Tshwane University of Technology

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International Futures Conference

SA Node of the Millennium Project & Institute for Futures Research

8th November 2007, Faculty of Theology, University of Stellenbosch

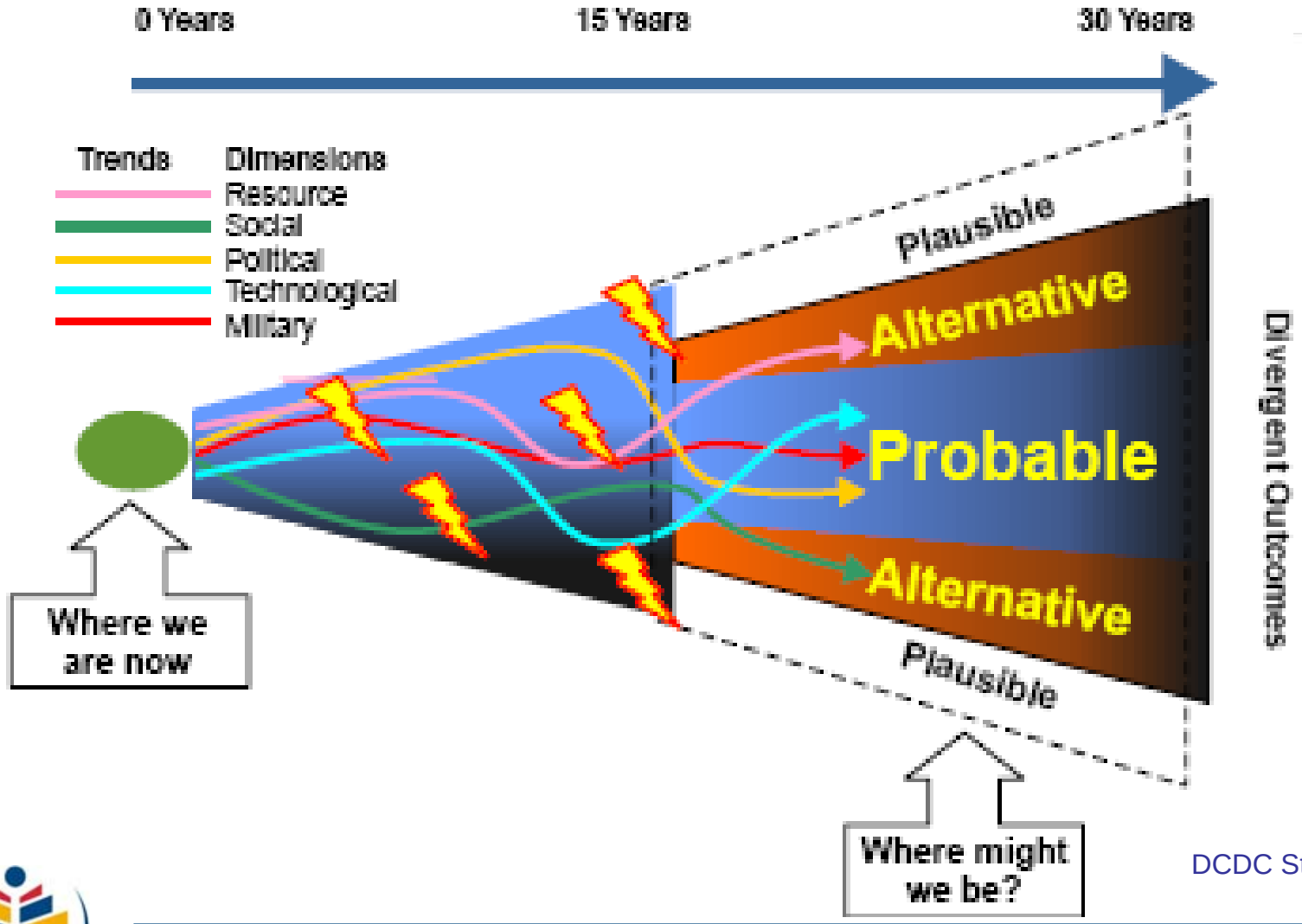
Outline

- Introduction
- Summary Responses, *albeit tentative*, to:
  - Where are we heading?
  - What has been achieved so far?
  - "So what" for the rest of the world?
  - What role has FIC played?
  - What are the key drivers going forward?
  - What are the key uncertainties going forward?
- References

Acknowledgments

- BRICS Innovation Systems Study
- CSIR Scenario & Foresight Exercises
- Esalen Centre for Research & Theory Global Potentials Programme
- Global Business Network
- Intelligence Estimates – Situational Analyses
- OECD World Forum on “Measuring and Fostering the Progress of Societies”
- SA National Research & Technology Foresight
- SA Technology Radars & Roadmaps

Introduction



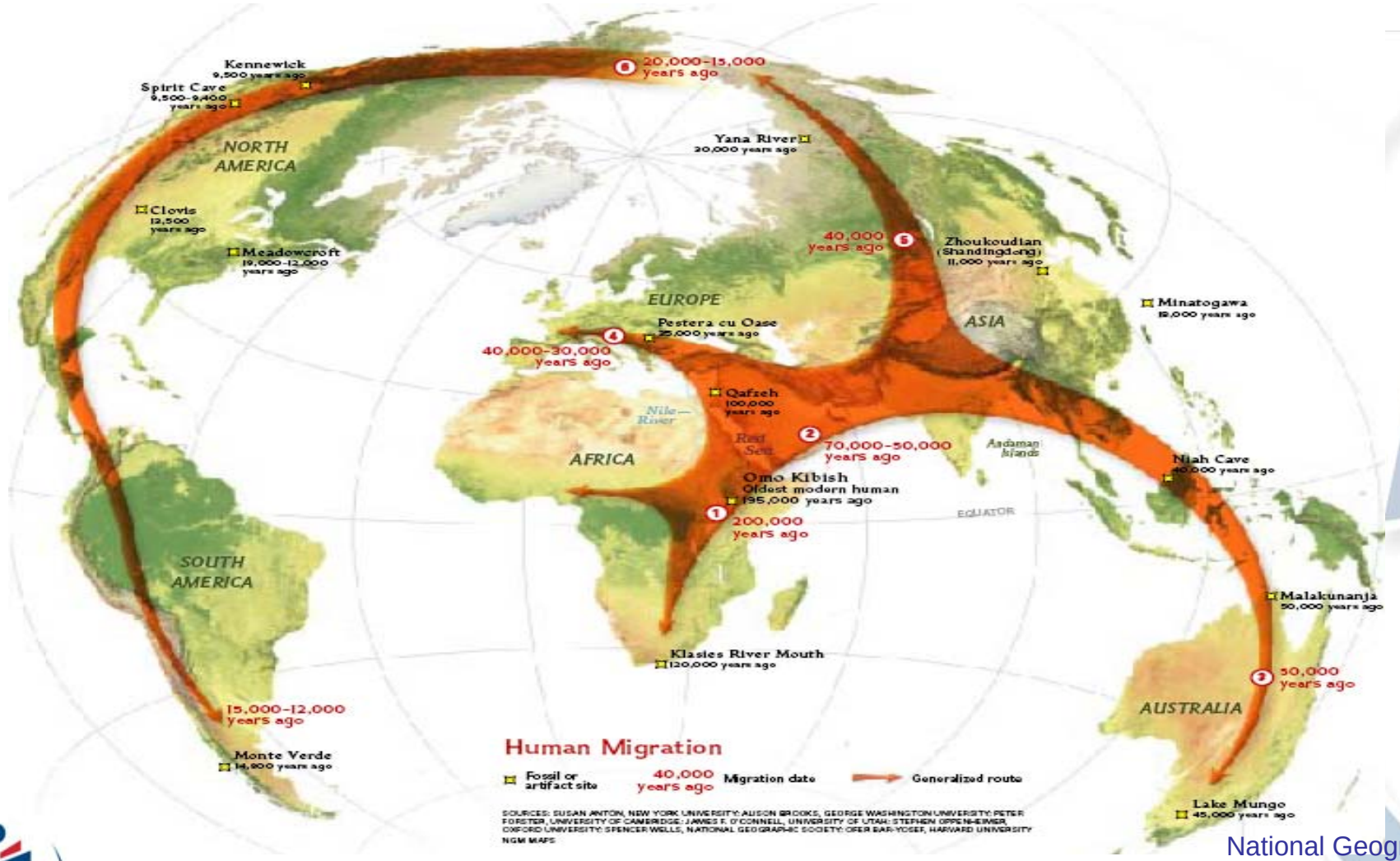
DCDC Strategic Trends (2006)

Where are we heading? Maybe, 2025

- **Low Trust Globalisation:** 'a legalistic, "prove it to me" world: The absence of market solutions to the crisis of security and trust, rapid regulatory change, overlapping jurisdictions and conflicting laws lead to intrusive checks and controls, encouraging short-term portfolio optimization and vertical integration. Institutional discontinuities limit cross-border economic integration. Complying with fast-evolving rules and managing complex risks are key challenges.'
- **Open Doors:** 'a pragmatic, "know me" world: "Built-in" security and compliance certification, regulatory harmonization, mutual recognition, independent media, voluntary best-practice codes, and close links between investors and civil society encourage cross-border integration and virtual value chains. Networking skills and superior reputation management are essential.'
- **Flags:** 'a dogmatic "follow me" world: Zero-sum games, dogmatic approaches, regulatory fragmentation, and national preferences, conflicts over values and religion give insiders an advantage and put a brake on globalisation. Gated communities, patronage and national standards exacerbate fragmentation, and call for careful country-risk management.'

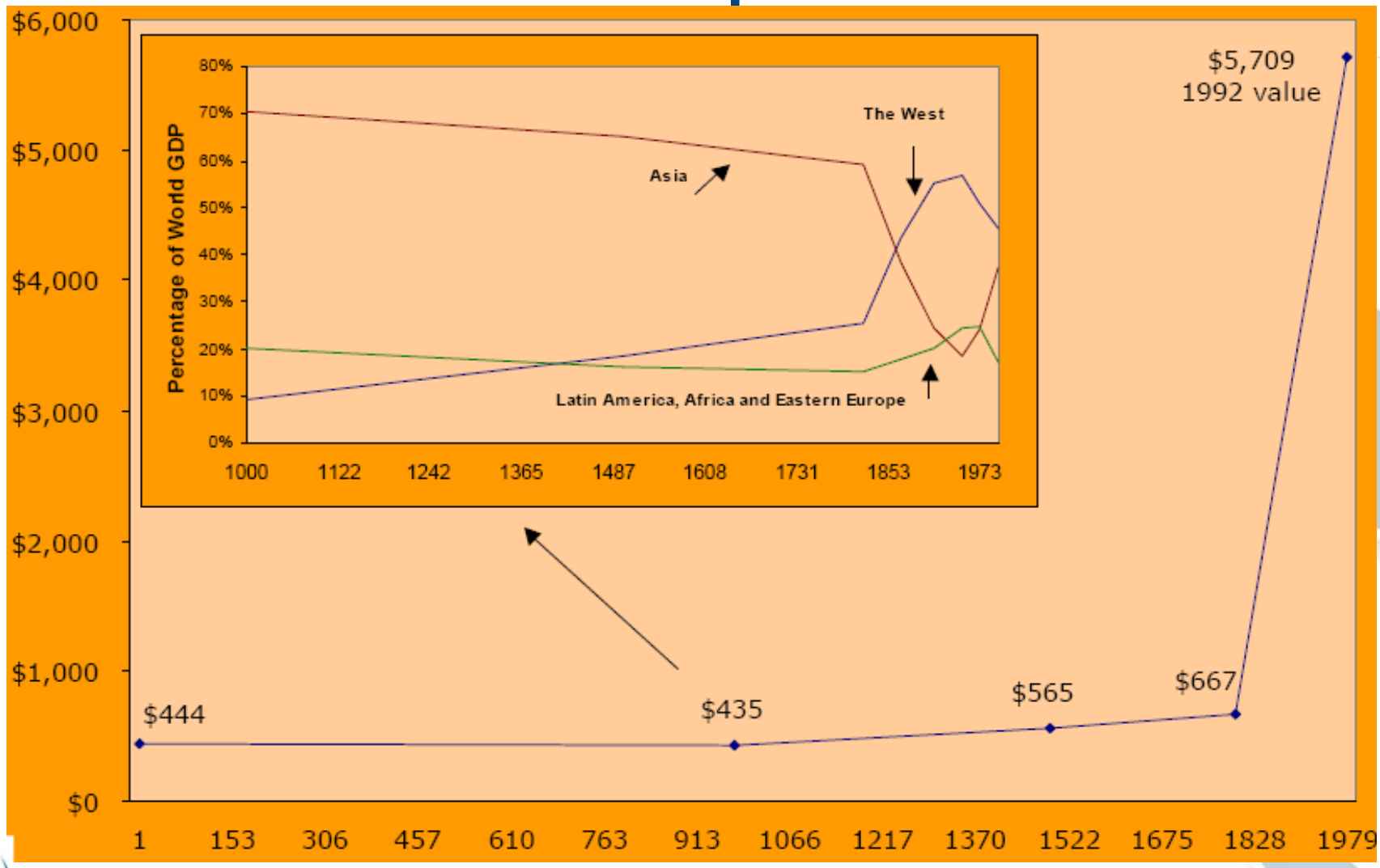
» Shell (2005)

What has been achieved so far?



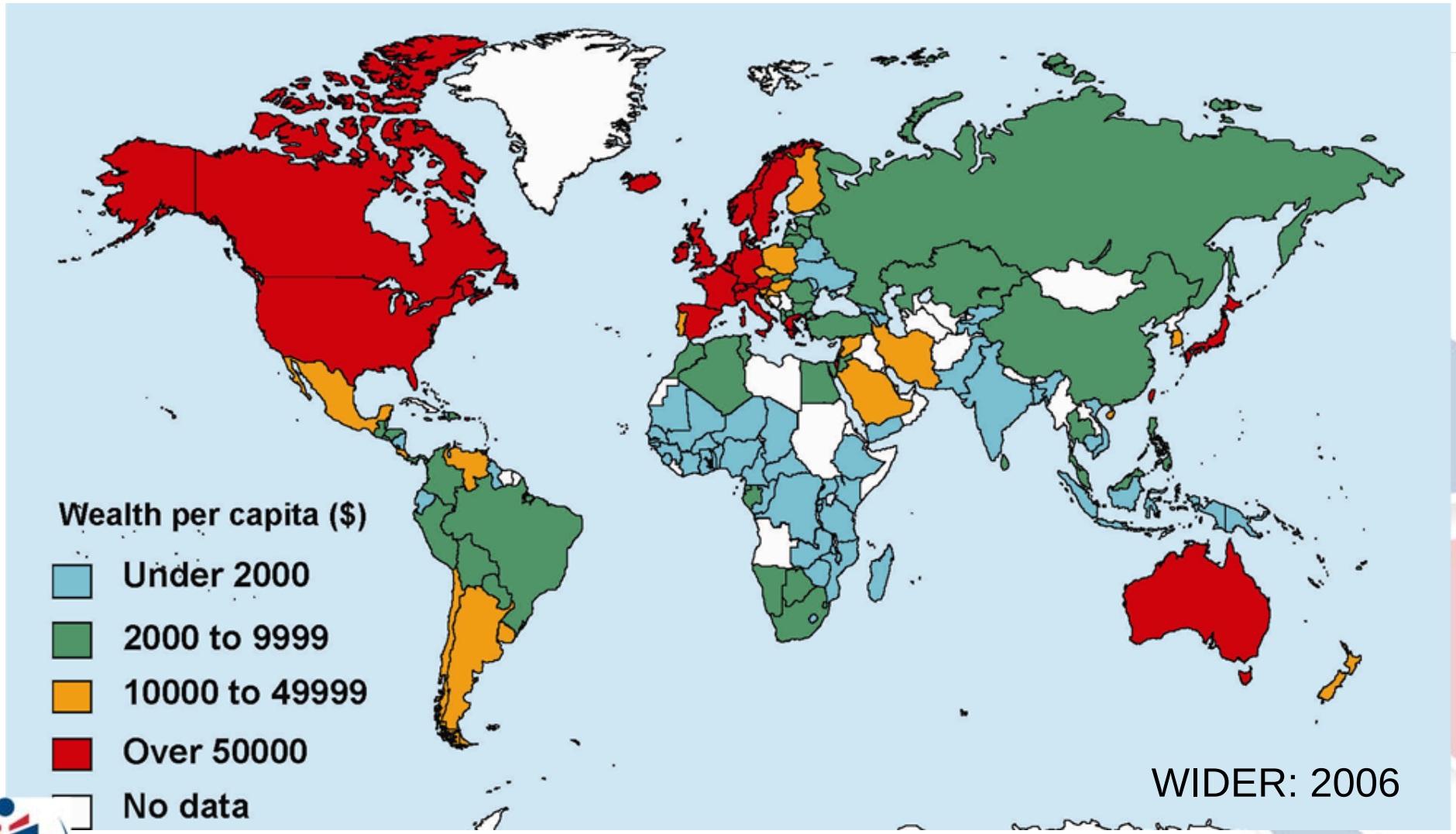
National Geographic (2006)

World GDP/Capita

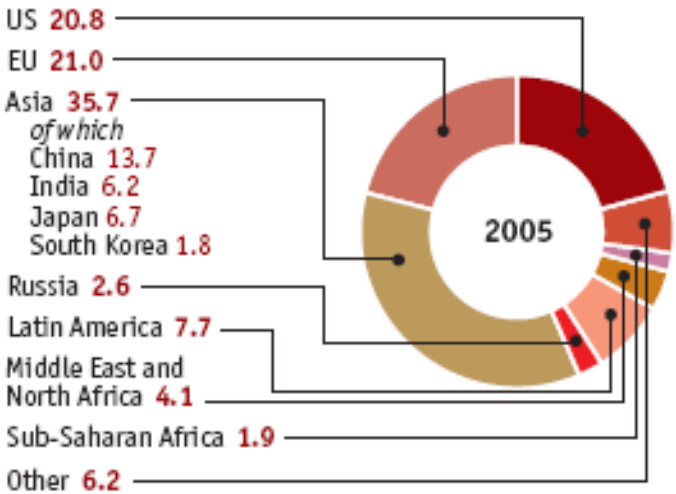


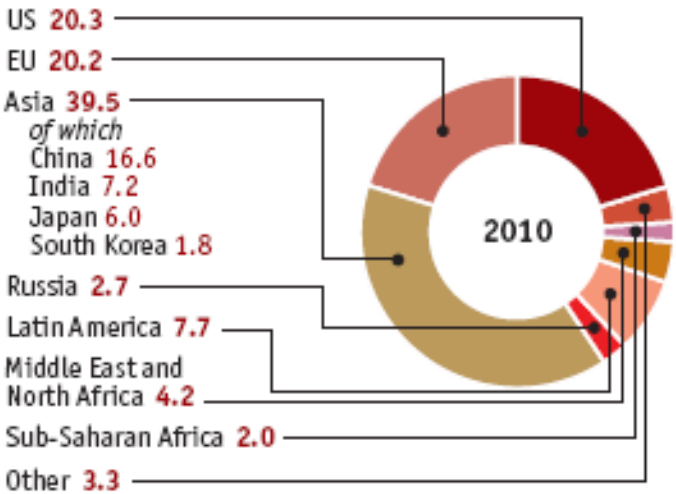
Samuel Bowles, Richard Edwards and Frank Roosevelt (2004)

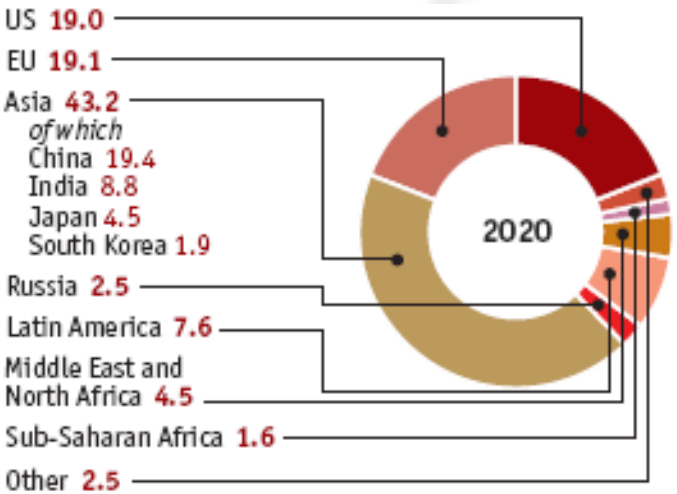
Wealth Levels in 2000



% Share in world GDP at PPP







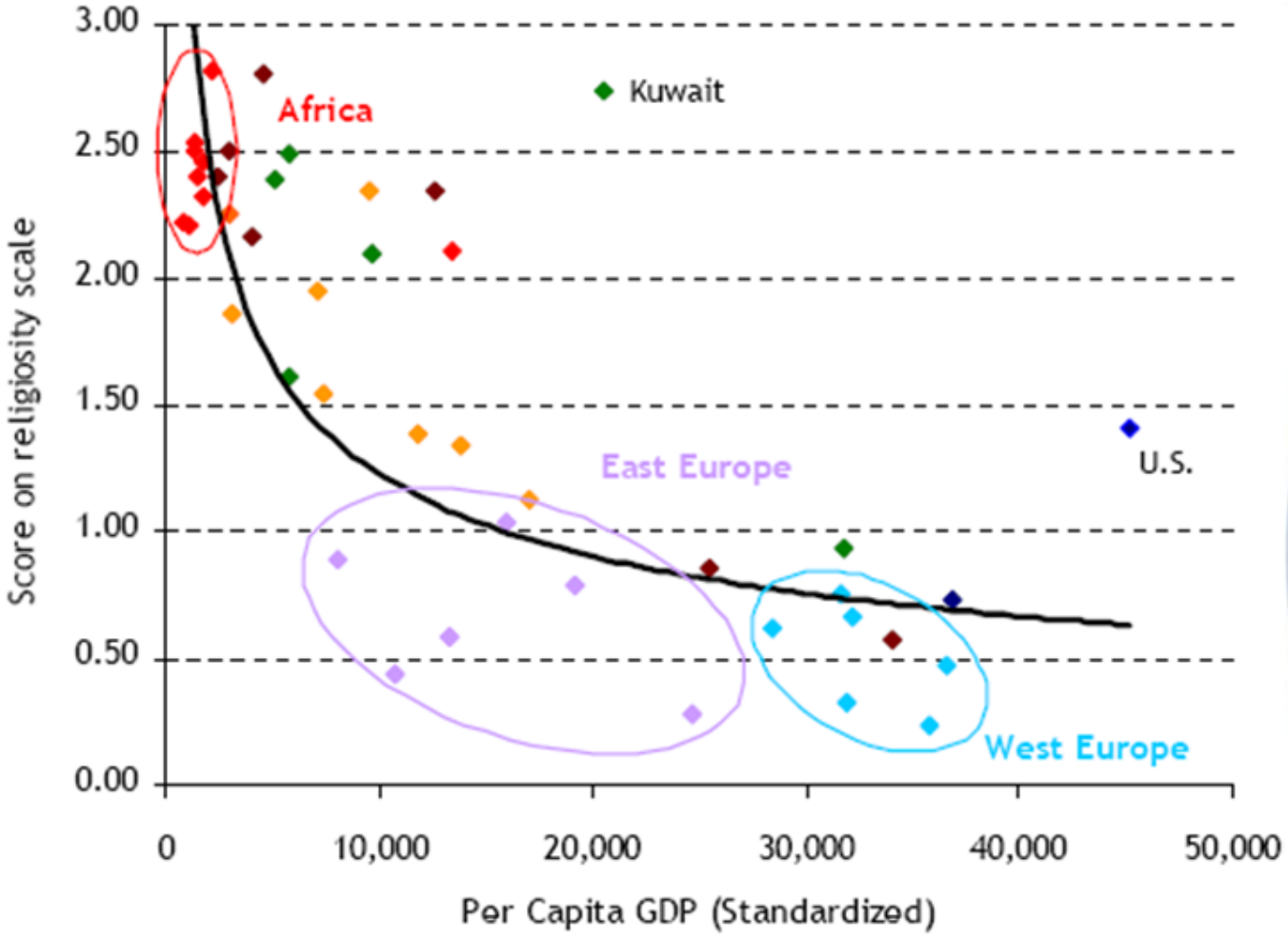
•Economist Intelligence Unit (2006)

Global Distribution of GDP in 2040

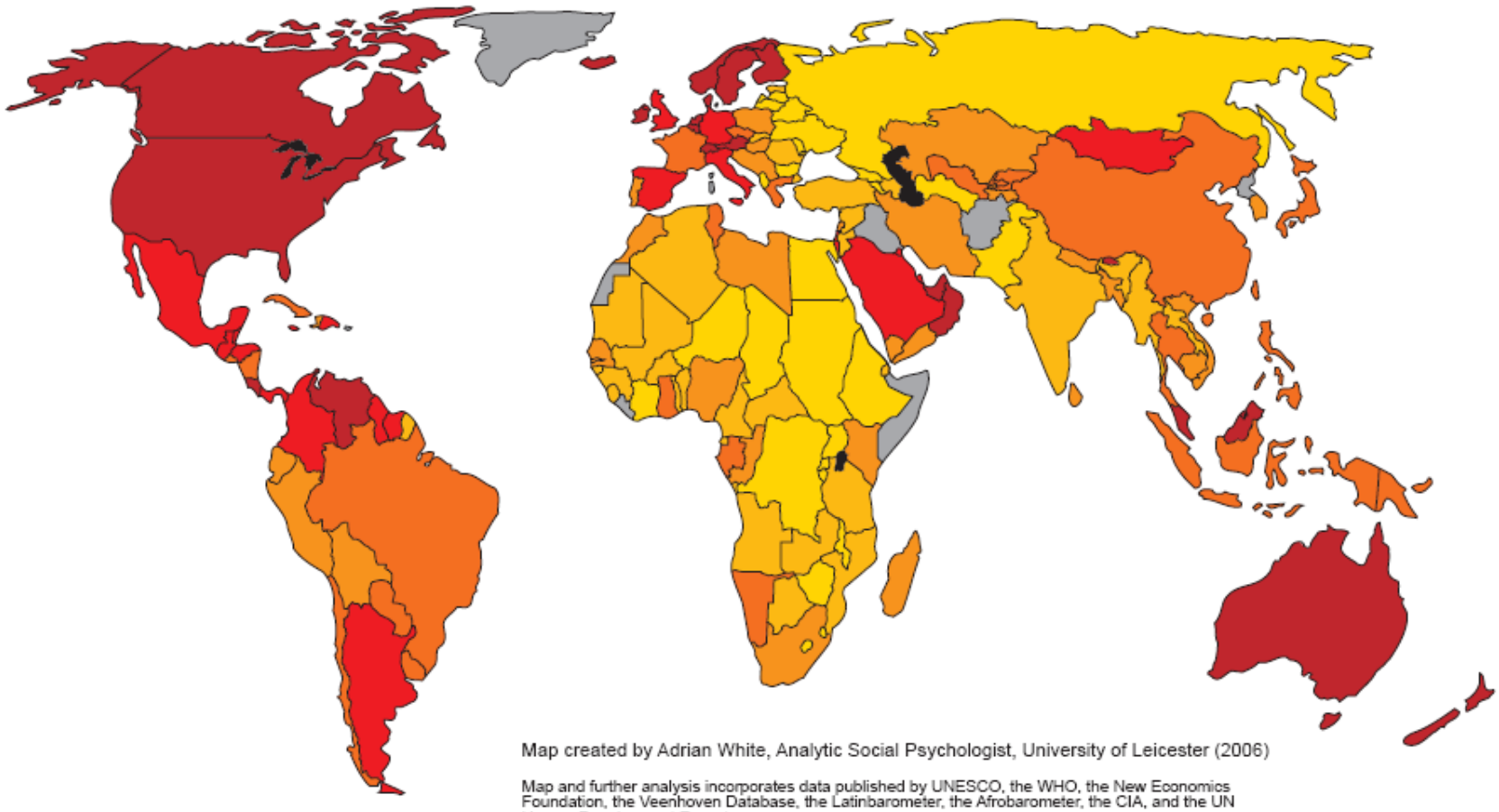
Fogel (2007)

Grouping	Population (in millions)	Percent of total	GDP in billions of $ (PPP)	Percent of total
United States	392	5	41,944	14
European Union (EU 15)	376	4	15,040	5
India	1,522	17	36,528	12
China	1,455	17	123,675	40
Japan	108	1	5,292	2
6 South East Asian Countries (SE6)	516	6	35,604	12
Subtotals	4,369	50	258,083	85
Rest of the World	4,332	50	49,774	16
World	8,701	100	307,857	101*

Pew Global Attitudes 2007



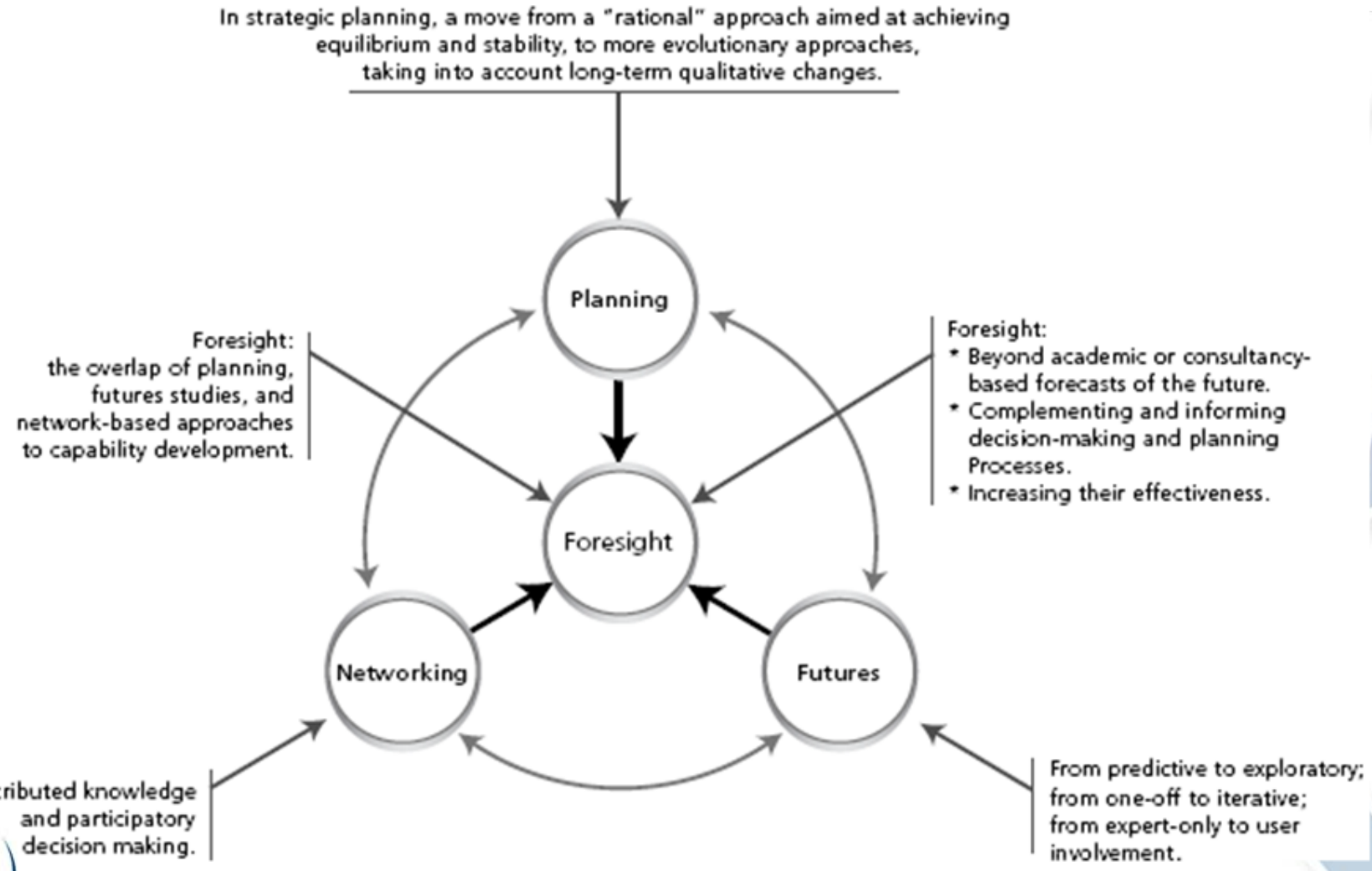
Subjective Well-being



Map created by Adrian White, Analytic Social Psychologist, University of Leicester (2006)

Map and further analysis incorporates data published by UNESCO, the WHO, the New Economics Foundation, the Veenhoven Database, the Latinbarometer, the Afrobarometer, the CIA, and the UN Human Development Report.

Futures Intelligence Utility?



Miles & Keenen (2002)

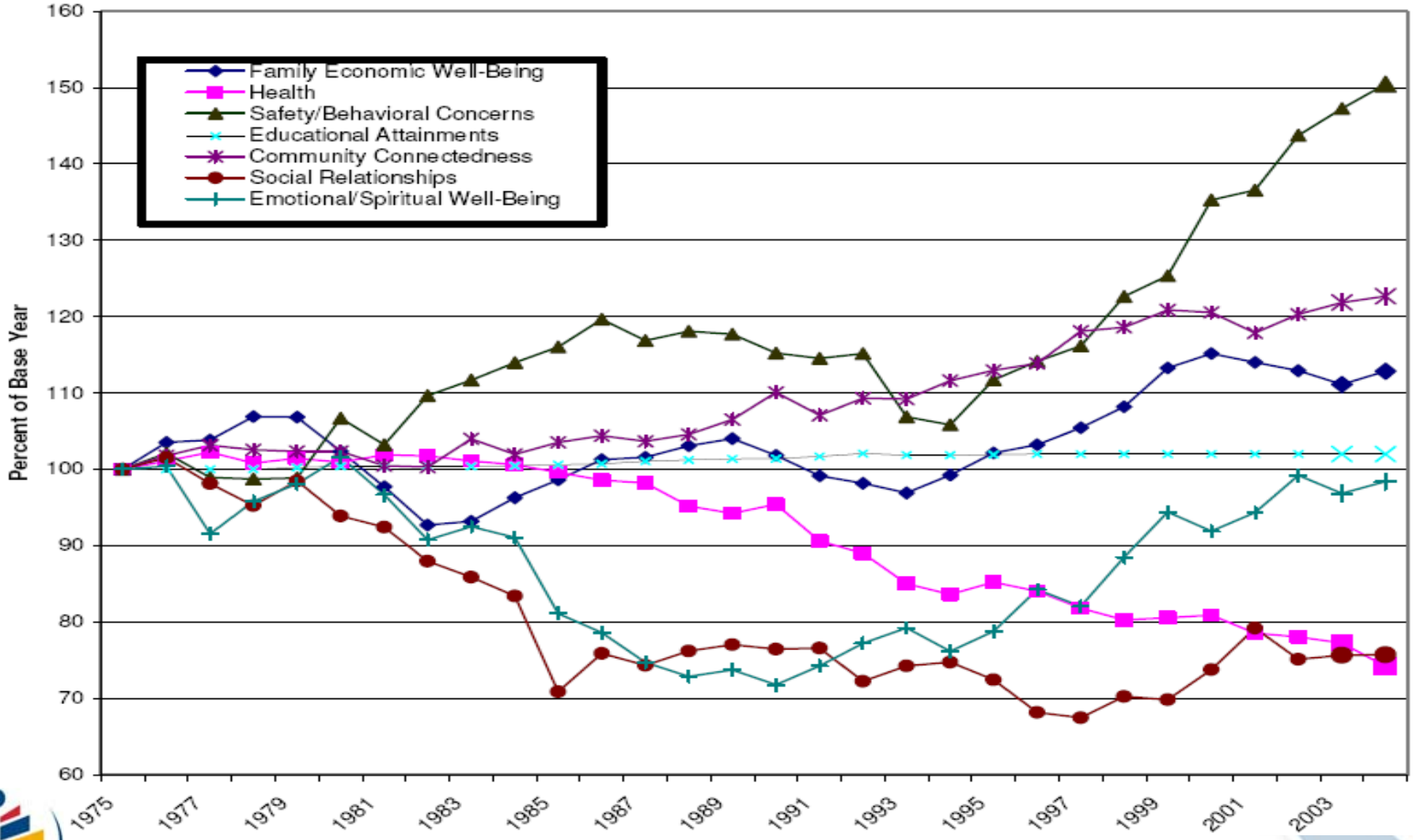
Determinants of Adaptive Capacity

- Range of available technological options for adaptation
- Availability of resources and their distribution across the population
- Structure of critical institutions, the derivative allocation of decision-making authority, and the decision criteria that would be employed
- Stock of human capital including education and personal security
- Stock of social capital including the definition of property rights
- System's access to risk spreading processes
- Ability of decision-makers to manage information, the processes by which these decision-makers determine which information is credible, and the credibility of the decision-makers, themselves
- Public's perceived attribution of the source of stress and the significance of exposure to its local manifestations

» Yohe and Tol (2002)

Domain-Specific Indices of Child and Youth Well-Being

Foundation for Child Development Index of Child Well-Being Project at Duke University (2005)



US View of Global Drivers

- Demographics
- Natural resources and environment
- Science and technology
- The global economy and globalisation
- National and international governance
- Future conflict
- The role of the United States

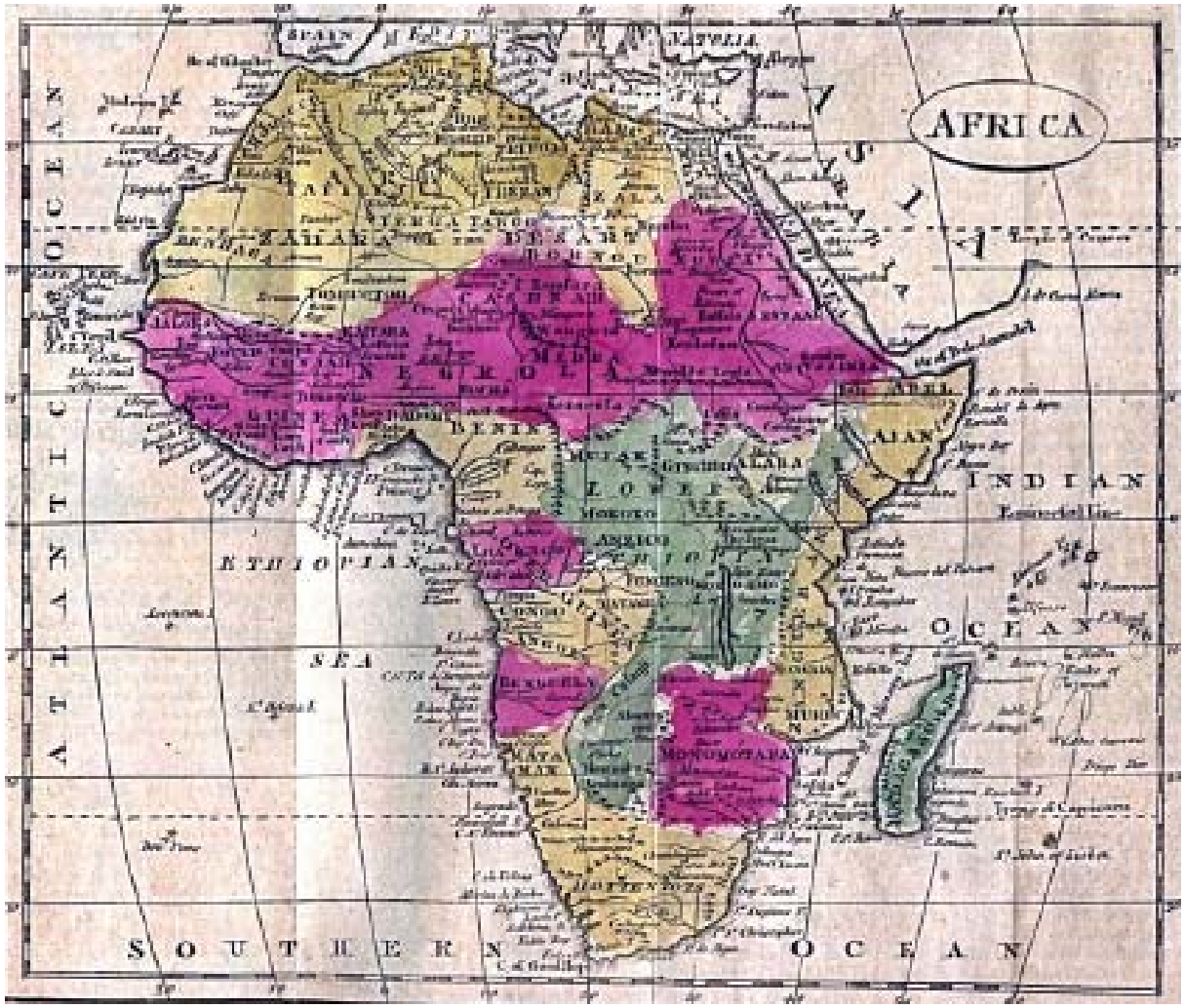
» NIC (2000)

Key Drivers

- FREEDOM
  - Society – Individual
  - Interdependence – Autonomy
- Constraints
  - Environment
  - Knowledge

Critical Uncertainties ???

Africa 1808


AFRICA
ATLANTIC OCEAN
INDIAN OCEAN
SOUTHERN OCEAN
ETHIOPIAN SEA
NEGROLAND
ABYSSINIA

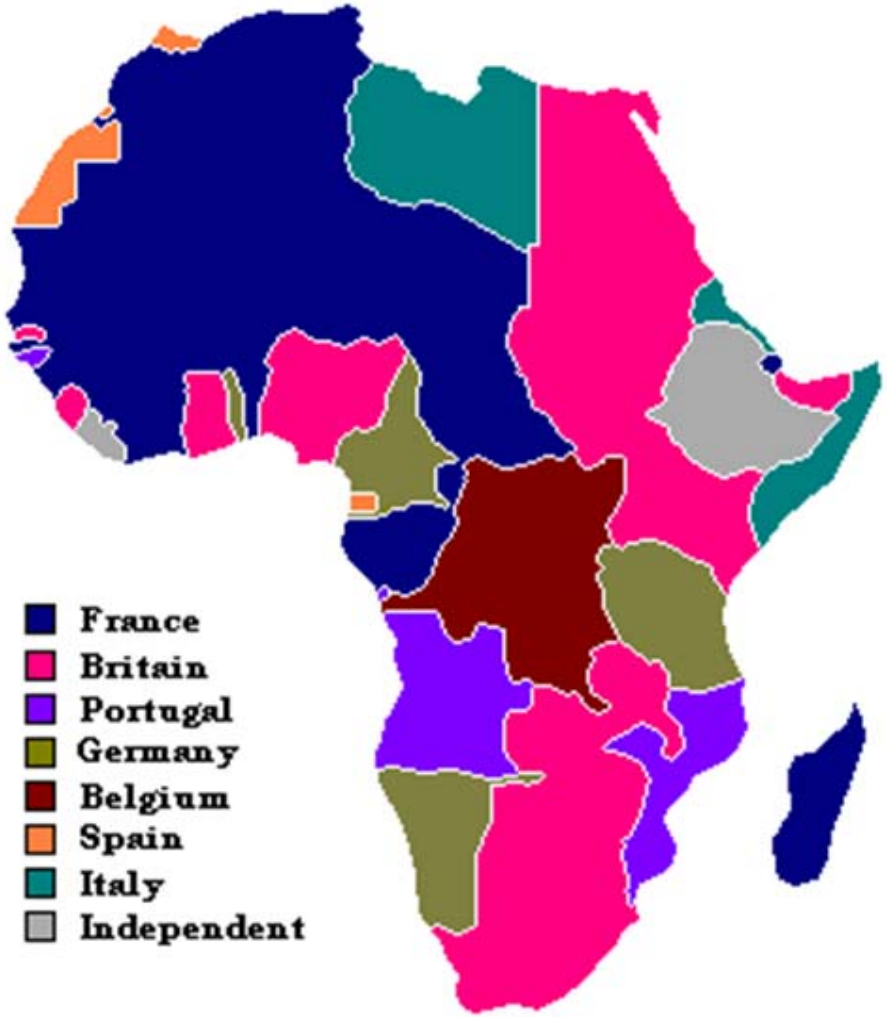
Africa 1885

Africa in 1890

Africa 1922


MOROCCO
ALGERIA
LIBYA
EGYPT
ARABIA
BELGIAN CONGO
ANGOLA
SOUTH
ATLANTIC
OCEAN
INDIAN
OCEAN

Africa Colonial Roots

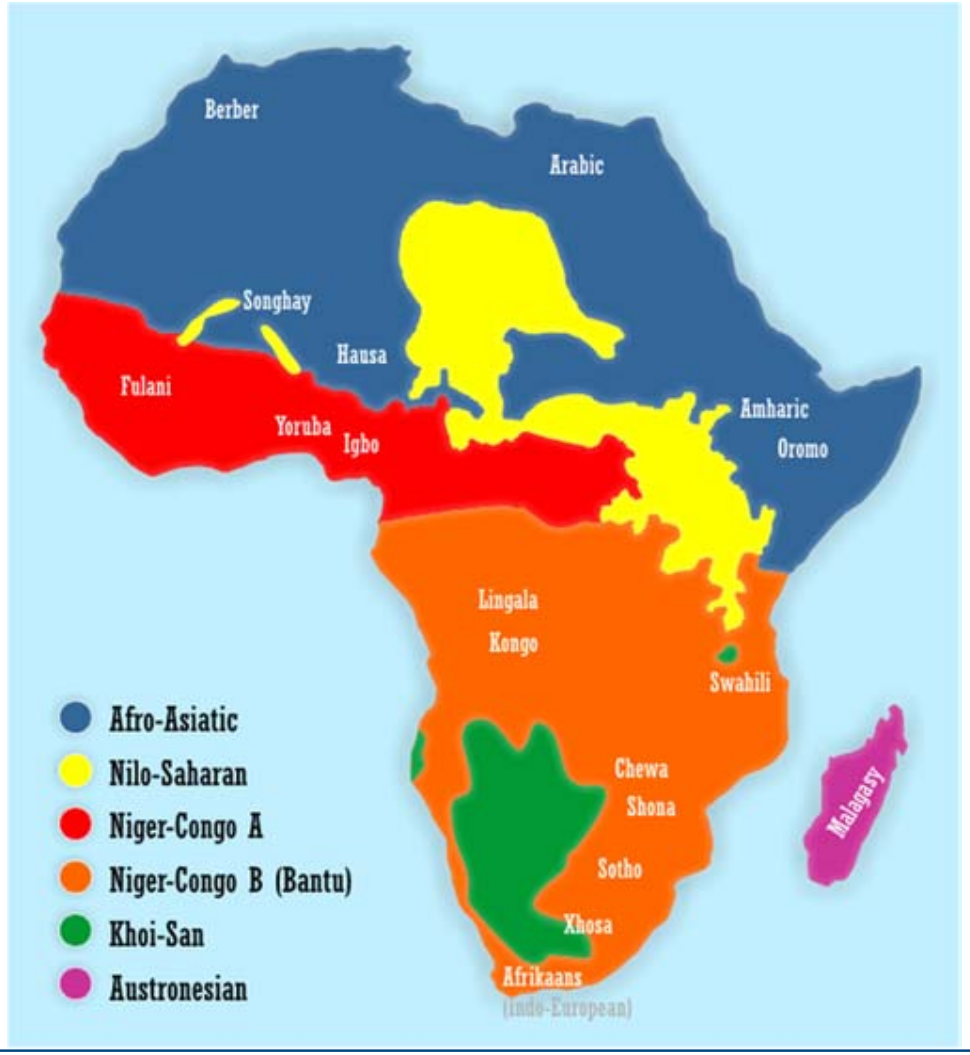


Africa Political = 53 Countries

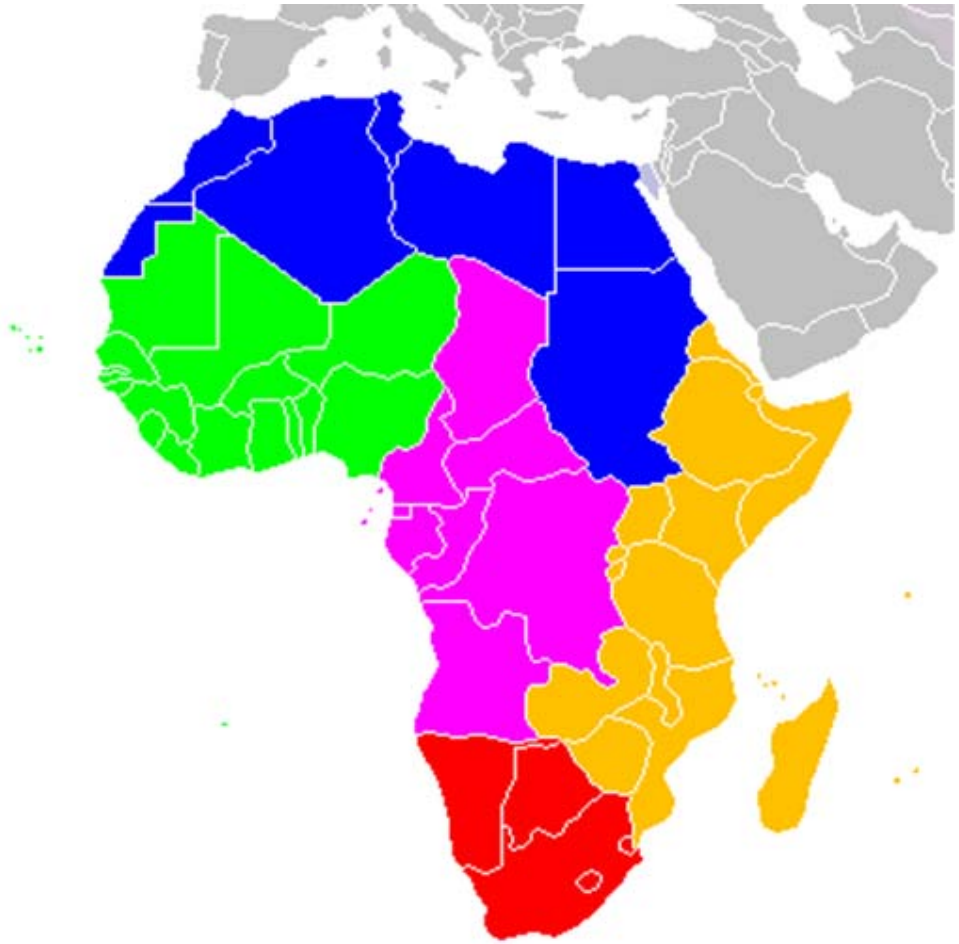
African Population	
2006	924 million
2025	1.35 billion
2050	2 billion

African Union (2006)

Africa Linguistic Division



Africa Economic Regions

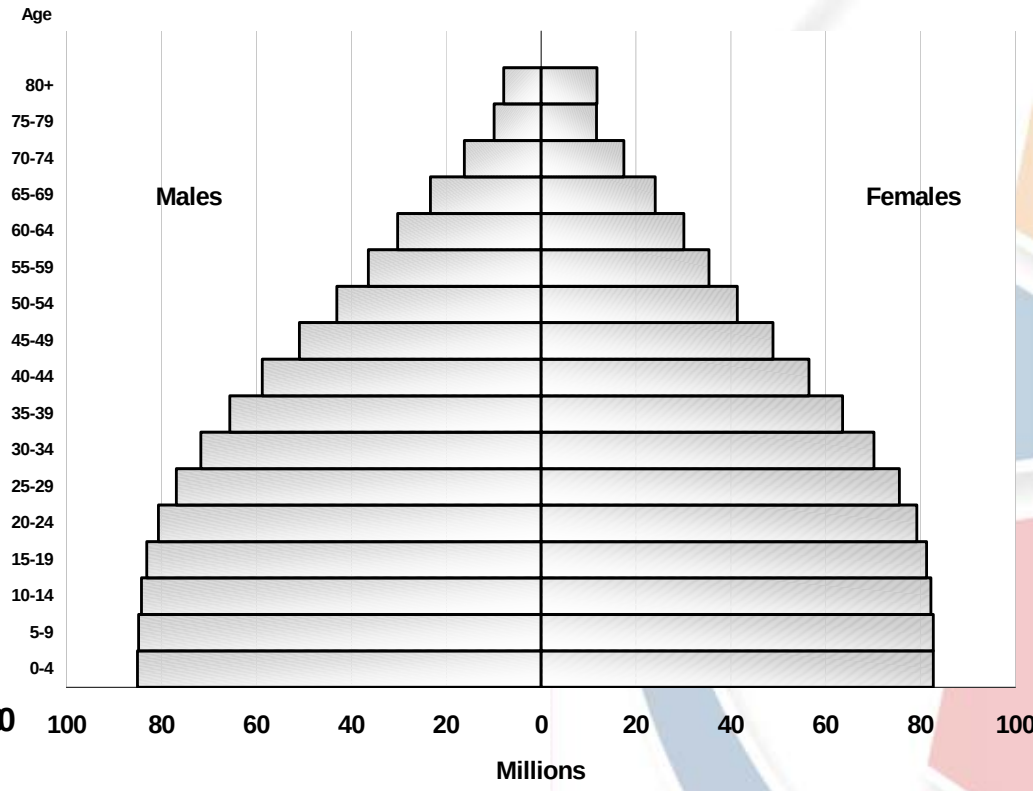


Average per Capita GDP Growth: (1996 – 2005)

Little or no growth countries 20% of Africa population		Slow growing countries 16% of population		Sustained growing countries 36% of population		Oil countries 29% of population	
Swaziland	2.8	Namibia	4.0	Mozambique	8.4	Equatorial Guinea	20.9
Kenya	2.8	Zambia	3.6	Rwanda	7.5	Angola	7.9
Lesotho	2.7	Guinea	3.6	Cape Verde	6.5	Chad	7.8
Eritrea	2.2	Niger	3.5	Uganda	6.1	Sudan	6.4
Comoros	2.0	Togo	3.3	Mali	5.7	Nigeria	4.0
Seychelles	2.0	Madagascar	3.3	Botswana	5.7	Congo, Rep.	3.5
Cote d'Ivoire	1.5	Malawi	3.2	Ethiopia	5.5	Gabon	1.7
Burundi	1.2	South Africa	3.1	Tanzania	5.4		
Sierra Leone	1.1	Sao Tome and Principe	3.1	Mauritius	4.9		
Central African Republic	0.9			Mauritania	4.9		
Guinea-Bissau	0.6			Benin	4.8		
Congo, Dem. Rep.	0.0			Ghana	4.7		
Zimbabwe	-2.4			Senegal	4.6		
				Burkina Faso	4.6		
				Gambia, The	4.5		
				Cameroon	4.5		
Simple average	**1.3**		**3.4**		**5.5**		**7.4**
Median	**1.5**		**3.3**		**5.1**		**6.4**

Data Source: World Bank WDI database

African Population by Age and Gender: 2005 & 2050



African Union: 2006

OECD Measuring Progress

- **Strengthen democracy**, through reduction of the information divide between politicians and citizens, we will enhance the democratic debate about the ultimate goals of our societies
- **Change culture**, through a continuous assessment of societal progress not simply based on the economic point of view, but with the right emphasis on social, cultural and environmental dimensions
- **Improve citizen's knowledge**, giving them the opportunity to improve their decision making processes and to become more aware of the risks and challenges of today's world
- **Improve citizen's numeracy**, strengthening people's capacity to understand the reality in which they live through the use of new technologies to better disseminate information about key societal phenomena
- **Improve national policy making**, through a better measurement of economic, social and environmental outcomes and shared data to advocate necessary reforms and evaluate their impact on societal welfare
- **Improve international policy making**, through the development of a world progress monitoring system, valid for developed, emerging and developing countries, based on democratic consensus and able to link international and national policies
- **Foster a global and open conversation about the state of the world**, through the use of advanced technologies and solid statistical data, to increase awareness of global challenges among citizens and identify new ideas to address them
- Improve statistical capacity in each and every country, stimulating a higher demand for sound statistics on the different aspects of societal progress
- Develop new statistics in unconventional domains, through an international coordinated effort to meet peoples demand to measure progress encompassing economic, social and environmental domains, as well as emerging phenomena

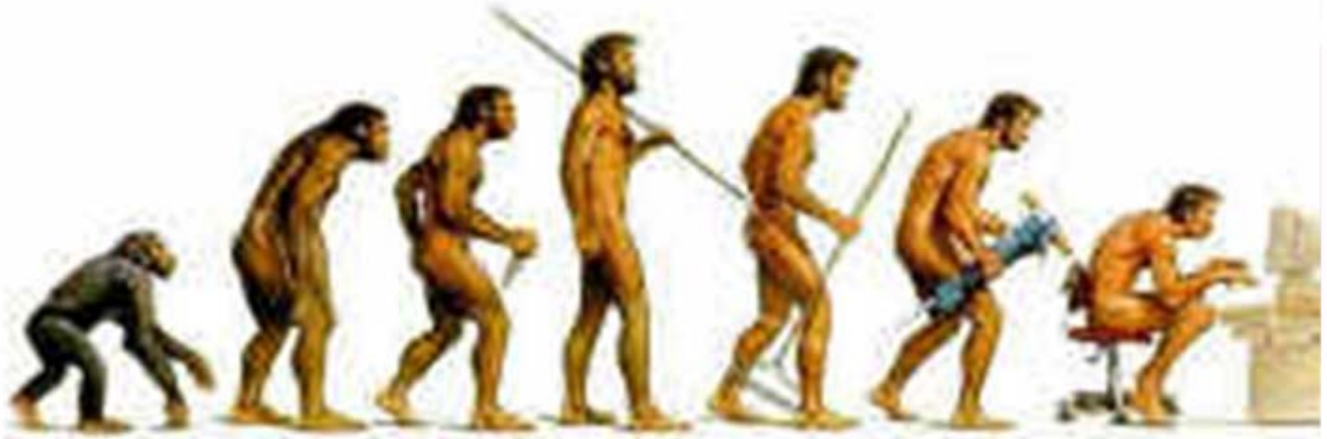
» Giovannini (2007)

Provisional Conclusions

- Local is Critical, Regional is Essential
- Our Children, Our Future
  - Intergenerational Transactional Frameworks
- Metrics of the Matrix
  - Defining parameters
  - Shaping rationality

Reminder

Mobilise and Organise to take back the future!



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Thank You

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