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Why Education Matters

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to action through knowledge

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Proposition

- We are the 3rd most important generations of humans who have ever lived
- 1st Adam and Eve or first humans :
- 2nd Survivors of Toba
- 3 rd Us: We are much more important than we can possibily imagine, and our burden of responsibility is immense.

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WHY?

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Adam and Eve? First Humans

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TOBA: Volcano Eruption 70000 years ago

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Dalin's 10 Revolutions

- 1. The knowledge and information revolution
- 2. The population explosion
- 3. Globalisation
- 4. The economic revolution
- 5. The technological revolution
- 6. The ecological revolution
- 7. The social/cultural revolution
- 8. The aesthetic revolution
- 9. The political revolution
- 10. The values revolution.

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What is the Evidence?

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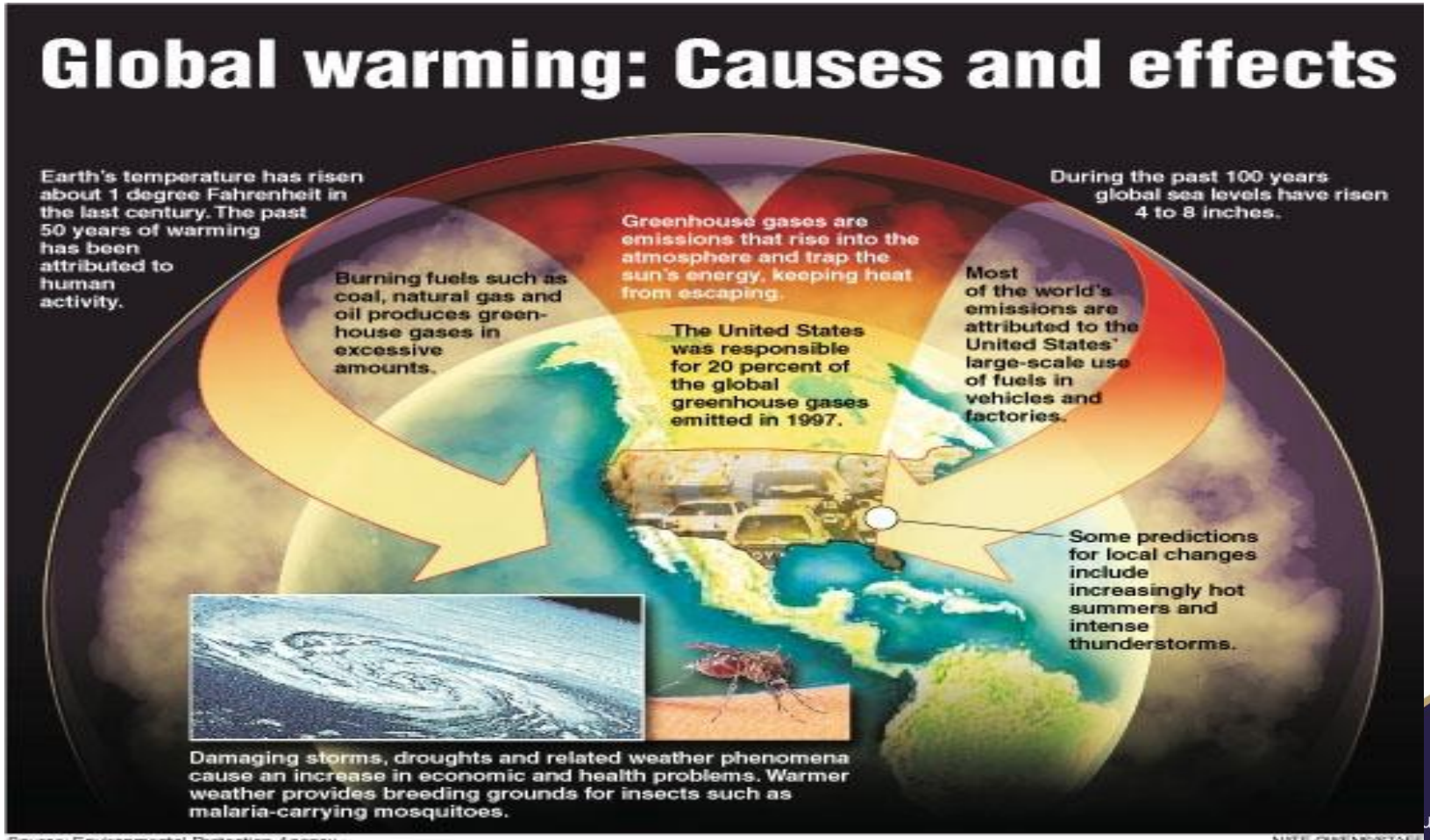
Environmental Challenges



Source: Environmental Protection Agency

NATE OWENS/STAFF

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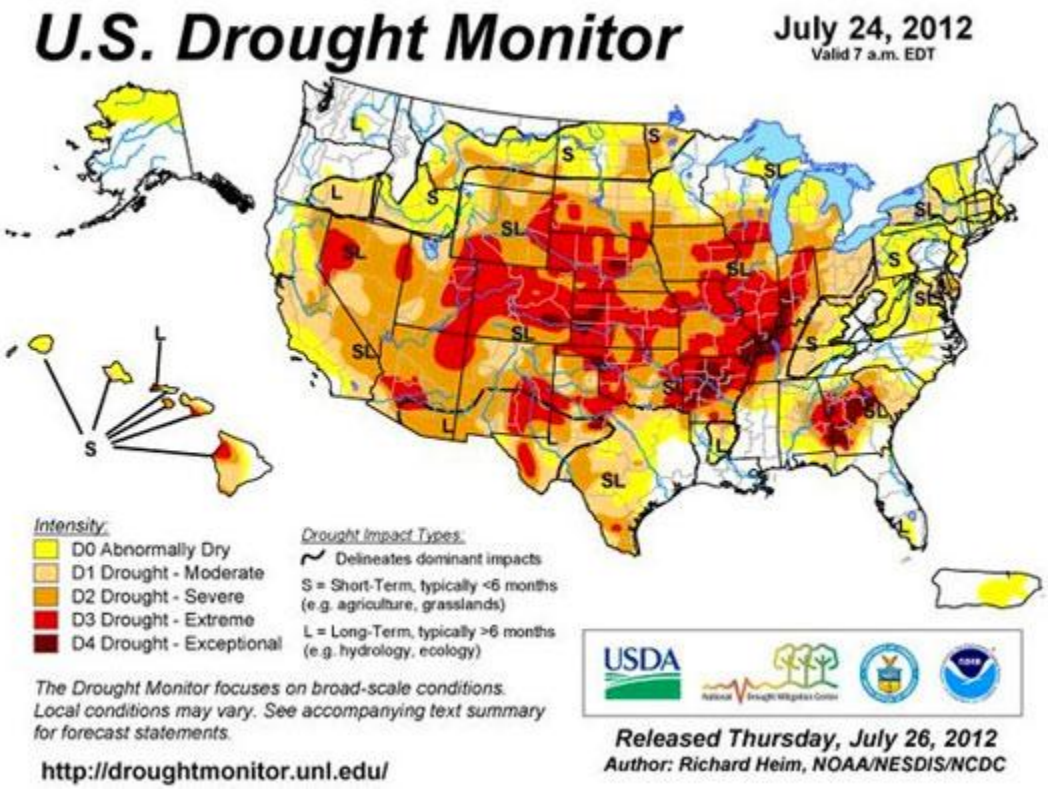
Weather Change



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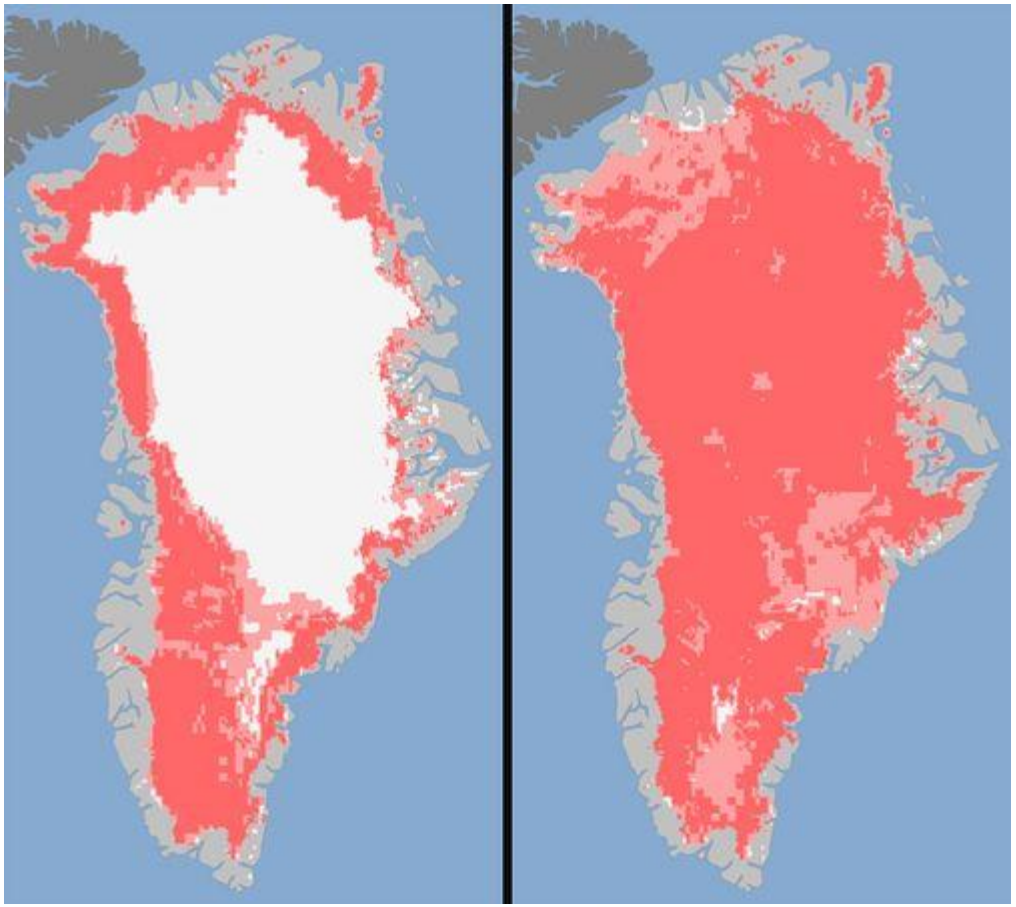
Greenland: July 8 and 12



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7 Billion and Growing

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Estimated Human Growth

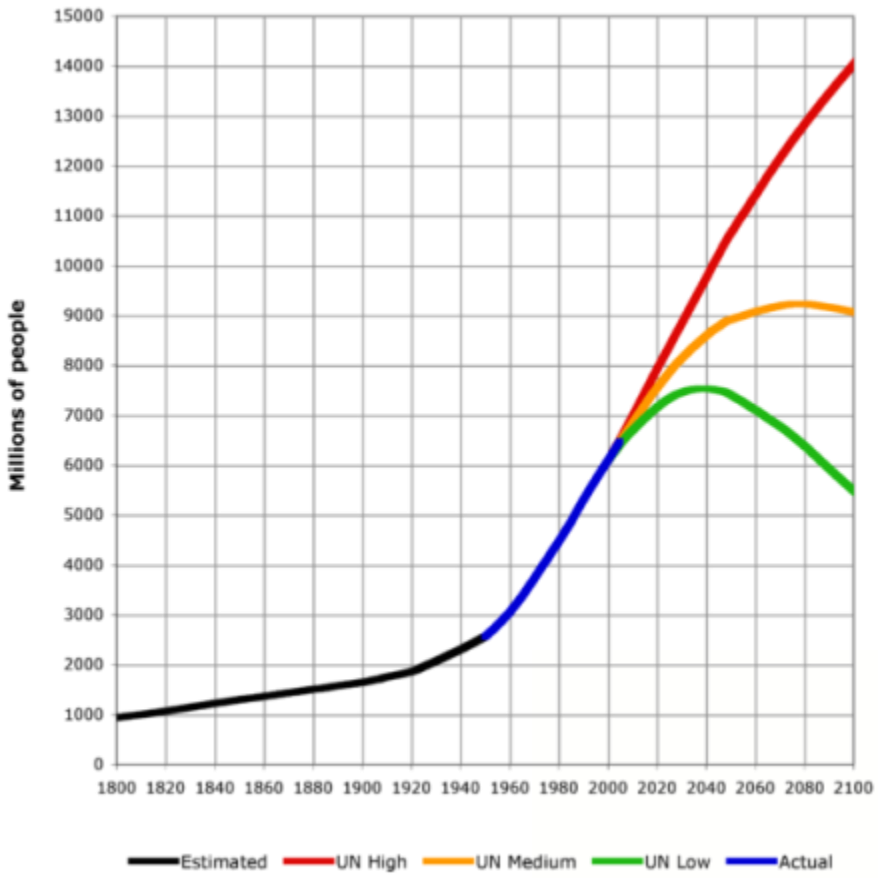

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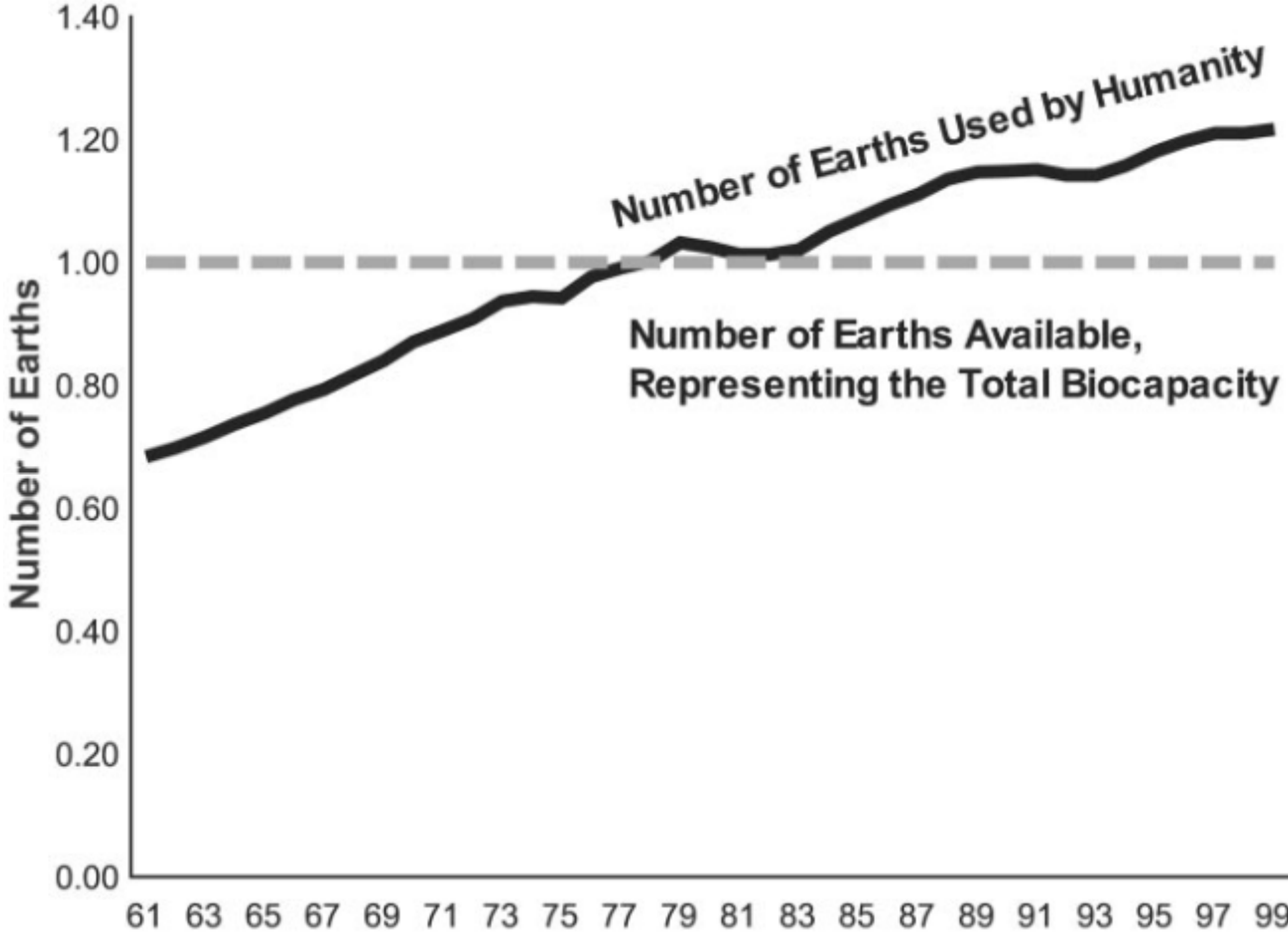
Fig. 1. Time trend of humanity's ecological demand. This graph shows human demand over the last 40 years as compared with the earth's ecological capacity for each year. One vertical unit in the graph corresponds to the entire regenerative capacity of the earth in a given year. Human demand exceeds nature's total supply from the 1980s onwards, overshooting it by 20% in 1999. If 12% of the bioproductive area were set aside to protect other species, the demand line crosses the supply line in the early 1970s rather than the 1980s.



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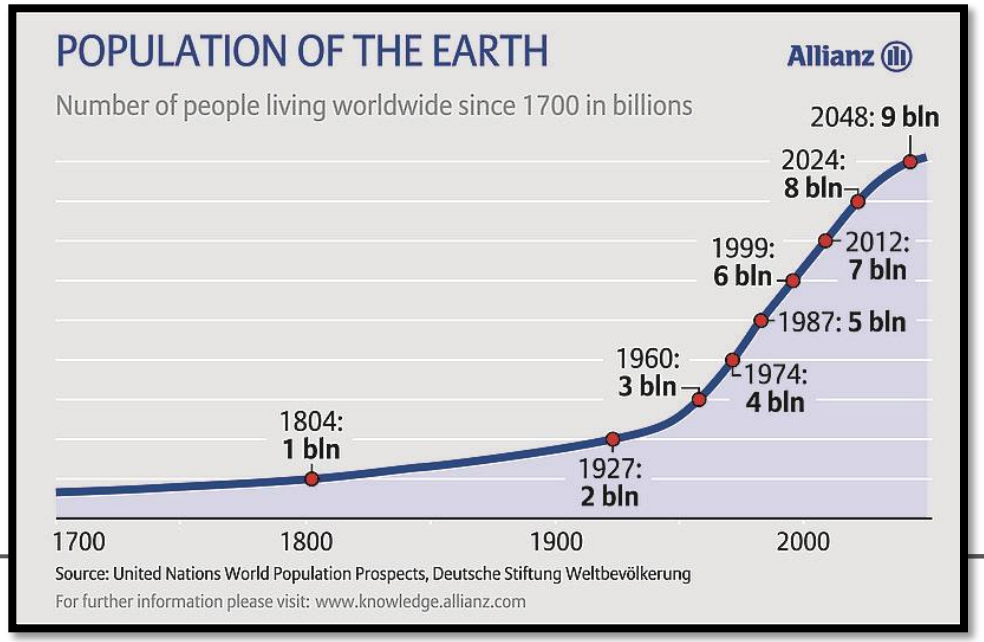
HUMANITY'S PROBLEMS: TO SUM THINGS UP

Exploding amounts of energy addicts, claiming more as they become more educated



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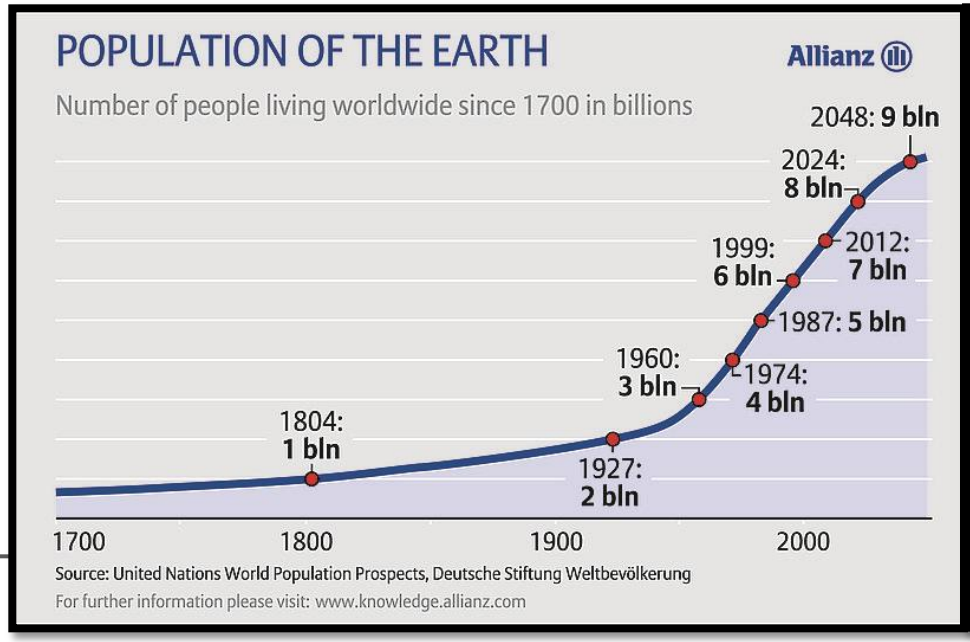
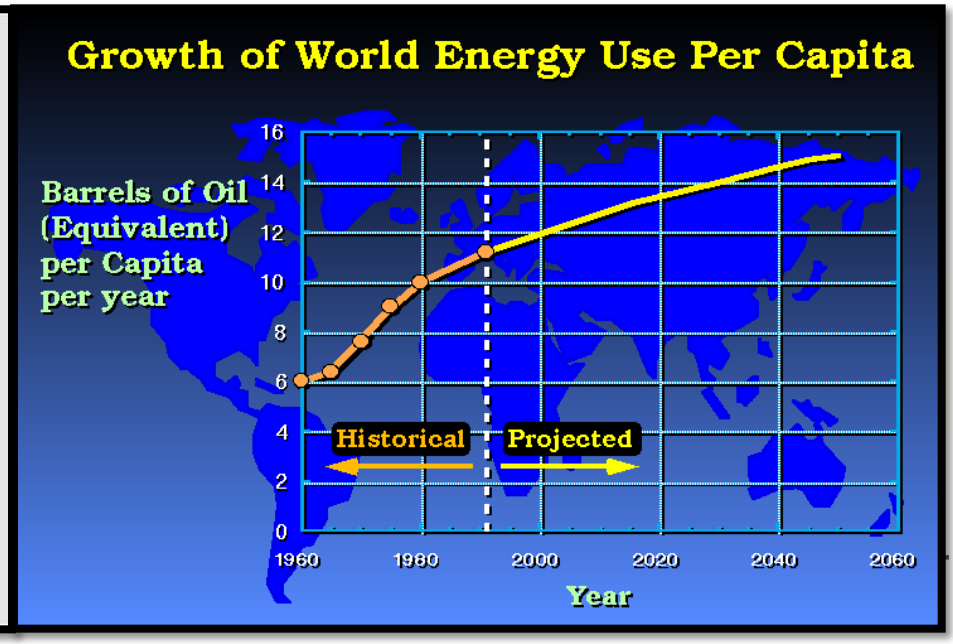
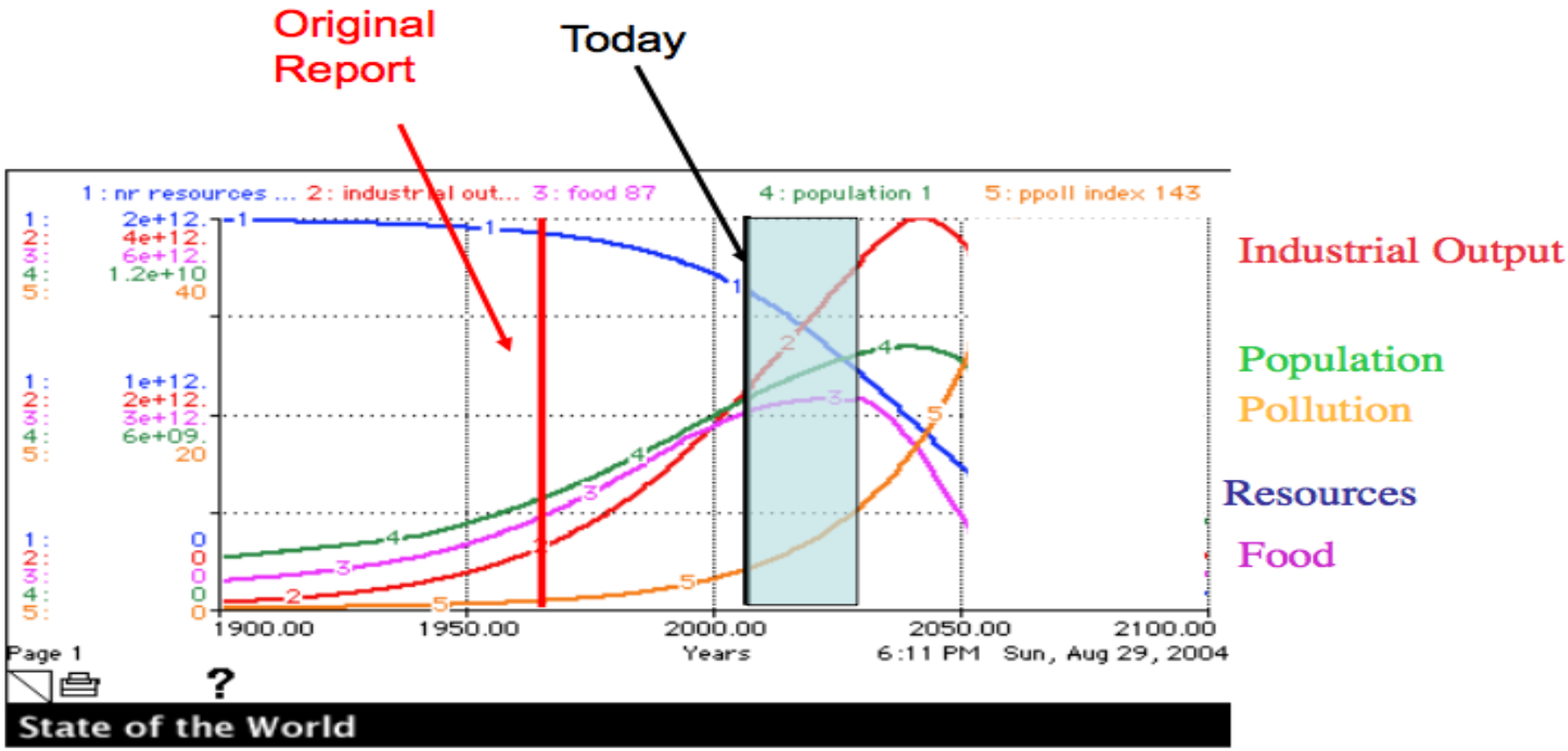




Looking Ahead

The Reference Scenario



Dennis Meadows

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Economic Upheavel 2011

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How Can We Respond?

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University Amplification The View of Castells

- "If knowledge is the electricity of the new information international economy, then institutions of higher education are the power sources on which a new development process must rely".

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Cultural Creatures
Capable of Rapid Cultural Change

Knowledge
and
Behaviour Change

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Jerome Bruner

Cultures are knowledge amplication systems

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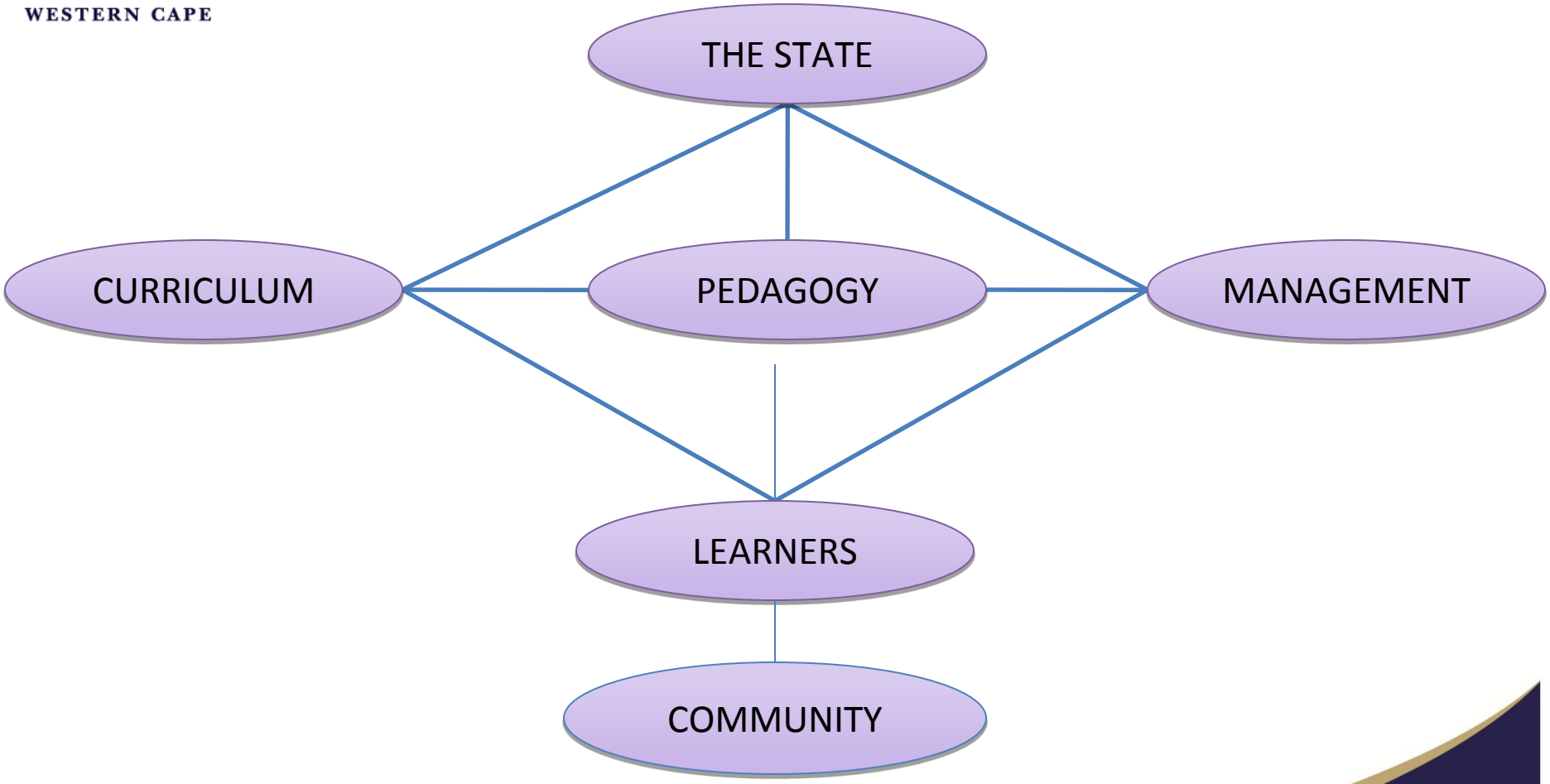
THE FORMAL EDUCATION NEXUS

Our Citadel



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How Ready is Africa

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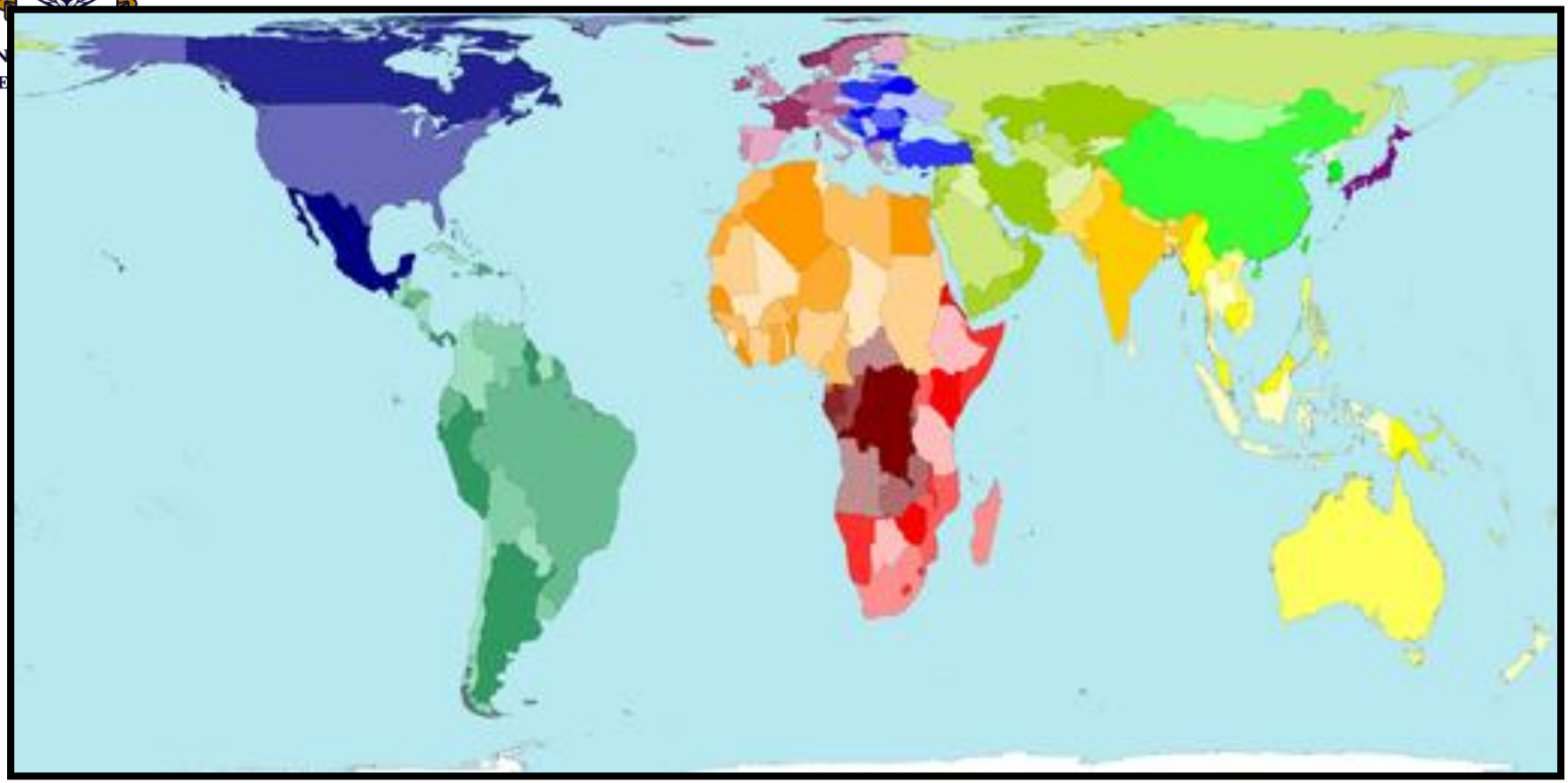
The Continents: To Scale



- The land area of each territory is shown here.
- The total land area of these 200 territories is 13,056 million hectares. Divided up equally that would be 2.1 hectares for each person. A hectare is 100 metres by 100 metres.
- However, population is not evenly spread: Australia's land area is 21 times bigger than Japan's, but Japan's population is more than six times bigger than Australia's.

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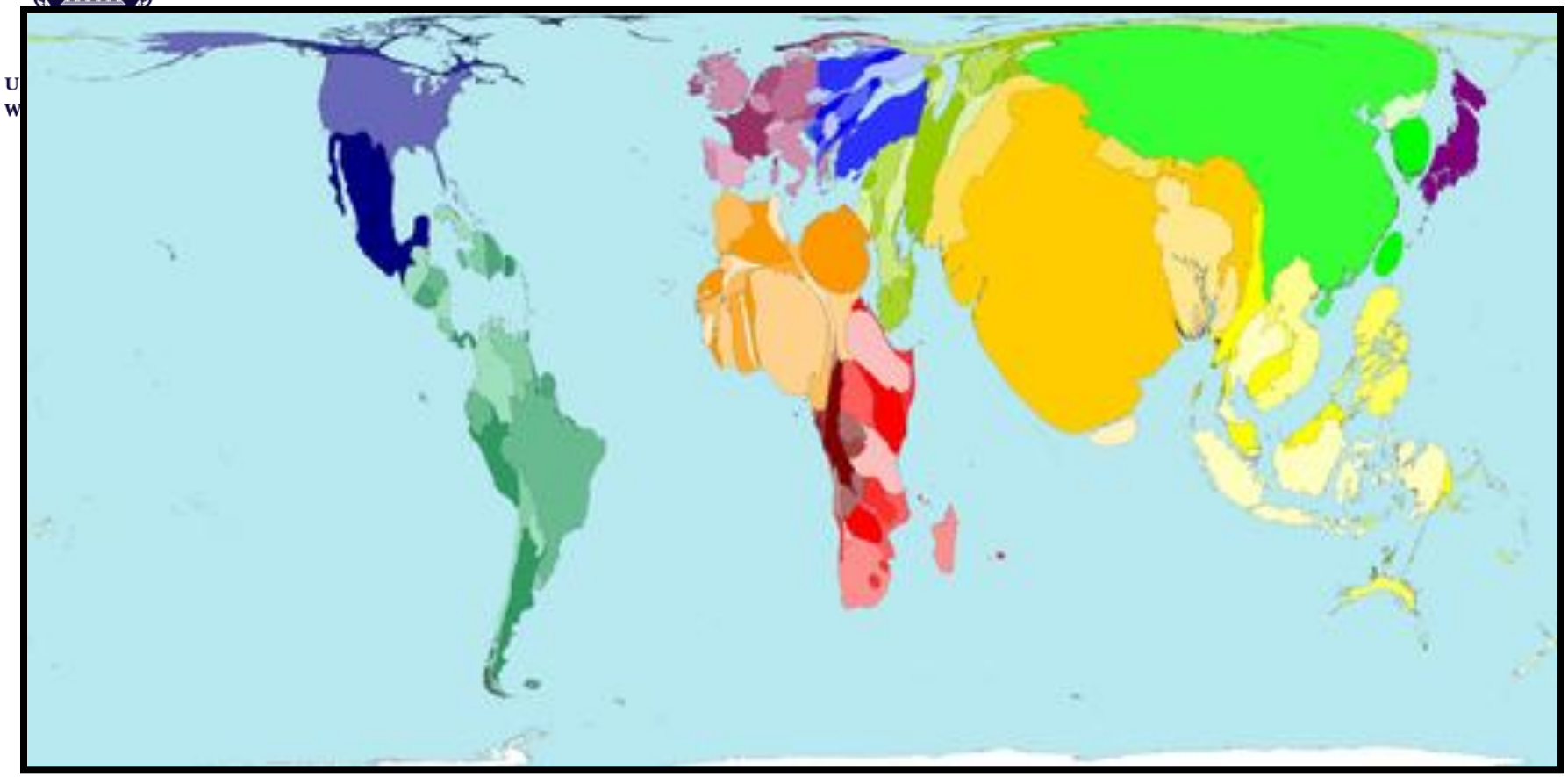
Primary Education



- "Everyone has the right to education", according to the Universal Declaration of Human Rights. The second Millennium Development Goal is to achieve universal primary education. In 2002, 5 out of 6 eligible children were enrolled in primary education worldwide. However, enrolment does not guarantee attendance, or completion.
- If primary education continues beyond the expected years, enrolment rates can exceed 100%. In Argentina there is an impressive 108% enrolment. On the other side of the Atlantic Ocean 30% of children in Angola are enrolled in primary school.

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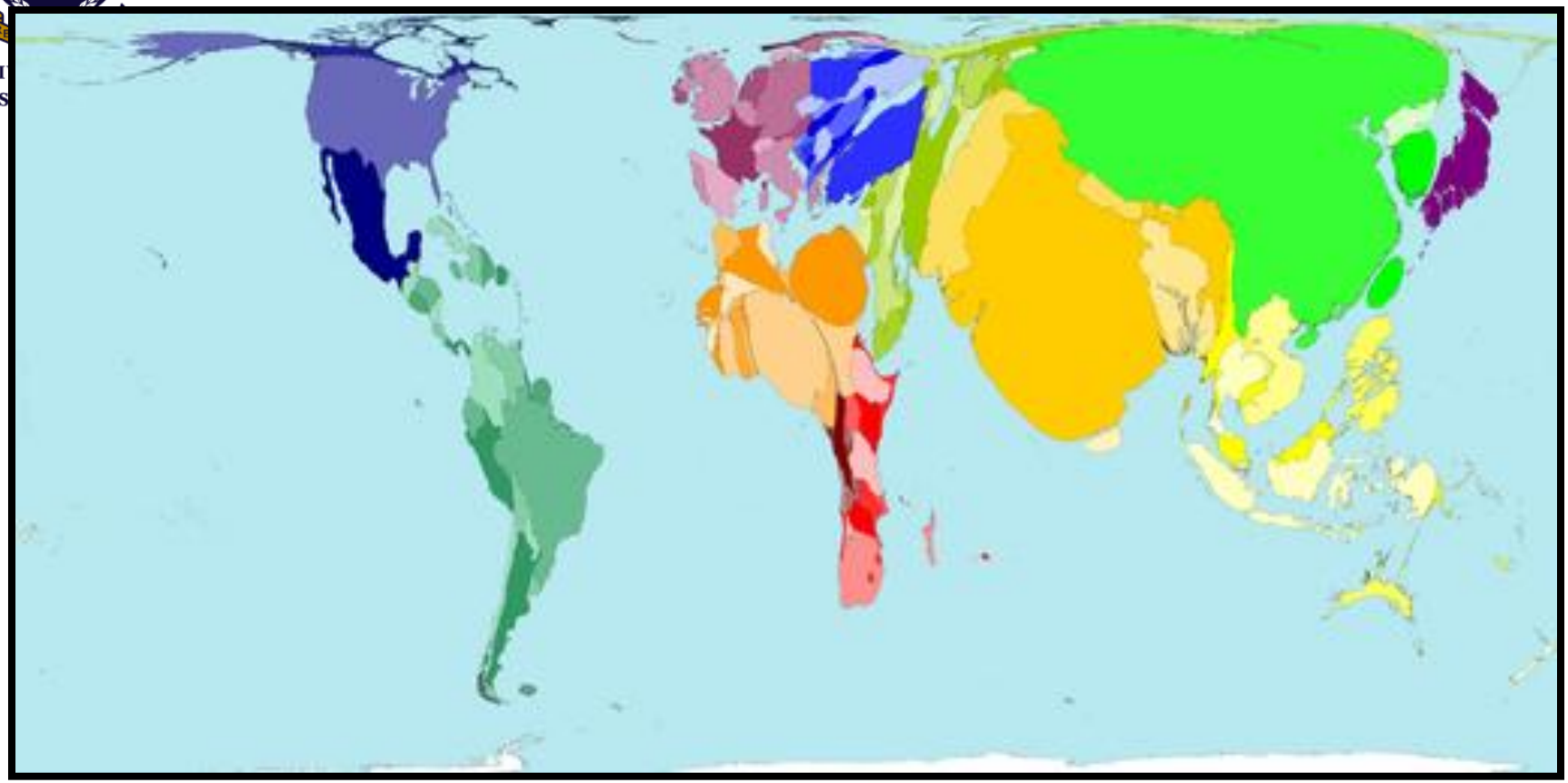
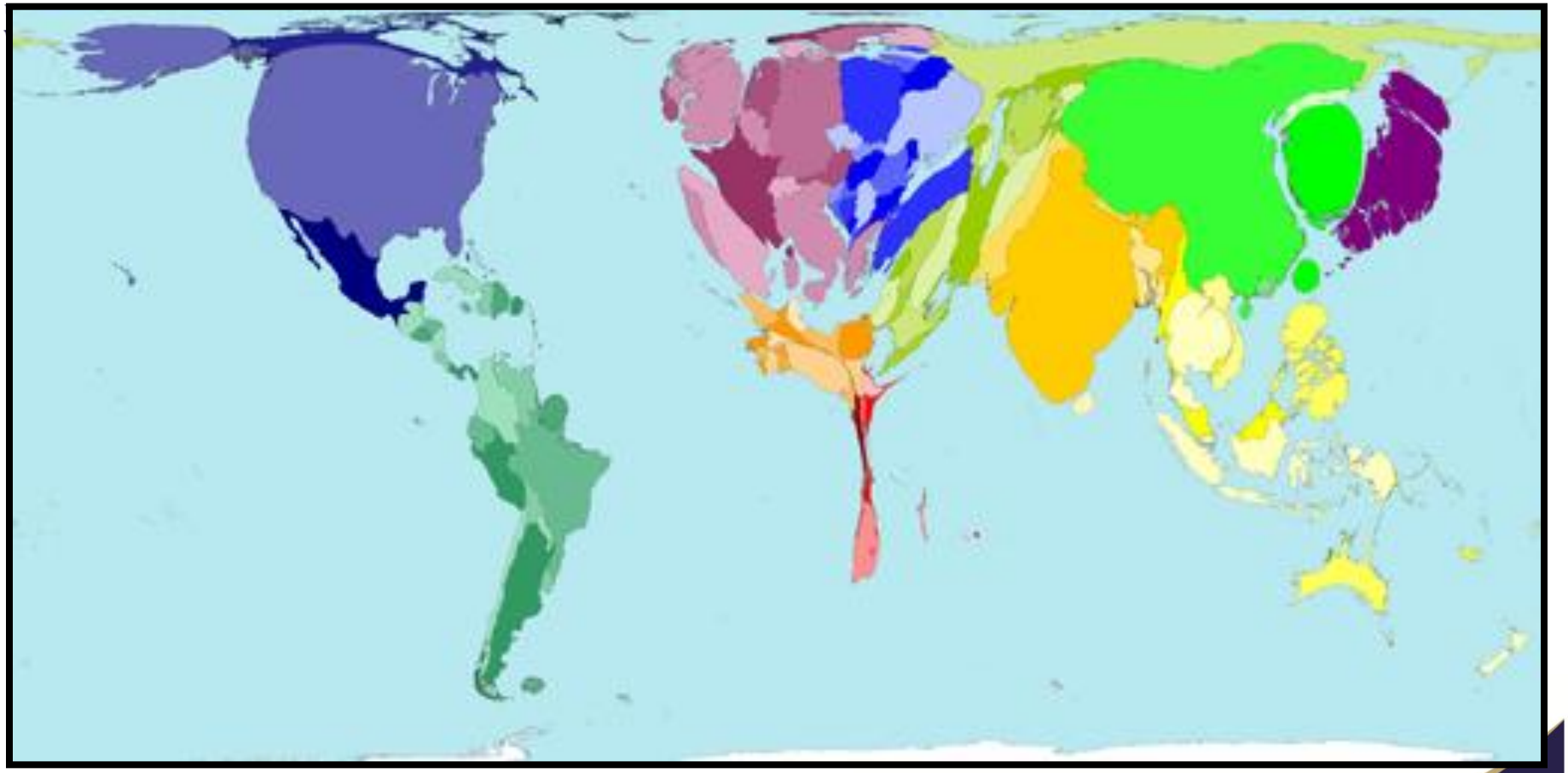
Secondary Education



- Worldwide approximately 73 million children are enrolled in each year of secondary education out of a possible 122 million children. That is only 60% getting a secondary education.
- In China on average 89% get a secondary education, but in India it is only 49%. Figures in Africa are even lower: 45% in Northern Africa, 25% in Southeastern Africa and 13% in Central Africa. The lowest is 5% in Niger. What is compulsory in some territories is a rarity in others.

Tertiary Education



- The highest percentage of the student aged population enrolled is in Finland. Finland is 3.6 times the world average, with 140 times the chance of a tertiary education than in Mozambique.

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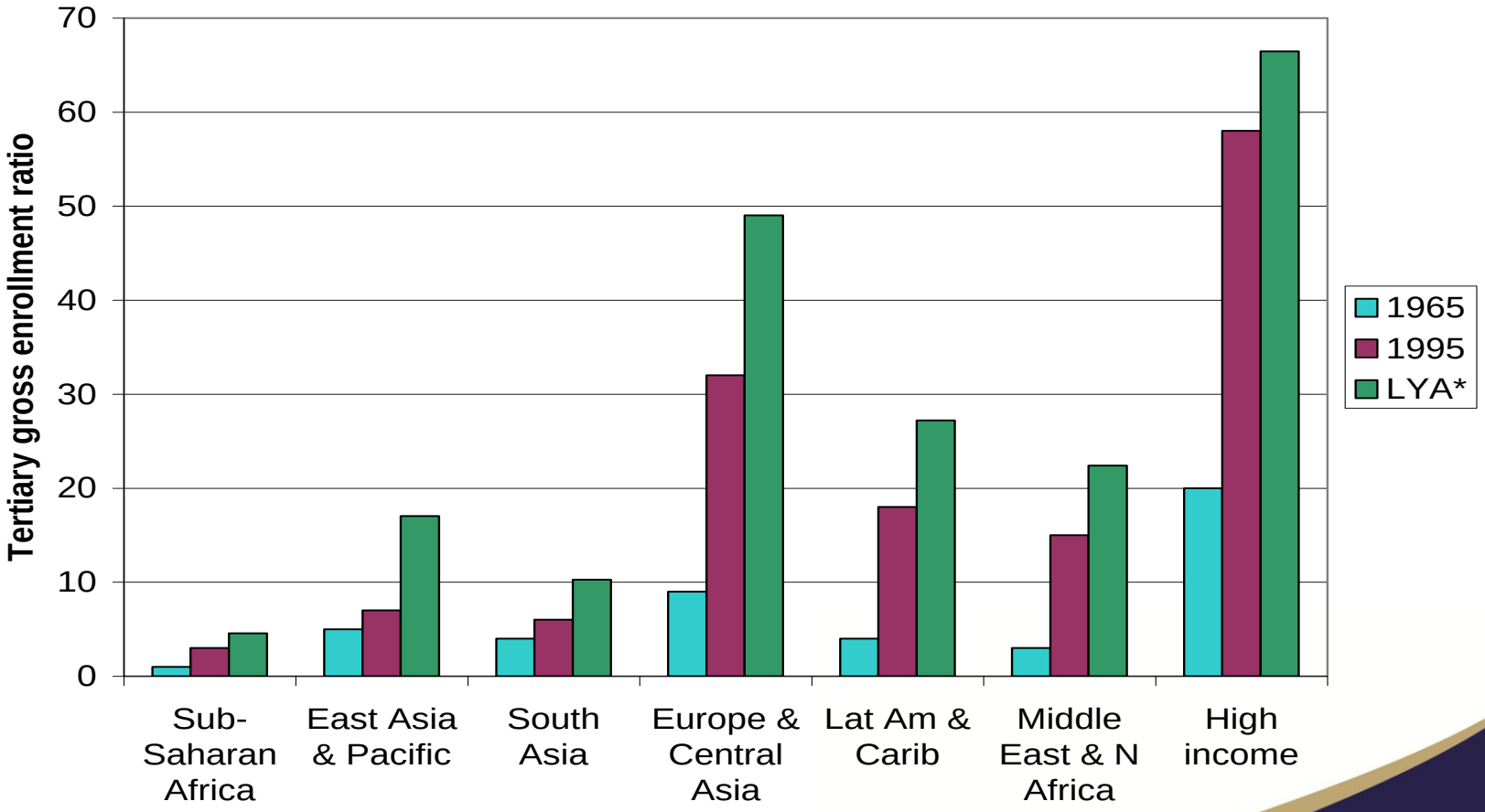
Sub-Saharan Africa Tertiary Enrollment Is Falling Further Behind



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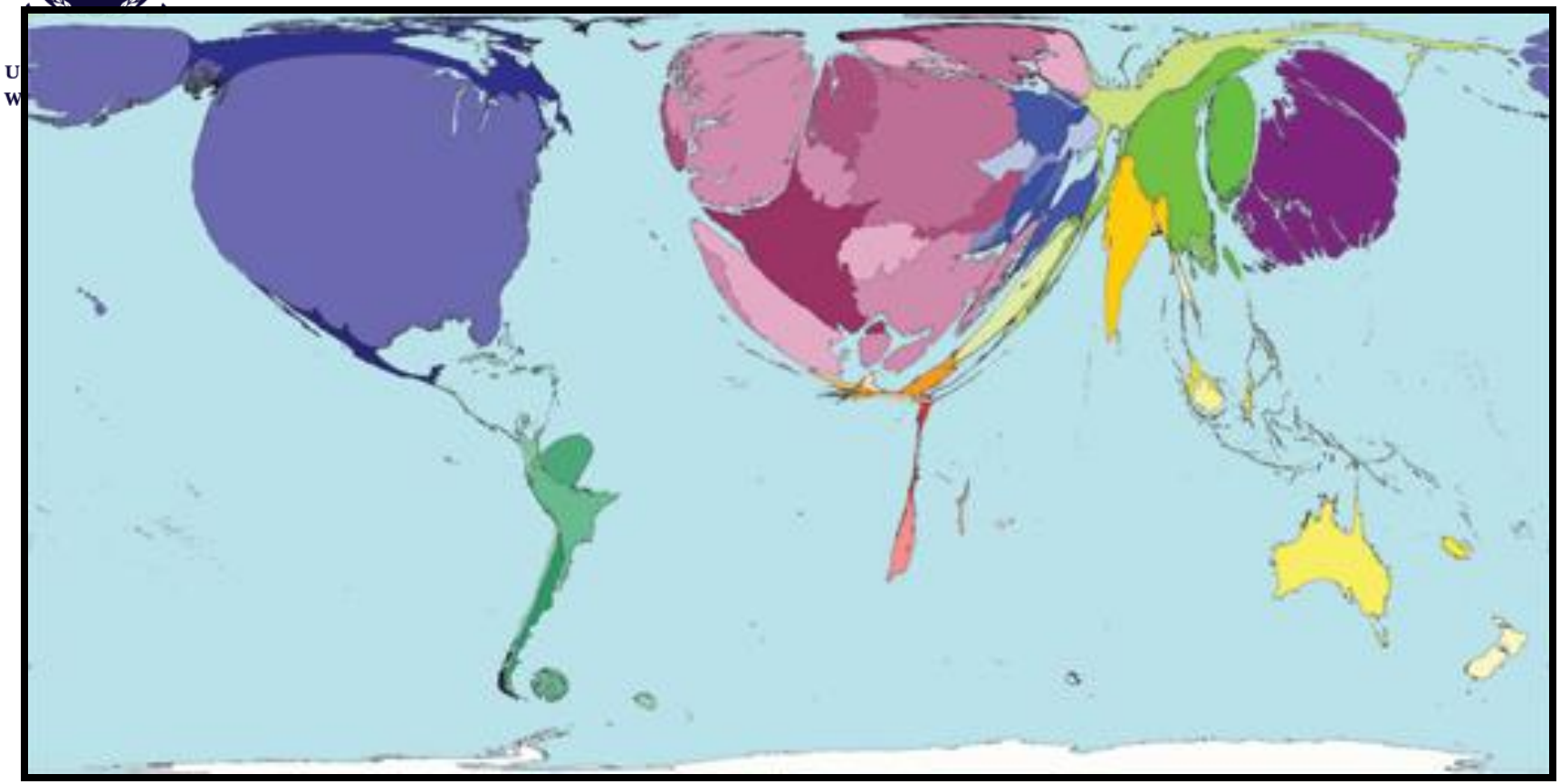
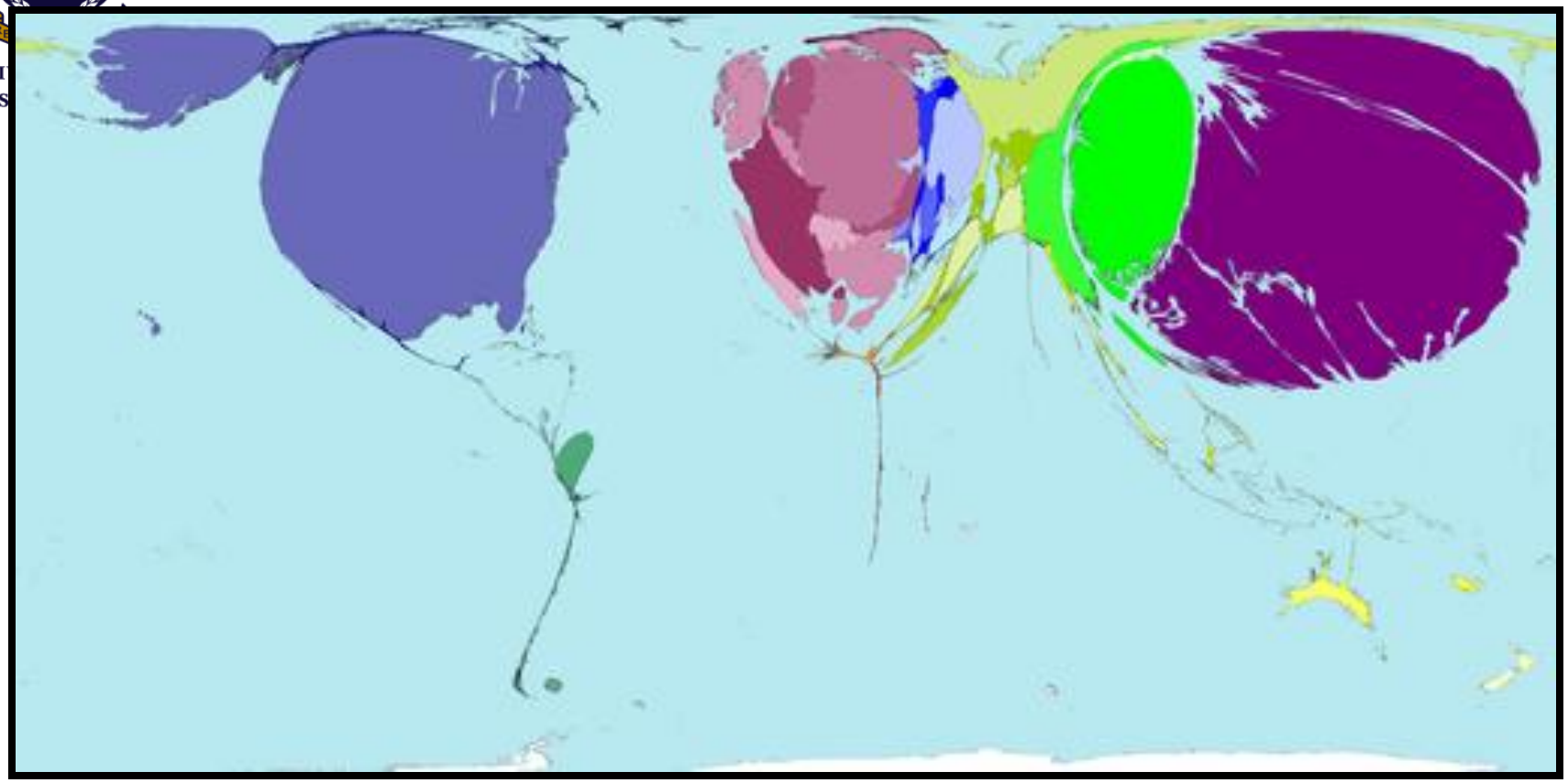
Science Research



- Scientific papers cover physics, biology, chemistry, mathematics, clinical medicine, biomedical research, engineering, technology, and earth and space sciences.
- The number of scientific papers published by researchers in the United States was more than three times as many as were published by the second highest-publishing population, Japan.
- There is more scientific research, or publication of results, in richer territories. This locational bias is such that roughly three times more scientific papers per person living there are published in Western Europe, North America, and Japan, than in any other region.

New Patents



- In 2002, 312 thousand patents were granted around the world. More than a third of these were granted in Japan. Just under a third were granted in the United States.
- A patent is supposed to protect the ideas and inventions that people have. Patenting something will then allow the owner of the patent to charge others for the usage of an idea or invention. The aim is to reward the creator for their hard work or intelligence. But patents can prevent people from using good ideas because they cannot afford to do so.
- A quarter of all territories had no new patents in 2002, so will not profit from these in future years as others will.

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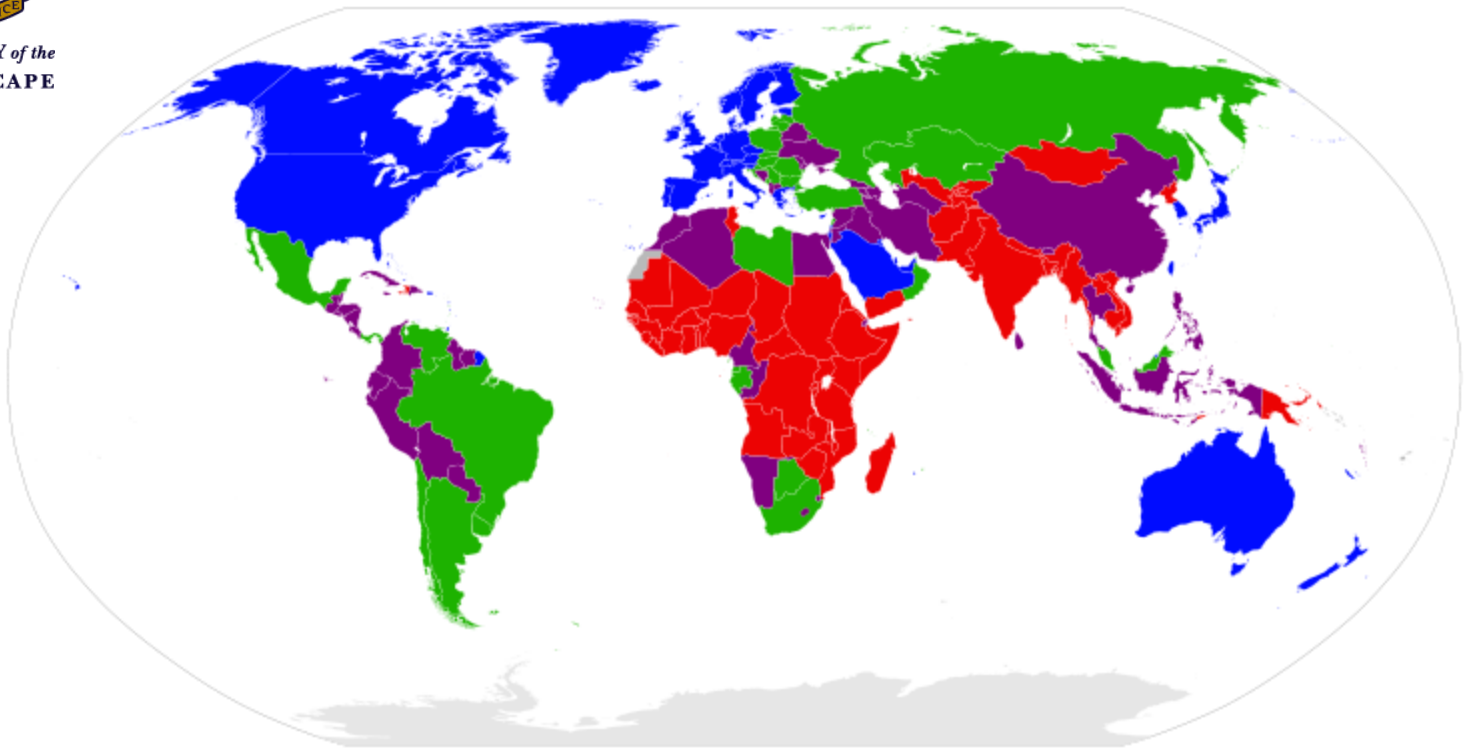
Un Poverty Index



High income

Upper-middle income

Lower-middle income

Low income

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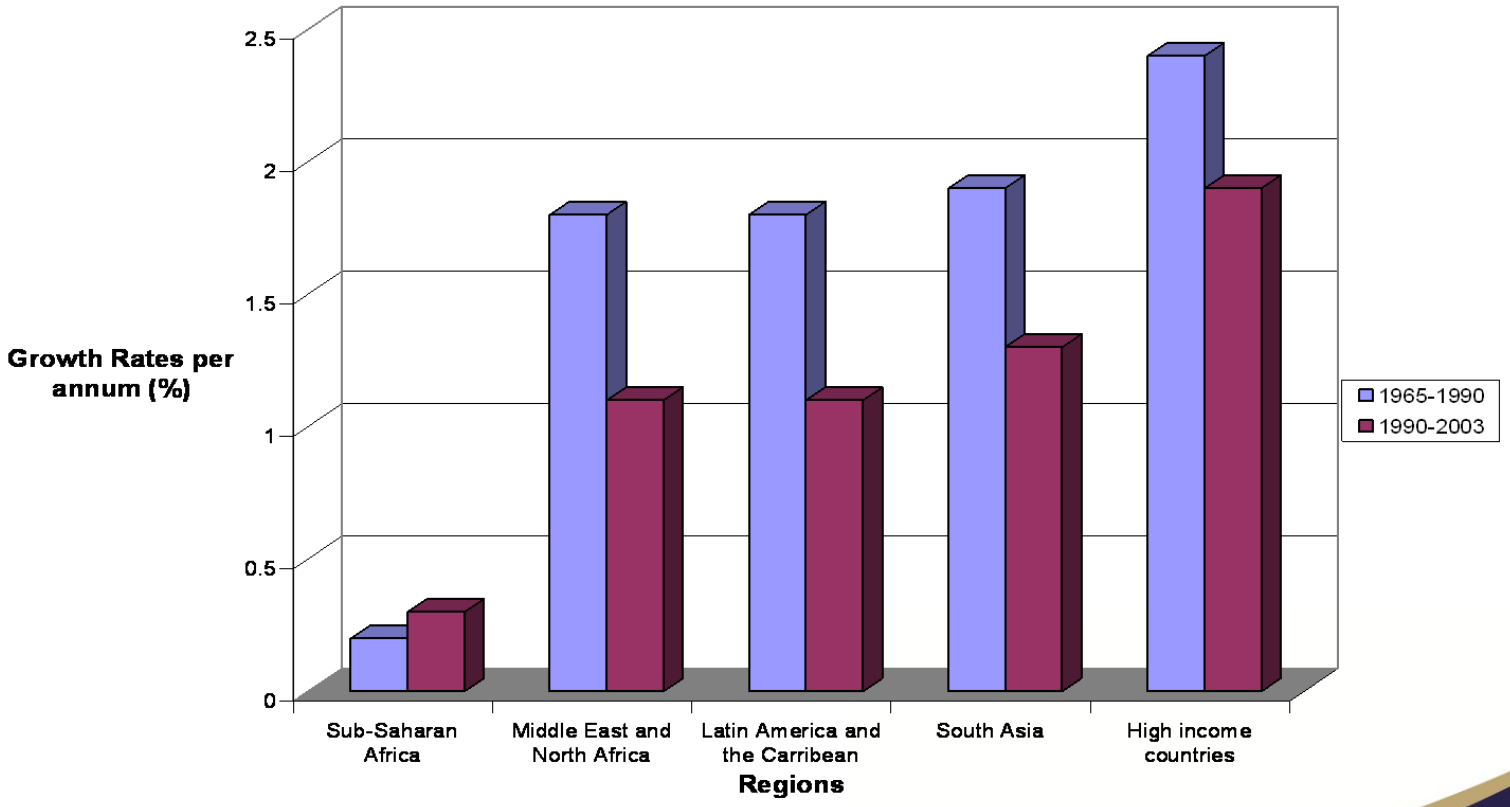
Sub-Saharan Africa Lags Far Behind In Growth Of Income Per Capita



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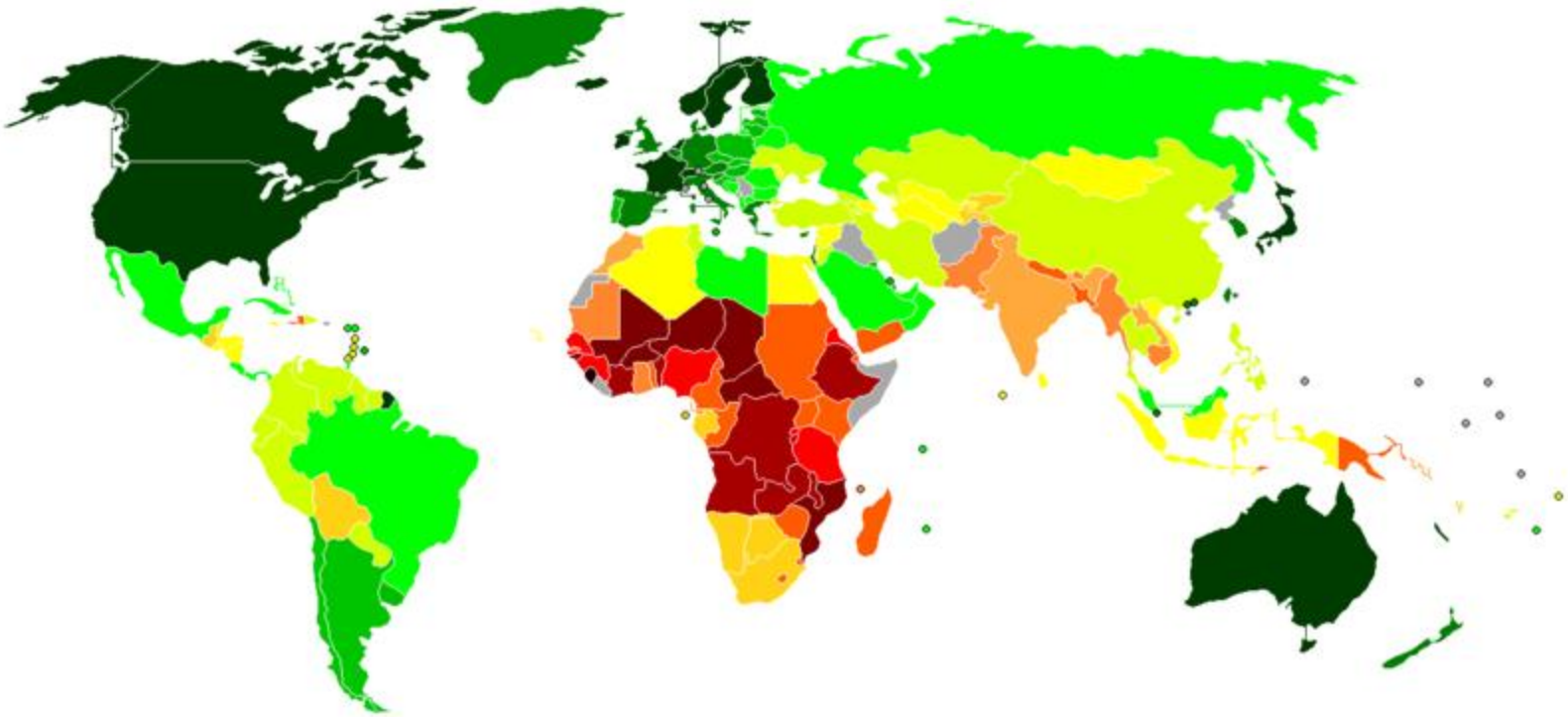
Un Human Development Index



High

- 0.950 and over
- 0.900–0.949
- 0.850–0.899
- 0.800–0.849

Medium

- 0.750–0.799
- 0.700–0.749
- 0.650–0.699
- 0.600–0.649
- 0.550–0.599
- 0.500–0.549

Low

- 0.450–0.499
- 0.400–0.449
- 0.350–0.399
- under 0.350
- not available

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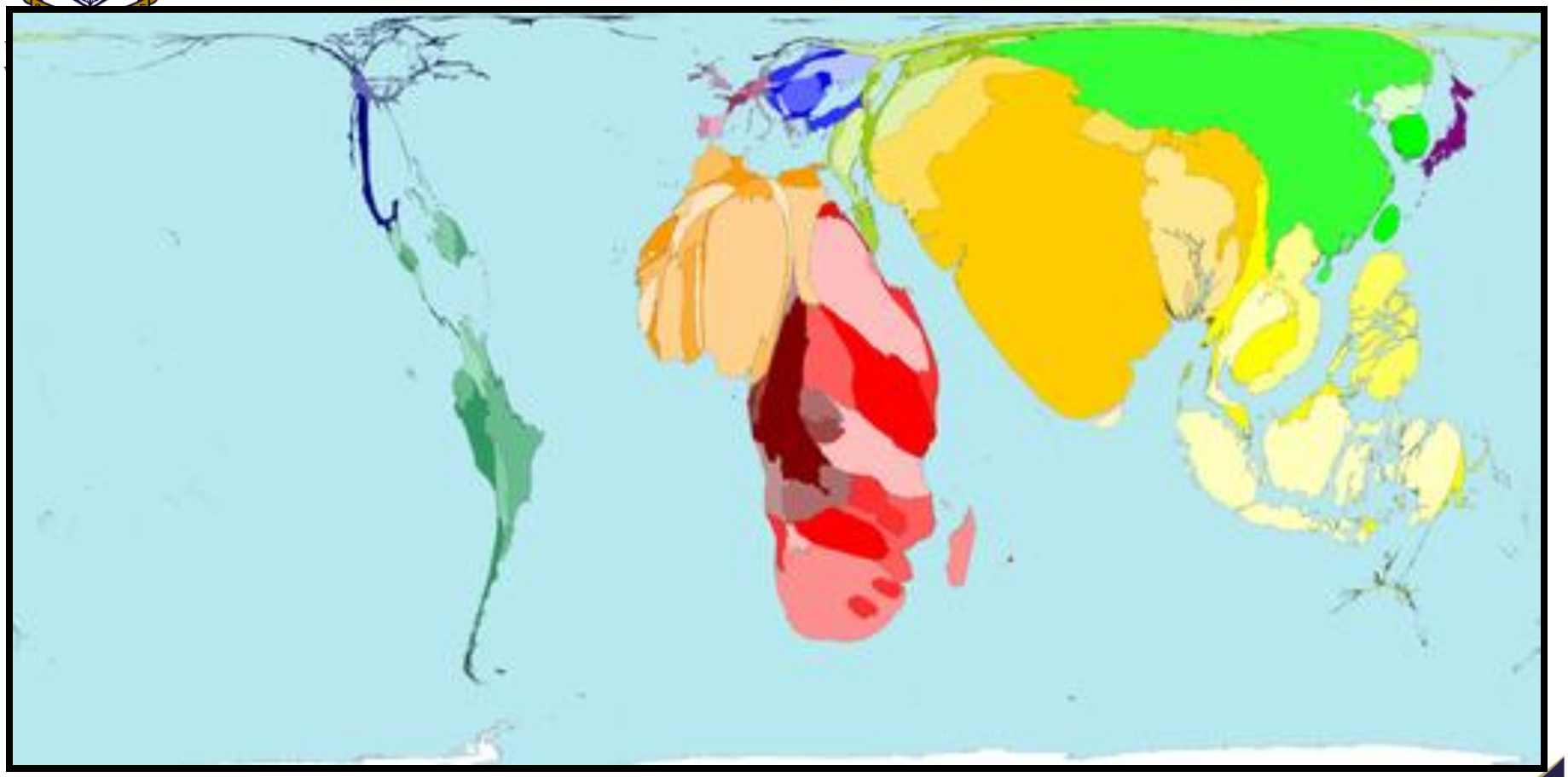
Tuberculosis



- The World Health Organisation reports that someone with open tuberculosis would infect 10 to 15 people a year. So when a certain number of people are infected it is very hard to stop it spreading further. Tuberculosis bacilli are spread through the air when someone sneezes or coughs.
- In the past 50 years drugs have been developed to treat tuberculosis. The disease has since developed strains that are resistant to those drugs.

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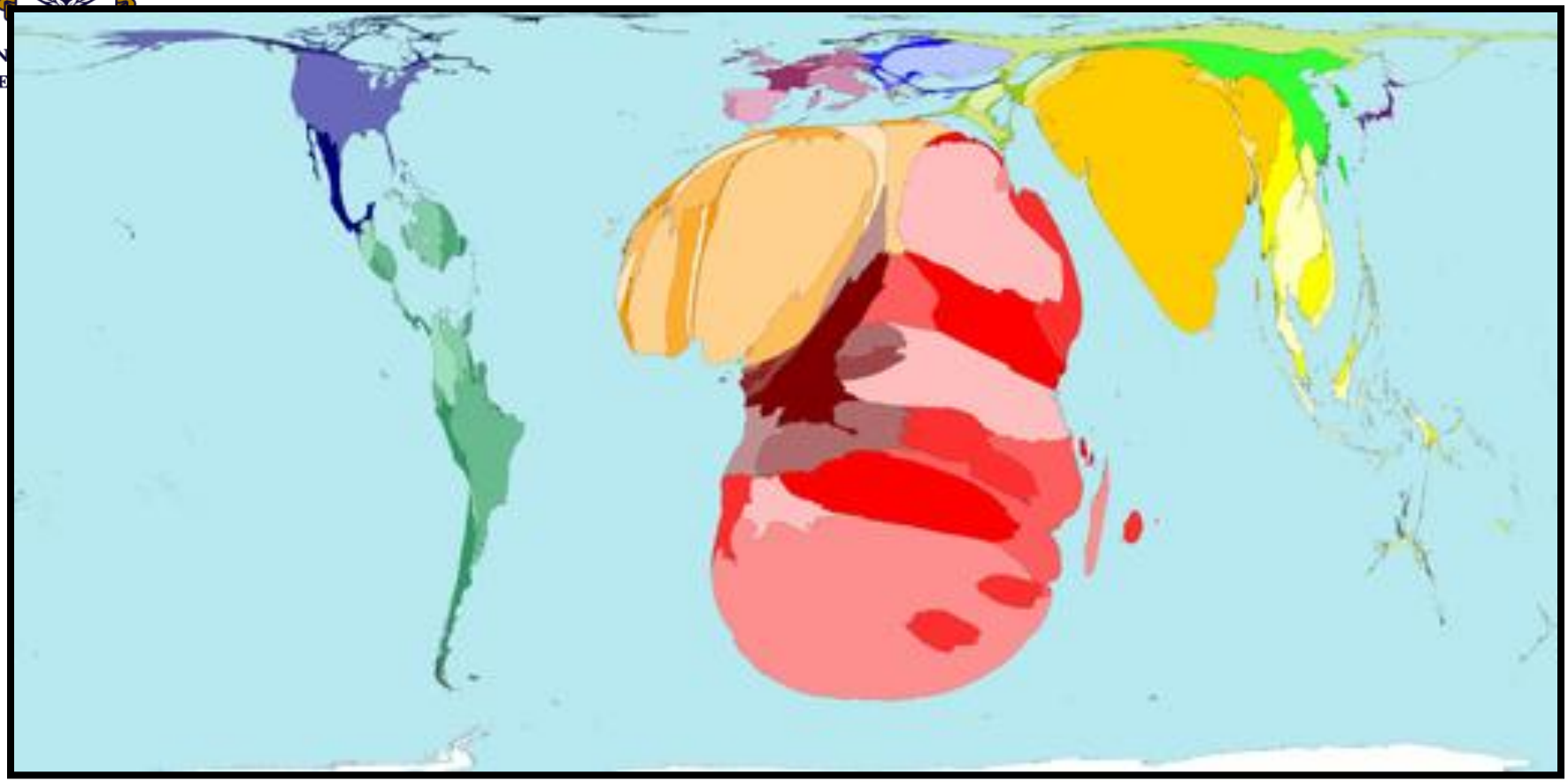
HIV Prevalence



- This map shows the number of people aged 15-49 years old living with HIV.
- In 2003, the highest HIV prevalence was Swaziland, where 38%, or almost 4 in every 10 people aged 15 to 49 years, were HIV positive.
- All ten territories with the highest prevalence of HIV are in Central and Southeastern Africa.

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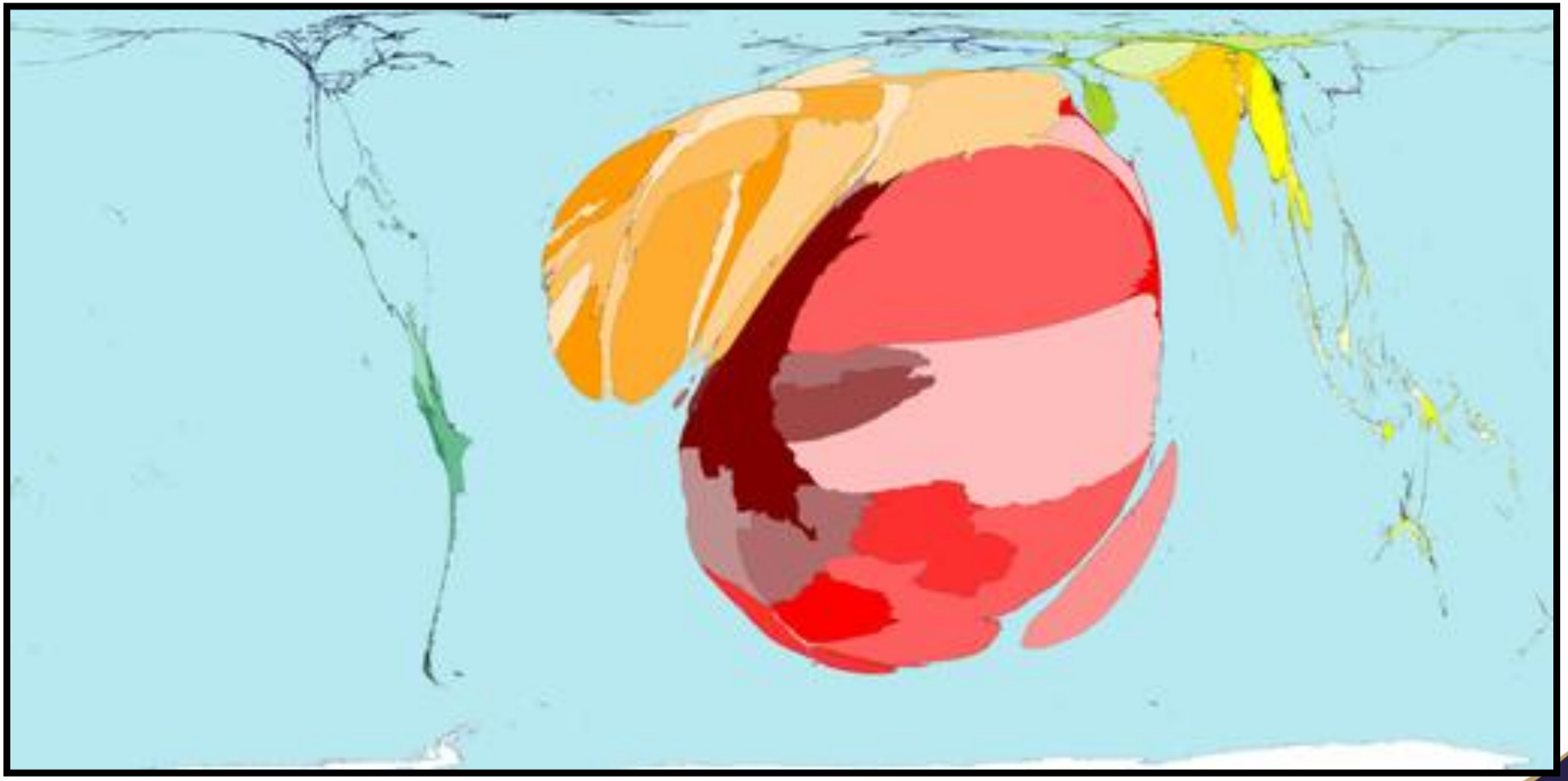
Malaria Cases



- Of all the people living with malaria, 92% live in African territories. Parts of Mediterranean Africa have very low numbers of malaria cases. In contrast, almost half the people living in Uganda suffer from malaria. Uganda also has the most cases of malaria in the world. Most territories are barely visible due to the low number of malaria cases found there.

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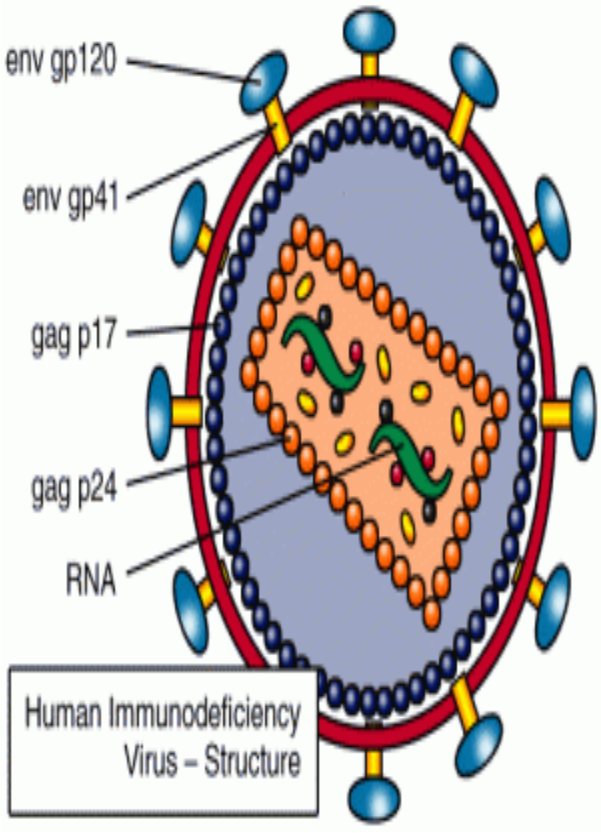
South Africa and HIV : 5.5 Million Infected



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How Ready is South Africa?

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South Africa and Knowledge Amplification

EDUCATION

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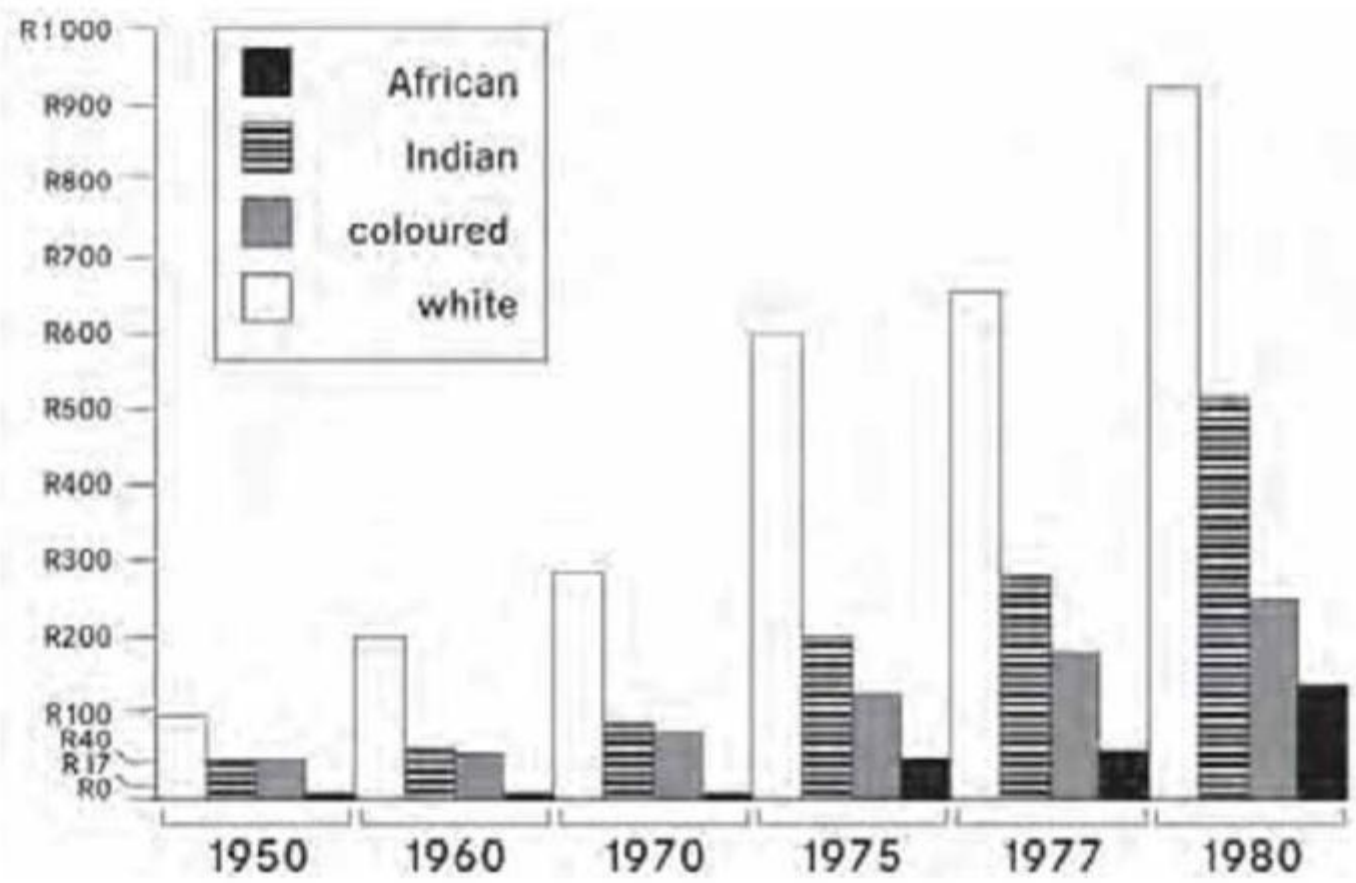
Per Capita Expenditure on Education in Apartheid South Africa



▲ *Per capita spending on education from 1950 to 1980.*

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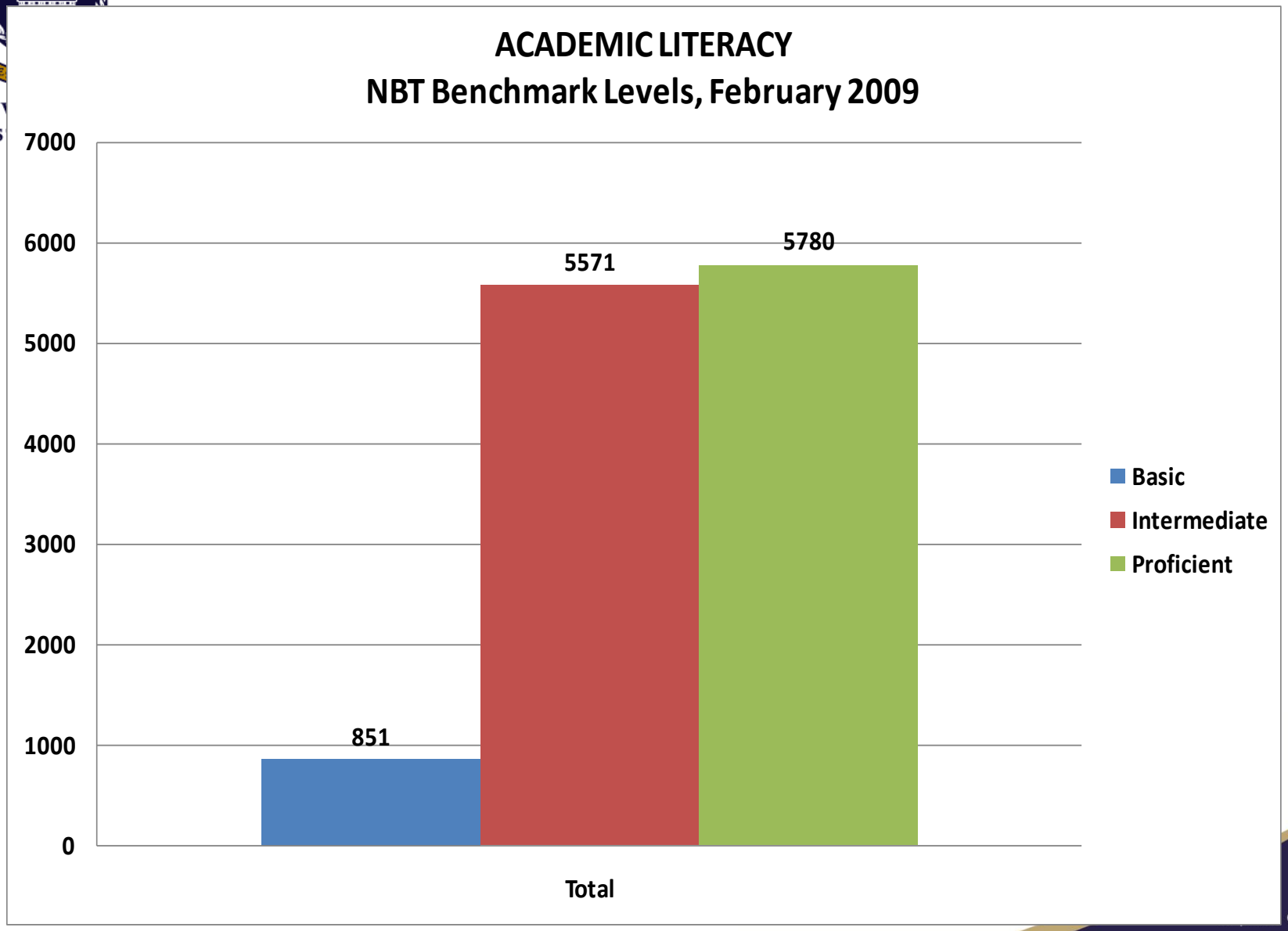
Struggle 1976 – 1994 ICONOCLASTIC

No Pedagogy for Transformation to Democratic Self Reliant State



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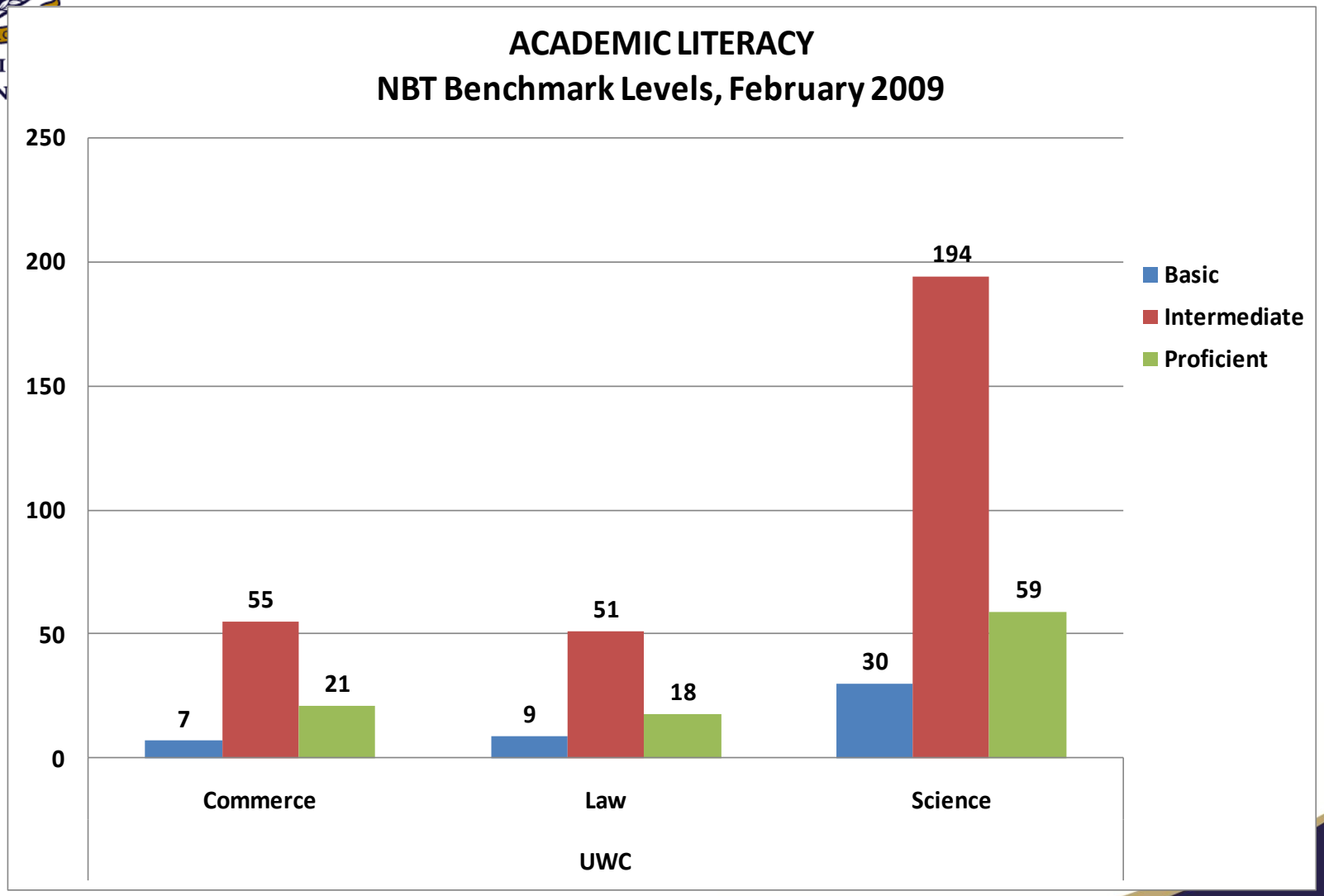

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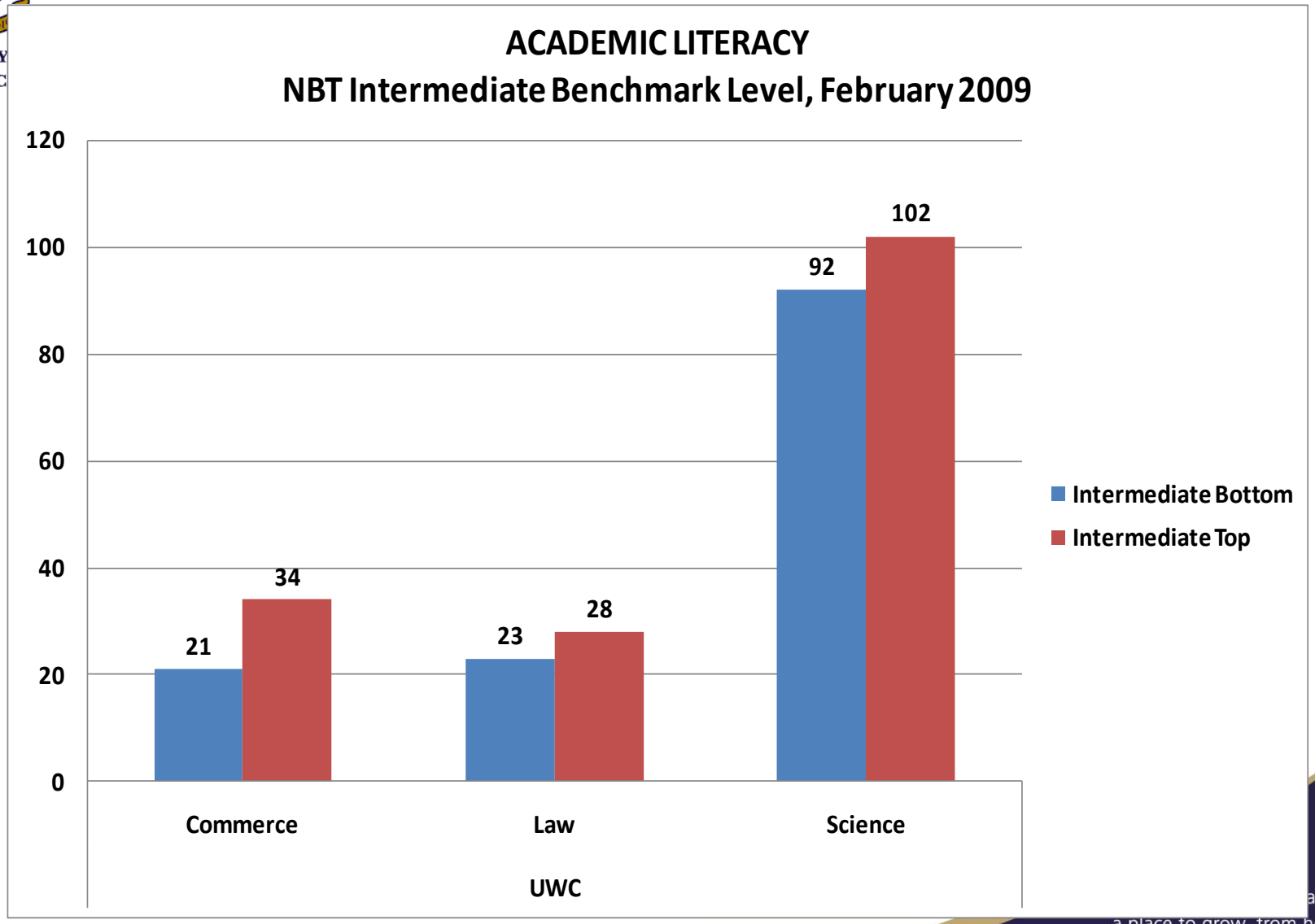

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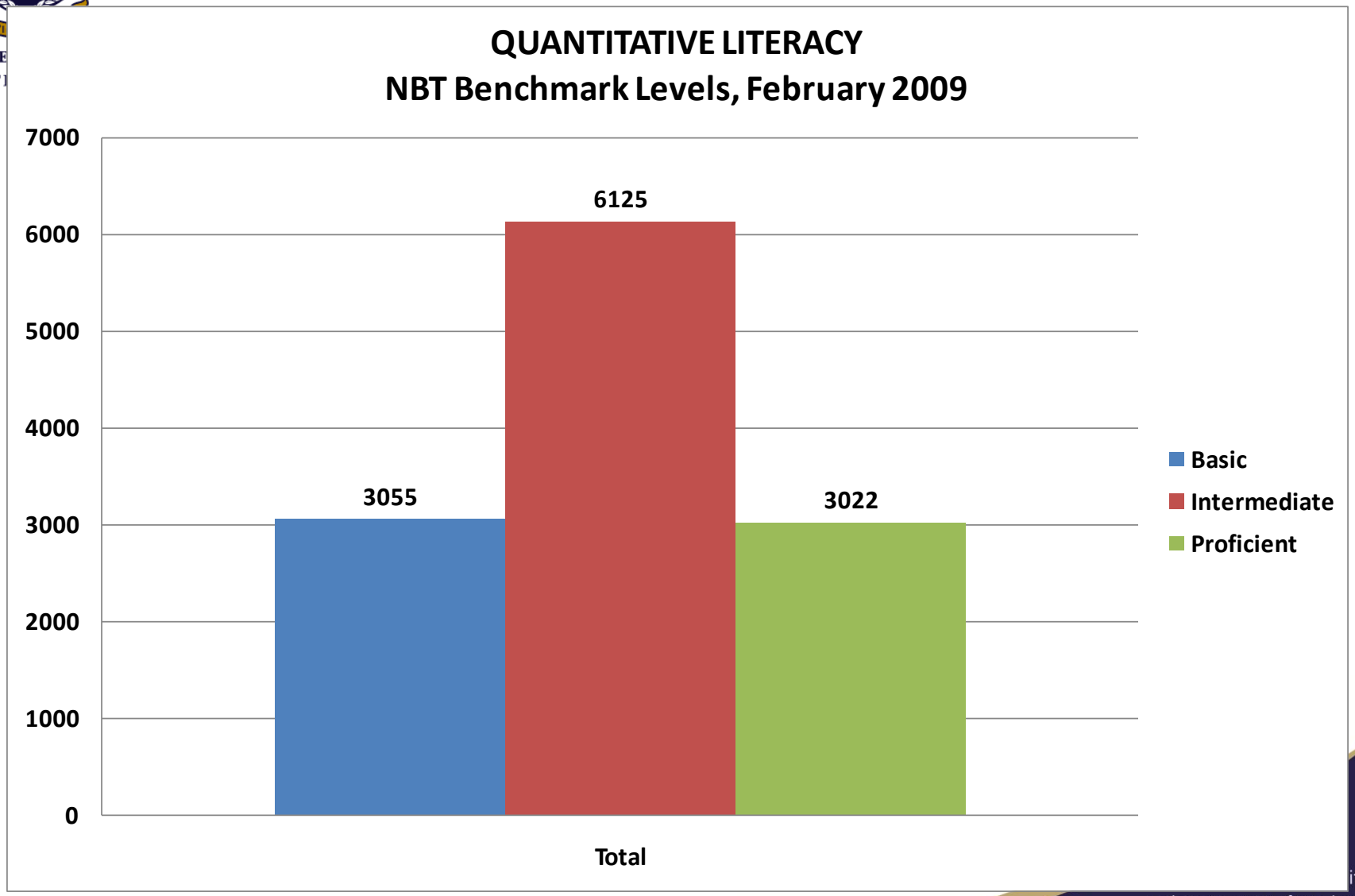

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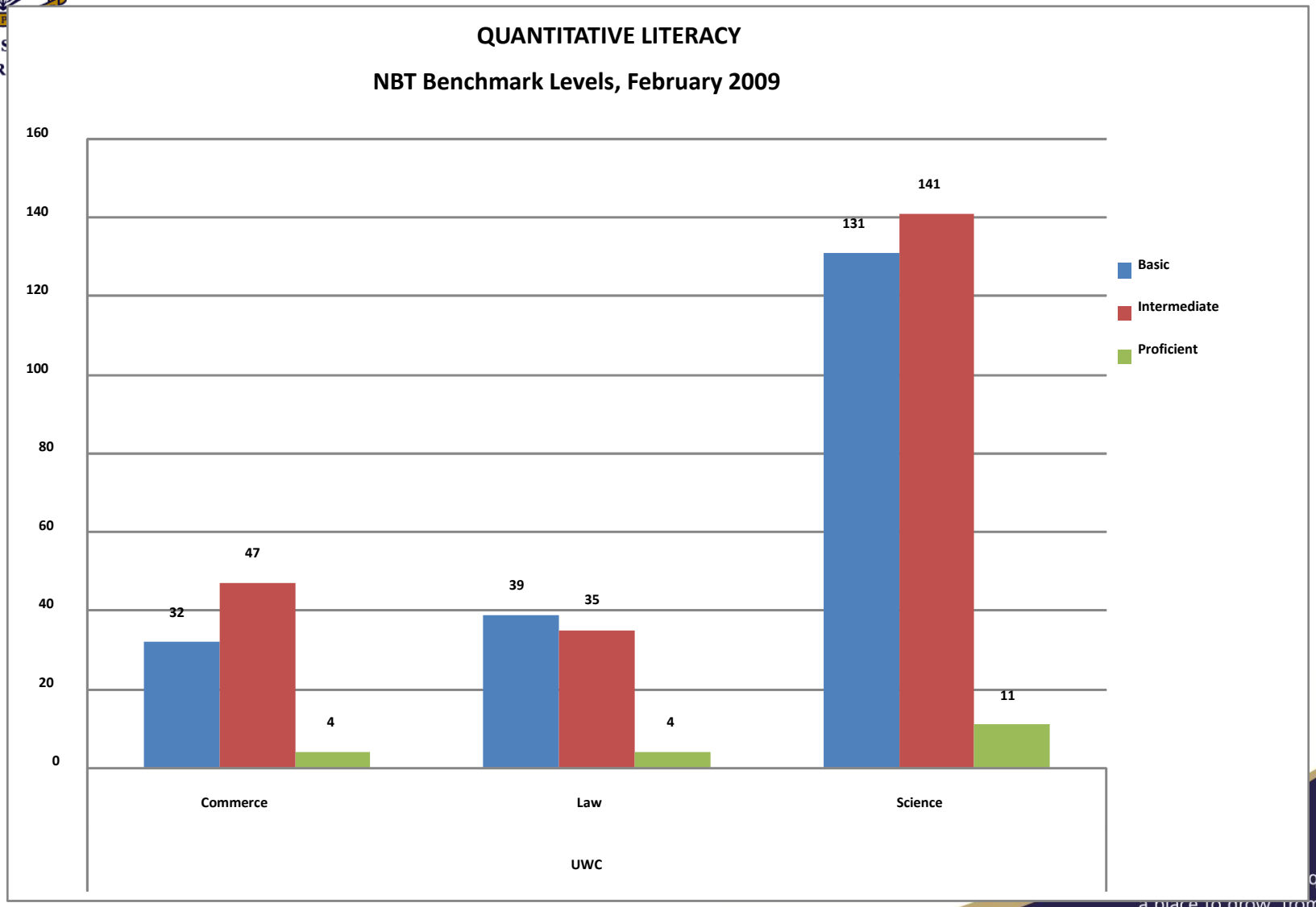

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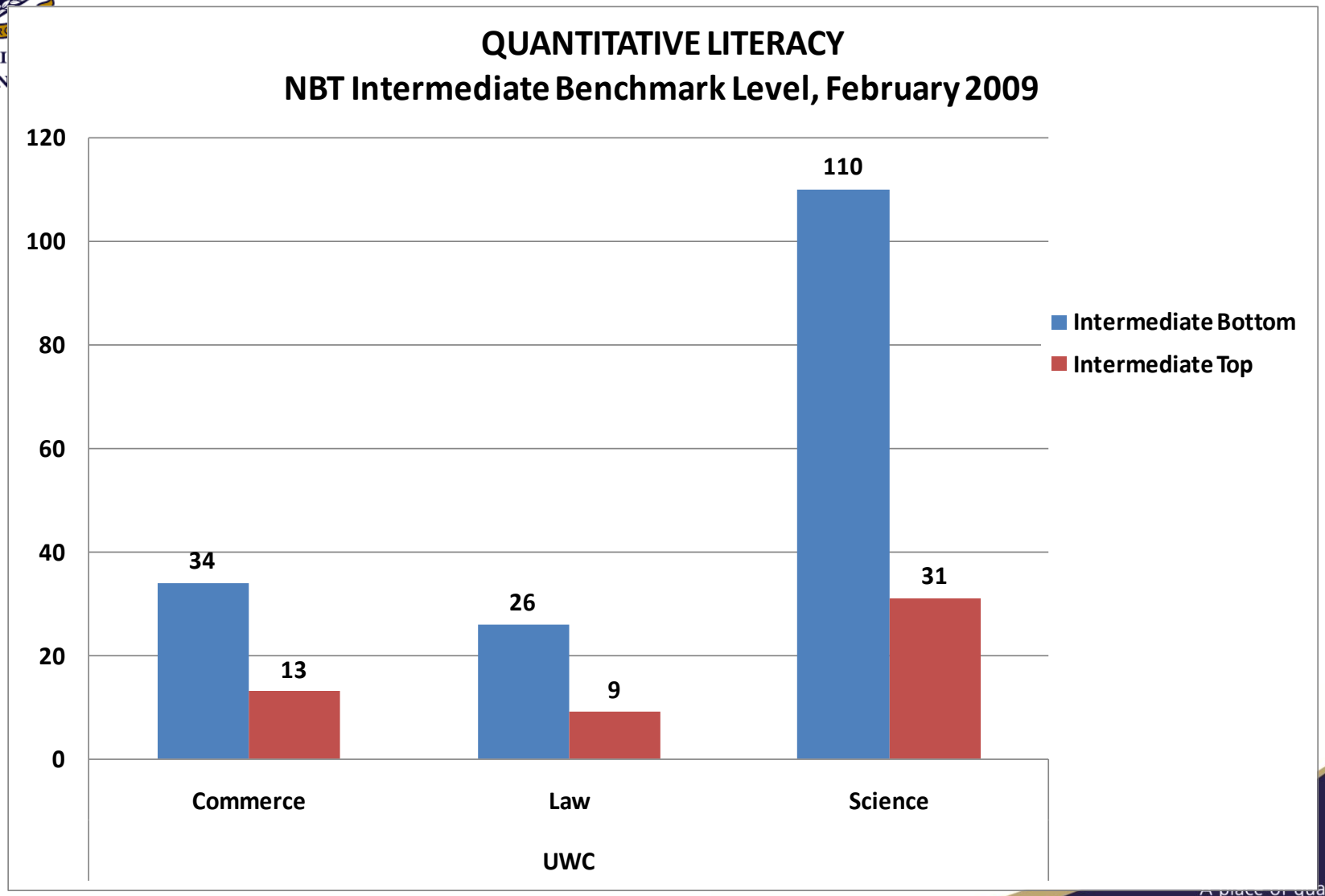

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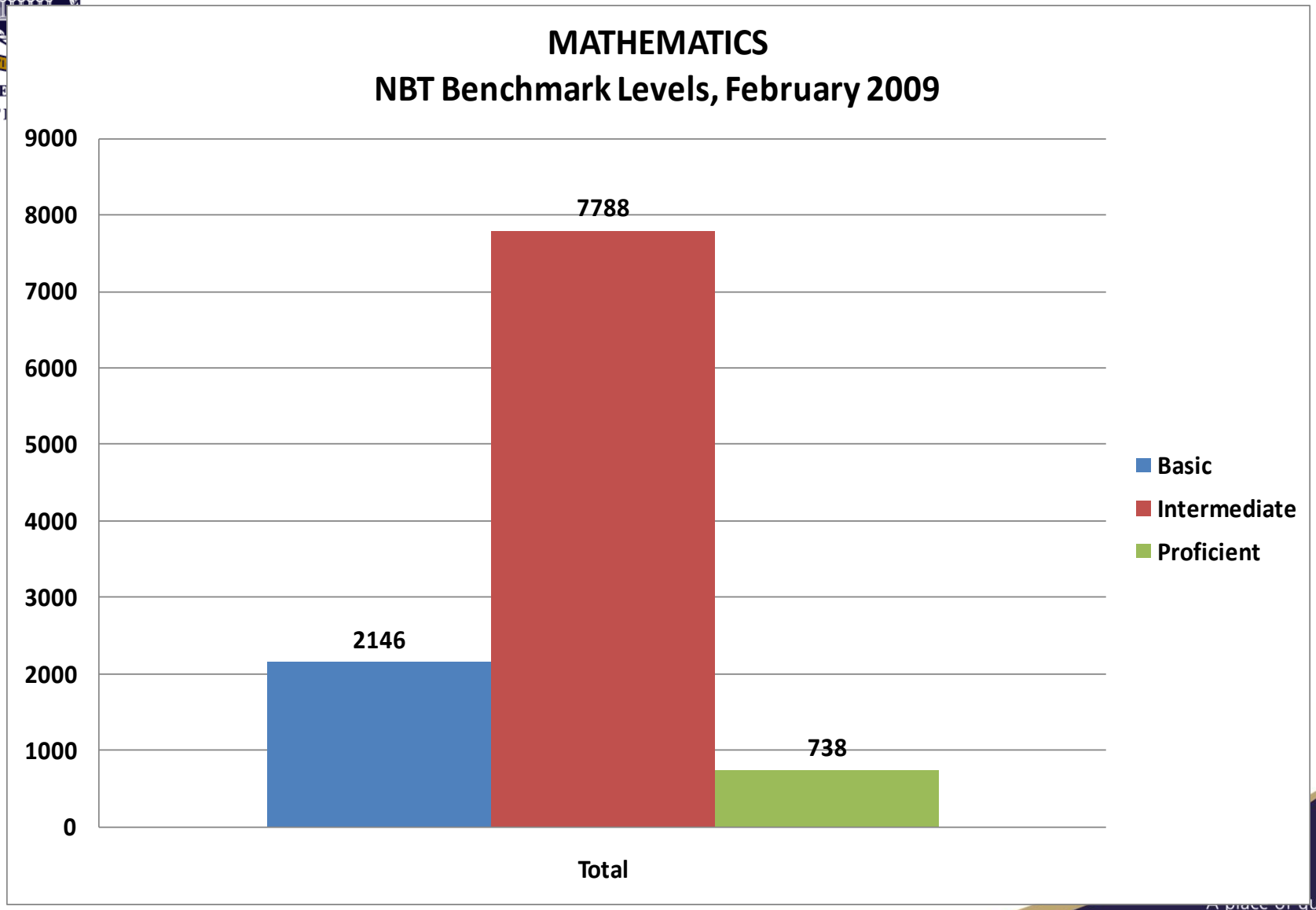

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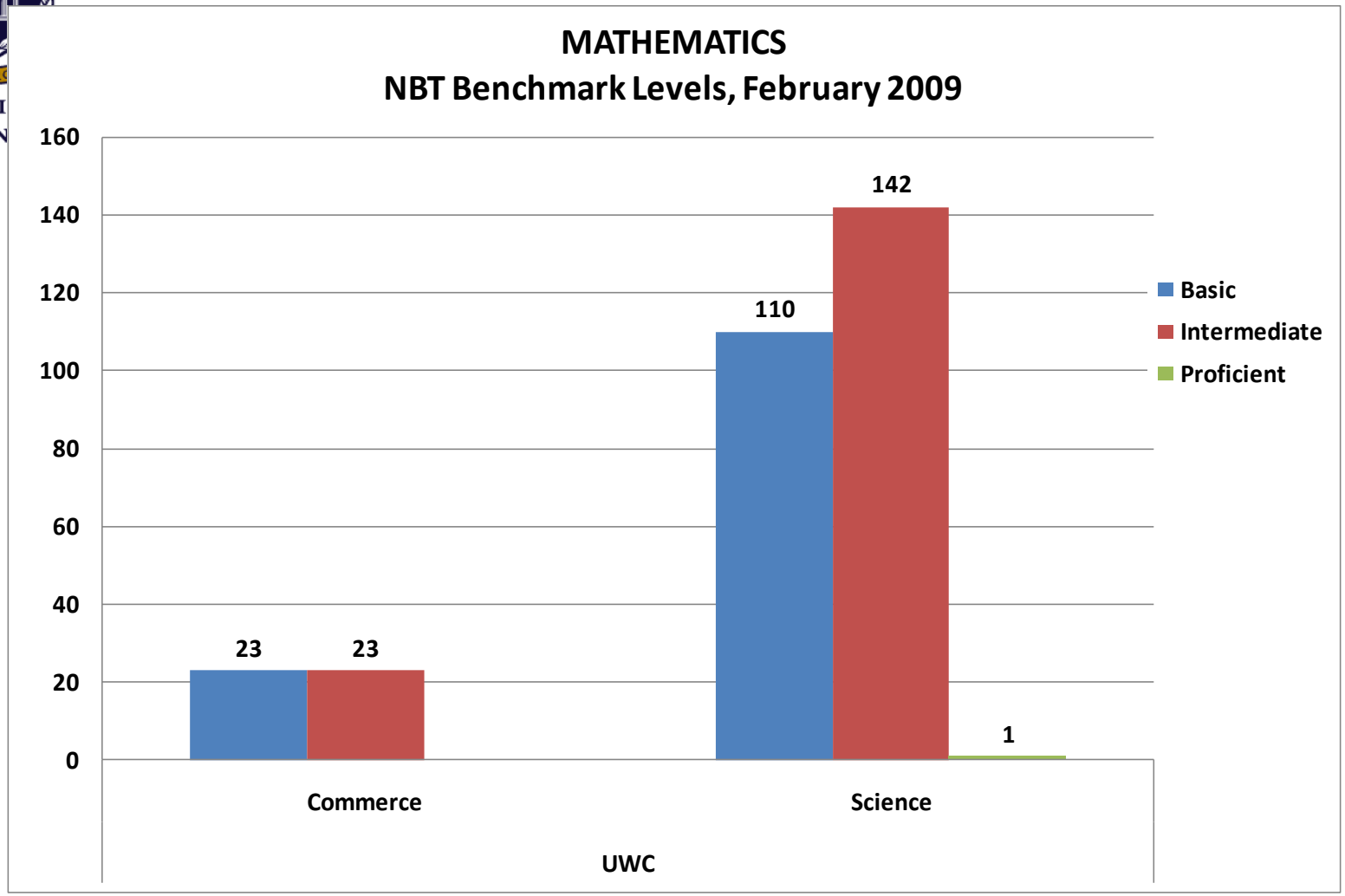

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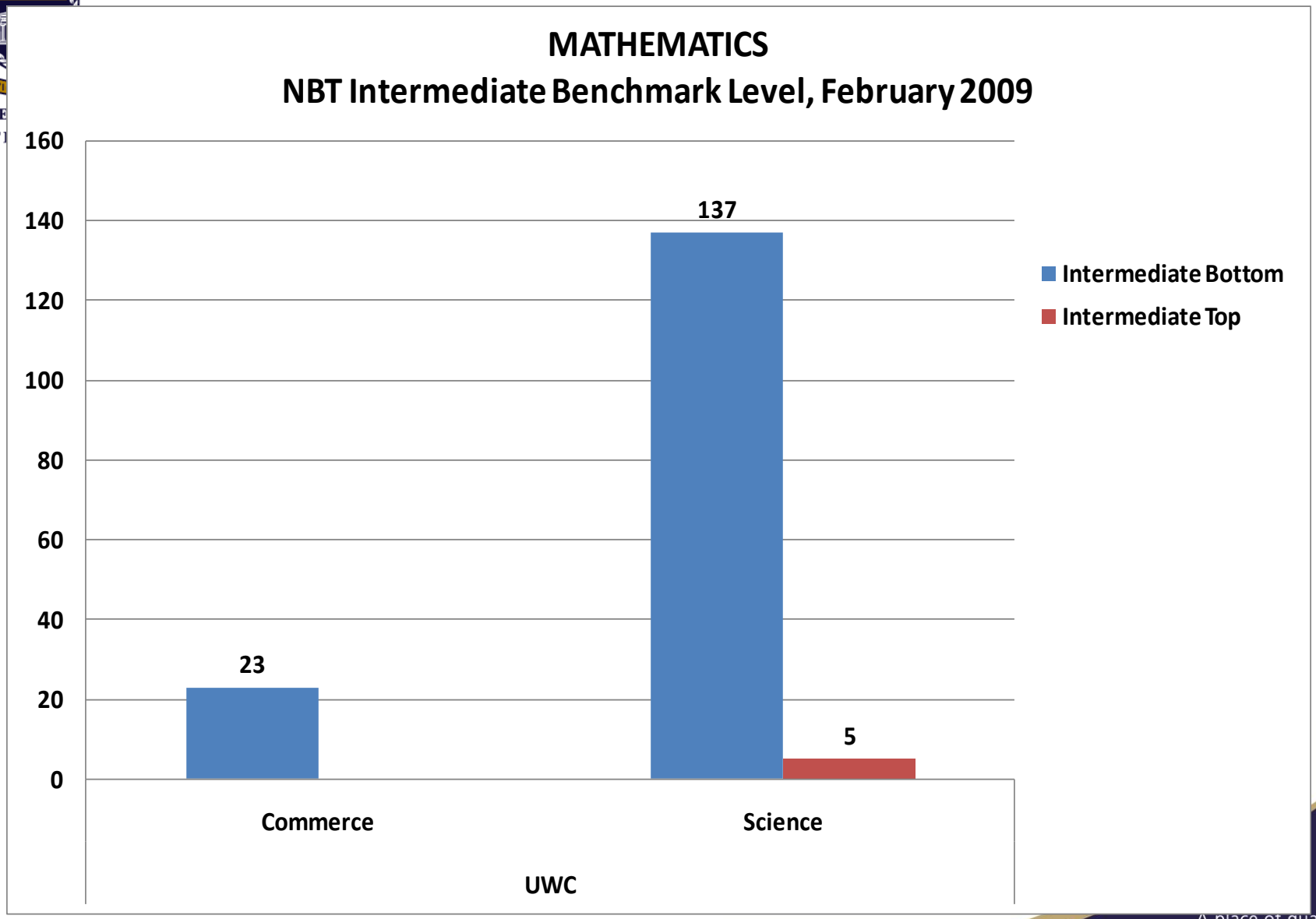

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Exhibit 1.1: Distribution of Mathematics Achievement

MATHEMATICS Grade 8

Countries	Years of Schooling*	Average Age	Mathematics Achievement Distribution	Average Scale Score	Human Development Index**
Singapore	8	14.3		605 (3.6)	0.884
** Korea, Rep. of	8	14.6		589 (2.2)	0.879
† Hong Kong, SAR	8	14.4		586 (3.3)	0.889
Chinese Taipei	8	14.2		585 (4.6)	–
Japan	8	14.4		570 (2.1)	0.932
Belgium (Flemish)	8	14.1		537 (2.8)	0.937
† Netherlands	8	14.3		536 (3.8)	0.938
Estonia	8	15.2		531 (3.0)	0.833
Hungary	8	14.5		529 (3.2)	0.837
Malaysia	8	14.3		508 (4.1)	0.790
Latvia	8	15.0		508 (3.2)	0.811
Russian Federation	7 or 8	14.2		508 (3.7)	0.779
Slovak Republic	8	14.3		508 (3.3)	0.836
Australia	8 or 9	13.9		505 (4.6)	0.939
‡ United States	8	14.2		504 (3.3)	0.937
1 Lithuania	8	14.9		502 (2.5)	0.824
Sweden	8	14.9		499 (2.6)	0.941
† Scotland	9	13.7		498 (3.7)	0.930
2 Israel	8	14.0		496 (3.4)	0.905
New Zealand	8.5 - 9.5	14.1		494 (5.3)	0.917
Slovenia	7 or 8	13.8		493 (2.2)	0.881
Italy	8	13.9		484 (3.2)	0.916
Armenia	8	14.9		478 (3.0)	0.729
1 Serbia	8	14.9		477 (2.6)	–
Bulgaria	8	14.9		476 (4.3)	0.795
Romania	8	15.0		475 (4.8)	0.773
International Avg.	8	14.5		467 (0.5)	–
Norway	7	13.8		461 (2.5)	0.944
Moldova, Rep. of	8	14.9		460 (4.0)	0.700
Cyprus	8	13.8		459 (1.7)	0.891
2 Macedonia, Rep. of	8	14.6		435 (3.5)	0.784
Lebanon	8	14.6		433 (3.1)	0.752
Jordan	8	13.9		424 (4.1)	0.743
Iran, Islamic Rep. of	8	14.4		411 (2.4)	0.719
1 Indonesia	8	14.5		411 (4.8)	0.682
Tunisia	8	14.8		410 (2.2)	0.740
Egypt	8	14.4		406 (3.5)	0.648
Bahrain	8	14.1		401 (1.7)	0.839
Palestinian Nat'l Auth.	8	14.1		390 (3.1)	0.731
Chile	8	14.2		387 (3.3)	0.831
1 2 Morocco	8	15.2		387 (2.5)	0.606
Philippines	8	14.8		378 (5.2)	0.751
Botswana	8	15.1		366 (2.6)	0.614
Saudi Arabia	8	14.1		332 (4.6)	0.709
Ghana	8	15.5		276 (4.7)	0.567
South Africa	8	15.1		264 (5.5)	0.684
‡ England	9	14.3		498 (4.7)	0.930
Benchmarking Participants					
Basque Country, Spain	8	14.1		487 (2.7)	–
Indiana State, US	8	14.5		508 (5.2)	–
Ontario Province, Can.	8	13.8		521 (3.1)	–
Quebec Province, Can.	8	14.2		543 (3.0)	–

0 100 200 300 400 500 600 700 800

Percentiles of Performance: 5th, 25th, 75th, 95th

Country average significantly higher than international average

SOURCE: IEA's Trends in International Mathematics and Science Study (TIMSS) 2003

A place of quality,
ce to grow, from hope
n through knowledge

UNIVERSITY of the WESTERN CAPE

South African Education and Quality

- South Africa's education system and its standards are under extreme scrutiny, and the general impression supported by both workplace and post-school experience points to a nation that has lost its way

UNIVERSITY of the
WESTERN CAPE

South African Education 133 out of 142 countries

A place of quality,
a place to grow, from hope
to action through knowledge

UNIVERSITY of the WESTERN CAPE

Literacy: Grade 6

	2001	2007	2011
E Cape	24	35	29
National	30	32	28

A place of quality,
a place to grow, from hope
to action through knowledge

SENSE-MAKING .

Education has to be a national priority!

PfP4SA

1,000

PfP4SA

1,000

X 1,000

PfP4SA

1,000

X 100

= 100,000

PfP4SA

20,000

PfP4SA

1,000,000

500,000

200,000

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Millions of disillusioned and angry youth

Systemic Risk

PfP4SA

World Economic Forum Global Competitiveness Report (2013)

Quality of Education System: **140**/144

Strength of Auditing & Reporting Standards: **1**/144

Availability of financial services: **2**/144

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What if we were to apply our extensive knowledge of leading change to the crisis in Education?

PfP4SA

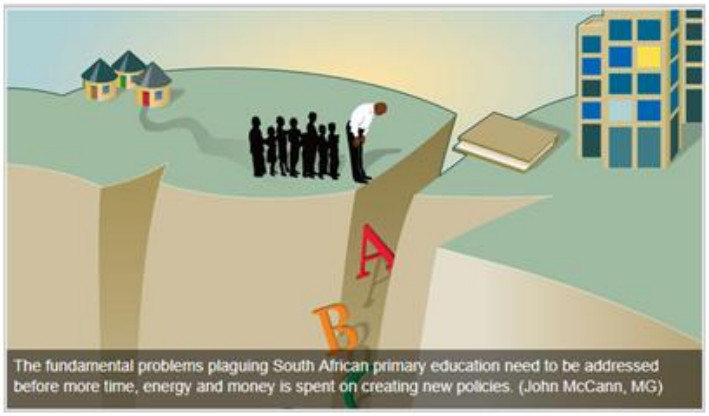
100,000

PfP4SA

Root cause analysis

Officials who are being asked to lead this major transformation simply don't have the knowledge, skills & experience of leading large scale complex social change

At the heart of the failure of our education system is the chasm between policy & implementation



The fundamental problems plaguing South African primary education need to be addressed before more time, energy and money is spent on creating new policies. (John McCann, MG)

Ref: Nick Spaull's article on "Back to Basics" (Mail & Guardian)

We need: Knowledge of how to lead large scale complex social change

We need: Local implementation capacity

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How do you change a system with 20,000+ failing schools?

One School @ a time!

We need to launch 20,000+ change projects

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Partnerships for Possibility for South Africa

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Business leaders in partnership with school principals (84 so far)

(Uniquely South African innovation)

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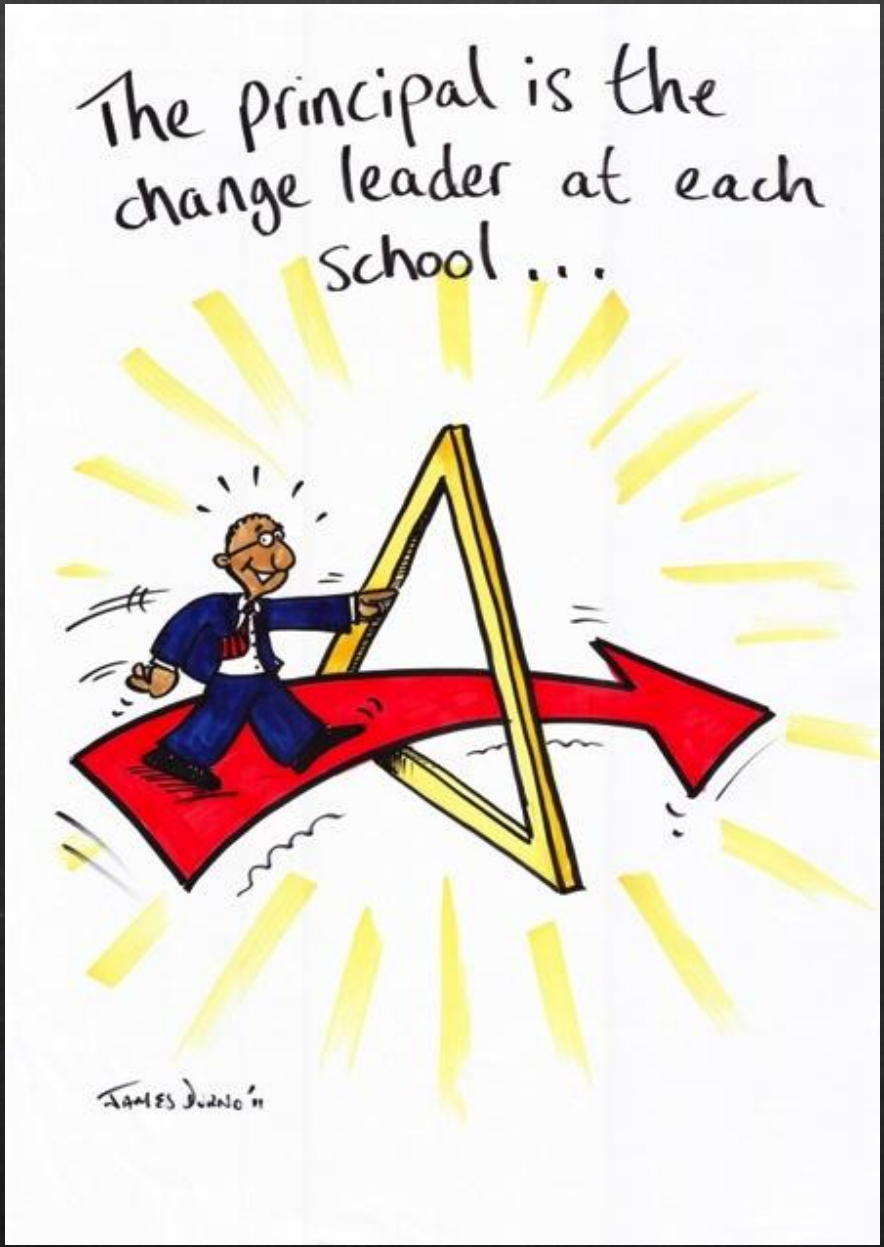
We have a dream

Quality Education for all children in South Africa by 2022

PfP4SA



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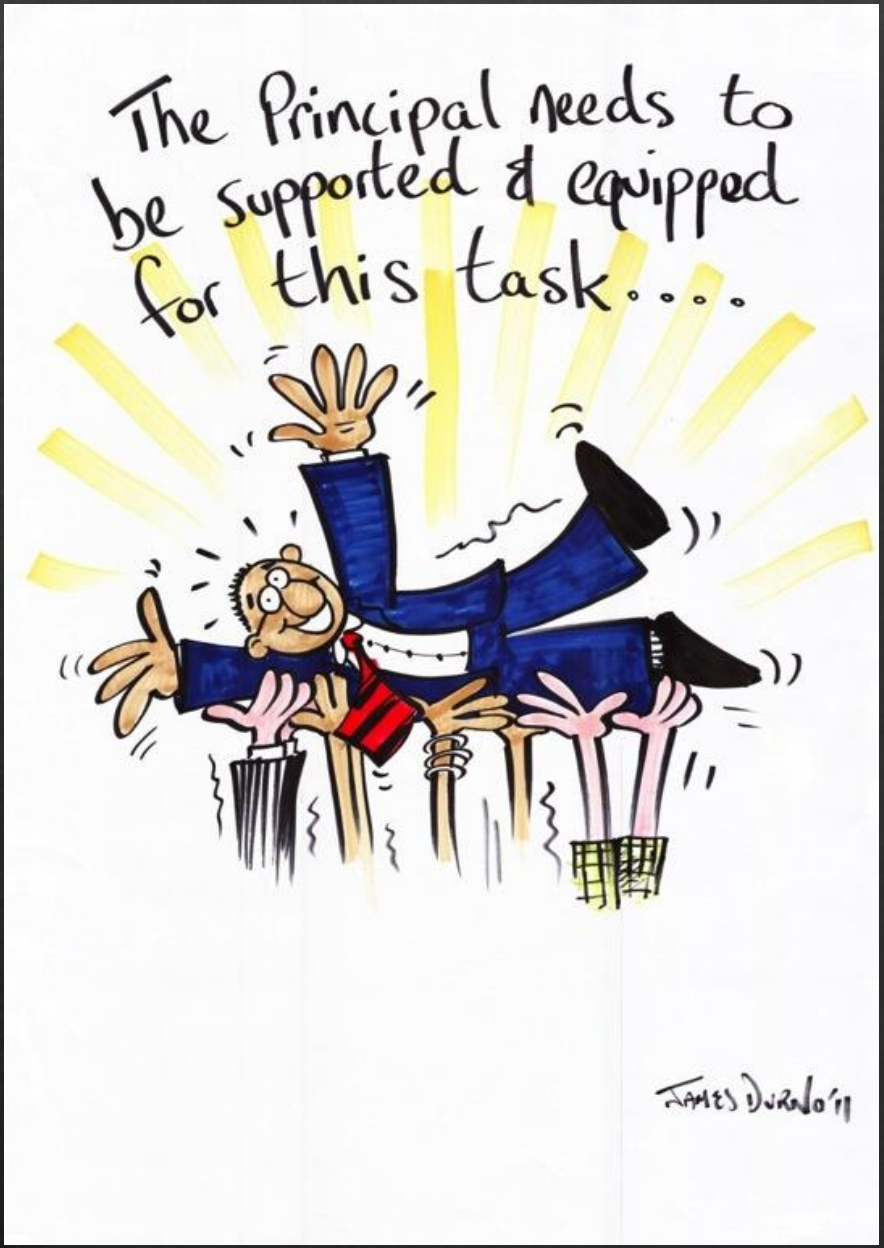
The Principal needs to be supported & equipped for this task....
JAMES DURANDO '11

PfP4SA

The best people to support our principals are people who have knowledge & experience of leading organisational change...
JAMES DUNNO '11

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A win-win solution for

Business Leaders

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Partnerships for Possibility

Business leaders in co-learning &
co-action partnership with school principals

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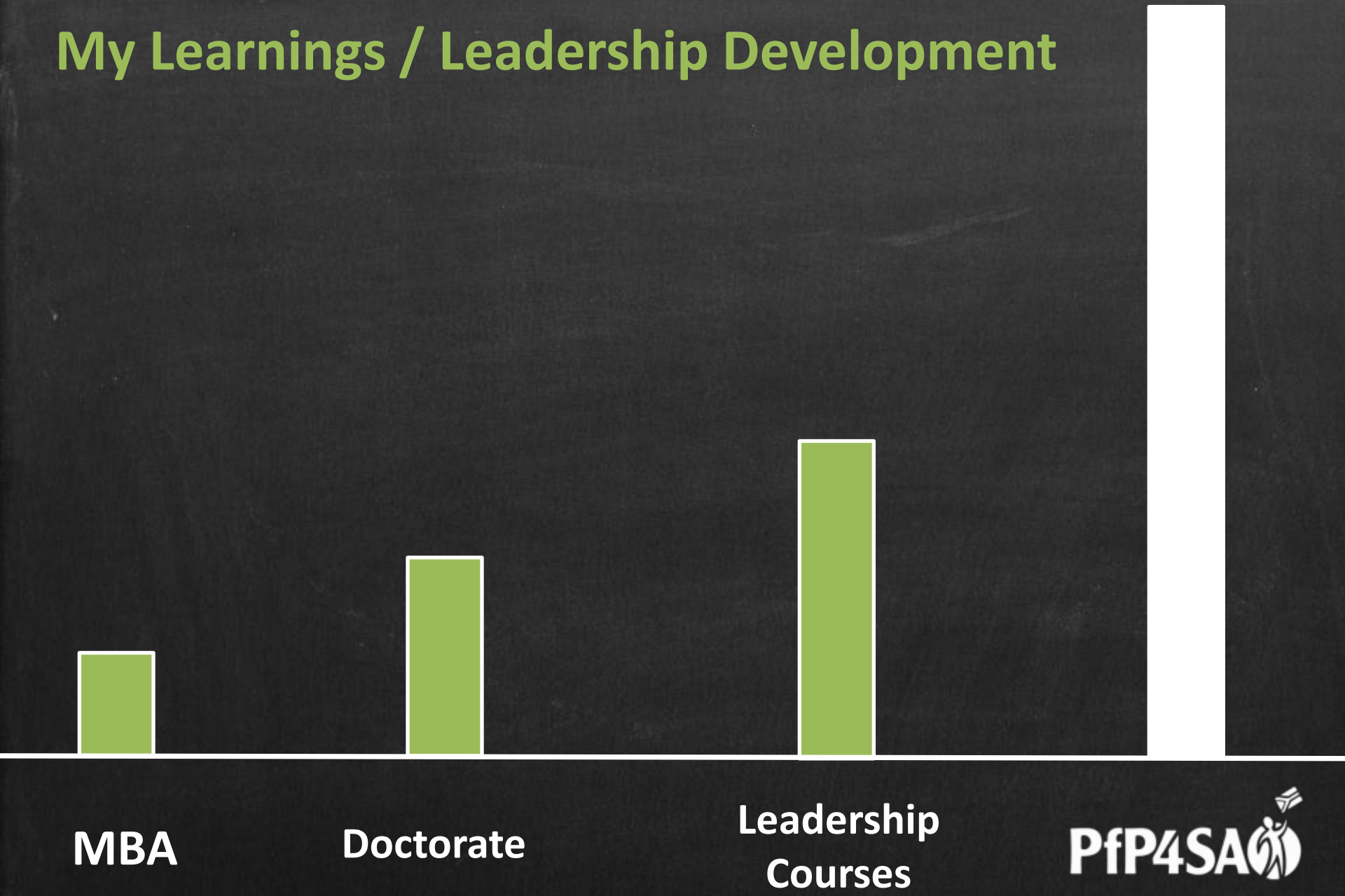
My Learnings / Leadership Development



World-class Leadership Development Programme

Field **I**mmersion **E**xperiences for **L**eadership **D**evelopment

(FIELD)

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If Education is a national priority!

We have to re-think how we do things

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What if… Business Leaders could learn about leadership… in our schools… While at the same time contributing to positive change?

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Leadership Development: Hierarchy of impact

7. Out of Comfort Zone
6. Reflection & sense-making
5. Learning Journey (process over time)
4. Learning Community
3. Coaching
2. Experiential processes (brain-friendly, embodied, emotions)
1. Content delivery (books, class room, etc)

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Partnerships for Possibility for South Africa

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A transformational leadership development process

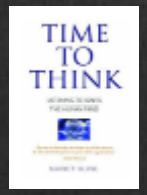
1 year

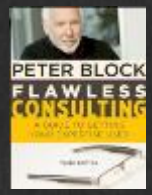
1. Community of Practice / Learning Community

8-10 partnerships
2.5 hr meeting every 6 weeks

16 hrs

2. Content





3. Experiential Learning (structured processes)

Time to Think	Language of Leadership	Flawless Consulting
1 day	2 days	2 days

40 hrs

4. Experiential Learning (grapple with challenges)

3-5 hr / month x 11 months

40 hrs

5. Coaching

10 x 1-hr coaching sessions (virtual / face-to-face)

10 hrs

6. Reflection & sense-making

7. Celebration / Feedback

Partners for Possibility - Today

84 School Principals, **84** Business Leaders

84 Teams of educators, ± **67,000** learners

Launched & busy working: Johannesburg, Cape Town, Durban, Stellenbosch
Soon: Bloemfontein, George, Knysna, Somerset West, Hermanus, East London

By 2017: **2,000** business leaders (10% of SA schools)

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5 Leadership lessons from working with Ridwan Samodien @ Kannemeyer Primary School

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1. The delivery vehicle of my expertise…

… is my humanity

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2. What it means to be helpful

"Replace help with curiosity"

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3. What it means to collaborate across boundaries

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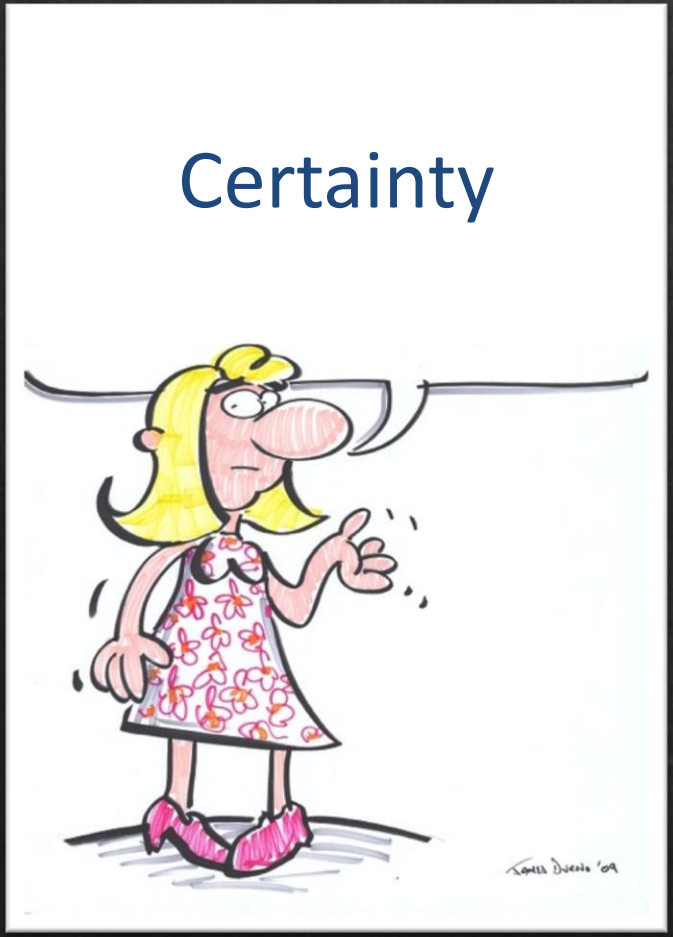
4. A new definition of leadership



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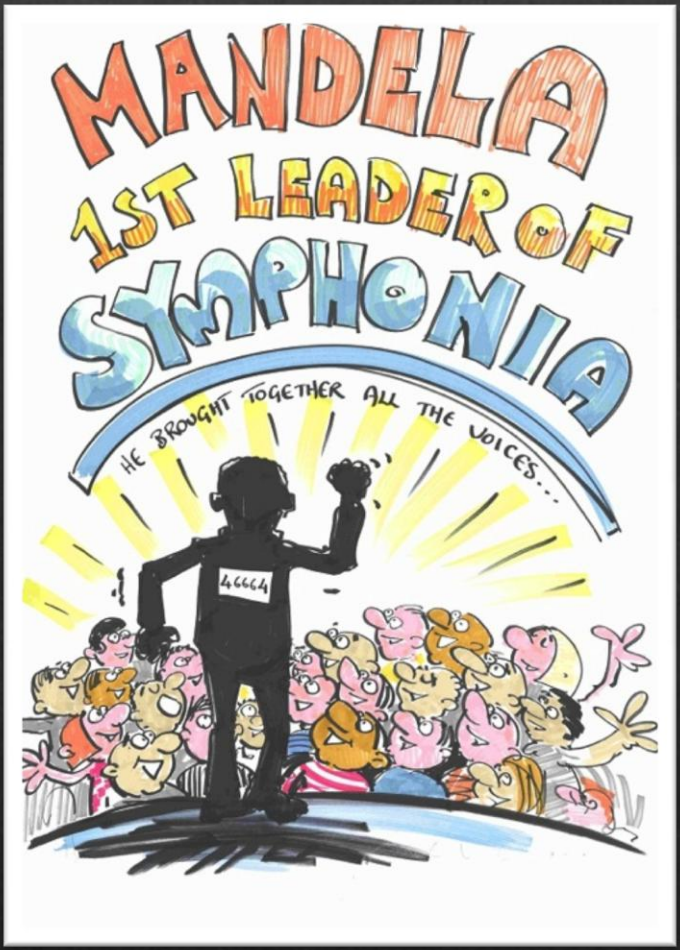

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5. Who I am… is enough

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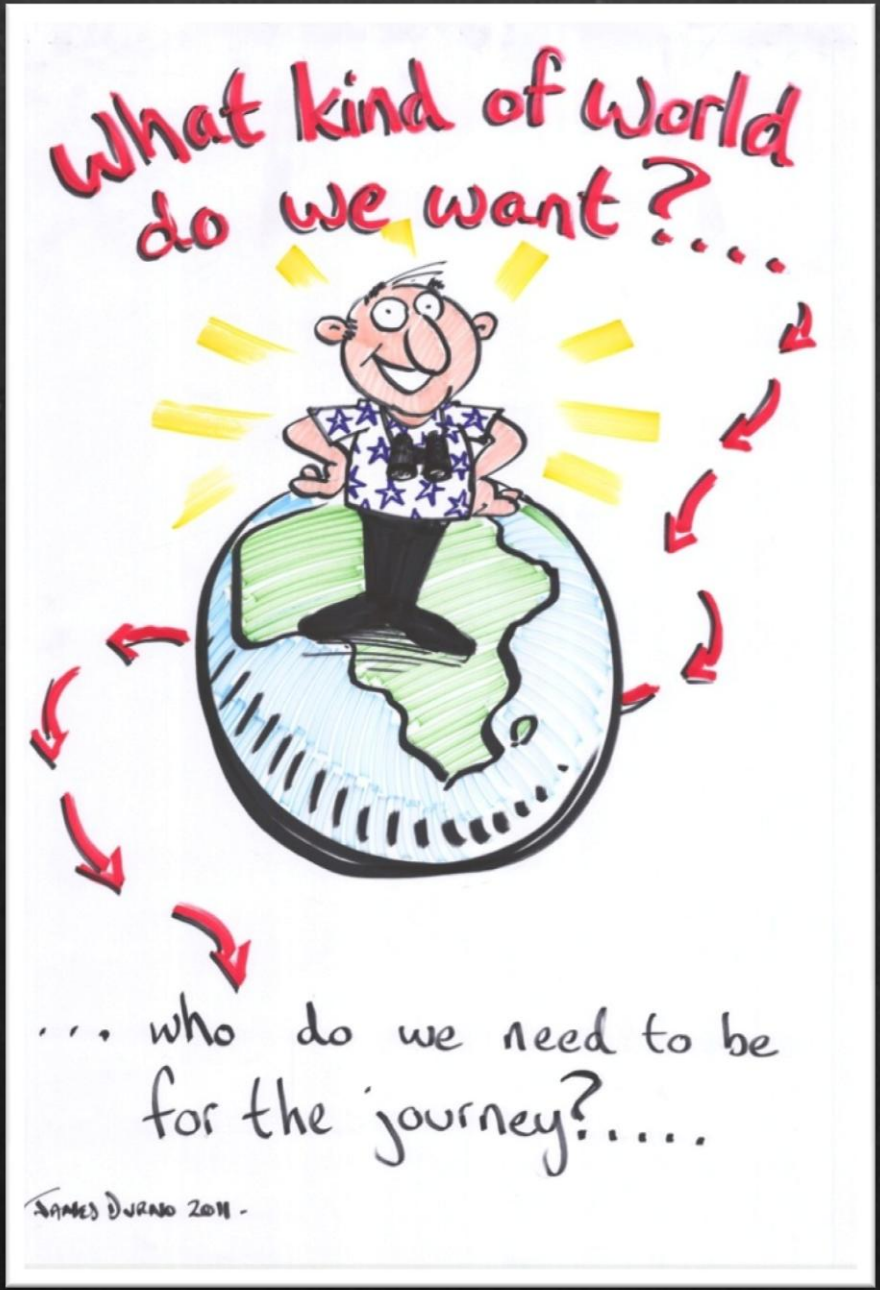

Are you ready to be a Partner to a Principal?

Life-Changing Purpose-filled Contribution

PfP4SA

We have a dream

Quality Education for all children in South Africa by 2022

www.QE4SA.org

PfP4SA