

ECON 184

# I. Patterns Economic Development in Africa

# 1 Trivia

1. Name this President



# Answers

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## 2 Background

## 2.1 Political division

# African countries



TABLE 2.3 Regional Classification of African Countries

East	Central	North	Southern	West
Burundi	Angola	Algeria	Botswana	Benin
Comoros	Cameroon	Egypt	Lesotho	Burkina Faso
Djibouti	Central African Republic	Libyan Arab Jamahiriya	Namibia	Cape Verde
Eritrea	Chad	Morocco	South Africa	Cote d' Ivoire
Ethiopia	Congo	Sudan	Swaziland	Gambia
Kenya	Equatorial Guinea	Tunisia	Zimbabwe	Ghana
Madagascar	Gabon	Western Sahara		Guinea
Malawi	São Tomé and Príncipe			Guinea-Bissau
Mauritius	Democratic Republic of Congo (Zaire)			Liberia
Mozambique				Mali
Reunion				Mauritania
Rwanda				Niger
Seychelles				Nigeria
Somalia				St. Elena
Uganda				Senegal
United Republic of Tanzania				Sierra Leone
Zambia				Togo

## 2.2 Colonial legacy

## Africa in 1912

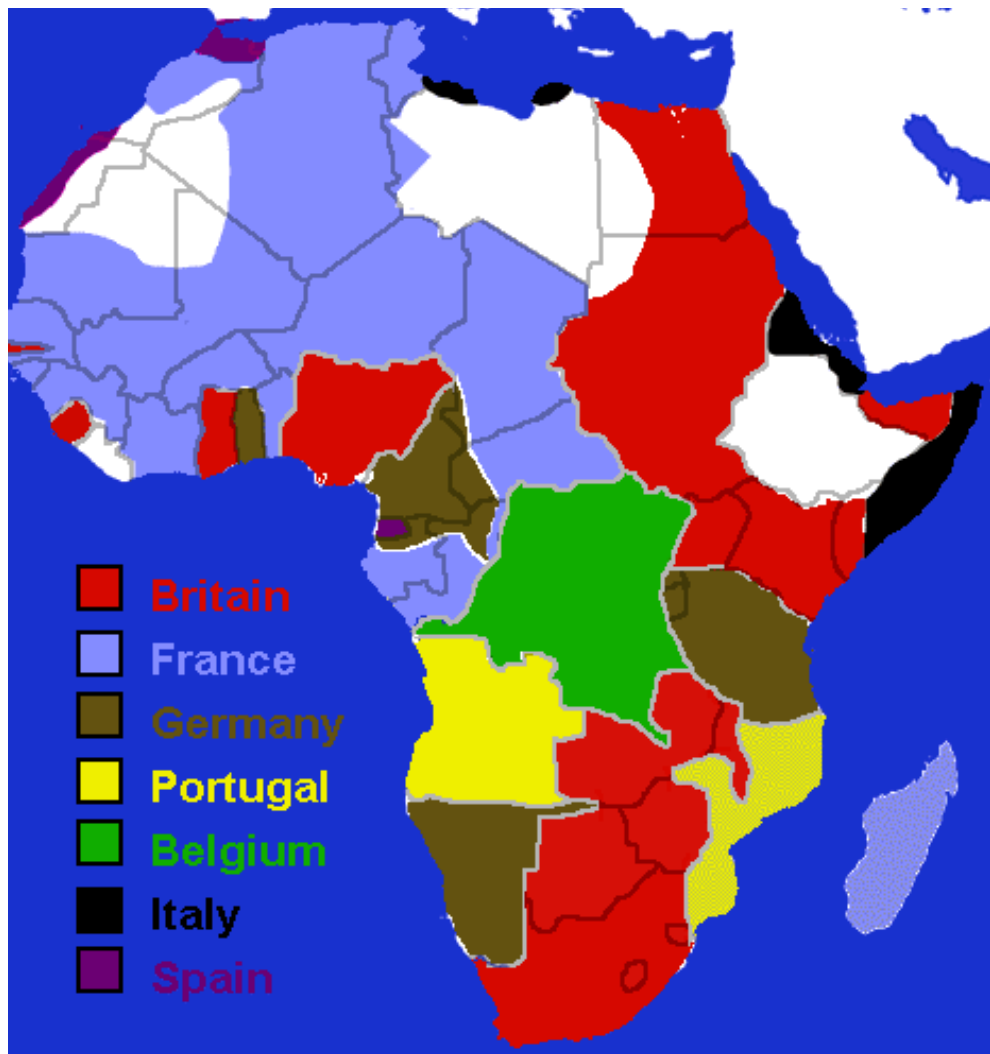
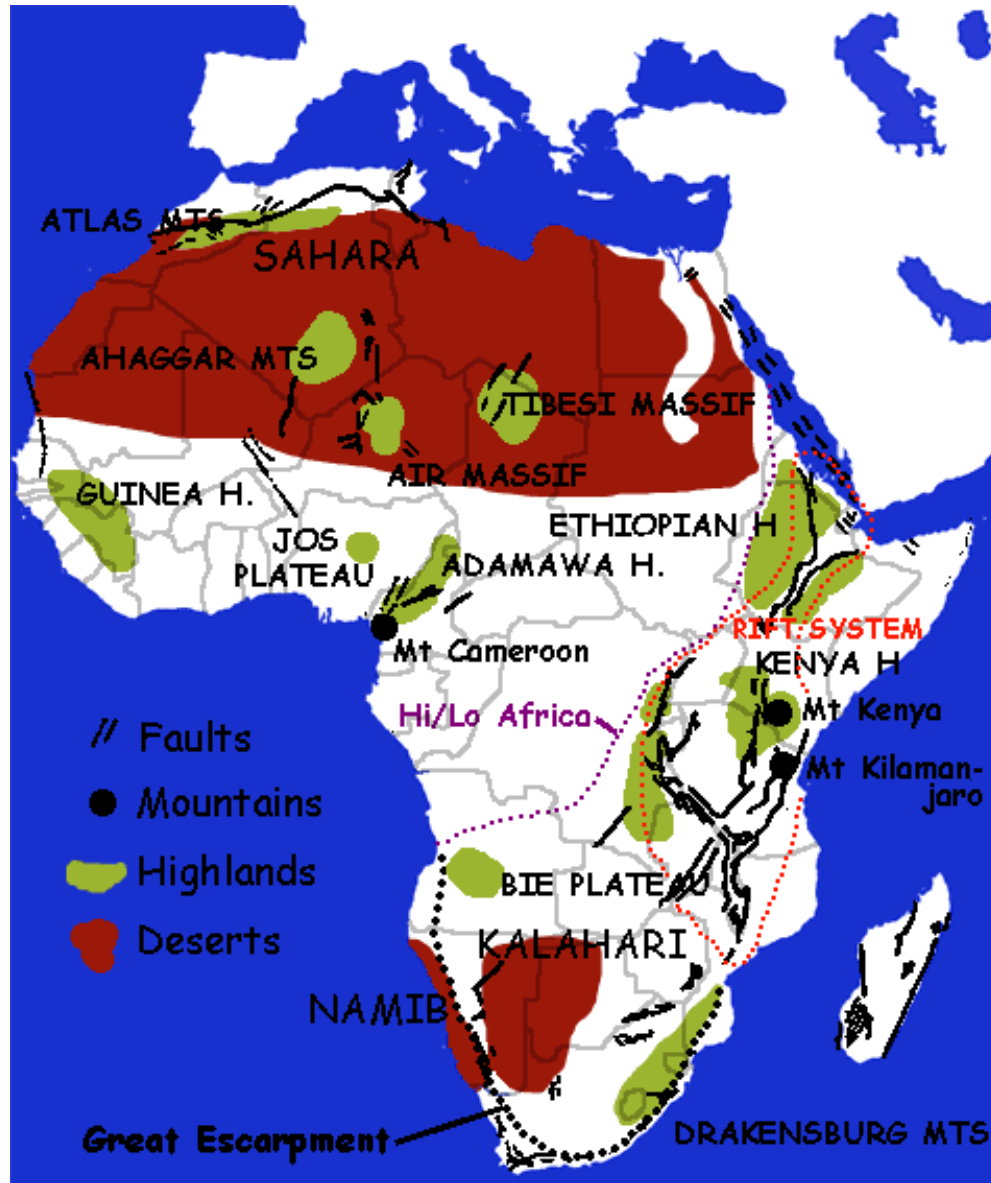


TABLE 2.6 Classification Based on Colonial Experience

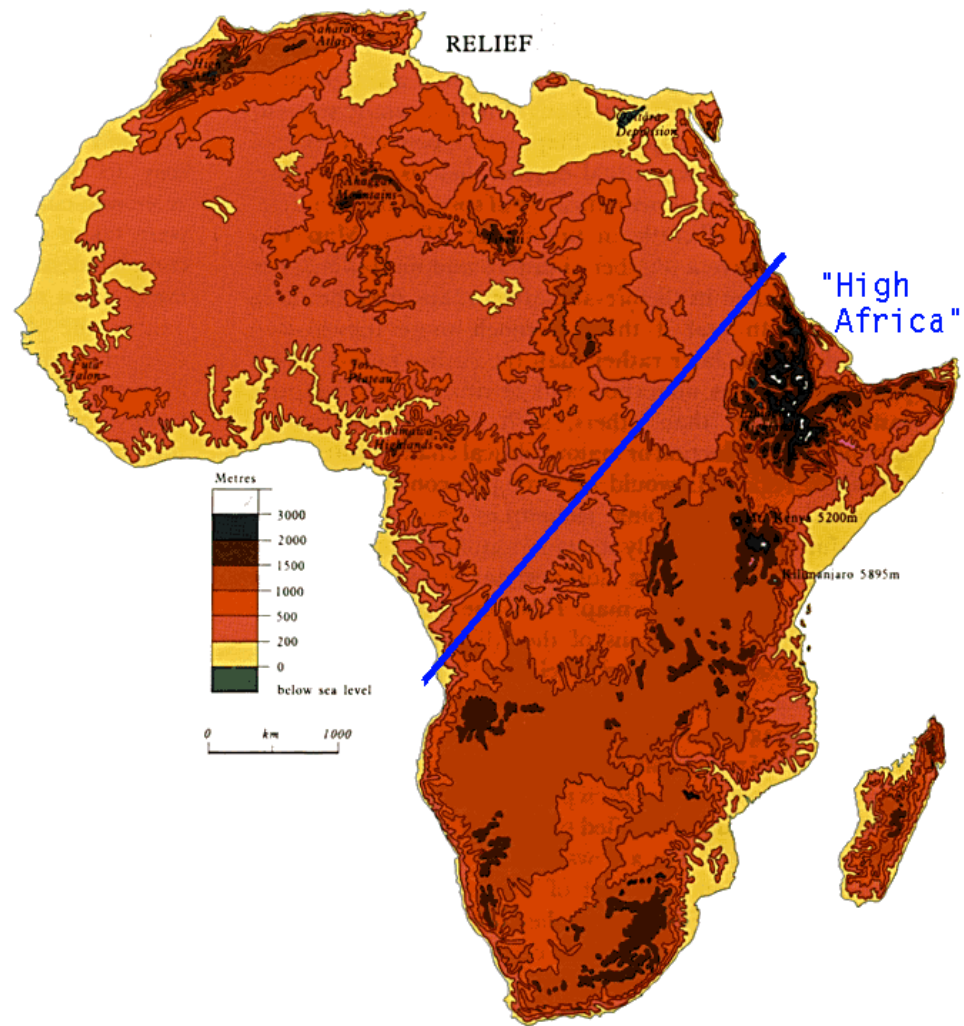
Francophone (23)	Anglophone (20)	Lusophone (5)
Algeria	Botswana	Angola
Benin	Egypt	Cape Verde
Burkina Faso	The Gambia	Mozambique
Burundi	Ghana	São Tomé and Príncipe
Cameroon	Kenya	Guinea Bissau
Central African Republic	Lesotho	
Chad	Liberia	Hispanophone (2)
Comoros	Malawi	Equatorial Guinea
Congo Republic	Mauritius	Western Sahara
Congo, Democratic Republic of Zaire	Namibia	
Cote d'Ivoire	Nigeria	Italophone (2)
Djiouti	Seychelles	Eritrea
Gabon	Sierra Leone	Somalia
Guinea	South Africa	
Madagascar	Sudan	Afrophone (1)
Mali	Swaziland	Ethiopia
Mauritania	Tanzania	
Morocco	Uganda	Anglo/Franco (1)
Niger	Zambia	Libya
Reunion	Zimbabwe	
Rwanda		
Senegal		
Togo		
Tunisia		

## 2.3 Geography

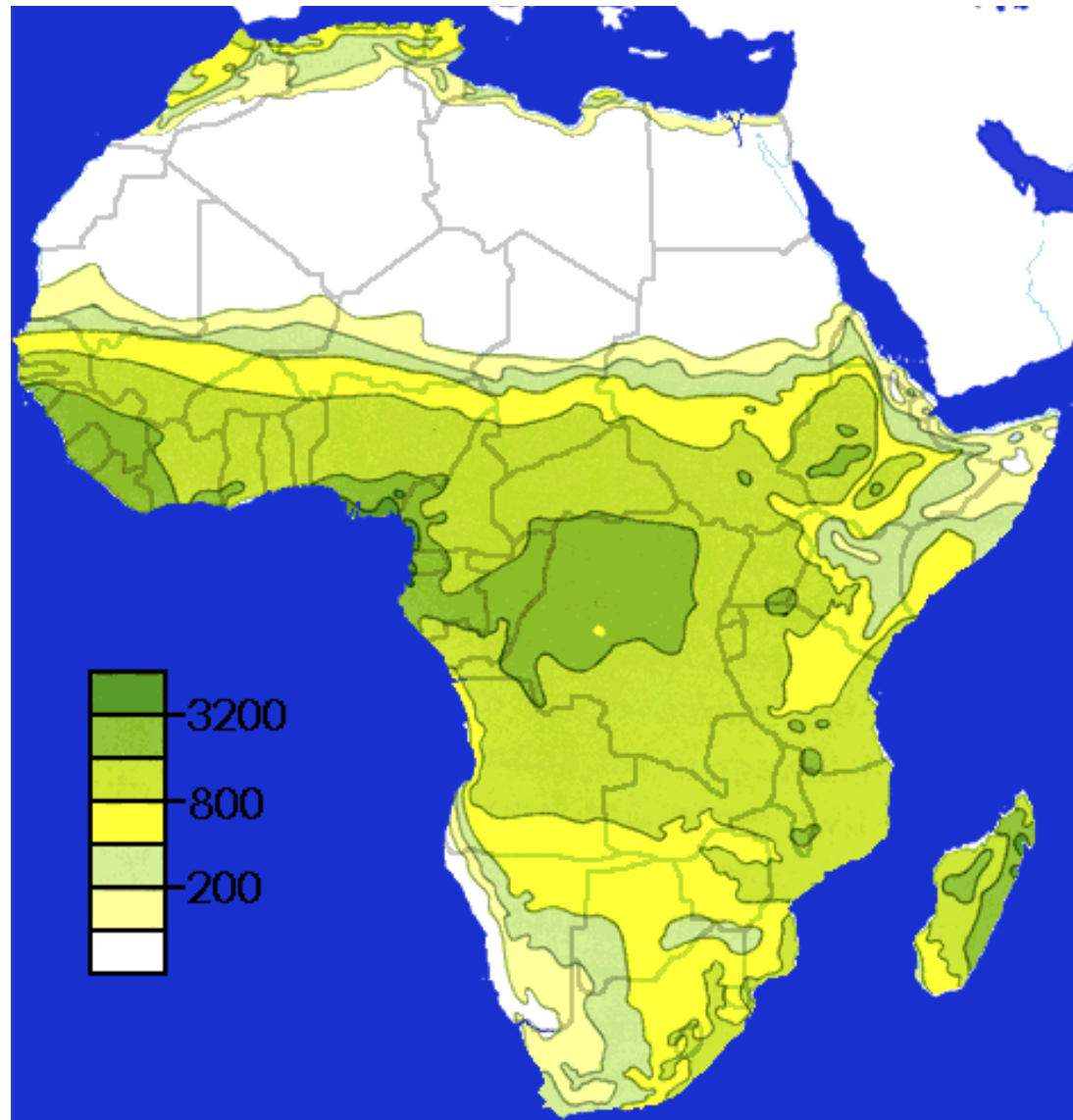
# Deserts, Mountains and plateaus



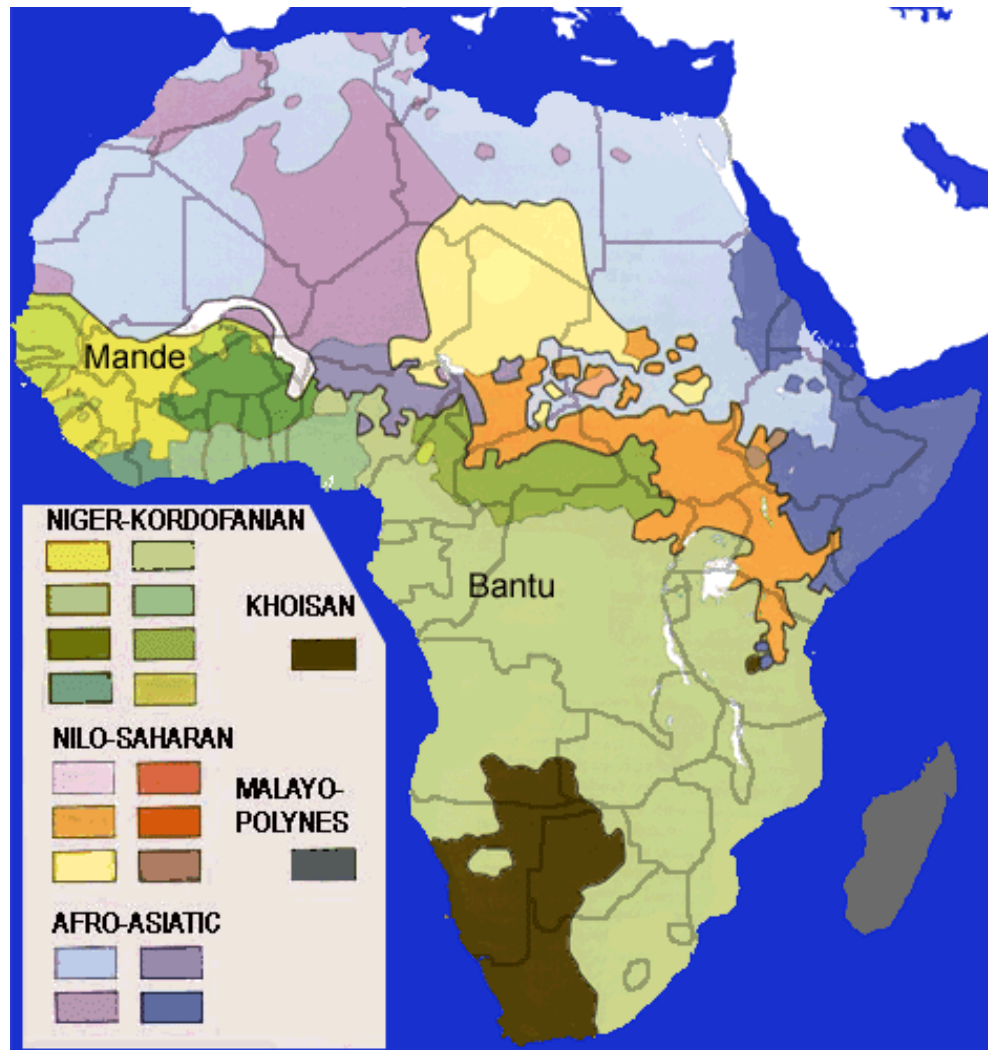
# Deserts, Mountains and plateaus (cont.)



# Precipitation



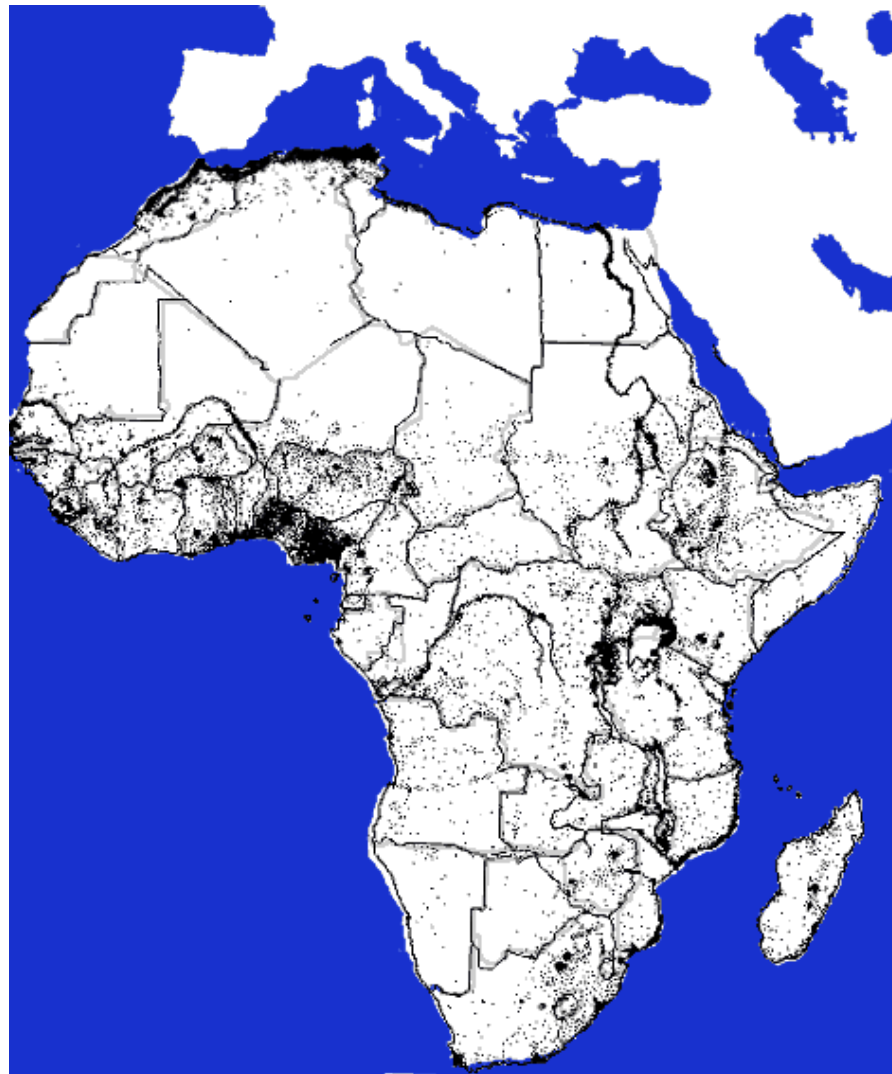
A mixture of cultures (e.g. languages)



# 3 Africa today

## 3.1 Population

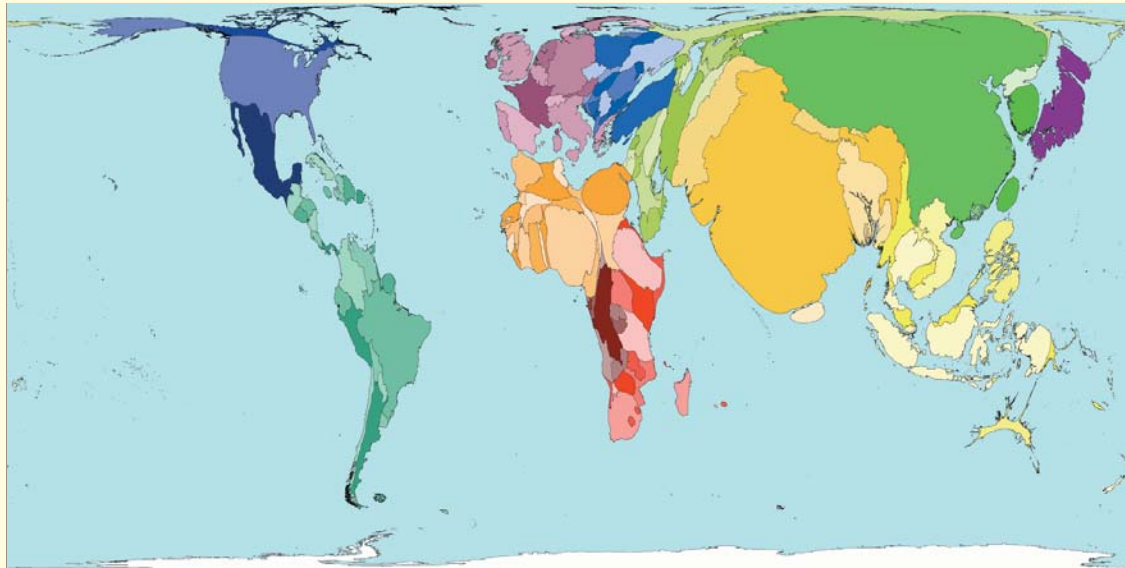
## Low population density



# Africa's population and the world

## Total Population

The University of Sheffield, The Leverhulme Trust, Geographical Association  
 Produced by the SASI group (Sheffield) and Mark Newman (Michigan)



In Spring 2000 world population estimates reached 6 billion; that is 6 thousand million. The distribution of the earth's population is shown in this map.

India, China and Japan appear large on the map because they have large populations. Panama, Namibia and Guinea-Bissau have small populations so are barely visible on the map.

Population is very weakly related to land area. However, Sudan, which is geographically the largest country in Africa, has a smaller population than Nigeria, Egypt, Ethiopia, Democratic Republic of Congo, South Africa or Tanzania.

The size of each territory shows the relative proportion of the world's population living there.



Land area

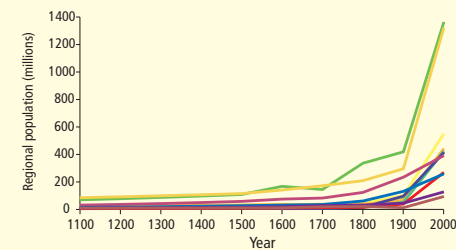
**Technical notes**  
 • Data source: United Nations Development Programme, 2004, Human Development Report.  
 • Population data is from 2002  
 • The population not included is estimated as 2 to 3 million (see Appendix map 2).  
 • See website for further information.

### MOST AND FEWEST PEOPLE

Rank	Territory	Value	Rank	Territory	Value
1	China	1295	191	Saint Kitts & Nevis	42
2	India	1050	192	Monaco	34
3	United States	291	193	Liechtenstein	33
4	Indonesia	217	194	San Marino	27
5	Brazil	176	195	Palau	20
6	Pakistan	150	196	Cook Islands	18
7	Russian Federation	144	197	Nauru	13
8	Bangladesh	144	198	Tuvalu	10
9	Japan	128	199	Niue	2
10	Nigeria	121	200	Holy See	1

millions thousands

### WORLD POPULATION BY REGION



*“Out of every 100 persons added to the population in the coming decade, 97 will live in developing countries.”*

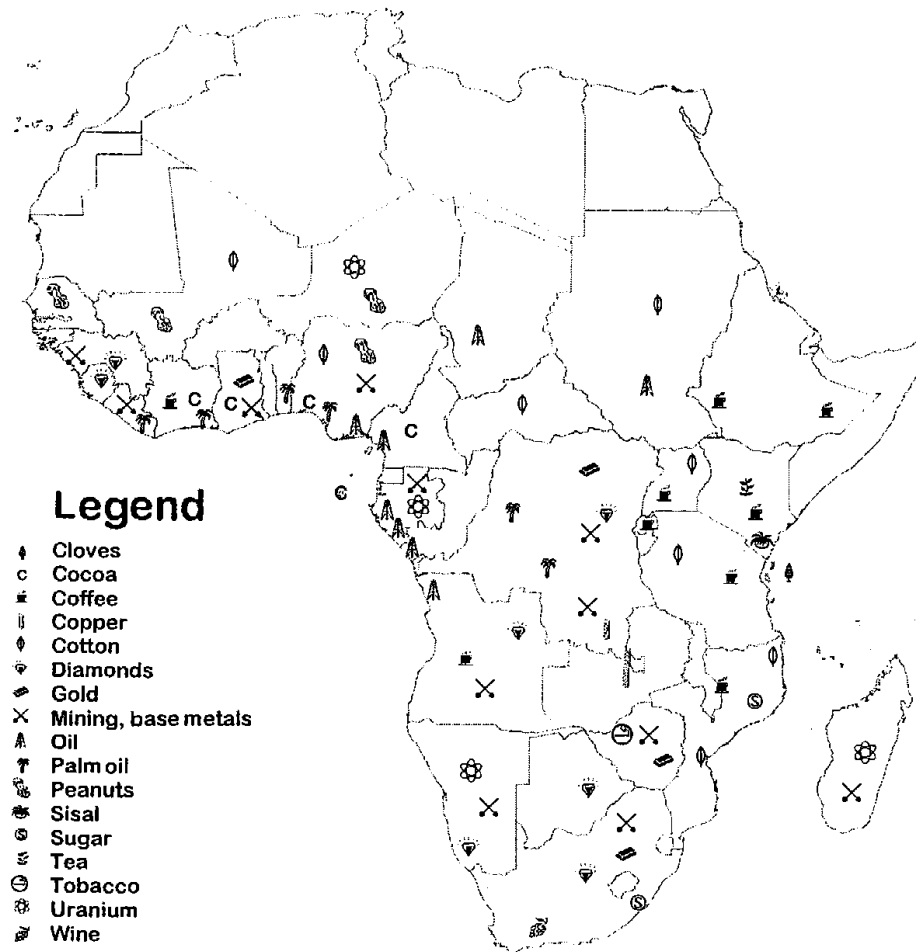
Hania Zlotnik, 2005

www.worldmapper.org © Copyright 2006 SASI Group (University of Sheffield) and Mark Newman (University of Michigan)

Map 002

## 3.2 Africa's resources

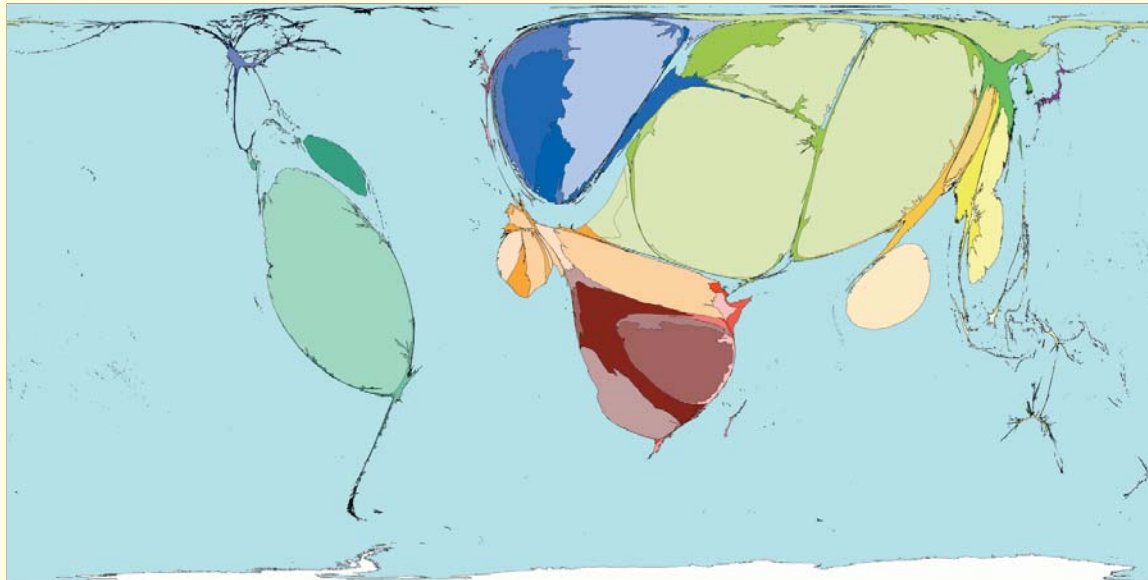
# Exports: minerals, agriculture,...



Map 4 Resources for export production

**...but also humans**

# Refugee Origin



In 2003 there were 15 million refugees and internally displaced persons in the world. This map shows the origins of both combined. The origins are the territories these people came from.

The difference between refugees and internally displaced persons is that the former are outside their territory of origin, whilst the latter have stayed within national borders. The movement of these people is based on their "fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion" (UNHCR, 1951).

Territory size shows the global proportion of refugees and internally displaced persons originating there.



**Technical notes**

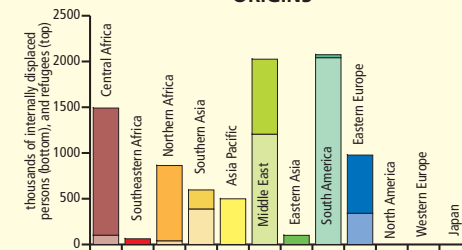
- Data source: United Nations Development Programme, 2004, World Development Report.
- Data are from 2003.
- Refugees and internally displaced people are included here.
- See website for further information.

## ORIGIN OF REFUGEES AND INTERNALLY DISPLACED PERSONS

Rank	Territory	Value	Rank	Territory	Value
1	Serbia & Montenegro	12.0	11	Puerto Rico	4.7
1	Bosnia Herzegovina	12.0	11	Colombia	4.7
3	Iraq	9.9	13	Sri Lanka	2.5
3	Afghanistan	9.9	14	Angola	2.4
3	Azerbaijan	9.9	15	Western Sahara	1.7
6	Gaza Strip & West Bank	9.6	15	Sudan	1.7
7	Burundi	9.5	15	Liberia	1.7
8	Georgia	5.2	18	Sierra Leone	1.6
9	Bhutan	5.2	19	Tajikistan	1.0
9	Croatia	5.2	20	Mauritania	0.9

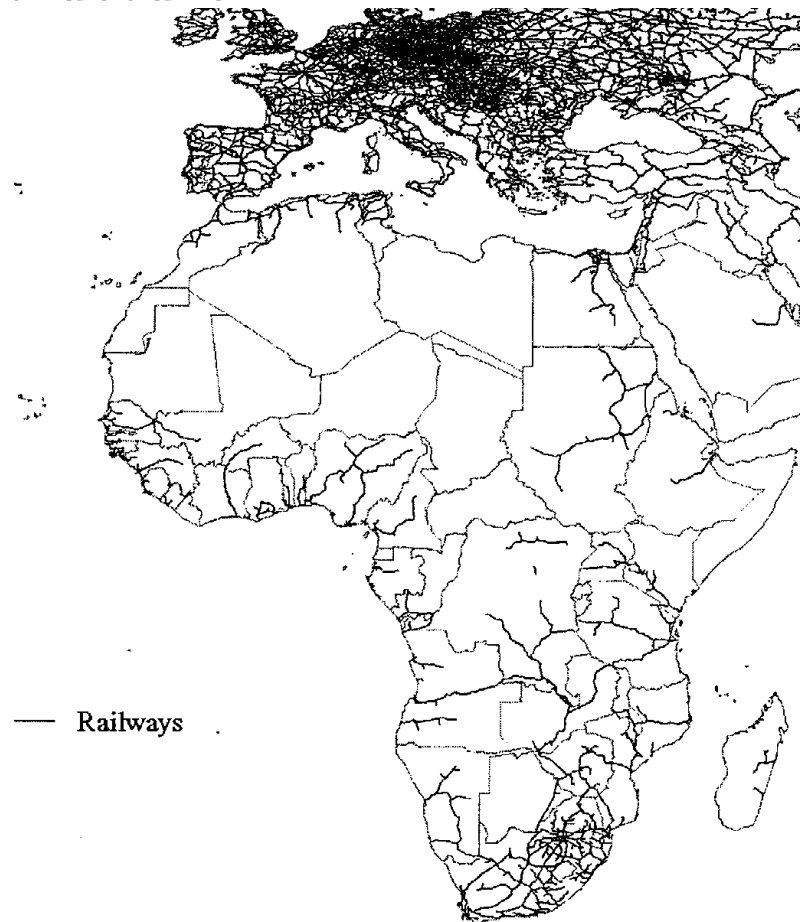
refugees and internally displaced persons as a % of resident population

## ORIGINS



*"It is awful to leave your country... ..family and friends, your job – everything – all of your memories of life is there – you have to leave everything."*  
 Akram, 2005

## Minimal infrastructure

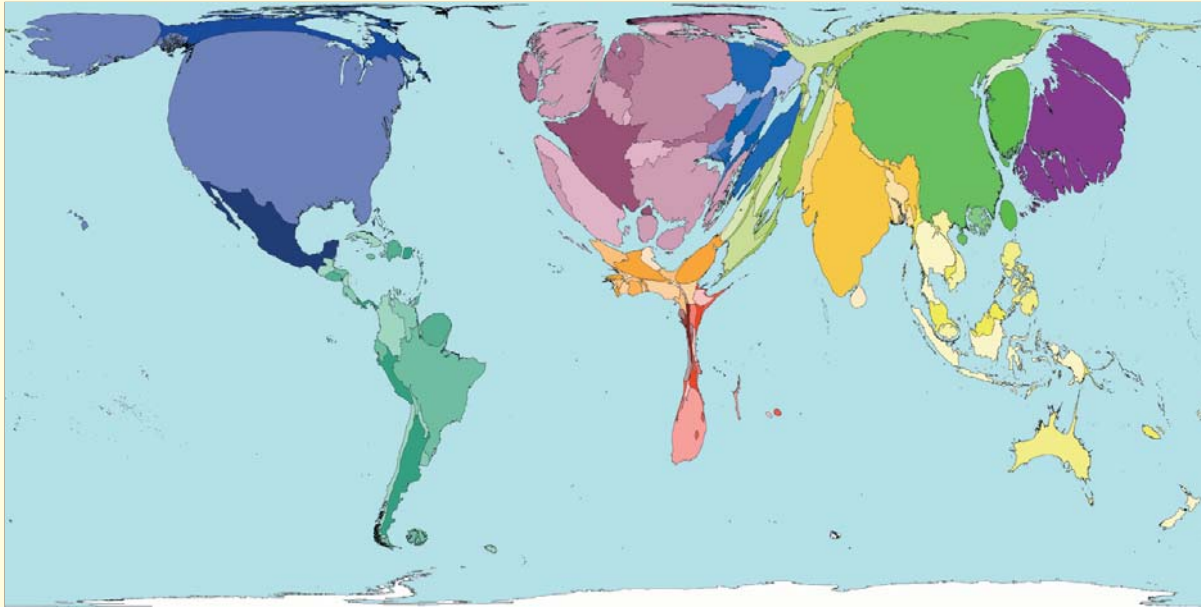


Map 5 Railways

### 3.3 Africa's economic patterns

# Small player in the world economy

## Purchasing Power



Purchasing power is a measure of what can be bought in the territory in which that money is earned. It is cheaper to live in some places than others.

Taking differences in local costs into consideration, this map shows that 46% of world wealth adjusted for purchasing power is in North America and Western Europe. The regions with the most purchasing power per person are North America, Japan and Western Europe.

Despite the lower prices found in Central Africa, the people living there still have the lowest purchasing power. The proportion of world wealth found in Central Africa is greater when measured in purchasing power than when measured using exchange rates.

Territory size shows the proportion of worldwide wealth found there when GDP is adjusted for local purchasing power.



Land area

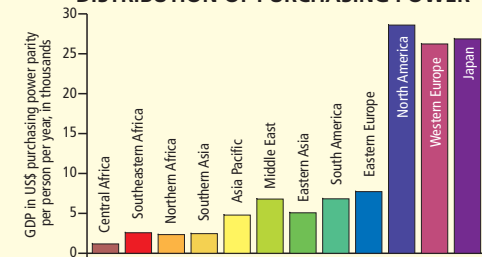
- Technical notes**
- Data are from the United Nations Development Programme's 2004 Human Development Report.
  - Gross Domestic Product is measured in Purchasing Power Parity (PPP) US\$, thus PPP US\$ 1 has the same purchasing power in every territory.
  - See website for further information.

### HIGHEST AND LOWEST INCOMES WHEN ADJUSTED FOR PURCHASING POWER

Rank	Territory	Value	Rank	Territory	Value
1	Luxembourg	61190	191	Zambia	840
2	Norway	36600	192	Niger	800
3	Ireland	36360	193	Ethiopia	780
4	United States	35750	194	Madagascar	740
5	Denmark	30940	195	Guinea-Bissau	710
6	Switzerland	30010	196	Dem Republic Congo	650
7	Equatorial Guinea	29780	197	Burundi	630
8	Iceland	29750	198	United Republic of Tanzania	580
9	Canada	29480	198	Malawi	580
10	Austria	29220	200	Sierra Leone	520

Gross Domestic Product adjusted for purchasing power parity in US\$ per person 2002

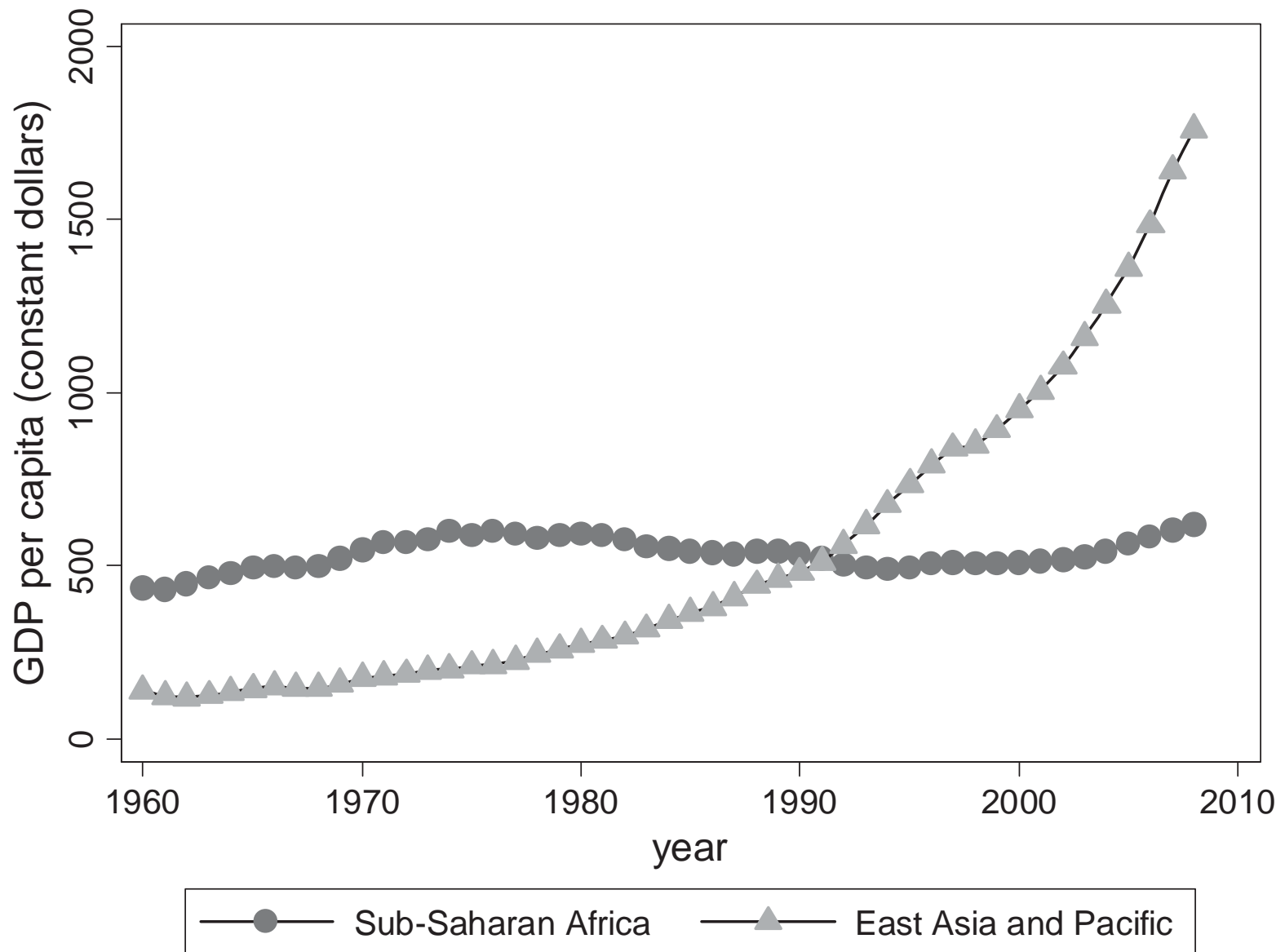
### DISTRIBUTION OF PURCHASING POWER



*“The PPP rate is the exchange rate which would mean that the money you exchange would buy exactly the same basket of goods in both countries ...”*

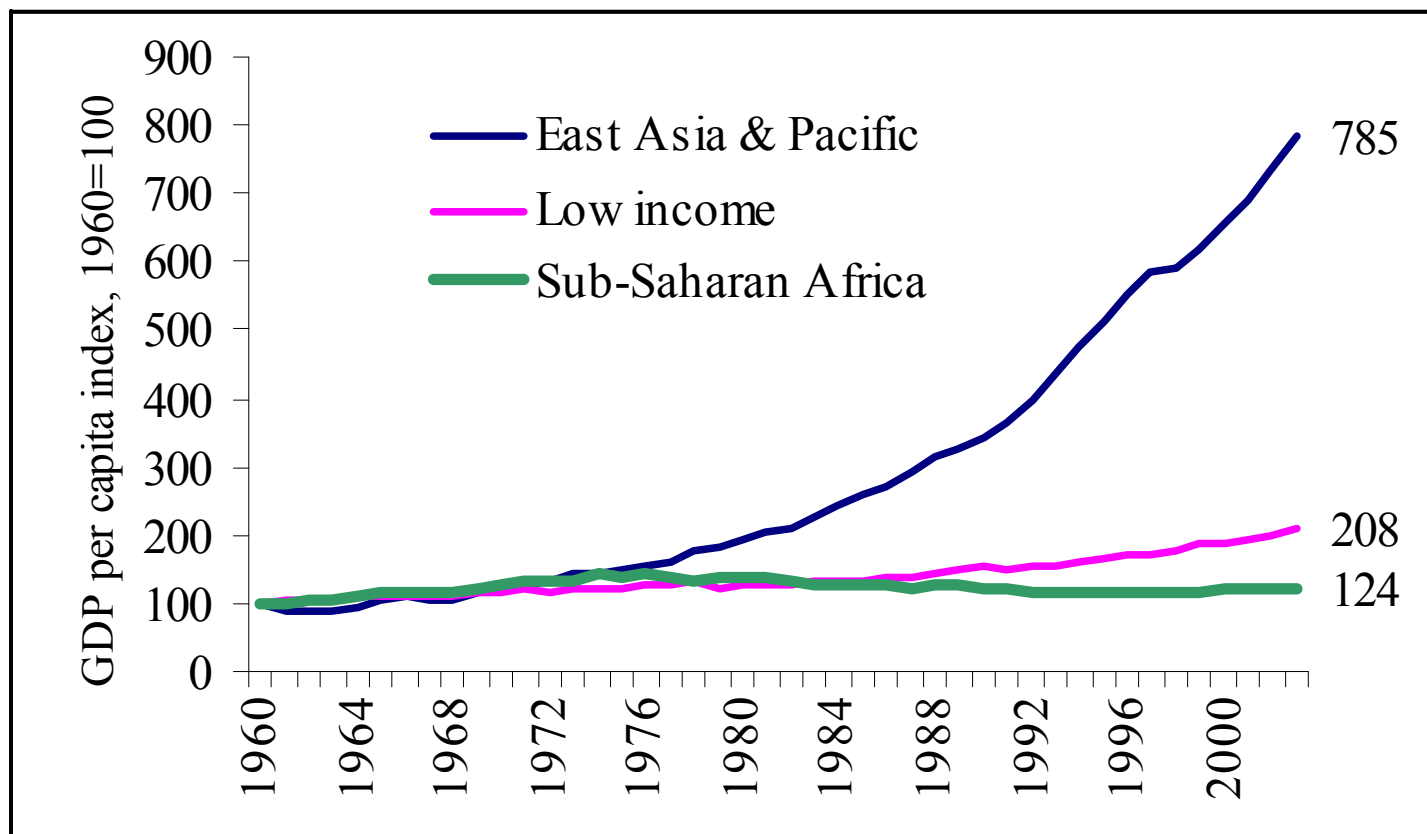
Biz/ed, 2006

## SSA and EAP



## SSA and other developing countries

**Figure 1.1. Comparative per Capita Income Growth Paths: Sub-Saharan Africa vs. Other Regions**



**Table 1.1. Regional Growth Comparisons**

Region	N	Initial values				Ending values				Endowments		
		Real GDP per capita (1996 PPP\$)	Gross primary enrollment rate, 1960	Life expectancy at birth, 1962	Road density, 1969 (km per sq km)*	Real GDP per capita	Gross primary enrollment rate, 2004	Life expectancy at birth, 2004	Road density, 1999	Frag-mentation, Avg. # of borders	Share of pop in llocked countries (%)	Share of Natural Resource Econ**
SSA	40	1423.2	37.1	41.1	0.098 (23)	2588.9	95.8	47.9	0.130	4.00	40.2 <sup>a</sup>	64
Other developing	55	2953.5	79.9	55.9	0.251 (25)	8568.6	107.5	71.3	0.411	2.91	7.51	57
LAC	24	3103.0	86.6	56.5	0.057 (6)	6039.2	111.5	70.5	0.122	2.34	2.77	80
SA	5	934.4	48.6	46.7	0.290 (1)	2506.4	103.8	65.1	0.850	2.75	3.78	38
EAP	13	3508.3	90.5	58.5	0.538 (7)	14929.4	107.0	73.3	0.719	2.09	0.42	52
MENAT	13	2899.3	68.4	55.6	0.171 (11)	9209.2	103.3	73.0	0.334	4.44	23.06 <sup>b</sup>	57
INDUST	18	8656.1	108.6	71.0	1.039 (16)	27328.8	102.5	78.9	1.447	-	-	-

Source: World Development Indicators, 2006.

Note:\* Number of countries in parentheses.

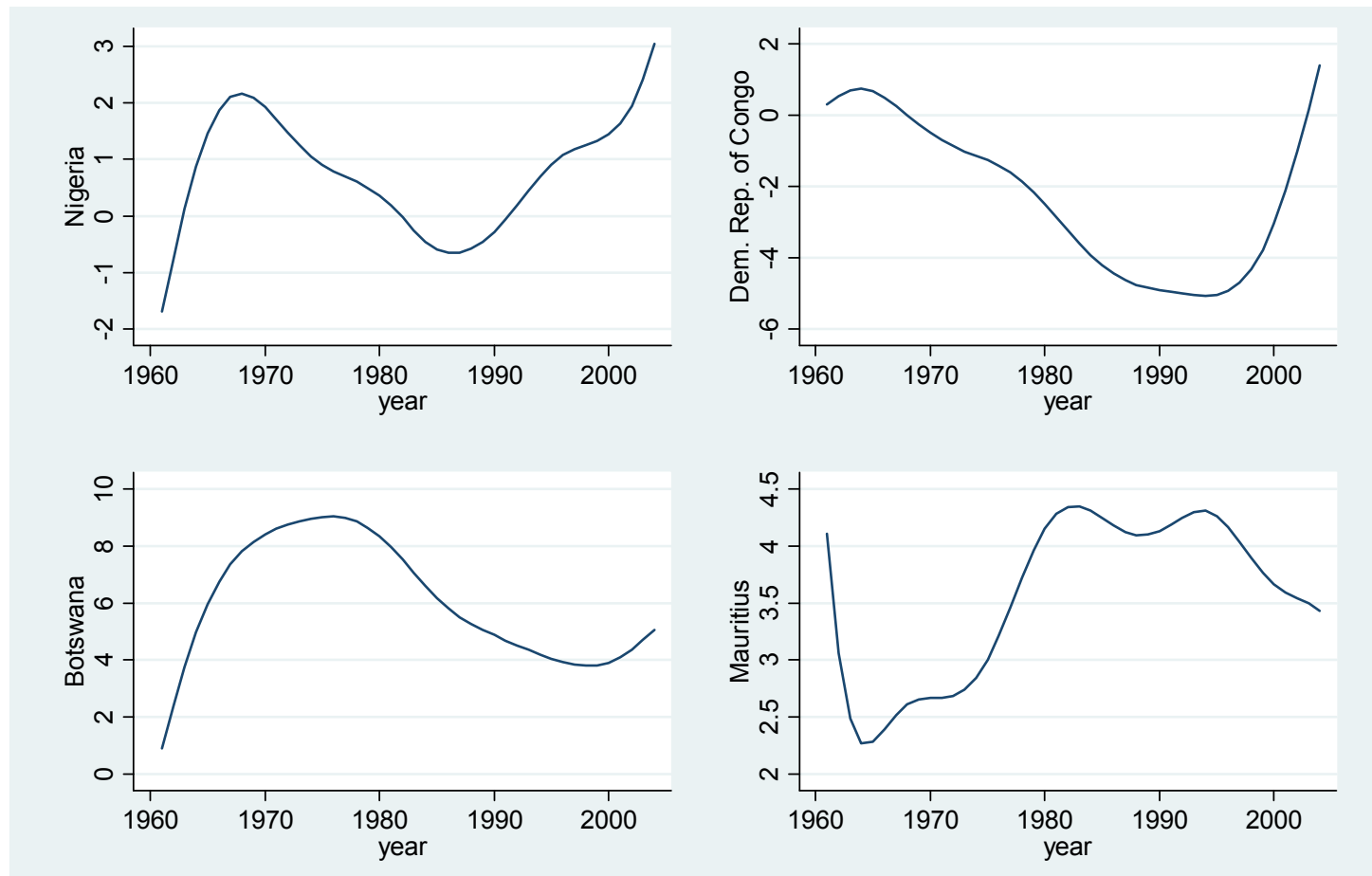
a: Congo, Dem. Rep., Sudan and Ethiopia have been treated as 'landlocked' countries.

b: Only one country sampled, Turkey. The average is Middle East and North Africa is zero.

\*\* An economy which generates more than 10% of its GDP in primary commodities exports is classified as a 'natural resource economy.' This is calculated as a share of the total number of countries in each region.

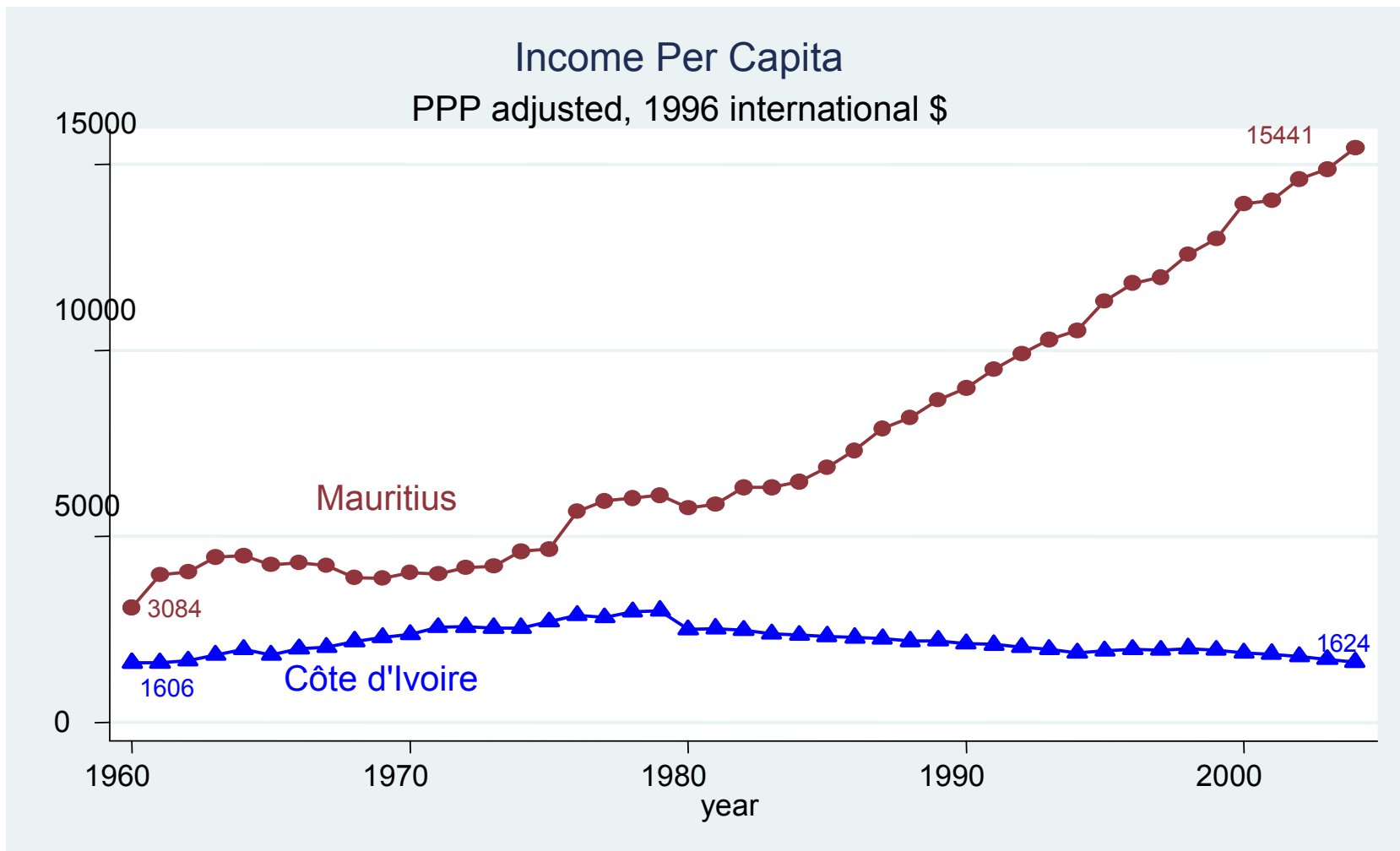
### 3.4 Same continent, different stories

Figure 2.6. Smoothed Average Growth in Real GDP per Capita



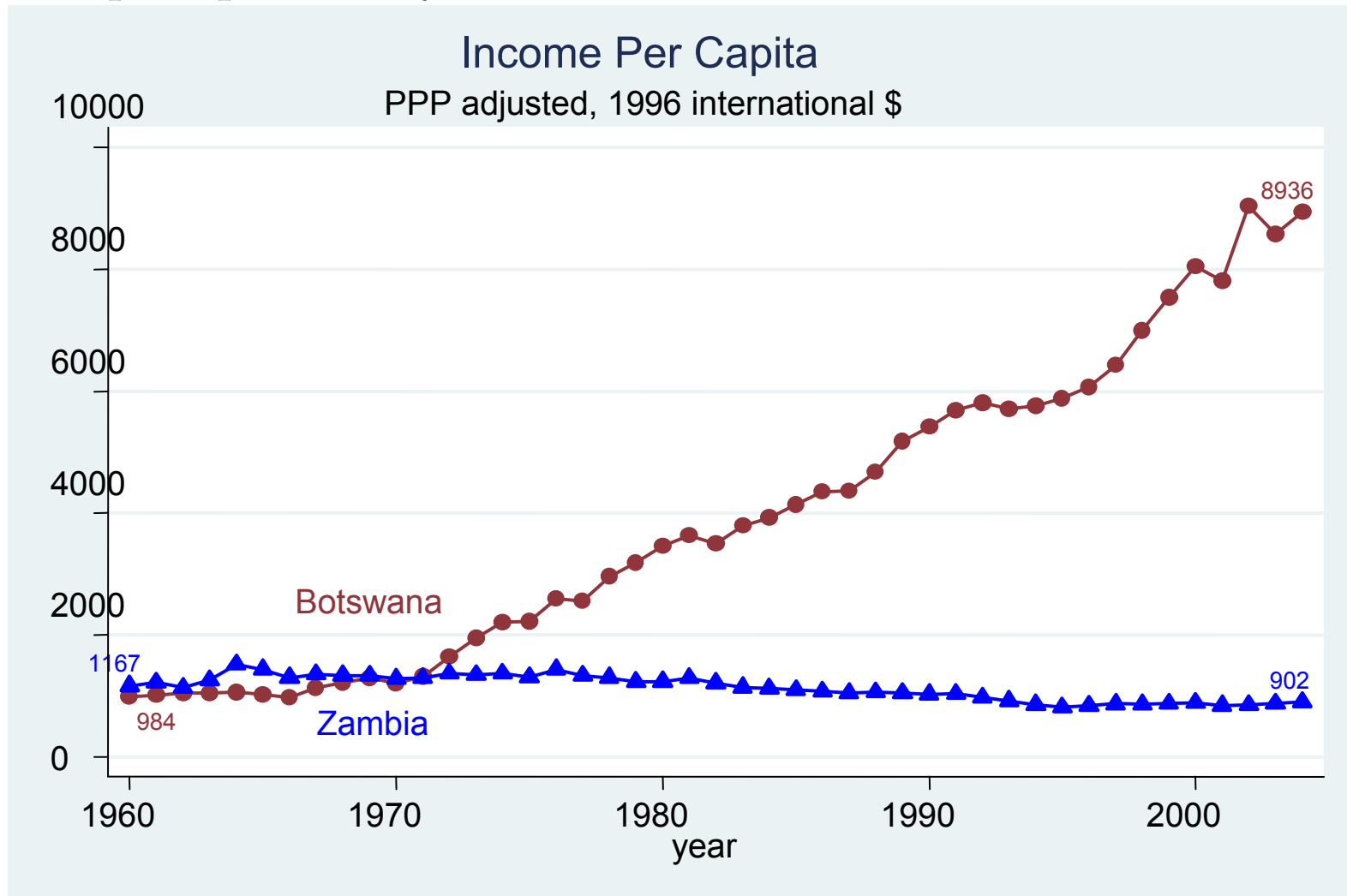
Source: WDI 2006, PWT 6.1 and GDN 1998.

## Different trends



Source: WDI 2006, PWT 6.1 and GDN 1998.

...despite proximity



Source: WDI 2006, PWT 6.1 and GDN 1998.

## 3.5 Development beyond income

# Human Development Index (HDI 2009)

H: Human development index 2007 and its components

HDI rank	Human development index	Life expectancy at birth	Adult literacy rate	Combined gross enrolment ratio in education	GDP per capita	Life expectancy index	Education index	GDP index	GDP per capita rank minus HDI rank <sup>b</sup>	
	value	(years)	(% aged 15 and above)	(%)	(PPP US\$)	2007	2007	2007	2007	
<b>VERY HIGH HUMAN DEVELOPMENT</b>										
1	Norway	0.971	80.5	.. <sup>c</sup>	98.6 <sup>d</sup>	53,433 <sup>e</sup>	0.925	0.989	1.000	4
2	Australia	0.970	81.4	.. <sup>c</sup>	114.2 <sup>d,f</sup>	34,923	0.940	0.993	0.977	20
3	Iceland	0.969	81.7	.. <sup>c</sup>	96.0 <sup>d</sup>	35,742	0.946	0.980	0.981	16
4	Canada	0.966	80.6	.. <sup>c</sup>	99.3 <sup>d,g</sup>	35,812	0.927	0.991	0.982	14
5	Ireland	0.965	79.7	.. <sup>c</sup>	97.6 <sup>d</sup>	44,613 <sup>e</sup>	0.911	0.985	1.000	5
6	Netherlands	0.964	79.8	.. <sup>c</sup>	97.5 <sup>d</sup>	38,694	0.914	0.985	0.994	8
7	Sweden	0.963	80.8	.. <sup>c</sup>	94.3 <sup>d</sup>	36,712	0.930	0.974	0.986	9
8	France	0.961	81.0	.. <sup>c</sup>	95.4 <sup>d</sup>	33,674	0.933	0.978	0.971	17
9	Switzerland	0.960	81.7	.. <sup>c</sup>	82.7 <sup>d</sup>	40,658	0.945	0.936	1.000	4
10	Japan	0.960	82.7	.. <sup>c</sup>	86.6 <sup>d</sup>	33,632	0.961	0.949	0.971	16
11	Luxembourg	0.960	79.4	.. <sup>c</sup>	94.4 <sup>h</sup>	79,485 <sup>e</sup>	0.906	0.975	1.000	-9
12	Finland	0.959	79.5	.. <sup>c</sup>	101.4 <sup>d,f</sup>	34,526	0.908	0.993	0.975	11
13	United States	0.956	79.1	.. <sup>c</sup>	92.4 <sup>d</sup>	45,592 <sup>e</sup>	0.902	0.968	1.000	-4
14	Austria	0.955	79.9	.. <sup>c</sup>	90.5 <sup>d</sup>	37,370	0.915	0.962	0.989	1
15	Spain	0.955	80.7	97.9 <sup>i</sup>	96.5 <sup>d</sup>	31,560	0.929	0.975	0.960	12
16	Denmark	0.955	78.2	.. <sup>c</sup>	101.3 <sup>d,f</sup>	36,130	0.887	0.993	0.983	1
17	Belgium	0.953	79.5	.. <sup>c</sup>	94.3 <sup>d</sup>	34,935	0.908	0.974	0.977	4
18	Italy	0.951	81.1	98.9 <sup>j</sup>	91.8 <sup>d</sup>	30,353	0.935	0.965	0.954	11
19	Liechtenstein	0.951	.. <sup>k</sup>	.. <sup>c</sup>	86.8 <sup>d,l</sup>	85,382 <sup>e,m</sup>	0.903	0.949	1.000	-18
20	New Zealand	0.950	80.1	.. <sup>c</sup>	107.5 <sup>d,f</sup>	27,336	0.919	0.993	0.936	12
21	United Kingdom	0.947	79.3	.. <sup>c</sup>	89.2 <sup>d,g</sup>	35,130	0.906	0.957	0.978	-1
22	Germany	0.947	79.8	.. <sup>c</sup>	88.1 <sup>d,g</sup>	34,401	0.913	0.954	0.975	2
23	Singapore	0.944	80.2	94.4 <sup>j</sup>	.. <sup>n</sup>	49,704 <sup>e</sup>	0.920	0.913	1.000	-16
24	Hong Kong, China (SAR)	0.944	82.2	.. <sup>o</sup>	74.4 <sup>d</sup>	42,306	0.953	0.879	1.000	-13
25	Greece	0.942	79.1	97.1 <sup>j</sup>	101.6 <sup>d,f</sup>	28,517	0.902	0.981	0.944	6
26	Korea (Republic of)	0.937	79.2	.. <sup>c</sup>	98.5 <sup>d</sup>	24,801	0.904	0.988	0.920	9
27	Israel	0.935	80.7	97.1 <sup>l</sup>	89.9 <sup>d</sup>	26,315	0.928	0.947	0.930	7
28	Andorra	0.934	.. <sup>k</sup>	.. <sup>c</sup>	65.1 <sup>d,l</sup>	41,235 <sup>e,p</sup>	0.925	0.877	1.000	-16
29	Slovenia	0.929	78.2	99.7 <sup>c,j</sup>	92.8 <sup>d</sup>	26,753	0.886	0.969	0.933	4
30	Brunei Darussalam	0.920	77.0	94.9 <sup>j</sup>	77.7	50,200 <sup>e</sup>	0.867	0.891	1.000	-24

H: Human development index 2007 and its components

	Human development index	Life expectancy at birth	Adult literacy rate	Combined gross enrolment ratio in education	GDP per capita	Life expectancy index	Education index	GDP index	GDP per capita rank minus HDI
HDI rank	value	(years)	(% aged 15 and above)	(%)	(PPP US\$)	index	index	index	rank <sup>b</sup>
	2007	2007	1999–2007 <sup>a</sup>	2007	2007	2007	2007	2007	2007
<b>LOW HUMAN DEVELOPMENT</b>									
159 Togo	0.499	62.2	53.2 <sup>y</sup>	53.9	788	0.620	0.534	0.345	11
160 Malawi	0.493	52.4	71.8 <sup>j</sup>	61.9 <sup>d,g</sup>	761	0.456	0.685	0.339	12
161 Benin	0.492	61.0	40.5 <sup>j</sup>	52.4 <sup>d,g</sup>	1,312	0.601	0.445	0.430	-7
162 Timor-Leste	0.489	60.7	50.1 <sup>ae</sup>	63.2 <sup>d,g</sup>	717 <sup>q</sup>	0.595	0.545	0.329	11
163 Côte d'Ivoire	0.484	56.8	48.7 <sup>y</sup>	37.5 <sup>d,g</sup>	1,690	0.531	0.450	0.472	-17
164 Zambia	0.481	44.5	70.6 <sup>j</sup>	63.3 <sup>d,g</sup>	1,358	0.326	0.682	0.435	-12
165 Eritrea	0.472	59.2	64.2 <sup>j</sup>	33.3 <sup>d,g</sup>	626 <sup>q</sup>	0.570	0.539	0.306	12
166 Senegal	0.464	55.4	41.9 <sup>i</sup>	41.2 <sup>d,g</sup>	1,666	0.506	0.417	0.469	-19
167 Rwanda	0.460	49.7	64.9 <sup>y</sup>	52.2 <sup>d,g</sup>	866	0.412	0.607	0.360	1
168 Gambia	0.456	55.7	.. <sup>o</sup>	46.8 <sup>d,g</sup>	1,225	0.511	0.439	0.418	-12
169 Liberia	0.442	57.9	55.5 <sup>j</sup>	57.6 <sup>d</sup>	362	0.548	0.562	0.215	10
170 Guinea	0.435	57.3	29.5 <sup>y</sup>	49.3 <sup>d</sup>	1,140	0.538	0.361	0.406	-10
171 Ethiopia	0.414	54.7	35.9 <sup>i</sup>	49.0	779	0.496	0.403	0.343	0
172 Mozambique	0.402	47.8	44.4 <sup>j</sup>	54.8 <sup>d,g</sup>	802	0.380	0.478	0.348	-3
173 Guinea-Bissau	0.396	47.5	64.6 <sup>j</sup>	36.6 <sup>d,g</sup>	477	0.375	0.552	0.261	5
174 Burundi	0.394	50.1	59.3 <sup>y</sup>	49.0	341	0.418	0.559	0.205	6
175 Chad	0.392	48.6	31.8 <sup>j</sup>	36.5 <sup>d,g</sup>	1,477	0.393	0.334	0.449	-24
176 Congo (Democratic Republic of the)	0.389	47.6	67.2 <sup>y</sup>	48.2	298	0.377	0.608	0.182	5
177 Burkina Faso	0.389	52.7	28.7 <sup>i</sup>	32.8	1,124	0.462	0.301	0.404	-16
178 Mali	0.371	48.1	26.2 <sup>i</sup>	46.9	1,083	0.385	0.331	0.398	-16
179 Central African Republic	0.369	46.7	48.6 <sup>y</sup>	28.6 <sup>d,g</sup>	713	0.361	0.419	0.328	-5
180 Sierra Leone	0.365	47.3	38.1 <sup>j</sup>	44.6 <sup>d</sup>	679	0.371	0.403	0.320	-5
181 Afghanistan	0.352	43.6	28.0 <sup>y</sup>	50.1 <sup>d,g</sup>	1,054 <sup>d,ag</sup>	0.310	0.354	0.393	-17
182 Niger	0.340	50.8	28.7 <sup>i</sup>	27.2	627	0.431	0.282	0.307	-6

TABLE 3.1 Classification of African Countries According to Human Development Aggregates (1999)

High Human Development (HDI 0.800 and above)	Medium Human Development (HDI 0.500–0.799)			Low Human Development (HDI below 0.5000)		
	Rank	Country	HDI	Rank	Country	HDI
None	59	Libya	0.770	128	Togo	0.489
	63	Mauritius	0.765	135	Madagascar	0.462
	89	Tunisia	0.714	136	Nigeria	0.455
	91	Cape Verde	0.708	137	Djibouti	0.447
	94	South Africa	0.702	138	Sudan	0.439
	100	Algeria	0.693	139	Mauritania	0.437
	105	Egypt	0.635	140	Tanzania	0.436
	109	Gabon	0.617	141	Uganda	0.435
	110	Equatorial Guinea	0.610	142	Democratic Republic of Congo	0.426
	111	Namibia	0.601	143	Zambia	0.427
	112	Morocco	0.596	144	Cote d'Ivoire	0.429
	113	Swaziland	0.583	145	Senegal	0.423
	114	Botswana	0.577	146	Angola	0.422
	117	Zimbabwe	0.554	147	Benin	0.420
	119	Ghana	0.542	148	Eritrea	0.416
	120	Lesotho	0.541	149	Gambia	0.398
	123	Kenya	0.514	150	Guinea	0.397
	125	Cameroon	0.506	151	Malawi	0.397
	126	Congo Republic	0.502	152	Rwanda	0.395
				153	Mali	0.378
				154	Central African Republic	0.372
				155	Chad	0.359
				156	Guinea-Bissau	0.339
				157	Mozambique	0.323
				158	Ethiopia	0.321
				159	Burkina Faso	0.320
			160	Burundi	0.309	
			161	Niger	0.274	
			162	Sierra Leone	0.258	

Source: UNDP (2001) *Human Development Report 2001*, New York: Oxford University Press, pp. 142–144, 257.

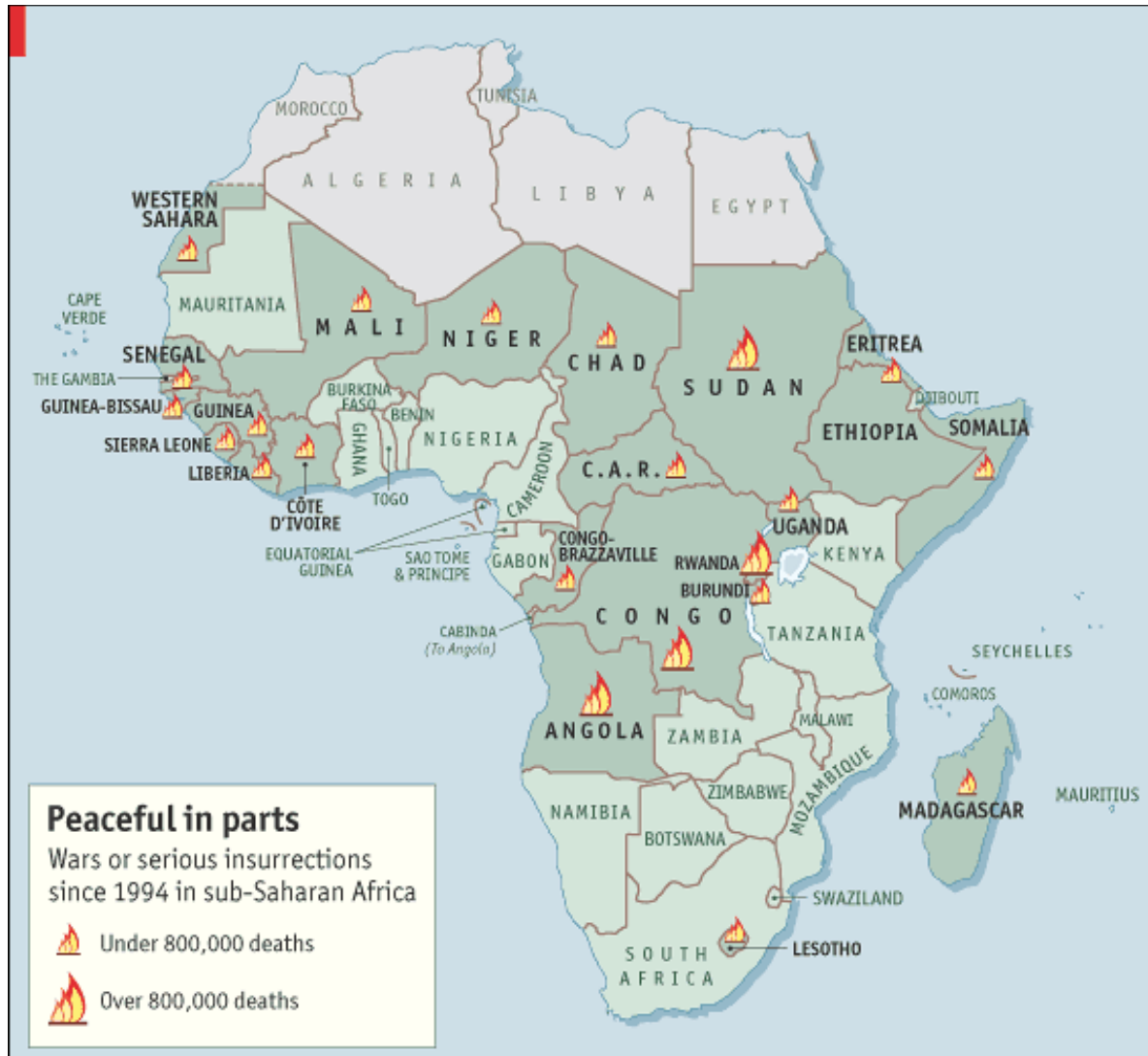
# HDI summary

H: Human development index 2007 and its components

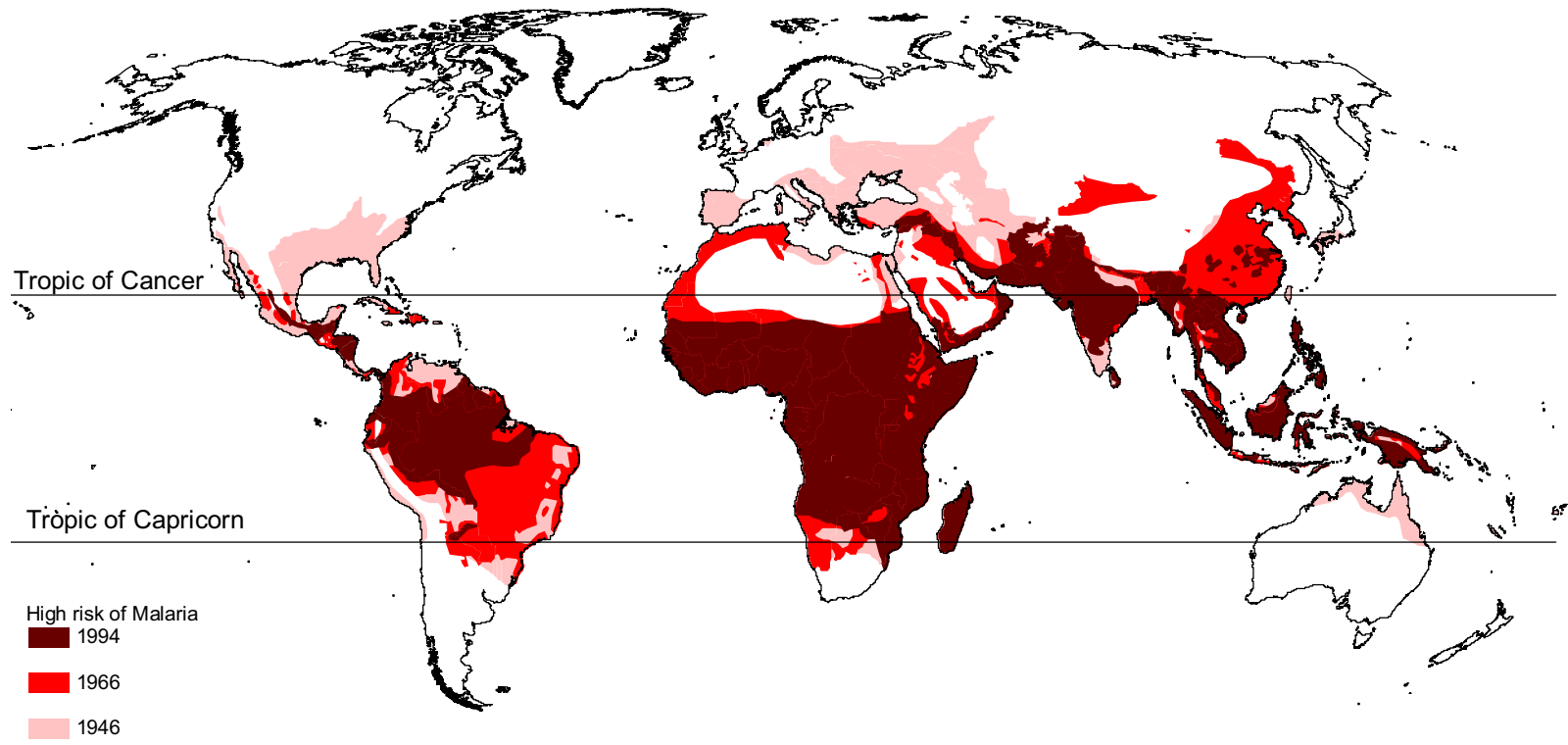
	Human development index	Life expectancy at birth	Adult literacy rate (% aged 15 and above)	Combined gross enrolment ratio in education (%)	GDP per capita (PPP US\$)	Life expectancy index	Education index	GDP index
HDI rank	value	(years)	1999–2007 <sup>a</sup>	2007	2007	2007	2007	2007
Africa	0.547	53.9 <sup>af</sup>	63.3 <sup>af</sup>	55.9	2,729	0.482	0.608	0.552
Asia	0.724	68.8 <sup>af</sup>	82.1 <sup>af</sup>	64.5	5,837	0.729	0.762	0.679
Europe	0.902	74.9 <sup>af</sup>	99.2 <sup>af</sup>	88.2	24,775	0.832	0.954	0.920
Latin America and the Caribbean	0.821	73.4	91.2	83.4	10,077	0.806	0.886	0.770
Northern America	0.952	79.2 <sup>af</sup>	96.5 <sup>af</sup>	..	..	0.904	0.953	1.000
Oceania	0.900	76.4 <sup>af</sup>	93.0 <sup>af</sup>	..	..	0.856	0.918	0.926
Arab States	0.719	68.5	71.2	66.2	8,202	0.726	0.695	0.736
GCC	0.868	74.0	86.8	77.0	30,415	0.816	0.835	0.954
Central and Eastern Europe and the CIS	0.821	69.7	97.6	79.5	12,185	0.745	0.916	0.802
CIS	0.802	67.0	99.4	81.1	10,487	0.700	0.930	0.777
East Asia and the Pacific	0.770	72.2	92.7	69.3	5,733	0.786	0.849	0.676
Latin America and the Caribbean	0.821	73.4	91.2	83.4	10,077	0.806	0.886	0.770
South Asia	0.612	64.1	64.2	58.0	2,905	0.651	0.621	0.562
Sub-Saharan Africa	0.514	51.5	62.9	53.5	2,031	0.441	0.597	0.503
OECD	0.932	79.0	..	89.1	32,647	0.900	..	0.966
European Union (EU27)	0.937	79.0	..	91.0	29,956	0.899	..	0.952
Very high human development	0.955	80.1	..	92.5	37,272	0.918	..	0.988
Very high: OECD	..	80.1	..	92.9	37,122	0.919	..	0.988
Very high: non-OECD	..	79.7	..	..	41,887	0.912	..	1.000
High human development	0.833	72.4	94.1	82.4	12,569	0.790	0.902	0.807
Medium human development	0.686	66.9	80.0	63.3	3,963	0.698	0.744	0.614
Low human development	0.423	51.0	47.7	47.6	862	0.434	0.477	0.359
World	0.753	67.5 <sup>af</sup>	83.9 <sup>af</sup>	67.5	9,972	0.708	0.784	0.768

## 3.6 Why?

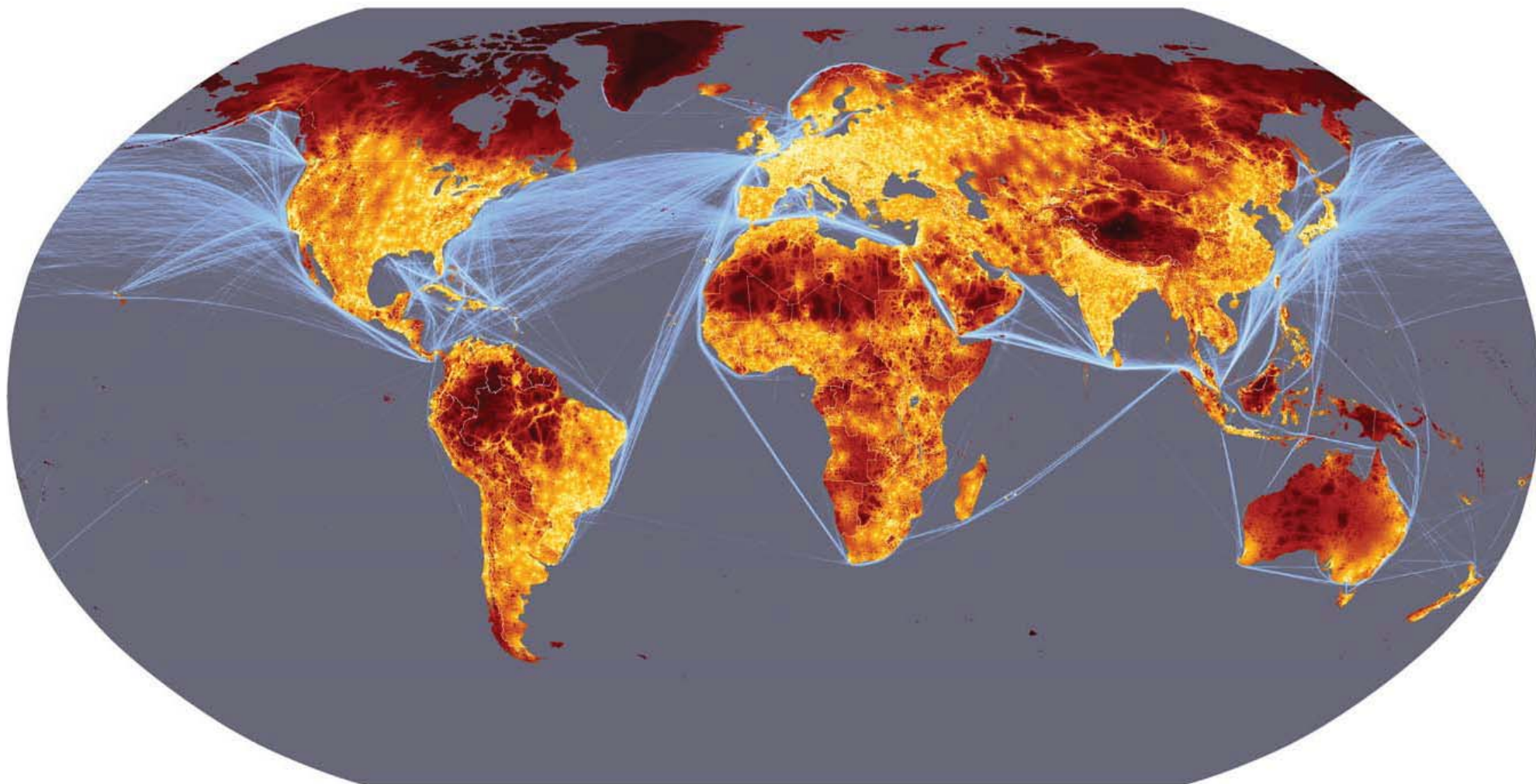
# Conflicts are a common theme in Africa



...but also diseases  
Malaria risk - 1946, 1966, 1994



# Remoteness



# Travel time to major cities

Travel time map and accessibility model by Andrew Nelson, Agglomeration Index by Hirotugu Uchida (The World Bank, UK) and Andrew Nelson. Land cover data from the Global Land Cover 2000 Project, <http://www.gem.jrc.ec.europa.eu/glc2000/>. UN urban population data from the United Nations World Urbanization Prospects, <http://esa.un.org/urp/>.

Global Environment Monitoring Unit  
Institute for Environment and Sustainability  
Joint Research Centre of the European Commission  
Via Enrico Fermi 2749, I-20027 Ispra (VA), Italy

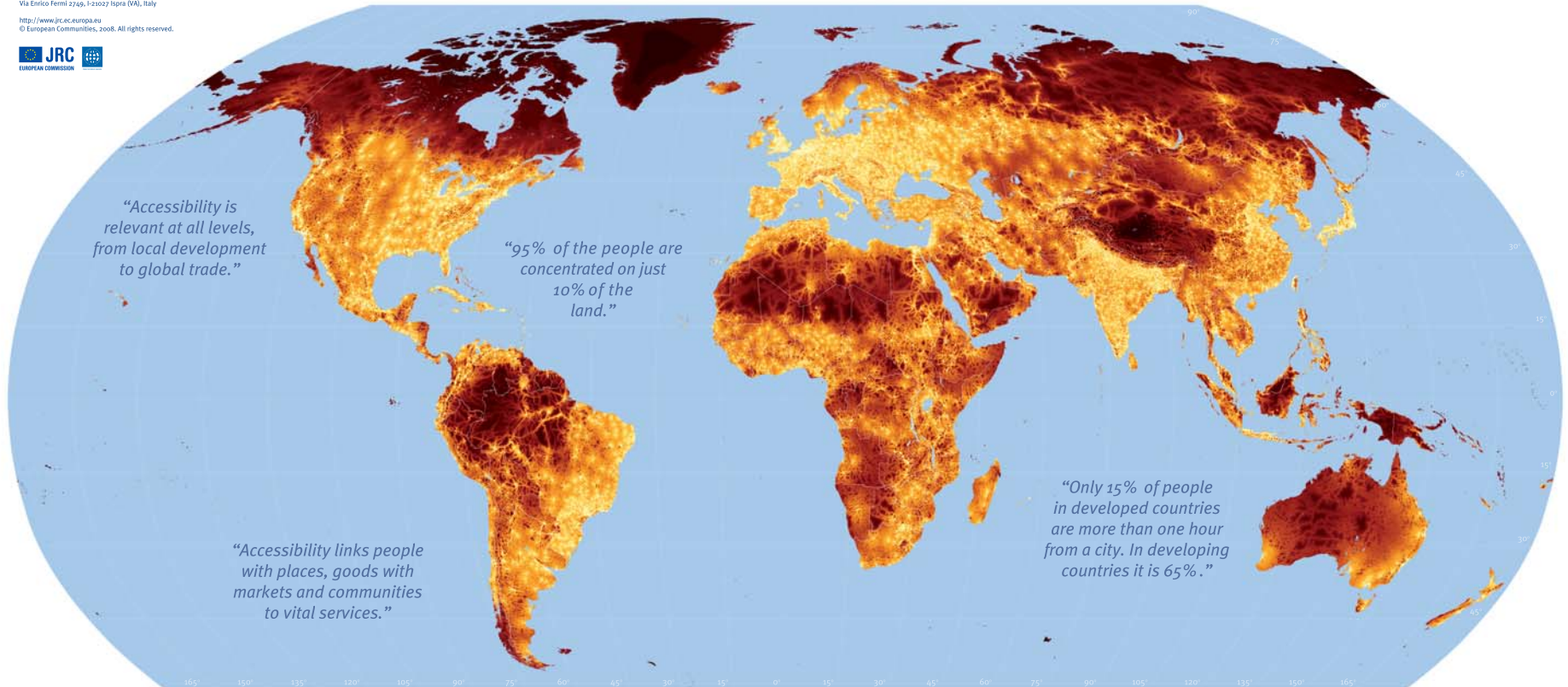
<http://www.jrc.ec.europa.eu>  
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Working title: Travel time to major cities: A global map of Accessibility

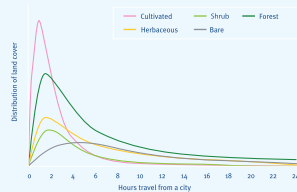
JRC47352  
ISBN 978-92-79-09771-3  
Catalogue number LB-30-08-674-EN-C

Language: EN  
DOI: 10.2788/98935



## Land cover patterns around cities

Travel time zones around a city can be used to define regions where particular economic activities are likely to take place. Almost 60% of all cultivated land is within two hours of a city. As urban areas expand, there is huge pressure to convert agricultural land to urban uses, and to convert more distant forests, grasslands and shrublands to agriculture. These patterns of land use around urban areas mirror one of the most important models of economic geography, Johann Heinrich von Thünen's model of The Isolated State, which links transport costs to land value.



## Travel time in hours and days to the nearest city of 50,000 or more people



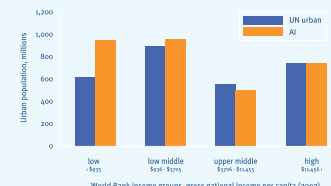
## Travel time to major cities: A global map of Accessibility

Developed by the European Commission's Joint Research Centre for the World Bank's World Development Report 2009 "Reshaping Economic Geography".

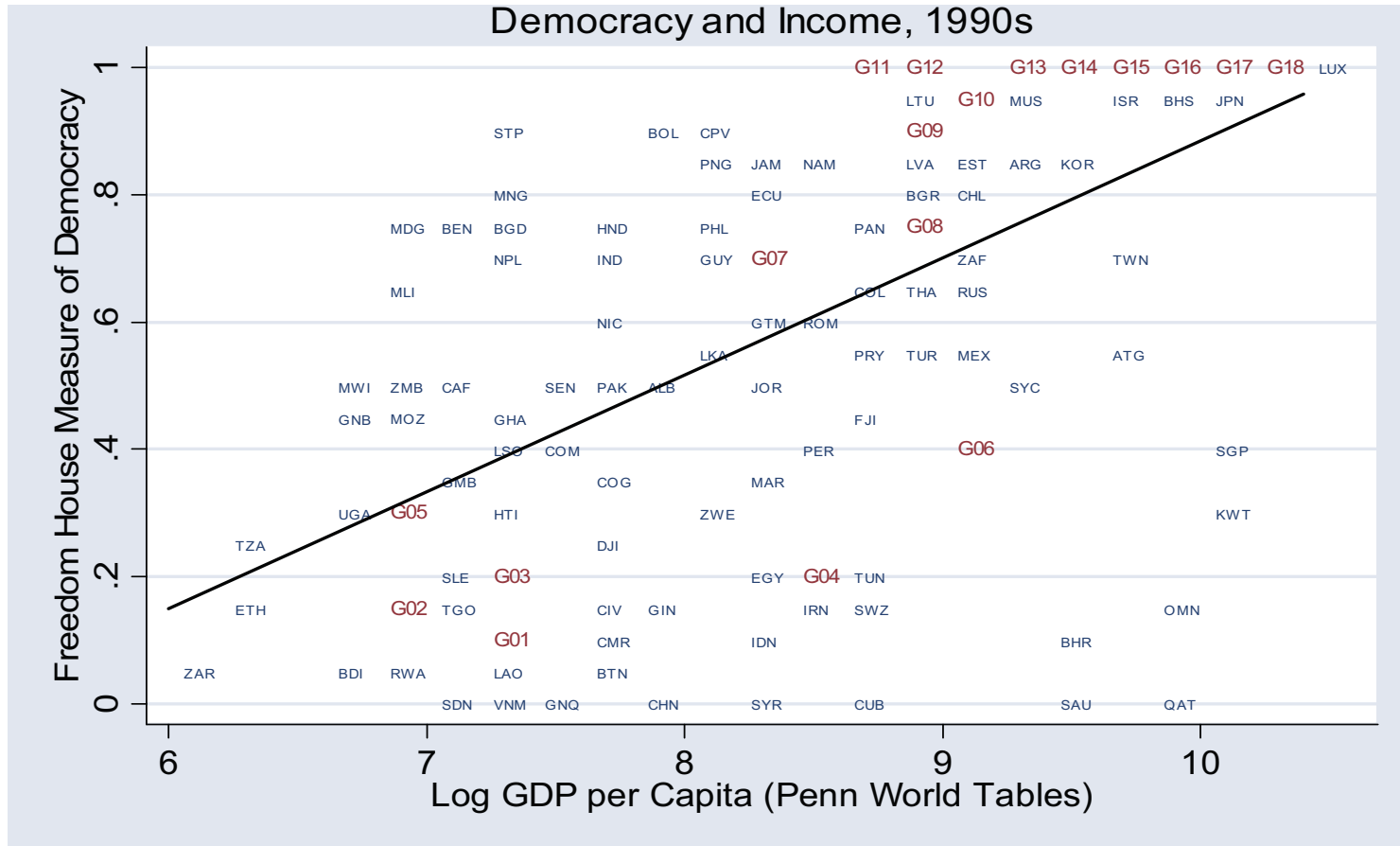
Map colours represent travel time to the nearest city (8,518 cities with 50,000 or more people in the year 2000). Modes of travel are land and water based. The data resolution is 30 arc seconds. The map projection is Robinson. Digital datasets, the accessibility model, input data and more information at <http://gem.jrc.ec.europa.eu>. The World Development Report is available at <http://econ.worldbank.org>. The delineation of national boundaries must not be considered authoritative.

## Agglomeration Index (AI): A new measure of urban concentration and a more urbanised world

There is no standard definition of "urban". A new Agglomeration Index (World Bank & JRC), based on this Accessibility map, suggests that the global urban population in 2000 was 3.21 billion compared to the UN's total of 2.85 billion (53%, compared to 47% of the world). Most of the difference is in the developing world. This alternative definition of urbanisation suggests that the world may have passed the urbanisation tipping point – more people living in urban areas than in rural areas – much earlier than the 2007/8 estimate.



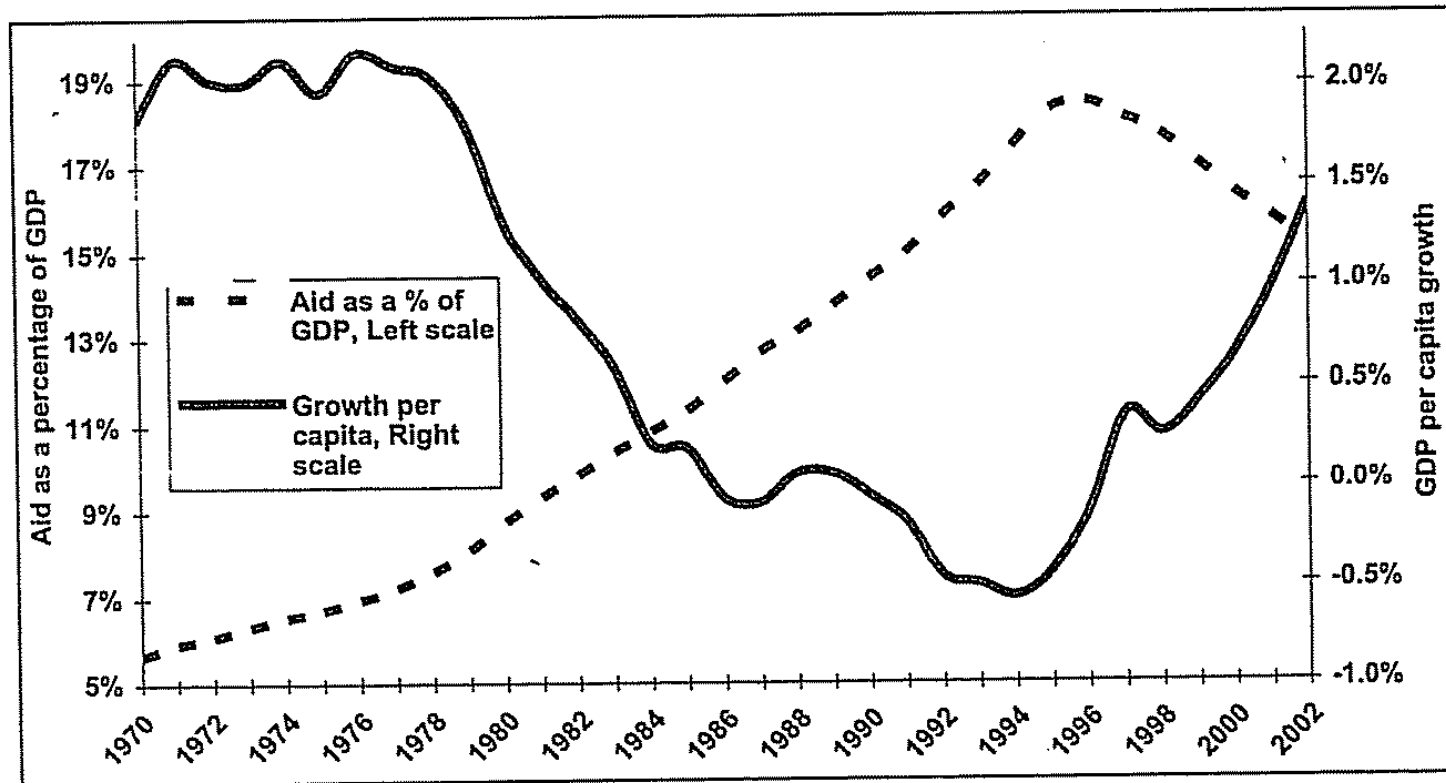
# Institutions?



See Appendix Table A1 for data definitions and sources. Values are averaged by country from 1990 to 1999. GDP per Capita is in PPP terms. The regression represented by the fitted line yields a coefficient of 0.181 (standard error=0.019), N=147,  $R^2=0.35$ . The "G" prefix corresponds to the average for groups of countries. G01 is AGO and MRT; G02 is NGA and TCD; G03 is KEN and KHM; G04 is DZA and LBN; G05 is BFA, NER, and YEM; G06 is GAB and MYS; G07 is DOM and SLV; G08 is BRA and VEN; G09 is BWA, DMA, POL, and VCT; G10 is HUN and URY; G11 is CRI and GRD; G12 is BLZ and LCA; G13 is KNA and TTO; G14 is GRC and MLT; G15 is BRB, CYP, ESP, and PRT; G16 is FIN, GBR, IRL, and NZL; G17 is AUS, AUT, BEL, CAN, DEU, DNK, FRA, ISL, ITA, NLD, NOR, and SWE; and G18 is CHE and USA.

# Aid?

Figure 8.2 Aid and Growth in Africa (10-year moving averages)



Source: World Development Indicators.

Note: This figure is an updated version of a chart that first appeared in William Easterly, *The Elusive Quest for Growth*, MIT Press, Cambridge, MA, 2001.

Source: Moss (2007)

## 3.7 Trends

<http://tools.google.com/gapminder/>

Compare: Nigeria, Ghana, Botswana and South Africa.

## 3.8 Poverty and income distribution

Gapminder: <http://www.gapminder.org/>

# Sources

- Most maps come from <http://ascc.artsci.wustl.edu/~anthro/courses/306/resources.html>
- Fancy maps from [www.worldmapper.org](http://www.worldmapper.org).
- Railways and exports: Cooper, F. (syllabus.)
- Malaria: Sachs et. al. (syllabus.)
- Conflict: The Economist.
- Tables and graphs: Ndulu et. al. (syllabus)
- Democracy and Income from Acemoglu et al (2008) AER.
- Tables 2.3-2.6 and 3.1 from Nnadozie (2003)