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# ***The role of South African universities in the revitalisation of African higher education: Stellenbosch University's approach***

Presentation to EED Africa Alumni Conference  
27 January 2009

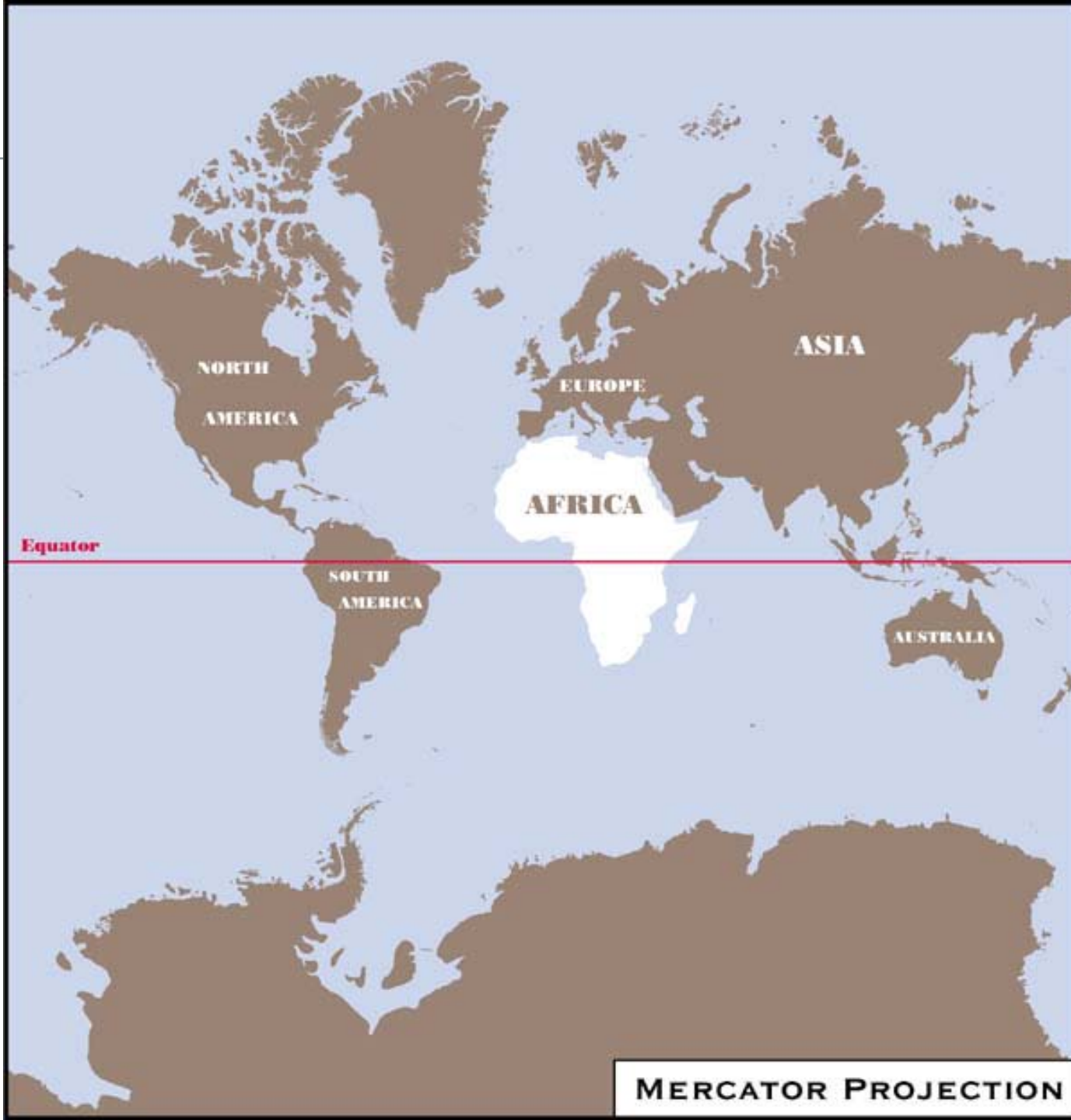
Dr Christoff Pauw  
Coordinator: Initiatives in the South  
Division of Research Development  
Stellenbosch University



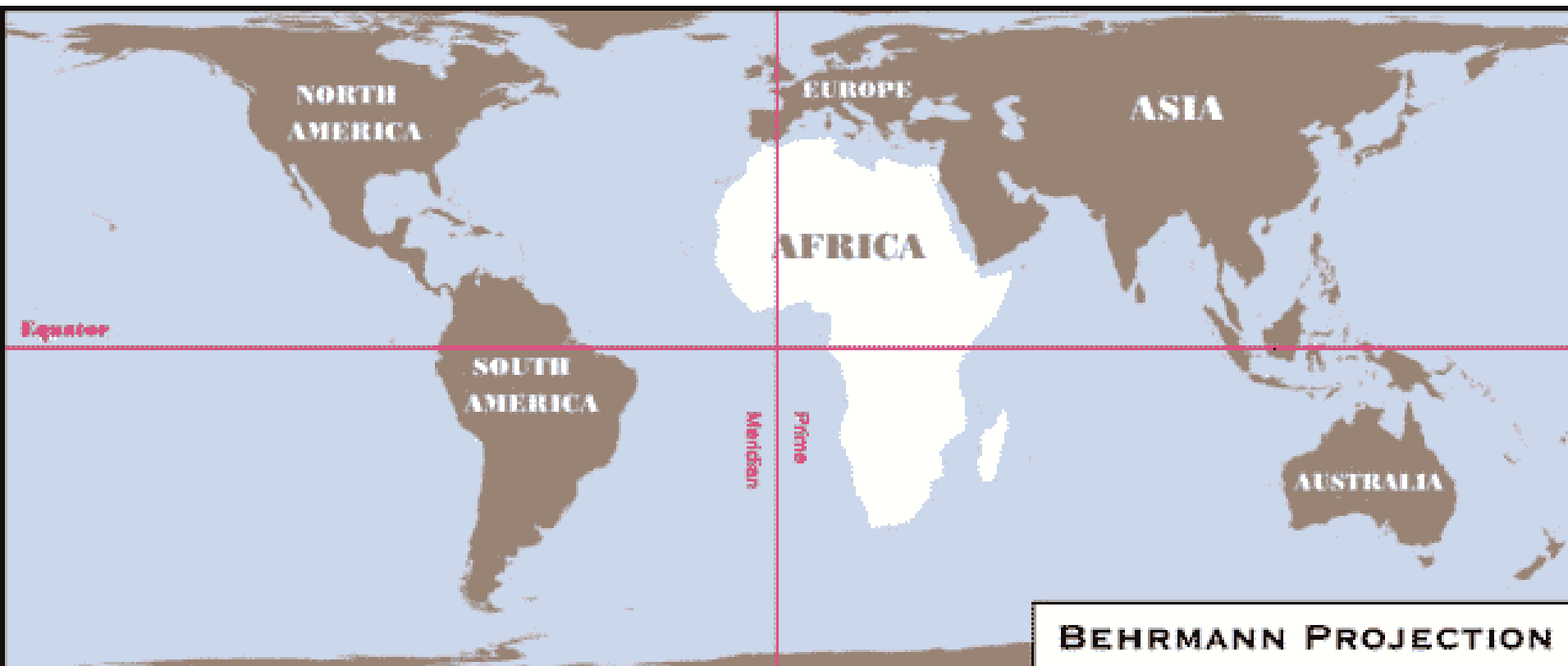


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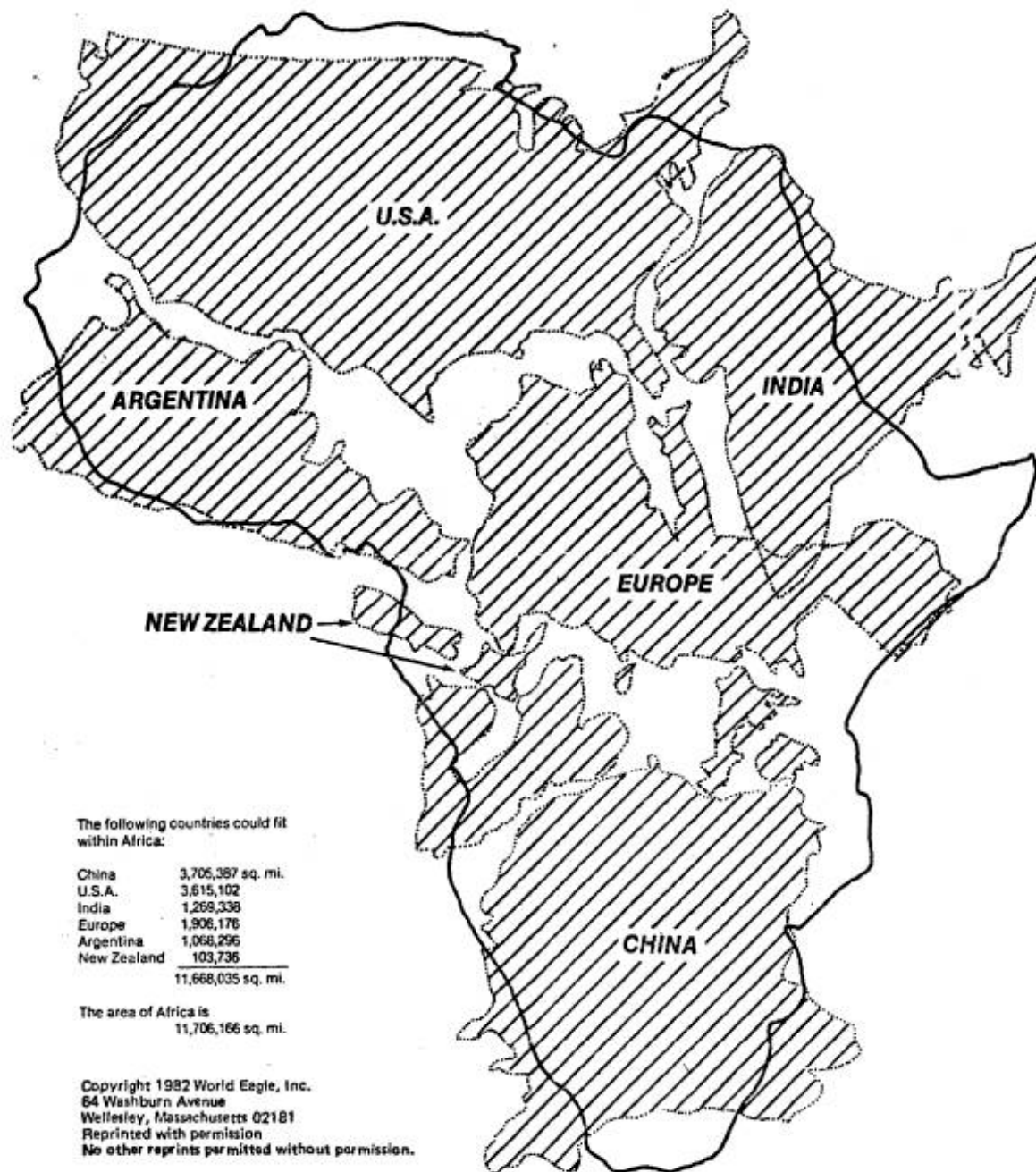




**MERCATOR PROJECTION**







The following countries could fit within Africa:

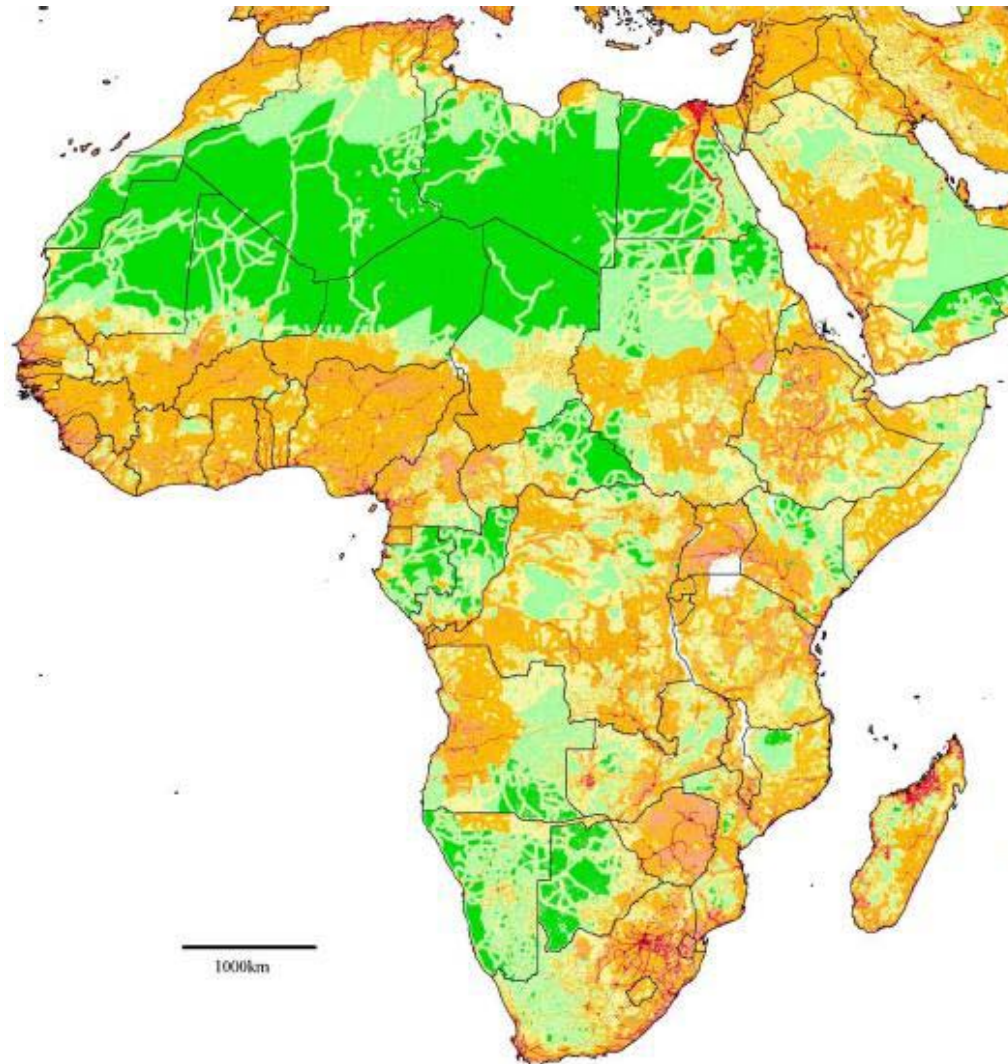
China	3,705,387 sq. mi.
U.S.A.	3,615,102
India	1,268,338
Europe	1,906,176
Argentina	1,068,296
New Zealand	103,736
	<hr/>
	11,668,035 sq. mi.

The area of Africa is  
11,706,166 sq. mi.

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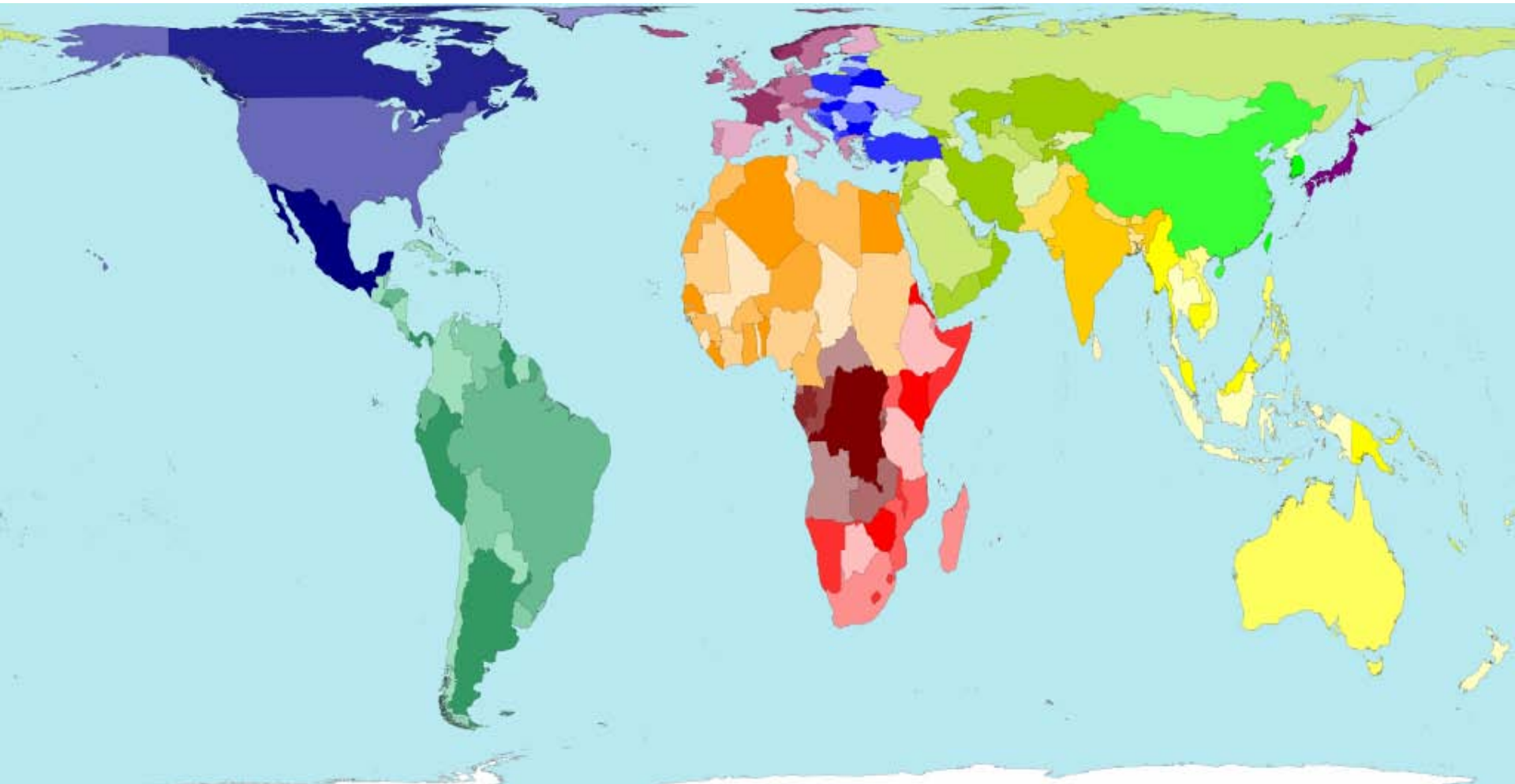


# Africa's Human Footprint





<http://www.worldmapper.org/>

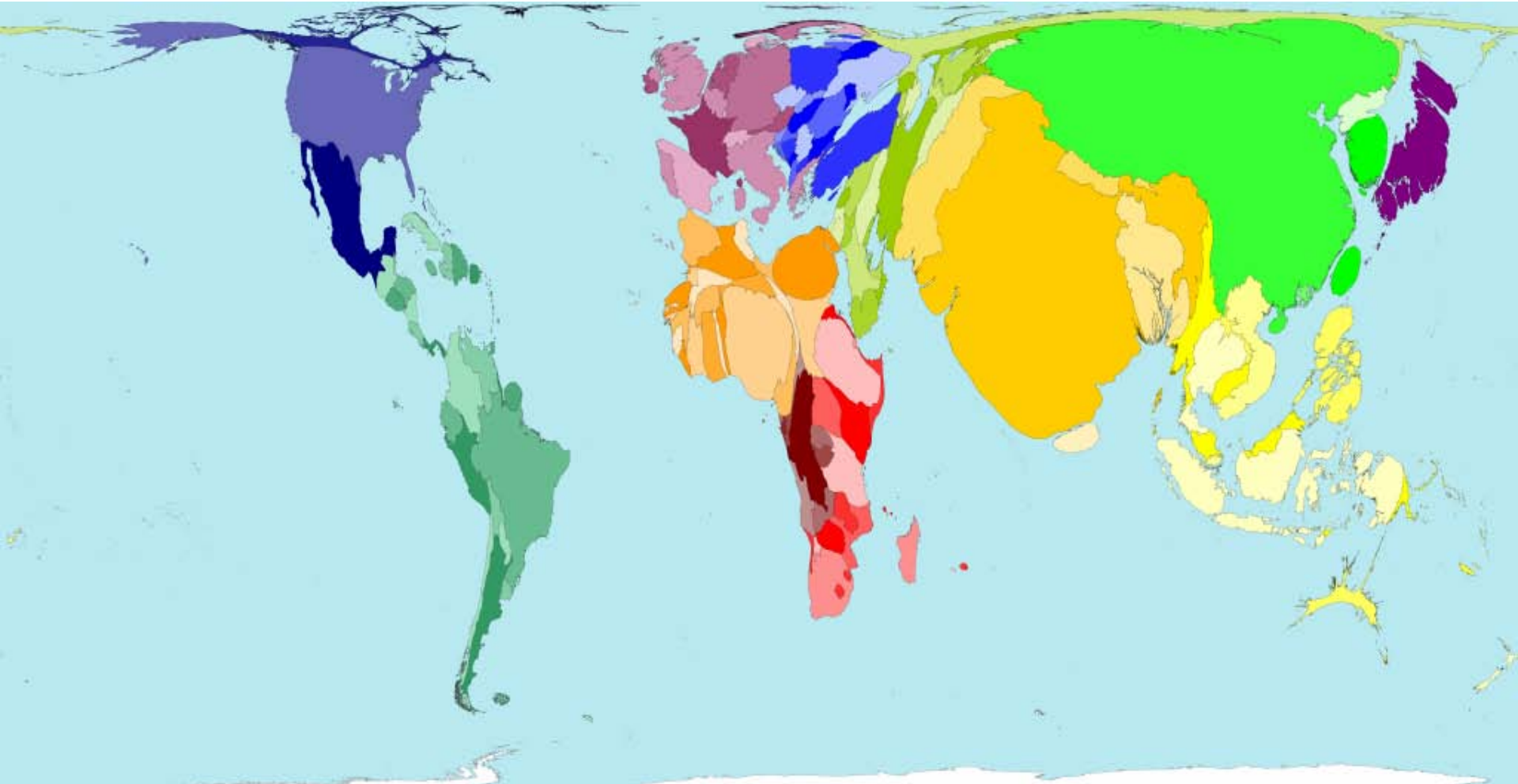


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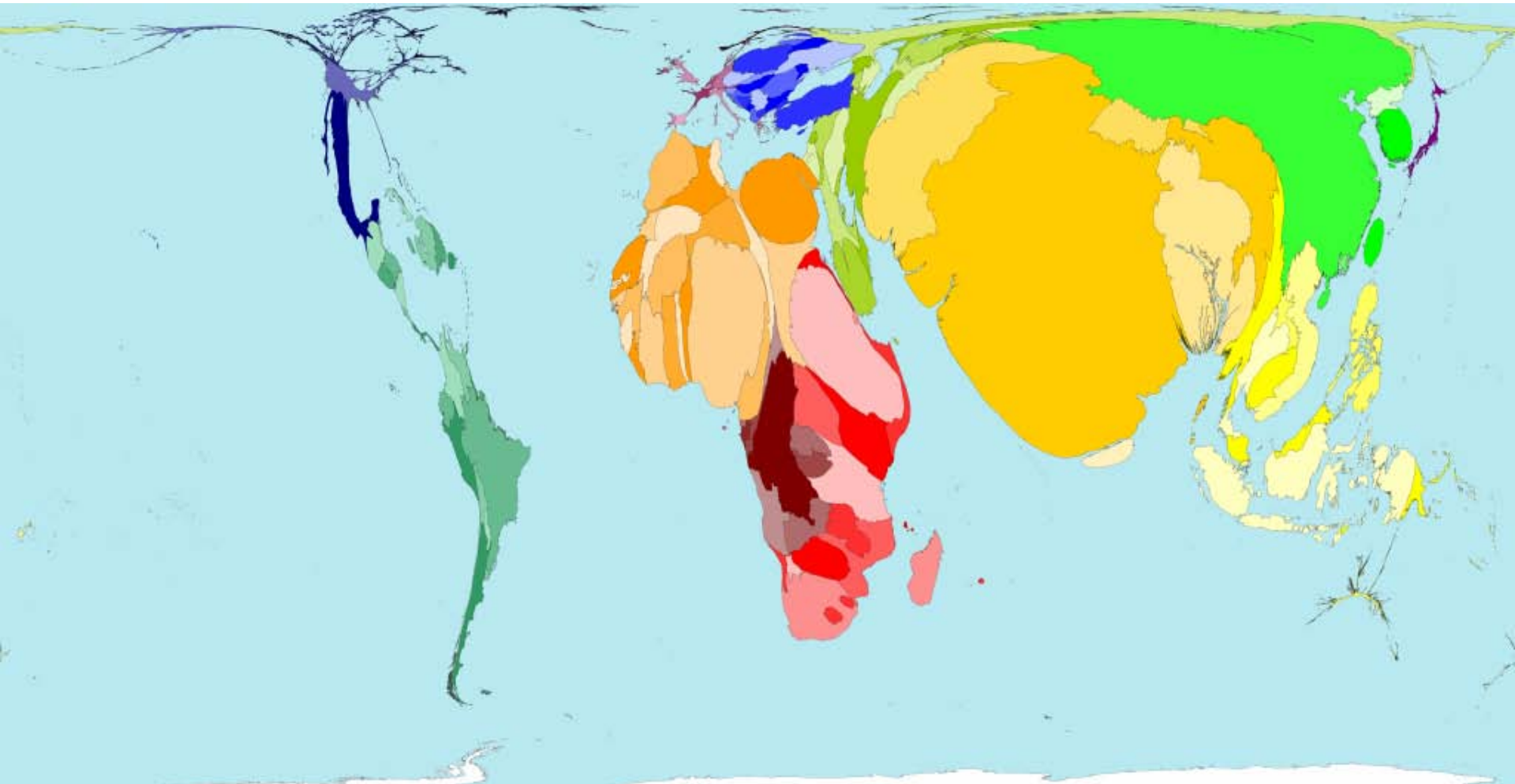
# Total Population





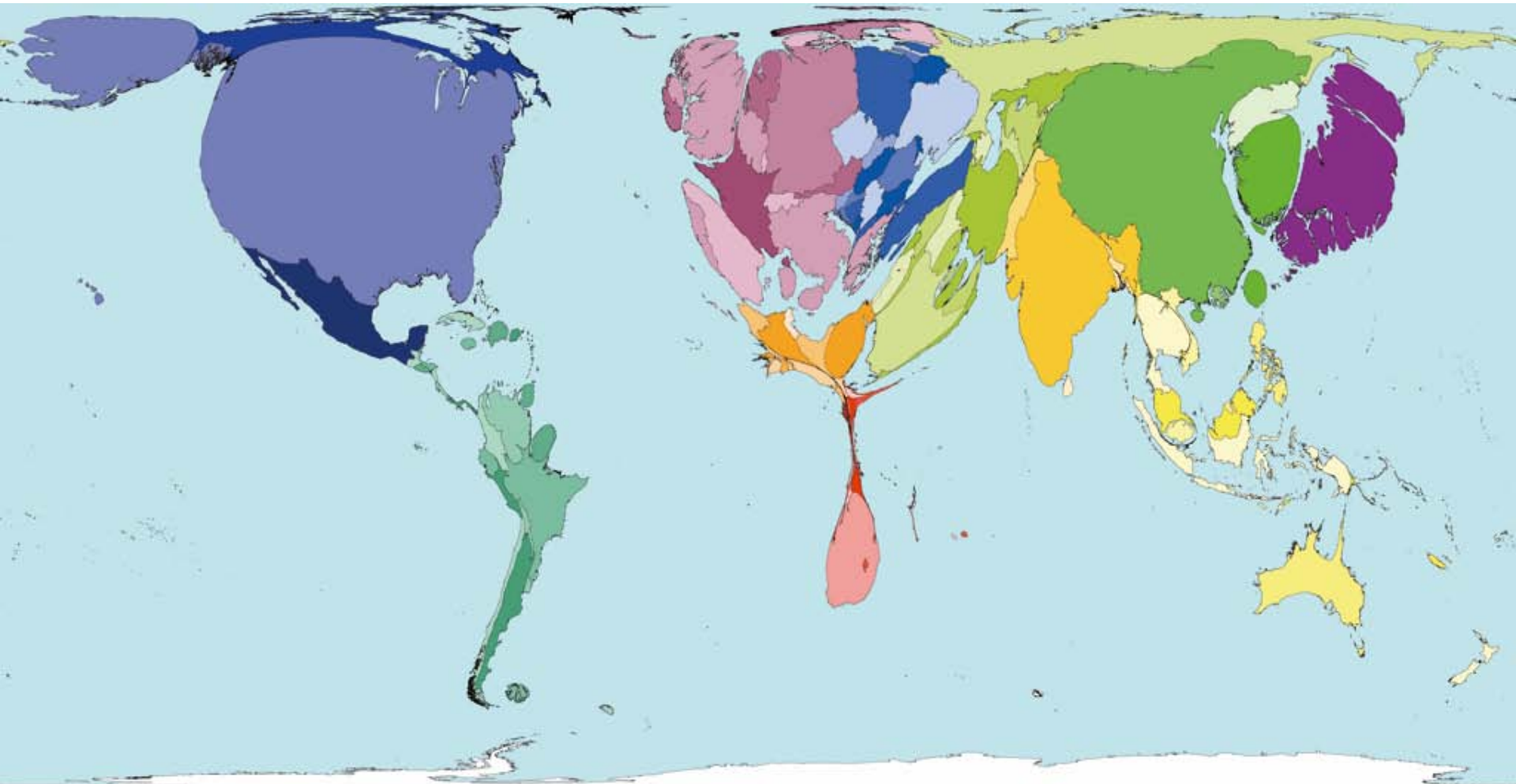


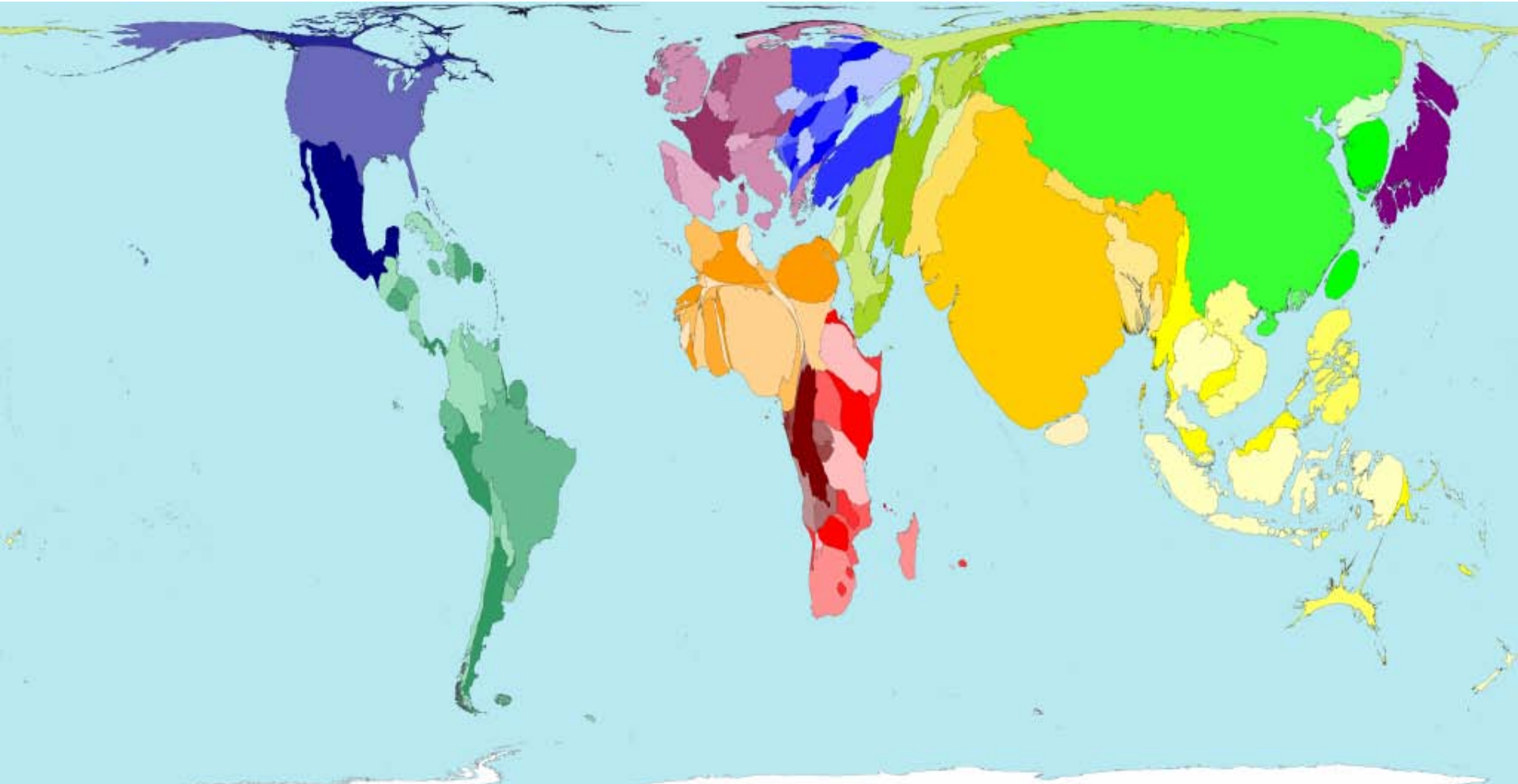
# Human Poverty





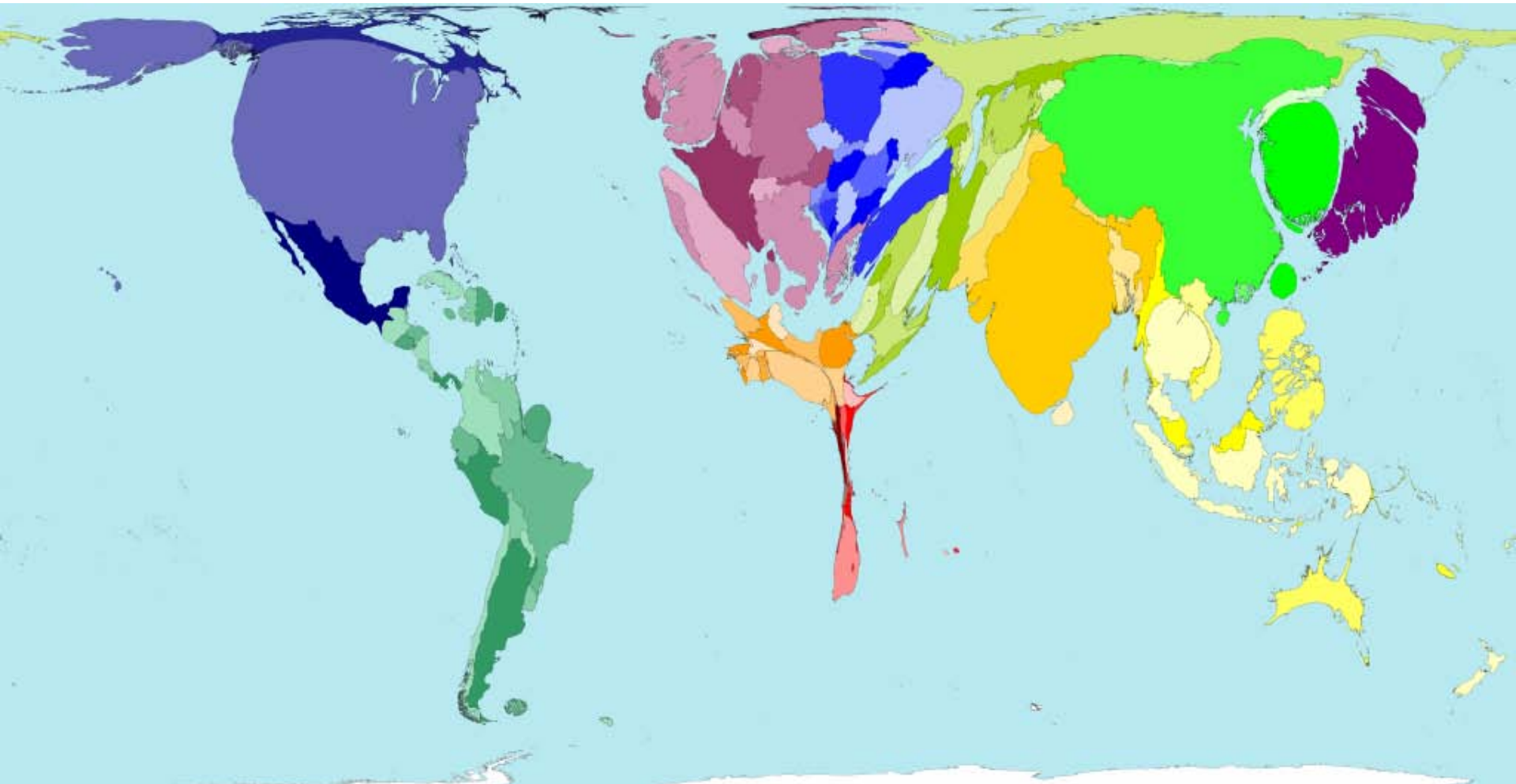
## Carbon Emissions (2000)







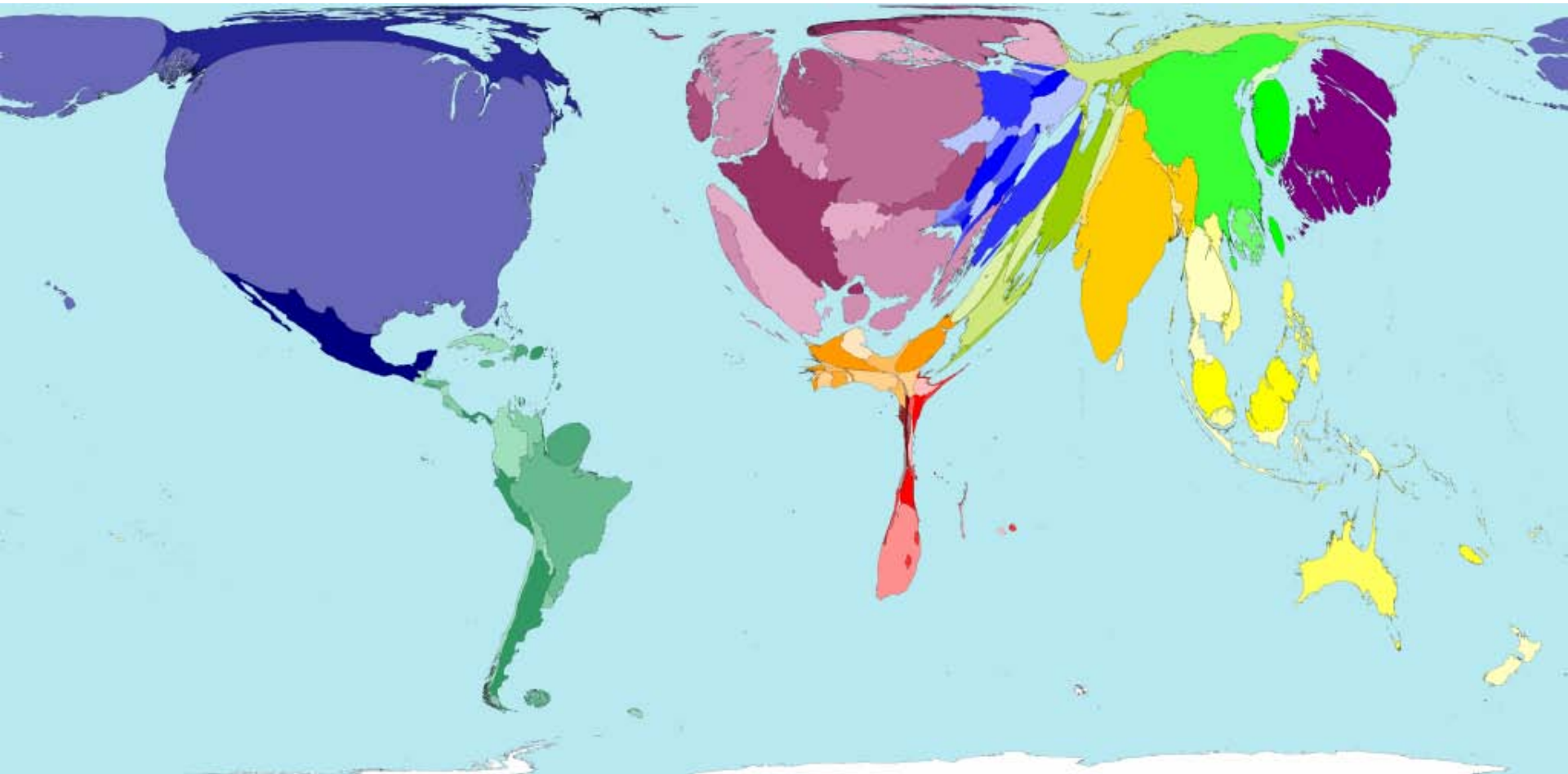
# Tertiary Education

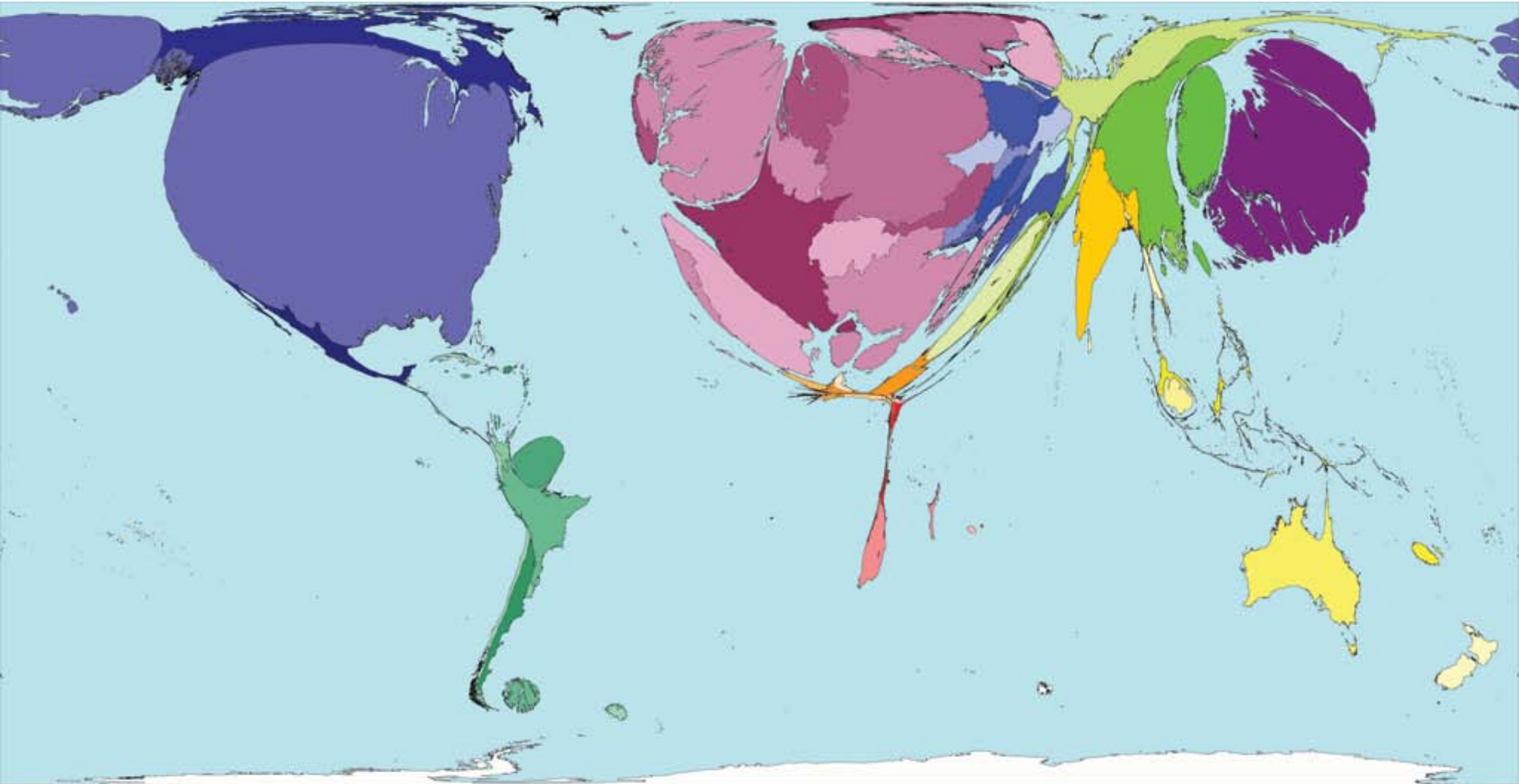






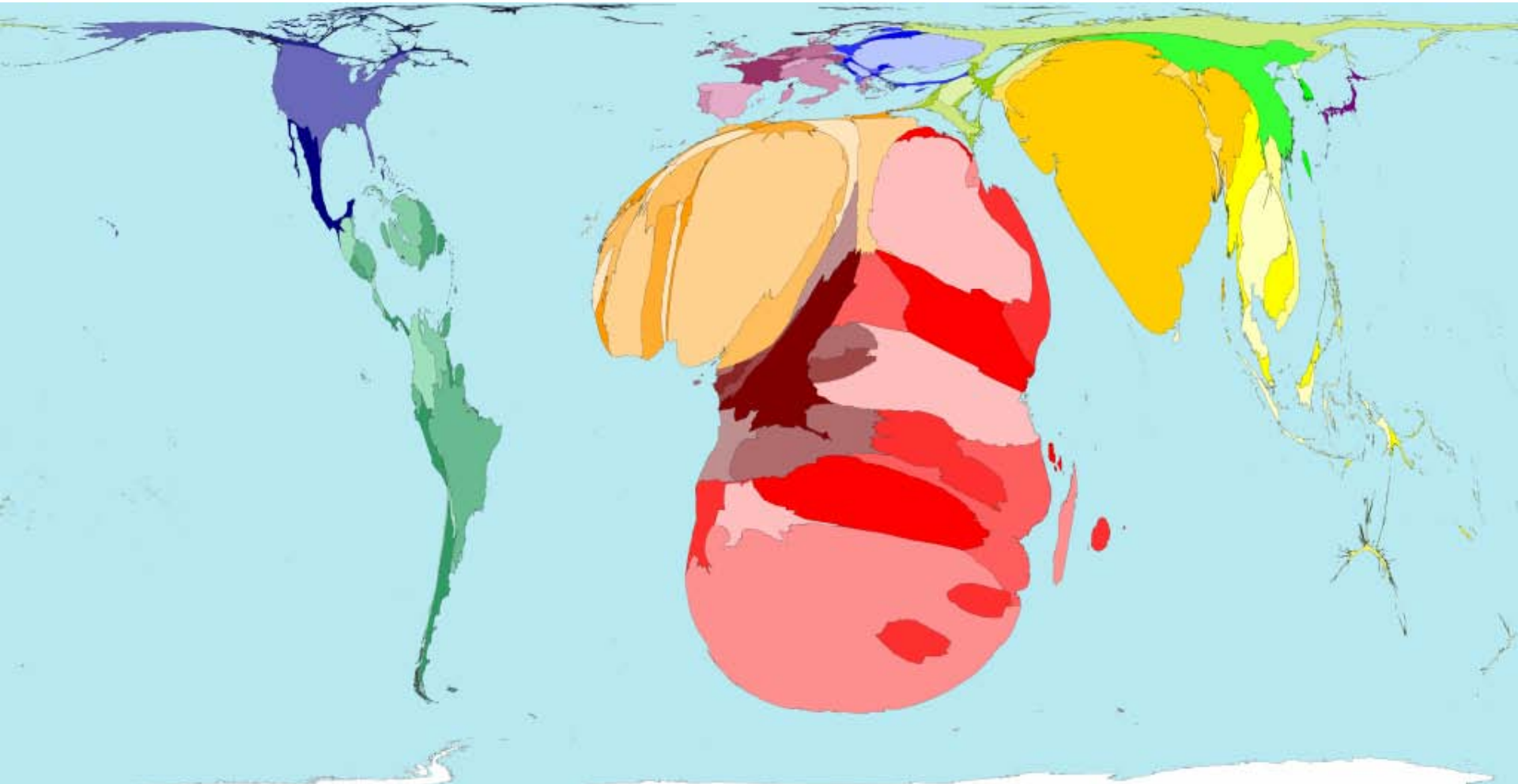
# Tertiary Education Spending







# HIV Prevalence



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“The university must become a primary tool for Africa’s development in the new century.

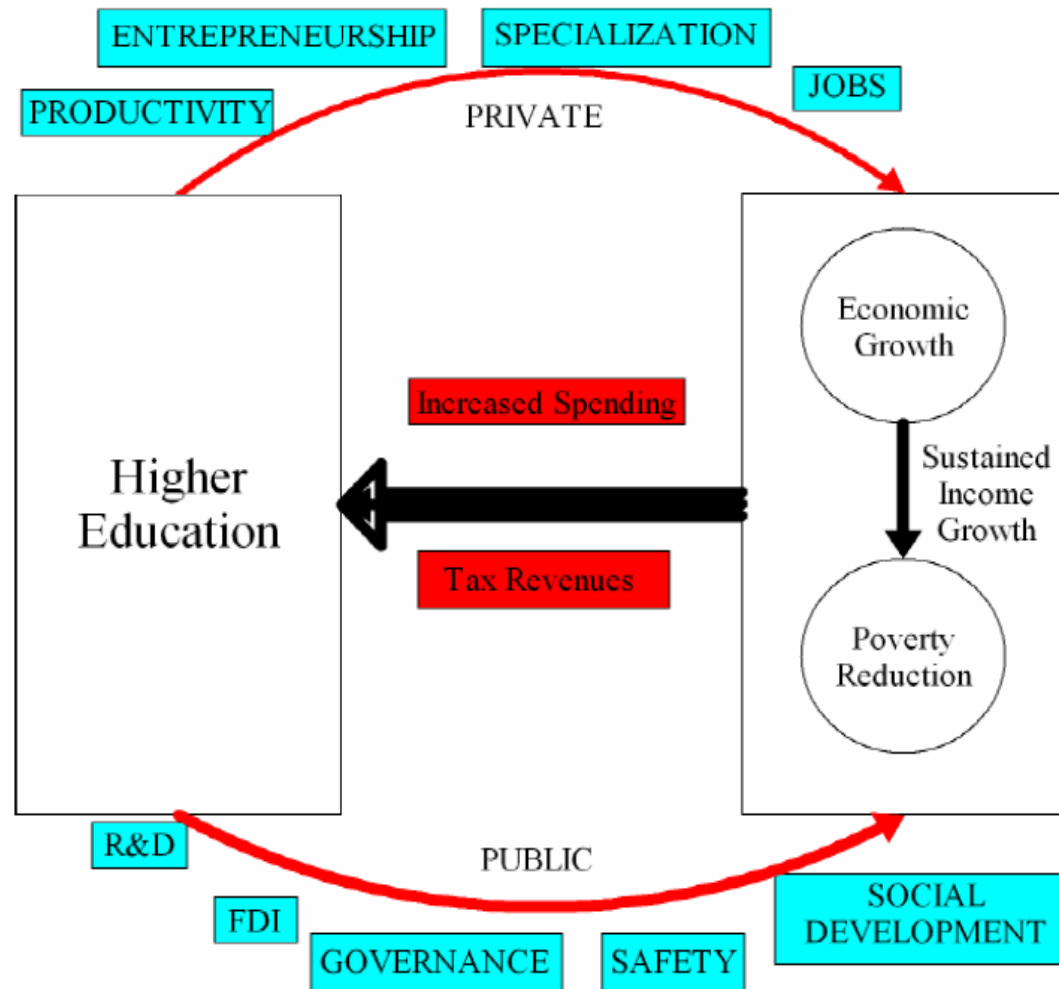
Universities can help **develop African expertise**; they can enhance the **analysis of African problems**; strengthen domestic **institutions**; serve as a model environment for the practice of **good governance, conflict resolution** and respect for **human rights**, and enable **African academics** to play an active part in the global community of scholars.”

Kofi Annan, in D. Bloom, D. Canning & K. Chan. *Higher Education and Economic Development in Africa*. World Bank 2006





## Higher education and economic growth





# Africa's developmental challenges

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- External forces:
  - Conflicting Cold War public systems: growth model vs centrally planned system
  - Africa failed to modernise on its own terms: dependency on foreign capital, aid, technology and expertise
- Internal factors:
  - Failures of post-colonial governance (militarisation)
  - Distanced from the poor; obstructed human development
- Requires a quantum-leap into the knowledge economy



## Signs of hope

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- Political democracy and economic growth
- NEPAD: recognises Africa's problems and marginalisation in the global economy
- NEPAD's Threefold strategy:
  - Establish **conditions** for sustainable development
  - Invest in a number of **priority sectors**
  - Mobilise **resources**



- Greater emphasis on HE for development:
  - AU's Second Decade of Education for Africa (2006-2015) acknowledges key role of HE
  - ACU/AAU “Renewing the African University” provides substantial funding via the MRCI
  - NEPAD's Consolidated African Science and Technology Plan of Action highlights knowledge production for development
  - AAU appointed by AU to implement the Revitalization of Higher Education in Africa
- What drives renewal and revitalisation?
  - Inter-institutional collaboration within regional networks





- A Pedagogy of Hope within the context of Africa (NEPAD/CPA)
  - Inculcate critical thinking
  - Engage in dialogue
  - Transform the community
- Integrated Strategic Plan (ISP):
  1. Consolidating **democracy** and ensuring regional **peace and security**
  2. Eradicating endemic **poverty**
  3. Contributing to **human dignity and health**
  4. Ensuring environmental and resource **sustainability**
  5. Maintaining the competitiveness of the **industry**

*Derived from the Millennium Development Goals of the UN*



- Vision: SU wants to contribute to African scientific capacity
  - Start with what we have, then identify where we must go
  - Create an image/typology of SU's African involvement and from there develop an approach for Africa
- Database of Africa Initiatives
  - Records all joint research, teaching, development projects

Microsoft Access - [WelcomeScreen : Form]

FileEditViewInsertFormatRecordsToolsWindowHelp

Type a question for help

Add New Entry

Edit Existing Entry

Display All Information

Sort Africa Initiatives By:

All Entries

Classification

African

Faculties

Exit Database

Form View

## STELLENBOSCH UNIVERSITY: AFRICA INITIATIVES

**Acronym:** ASNAPP **Project Number:** AS001

[Return to Welcome Screen](#)

**Classification:** Agricultural economics

[Print Full Report For This Project](#)

**Full Title:** Agribusiness in Sustainable Natural African Plant Products

**Website:** <http://www.asnapp.org/>

**Stellenbosch Partner(s)** **Africa Partner(s)** **Other Partner(s)** **Project Data** **Funding**

<b>ProjectNumber</b>	AS001	<b>ResponsiblePerson</b>	Mr Elton Jeffthas
<b>PartnerType</b>	Stellenbosch	<b>ContactPerson</b>	Dr Emmy Reinten
<b>Faculty</b>	AgriSciences	<b>EmailAddress</b>	emmy@sun.ac.za
<b>Unit</b>	Department of Agronomy	<b>TelephoneNumber</b>	(021) 808 2922
<b>Relation</b>	SU Entity	<b>FaxNumber</b>	
<b>AnchorPartner</b>	<input checked="" type="checkbox"/>	<b>FurtherInformation</b>	
<b>Interaction</b>			
<b>Website</b>	<a href="http://academic.sun.ac.za/agron/">http://academic.sun.ac.za/agron/</a>		

Record: 1 of 2

Record: 22 of 96



# STELLENBOSCH UNIVERSITY: AFRICA INITIATIVES

**Acronym:** ASNAPP **Project Number:** AS001

[Return to Welcome Screen](#)

**Classification:** Agricultural economics

[Print Full Report For This Project](#)

**Full Title:** Agribusiness in Sustainable Natural African Plant Products

**Website:** <http://www.asnapp.org/>

**Stellenbosch Partner(s)** **Africa Partner(s)** **Other Partner(s)** **Project Data** **Funding**

**Project Type** Development

**Secondary Classification** Food sciences and technology

**Project Scope** Level 1

**Keywords** natural plant products, sustainable production, African agribusiness, Mpuntu herbal teas, spices, phytomedicinals, essential oils

**Task** To help create and develop successful African businesses in the natural products sector by providing income, employment and development through environmentally and socially conscious sustainable

**Timeframe:**

**Method And Sources** Project indicator based (technology transfer & market linkage establishment with entrepreneurs and community development). Collaboration between project partners and local communities aim to:

**Start Date** 01/01/1999

**Output** Various in different countries, e.g. in SA: Wupperthal, Haarlem & Ericaville indigenous tea production – from organic production; post-harvest and marketing. Greenhouse technology implementation through training courses and technology transfer. See website

**EndDate**

**Activity** Active

## STELLENBOSCH UNIVERSITY: AFRICA INITIATIVES

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**Website:** <http://www.asnapp.org/>

**Stellenbosch Partner(s)** **Africa Partner(s)** **Other Partner(s)** **Project Data** **Funding**

**ProjectNumber** AS001

**PartnerType** Africa

**Institution** University of Zambia

**City** Lusaka

**Country** Zambia

**AnchorPartner** ☐

**Unit** Crop Science

**Interaction**

**Website** <http://www.unza.zm/schools/agric/>

**ResponsiblePerson** Dr Davies M Lungu

**ContactPerson** Dr Davies M Lungu

**EmailAddress** dlungu@agric.unza.zm

**TelephoneNumber** +260 1 295 655

**FaxNumber**

**FurtherInformation**

Record: 1 of 9

Record: 22 of 96



## Key data

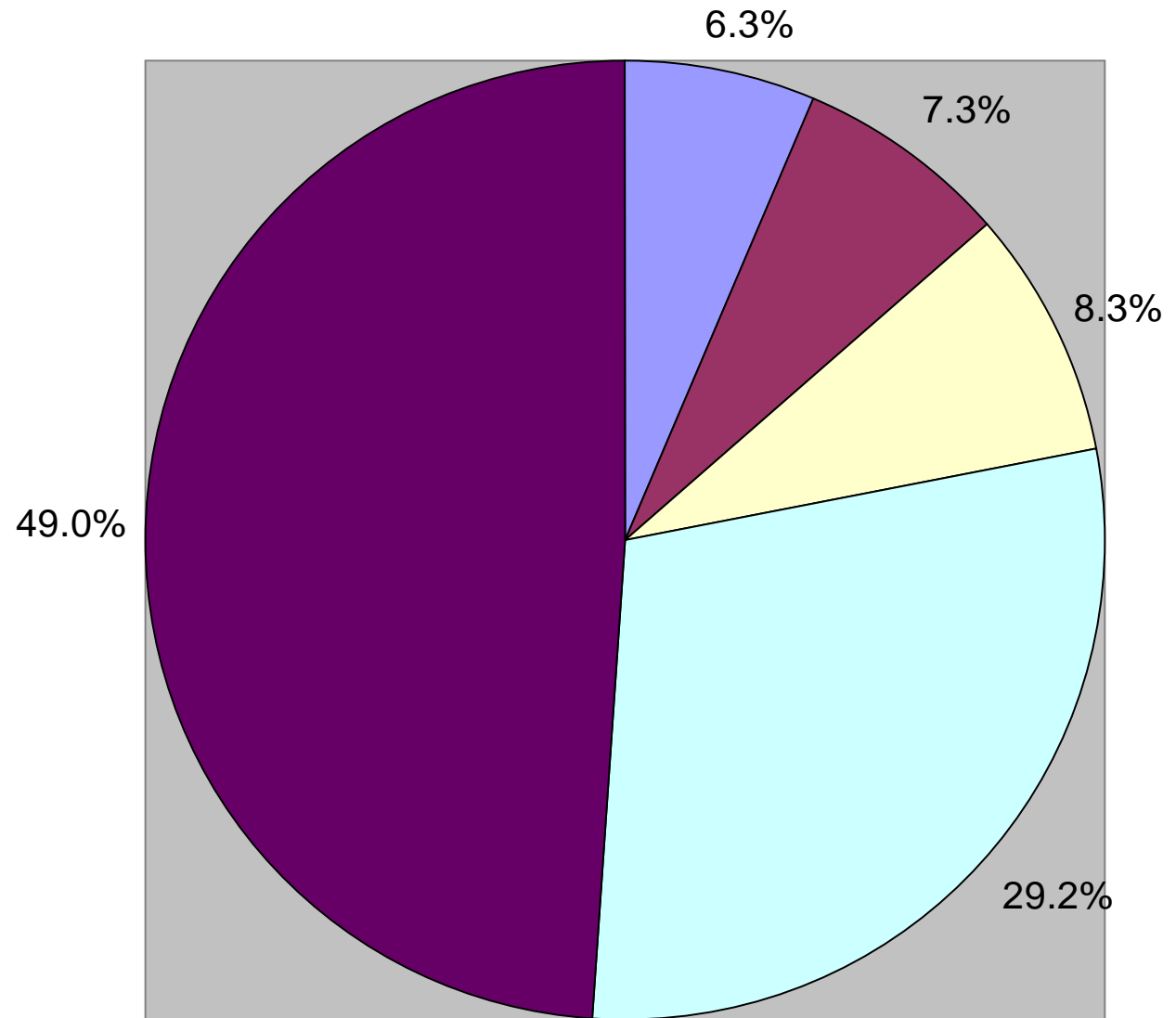
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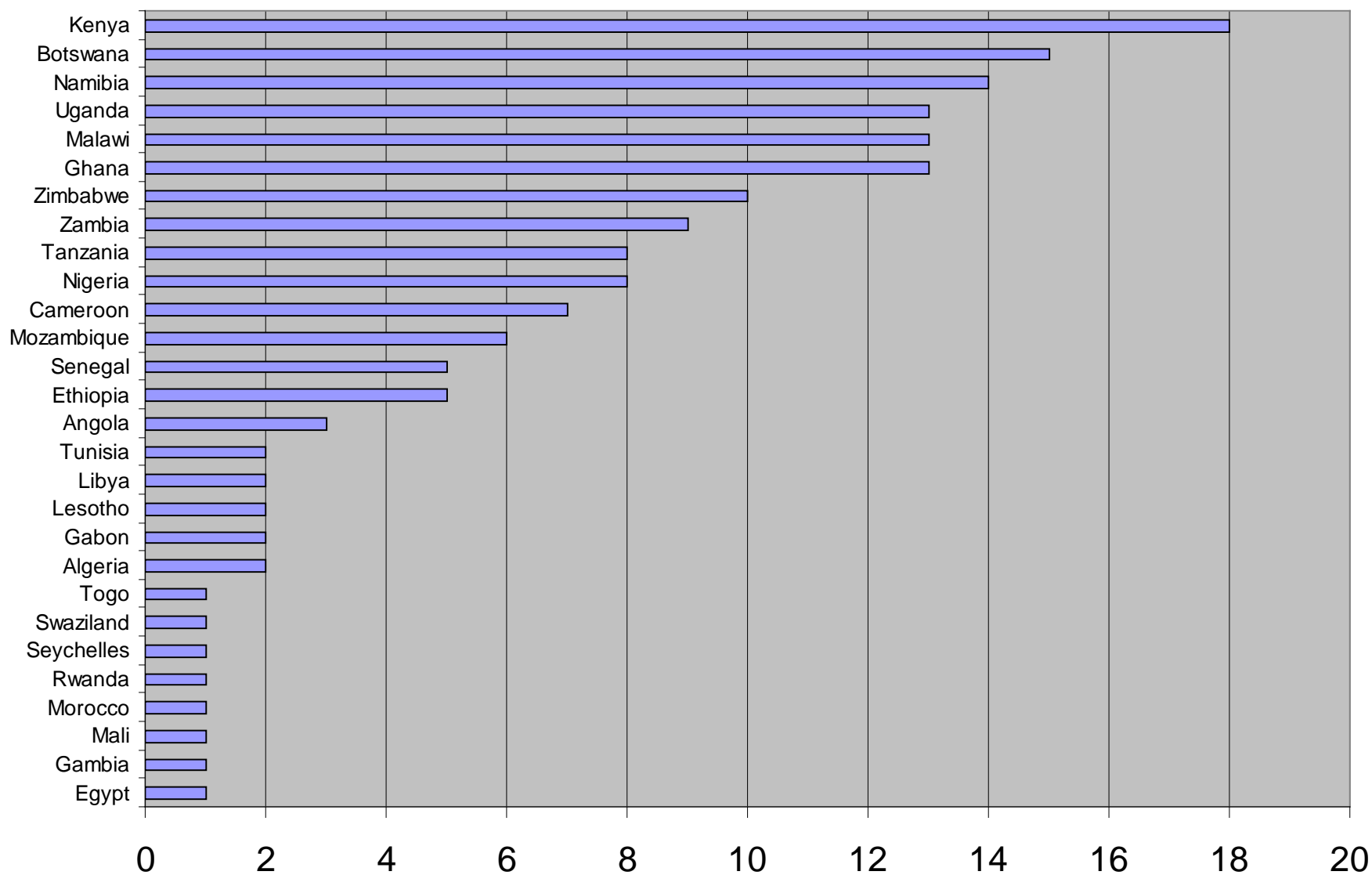
- Projects recorded (Jan 2009): 135
  - Updated continuously
  - More than 50% **research** collaboration and 30% teaching
  - Human sciences 40%, Health 30%, Science 30%
- Total number of **partners** involved: 450
  - **Stellenbosch** partners: 130
  - **African** partners: 180 (from 30 countries)
  - Other **South African** partners: 58
  - “**Northern**” partners (N-S-S): 80
- Graphical representation of projects and partners follows:

## Projects by Type

- Development
- Member of Board
- Examination/  
Moderation
- Training
- Research



# African Partners by Country







## Applications of the database

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- Reporting on Africa initiatives
- Mailing lists and contacts for calls/conferences
- Ranking departments for their African involvement
- Identifying possible partners:
  - Four institutional MoU's signed
  - Numerous new project partners identified
- Comparing SS with SSN projects, including funding partners
- Other partnership datasets



## Developing an Approach?

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- Individual initiatives
  - Joint research and training projects (recorded in database)
  - Contracts to host programmes (IMF, INWENT, etc)
- Focused bilateral partnerships
  - MoU's with Dar es Salaam, Makerere, Botswana, Namibia (incl. exchange agreements)
  - Agreements proposed with Addis Ababa, KNUST
  - In future: Malawi, Zimbabwe, Zambia, Mozambique
  - AIM: be recognised as a reliable partner on the continent
- Multilateral networks
  - “Hub & spoke”/Centres of Excellence model?
  - Examples: ASNAPP, AIMS, NetACT, PANGeA?
  - Increasing focus on joint accreditation
- Databank (overview, resources, policies) of HE collaboration in Africa



## Successful S-S / N-S-S Partnerships?

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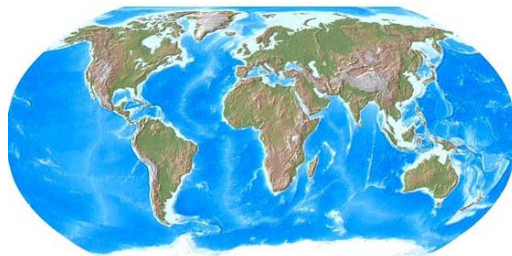
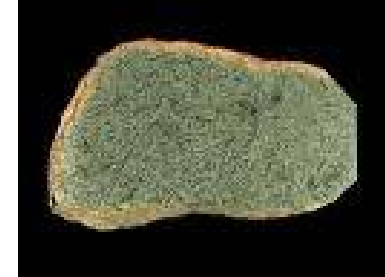
- Replace dependence with joint ownership
  - Involve all partners from first phase of project design
  - Include technology transfer/ policy implementation/ dissemination as key aspect of the project
  - Share administrative and financial duties (at least some investment from each partner)
- Brain drain?
  - Collaborative research and graduate training
  - More government spending in African S&T
- Africa's research niche
  - Take advantage of our geo-political location



# The Laboratory in our backyard



- Rocks & minerals
- Plants & animals
- Oceans & lakes
- *Diverse Communities*
  - - *Languages*
  - - *Economies*
- *Epidemiology*
- *East-West and North-South axis*





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**Thank you**







## International Students

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- From 665 in 1997 to 2458 in 2007
  - 10.5% of total
- Overview:
  - SADC: 38%
  - Non-SADC: 15.5%
  - Africa total: 53.5%
  - Outside Africa: 46.5%



# AU/NEPAD S&T Flagship Programmes

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## **Cluster 1: Biodiversity, Biotechnology and Indigenous Knowledge**

1. Conservation and Sustainable Use of Biodiversity
2. Safe Development and Application of Biotechnology
3. Securing and Using Africa's Indigenous Knowledge Base

## **Cluster 2: Energy, Water and Desertification**

4. Building a Sustainable Energy Base
5. Securing and Sustaining Water
6. Combating Drought and Desertification

## **Cluster 3: Material Sciences, Manufacturing, Laser and Post-Harvest Technologies**

7. Building Africa's Capacity for Material Sciences
8. Building engineering capacity for Manufacturing
9. Strengthening the African Laser Centre (ALC)
10. Technologies to Reduce Post harvest Food Loss

## **Cluster 4: Information and Communication Technologies and Space Science and Technologies**

11. Information and Communication Technologies
12. Establishing the African Institute of Space Science

## **Additional Programme:**

13. Mathematical Sciences