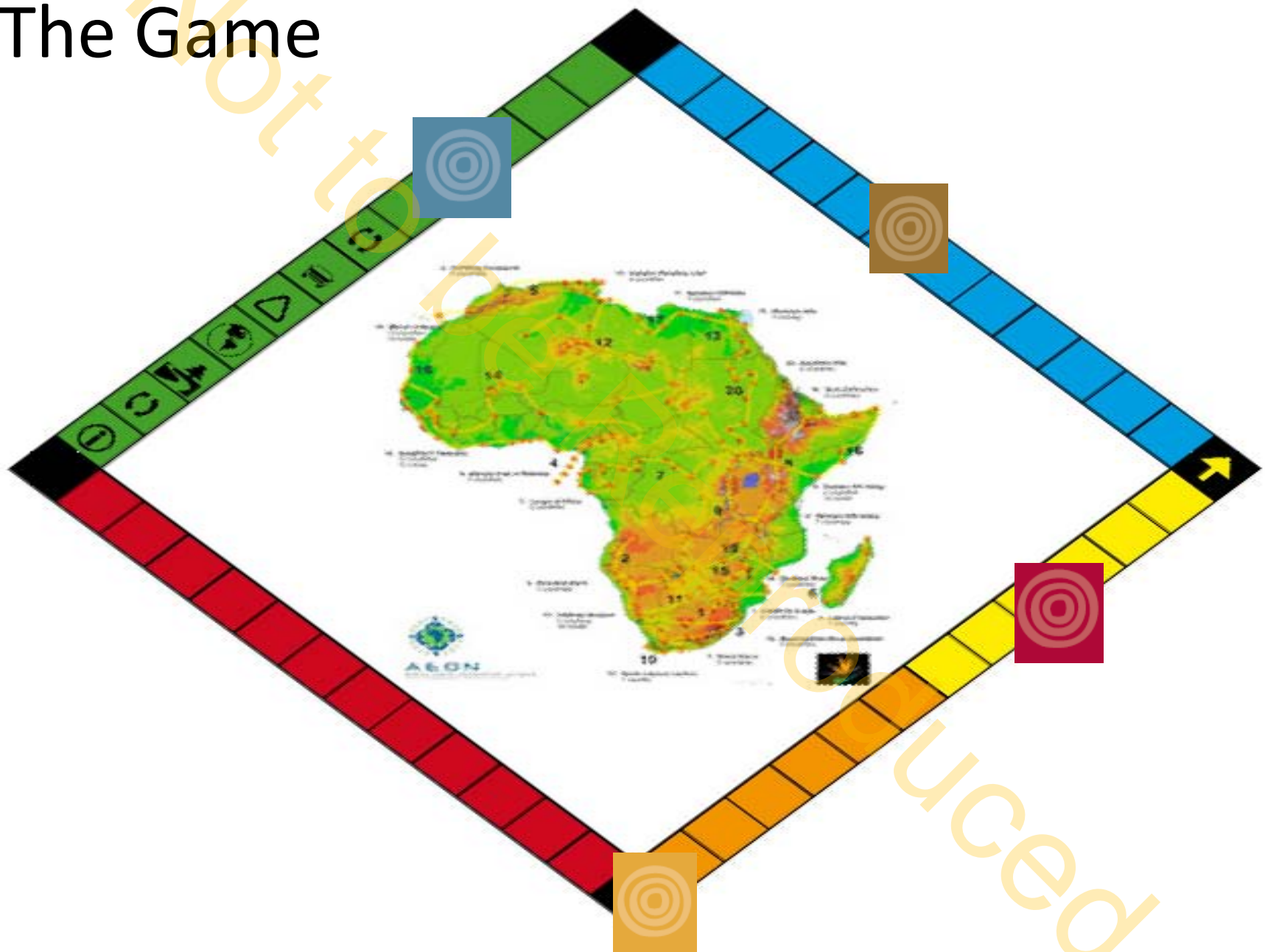


# Custom Collectors Box



*Lid Design*

# The Game



- Easy to play - Fast and Fun
- Can be played on a board
- Can be played on a field
- Can be played by a few at home
- Can be played by an entire school
- Can be played at a conference
- Can be played virtualized - web and mobile
- Contains the best of the current Imizila
- Corridors can compete with each other...



1. Challenge results in a team putting in a new power station

1. Impact

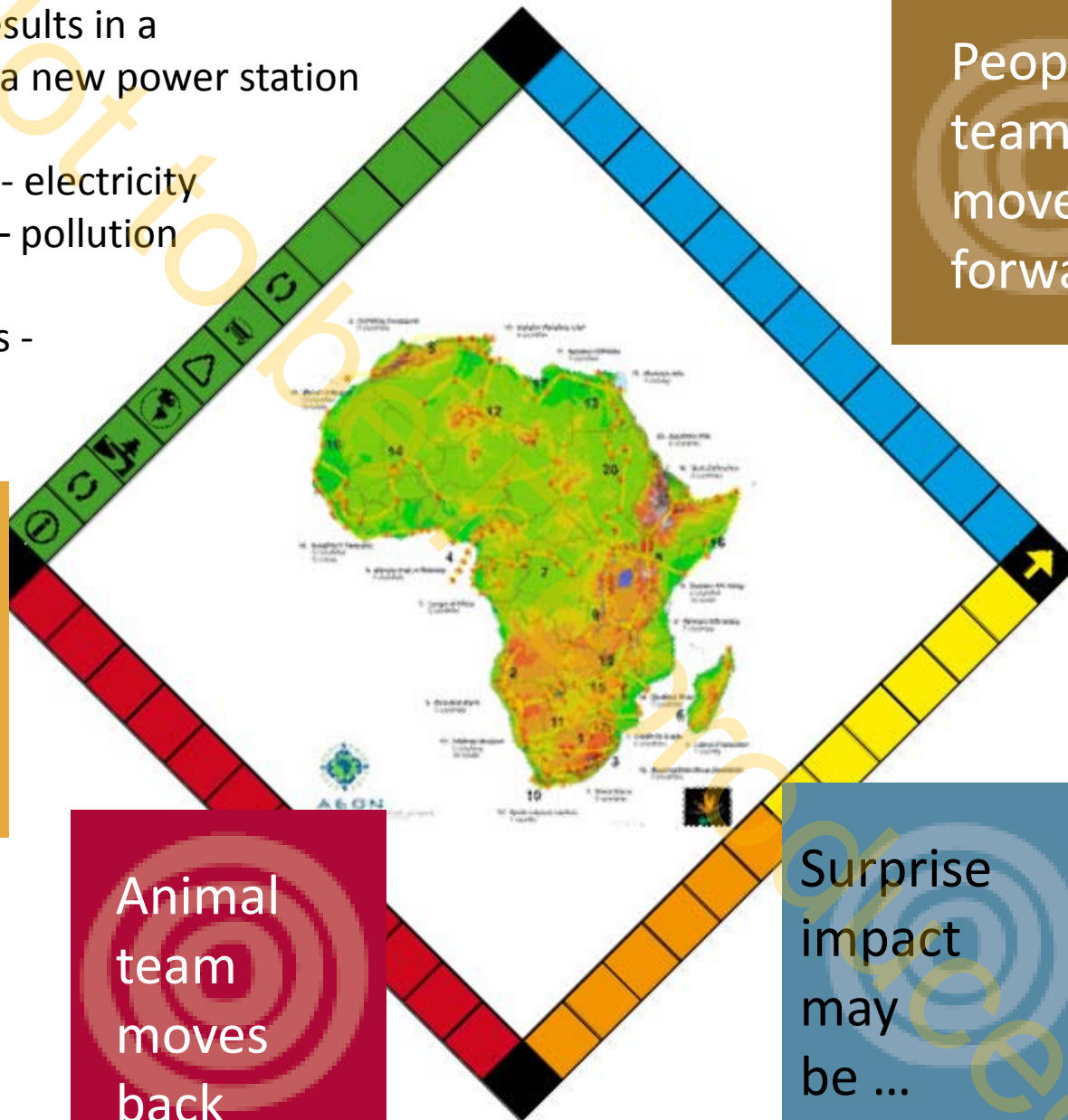
- People - electricity
- Water – pollution
- Birds –
- Animals -

People  
team  
moves  
forward

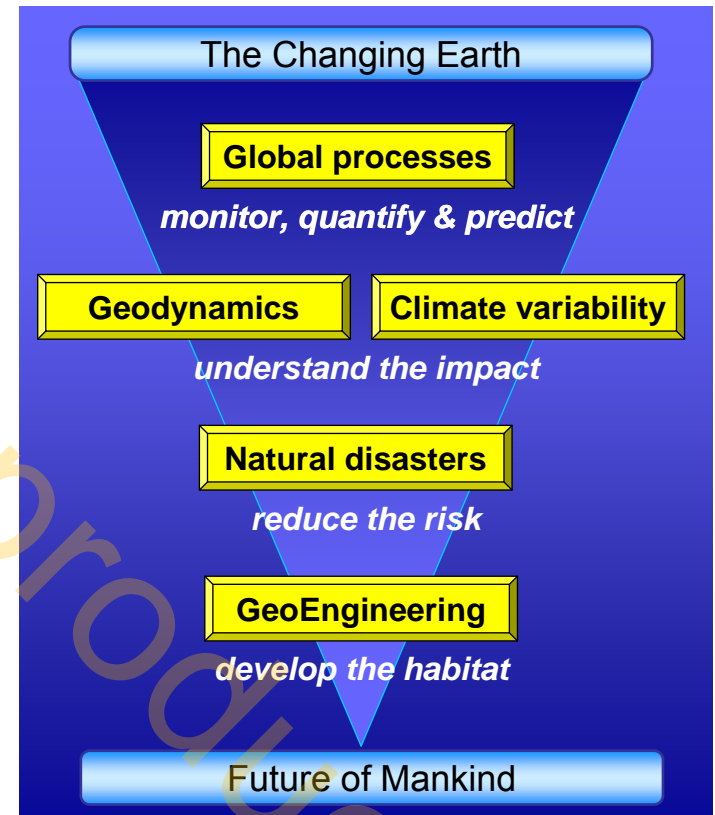
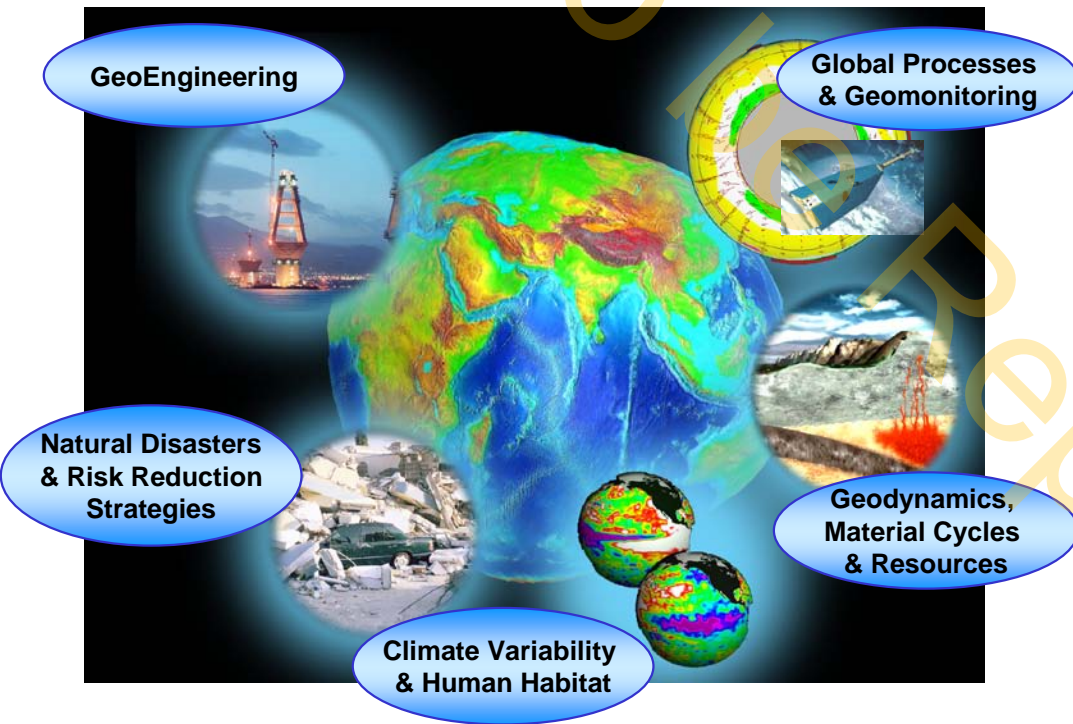
Water  
team  
moves  
back

Animal  
team  
moves  
back

Surprise  
impact  
may  
be ...



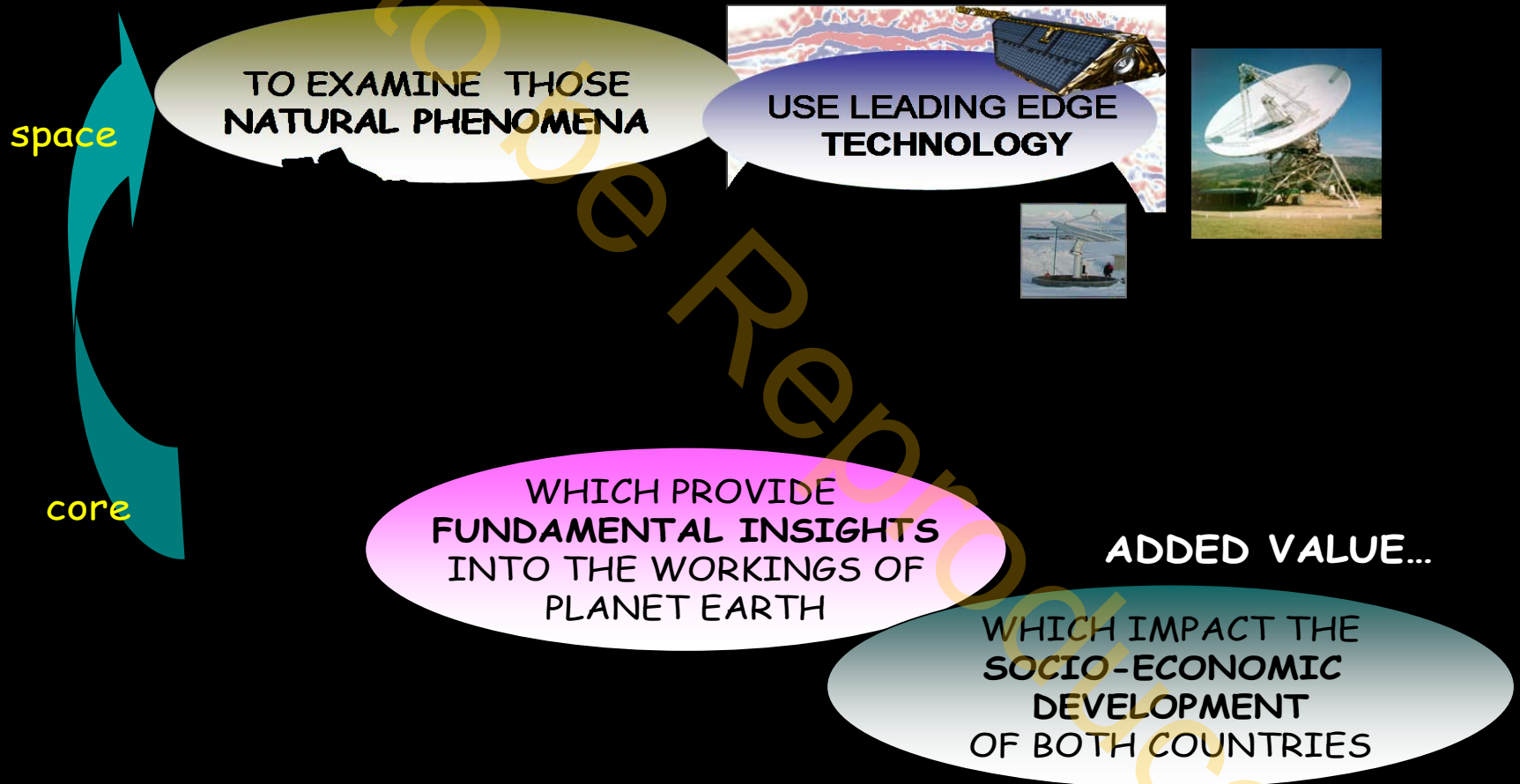
# *Geosystem: the changing Earth*



**A brave new world**

# Inkaba ye Africa

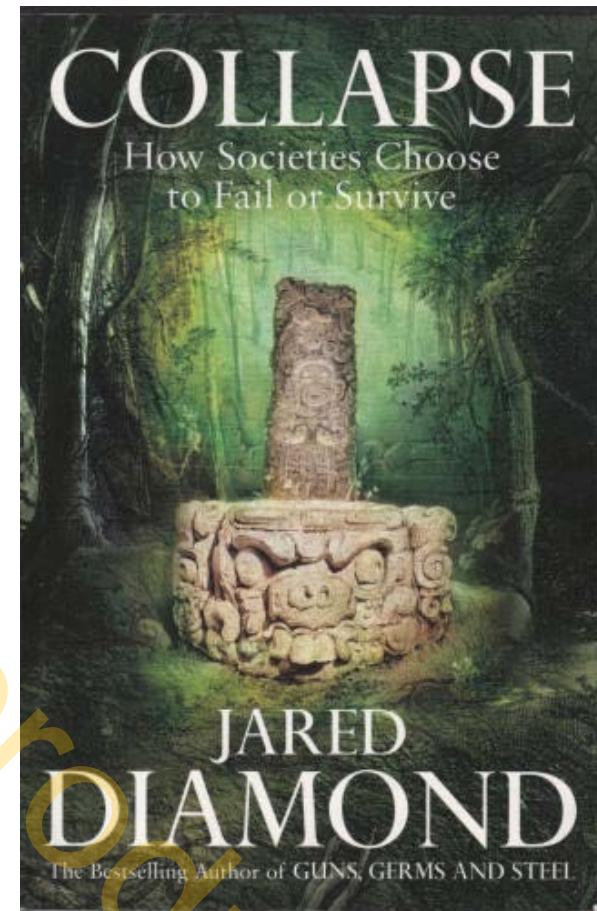
## An Holistic Evaluation of Planet Earth





Jared Diamond identified what he considered to be the 12 most serious environmental problems facing past (and future) societies, problems that often have led to the collapse of historical societies:

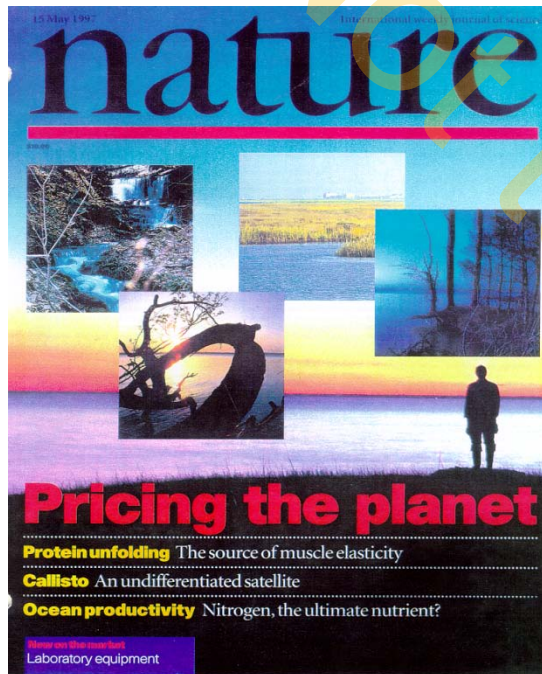
- 1) Loss of habitat and ecosystem services,
- 2) Overfishing,
- 3) Loss of biodiversity,
- 4) Soil erosion and degradation,
- 5) Energy limits,
- 6) Freshwater limits,
- 7) Photosynthetic capacity limits,
- 8) Toxic chemicals,
- 9) Alien species introductions,
- 10) Climate change,
- 11) Population growth, and
- 12) Human consumption levels.



More importantly, Diamond, and several other authors before him emphasized that **the interplay of multiple factors is almost always more critical than any single factor.** **Systems that lose resilience are vulnerable to shocks from several sources.**

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In a full world  
context, what is  
“the economy” and  
what is it for?



NATURE | VOL 387 | 15 MAY 1997 253

## Article

# The value of the world's ecosystem services and natural capital

Robert Costanza, Ralph d'Arge, Rudolf de Groot, Stephen Farber, Monica Grasso, Bruce Hannon, Karin Limburg, Shahid Naeem, Robert V. O'Neill, Jose Paruelo, Robert G. Raskin, Paul Sutton & Marjan van den Belt

The services of ecological systems and the natural capital stocks that produce them are critical to the functioning of the Earth's life-support system. They contribute to human welfare, both directly and indirectly, and therefore represent part of the total economic value of the planet. We have estimated the current economic value of 17 ecosystem services for 16 biomes, based on published studies and a few original calculations. For the entire biosphere, the value (most of which is outside the market) is estimated to be in the range of US\$16–54 trillion (10<sup>12</sup>) per year, with an average of US\$33trillion per year. Because of the nature of the uncertainties, this must be considered a minimum estimate. Global gross national product total is around US\$18 trillion per year.

2<sup>nd</sup> most cited article in the last 10 years in the Ecology/Environment area according to the ISI Web of Science.

# Ecosystem services are the benefits humans derive from ecosystem functioning

ECOSYSTEM SERVICES	ECOSYSTEM FUNCTIONS
Gas regulation	Regulation of atmospheric chemical composition.
Climate regulation	Regulation of global temperature, precipitation, and other biologically mediated climatic processes at global, regional, or local levels.
Disturbance regulation	Capacitance, damping and integrity of ecosystem response to environmental fluctuations.
Water regulation	Regulation of hydrological flows.
Water supply	Storage and retention of water.
Erosion control and sediment retention	Retention of soil within an ecosystem.
Soil formation	Soil formation processes.
Nutrient cycling	Storage, internal cycling, processing, and acquisition of nutrients.
Waste treatment	Recovery of mobile nutrients and removal or breakdown of excess or xenic nutrients and compounds.
Pollination	Movement of floral gametes.
Biological control	Trophic-dynamic regulations of populations.
Refugia	Habitat for resident and transient populations.
Food production	That portion of gross primary production extractable as food.
Raw materials	That portion of gross primary production extractable as raw materials.
Genetic resources	Sources of unique biological materials and products.
Recreation	Providing opportunities for recreational activities.
Cultural	Providing opportunities for non-commercial uses.

From: Costanza, R. R. d'Arge, R. de Groot, S. Farber, M. Grasso, B. Hannon, S. Naeem, K. Limburg, J. Paruelo, R.V. O'Neill, R. Raskin, P. Sutton, and M. van den Belt. 1997. The value of the world's ecosystem services and natural capital. *Nature* 387:253-260



# Consider Us 'Corridors of Africa'

