

AFRICA IN TODAY'S WORLD

MAX COLEMAN

SOUTH AFRICAN HISTORY ONLINE

Published in 2015 in South Africa by
South African History Online, 349 Albert Road, Woodstock, 7925
Cape Town

(c) South African History Online

All rights reserved. No part of this publication may be
reproduced, stored, stored in retrieval systems, or transmitted in any form or by
any means without prior written permission of publishers.

ISBN: 978-0-620-66045-7

Design and layout: Ian Africa and Omar Badsha
Cover Design: Ian Africa and Omar Badsha

Printed and bound in South Africa by Mega Digital (Pty) Ltd.

CONTENTS

1. POPULATION
2. COUNTRIES
3. INSTITUTIONS
4. THE HUMAN CONDITION
5. AID
6. ENVIRONMENT
7. NATURAL RESOURCES
8. INFRASTRUCTURE
9. PRODUCTION
10. TRADE
11. CONSUMPTION
12. ECONOMIC ACTIVITY
13. FINANCIAL SYSTEM
14. FINANCIAL CASINOS
15. CORPORATES
16. ARMS TRADE & CONFLICT
17. RESERVES
18. CONCLUSION

DETAILED CONTENTS

	PAGES
1 POPULATION	11
1.1 Statistics (Historical, Current, Regional, Country)	
1.2 Profiles (Density, Urban, Sex, Age, Ethnic, Language, Religion, Labour Force)	
1.3 Movement (Migration, Refugees, Travel)	
2 COUNTRIES OF THE WORLD	26
2.1 By Continents	
2.2 Economic Size	
2.3 Economic Development	
2.4 Colonisation	
2.5 Groupings (Unions, Associations)	
3 GLOBAL INSTITUTIONS	42
3.1 United Nations System	
3.2 Intergovernmental	
3.3 Sectoral	
4 HUMAN CONDITION	53
4.1 Human Development Index	
4.2 Millennium Development Goals	
4.3 Quality of Life Criteria	
A. Human Survival	
Life Expectancy, Employment, Income, Food Security, Healthcare, Shelter, Basic Amenities.	
B. Human Development	
Education, Gender Parity, Social Security, Access to Economic Activity, Social Activity Political Environment	
5 AID	102
5.1 Emergency Aid	
5.2 Development Aid (Grant, Loan, Debt Relief)	
6 ENVIRONMENT	116
6.1 Natural Disasters	

6.2 Climate Change	
6.3 Pollution	
6.4 MDG on Environment	
7 NATURAL RESOURCES	133
7.1 Water	
7.2 Land	
7.3 Biological	
7.4 Mineral	
7.5 Marine	
7.6 Atmospheric	
7.7 Solar	
8 INFRASTRUCTURE	152
8.1 Transportation	
8.2 Energy	
8.3 Water Management	
8.4 Communication	
8.5 Waste Management	
8.6 Health & Education	
8.7 Cultural, Sport & Recreation	
9 PRODUCTION	172
9.1 Agriculture	
9.2 Mining	
9.3 Manufacturing	
9.4 Services	
10 TRADE	204
10.1 Organisations	
10.2 Agreements	
10.3 Trade Flows (Exports, Imports, Balances)	
10.4 Accounting	
11 CONSUMPTION	216
11.1 Categories	
11.2 Statistics of Consumption	

12 ECONOMIC ACTIVITY	223
12.1 Institutions	
12.2 Measurement of Economic Activity	
12.3 Statistics of Economic Activity	
12.4 Rate of Economic Growth	
12.5 Per Capita Perspective	
12.6 Development Stages	
13 FINANCIAL SYSTEM	233
13.1 Financial Institutions	
13.2 National Budgets	
13.3 Money Supply	
13.4 Credit	
13.5 Debt	
13.6 Savings & Investment	
13.7 Financial Instruments	
13.8 Cross-Border Transactions	
13.9 Financial Crises	
14 FINANCIAL SPECULATION	264
14.1 The Players	
14.2 Markets & Exchanges	
14.3 Funds & Asset Management	
14.4 Speculative Products	
14.5 Speculative Strategies	
14.6 Crises	
14.7 Remedial Action	
15 CORPORATES	278
15.1 Structuring & Function	
15.2 Size Measurement	
15.3 State-Owned Enterprises	
15.4 Mergers & Acquisitions	
15.5 Cross-Border Activity	
16 THE MILITARY- INDUSTRIAL COMPLEX	297
16.1 The Arms Industry	
16.2 Military Activity	
16.3 Conflict	

17 GLOBAL RESERVE SYSTEM	313
17.1 Central Banks	
17.2 Related International Organisations	
17.3 Reserves	
17.4 Currency Exchange Rates	
17.5 Sovereign Wealth Funds	
17.6 Strategic Reserves	
18 CONCLUSION	324
Global Challenges & Aspirations	

Focus on Africa

After centuries of colonisation and exploitation of Africa, the continent has only quite recently regained its independence, country by country. Recognising that Africa is now claiming its place in today's world, this project attempts to focus in each chapter on how African countries fit in and contribute to the Global picture.

The Approach

Care has been taken not to be judgmental, prescriptive or even tendentious, but rather to allow the facts and figures to speak for themselves and to let readers come to their own conclusions.

However, relevant issues, contentious or otherwise, are frequently listed for consideration.

Dedication

This project is dedicated to the author's eight grandchildren as representatives of the World's seven billion inhabitants. What follows is their inheritance, challenges and all.

1. POPULATION



1. POPULATION

ARRANGEMENT OF THIS CHAPTER

- 1.1 POPULATION STATISTICS
- 1.2 POPULATION PROFILES
- 1.3 POPULATION MOVEMENT

1.1 POPULATION STATISTICS

1.1.1 HISTORICAL NUMBERS:

World population at year 1 AD has been estimated at 300 million, rising gradually to 500 million at year 1500 and 790 million at year 1750.

Then 1 billion at year	[1804	
2 billion at year	[1927	[123 years later
3 billion at year	[1960	[33 years later
4 billion at year	[1974	[14 years later
5 billion at year	[1987	[13 years later
6 billion at year	[1999	[12 years later

Population Growth Rates until 1750 were low (around 0.1% to 0.2% per annum) in a world largely dependent on subsistence agriculture and a feudal economy.

The Industrial Revolution brought about significant social and economic changes with an impact on the population growth rate, which climbed to around 0.6% p.a. by the year 1900. A revolution in agricultural production methods (the so-called “Green Revolution”) and in medical advances contributed to a marked acceleration in population growth during the 20th century and the growth rate peaked at over 2.0% p.a. in 1963, before settling back to its present 1.2% p.a. (assisted by the introduction by China of a one-child policy in 1979, and also by negative growth rates in some developed countries).

The numbers of deaths during Natural Disasters, Famines, Epidemics and Wars & other Conflicts that have occurred in the past will be found elsewhere.

The population of Africa has grown rapidly over the past century.

The population doubled in the period 1982–2009 and quadrupled from 1955–2009, according to United Nations estimates. The total population of Africa was estimated to have reached 1 billion in November 2009.

Year Population of Africa

1950	[230,000,000
1960	[287,000,000
1970	[368,000,000
1980	[483,000,000
1990	[635,000,000
2000	[811,000,000
2010	[1,022,000,000

1.1.2 CURRENT NUMBERS:

World Population	[6.707 billion (July 2008)
Births per annum	[135 million (or 370,000 per day)
Deaths per annum	[55 million (or 150,000 per day)
Net Increase	[80 million (or 220,000 per day)
Current Growth Rate	[1.188% per annum (2008)

UPDATE: According to UN Population Division the 7 Billion mark was reached on 31st October 2011.

AFRICA Current

Births per year	[34, 400,000 (94,250 per day)
Deaths per year	[11, 550,000 (31,650 per day)
Net annual increase	[22,850,000 (or 62,600 daily increase)
Population growth rate	[2.30% per annum

1.1.3 PREDICTED NUMBERS:

Projections based on past history and on current demographic factors suggest that the 8 billion figure will be reached in [2028], 9 Billion in [2054] and 10 billion in [2183] reflecting a declining growth rate, possibly to zero.

The question of limits on the carrying-capacity of the planet will be addressed elsewhere.

1.1.4 REGIONAL POPULATIONS

(i) Continents: (2008)

			<u>Predicted for 2050</u>
Africa	[973 million	[14.5%	[19.8% (up)
Asia	[4054 million	[60.4%	[59.1%
Europe	[732 million	[10.9%	[7.0% (down)
Latin America	[577 million	[8.6%	[9.1% (up)
North America	[337 million	[5.0%	[4.4% (down)
Oceania	[34 million	[0.5%	[0.5%
World	[6707 million	[100.0%	

(ii) Development Regions:

As at 1999,

More Developed Regions | 1185 million | 19.8%
 Less Developed Regions | 4793 million | 80.2%

(iii) Countries

The 15 countries with the largest populations:

As at Jan. 2009

Rank	Country/Territory	Population	% of World Population
1.	China	[1,328,440,000	[19.68%
2.	India	[1,143,290,000	[16.94%
3.	United States	[306,165,000	[4.54%
4.	Indonesia	[239,041,541	[3.55%
5.	Brazil	[188,535,000	[2.8%
6.	Pakistan	[165,398,000	[2.46%
7.	Bangladesh	[155,248,111	[2.31%
8.	Nigeria	[147,878,145	[2.2%
9.	Russia	[140,336,656	[2.08%
10.	Japan	[127,191,468	[1.89%
11.	Mexico	[110,643,450	[1.64%
12.	Philippines	[97,109,673	[1.44%

13 •	Vietnam	[86,583,713	[1.29%
14 •	Ethiopia	[83,997,629	[1.25%
15 •	Egypt	[82,466,628	[1.22%
	• European Union	[491,343,472	[7.3%

Approximately 4.4 billion people live in these 15 countries, representing roughly two-thirds of the world's population.

If added together, all nations in the European Union, with 491.3 million people about 7.3% of world's population in 2008 – would be third in the list above.

India, Pakistan & Bangladesh have a combined population of 1,463,936,111 (21.7%)

AFRICAN COUNTRIES WITH TOP 10 POPULATIONS

This is a list of the top 10 African countries by population, based on estimates by the United Nations Population Division, July 2012.

Rank	Country	UN estimate % of African pop
	Total	[1,070,096,000 [100
1 •	Nigeria	[166,629,000 [15.57
2 •	Ethiopia	[86,539,000 [8.09
3 •	Egypt	[83,958,000 [7.85
4 •	DR Congo	[69,575,000 [6.50
5 •	South Africa	[50,738,000 [4.74
6 •	Tanzania	[47,656,000 [4.45
7 •	Sudan	[45,722,000 [4.27
8 •	Kenya	[42,749,000 [3.99
9 •	Algeria	[36,486,000 [3.41
10 •	Uganda	[35,621,000 [3.33

The total population of Africa at that date was **14.5%** of World population.

1.2 POPULATION PROFILES

1.2.1 POPULATION DENSITY

Continent	Area (km ²)	Density People per km ²
Asia	[43,810,000	[86.70

Africa	[30,370,000	[29.30
North America	[24,490,000	[21.0
South America	[17,840,000	[20.8
Europe	[10,180,000	[69.7
Oceania	[8,500,000	[3.5

1.2.2 URBANISATION

The twentieth century witnessed the rapid urbanization of the world's population. The global proportion of **urban population** increased from a mere 13 per cent in 1900 to 29 per cent in 1950 and reached **49** per cent in 2005 and **50** per cent in 2008.

Since the world is projected to continue to urbanize, 60 per cent of the global population is expected to live in cities by 2030. In 2005, 74% of More Developed Country Population was urbanized while 43% of Less Developed Country Population was urbanized

Rural Populations in 2005 were India-786million; China-784m; Indonesia-116m.

African Urbanisation

It is estimated that in 1900 about 95% of Africa's inhabitants south of Sahara lived from the primary occupations of farming, hunting & gathering, cattle nomadism, and fishing meaning that less than 5% were urban. In **1950** (the start of the independence period) 14.7% of Africa's inhabitants were urban, in **2000** this had risen to 37.2% and is expected to rise to 45.3% in 2015 (UN, 2002).

The Nigerian city of Lagos that in 1963 had 665 000 inhabitants and 8.7 million in 2000 is expected to become the worlds 11th biggest city by 2015 with 16 million inhabitants (UN, 2002).

1.2.3 SEX RATIOS

Global Sex ratio:- (2008)

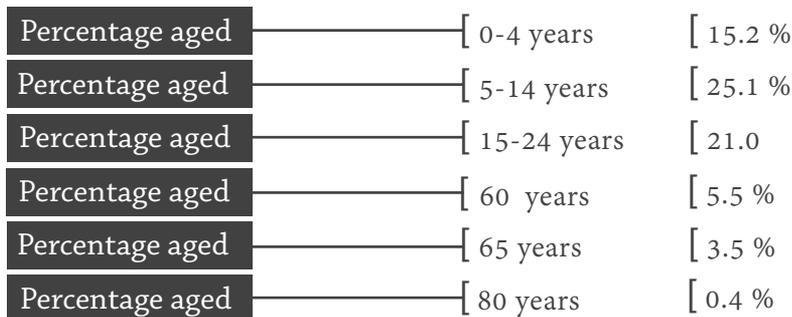
Under 15 years:	[1.06 male(s)/female (s)
15-64 years:	[1.02 male(s)/female (s)
65 years and over:	[0.78 male(s)/female(s)

1.2.4 AGE STRUCTURE

World



African



Median age is the age that divides a population into two numerically equal groups - that is, half the people are younger than this age and half are older. It is a single index that summarizes the age distribution of a population.

Currently, the median age ranges from a low of about 15 in Uganda to 40 or more in several European countries, Canada and Japan

Africa has a median age of **19.7** years, indicating a relatively young population. This is due to a high reproductive rate combined with a low life expectancy

1.2.5 ETHNIC GROUPS

The **world** is made up of thousands of ethnic groups. The single largest ethnic group on the planet by far is Han Chinese, which represents 19.73% of the global population. For comparison 6.06% of the planet's population is of full or partial Spanish ancestry, and on a wider scale 14.2% of earth's population is of Sub-Saharan descent (those identifying as 'Black')

African Ethnic Groups

Ethnic groups in Africa number in the hundreds, each generally having its own language (or dialect of a language) and culture.

The following ethnic groups number **(10 million) people or more:**

Northern Africa: Arab, up to ca. (100 million), **Berber** (ca.65 million)

Western Africa: Hausa in Nigeria, Niger, Chad, Cameroon, Ivory Coast and Sudan (ca. 30 million)

Fula in Guinea, Nigeria, Cameroon, Senegal, Mali, Sierra Leone, Central African Republic, Burkina Faso, Benin, Niger, Gambia, Guinea Bissau, Chad, Sudan, Togo and Ivory Coast (ca. 27 million)

Mandinka in The Gambia, Guinea, Mali, Sierra Leone, Ivory Coast, Senegal, Burkina Faso, Liberia, Guinea Bissau, Niger, Mauritania, Chad (ca. 13 million)

Igbo in Nigeria, Cameroon, Sierra Leone and Equatorial Guinea (ca. 30 million)

Yoruba in Nigeria and Benin (ca. 30 million)

Oromo in Ethiopia and Kenya (ca. 30 million)

Akan in South Ghana and Ivory Coast (ca. 25 million)

Ijaw in Nigeria (ca. 14 million)

Horn of Africa: Tigray in Ethiopia (ca. 11 million)

Amhara in Ethiopia (ca. 20 million)

Somali in Somalia, Djibouti, Ethiopia, and Kenya (ca. 15-17 million)

Central Africa: Luba in Democratic Republic of the Congo (ca. 13 million)

Mongo in Democratic Republic of the Congo (ca. 12 million)

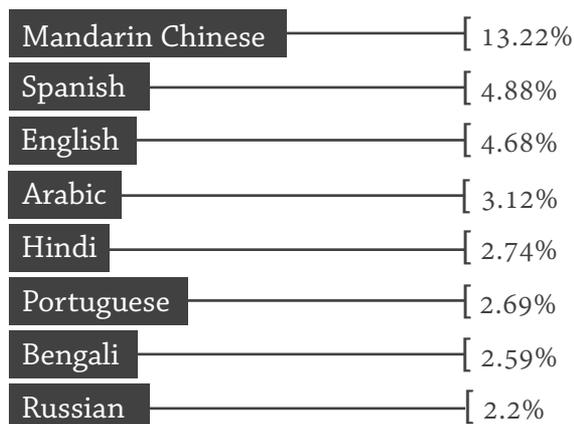
Kongo in Democratic Republic of the Congo, Angola and Republic of the Congo (ca. 10 million)

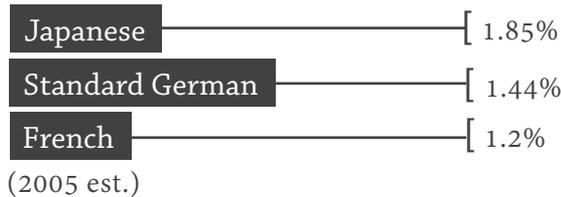
Eastern Africa: Hutu in Rwanda, Burundi, DR Congo (ca. 16 million)

Southern Africa: Shona in Zimbabwe and Mozambique (ca. 10 million)

Zulu in South Africa (ca. 10 million)

1.2.6 LANGUAGE GROUPS





Note: percentages are for “first language” speakers only

African Language Groups

Of the over 1000 million Africans about 17 percent speak an Arabic dialect. About 10 percent speak Swahili, the lingua franca of East Africa; 5 percent a Berber dialect; and 5 percent speak Hausa, the lingua franca of West Africa. Other important West African languages are Yoruba, Igbo and Fula. Major Horn of Africa languages are Amharic, Oromo and Somali. Important South African languages are Zulu and Afrikaans. English, French, Portuguese and Spanish are important languages in Africa. About 130, 115, 20, 10 million Africans respectively speak them as either home or secondary languages.

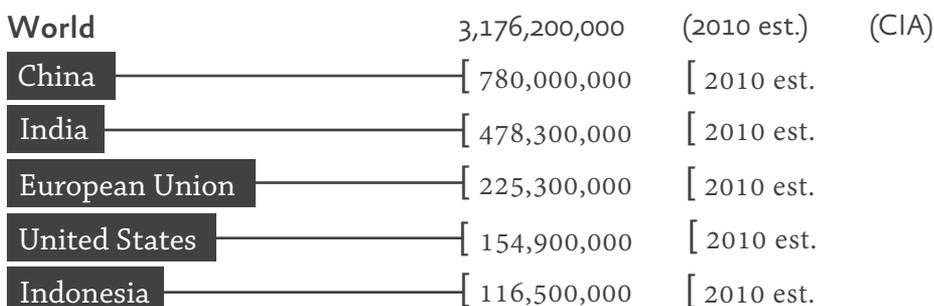
1.2.7 RELIGIONS

Christianity (33% of world population), Islam (20%), Hinduism (13%), Chinese folk religion (6.3%), Buddhism (5.9%), and Judaism (0.23%). The irreligious and atheists make up about 14%, and about 4% follow indigenous tribal religions.

Religions in Africa

There are conflicting statistics of religions in Africa from different sources. According to Britannica Online, the Muslim population of Africa in 2010 was 421,938,820 (40.84%), while Christians were 488,880,000 (47.32%), African traditional religions (ethno religionists) were 109,592,000 (10.6%), and all other remaining beliefs were 12,632,200 (1.22%), from the 1,033,043,000 total population of Africa in 2010. According to both Encyclopædia Britannica (2003) and World Book Encyclopedia, Islam is the largest religion in Africa, followed by Christianity

1.2.8 LABOUR FORCE



Brazil [101,910,000 [2010 est.

African Labour Force

Country	Labour force	Year of Estimate (CIA)
Nigeria	[52,160,000	[2011
Ethiopia	[37,900,000	[2007
Congo, D R	[34,790,000	[2011
Egypt	[27,740,000	[2011
Tanzania	[24,060,000	[2011
Kenya	[18,390,000	[2011
South Africa	[17,660,000	[2011
Uganda	[16,020,000	[2011
Sudan	[11,920,000	[2007
Morocco	[11,540,000	[2011

1.3 POPULATION MOVEMENT

1.3.1 MIGRATION

International Migrants

According to the International Organization for Migration the global number of international migrants was estimated at **214 million** in 2010.

Migrants comprise **3.0 per cent of the global population**. The number of the migrants worldwide would constitute the fifth most populous country in the world.

Women account for 49.6 per cent of global migrants.

There are roughly **20 to 30 million unauthorized migrants worldwide**, comprising around 10 to 15 per cent of the world's immigrant stock.

REFUGEES AND INTERNALLY DISPLACED PERSONS

Refugees are persons who are outside their country of origin or habitual residence because they have suffered (or fear) persecution on account of race, religion, nationality, political opinion, or because they are a member of a persecuted 'social group' or because they are fleeing natural disaster. Such a person may be referred to as an '**asylum seeker**' until recognized by the state where they make a claim.

The United Nations High Commissioner for Refugees (UNHCR) estimated that in December 2006 there was a global population of **8.8 million registered refugees** in

more than 50 countries; the actual global population of refugees was probably closer to 10 million given the estimated 1.5 million Iraqi **refugees** displaced throughout the Middle East. In 2007, the global number of refugees reached an estimated **11.4 million persons**.

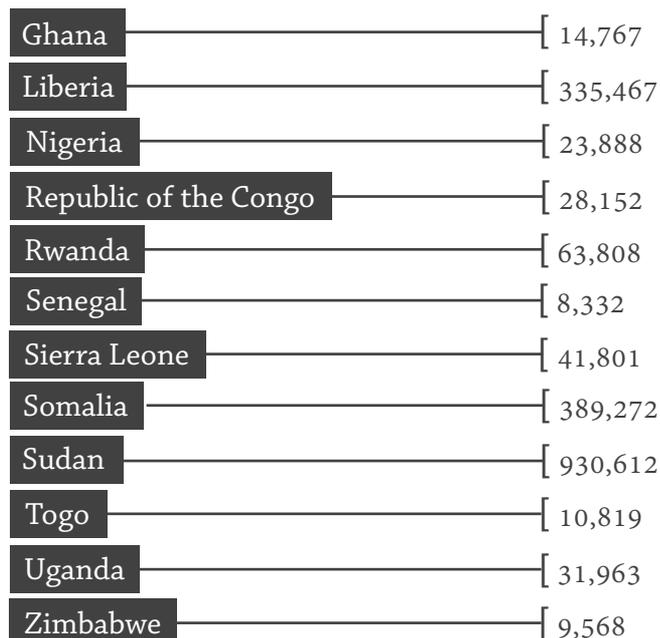
An internally displaced person (IDP) is someone who is forced to flee his or her home but who remains within his or her country's borders. They are often referred to as refugees, although they do not fall within the current legal definition of a refugee. At the end of 2006 it was estimated there were 24.5 million IDPs in some 52 countries. The region with the largest IDP population was Africa with some 11.8 million in 21 countries.

Movements in Africa

Since the 1950s, many nations in Africa have suffered civil wars and ethnic strife, thus generating a massive number of refugees of many different nationalities and ethnic groups. The division of Africa into European colonies in 1885, along which lines the newly independent nations of the 1950s and 1960s drew their borders, has been cited as a major reason why Africa has been so plagued with intrastate warfare. The number of refugees in Africa increased from 860,000 in **1968** to 6,775,000 by **1992**. By the end of **2004**, that number had dropped to 2,748,400 refugees, according to the United Nations High Commission for Refugees (UNHCR)

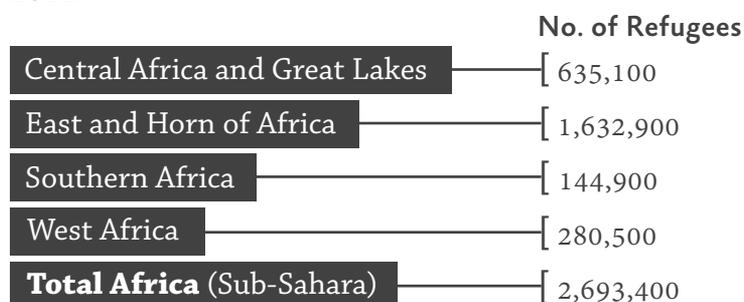
Countries in Africa from where 5,000 or more refugees originated as of the end of 2004, arranged in alphabetical order are listed below. The largest number of refugees was from Sudan and had fled either the longstanding and recently concluded Sudanese Civil War or the Darfur conflict and they are located mainly in Chad, Uganda, Ethiopia, and Kenya.

Angola	[228,838
Burundi	[485,764
Cameroon	[7,629
Central African Republic	[31,069
Chad	[52,663
Côte d'Ivoire	[23,655
Democratic Republic of Congo	[462,203
Eritrea	[131,119
Ethiopia	[63,105



REFUGEE POPULATIONS BY UNHCR REGIONS AT END

2011



HUMAN TRAFFICKING

Approximately **800,000** people, mostly women and children, are trafficked **annually** across national borders, not including millions trafficked within their own countries; at least 80% of the victims are female and up to 50% are minors; 75% of all victims are trafficked into commercial sexual exploitation; almost two-thirds of the global victims are trafficked intra-regionally within East Asia and the Pacific (260,000 to 280,000 people) and Europe and Eurasia (170,000 to 210,000 people)

1.3.2 MIGRANT WORKERS

The term migrant worker has different official meanings and connotations in different parts of the world. The United Nations' definition is broad, including people working outside of their home country and those who migrate within a country in order to

pursue work such as seasonal work or to find work in an urban area. Workers from China's impoverished regions go to work in the more prosperous coastal regions. According to State statistics, the current (2005) number of migrant workers in China was estimated at 150 million, that is to say nearly 11.5% of the population. China's urban migrants sent home the equivalent of almost 300 billion US\$ in 2005.

Remittances are transfers of money by foreign workers to their home countries. Money sent home by cross-border migrants constitutes the second largest financial inflow to many **developing** countries, exceeding international aid. In 2007, **remittance flows** from 192 million Migrant Workers were estimated by World Bank at **USD 337 billion worldwide**, of which USD 251 billion went to developing countries.

Remittances to Africa play an important role to national economies, but little data exists as many rely on informal channels to send money home. Today's African Diaspora consists of approximately 20 to 30 million adults, who send about \$ 40 billion annually to their families and local communities back home. For the region as a whole, this represents 50 percent more than net Official Development Assistance (ODA) [Chapter 6] from all sources, and, for most countries, the amount also exceeds foreign direct investment (FDI) [Chapter 13]. In several fragile states, remittances are estimated to exceed 50 percent of GDP.

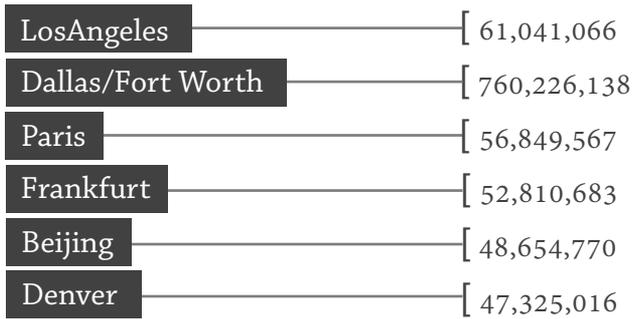
According to a World Bank study, Nigeria is by far the top remittance recipient in Africa, accounting for \$10 billion in 2010. Other top recipients include Sudan (\$3.2 billion), Kenya (\$1.8 billion), Senegal (\$1.2 billion), South Africa (\$1.0 billion), Uganda (\$0.8 billion), Lesotho (\$0.5 billion), Ethiopia (\$387 million), Mali (\$385 million), and Togo (\$302 million). As a share of GDP, the top recipients in 2009 were: Lesotho (25 percent), Togo (10 per cent), Cape Verde (9 per cent), Guinea-Bissau (9 per cent), Senegal (9 per cent), Gambia (8 per cent), Liberia (6 per cent), Sudan (6 per cent), Nigeria (6 per cent), and Kenya (5 per cent).

1.3.3 TRAVEL

Air Travel

TOP TEN AIRPORTS BY PASSENGERS (2006):-

Atlanta	[84,846,639
Chicago	[77,028,134
London	[67,530,197
Tokyo	[65,810,672



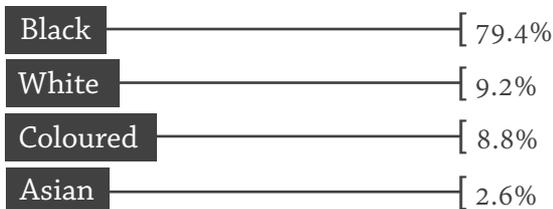
Number of Passengers (2005) : 2 billion

1.4 FOCUS ON SOUTH AFRICA (RSA)

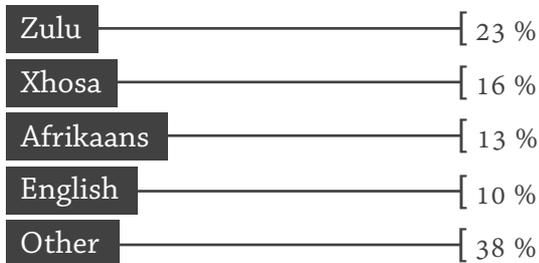
South Africa is the 5th most populous country in Africa and has the 7th largest labour force. The Constitution of RSA provides for eleven **official** languages, recognising the diverse ethnic origins of its inhabitants. Seven of these languages are indigenous while two have colonial origins, namely English and Afrikaans (a derivative of Dutch).

According to the 2011 Census:

Ethnicity



Language



Age Structure



60 & over

[7.7%

Sources for this chapter:

UN Population Division

UNHCR

UN-HABITAT

ILO

World Bank & IMF

CIA

African Development Bank (ADB)

2. COUNTRIES OF THE WORLD



2. COUNTRIES OF THE WORLD

ARRANGEMENT OF THIS CHAPTER

- 2.1 INTRODUCTION
- 2.2 COUNTRY ECONOMY SIZE
- 2.3 COUNTRY DEVELOPMENT
- 2.4 COLONISATION OF AFRICA
- 2.5 COUNTRY GROUPINGS

2.1 INTRODUCTION

2.1.1 GEOPOLITICAL ENTITIES

The World is made up of 240 sovereign states and 27 territories (dependencies, etc.) totaling 267 entities as of the year 2007.

There are 193 Member States of the United Nations as at 2013.

2.1.2 COUNTRIES BY CONTINENT

The spread of most of the World's countries across the Continents is shown below:

Continent	Area (km ²)	Number of Countries	Top Three by GDP as at 2011 (Global ranking in parenthesis)
Asia	[43,810,000	[47	[China(2), Japan(3), India(9)
Africa	[30,370,000	[54	[South Africa(28), Nigeria(39), Egypt(42)
North America	[24,490,000	[23	[USA(1), Canada(11), Mexico(14)
South America	[17,840,000	[13	[Brazil(6), Argentina(26), Colombia(31)
Europe	[10,180,000	[44	[Germany(4), France(5), UK(7), Italy(8), Russia(10)
Oceania	[8,500,000	[44	[Australia(12), New Zealand(53), Papua New Guinea(124)

2.1.3 COUNTRIES BY REGIONS OF AFRICA

The following is a list of the countries by five sub regions in the United Nations geoscheme for Africa.

Northern Africa (8): • *Algeria Egypt Libya Morocco South Sudan Sudan Tunisia Western Sahara*

Western Africa (16): • *Benin Burkina Faso Cape Verde Côte d'Ivoire Gambia Ghana Guinea Guinea-Bissau Liberia Mali Mauritania Niger Nigeria Senegal Sierra Leone Togo*

Central Africa (9): • *Angola Cameroon Central African Republic Chad Republic of the Congo Democratic Republic of the Congo Equatorial Guinea Gabon São Tomé Príncipe*

Eastern Africa (17):..... • *Burundi Comoros Djibouti Eritrea Ethiopia Kenya Madagascar Malawi Mauritius Mozambique Rwanda Seychelles Somalia Tanzania Uganda Zambia Zimbabwe*

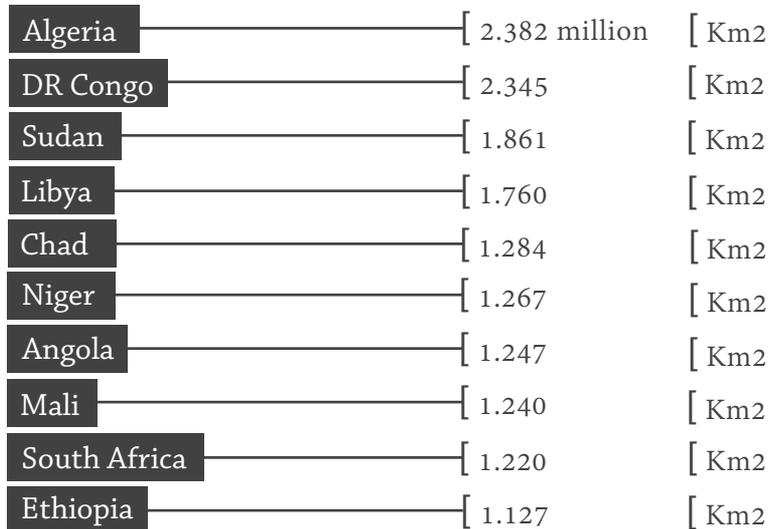
Southern Africa (5): • *Botswana Lesotho Namibia South Africa Swaziland*
Total: 55 countries in Africa as at 2012

2.1.4 PHYSICAL SIZE

Land Areas (Square Kilometers)



Top 10 African Countries by Land Area:

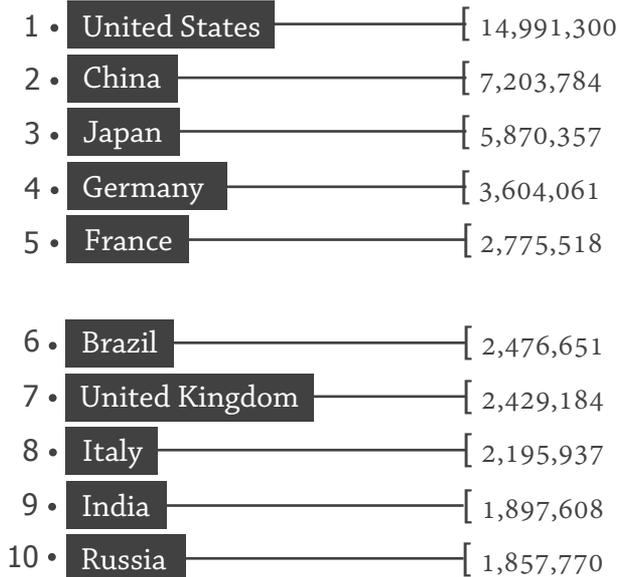


2.2 COUNTRY ECONOMY SIZE

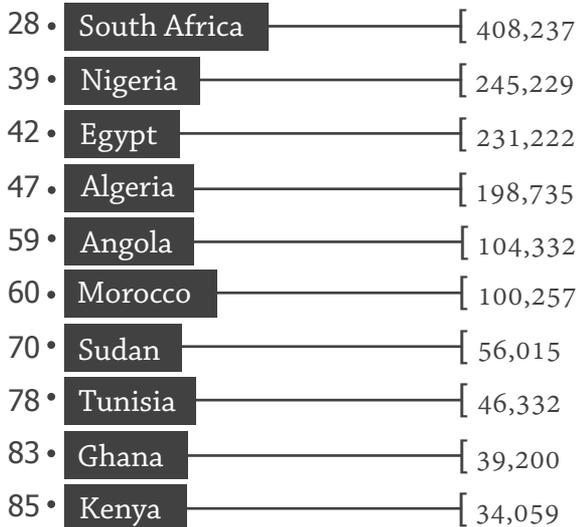
GDP Lists by the United Nations (2011)

World Total \$70,201,920 millions

World Top Ten



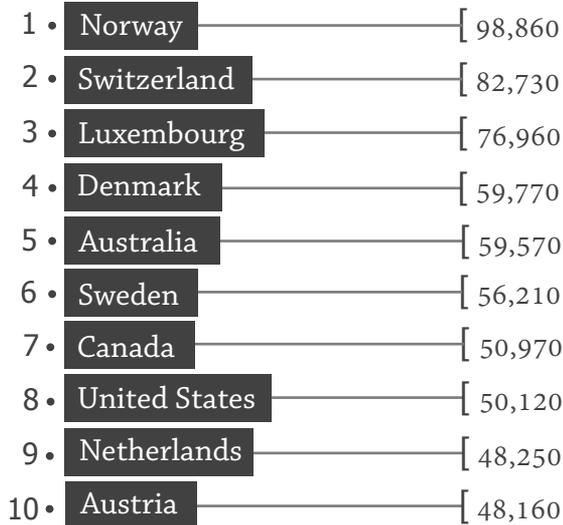
Africa Top Ten



However these tables do not take into account the population sizes for each country within which the cake must be divided for the inhabitants to enjoy the economic benefits accruing to the country. Assuming for the moment that each person enjoys an equal share of the country's economic wealth, then individual benefit must be expressed by **GNI per capita**. It reflects the average income of a country's citizens.

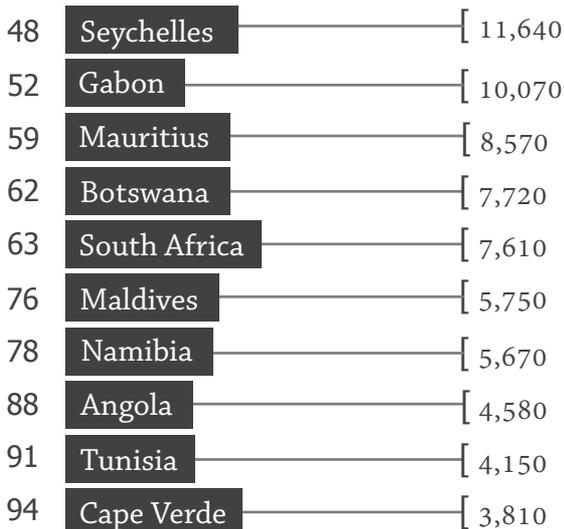
ECONOMY GNI PER CAPITA (US\$) [WORLD BANK 2012

World Top Ten



Thus, taking population into account in this way shifts USA from 1 to 8, Japan from 3 to 18, Germany from 4 to 16, China from 2 to 106 (the world's most populous country at 1.328 billion), UK from 7 to 12, France from 5 to 17, Italy from 8 to 21, and Brazil (5th most populous at 188 million) from 6 to 61.

Africa Top Ten



This gives a more people-centred view of national wealth and economic well-being.

In Chapter 4 social factors are added to the economic to arrive at a more realistic and comprehensive assessment of the Human Condition within the countries of the world.

2.3 COUNTRY RANKINGS BY DEGREE OF ECONOMIC DEVELOPMENT

2.3.0 OVERVIEW OF TERMINOLOGY AND CRITERIA

There are several authorities, including the World Bank, IMF, UNDP and the CIA which classify countries according to economic development and using varying criteria.

Classifications of this kind can be important for:

Qualifying lower ranking countries for various forms of UN assistance.

Committing high income countries to providing aid.

The World Bank classifies countries according to Gross National Income (GNI) **per capita** as follows (**as at 2011**):

\$12,476 or more	[High Income
\$4,036 to \$12,475	[Middle Income, Upper
\$1,026 to \$4,035	[Middle Income, Lower
\$1,025 or less	[Low Income

Other authorities use different terminology and sometimes different numerical and other criteria.

2.3.1 HIGH INCOME COUNTRIES

(Developed, Industrialised, Advanced, Richest)

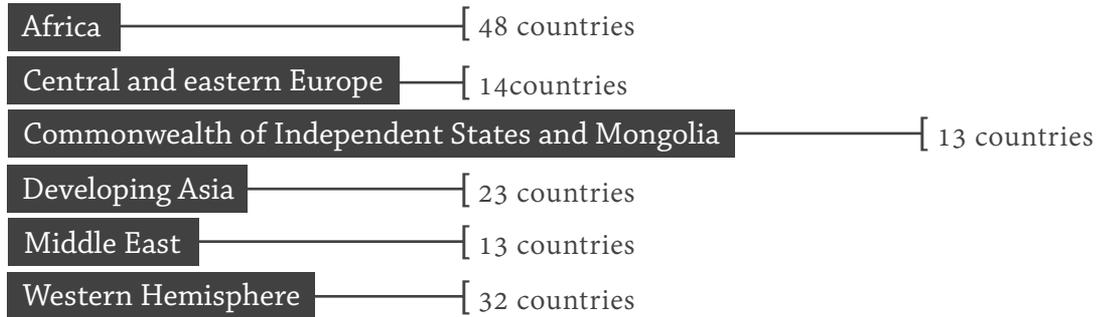
According to the **International Monetary Fund** the following 31 countries are classified as “advanced economies”:

Europe	[21
North America	[2
Oceania	[2
Asia	[5
Middle East	[1
Africa	[Nil
South America	[Nil

2.3.2 MIDDLE INCOME COUNTRIES (DEVELOPING, EMERGING)

Emerging and developing economies according to **IMF** (as at **2007**)

Composed of 143 countries:



2.3.3 LOW INCOME COUNTRIES (UNDERDEVELOPED, LEAST DEVELOPED [LDC'S], POOREST)

Least Developed Countries (LDCs) are countries which according to the United Nations exhibit the lowest indicators of socioeconomic development.

A country is classified as a Least Developed Country if it meets three criteria based on:

Low-income

.....● (three-year average GNI per capita of less than US \$750, which must exceed \$900 to leave the list)

human resource weakness

.....● (based on indicators of nutrition, health, education and adult literacy)

economic vulnerability and instability

Countries may “graduate” out of the LDC classification when indicators exceed these criteria. The United Nations Office OHRLLS coordinates UN support and provides advocacy services for Least Developed Countries.

UN LIST OF LEAST DEVELOPED COUNTRIES (LDCS)

Of 193 UN member states **48** were classified as Least Developed Countries as at 2012 and eligible for certain UN support and services.

Of the 48 LDCs 33 are located in Africa:

Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, Sudan, Togo, Uganda, United Republic of Tanzania, Zambia,

HEAVILY INDEBTED POOR COUNTRIES [HIPC'S]

Heavily Indebted Poor Countries (HIPC) are a sub-group of developing countries with high levels of poverty and debt overhang which are eligible for special assistance from the International Monetary Fund (IMF) and the World Bank.

The HIPC program was initiated by the International Monetary Fund and the World Bank in 1996. It provides debt relief and low-interest loans to reduce external debt repayments to sustainable levels. Assistance is conditional on the national governments of these countries meeting a range of economic management and performance targets.

The HIPC program identified 42 countries, 32 of which are in Sub-Saharan Africa, as being potentially eligible to receive debt relief (2004). The 27 countries that have so far received a combined \$54 billion in aid are located as follows:

Africa	[	23
South America	[Bolivia, Honduras, Nicaragua	3
Asia	[Pakistan	1

2.3.4 GEOGRAPHICALLY DISADVANTAGED COUNTRIES

(I) LANDLOCKED

Lack of territorial access to the sea, remoteness and isolation from world markets and high transit costs impose serious constraints on the overall socio-economic development of landlocked developing countries. Their sea borne trade unavoidably depends on transit through other countries. Additional border crossings and long distance from the market substantially increase the total expenses for the transport services.

Africa	[	16
Asia	[	10

Europe	[4
Latin America	[2

LANDLOCKED STATES IN AFRICA:

Northern	[South Sudan
Western	[Burkina Faso, Mali, Niger
Central	[Central African Republic, Chad
Eastern	[Burundi, Ethiopia, Malawi, Rwanda, Uganda, Zambia, Zimbabwe
Southern	[Botswana, Lesotho, Swaziland

(II) SMALL ISLAND

Small Island Developing States (SIDS) were recognized as a distinct group of developing countries facing specific social, economic and environmental vulnerabilities. The United Nations recognizes the 38 UN Member States belonging to the Alliance of Small Island States (AOSIS), an ad hoc negotiating body established by SIDS at the United Nations. AOSIS also includes other island entities that are non-UN Member States.

UN Members	[38
Non-UN Members	[14

ISLAND STATES IN AFRICA:

Atlantic Ocean [Cape Verde, Sao Tome & Principe

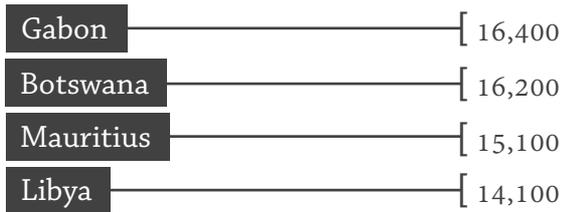
Indian Ocean [Comoros, Madagascar, Mauritius, Seychelles.
The United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States coordinates UN support and provides advocacy services for these countries.

2.3.5 AFRICAN COUNTRY RATINGS IN GNI PER CAPITA

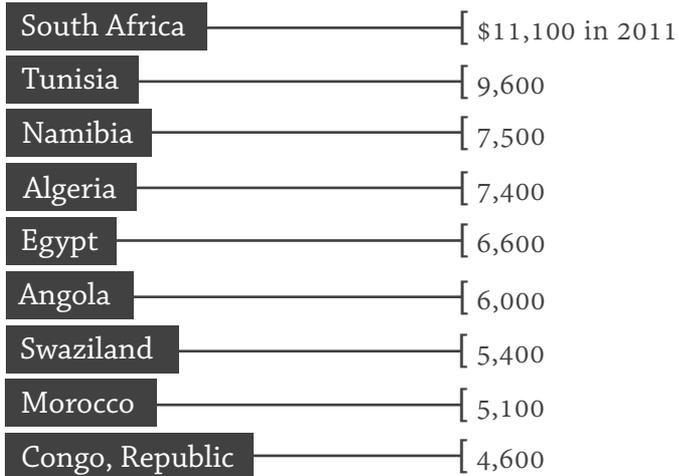
According to World Bank terminology (see 2.3.0 above)

HIGH INCOME AFRICAN COUNTRIES (6 OUT OF 55):-

Seychelles	[\$ 25,000 in 2011
Equatorial Guinea	[\$ 19,600



Upper MIDDLE INCOME AFRICAN COUNTRIES (9 OUT OF 55):



LOW INCOME AFRICAN COUNTRIES (12 OUT OF 55):



The other 28 African countries fall into the Lower MIDDLE INCOME classification.

2.3.6 COUNTRY SUMMARY

The highly unsymmetrical nature of our world of two hundred plus countries is apparent from the statistics above.

Wealth is heavily concentrated in the hands of a few countries:

The 10 richest countries account for two-thirds of the World's Economy
 The Eurozone + USA account for nearly half
 One country alone, USA, accounts for one fifth

Development levels are high in Europe and North America but low in Africa and South America. Poverty at country level is absent in Europe and North America but rife in **Africa**, with 33 out of 49 LDC's and 32 out of 42 HIPC's

2.4 THE COLONISATION OF AFRICA

By the year 1920 the entire Continent of Africa, with the exceptions of Ethiopia and Liberia, had become the possessions by conquest of seven European colonising powers. The leading colonial power was Great Britain with the British Empire controlling 22.6% of the World's territory and 20% of the World's population, including 30% of Africa's population; followed by France, Portugal, Germany, Belgium, Italy and Spain in that order (see below).

Competition for the conquest and seizure of the African Continent became known as the Scramble for Africa and attempts to achieve an orderly division culminated in the Berlin Conference of 1884, but without any African representation.

SOME ATTRACTIONS OF AFRICA FOR THE COLONISERS

- Territory for Settlers
- Land for food production
- Cheap Labour; slave labour
- Natural Resources, especially Minerals
- Markets for Products
- Trading Posts
- Stopover Ports en route to India and East Asia
- Control of Sea Routes
- Military and Naval Bases

2.4.1 AFRICAN COLONIES LISTED BY COLONISING POWER

BELGIUM

• *Congo Free State and Belgian Congo (today's Democratic Republic of the Congo) Ruanda-Urundi (comprising modern Rwanda and Burundi, 1922–62)*

FRANCE

• *French West Africa: Mauritania, Senegal, Gambia (1681–1857, now part of Gambia) French Sudan (now Mali), French Guinea (now Guinea), Ivory Coast, Niger, French Upper Volta (now Burkina Faso), French Dahomey (now Benin), French Togoland (1916–60, now Togo), French Equatorial Africa, Gabon, French Cameroun (1922–60), French Congo (now Republic of the Congo), Oubangi-Chari (now Central African Republic), Chad,*

• *French North Africa: French Algeria, French Protectorate of Tunisia, French Morocco, French East Africa, Madagascar, Comoros, Scattered islands in the Indian Ocean, French Somaliland (now Djibouti)*

GERMANY

• *German Kamerun (now Cameroon and part of Nigeria, 1884–1916) German East Africa (now Rwanda, Burundi and most of Tanzania, 1885–1919), German South-West Africa (now Namibia, 1884–1915) German Togoland (now Togo and eastern part of Ghana, 1884–1914)*

ITALY

• *Italian North Africa, Italian Libya, Italian East Africa Italian Eritrea, Italian Somaliland, Italian Ethiopia*

PORTUGAL

• *Portuguese West Africa (now Angola), Mainland Angola, Portuguese Congo (now Cabinda Province of Angola), Portuguese East Africa (now Mozambique), Portuguese Guinea (now Guinea-Bissau), Cape Verde Islands, São Tomé e Príncipe, São Tomé Island, Príncipe Island, Fort of São João Baptista de Ajudá (now Ouidah, in Benin)*

SPAIN

• *Spanish North Africa, Northern Spanish Morocco, Chefchaouen (Chauen), Jebala (Yebala), Kert, Loukkos (Lucus), Rif, Spanish West Africa, Southern*

Spanish Morocco, Cape Juby, Ifni, Spanish Sahara (now Western Sahara), Río de Oro, Saguia el-Hamra, Spanish Guinea (now Equatorial Guinea), Fernando Poo, Río Muni, Annobón

UNITED KINGDOM

- *Egypt, Anglo-Egyptian Sudan (1899–1956), British Somaliland (now part of Somalia),*
- *British East Africa: Kenya Colony, Uganda Protectorate*
- *Tanzania : Tanganyika Territory (1919–61), Zanzibar, Bechuanaland (now Botswana), Southern Rhodesia (now Zimbabwe), Northern Rhodesia (now Zambia), British South Africa*
- *South Africa: Transvaal Colony, Cape Colony, Colony of Natal, Orange River Colony, South-West Africa (from 1915, now Namibia), The Gambia, Sierra Leone, Nigeria, British Togoland (1916–56, today part of Ghana), Cameroons (1922–61, now parts of Cameroon and Nigeria) British Gold Coast (now Ghana), Nyasaland (now Malawi), Basutoland (now Lesotho), Swaziland*

The British were primarily interested in maintaining secure communication lines to India, which led to initial interest in Egypt and South Africa. Once these two areas were secure, it was the intent of British colonialists such as Cecil Rhodes to establish a Cape to Cairo railway. Control of the Nile was viewed as a strategic and commercial advantage.

INDEPENDENT STATES

Liberia, founded by the American Colonization Society of the United States in 1821; declared independence in 1847. Ethiopian Empire (Abyssinia) had its borders re-drawn with Italian Eritrea briefly occupied by Italy from 1936–1941 during the Abyssinia Crisis.

2.4.2 THE AFRICAN STRUGGLES FOR INDEPENDENCE

(IN CHRONOLOGICAL ORDER FROM 1922 TO 2011)

Country	Colonial name	Colonial power	Independence date	First head of state
Egypt	Egypt	Britain	28 February 1922	Sarwat Pasha,
South Africa	Union of South Africa	Britain	11 December 1931	Hertzog,
Libya	Libya, Allied Military Administration	Italy	December 24, 1951	Idris,
Sudan	Anglo-Egyptian Sudan	Britain & Egypt	19 December 1955	Ismail al-Azhari,
Tunisia	French protectorate of Tunisia	France	March 20, 1956	Muhammad VIII,
Morocco	Protectorate of Morocco	France & Spain	April 7, 1956	Mohammed V,
Ghana	Gold Coast	Britain & Germany;	Britain March 6, 1957	Kwame Nkrumah,
Guinea	French Guinea (part of French West Africa)	France	October 2,	

1958 Sékou Touré, **Cameroon** Cameroun Germany; France & Britain January 1, 1960[8] Ahmadou Ahidjo, **Togo** French Togoland Germany; France April 27, 1960 Sylvanus Olympio, **Mali** French Sudan (part of French West Africa) France June 20, 1960 Modibo Keita, **Madagascar** Malagasy Protectorate France June 26, 1960 Philibert Tsiranana, **Democratic Republic of the Congo** Belgian Congo Belgium June 30, 1960 Patrice Lumumba, **Somalia** British and Italian Somaliland Britain & Italy June 26, 1960 Ibrahim Egal, **Benin** French Dahomey (part of French West Africa) France August 1, 1960 H Maga, **Niger** Colony of Niger (part of French West Africa) France August 3, 1960 H Diori, **Burkina Faso** French Upper Volta (part of French West Africa) France August 5, 1960 Maurice Yaméogo, **Côte d'Ivoire** Ivory Coast (part of French West Africa) France August 7, 1960 Félix Houphouët-Boigny, **Chad** French Chad (part of French Equatorial Africa) France August 11, 1960 François Tombalbaye - **Central African Republic** Ubangi-Shari (part of French Equatorial Africa) France August 13, 1960 David Dacko, **Republic of the Congo** French Congo (part of French Equatorial Africa) France August 15, 1960 Fulbert Youlou, **Gabon** part of French Equatorial Africa France August 17, 1960 Léon M'ba, **Senegal** part of Sudanese Republic Mali 20 August 1960 Léopold Senghor, **Nigeria** British Nigeria Britain October 1, 1960 Nnamdi Azikiwe.

Mauritania part of French West Africa France November 28, 1960 Moktar Ould Daddah, **Sierra Leone** Sierra Leone Britain April 27, 1961 Milton Margai, **Tanzania** Tanganyika Zanzibar Britain December 9, 1961 Julius Nyerere, **Rwanda** part of Ruanda-Urundi Belgium July 1, 1962 Grégoire Kayibanda, **Burundi** part of Ruanda-Urundi Belgium July 1, 1962 André Muhirwa, **Algeria** French Algeria France July 3, 1962 Ahmed Ben Bella, **Uganda** Uganda Protectorate Britain October 9, 1962 Milton Obote, **Kenya** Kenya Colony Britain December 12, 1963 Jomo Kenyatta, **Malawi** Nyasaland Protectorate Britain July 6, 1964 Hastings Kamuzu Banda, **Zambia** Northern Rhodesia Britain October 24, 1964 Kenneth Kaunda, **The Gambia** Gambia Britain February 18, 1965 Dawda Kairaba Jawara, **Zimbabwe** Southern Rhodesia Britain 11 November 1965 Ian Smith, **Botswana** Bechuanaland Protectorate Britain September 30, 1966 Seretse Khama, **Lesotho** Basutoland Britain October 4, 1966 Leabua Jonathan, **Mauritius** Mauritius Britain March 12, 1968 **Swaziland** Swaziland Britain September 6, 1968 Sobhuza II - **Equatorial Guinea** Spanish Guinea Spain October 12, 1968 Francisco Macías Nguema, **Guinea-Bissau** Portuguese Guinea Portugal September 24, 1973 Luís Cabral **Mozambique** Portuguese East Africa Portugal June 25, 1975 Samora Machel, **Cape Verde** Portugal July 5, 1975 **Comoros** France July 6, 1975, **São Tomé and Príncipe** Portugal July 12, 1975 **Angola** Portuguese West Africa Portugal November 11, 1975 Agostinho Neto, **Seychelles** Britain June 29, 1976 James Richard Marie Mancham, **Djibouti** French Somaliland France June 27, 1977 Hassan Gouled Aptidon, **Namibia** South West Africa South Africa March 21, 1990 Sam Nujoma, **Eritrea** Eritrea Ethiopia May 24, 1993 Isaias Afewerki, **South Sudan** Southern Sudan Sudan July 9, 2011 Salva Kiir Mayardit.

2.4.3 THE AFTERMATH OF COLONIALISM

Colonial practices have left Africa with a legacy of effects which persist until the present.

COUNTRY BORDERS

Apart from natural borders formed by rivers, lakes, mountain ranges and deserts, Africa now has numerous artificial straight-line borders resulting from agreements and treaties between rival colonial powers usually without consultation with the indigenous populations concerned.

NAMES

The languages of the former colonial powers still persist in the names of Africa's Countries, Cities, Streets, Universities, Geographical Features, etc. A few examples follow:

COUNTRIES

South Africa, Mozambique, Cote d'Ivoire, Sao Tome & Principe.

CITIES

Libreville, Brazzaville, Port Elizabeth, East London.

OTHER

Rhodes University (Grahamstown), Victoria Falls, Lake Victoria

CULTURE

In some cases, several indigenous tribes each with their own culture, language and customs have been incorporated into one country; while in other cases one tribe has found itself split in two as a result of a straight-line border agreement (see above).

RELIGION

Northern Africa has historically been dominated by the Muslim religion but the European colonising powers sent missionaries to establish the Christian religion in Sub-Saharan Africa.

ADMINISTRATION & LAW

European powers established structures of Government and Law which have persisted as a template for many of today's African countries.

FINANCIAL CONTROL

Ownership and exploitation of resources, both productive and financial, often continue to be under the control and to the benefit of corporations and individuals domiciled in

former colonial countries

2.5 COUNTRY GROUPINGS

Most of the World's countries have formed groupings, forums, alliances, associations, unions and organizations sharing common interests. These include:

Continental Unions

Cultural Associations

Trade Associations

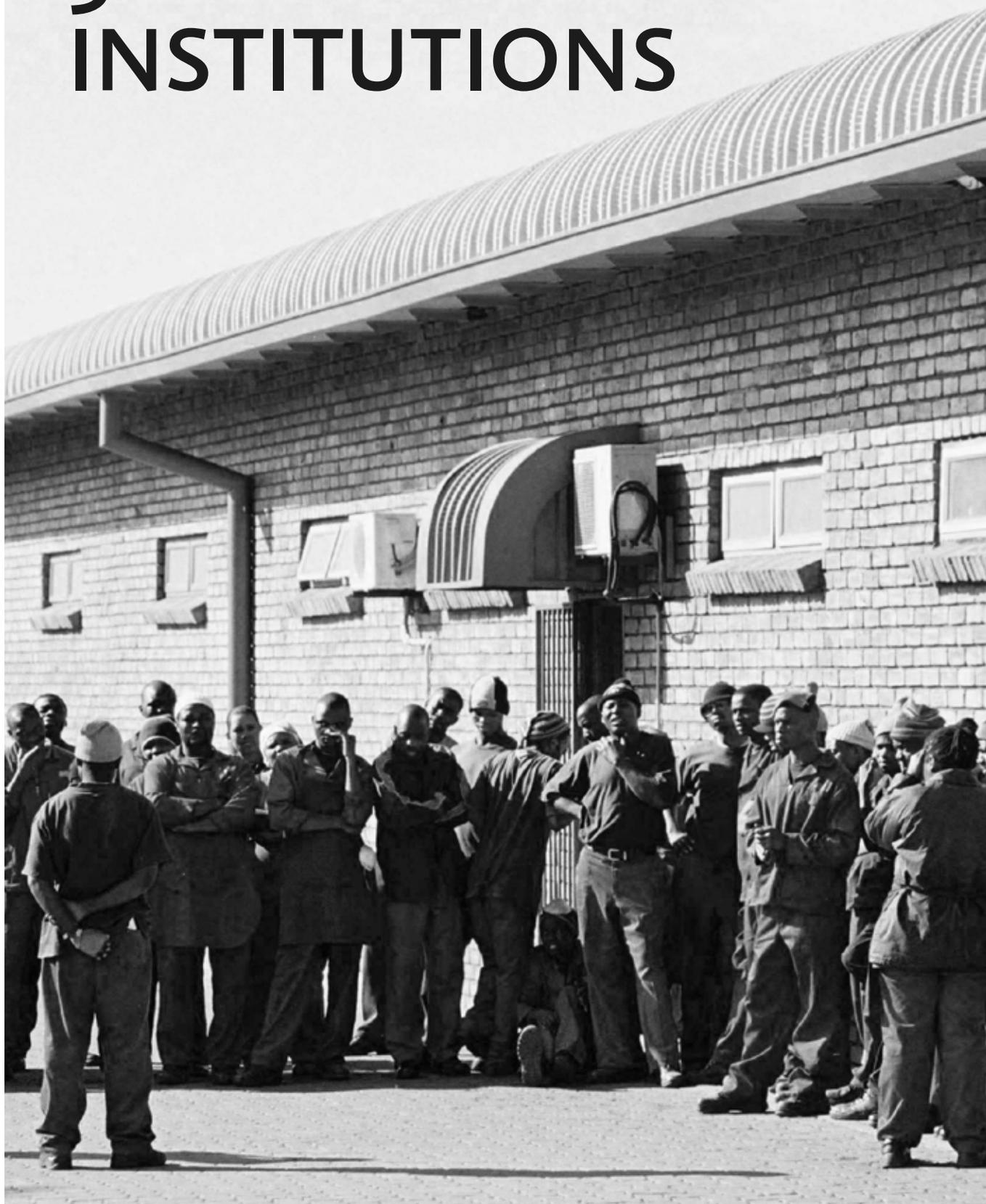
Economic Development Forums

Producer Unions

Military Alliances

They are dealt with extensively in Chapter 3

3. GLOBAL INSTITUTIONS



3. GLOBAL INSTITUTIONS

3.1 THE UNITED NATIONS SYSTEM

3.1.1 GENERAL ASSEMBLY

(193 MEMBER STATES)

As at 2012 there are 193 United Nations (UN) member states, all of them members of the United Nations General Assembly, each with one vote.

Thus the **55 countries of Africa** are able to cast 28.5% of the votes in a Resolution of the UN General Assembly.

3.1.2 SECURITY COUNCIL

(5 PERMANENT + 10 NON-PERMANENT SEATS)

The United Nations Security Council (UNSC) is one of the principal organs of the United Nations and is charged with the maintenance of international peace and security and is responsible for the establishment of UN peace-making and peace-keeping missions.

There are 15 members of the Security Council, consisting of five veto-wielding permanent members—China, France, Russia, the United Kingdom, and the United States—based on the great powers that were the victors of World War II, and 10 elected non-permanent members with two-year terms, chosen by regional groups, **including Africa**.

3.1.3 ECOSOC- ECONOMIC & SOCIAL COUNCIL

The United Nations Economic and Social Council (ECOSOC) constitutes one of the principal organs of the United Nations. It is responsible for coordinating the economic, social and related work of 14 UN specialised agencies, their functional commissions and five **Regional Commissions**.

The Council has 54 member states, which are elected by the United Nations General Assembly for overlapping three-year terms. Seats on the Council are based on geographical representation with **14 allocated to African states**, 11 to Asian states, 6 to East European states, 10 to Latin American and Caribbean states and 13 to West European and other states.

Economic Bodies:

UNCTAD

[UN Conference on Trade & Development

WTO

[World Trade Organisation

IMF	[International Monetary Fund
WBG	[World Bank Group :-
Subsidiaries	IBRD [International Bank for Reconstruction & Development
	IDA [International Development Association
	IFC [International Finance Corporation

Social Bodies:

UNDP	[UN Development Programme
UNMDG	[UN Millennium Development Goals
UNIDO	[UN Industrial Development Organisation
UNESCO	[UN Educational, Scientific & Cultural Org.
UNFPA	[UN Population Fund
UNHCR	[UN High Commissioner for Refugees
UNICEF	[UN Children's Fund
UNEP	[UN Environment Programme
UN-HABITAT	[UN Conference on Trade & Development
UNAIDS	[UN Programme on HIV/AIDS
FAO	[Food & Agricultural Organisation of the UN
ILO	[International Labour Organisation
IPC	[International Poverty Centre
WFP	[World Food Programme
WHO	[World Health Organisation

REGIONAL COMMISSIONS

United Nations Economic Commission for Africa (ECA)

The United Nations Economic Commission for Africa (UNECA or ECA) was established in 1958 by the United Nations Economic and Social Council to encourage economic cooperation among its member states (the nations of the African continent) following a recommendation of the United Nations General Assembly.

The Commission's work is structured into seven programme divisions:

..... African Centre for Statistics
 Food Security & Sustainable Development
 Gender and Social development
 ICT and Science & Technology
 Economic Development & NEPAD
 Regional integration, Infrastructure and Trade
 Governance & Public Administration

UN LIST OF LEAST DEVELOPED COUNTRIES (LDCS)

Of 193 UN member states **48** were classified as Least Developed Countries as at 2012 and eligible for certain UN support and services. Three criteria are used in determining this classification:

Low income; less than \$750 GNI per capita (\$2 per day)
 Low Human Development Index
 Economic instability & vulnerability.

Of the 48 LDCs 33 are located in **Africa**:

..... Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, Sudan, Togo, Uganda, United Republic of Tanzania, Zambia.

3.1.4 JUSTICE & HUMAN RIGHTS BODIES:

ICJ	[International Court of Justice
ICC	[International Criminal Court
UNHRC	[UN Human Rights Council

3.2 INTER-GOVERNMENTAL INSTITUTIONS

3.2.1 CONTINENTAL UNIONS

EU – EUROPEAN UNION

Population:	[500 million (7% of global)
GDP	[\$16.8trillion (25% of global)
GDP per capita:	[\$33,482

Formation: 1951 as EEC (European Economic Community); 1993 as EU

Member States: **28** as at 2013, as follows:

1951	[Belgium, France, Italy, Luxembourg, Netherlands, West Germany
1973	[Denmark, Ireland, United Kingdom
1980's	[Greece, Spain, Portugal
1995	[Austria, Sweden, Finland
2004	[Malta, Cyprus, Slovenia, Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Hungary
2007	[Romania, Bulgaria
2013	[Croatia

Monetary Union: **17** States within the Eurozone (Euro sole official currency)

AU – AFRICAN UNION

The African Union is a union consisting of 54 African states. The only all-African state not in the AU is Morocco. Established on 9 July 2002, the AU was formed as a successor to the Organisation of African Unity (OAU). The most important decisions of the AU are made by the Assembly of the African Union, a semi-annual meeting of the heads of state and government of its member states. The AU's secretariat, the African Union Commission, is based in Addis Ababa, Ethiopia.

The AU's future goals include the creation of a free trade area, a customs union, a single market, a central bank, and a common currency. The current plan is to establish an African Economic Community with a single currency by 2023

NEPAD

The New Partnership for Africa's Development (NEPAD) is an economic development program of the African Union.

NEPAD's four primary objectives are: to eradicate poverty, promote sustainable growth and development, integrate Africa in the world economy, and accelerate the empowerment of women.

ACHPR The African Commission on Human and Peoples' Rights (ACHPR) is a quasi-judicial body tasked with promoting and protecting human rights and collective (peoples') rights throughout the African continent as well as interpreting the African Charter on Human and Peoples' Rights and considering individual complaints of violations of the Charter.

AFRICAN REGIONAL ECONOMIC COMMUNITIES (REC'S) Currently, there are eight RECs recognised by the AU, each established under a separate regional treaty. They are:

..... *The Arab Maghreb Union (UMA)*
The Common Market for Eastern and Southern Africa (COMESA)
The Community of Sahel-Saharan States (CEN-SAD)
The East African Community (EAC)
The Economic Community of Central African States (ECCAS)
The Economic Community of West African States (ECOWAS)
The Intergovernmental Authority on Development (IGAD)
The Southern Africa Development Community (SADC)

(COMESA) (formed in December 1994 after operating as a preferential trade area since 1981): Burundi, Comoros, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libyan Arab Jamahiriya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe.

EAC (formed in July 2000, building on the EAC of 1967): Burundi, Kenya, Rwanda, United Republic of Tanzania and Uganda.

SADC (formed in August 1992, succeeding the Southern African Development Coordination Conference created in 1980): Angola, Botswana, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, United Republic of Tanzania, Zambia and Zimbabwe.

ECOWAS (established in May 1975): Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

ECCAS (formed in October 1983): Angola, Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Republic of Congo, Rwanda and Sao Tome and Principe.

CEN-SAD (created in February 1998): Benin, Burkina Faso, Central African Republic, Chad, Comoros, Côte d'Ivoire, Djibouti, Egypt, Eritrea, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Libyan Arab Jamahiriya, Kenya, Mali, Mauritania, Morocco, Niger, Nigeria, Senegal, Sierra Leone, Somalia, Sudan, Togo and Tunisia.

IGAD (created in March 1996 to supersede the Intergovernmental Authority on Drought

and Development (IGADD), founded in 1986): Sudan, Ethiopia, Eritrea, Djibouti, Uganda, Kenya and Somalia.

UMA (created in February 1989, drawing upon the Conseil Permanent Consultative du Maghreb (CPCM) founded in 1964): Algeria, Libyan Arab Jamahiriya, Mauritania, Morocco and Tunisia.

Other African intergovernmental organizations with trade programmes are the West African Economic and Monetary Union (UEMOA) (whose members are also members of ECOWAS), the Central African Economic and Monetary Union (CEMAC) (whose members are also members of ECCAS), the Indian Ocean Commission (IOC) (whose members are also members of COMESA) and the Southern African Customs Union (SACU) (whose members are also members of SADC).

ASEAN - ASSOCIATION OF SOUTH EAST ASIAN NATIONS

Population: **575million** (8.6% of global) GDP: \$1282billion (2,4% of global)

GDP per capita: \$2227. Formation: August 1967.

Member States: **10** as at July 2008, as follows:-

1967	[Indonesia, Malaysia, Philippines, Singapore, Thailand
1984	[Brunei
1995	[Vietnam
1997	[Laos, Myanmar
1999	[Cambodia

UNASUR - UNION OF SOUTH AMERICAN NATIONS

Population: **383million** (5.7% of global) GDP: \$2350billion (4.4% of global)

GDP per capita: \$6142. Formation: December 2004.

Member States: **12** as at 2008, i.e. every South American state.

(Excludes Falklands & French Guiana)

3.2.2 GROUPINGS BY DEVELOPMENT RANKING

OECD – ORGANISATION FOR ECONOMIC COOPERATION & DEVELOPMENT

Formation: Established in 1961 as a forum for research, information, analysis and policy formulation between its members on economic, social & environmental issues. It was derived from the Organisation for European Economic Co-operation(OEEC) created in 1948 to help administer the Marshall Plan for the reconstruction of Europe after World War II.

..... **Members: 23 European countries**
3 American (U.S., Canada, Mexico)
2 Asian (Japan, South Korea)
Australia; New Zealand

All member countries are ranked as High Income, except Poland, Turkey & Mexico.

G8 – GROUP OF EIGHT

Formation: Created as a forum for the world's major industrialized democracies in 1997 after evolving since 1975 through G6 and G7 stages.

Meetings: Annual Summits bring together the **Heads of Government** of:- Canada, France, Germany, Italy, Japan, Russia, United Kingdom, United States, all of which are within the top 11 countries in the world by GDP.

Influence: With 14% of the world's population, the G8 countries account for:-

65% of World GDP; 72% of all Military Expenditure (\$850 billion in 2007)

G8+5 – GROUP OF EIGHT PLUS OUTREACH FIVE

Formation: In an attempt to improve representivity of the G8 an invitation was sent in 2005 to five leading Emerging Countries to engage with the G8. Formalisation of the arrangement was confirmed in 2007.

The Five: Brazil, China, India, Mexico, South Africa

Meetings: All meetings take place at **Heads of Government** level (both G8 and G5)

G20 – GROUP OF 20 INDUSTRIAL NATIONS

Formation: Established in September 1999 to focus on policy issues pertaining to the promotion of international financial stability and sustainable growth through a range of neoliberal measures such as:-

Deregulation, privatisation, trade liberalisation, flexible labour market, etc

MEMBERS *France, Germany, Italy, Russia, Turkey, UK, EU*
Canada, USA
Argentina, Brazil, Mexico
China, India, Indonesia, Japan, South Korea, Saudi Arabia
Australia
South Africa

Meetings: At level of Finance Ministers and Central Bank Governors.
 Heads of Government also present in Nov 2008 and April 2009.
 World Bank and IMF participate
 Influence: With 66% of world population the G20 accounts for:-

85% of global GWP and 80% of world trade

EMERGING, DEVELOPING

G20 – GROUP OF 20 DEVELOPING NATIONS

Formation: Established 20th August 2003 as a counter to the agricultural subsidies and unfavourable trade liberalization promoted by the EU & US

Members: Actual number has fluctuated from 20 to 22; membership as at July 2008:-

⋮
 Argentina, Bolivia, Brazil, Chile, Cuba, Guatemala, Mexico, Paraguay,
 Peru, Uruguay, Venezuela
 China, India, Indonesia, Pakistan, Philippines, Thailand
 Egypt, Nigeria, South Africa, Tanzania, Zimbabwe

Core leadership: China, India, Brazil & **South Africa** (“G4 Bloc”)

Influence: With 60% of the world’s population, the Group accounts for:-

70% of the world’s farmers; 26% of all agricultural exports

G24 – Group of 24 (chapter of G-77)

Formation: Established in 1971 as a chapter of the G77 Group (see below) with the full title of “Intergovernmental Group of 24 on International Monetary Affairs & Development”; to co-ordinate these issues amongst developing countries.

Members

Latin America	[9 countries
Africa	[9 countries
Asia	[6 countries

G77 – GROUP OF 77

Formation: A loose coalition of **developing** countries, founded in June 1964, and since then expanded to 130 member countries, focusing on their collective

economic interests and with enhanced negotiating power within the UN General Assembly & several UN agencies.

Members: With a very few exceptions, all located in Asia, **Africa** & Latin America.

D8 – DEVELOPING EIGHT

Formation: A grouping of 8 major Muslim developing countries in June 1997, established as an economic development alliance.

Influence: Representing 13.5% of global population

Members: Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, Turkey. In May 2006, a Preferential Trade Agreement was concluded (except Bangladesh)

IBSA – INDIA-BRAZIL-SOUTH AFRICA TRILATERAL

Formation: Established June 2003 to promote South-South co-operation & exchange.

BRICS

BRICS, originally “BRIC” before the inclusion of South Africa in 2010, is the title of an association of emerging national economies: Brazil, Russia, India, China and **South Africa**. As of 2013, the five BRICS countries represent almost 3 billion people, with a combined nominal GDP of US\$14.8 trillion and an estimated US\$4 trillion in combined foreign reserves.

3.3 SECTORAL

3.3.1 TRADE

WTO	[World Trade Organisation
MERCOSUR	[Southern Common Market (South America)
EFTA	[European Free Trade Association
ACP	[African, Caribbean & Pacific States
NAFTA	[North American Free Trade Agreement

African Trade and Customs Revenue Unions

See Regional Economic Communities (RECs), this Chapter above [3.2.1]

3.3.2 PRODUCER UNIONS

OPEC	[Organisation of Petroleum Exporting Countries
-------------	---

OPEC the Organisation of Petroleum Exporting Countries is an oil producer union whose mission is to coordinate the policies of oil-producing countries. The goal is to

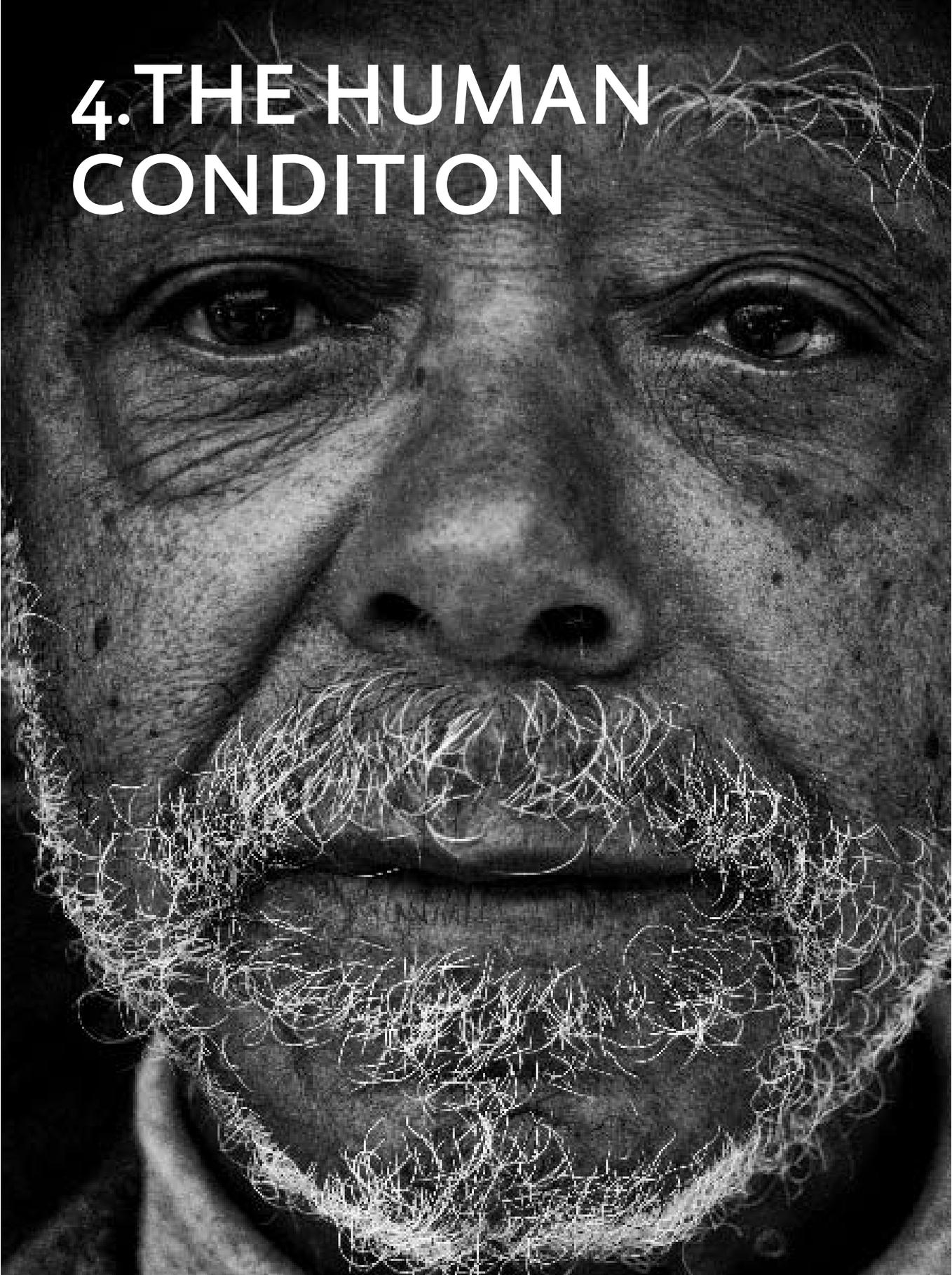
secure a steady income to the member states and a secure supply of oil to consumers. OPEC has twelve member countries: six in the Middle East, four in **Africa**, and two in South America. The **African** members are Algeria, Angola, Libya and Nigeria. (See Chapter 9 for details)

3.3.3 MILITARY ALLIANCES

- NATO** [North Atlantic Treaty Organisation
- ANZUS** [Australia, New Zealand, United States Security Treaty

See also Chapter 16

4. THE HUMAN CONDITION



4. THE HUMAN CONDITION

In Chapter 2 **Economic** Well-being was examined, firstly at Country level and then – by taking population numbers into account – at the average level of its people, i.e. per capita. However, it has long been recognized that individual Quality of Life is influenced by many factors other than economic, important as they may be. These other factors are the subject of this chapter.

ARRANGEMENT OF THIS CHAPTER

4.1 HUMAN DEVELOPMENT INDEX (HDI)

4.2 MILLENNIUM DEVELOPMENT GOALS

4.3 QUALITY OF LIFE CRITERIA

4.1 HUMAN DEVELOPMENT INDEX (HDI)

An early initiative to define, measure and monitor Quality of Life was introduced in 1990 by the UN Development Program (UNDP) in the first of its annual Human Development Reports. It was proposed to introduce a Human Development Index (HDI) in which social indicators would be combined with national income to produce a more meaningful picture of the quality of life and the state of development in any particular country.

Life expectancy and adult literacy were the first indicators to be incorporated, but others have since been added as the concept earned widespread approval.

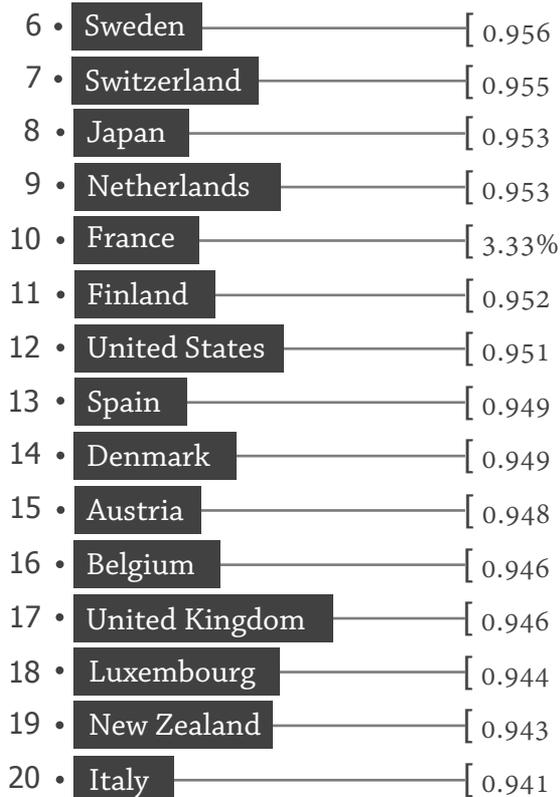
The concept also contributed towards the establishment and international acceptance of the Millennium Development Goals (see below in 4.2).

HDI Ratings:-

High: Human Development – 0.800 or more
Medium: Human Development – 0.500 to 0.800
Low: Human Development – 0.500 or less

TOP 20 (UNDP Report 2007/8):-

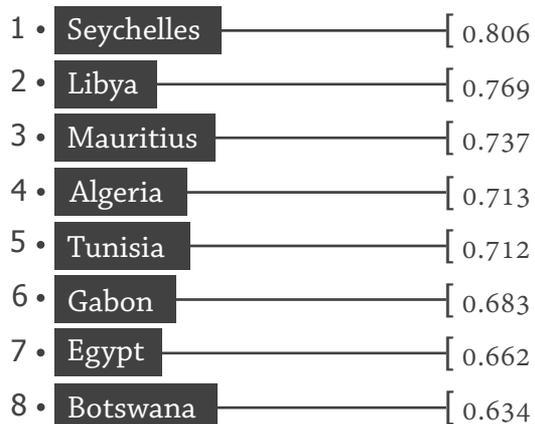
1 •	Iceland	[0.968
2 •	Norway	[0.968
3 •	Australia	[0.962
4 •	Canada	[0.961
5 •	Ireland	[0.959



Some Group & Regional Averages:-

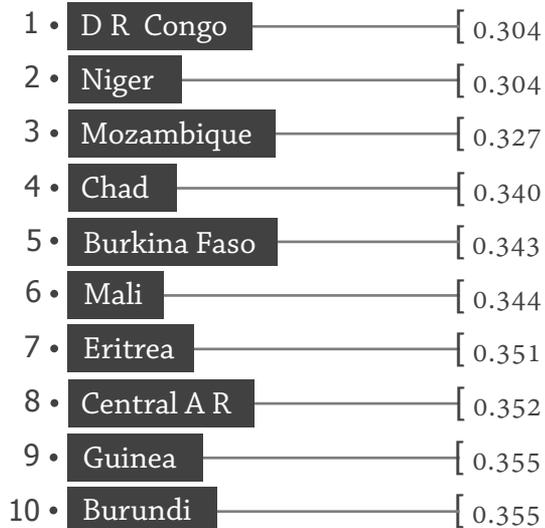
OECD Countries : 0.925 | WORLD : 0.747
 Developing Countries : 0.688 | Sub-Saharan Africa : 0.495
 Least-developed Countries : 0.480

10 highest in Africa:-





Lowest 10 in Africa:-



4.2 MILLENNIUM DEVELOPMENT GOALS

THE MILLENNIUM DECLARATION

In September 2000 147 heads of State and Government, and 189 nations in total, in the **United Nations Millennium Declaration** committed themselves to making the right to development a reality for everyone and to freeing the entire human race from want. They acknowledged that progress is based on sustainable economic growth, which must focus on the poor, with human rights at the centre. The objective of the Declaration is to promote “a comprehensive approach and a coordinated strategy, tackling many problems simultaneously across a broad front.”

The Declaration calls for halving by the year **2015**, the number of people who live on less than one dollar a day. This effort also involves finding solutions to hunger, malnutrition and disease, promoting gender equality and the empowerment of women, guaranteeing a basic education for everyone, and supporting the Agenda 21 principles of sustainable development. Direct support from the richer countries, in the form of aid, trade, debt relief and investment is to be provided to help the developing countries

GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER.

GOAL 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION.

GOAL 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN.

GOAL 4: REDUCE CHILD MORTALITY.

GOAL 5: IMPROVE MATERNAL HEALTH.

GOAL 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES.

GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY.

GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT,
WITH TARGETS FOR AID, TRADE AND DEBT RELIEF.

Goals 1 to 6 are addressed in this chapter; 7 and 8 in later chapters.

Extract from the MDG 2012 Report

The 2015 deadline is fast approaching. The contributions of national Governments, the international community, civil society and the private sector will need to intensify as we take on the longstanding and long-term challenge of inequality, and press forward on food security, gender equality, maternal health, rural development, infrastructure and environmental sustainability, and responses to climate change.

A new agenda to continue our efforts beyond 2015 is taking shape. The MDG campaign, with its successes as well as setbacks, provides rich experience on which this discussion can draw, as well as confidence that further success is feasible.

4.3 QUALITY OF LIFE CRITERIA

A. HUMAN SURVIVAL ASPECTS

1. LIFE EXPECTANCY
2. EMPLOYMENT
3. INCOME
4. FOOD SECURITY
5. HEALTHCARE
6. SHELTER AND BASIC AMENITIES
7. SUMMARIES

B. HUMAN DEVELOPMENT ASPECTS

1. EDUCATION (A) PRIMARY & SECONDARY
(B) TERTIARY

(C) LITERACY

2. GENDER PARITY
3. SOCIAL SECURITY
4. ACCESS TO ECONOMIC ACTIVITY
5. SOCIAL ACTIVITY
6. POLITICAL ENVIRONMENT

A.1 LIFE EXPECTANCY

Life Expectancy (LE) is a significant and sensitive measure of the health and wellness of a country's inhabitants and was recognized as such by the UNDP when incorporating it into the Human Development Index (see above in part 4.1 of this chapter)

Global average in the year 2008 was **66** years, with Females living 4 to 5 years longer than Males. Japan enjoyed the highest LE at **80** years, with Swaziland the lowest at **32** years. **Sub-Saharan Africa** average in the year 2010 was **54** years.

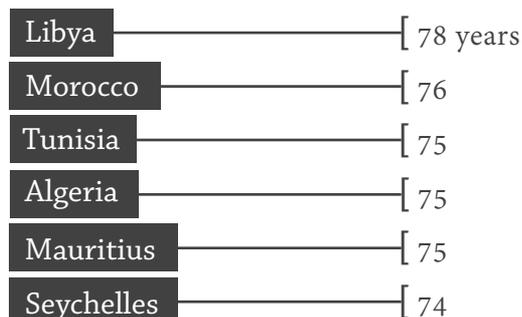
Historically, life expectancies were extremely low, running at 20 to 30 years in medieval times, but after the commencement of the Industrial Revolution began to increase dramatically, largely attributable to advances in food production and public health.

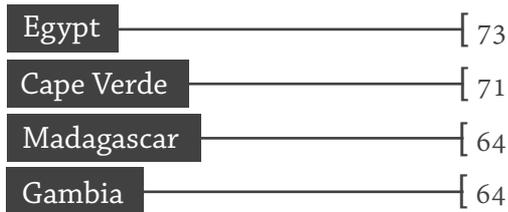
During the 20th Century **global averages** climbed past 40 and 50 years to the present 66.

Rich countries on average improved from 67 years in 1950 to 77 years in 1995, while Least Developed Countries improved from 36 to 52 years during the same period. Amongst factors which affect life expectancy adversely are famines and epidemics. LE statistics are sensitive to such factors; for example a group of 9 southern African countries suffering from very high rates of HIV/AIDS infection experienced a marked drop in LE (including Swaziland at 32)

South Africa 1990 : 62 years | 2007 : 50 years | 2012 : 52 years

Top Ten Countries in Africa (2012):-





Sources: UNDP, CIA.

A.2 EMPLOYMENT

In today's world the first essential for simple survival for the vast majority is some form of remunerative employment to generate a livelihood for accessing the basic human needs of food, shelter and clothing. Such employment has in the past been mainly in the agricultural sector, but is now increasingly in the industrial, mining and services sectors.

THE GLOBAL WORKFORCE

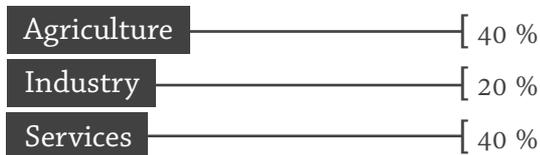
The global workforce, by ILO definition, is made up of all persons aged 15 to 64 who are currently in employment, those who are at present unemployed but registered as active work seekers and those who have become discouraged and no longer register.

Several authorities put the total number of the global workforce at around **3.2 billion**, which is 46% of the world's total population.

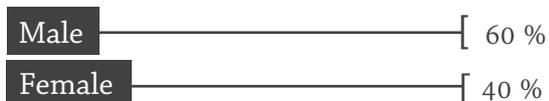
The Workforce in **Africa** is estimated to be about **490 million**

Some **Global** Workforce profiles are:-

By Sector



By Sex



By Age



Youth [20 %

By Income:

Above \$2 a day [56 %

Under \$2 a day [44 % or 1408 million workers

Under \$1 a day [16 % or 512 million workers

UNEMPLOYMENT LEVELS

According to the ILO, global unemployment in 2008 was **188,6 million** or 5.9% of the Global Workforce.

Some Unemployment Level profiles are as follows:-

By Country Ranking : Rich countries – 4 to 12 % | Poor countries - 30 % on average
By Sex : Male - 5.7% | Female - 6.2% | By Age : Adults - 4.4% | Youth - 12.2%

Unemployment levels have been adversely affected by the Global Economic Crisis of 2008. Spain reached an unemployment rate of 27.2% in 2012.

The ILO was predicting unemployment levels of between 210 and 239 million during 2009.

UNEMPLOYMENT IN AFRICA Some selected countries (2012)

Zimbabwe [70 %
Mozambique [60 %
Namibia [51 %
Kenya [42 %
Mali [30 %
South Africa [25.5 %
Nigeria [24 %
Gabon [21 %
Morocco [10 %

YOUTH UNEMPLOYMENT IN AFRICA Unemployment, youth ages 15-24

South Africa [48 % in 2009
Namibia [42 %
Tunisia [31 %
Ethiopia [25 %
Zimbabwe [25 %
Egypt [25 %
Algeria [24 %
Morocco [22 %
Mauritius [21 %
Seychelles [20 %

Some governments provide **Unemployment Benefits** to retrenched workers for a limited period while seeking alternative employment or undergoing reskilling. As of May 2009, 5 million jobless workers in the USA, and 1.5 million in the UK were receiving such benefits.

In South Africa the Unemployment Insurance Fund (UIF) performs this function.

ILO Declaration on Fundamental Principles and Rights at Work

Adopted in 1998, the ILO Declaration is an expression of commitment by governments, employers' and workers' organizations to uphold basic human values.

The Declaration covers four fundamental principles and rights at work:-

Freedom of association and the effective recognition of the right to collective bargaining.

Elimination of all forms of forced or compulsory labour.

Effective abolition of child labour.

Elimination of discrimination in respect of employment and occupation.

MILLENNIUM DEVELOPMENT GOAL GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER TARGET 1.B:

ACHIEVE FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL, INCLUDING WOMEN AND YOUNG PEOPLE

INDICATORS

1.4 Growth rate of GDP per person employed

1.5 Employment-to-population ratio

1.6 Proportion of employed people living below \$1 (PPP) per day

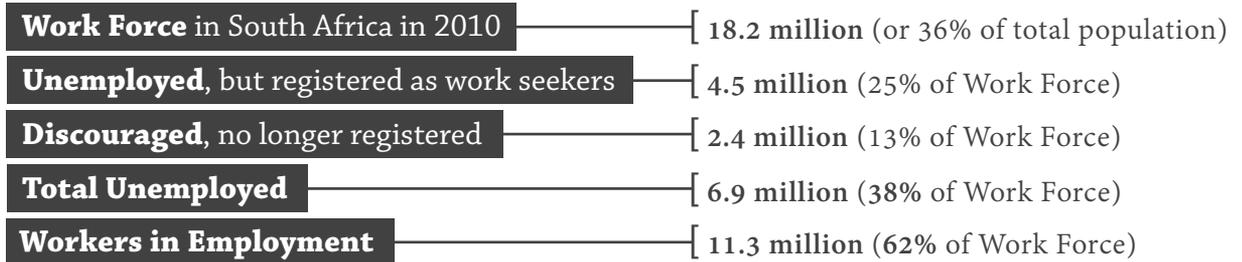
1.7 Proportion of own-account and contributing family workers in total employment

Relevant Extracts from the MDG 2012 Report

Vulnerable employment has decreased only marginally over twenty years.

Vulnerable employment—defined as the share of unpaid family workers and own-account workers in total employment—accounted for an estimated 58 per cent of all employment in developing regions in 2011, down only moderately from 67 per cent two decades earlier. Women and youth are more likely to find themselves in such insecure and poorly remunerated positions than the rest of the employed population. Vulnerable employment is highest in sub-Saharan Africa, where it accounts for three quarters of all jobs.

FOCUS on RSA



Some Unemployment Rate Profiles (at 2011):-



Unemployment Insurance Fund (UIF) as at 2013:-



A.3 INCOME BACKGROUND

Personal and household income determines the ability to access the basic necessities of life. Such income is derived from wages, economic activity, and social assistance for poor and marginalized groups.

For the vast majority all their income is fully expended on food, shelter and clothing, with nothing left over to provide for any wealth accumulation or savings for emergencies such as escalation of food prices.

Side by side with this majority there exists a tiny but immensely rich Affluent Population.

The characteristics of each of these two contrasting groups are examined below, followed by some comparisons.

THE POPULATION IN POVERTY DEFINITIONS

Extreme Poverty is widely accepted as the state of those living on **less than \$1 per day**.

This is a World Bank definition (more recently revised to \$1.25 per day) and also adopted by the UNDP for Millennium Development Goals.

Moderate Poverty defined as living on **less than \$2 per day** is also in common use. Some countries have established their own **National Poverty Lines** and their use in statistical reporting is encouraged where available.

GLOBAL STATISTICS (2005)



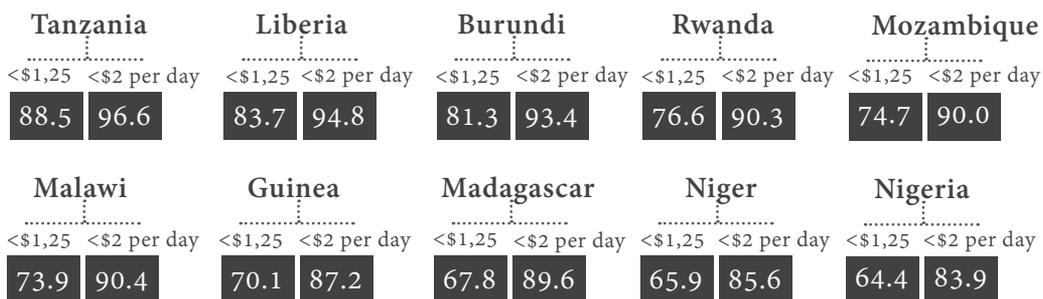
REGIONAL STATISTICS (WB 2004)

Percentage populations living in **Extreme** Poverty:-



SOME COUNTRY STATISTICS (UNDP 2008)

Countries with the highest percentages of their people living in poverty:-



RURAL POOR

Of those in extreme poverty, 75% live in rural areas.

INTRA-COUNTRY POVERTY LEVELS

Every country, even the richest, has some of its population living in poverty, whether measured by its National Poverty Line or by the commonly accepted definitions of Moderate Poverty and Extreme Poverty. For example, even the USA, with the world's largest and richest economy, has around 12% of its population living below its official

National Population Line (CIA, 2009). This equates to about **8 million** households that are living in poverty in the world's most developed country.

POVERTY VULNERABILITY

For those living in relative poverty, but with insufficient income to accumulate wealth through savings & investment, the risk of sliding into extreme poverty is always present and is heightened by adverse circumstances such as economic crises resulting in job losses; or rising prices in the basics of food, shelter & clothing.

The food crisis of 2007/8 produced a significant escalation in the prices of staple foods and pushed between 40 and 100 million additional people into extreme poverty, according to such authorities as the FAO and Oxfam.

The Global Financial Crisis of 2008/9 was also expected by World Bank/IMF to trap 55 to 90 million additional people in extreme poverty during 2009.

THE AFFLUENT POPULATION DEFINITIONS

Three levels of affluence are referred to here:-
(Sourced from Fortune Magazine, Capgemini/M. Lynch for 2008)

High Net Worth Individual (HNWI)	[wealth of \$1 million or more
Ultra High Net Worth Individual (UHNWI)	[wealth of \$30 million or more
Billionaire	[wealth of \$1 Billion or more

POPULATION NUMBERS

HNWI	[10,000,000 persons (0.15% of world population)
UHNWI	[100,000 persons (0.0015% of world population)
Billionaires	[800 persons (0.00001% world population)

REGIONAL NUMBERS

In North America + Europe: [60% of all HNWI's; 80% of all Billionaires
In Africa, there were 13 Billionaires [Egypt 7, RSA 4, and Nigeria 2) in 2012.

GROUP WEALTH

Billionaires [2007: \$3.8 Trillion; 2008: \$2.4 Trillion
 All three groups 2007 [\$40 Trillion

CORPORATE WEALTH

The above details refer to the wealth of individuals, not the wealth of corporations, although they are often connected.

Corporate wealth and influence will be examined elsewhere.

THE WEALTH GAP

Numerous ways have been devised to describe the wide disparity between the income and wealth of the poor and the rich. Some examples follow:-

..... ***The richest 1% of the world's population has an income equal to 57% of the world's poorest. -The wealth of the world's richest 3 families at \$135 Billion compares with the combined income of a total of 600million poor people.***

Poverty Alleviation Initiatives

Individual

Migrant Remittances

Informal Sector

Microcredit

National

State Grants and Subsidies (16 million in South Africa, including 10 million children)

Public Works programmes

International

Official Development Aid (ODA) [See Chapter 5]

MILLENNIUM DEVELOPMENT GOAL

GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER

TARGET 1.A: HALVE, BETWEEN 1990 AND 2015, THE PROPORTION OF PEOPLE WHOSE INCOME IS LESS THAN ONE DOLLAR A DAY

INDICATORS FOR MONITORING IN EXTREME POVERTY AND POVERTY RATES PROGRESS

- 1.1 Proportion of population below \$1 (PPP) per day
- 1.2 Poverty gap ratio

1.3 Share of poorest quintile in national consumption

For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

Relevant Extracts from the MDG 2012 Report

Extreme poverty is falling in every region.

For the first time since poverty trends began to be monitored, the number of people living in extreme poverty and poverty rates fell in every developing region—including in sub-Saharan Africa, where rates are highest.

The proportion of people living on less than \$1.25 a day fell from 47 per cent in 1990 to 24 per cent in 2008—a reduction from over 2 billion to less than 1.4 billion.

The sub-Saharan African poverty rate fell by almost 5 percentage points, to less than 48 per cent, between 2005 and 2008—the largest drop in that region since international poverty rates began to be estimated. For the first time, the absolute number of people living in extreme poverty also fell in the region, from 395 million in 2005 to 386 million in 2008. This drop reversed the long-term trend of increase since 1981.

A.4 FOOD SECURITY

BACKGROUND

Clearly, access to food is the most basic of all human rights, and the most essential requirement for human survival. Yet hunger is still widespread in today's world after past struggle against starvation and famines.

Several authorities such as the FAO & WFP have determined that the minimum nutritional level to sustain a reasonably healthy and energetic quality of life is between: **-1800 to 2000** calories per person per day below which a state of chronic hunger and undernourishment is encountered, opening the way to disease susceptibility and possible death.

However, the same authorities are agreed that current world food production capacity is sufficient to provide about twice the above levels to the entire world's population, presently 7 Billion people, or alternatively to twice as many people at the above nutritional levels.

Those unable to access sustenance up to these levels are being prevented from doing so either by insufficient income or credit to purchase their needs, or by inadequate land on which to grow their food needs. Such people progress from a Poverty trap to a Hunger trap and potentially to a Disease trap from which they may not emerge alive.

SOME STATISTICS

Accepting the above definition for minimum human sustenance, then the numbers of people living in a chronic state of hunger are as follows:-

Globally

..... **1.02 Billion** as at October 2009 (FAO) **868 Million** in 2012,
or 13% of world population

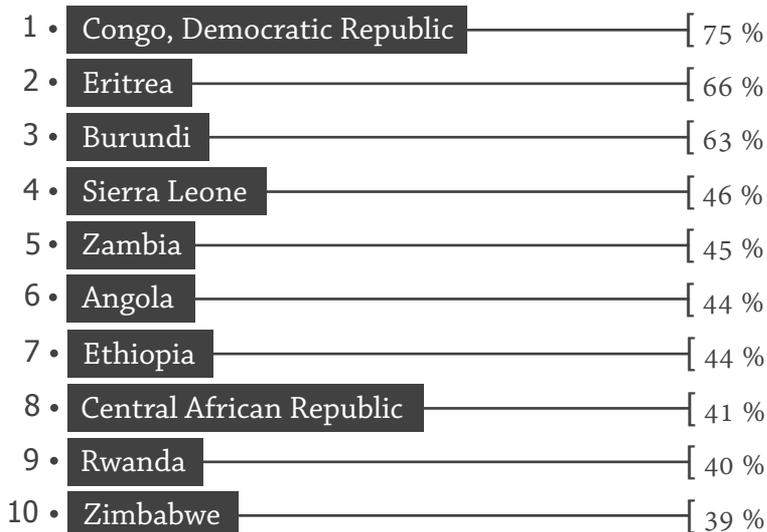
Regionally

..... **642 million** in Asia/Pacific **265** in **Africa (Sub-Sahara)**
95 in other Developing Regions **15** in Developed Countries

Note that in Sub-Saharan Africa one person in every three is chronically hungry; and that even Developed Countries do not completely escape the scourge of starvation.

African Countries

Percentage of population suffering from undernourishment in 2004-06(FAO)



SOME OF THE CONSEQUENCES

Stunted growth in children, persisting into later life:

..... About **140 million children** under age five were recorded in 2006 as underweight within the Developing world, some 26% of the under five population.

High susceptibility to diseases.

Deaths from hunger and hunger-related diseases totaling:

..... **36 million deaths** during the year of 2006 (FAO) of whom **6 million** were children under the age of five.

The most vulnerable groups according to the FAO are:-

.....• *The Rural Poor, The Urban Poor, The Victims of Catastrophes (natural disasters and conflicts)*

FOOD PRODUCTION & THE FOOD CRISIS OF 2007/8

As noted above the world's food production capacity exceeds the world's population basic needs by a comfortable margin. The problem is one of access.

Food price fluctuations can greatly magnify the problem as occurred during the Food Crisis of 2007/8 when prices of staples such as Rice, Maize and Wheat rose by as much as 3 times.

Rice for example is the staple diet of 3 Billion people, nearly half the world's total population.

Food Riots started erupting in late 2007 continuing into 2008 and spreading to over 20 countries in Africa, Asia and South & Central America. These riots were a manifestation of the additional

150 million people no longer able to access an adequate food supply and being forced to join the ranks of the starving.

Causes of the steep rise in food prices have been attributed to a number of factors including the activities of speculators, population growth, drought & other adverse weather conditions, higher input costs and switching resources from food production to Biofuels manufacture (the grain to produce one single tankful of fuel for a 4x4 vehicle would have provided the food needs for one person for a whole year)

The effects of the Food Crisis have also been compounded by the Global Economic Crisis through the loss of the jobs, incomes & remittances of at least 100 million people.

REMEDIAL MEASURES

(a) Food Aid

Food Aid occurs at two levels: Global and National

GLOBAL

*UN Agencies such as FAO, WFP
NGO's such as Oxfam*

NATIONAL

*State aid providing such services as
School-feeding schemes
Price control & tax exemptions
State Shops for the Poor
(as in SOS Shops in Slovenia & Serbia)*

(B) FOOD PRODUCTION & DISTRIBUTION (SEE CHAPTER 9.1.3)

GLOBAL

World Food Summits are convened by the Food and Agriculture Organization of the United Nations.

A World Summit on Food Security took place in Rome, Italy, between 16 and 18 November 2009. Sixty Heads of State and Government attended the summit which unanimously adopted a declaration pledging renewed commitment to eradicate hunger from the earth at the earliest possible date.

NATIONAL LOCAL

MILLENNIUM DEVELOPMENT GOAL

GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER

TARGET 1.C: HALVE, BETWEEN 1990 AND 2015, THE PROPORTION OF PEOPLE WHO SUFFER FROM HUNGER

INDICATORS FOR MONITORING PROGRESS

1.8 Prevalence of underweight children under five years of age

1.9 Proportion of population below minimum level of dietary energy consumption

Relevant Extracts from the MDG 2012 Report

Hunger remains a global challenge.

The most recent FAO estimates of undernourishment set the mark at 850 million living in hunger in the world in the 2006/2008 period—15.5 per cent of the world population.

This continuing high level reflects the lack of progress on hunger in several regions, even as income poverty has decreased.

Progress has also been slow in reducing child undernutrition. Close to one third of children in Southern Asia were underweight in 2010.

Food price increases are a barrier to reducing malnutrition. The proportion of children under five who are malnourished in Africa (excluding North Africa) declined only marginally, between 1990 and 2009, despite a reduction in the poverty rate. Contributing

to the sluggish decline was the continued escalation in food prices, which has invariably

had an adverse impact, particularly on the food budgets of lower-income groups.

Girls and rural dwellers are the most affected.

FOCUS ON RSA

-According to StatsSA, the proportion of the **chronically hungry** population in South Africa was reduced from 30% in the year 2002 to 13% in the year 2011, attributable to the increase of Social Grants to 29.6% of the population in 2011 from 12.9% in 2002.

-The National Schools Nutrition Programme (NSNP) provides one meal a day to primary school learners also promoting school attendance. In 2006, approximately 6 million learners (approximately 50%) benefited from the school nutrition programme. By 2010, the NSNP supported 6.4 million primary learners in 19,400 public schools on a daily basis during school terms.

A.5 HEALTHCARE

BACKGROUND

It is to be expected with the widespread prevalence of unemployment, poverty and hunger that human health would be facing serious challenges. This is indeed the case. For many of those who manage to survive the rigors of childbirth and early childhood, a lifetime of exposure to pandemic infectious diseases awaits them.

MATERNAL MORTALITY

World Health Organization (WHO) defines Maternal Mortality as the deaths of women while pregnant or within 6 weeks of delivery or other termination of pregnancy, from causes related to the pregnancy.

Main Causes of Death:

Haemorrhage 25% | Sepsis / Infections 13% | Unsafe Abortions 13%

Numbers of Deaths Per Annum (2005):-

GLOBAL [536,000 (or 1,468 each day)

REGIONAL

..... *Developing World 516,000 (99.6% of total) Industrialised World 20,000 (0.4%) Sub-Saharan Africa 265,000 (49.4%) [Nigeria 59,000] Southern Asia 187,000 (34.9%) [India 117,000]*

Death Rate, MMR (2005):-

MMR, or Maternal Mortality Ratio, defined as Maternal Deaths per 100,000 Live Births.

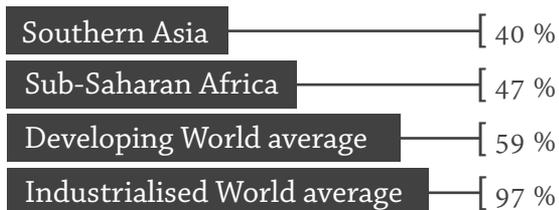
..... **Lowest - Ireland 1; Italy, Greece 3; Austria 4.**
Highest – Niger 2100; Sierra Leone, Afghanistan 1800; Chad 1500.
Industrialised World average 9.
Developing World average 450.

In **2010**, countries with highest maternal mortality were:

Chad (1,100), Somalia (1,000), Central African Republic, (890), Sierra Leone (890) and Burundi (800).

The MMR is regarded as a good measure of the quality of the healthcare system in a country or region.

Skilled Birth Attendance (2006):-



INFANT MORTALITY

An Infant in this context is defined as an individual from foetal viability (22 weeks) up to one year after birth.

Main Causes of Death:

DIARRHEA PNEUMONIA MALNUTRITION MALARIA
 (often leading to Dehydration)

Numbers of Deaths per Annum:-

GLOBAL [5.67 million (or 15,500 per day)
 [calculated from CIA, 2009]

Death Rate, IMR (2009):-

IMR, or Infant Mortality Ratio, defined as Infant Deaths per **One Thousand** Live Births

Lowest [Singapore 2.3 Japan 2.8 UK 5.0 USA 6.9



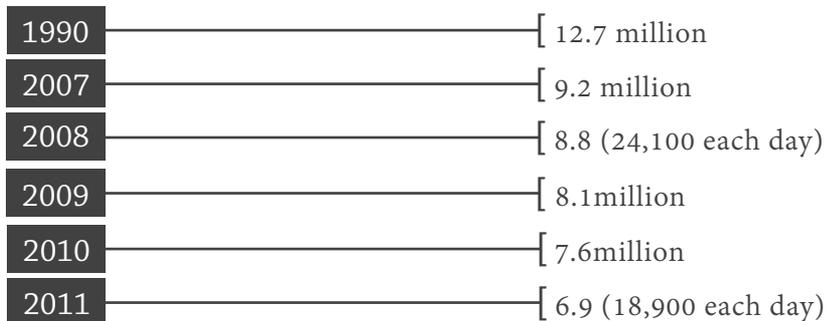
CHILD MORTALITY

Here defined as deaths of children under five years of age. Includes Infants (q.v.)

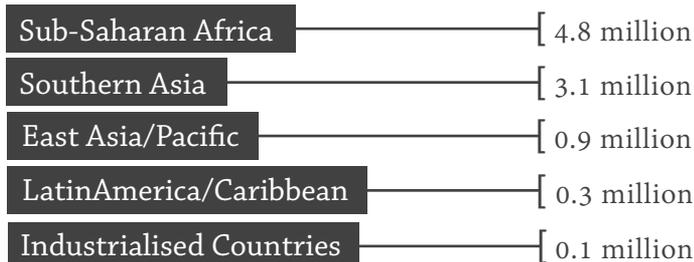
Main Causes of Death:

ACUTE RESPIRATORY INFECTIONS MALNUTRITION MEASLES MALARIA
DIARRHEA (All easily preventable with timely intervention)

Numbers of Deaths per Annum (UNICEF, MDG)



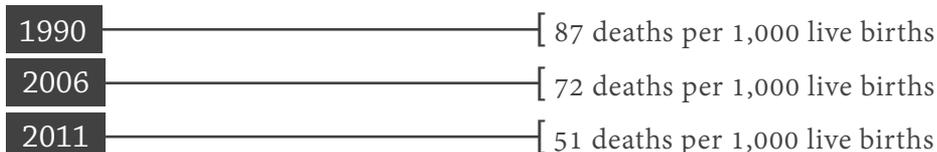
Regional



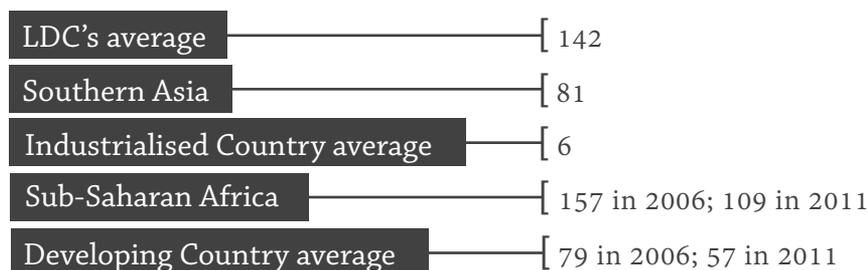
DEATH RATES:-

Child Deaths per **One Thousand** Live Births (UNICEF 2006)

GLOBAL

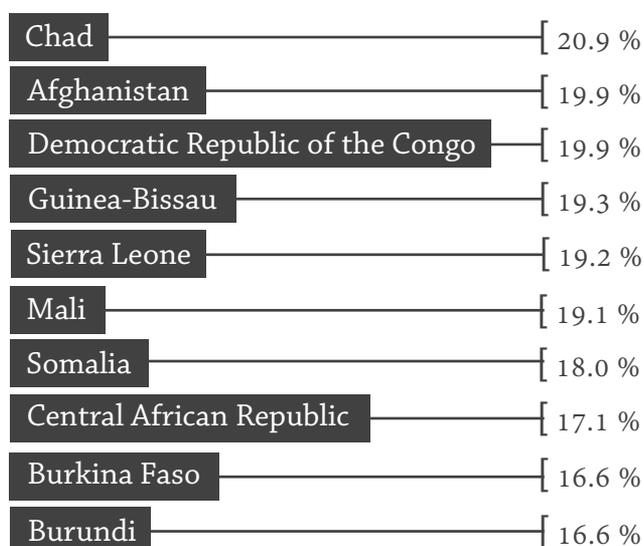


Regional



Highest rates in the world

In 2009, there were 31 countries reported in which at least 10% of children under five died. All were in Africa, except for Afghanistan. The highest 10 were:



MILLENNIUM DEVELOPMENT GOALS (MDGS)

GOAL 4: REDUCE CHILD MORTALITY

TARGET 4.A: REDUCE BY TWO-THIRDS, BETWEEN 1990 AND 2015, THE UNDER-FIVE MORTALITY RATE

INDICATORS FOR MONITORING PROGRESS

- 4.1 Under-five mortality rate
- 4.2 Infant mortality rate
- 4.3 Proportion of 1 year-old children immunised against measles

GOAL 5: IMPROVE MATERNAL HEALTH

TARGET 5.A: REDUCE BY THREE QUARTERS, BETWEEN 1990 AND 2015, THE

MATERNAL MORTALITY RATIO

INDICATORS FOR MONITORING PROGRESS

- 5.1 Maternal mortality ratio
- 5.2 Proportion of births attended by skilled health personnel

TARGET 5.B: ACHIEVE, BY 2015, UNIVERSAL ACCESS TO REPRODUCTIVE HEALTH

INDICATORS FOR MONITORING PROGRESS

- 5.3 Contraceptive prevalence rate
- 5.4 Adolescent birth rate
- 5.5 Antenatal care coverage (at least one visit and at least four visits)
- 5.6 Unmet need for family planning

Relevant Extracts from the MDG 2012 Report

Child survival progress is gaining momentum

Despite population growth, the number of under-five deaths worldwide fell from more than 12.0 million in 1990 to 7.6 million in 2010. And progress in the developing world as a whole has accelerated.

Sub-Saharan Africa—the region with the highest level of under-five mortality—has doubled its average rate of reduction, from 1.2 per cent a year over 1990-2000 to 2.4 per cent during 2000-2010.

- Decreases in maternal mortality are far from the 2015 target.

There have been important improvements in maternal health and reduction in maternal deaths, but progress is still slow.

Reductions in adolescent childbearing and expansion of contraceptive use have continued, but at a slower pace since 2000 than over the decade before.

INFECTIOUS DISEASES

Over the centuries infectious diseases have taken a huge toll in human life and have also severely impacted on the quality of life of the survivors and their families. Currently the pandemics (or global epidemics) of greatest concern are:-

HIV/AIDS

TUBERCULOSIS

MALARIA

Indicators:-

The overall impact and current status of an infectious disease can be measured by 3 indicators:-

Numbers INFECTED (“living with...”)**Annual NEW INFECTIONS****Annual DEATHS**

These indicators confirm whether the disease is still spreading or being successfully contained.

Treatment:-

Each disease requires a specific treatment (a) to prevent infection and (b) to cure those who have become infected. Appropriate facilities, medication, procedures and support systems are necessary.

Family Impact:-

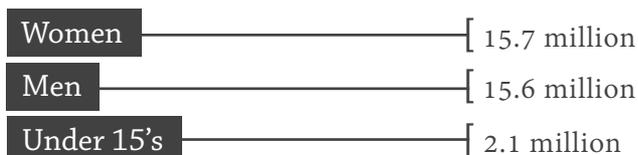
Loss of income, disruption of family cohesion, loss of one or both parents, and loss of breadwinner are some of the consequences of infectious diseases.

HIV/AIDS

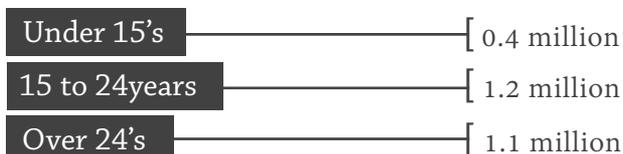
Since HIV/AIDS was first recognized in 1981, it has led to the deaths of more than 25 million people, making it one of the most destructive diseases in recorded history

Statistics for 2008 (WHO, UNAID):-**GLOBAL:**

Numbers Infected, living with AIDS:



TOTAL 33.4 million at end of 2008,
2000: 27.5 million, 1990: 11.0 million)

Number of New Infections:

TOTAL 2.7 million during 2008 [7400 each day]
2001: 3.0 million, 1996: (Peak) 3.5 million, 1990: 3.0 million

Number of Deaths per year:



TOTAL 2.0 million during 2008 [5480 each day]
2005: 2.2 million, 2002: 2.8 million, 1993: 0.7million

Number of Orphaned Children

12 million under 18 with one or both parents lost to AIDS.

REGIONAL:

Living with AIDS

Sub-Saharan Africa

22.5 million
(67% of Global)
New Infections
1.9 million (70%)
:..... Deaths 1.6 million (80%)

South&Southeast Asia

6.0 million
(18% of Global)
New Infections
0.4 million (15%)
:..... Deaths 0.3 million (15%)

HIGHEST COUNTRY:

Living with AIDS

South Africa

5.7million
(11.8% of population)
:..... Deaths per year 350,000

India

2.4million
(0.2% of pop.)
:..... Deaths per year 310,00

DEATHS per year

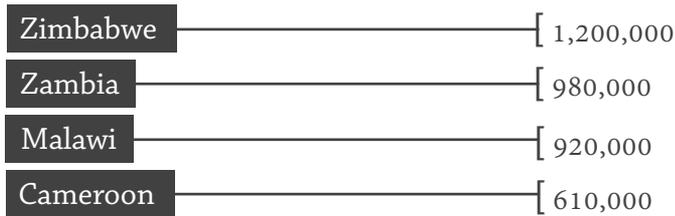
AIDS Orphans

1.4 million

COUNTRIES IN AFRICA

Living with AIDS in year 2012:-





TUBERCULOSIS

Tuberculosis (TB) is the most widespread of all infectious diseases; around one third of the world's population will have been infected with TB in its latent form at some time, due to its airborne mode of transmission. The latent form can lead to **active** TB disease, the leading cause of death amongst infectious diseases of women of reproductive age, and of people with HIV/AIDS.

While one of the most lethal infectious diseases, TB is also one of the most treatable through preventative vaccination of children and curative use of antibiotics. However, more recently a new form of Multi Drug Resistant TB (MDR-TB) has appeared to complicate matters.

Current Statistics (2007; WHO 2009 Report):-

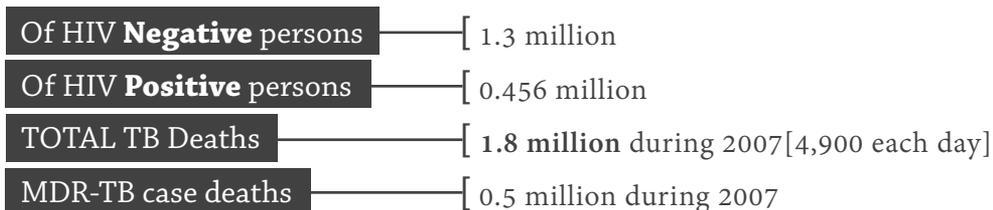
GLOBAL:

Prevalence (Chronic Active Cases): **13.7 million** at end of 2007, (13.9 million: 2006)

New Infections (Active Cases): **9.27 million** during 2007 [25,400 each day] (8.3 million: 2000), (6.6 million: 1990)

Co-Infections with HIV/AIDS **1.37 million** during 2007

DEATHS:



REGIONAL: NEW INFECTIONS DURING 2007:-**ASIA**

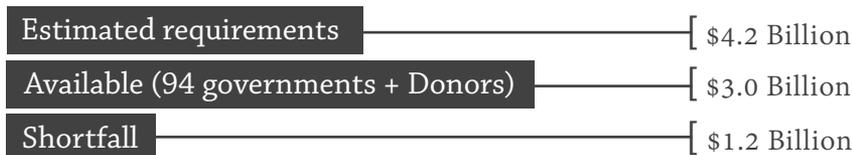
India 2.0 million | China 1.3 million | Other 1.8 million
TOTAL 5.1 million (55% of global infections)

AFRICA

Nigeria 0.46 million | S.Africa 0.46million | Other 1.98 million
TOTAL 2.9 million (31% of global infections)

FINANCING REMEDIAL MEASURES:-

Treatment for year 2009 (WHO)

**MALARIA**

Malaria is a mosquito-borne disease, infectious from mosquitos to humans, but not human to human. Those most at risk of contracting malaria are the inhabitants of the tropical and subtropical regions encompassing about 109 countries (45 in **Africa**) and about 45% of the world's population.

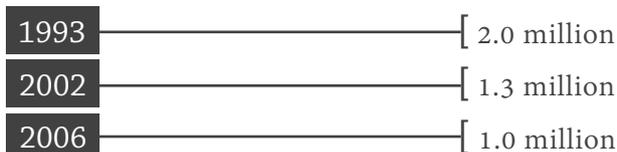
Malaria is presently endemic in a broad band around the equator, in areas of the Americas, many parts of Asia, and much of Africa; in Sub-Saharan Africa, 85–90% of malaria fatalities occur.

An estimate for 2009 reported that countries with the highest death rate per 100,000 of population were Ivory Coast with 86.15, Angola (56.93) and Burkina Faso (50.66).

An estimate for 2010 said the deadliest countries per population were Burkina Faso, Mozambique and Mali.

Particularly vulnerable are children under the age of five who account for the majority of deaths from malaria.

Incidence: 250 to 500 million cases of malaria infection are reported per year. Many go unreported.

DEATHS:

2007

[0.8 million (2,200 each day)
mostly young children in Sub-Saharan Africa

PREVENTION:-

- Insecticide-treated bed nets.

.....• ***Insecticide-treated nets are estimated to be twice as effective as untreated nets and offer greater than 70% protection compared with no net. Between 2000 and 2008, the use of ITNs saved the lives of an estimated 250,000 infants in Sub-Saharan Africa***

- Indoor spraying with selected insecticides

- Anti-malarial drugs, particularly during pregnancy.

TREATMENT:-

Anti-malarial drugs within the first few hours of diagnosis

.....• ***The success of prevention and treatment programmes is evident from the falling death rates above.***

MEASLES

This infectious disease is a major cause of child mortality. However it can effectively be prevented with a relatively inexpensive vaccine and subsequent booster to provide safe lifelong protection.

The success of immunisation campaigns is evident from the declining global death toll as follows:-

1993	[1,100,000 deaths (WHO, UNICEF)
1999	[873,000
2000	[757,000
2002	[600,000
2005	[345,000
2006	[242,000
2007	[197,000
2011	[158,000 deaths - about 430 deaths every day

Most of these deaths are of children under 5 years of age.

Vaccination levels of children in Developing Countries now exceed 80%.

In Sub-Saharan Africa deaths from measles dropped by over 91% between 2000 & 2006.

MILLENNIUM DEVELOPMENT GOALS (MDGS)

GOAL 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES

TARGET 6.A: HAVE HALTED BY 2015 AND BEGUN TO REVERSE THE SPREAD OF HIV/AIDS

INDICATORS FOR MONITORING PROGRESS

- 6.1 HIV prevalence among population aged 15-24 years
- 6.2 Condom use at last high-risk sex
- 6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS
- 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years

TARGET 6.B: ACHIEVE, BY 2010, UNIVERSAL ACCESS TO TREATMENT FOR HIV/AIDS

FOR ALL THOSE WHO NEED IT

INDICATORS FOR MONITORING PROGRESS

- 6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs

TARGET 6.C: HAVE HALTED BY 2015 AND BEGUN TO REVERSE THE INCIDENCE OF MALARIA AND OTHER MAJOR DISEASES

INDICATORS FOR MONITORING PROGRESS

- 6.6 Incidence and death rates associated with malaria
- 6.7 Proportion of children under 5 sleeping under insecticide-treated bednets
- 6.8 Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs
- 6.9 Incidence, prevalence and death rates associated with tuberculosis
- 6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course

EBOLA VIRUS EPIDEMIC IN WEST AFRICA

The most widespread epidemic of Ebola virus disease (commonly known as “Ebola”) in history is currently ongoing in several West African countries. It has caused significant mortality, with reported case fatality rates of up to 71% and specifically 57-59% among hospitalized patients. Ebola virus disease was first described in 1976 in two simultaneous outbreaks in sub-Saharan Africa; this is the 26th outbreak and the first to

occur in West Africa. It began in Guinea in December 2013 and then spread to Liberia and Sierra Leone

Date December 2013 – present Casualties

Country	Cases	Deaths	Last update 30 January 2015
Liberia	[8,643	[3,700	[26 January 2015
Sierra Leone	[10,561	[3,216	[27 January 2015
Guinea	[2,920	[1,913	[27 January 2015

Relevant Extracts from the MDG 2012 Report

AIDS Fewer people are becoming infected with HIV, with the decline in new infections happening faster in some countries than in others.

Of the 33 countries where new infections have fallen, 22 are in sub-Saharan Africa, the region most affected by the AIDS epidemic. Annual new infections in 2010— 2.7 million people, 390,000 of whom were children— were 21 per cent lower than the 1997 peak and 15 per cent lower than in 2001.

Sub-Saharan Africa accounted for 70 per cent of new HIV infections in 2010, while it is home to just 12 per cent of the global population. However, the rate varies widely within the region, as the epidemic continues to be most severe in Southern Africa.

In 2009, about 17.1 million children around the world were estimated to have lost one or both parents to AIDS; 15.0 million of these children lived in sub-Saharan Africa.

Access to treatment for people living with HIV increased in all regions.

At the end of 2010, 6.5 million people were receiving antiretroviral therapy for HIV or AIDS in developing regions. This total constitutes an increase of over 1.4 million people from December 2009, and the largest one-year increase ever.

The 2010 target of universal access, however, was not reached.

TUBERCULOSIS The world is on track to achieve the target of halting and beginning to reverse the spread of tuberculosis

Globally, tuberculosis incidence rates have been falling since 2002, and current projections suggest that the 1990 death rate from the disease will be halved by 2015.

In 2010, there were 8.8 million people worldwide newly diagnosed with tuberculosis, including 1.1 million cases among people with HIV. Globally,

incidence rates peaked at 141 per 100,000 people in 2002 and have been falling since then.

MALARIA Global malaria deaths have declined.

The estimated incidence of malaria has decreased globally, by 17 per cent since 2000.

Over the same period, malaria-specific mortality rates have decreased by 25 per cent. Reported malaria cases fell by more than 50 per cent between 2000 and 2010 in 43 of the 99 countries with ongoing malaria transmission.

Coverage of at-risk populations with malaria prevention and control measures continues to increase, bringing about a further decline in estimated numbers of malaria cases and deaths. The malaria map continues to shrink, and in 2011 one more country—Armenia—was certified to be free of malaria.

There were an estimated 216 million episodes of malaria in 2010, of which approximately 81 per cent, or 174 million cases, were in Africa. An estimated 655,000 malaria deaths occurred in 2010, of which 91 per cent were in Africa and 86 per cent were children under 5 years of age.

TOBACCO

The WHO 2008 Report states that **Tobacco** was the cause of 100 million deaths during the 20th Century. Currently the **annual** death rate from tobacco-related causes is **5.4 million** making it the leading cause of preventable human deaths, more than all deaths from HIV/AIDS, Tuberculosis and Malaria combined.

ALCOHOL

WHO estimates that in 2004 the global number of consumers of **alcohol** was around 2 Billion, or about 30% of the world's population. Of these, over 75 million (or 4%) were diagnosable as suffering from alcohol-use disorders.

Alcohol-related deaths total **1.8 million per year**.

SUICIDES

Suicide is ranked as the 10th leading cause of human deaths. Global deaths by suicide are **1.0 million per year**.

Suicide **attempts** are estimated to range between 10 and 20 million per year.

The above figures show an increase of 60% over the last 50 years.

Most suicides, about 60%, occur in Asia.

A.6 SHELTER AND BASIC AMENITIES

BACKGROUND

The basic unit of human society is the **home**, located within a structure intended to provide shelter against the elements, a place for rest and sleep, for preparing food, bringing up a family and for storing clothing and other possessions.

Rural shelters were in the past largely constructed from naturally occurring materials such as wood and other vegetation, stone, clay and mud. With the establishment of cities and towns, materials and methods of construction became more sophisticated. Basic amenities including access to clean drinking water, sanitation, fuel and energy for cooking and heating, became increasingly incorporated into human shelter structures.

However, as detailed below, slum conditions arose and still persist, principally in urban areas, where such basic amenities may be inadequate or non-existent.

URBANISATION

Human society began to emerge from its rural origins upon the creation of urban areas and the subsequent population drift to the cities in search of work and means of subsistence accelerated massively at the time of the Industrial Revolution, continuing to the present day.

Urbanisation of the world's population reached the 50% mark in the year 2008 (according to UN-Habitat) from a 13% level in 1900, rising to 29% in 1950 and 37% in 1975. Forward predictions are 57% for 2025 and 70% for 2050.

Regionally there are major differences in the degree of urbanisation. As would be expected, the Industrialised group of countries is far ahead of the Developing group of countries:-

The Industrialised Countries had already reached the 50% mark by 1950, are currently at 75% and are expected to reach 86% by 2050 (with 90% of North Americans living in towns and cities).

The Developing Countries, by contrast, stood at 18% in 1950, are currently at 44% and are expected to reach the 50% mark only around 2020, and 67% in 2050.

SLUM DWELLINGS

An inevitable by-product of the drift to the towns and cities were living conditions referred to as slums. UN agencies such as UN-Habitat and UN-MDG define SLUMS as dwellings lacking in adequate clean water supply, sanitation, living space and durable materials of construction

Population currently living in slum conditions (2008):-

GLOBAL:

1.0 Billion people (15 % of Total World Population)

Regional

Developing World	[37 % of its urban population
Southern Asia	[43 % of its urban population
Sub-Saharan Africa	[62 % of its urban population

HOMELESSNESS

According to UNHCR there were **100 million** people in towns and cities with no homes at all (2005).

BASIC AMENITIES

The UN-Habitat Report of 2009 provides the following statistics:-

CLEAN DRINKING WATER

Population without access to clean water 1.1 Billion people
(16 % of World Population)
Deaths from lack of access to clean water 12 Million yearly

PROVISION:

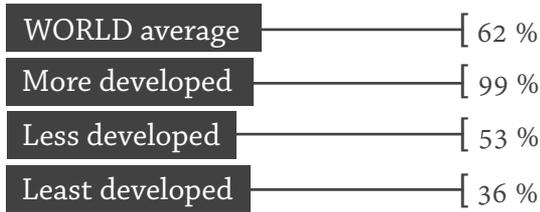
Improved Coverage (% of population) and Household Connection (% of population)

World average	[87%	[54%
More developed countries	[99%	[93%
Less developed countries	[84%	[46%
Least developed countries	[65%	[14%

SANITATION

Population without access to "improved" sanitation

2.5 Billion people (36 % of World Population)

Provision of Improved Coverage (% of population):-**LIVING SPACE****Persons per Household:-****OTHER PUBLIC AMENITY NEEDS**

Land - Security of Tenure (75% of all private land owned by 2.5% of world population)

Energy - Fuel, Electricity, gas. (23% of world population without electricity)

Waste - Refuse removal & disposal

Transport - to Workplace, Shops & Markets, Schools

Medical Services - Hospitals, Clinics

Education - Schools, Colleges, Libraries

Communications - Telephones, Radio, Television

Entertainment - Sports facilities, Art galleries

The **provision** of Public Amenities will be addressed in later Chapters.

MILLENNIUM DEVELOPMENT GOAL (MDG)**GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY**

TARGET 7.C: HALVE, BY 2015, THE PROPORTION OF PEOPLE WITHOUT SUSTAINABLE ACCESS TO SAFE DRINKING WATER AND BASIC SANITATION.

TARGET 7.D: BY 2020, TO HAVE ACHIEVED A SIGNIFICANT IMPROVEMENT IN THE LIVES OF AT LEAST 100 MILLION SLUM DWELLERS.

INDICATORS FOR MONITORING PROGRESS

7.8 Proportion of population using an improved drinking water source

7.9 Proportion of population using an improved sanitation facility

7.10 Proportion of urban population living in slums

The actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the four characteristics:

- (a) lack of access to improved **water supply**;
- (b) lack of access to improved **sanitation**;
- (c) **overcrowding** (3 or more persons per room); and
- (d) dwellings made of **non-durable material**.

Relevant Extracts from the MDG 2008 Report

- Some 1.6 billion people have gained access to safe drinking water since 1990;
- Some 2.5 billion people, almost half the developing world's population, live without improved sanitation;
- More than one third of the growing urban population in developing countries live in slum conditions

Safe Drinking Water Since 1990, 1.6 billion people have gained access to safe water. Least progress has taken place in sub-Saharan Africa, which now accounts for more than a third of those without improved drinking water supplies.

In 2006, an improved drinking water source was available to 96 per cent of the urban population in developing regions, but only 78 per cent of rural inhabitants. Some 742 million rural people lived without access to improved drinking water, compared to 137 million urban residents. The same disparity applies to piped drinking water, with only 30 per cent of piped

drinking water connections in rural households

Improved Sanitation. Since 1990, the number of people in developing regions using improved sanitation facilities has increased by 1.1 billion, with significant improvements in South-Eastern and Eastern Asia. Nevertheless, in order to meet the target, the number of people using improved sanitation Some 2.5 billion people remain without improved sanitation – more than one billion in Asia and another half billion in sub-Saharan Africa. In 2006, there were 54 countries where less than half the population used an improved sanitation facility; three quarters of those countries were in sub-Saharan Africa.

Roughly half the world's populations now live in rural areas. Nevertheless, rural dwellers represent more than 70 per cent of the people without improved sanitation. In urban areas, improvements in sanitation have failed to keep pace with population growth. In 21 countries in sub-Saharan Africa, only 16 per cent of the poorest quintile of the population has access to improved sanitation, compared to 79 per cent of

the population in the richest quintile. Almost a quarter of the developing world's population lives without any form of sanitation. An additional 15 per cent use sanitation facilities that do not ensure hygienic separation of human waste from human contact.

Slum Conditions. The lack of improved sanitation and water facilities are two of the four defining characteristics of urban slums. The others are durable housing and sufficient living area. In

2005, slightly more than one third of the urban population in developing regions lived in slum conditions; in sub-Saharan Africa, the proportion was over 60 per cent.

In sub-Saharan Africa, half of the slum households suffered from two or more shelter deprivations, lacking a combination of access to improved water, improved sanitation, durable housing or sufficient living area.

Relevant Extracts from the MDG 2012 Report

The world has met the target of halving the proportion of people without access to improved sources of water.

Between 1990 and 2010, over two billion people gained access to improved drinking water sources, such as piped supplies and protected wells.

While 19 per cent of the rural population used unimproved sources of water in 2010, the rate in urban areas was only 4 per cent.

Nearly half of the population in developing regions—2.5 billion—still lacks access to improved sanitation

facilities.

Improvements in the lives of 200 million slum dwellers exceeded the slum target.

The share of urban residents in the developing world living in slums declined from 39 per cent in 2000 to 33 per cent in 2012. More than 200 million gained access to either improved water sources, improved sanitation facilities, or durable or less crowded housing. The number of people living in slums continues to grow.

Despite a reduction in the share of urban populations living in slums, the absolute number has continued to grow from a 1990 baseline of 650 million.

A.7 HUMAN SURVIVAL SUMMARIES THE LIVING

Total Population:

.....● In the World● In AFRICA
7.0 Billion 1.07 Billion

The Workforce:

.....● In the World .....	.....● In AFRICA
3.2 Billion	350 Million
(47 % of population)	(33 % of pop.)

Unemployed (2009):

.....● In the World .....	.....● In AFRICA
240 Million	100 Million
(7.5 % of Workforce)	(30 % of WF)

In Extreme Poverty (< \$1 per day):

.....● In the World .....	.....● In AFRICA
1.4 Billion	750 Million
(20 % of population)	(70 % of population)

In Moderate Poverty (< \$2 per day):

.....● In the World .....	.....● In AFRICA
2.8 Billion	900 Million
(40 % of population)	(85 % of population)

In Chronic Hunger

.....● In the World .....	.....● In AFRICA
1.02 Billion	300 Million
(15 % of population)	(28 % of population)

Infected with HIV/AIDS

.....● In the World .....	.....● In AFRICA
33.4 Million	25 Million
(0.5 % of population)	(2.3 % of population)

Infected with TB (active)

.....● In the World .....	.....● In AFRICA
13.7 Million	2 Million
(0.2 % of population)	(0.2 % of population)

Living in Urban Areas

.....● In the World .....	.....● In AFRICA
3.4 Billion	480 Million
(50 % of population)	(45 % of population)

Living in Slums

.....•	In the World	• In AFRICA
	1.0 Billion	270 Million
	(15 % of population)	(25 % of population)

The Homeless

.....•	In the World	• In AFRICA
	100 Million	30 Million
	(1.5 % of population)	(2.8 % of population)

Without proper Sanitation

.....•	In the World	• In AFRICA
	2.5 Billion	560 Million
	(36 % of population)	(52 % of population)

Without Safe Drinking Water

.....•	In the World	• In AFRICA
	1.0 Billion	280 Million
	(15 % of population)	(26 % of population)

Notes: The statistics for Africa are rounded-off estimates at the latest dates available, and where sourced from Sub-Saharan Africa take into account the additional population numbers and other demographic factors. Global statistics are dates as indicated in the relevant sections of this Chapter.

**THE DYING
ANNUAL DEATHS****All deaths (2008)**

.....•	GLOBAL	• In AFRICA
	55 Million	12 Million
		(22 % of deaths GLOBAL)

Hunger and Hunger-related Diseases(2006) **GLOBAL**.....• **36 Million**
including Under-Fives **GLOBAL**.....• **6 Million**

Unclean Water (2009) **GLOBAL** • **12Million**

Maternal Mortality (Childbirth) (2005)

.....•	GLOBAL	• In AFRICA
	536,000	320,000
		(60 %of Global)

Infant Mortality (under 1 year) (2009) GLOBAL 5.67 Million

Child Mortality (under 5; includes infants)

.....	• GLOBAL	• In AFRICA
	8.8 Million	5.8 Million (66 %)

HIV/AIDS (2008)

.....	• GLOBAL	• In AFRICA
	2.0 Million	1.6 Million (80 %)

TB GLOBAL 1.8 Million

Malaria (2007)

.....	• GLOBAL	• In AFRICA
	0.8 Million	0.6 Million (75 %)

Measles GLOBAL 197,000

Suicides GLOBAL 1.0 Million

Alcohol-related(2004) GLOBAL 1.8 Million

Tobacco-related GLOBAL 5.4 Million

Note: Some causes appear twice (e.g. malnutrition in Child Mortality and in Hunger Deaths.)

B.1 EDUCATION

BACKGROUND

Three levels of Education are widely recognized, known as:-

Primary

Secondary

Tertiary

Primary Education, also known as Basic Education is delivered to Children at primary or Preparatory Schools

Secondary Education is delivered to Youths at secondary or High Schools

Tertiary Education, also known as Further or Higher Education, to Young Adults (and older) at Universities, Technical Colleges and a variety of vocational institutions.

SCHOOLING

The major goals of primary education are achieving basic literacy and numeracy amongst all pupils, as well as establishing foundations in science, geography, history,

mathematics, and social sciences.

Secondary education is the stage of education following primary school and is characterized by transition from the typically compulsory, comprehensive primary education for minors to the optional, selective tertiary, “post-secondary”, or “higher” education (e.g., university, vocational school) for adults.

Recent Statistics (2006/7;Unesco,UnMDG):-

Primary School Enrolment:	[570 million globally (about 88 % of all children of relevant age)
Not attending:	[75 million globally (34 million boys, 41 million girls) [38 million in Sub-Saharan Africa [18 million in Southern Asia
Secondary School Attendance	[DEVELOPING COUNTRY AVERAGE 54 % of youth of relevant age; Sub-Saharan Africa 25 %

FURTHER EDUCATION AND TRAINING

Tertiary education is the level following the completion of a school providing a secondary education.

Colleges, universities, institutes of technology and polytechnics are the main institutions that provide tertiary education. Tertiary education generally culminates in the receipt of certificates, diplomas, or academic degrees.

The term training refers to the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to specific useful competencies. It forms the core of apprenticeships and provides the backbone of content at institutes of technology (also known as technical colleges or polytechnics).

SOME OTHER EDUCATION ISSUES

R&D

Technology Transfer

Skills shortages

Brain Drain

Cross-border Study

Graduates

Access to Productive Employment

LITERACY

Functional illiteracy is a term used to describe reading and writing skills that are inadequate to cope with the demands of everyday life. This is contrasted with

Illiteracy in the strict sense, meaning the inability to read or write simple sentences in any language, as used here.

Adult Literacy refers to all persons aged 15 and more.

Literacy Rate is the percentage of a population able to read and to write.

Importance of Literacy Rates

Literacy Rates are a sensitive measure of the effectiveness of the educational system in any particular country or region and provide good standards of comparison.

This was recognised by the UNDP when establishing the Human Development Index – HDI (see section 4.1 above) and Adult Literacy was one of the first indicators to be incorporated into the HDI.

Current statistics (unesco, 2009, 2010):-

Illiterate Population, unable to read or write:-

GLOBAL: All Adults (15years +) **776 million**

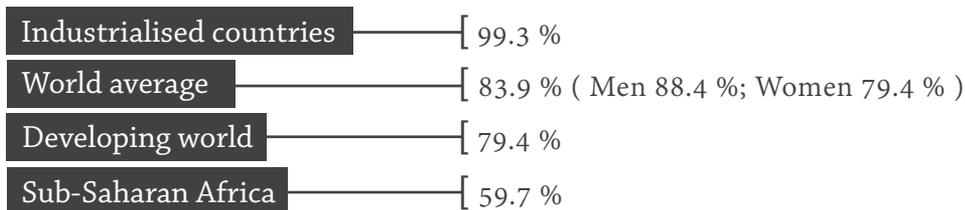
(18 % of total adult population)

.....● Women 496 million (64% of illiterates)
Men 280 million (36 % of illiterates)

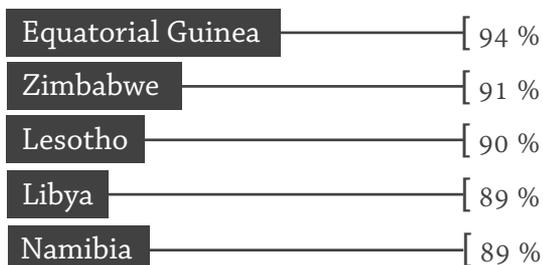
REGIONAL:

.....● Developing world, adults **767 million**
Industrial countries, adults **5.47 million**

Adult Literacy Rates:-



Some African Countries:-





MILLENNIUM DEVELOPMENT GOALS (MDGS)

GOAL 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION

TARGET 2.A: ENSURE THAT, BY 2015, CHILDREN EVERYWHERE, BOYS AND GIRLS ALIKE, WILL BE ABLE TO COMPLETE A FULL COURSE OF PRIMARY SCHOOLING

INDICATORS FOR MONITORING PROGRESS

- 2.1 **Net enrolment ratio in primary education**
- 2.2 **Proportion of pupils starting grade 1 who reach last grade of primary**
- 2.3 **Literacy rate of 15-24 year-olds, women and men**

Relevant Extracts from the MDG 2008 Report

In almost all regions, the net enrolment ratio in 2006 exceeded 90 per cent, and many countries were close to achieving universal primary enrolment. The number of children of primary school age who were out of school fell from 103 million in 1999 to 73 million in 2006, despite an overall increase in the number of children in this age group

For children to reach their full potential and countries to develop, the gains made in universal primary education must be replicated at the secondary level. At present, 54 per cent of children of the appropriate age in developing countries attend secondary school

In sub-Saharan Africa, only a quarter of children of secondary school age are in secondary school.

Relevant Extracts from the MDG 2012 Report

Many countries facing the greatest challenges have made significant progress towards universal primary education.

Enrolment rates of children of primary school age increased markedly in sub-Saharan Africa, from 58 to 76 per cent between 1999 and 2010. Many countries in that region succeeded in reducing their relatively high out-of-school rates even as their primary school age populations were growing.

B.2 GENDER PARITY

LIFE EXPECTANCY

Globally women live 4 to 5 years longer than men. As a result, in the age group of 65 and over, there are currently 78 men to every 100 women or 128 women to every 100 men.

ACCESS TO EDUCATION

Enrolment of Girls per 100 Boys enrolled:-

Developed Region	[Primary School 100	[Secondary School 100
Developing Region	[Primary School 94	[Secondary School 94
Sub Saharan Africa	[Primary School 89	[Secondary School 80

Non-attendance in Primary Schools:- 41 million Girls to 34 million Boys or 120 Girls per 100 Boys

Adult Illiteracy (unable to read or write):- 496 million Women to 280 million Men or 177 Women per 100 Men

PAID EMPLOYMENT OPPORTUNITY

Work Force comprises 40% Females and 60% Males.

Proportion of Woman Workers in Non-Agricultural **Paid Employment**:-

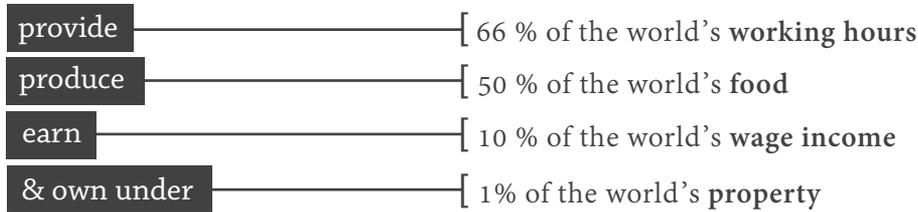
World average	[39 % of workforce
Developed region	[46 %
Sub Saharan Africa	[31 %
Southern Asia	[19 %

OTHER WORK

The majority of women in the Developing World are engaged in unpaid or in seasonal and part-time low-level work. One monitoring organization (Womankind Worldwide)

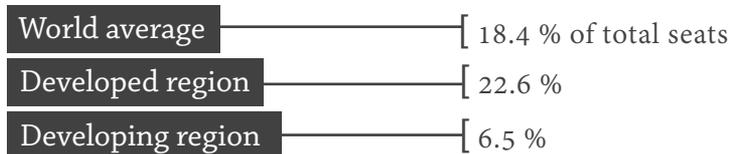
assesses that:-

WOMEN



POLITICAL DECISION MAKING

Parliamentary Seats held by Women (2008):-



Top 5 Countries:-

Rwanda 48.8 %; Sweden 47.0%; Cuba 43.2 %; Finland 41.5 %; Argentina 40.0 %

Ministerial Posts held by women (2009):-

World average: 16 % of all ministerial posts

Women heads of state, elected or appointed (2012):-

Current Total: 20 out of 192 UN Member States, including Liberia and Malawi.

MILLENNIUM DEVELOPMENT GOALS (MDGS)

GOAL 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN

TARGET 3.A: ELIMINATE GENDER DISPARITY IN PRIMARY AND SECONDARY EDUCATION, PREFERABLY BY 2005, AND IN ALL LEVELS OF EDUCATION NO LATER THAN 2015

INDICATORS FOR MONITORING PROGRESS

- 3.1 Ratios of girls to boys in primary, secondary and tertiary education**
- 3.2 Share of women in wage employment in the non-agricultural sector**
- 3.3 Proportion of seats held by women in national parliament**

Relevant Extracts from the MDG 2008 Report

The gender parity index in primary education is 95 per cent or higher in six of the 10 regions, including the most populous ones. Girls still wait for equal primary school access in some regions. Targeted action is needed to help girls from poor, rural areas stay in school.

Gender parity in primary school bodes well for girls' continued educational progress.

Of the 113 countries that failed to achieve gender parity in both primary and secondary school enrolment by the target date of 2005, only 18 are likely to achieve the goal by 2015.

Job opportunities open up, but women often remain trapped in insecure, low-paid positions. Almost two thirds of employed women in the developing world are in vulnerable jobs as own-account or unpaid family workers.

Women slowly gain ground in political decision-making, but progress is erratic and marked by regional differences. In one third of developing countries, women account for less than 10 per cent of parliamentarians.

Relevant Extracts from the MDG 2012 Report

The world has achieved parity in primary education between girls and boys. Driven by national and international efforts and the MDG campaign, many more of the world's children are enrolled in school at the primary level, especially since 2000. Girls have benefited the most. The ratio between the enrolment rate of girls and that of boys grew from 91 in 1999 to 97 in 2010 for all developing regions. The gender parity index value of 97 falls within the plus-or-minus 3-point margin of 100 per cent, the accepted measure for parity.

B.3 SOCIAL SECURITY

BACKGROUND

Focus here is on the support and protection measures designed to provide a **safety net** for the vulnerable 40% of the World's population living in chronic poverty. **Forms of intervention** include cash transfers, food programmes, public works programmes, subsidies, exemptions, free services, allowances, etc.

Funding sources include:-

at *Global level: UN Agencies, Official Development Assistance (ODA) Government Aid Agencies, International NGOs*

..... at *NATIONAL level: National Budgets, Development Banks, Private Sector, National NGOs*

MEASURES AT SUCCESSIVE LIFE-STAGES FOLLOW:-

..... **Childhood:** *Medical treatment; vaccination & inoculation programmes, Child Support Grant*

Schooling: *Fees, Books & Uniforms, Feeding programmes, Transport*

Higher education: *Bursaries*

Work: *Unemployment Insurance, Reskilling programmes, Public Works Programmes, Occupational Hazard Compensation, Disability Pension*

Home & family building: *Housing Subsidy, Water & Electricity Basic Subsidy, Public Transport subsidy, Food vouchers, stamps, coupons, Price control, tax exemption, State shops for the poor, Medical Aid, National, Health Scheme*

Natural disasters
Emergency Services
Humanitarian Aid

Retirement
Old Age Pension
Disability Pension

Each country has its own approach to a social safety net for its citizens.

B.4 ACCESS TO ECONOMIC ACTIVITY

This section deals with some of the challenges facing anyone, particularly from the ranks of the poor, who wishes to enter into economic activity.

ACCESS TO CREDIT FINANCE

This subject will be addressed in a later Chapter

ACCESS TO COMMUNICATIONS

Telephone Subscribers (MDG; ITU):-

GLOBAL: 1990: 530 million
 2006: 1.3 Billion Fixed Line • 2.7 Billion Mobile
 4.0 Billion TOTAL (60% of World population)

REGIONAL: Africa 2006: 29 million Fixed Line (3 % of the population)
 200 million Mobile (21% of the population)

INTERNET USERS (MDG; ITU 2006/7):-

GLOBAL: NUMBER OF USERS: 1.32 BILLION (20% OF WORLD POPULATION)

REGIONAL % OF POPULATION:-



ITU- International Telecommunications Union, a UN agency.

ACCESS TO LAND

According to the UN Human Rights Commission in 2005, 75% of Private Land is owned by 2.5% of the World's population.

MILLENNIUM DEVELOPMENT GOAL

GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT

TARGET 8.F: IN COOPERATION WITH THE PRIVATE SECTOR, MAKE AVAILABLE THE BENEFITS OF NEW TECHNOLOGIES, ESPECIALLY INFORMATION AND COMMUNICATIONS

INDICATORS FOR MONITORING PROGRESS

8.14 Telephone lines per 100 population

8.15 Cellular subscribers per 100 population

8.16 Internet users per 100 population

B.5 SOCIAL ACTIVITY

ARTS

CULTURE

SPORTS

RECREATION

The provision of these facilities will be addressed in a later Chapter.

B.6 POLITICAL ENVIRONMENT

STATE OF DEMOCRACY

The **Democracy Index** compiled by the Economist Intelligence Unit for 167 countries uses criteria such as Electoral Process, Pluralism, etc, to rate each country on a scale of 0 to 10 as follows(2012):-

Full Democracies	[8 - 10	[(25 countries)
Flawed Democracies	[6 - 7.9	[(54 countries)
Hybrid Democracies	[4 - 5.9	[(37 countries)
Authoritarian Regimes	[Less than 4	[(51 countries)

Thus 70% of the countries scrutinised qualified as Democratic (but to differing extents) while 30% were considered Dictatorial. Norway received the top rating at 9.93, and North Korea the lowest at 1.08. World average was 5.52 and **Sub-Saharan Africa** 4.32

Types of government include:-

Republics	[155
Constitutional Monarchies	[12
Absolute Monarchies	[3, including Swaziland.

DEATH PENALTY

Amnesty International's Report of March 2009 notes the following:-

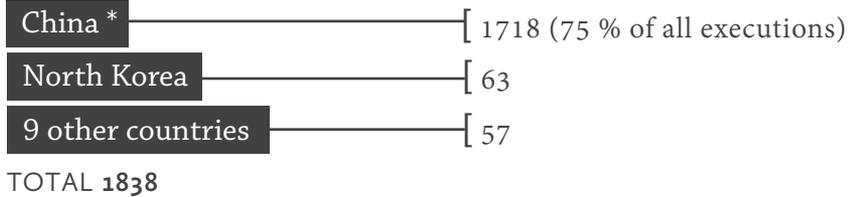
Death Sentences worldwide

In 2007: 3347 In 2008: 8864

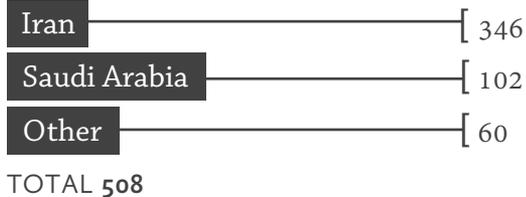
RECORDED EXECUTIONS (2008):-

GLOBAL: 2390

REGIONAL: Asia:-



MiddleEast&N.Africa:-



North America:-



*This is regarded as a minimum figure for China which does not release public statistics.

The organization known as "Hands Off Cain" asserts that the true number is at least 5,000.

Execution methods:-

Execution methods include Hanging, Electrocuting, Lethal Injection, Shooting, Beheading, Stoning.

Country Use of the Death Penalty:-



In **Africa**, in 2011, the death penalty was carried out in 4 Countries:-

..... • **Somalia** (at least 11), **Sudan** (at least 7), **South Sudan** (5), **Egypt** (at least 1).

In 2010 there were at least 43 executions, in 2009 at least 19 compared to 26 in 2007 and 87 in 2006 on the entire continent.

SEXUAL ORIENTATION

Today, consensual homosexual acts between adults are illegal in about 70 out of 195 countries of the world; in 40 of these, only male-male sex is outlawed. This number has been declining since the second half of the 20th century.

LEGAL ABORTION

The issue of abortion remains one of the most divisive in public life, with most political parties in democracies divided on the issue, and continuing battles to liberalise or restrict access to legal abortion. Pro-choice groups are active in most countries, campaigning for legal abortion with varying degrees of success. Few countries allow abortion without limitation or regulation, but most do allow various limited forms of abortion.

Abortion is legally permitted to save the life of the woman in 98 per cent of the countries in the world. Other grounds for abortion are to preserve the physical health of the woman (63 per cent of countries), to preserve mental health (62 per cent), in case of rape or incest (43 per cent), foetal impairment (39 per cent), economic or social reasons (33 per cent), and on request (27 per cent).

According to the WHO, more than 45 million (legal and illegal) abortions take place annually. At the same time, approximately 66,500 women die from the complications of unsafe abortion every year (according to data published by International Pregnancy Advisory Services- IPAS).

AFRICA

South Africa allows abortion on demand under its Choice on Termination of Pregnancy Act. Most African nations, however, have abortion bans except in cases where the woman's life or health is at risk. A number of abortion-rights international organizations have made altering abortion laws and expanding family planning services in sub-Saharan Africa and the developing world a top priority.

5.AID



5. AID

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are used here:-

5.1 EMERGENCY AID

5.2 DEVELOPMENT AID

5.2.1 GRANT AID

5.2.2 LOAN AID

5.2.3 DEBT RELIEF INITIATIVES

5.1 EMERGENCY AID

BACKGROUND

Emergency Aid, also referred to as Humanitarian Aid, is here defined as the response to disasters, both natural and man-made, by organizations with the appropriate skills and resources. By nature it is a once-off action or at least temporary until the situation is remedied or stabilized.

DISASTERS

Natural disasters include seismic and weather-related events leading to deaths, injuries and displacement of the affected population as described in Chapter 6 (see 6.1). **Man-made disasters** include armed conflict, aircraft and train smashes, shipwrecks, etc.

EMERGENCY AID AGENCIES

United Nations:

..... • (*UNHCR, UN High Commission for Refugees
UNICEF, UN Children's Fund, FAO, Food &
Agricultural Organisation
WFP, World Food Programme, WHO,
World Health Organisation*)

Global NGO's:

..... • (*Numerous; Oxfam, Save the Children Fund,
Action Aid, Cafod, Relief International, Care Int, etc.*)

State Bodies:

..... • (*Defence Force, Flood & Fire services, etc.*)

Local Community NGO's.

5.2 DEVELOPMENT AID

BACKGROUND

Development Aid, unlike Emergency Aid, is ongoing in character with the continuing aim of improving quality of life everywhere and at all levels through fostering social and economic advancement and also to provide buffers against reversals of fortune due to economic crises.

Two categories of Development Aid can be discerned:-

⋮..... • **Grant Aid**, arising out of commitments made by Rich Countries to Poor Countries, with no debt being incurred or implied.

⋮..... • **Loan Aid**, which involves the raising of debt with agreed conditions of servicing and repayment, and which may also include a requirement from the lender that the recipient country undertakes to restructure its economy.

5.2.1 GRANT AID

DONORS

Mdg signatories

The Millennium Development Goals and targets come from the Millennium Declaration, signed by 189 countries, including 147 heads of State and Government, in September 2000

GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT

TARGET 8.B: ADDRESS THE SPECIAL NEEDS OF THE LEAST DEVELOPED COUNTRIES INCLUDES: TARIFF AND QUOTA FREE ACCESS FOR THE LEAST DEVELOPED COUNTRIES' EXPORTS; ENHANCED PROGRAMME OF DEBT RELIEF FOR HEAVILY INDEBTED POOR COUNTRIES (HIPC) AND CANCELLATION OF OFFICIAL BILATERAL DEBT; AND MORE GENEROUS ODA FOR COUNTRIES COMMITTED TO POVERTY REDUCTION

INDICATORS FOR MONITORING PROGRESS:-

OFFICIAL DEVELOPMENT ASSISTANCE (ODA)

8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income

8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation)

8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is

untied

8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes

8.5 ODA received in small island developing States as a proportion of their gross national incomes

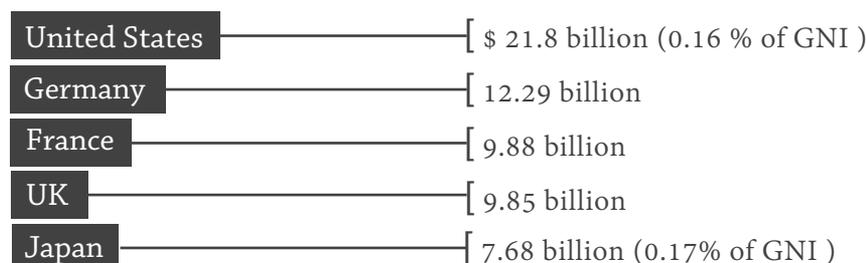
Official Development Assistance (ODA) is a measure of **government-contributed aid**. It is compiled by the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD).

There are currently 24 members of DAC, including the European Commission which acts as a full member of the committee, although it is not a member state in the judicial meaning of the term. The World Bank, the IMF and UNDP also participate as observers.

Contributions in 2007:-



The largest DAC donors by amount:-



The largest non-DAC donors were Saudi Arabia (\$ 2 billion) and Turkey (\$0.6 billion).

However, none of these met the **UN target** of giving at least **0.7 percent** of their Gross National Income (GNI) as aid. The only countries meeting or exceeding the targets in 2007 were Norway (0.96% of GNI), Sweden (0.93% of GNI), Luxembourg (0.91% of GNI), the Netherlands and Denmark (both 0.81% of GNI).

Average for all donors was 0.3% of GNI in 2007.

Governmental Aid Agencies:

Generally linked to Foreign Affairs Departments of advanced countries

USAID (USA), DFID (UK), CIDA (Canada), etc.

RECIPIENTS

Qualifications

In general, aid is targeted to the poorest countries (that is, those countries classified as 'least developed' or as low- or lower-middle income). The 49 least developed countries (LDCs) receive about a third of all aid flows.

At the Gleneagles summit in 2005, G-8 members projected that their commitments, combined with those of other donors, would double ODA to **Africa** by 2010.

Preliminary data for 2008 show that, excluding debt relief, bilateral ODA to the continent as a whole rose by 10.6 per cent in real terms from the previous year

The OECD reports that in 2009 **Africa** received the largest amount of ODA, at \$28 billion. Of that, \$25 billion went to countries south of the Sahara. The top ODA receiving countries in order were Sudan (\$1.9 billion) and Ethiopia (\$1.8 billion).

TARGETED AID

Targeted Aid is aid which is provided for specific stated purposes such as funding environmental, food security, and health programmes

Health Aid

Since its creation in 2002, the **Global Fund** has become the main source of finance for programs to fight AIDS, tuberculosis and malaria, with approved funding of US\$ 19.3 billion for more than 572 programs in 144 countries. It provides a quarter of all international financing for AIDS globally, two-thirds for tuberculosis and three quarters for malaria.

Food Security

World Food Programme (WFP)

5.2.2 LOAN AID

DONORS

The role played by the twin Bretton Woods Institutions of the **World Bank** and the **International Monetary Fund (IMF)** in providing **AID**, primarily to poor and emerging countries but also on occasions to advanced countries in crisis situations, is addressed here.

Their role in shaping global economic architecture is to be addressed in later chapters.

WORLD BANK

Since its inception in 1944, the World Bank has expanded from a single institution to a closely associated group of five development institutions. Its mission evolved from the International Bank for Reconstruction and Development (IBRD) as facilitator of

post-war reconstruction and development to the present day mandate of worldwide poverty alleviation in close coordination with its affiliate, the International Development Association (IDA), and other members of the World Bank Group, the International Finance Corporation (IFC), the Multilateral Guarantee Agency (MIGA), and the International Centre for the Settlement of Investment Disputes (ICSID).

The IBRD aims to reduce poverty in middle-income and creditworthy poorer countries, while IDA focuses on the world's poorest countries.

Members

The International Bank for Reconstruction and Development (IBRD) has 188 member countries, while the International Development Association (IDA) has 172 members. Each member state of IBRD must also be a member of the International Monetary Fund.

Voting power

In 2010, voting powers at the World Bank were revised to increase the voice of developing countries, notably China. The countries with most voting power are now the United States (15.85%), Japan (6.84%), China (4.42%), Germany (4.00%), the United Kingdom (3.75%), and France (3.75%).

Leadership

By a long-standing, informal agreement, the president of the Bank is a United States national, while the managing director of the International Monetary Fund is a European.

Funding

The World Bank funds its loans with a mix of member contributions and corporate bonds and obtains funding for its operations primarily through the IBRD's sale of AAA-rated bonds in the world's financial markets. The IBRD's income is generated from its lending activities, with its borrowings leveraging its own paid-in capital, plus the investment of its "float". The IDA obtains the majority of its funds from forty donor countries who replenish the bank's funds every three years, and from loan repayments, which then become available for re-lending.

IDA accounts for nearly 40 percent of World Bank lending.

Functions

The World Bank provides low-interest loans, interest-free credits and grants to developing countries for a wide array of purposes that include investments in education, health, public administration, infrastructure, agriculture and environmental and natural resource management.

Projects

In 2009 the World Bank provided \$46.9 billion for 303 projects in developing countries.

The Bank is currently involved in more than 1,800 projects worldwide.

INTERNATIONAL MONETARY FUND (IMF)

IMF History

The IMF was conceived in July 1944, when representatives of 45 countries meeting in the town of Bretton Woods, New Hampshire, in the northeastern United States, agreed on a framework for international economic cooperation, to be established after the Second World War. They believed that such a framework was necessary to avoid a repetition of the disastrous economic policies that had contributed to the Great Depression.

The IMF came into formal existence in December 1945, when its first 29 member countries signed its Articles of Agreement. It began operations on March 1, 1947 and was incorporated into the fledgling United Nations. Later that year, France became the first country to borrow from the IMF.

IMF Today

The IMF now has 188 member countries. It is a specialized agency of the United Nations but has its own charter, governing structure, and finances. Its members are represented through a quota system broadly based on their relative size in the global economy

Each member of the IMF is assigned a quota, which determines its maximum contribution to the IMF's financial resources. Upon joining the IMF, a country normally pays up to one-quarter of its quota in the form of widely accepted foreign currencies (such as the U.S. dollar, euro, yen, or pound sterling). The remaining three-quarters is paid in the country's own currency

The Fund's gold holdings amounted to about 96.6 million troy ounces (3,005.3 metric tons) at end January 2010, making the Fund the third largest official holder of gold in the world.

IMF's Lending Capacity

The Group of Twenty industrialized and emerging market economies agreed on April 2, 2010 to triple the Fund's lending capacity to \$750 billion, enabling it to inject extra liquidity into the world economy during this time of crisis. The additional support will come from several sources, including contributions from member countries.

IMF Functions

A core responsibility of the IMF is to provide loans to member countries experiencing balance of payments problems. This financial assistance enables countries to rebuild their international reserves, stabilize their currencies, continue paying for imports, and restore conditions for strong economic growth, while undertaking policies to correct

underlying problems. Unlike development banks, the IMF does not lend for specific projects.

Some recent (May 2010) IMF Loans:-

Hungary	[\$ 11.6 Billion
Romania	[\$ 12.5
Ukraine	[\$ 16.4

The IMF provides two primary types of financial assistance to **low-income countries**: low-interest loans under the Poverty Reduction and Growth Trust (PRGT), and debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI); see below under Debt Relief Initiatives.

Special Drawing Rights (SDRs)

SDRs are an international reserve asset created by the IMF in 1969 to supplement the official reserves of its members. The value of one SDR is based on a basket of 4 currencies: US Dollar, Pound Sterling, the Euro and Japanese Yen; it therefore fluctuates on a daily basis. For example the average rate during September 2009 was 1 SDR=\$1.56.

SDR Quotas and Voting Rights of Members (as at June 2010)

All 188 Members SDR	[217.4 Billion		
Top 20 Countries	[154.8 Billion	[71.2 %	[votes - 69.95 %
Other 168	[62.6 Billion	[28.8 %	[30.05 %
USA	[37.15 Billion	[17.09 %	[16.74 %

A member's quota in the IMF determines the amount of its subscription, its voting weight, its access to IMF financing, and its allocation of Special Drawing Rights. Major decisions require an 85% supermajority. The United States is the only country able to block a supermajority on its own.

SDR Allocations by IMF

SDR allocations by the IMF are officially authorised by the G-20 conferences and published by the International Monetary Fund.

There have been three series of General Allocations:-

First series (1970 to 1972)SDR 9.3 Billion Initial Pool
 Second series (1979 to 1981)12.1 Total 21.4

On 2 April 2009, the G-20 authorised the issuance of \$250 billion (SDR 161.2 billion) in new SDRs to augment the foreign reserves of IMF members (by 74% of their quotas) as a cushion against the global economic crisis, with the following effects:-



A Special Allocation was made on 10 May 2010 of Euro 250 Billion (about \$330 Billion) to address the Eurozone Debt Crisis.

PARIS CLUB

The Paris Club is an informal group of official creditors (currently 19 rich countries in all) whose role is to find coordinated and sustainable solutions to the payment difficulties experienced by debtor countries. As debtor countries undertake reforms to stabilize and restore their macroeconomic and financial situation, Paris Club creditors provide an appropriate debt treatment.

Paris Club creditors provide debt treatments to debtor countries in the form of rescheduling, which is debt relief by postponement or, in the case of concessional rescheduling, reduction in debt service obligations.

The origin of the Paris Club dates back to 1956 when Argentina agreed to meet its public creditors in Paris. Since then, the Paris Club has reached 415 agreements with 87 different debtor countries. Since 1956, the debt treated in the framework of Paris Club agreements amounts to \$ 543 billion.

The total of Paris Club claims as at January 2010 amounts to \$342.4 billion, of which \$189.1 billion represent ODA claims and \$153.3 billion represent non-Official Development Assistance claims.

CONDITIONALITY

Conditionality is the term applied to the attaching of conditions to a loan, debt relief, bilateral aid or membership of international organizations.

Conditionalities may involve relatively uncontroversial requirements to enhance aid effectiveness, such as anti-corruption measures, but they may involve controversial ones, such as austerity or the privatization of key public services. These conditionalities are often grouped under the label structural adjustment

Structural Adjustment

Structural adjustment is a term used to describe the economic policy changes called for by the IMF and the World Bank as conditions for accessing new loans, or for obtaining lower interest rates on existing loans; and to ensure that the money lent will be spent in accordance with the overall goals of the loan.

Structural Adjustment Programmes (SAPs)

SAPs emphasise maintaining a balanced budget which forces austerity programs. The casualties of balancing a budget are often social programmes. The programmes most often cut are education, public health, and other miscellaneous social safety nets.

SAPs include measures to inhibit the Role of the State and promote the Role of the Private Sector in the Economy in the following three policy groups:-

Fiscal discipline • *Budgeting, social spending (health, education, infrastructure), taxation, subsidies, price controls, interest rates*

Liberalisation • *Trade, import tariffs & quotas, exchange rates, Investment, market entry, market deregulation*

Privatisation • *Ownership in part or whole of State enterprises & resources*

Such measures have been labeled The Washington Consensus, a term originally coined in 1989 by economist John Williamson to describe what should constitute a suitable economic reform package for developing countries as advocated by the Washington, D.C.-based institutions of the International Monetary Fund and the World Bank

Some African Recipients of Loans

Cote d'Ivoire, Egypt, Malawi, Mauritania, Sierra Leone, South Sudan, Tunisia, Uganda. One study has suggested that since 1950 the continent of Africa has received \$300 billion from the IMF, the World Bank and affiliate institutions

5.2.3 DEBT RELIEF INITIATIVES

MDG TARGET 8.D: DEAL COMPREHENSIVELY WITH THE DEBT PROBLEMS OF DEVELOPING COUNTRIES THROUGH NATIONAL AND INTERNATIONAL MEASURES IN ORDER TO MAKE DEBT SUSTAINABLE IN THE LONG TERM

INDICATORS FOR MONITORING PROGRESS:-

DEBT SUSTAINABILITY

8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)

8.11 Debt relief committed under HIPC and MDRI Initiatives

8.12 Debt service as a percentage of exports of goods and services

HIPC & MDRI initiatives

Heavily Indebted Poor Countries (HIPCs) are a sub-group of developing countries with high levels of poverty and debt overhang which are eligible for special assistance from the IMF and the World Bank.

The HIPC program was initiated by the IMF and the World Bank in 1996. It provides debt relief and low-interest loans to reduce external debt repayments to sustainable levels. Assistance is conditional on the national governments of these countries meeting a range of economic management and performance targets.

By February 2010, 35 of 41 eligible countries had qualified for debt relief under the HIPC Initiative, 29 of them in Africa. Of the 35, 28 had reached their 'completion point', meaning that all the conditions for debt relief had been fulfilled and relief had become irrevocable in full. Seven countries yet to reach completion point for the HIPC program were entitled only to partial debt relief. Together, these countries had received committed debt relief of \$51 billion over time. Post-completion-point countries also received additional assistance of \$22.8 billion under the Multilateral Debt Relief Initiative (MDRI), which includes donors additional to IMF and World Bank. Five additional countries are potentially eligible for HIPC Initiative assistance and were under consideration.

The IMF estimates that the total cost of providing debt relief to the 40 countries currently eligible for the HIPC program to be around \$71 billion (in 2007 dollars). Half of the funding is provided by the IMF, World Bank, and other multilateral organizations, while the other half is provided by the creditor countries. The IMF's share of the cost is currently being funded by the proceeds of gold sales by the organization in 1999, but it estimated that this will not be enough to cover the full cost, and further funding

will need to be raised if additional countries such as Sudan and Somalia meet the qualification requirements for entry into the program.

THE AID DEBT-TRAIL, with some statistics

Loans Made; Debt Raised:-

Loans to Developing Countries from 1990 to 1997 (8 years) - \$1,530 Billion

Debt Servicing (Interest & repayments):-

Developing Country Payments, from 1990 to 1997 - \$1,607 Billion

Capital Flows Summary

During the 8 years from 1990 to 1997 the Developing Countries made payments against debt totaling \$1,607 Billion; during this period they received new loans of \$1,530 Billion.

Thus there was a net flow of \$77 Billion from recipients to donors. During the next 5 years from 1998 to 2002, the net flow increased to \$217 Billion in the same direction.

Developing Country External Debt:



Poorest Country Payments (1980 to 2006) : \$37.5B per year
African Countries Payments (1980 to 2006) : \$21 B per year

Debt Rescheduling

Rescheduling is debt relief by postponement or, in the case of concessional rescheduling, reduction in debt service obligations during a defined period or as of a set date.

Debt Cancellation

Through HIPC Programme - \$51 Billion | Through MDRI Programme - \$22.8

Default

1982	[Mexico
1987	[North Korea
1997	[Asian Financial Crisis
1998	[Russia
1999	[Brazil
2001	[Turkey
2002	[Argentina; amount owing to IMF/WB was \$150 Billion.

Previous year's debt servicing had been \$16 B or 10% of GDP. Negotiated settlement in March 2005 at 34 cents to the dollar.

OTHER RELEVANT ISSUES

Odious Debt

Odious Debt refers to debt incurred by an illegitimate or repressive regime, and inherited by a successor democratically elected government. Such debts are considered to be personal debts of the regime that incurred them and not debts of the successor state.

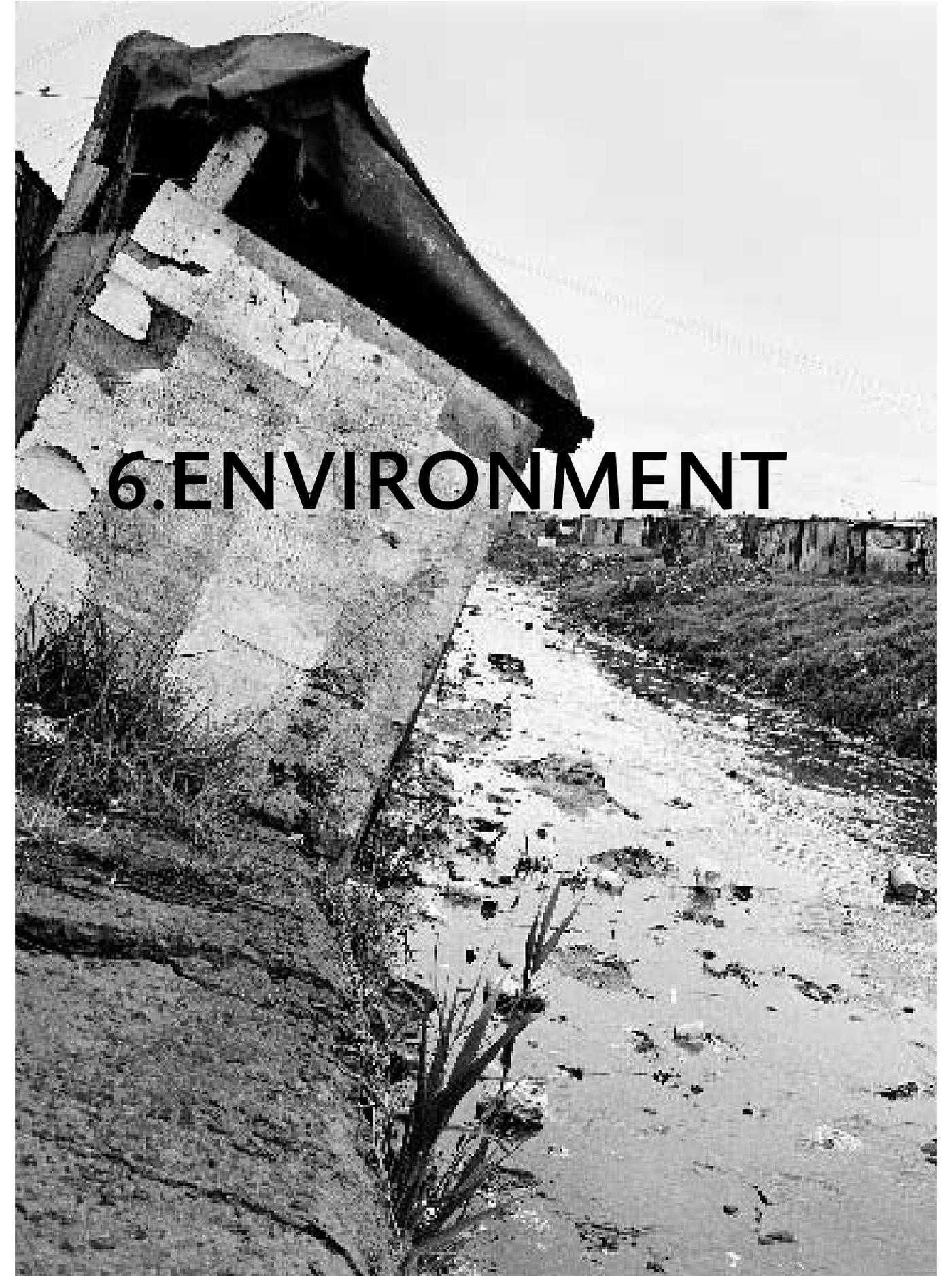
Tied Aid

Tied aid is defined as project aid contracted by source to private firms in the donor country. It refers to aid tied to goods and services supplied exclusively by donor country businesses or agencies, although this practice has drastically decreased over the past 15 years. The United Nations Human Development Report in 2005 estimated that only about 8 per cent of bilateral aid is 'tied', down from 27 per cent in 1990.

Aid Effectiveness

The Paris Declaration, endorsed on 2 March 2005, is an international agreement to which over one hundred Ministers, Heads of Agencies and other Senior Officials adhered and committed their countries and organizations to continue to increase efforts in harmonization, alignment and managing aid for results with a set of monitorable actions and indicators.

In 2008, in Accra, Ghana the Third High Level Forum took stock of progress and built on the Paris Declaration to accelerate the pace of change.

A black and white photograph showing a dilapidated building on the left side of the frame. The building's roof is severely damaged, with large sections of concrete or masonry missing, exposing the underlying structure. A dark, cylindrical pipe or vent protrudes from the roofline. The ground in the foreground is a mix of dirt and debris, with a small, spiky plant growing near the base of the building. In the background, a dirt path or road leads away from the building towards a line of more structures under a bright, overcast sky. The overall scene conveys a sense of neglect and environmental decay.

6. ENVIRONMENT

6. ENVIRONMENT

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are used here

6.1 NATURAL DISASTERS

6.2 CLIMATE CHANGE

6.3 POLLUTION

6.4 THE MDG ON ENVIRONMENT

6.1 NATURAL DISASTERS

BACKGROUND

Natural Disasters include Seismic and Weather-related events leading to deaths, injuries and displacement of the affected population, and to habitat and structural damage.

In a UN report to the COP15 Meeting in Copenhagen, it was stated that during year 2009, 245 such disasters were reported around the world, affecting 58 million people, of whom 8,900 met their death; economic damage was estimated at \$19 billion.

SEISMIC AND LAND MOVEMENT DISASTERS

This category includes Earthquakes, Volcanic Eruptions, Avalanches, Land-& Mudslides. Some major and recent events are detailed below, with Date, Place & Death toll:-

Earthquakes

1920 China	[234,117
1976 China	[242,419
2004 Indonesia	[230,210 (Tsunami)
2008 China	[90,000 5million displaced (Sichuan)
2010 Haiti	[230,000
2010 Chile	[796
2010 China	[617 10,000+ injured (Qinghai)

Volcanic Eruptions

1815 Indonesia	[92,000 (Mount Tambora)
1883 Indonesia	[36,000 (Krakatoa)
1902 Martinique	[29,000 (Mount Pelee)

2010 Iceland [Volcanic Ash Cloud spread over Northern Europe

Avalanches

1993 Turkey [60 (Ugenzili Village)

1999 France [12 (Chamonix)

1999 Austria [31 (Galtur Village)

Land- & Mudslides

1985 Colombia [23,000 (Armero)

2006 Philippines [1,126

2010 Brazil [102+(Rio de Janeiro) Heaviest rainfall in 48 years

WEATHER-RELATED DISASTERS

This category includes two broad groups: Storm-conditions with torrential rains Heat, drought and water stress. Selected events with Date, Place & Death toll are shown:-

Floods

1887 China [1 to 2 million

1931 China [1 to 4 million

Blizzards

1972 Iran [4,000

2008 Afghanistan [926

2008 China [133

Cyclones & Hurricanes

1839 India [300,000

1970 Bangladesh [500,000

2005 Myanmar [146,000 (Cyclone Nargis)

2005 US Florida [1,836 (Katrina) \$108billion damage.

Heatwaves

2003 Europe [70,000

Wildfires

2009 Australia [173 Bushfires

Drought-related Famine

1900 India [0.25 to 3.25 Million

1921 /2 Russia [5 Million

1928 /30 China [3 Million (Northwest)

1936 China [5 Million (Sichuan)

1941 China [2.5 Million (Sichuan)

URBAN VULNERABILITY

A UN report of May 2009 draws attention to the 900 million shack-dwellers living in shanty-towns and other makeshift settlements in cities, and their vulnerability to natural disasters such as earthquakes, flooding or cyclones.

DISASTER-AID

- *Humanitarian: Food, Shelter, Rescue*
- *Relief: Emergency Declaration, Reconstruction*
- *Donors: UN Agencies, NGO's, State*

OTHER RELEVANT ISSUES

- *Risk Reduction Strategies*
- *Disaster Insurance*

6.2 CLIMATE CHANGE

BACKGROUND

The Intergovernmental Panel on Climate Change (IPCC) established by the UN agencies World Meteorological Organization (WMO) and UN Environment Program (UNEP) in 1988 has been responsible for coordinating the extensive scientific investigations into the Greenhouse Gas Effect identified as being the cause of the global warming that has become apparent. Since its establishment the IPCC has published 4 Assessment Reports on its findings and recommendations (1990, 1995,

2001&2007) and is currently engaged on a fifth (AR5) due to be finalised in 2014.

THE GREENHOUSE GAS EFFECT

The Greenhouse Gas Effect is caused by the presence in the atmosphere of gases that absorb solar energy and emit infrared radiation. Greenhouse gases trap heat within the surface-troposphere system, causing heating at the surface of the planet and resulting in Global Warming.

GREENHOUSE GASES

Naturally occurring:-

Water Vapour - the major gas in the atmosphere with the property of exercising a greenhouse effect. Left to its own devices it has produced, and would continue to produce a mean unvarying atmospheric temperature close to the earth's surface of 14 degrees C, according to scientific evidence.

This was the situation prior to the Industrial Revolution.

Anthropogenic (Human-Produced):-

The main anthropogenic gases which artificially enhance the heat-trapping effect within the atmosphere are as follows:-

- *Carbon Dioxide (CO₂) – the dominant gas, produced in vast quantities since the Industrial Revolution (1820) through large-scale burning of coal and subsequently of the other fossil-fuels, oil and gas.
Regarded as the defining indicator for measuring and assessing global warming.*
- *Methane (CH₄) – produced by cattle waste, rice paddies, coalmines, landfills.*
- *Nitrous Oxide (N₂O) – from automobile exhausts and nitrate fertilizer use.*

GLOBAL WARMING TEMPERATURE RISE

The Data

Global warming during the 155 years from 1850 to 2005 has been measured to have resulted in a rise of 0.8 degree C in the near-surface temperature of the atmosphere, of which 0.6 C occurred during the 20th Century. However at the current rate of increase in global warming, various estimates predict a temperature rise of between 1.4 and 5.8 degrees C for the 21st Century, depending on certain complex factors. This gives cause for concern.

THE ADVERSE EFFECTS OF GLOBAL WARMING

Extreme Weather Events

A UN Report for 2009 stated that of the 245 Natural Disasters recorded that year, 224 were weather-related. It is becoming increasingly obvious that Global Warming is

contributing to a frequency of extreme weather events which is beyond the pattern experienced in the past, in effect interfering with nature and causing Climate Change. Such events include intense downpours, typhoons, cyclones, hurricanes, floods and droughts, heatwaves and forest fires.

Icecap Melting

Global temperature increase is resulting in the retreat of sea-ice, permafrost and glaciers.

Sea Level Rise

The melting of sea-ice is one of the factors contributing to the rise in sea level that is occurring; the other is the thermal expansion of the ocean waters caused by the global warming itself.

Measurements indicate a rise in sea level of 10-20 cms. during the 20th Century with an expected rise of 80-100 cms. for the 21st Century, at the present rate.

The IPCC calculates that a rise in sea level of 59 cms would render the Maldives uninhabitable by the end of this century.

Other countries under threat include Bangladesh, Mozambique, Netherlands and a number of small island states.

Water Supply

Changes in rainfall patterns, evaporation and river flows make water availability less predictable. Precipitation appears to be increasing in high latitudes and decreasing in sub-tropical regions.

Desertification

Regions adjoining existing Deserts are vulnerable to degradation with rise in temperature.

Habitat and Species Survival

Animal and Plant species with limited tolerance to habitat temperature are facing extinction, especially those without the mobility or alternatives to migrate.

Disease Footprint

Geographical incidence of Malaria is expanding its range into highland areas where previously temperatures were too low to support the spread of the disease.

Other infectious diseases such as Cholera may similarly be promoted.

Agricultural Yields & Food Security

Crop productivity is being subjected to a degree of uncertainty from changes in rainfall patterns and growing seasons, particularly in warm and dry regions.

Ocean Chemistry & Marine Life

Large quantities of CO₂ dissolve in the surface waters of the oceans. While this “sink” effect is beneficial in the sense that this CO₂ would otherwise end up in the atmosphere, nevertheless the acidifying effect on the ocean chemistry interferes with the health and growth of all marine organisms and poses a threat to marine life.

CARBON DIOXIDE CONCENTRATION

CO₂ Concentration in the Atmosphere is expressed in Parts per Million (**ppm**):

Year 1820: 280 ppm (Pre-industrialisation level,static) 1960: 315ppm
2005: 380ppm

Most authorities agree that a level of **560 ppm** (i.e. double the pre-industrial level) would constitute a dangerous tipping-point, possibly a point of no return.

The **yearly rate of increase** has risen from 0.25ppm between 1820 and 1960 to 1.44ppm between 1960 and 2005 and currently (2007) stands at 2.00ppm per year

Time to reach 560ppm at present rate of 2.00ppm yearly rise **90 years**
at an increased rate of 3.00ppm yearly rise **60 years** at a decreased rate of 1.00ppm yearly rise **180 years**

Clearly, **any rise** in CO₂ concentration in the atmosphere is undesirable.

Only a **reduction** can permanently stave off the danger of going past the point of no return. This translates into the urgent need for a reduction in global carbon emissions.

CARBON EMISSIONS BY COUNTRIES & REGIONS

Total Emissions (in Gigatons of CO₂ per year)

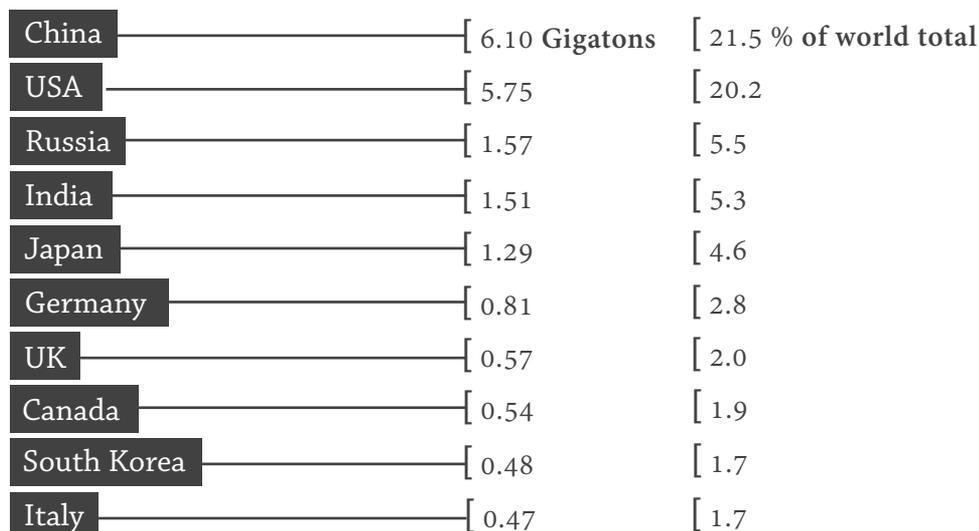
GLOBAL

1990	2006
21.50 Gt	28.43 Gt

REGIONAL:-

Industrialised Countries	[1990: 10.8 Gt ; 2006: 12.2 Gt
Developing Countries	[1990: 6.7 Gt ; 2006: 13.8 Gt
Eastern Asia	[1990: 2.9 Gt ; 2006: 6.7 Gt
Sub-Saharan Africa	[1990: 0.5 Gt ; 2006: 0.6 Gt

TOP TEN COUNTRIES [2006]



Thus, just 10 countries are responsible for two-thirds of worldwide emissions. The first 4 together emit over 50%.

It needs to be noted that of the total Carbon Emissions only approximately half find their way into the atmosphere, whilst the rest is absorbed into land and sea “sinks”; the land primarily through photosynthesis taking place in forests and other vegetation; and in the sea by dissolving, which affects ocean acidity.

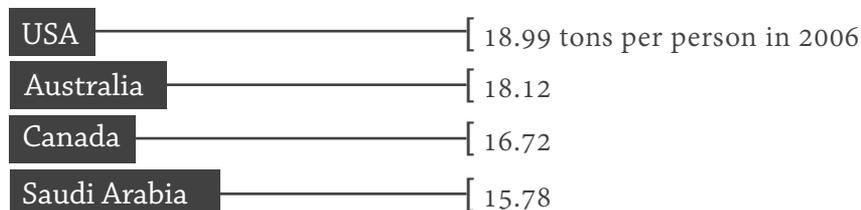
Emissions Per Capita (in Metric Tons per person per year)

GLOBAL AVERAGE [2006] : — [4.4 tons

REGIONAL

Industrialised Countries [12 tons
 Developing Countries [3 tons
 Sub-Saharan Africa [0.8 tons

COUNTRIES (Selected):-





Note that China is well down the per capita rating, despite being the largest overall emitter, while Australia makes an appearance close to the top because of its small population relative to its degree of industrialization.

Saudi Arabia also appears high up, partly because of a smallish population but mainly because of its highly developed oil industry, a major CO₂ emitter.

FOCUS on South Africa (RSA)

As the most industrialized country in Africa, the RSA is also the continent's highest emitter of Greenhouse Gases, contributing about 40% of Africa's total emissions. At 450 Million tons for the year of 2010 the RSA ranked as the 12th highest emitter globally. It was also ranked 12th highest on a per capita basis at 10.4 tons per person. RSA has pledged reductions in emissions of 34% by 2020 and 42% by 2025.

MAJOR GREENHOUSE GAS EMITTERS by SECTOR

Deforestation

Livestock

Fossil-Fuel Use:-

Electricity Generation

Transportation:-

Aviation

Road

Shipping

Industry:-

Petroleum

Cement

Deforestation and Livestock are notably high contributors to GHG Emissions at **20% & 18%** according to World Resources Institute and UNEP, each more than all Transportation emissions combined.

INTERNATIONAL AGREEMENTS

Global acknowledgement of the existence of a looming crisis brought together a number of countries to attend the Rio Earth Summit of 1992, at which the **UN Framework Convention on Climate Change (UNFCCC)** was launched and opened for signature.

It entered into force in 1994 and now has 192 member states.

The parties to the convention have met annually since 1995 in Conferences of the Parties (COP) to assess progress in dealing with climate change, the most recent being COP 17, in Durban, South Africa in December 2011; and **COP 18** in December 2012 in Doha, Qatar.

In 1997, at the initiative of the UNFCCC, the **Kyoto Protocol** was concluded and established legally binding obligations for developed countries to reduce their greenhouse gas emissions to 5% below their 1990 levels by the year 2012. The Protocol came into force in 2005 with 141 countries (representing 55% of the world's emissions) ratifying. As of 2009 the number rose to 187.

A notable absence in the list of countries is the USA which declined to adopt the Protocol.

In September 2000, the **Millennium Declaration** was signed by 189 countries and subsequently signed and ratified by all 192 UN Member States. The Declaration commits the signatories to achieve eight Millennium Development Goals (MDGs) including that of ensuring Environmental Sustainability (see below).

MITIGATION AND MANAGEMENT

Some Mitigation Strategies:-

- ⋮.....● **CCS** *Carbon Capture & Storage; an evolving technology, using underground or deep-ocean "sinks".*
-● **UCG** *Underground Coal Gasification, a variant of CCS*
-● *Extensive Tree Planting to promote the natural "sink" of CO₂ absorption by photosynthesis.*
-● *Improvements to Energy Efficiency in Electricity Generation
Electricity Use, domestic & industrial*
-● *Automobile Design; "hybrids" & "plug-in"*
-● *Building Construction optimizing collection of solar radiation*

Alternative Non-fossil Energy Sources (see also later chapters)

- ⋮.....● *Nuclear Power Stations, Solar Power Farms & Devices, Wind Turbines (Land & Offshore), Ocean Power (Wave & Tidal), Geothermal Power, Biofuels*

Financial Incentives

- ● *Carbon Credits*
- Carbon Taxes*

6.3 POLLUTION BACKGROUND

Pollution is here defined as degradation of the environment (Air, Land & Sea) through anthropogenic, i.e. human, activity as opposed to natural disasters, but other than Climate Change as described above in Section 5.2.

It is not uncommon for proposed new activities to be subjected to environmental impact assessments using various criteria, the most important of which would be the effect on human health and wellbeing.

URBAN POLLUTION

Overview

The number of people living in urban settlements totalled **3.4 billion** as of 2008, or just 50% of World population. Of this number, **1.0 billion** are slum dwellers living in cramped and mostly unhygienic conditions with **0.7 billion** people having no access to “improved” sanitation.

Human Waste

Untreated or inadequately treated human sewage and waste water poses a major threat to the urban environment and also to adjoining rivers and oceans where these are used as effluent discharge sinks.

Microbial contamination and high bacteria counts lead to gastric infections, cholera, parasitic worm infestation, and hepatitis, amongst other diseases.

Solid Waste Disposal

Household waste is deposited as landfill on waste dumps, or is incinerated.

Dumps can be unsightly and the source of bacterial contamination and toxicity.

Incineration may contribute to urban smoke and fog.

Domestic Fires

The burning of coal and wood for household warmth and cooking is a major generator of smoke and smog in some cities, and along with traffic fumes is responsible for respiratory and throat infections.

RURAL POLLUTION

Livestock Farming

Animal waste, like human waste can, if not properly managed, also become a source of

contamination in rivers, dams and lakes as well as in ground water.

Crop Farming

The uncontrolled use of fertilizers, herbicides and pesticides can have an adverse effect not only on the soil and ground water, but also on the toxicity of the food chain for animals and humans.

Slash burning of forest and other vegetation, and crop spraying are two activities which have an effect on atmospheric pollution.

MINING POLLUTION

Overview

Mining operations, by their very nature, involve a profound disturbance of the surface layers of the earth. The disturbance is very obvious when open-cast, quarry or strip-mining is undertaken; less obvious when deep-level underground drilling is employed. Both have their effects on the environment and require care to keep pollution to a minimum.

Mineral Extraction

Possible adverse effects on ground structure include rockfalls, subsidence, sinkholes and erosion; also the creation of tailing-dumps and slime-dams, often of a toxic nature. The ground-water in the area is at risk of contamination by acidification and other substances.

Atmospheric pollution by mineral dust can be a serious health hazard not only for the mining operators but also for nearby settlements (silicosis, asbestosis).

Noise pollution is another factor for underground drill operators and can lead to hearing loss.

Oil Extraction

This is a highly specialised mining operation with its own pollution risks, especially if the oil-rig is located offshore as in the case of the disastrous April 2010 Gulf of Mexico oil spill. Oil spills have occurred in Nigeria in the Niger Delta.

INDUSTRIAL POLLUTION

Overview

Industrial activities are extremely diverse, each with their own waste products, whether solid, liquid or gaseous, or a combination of all three.

Some major polluters:-

Chemical Industry, Metal-Working Industries, Power Plants, Oil Refineries

Hazardous Wastes:-

Toxic chemicals such as Arsenic, Lead and other heavy metals, acids, alkalis, etc.

Radioactive substances. Bacteria-laden substances. Poisonous fumes, acid rain, smoke, dust particles.

TRANSPORT POLLUTION**Overview**

Transportation of passengers and freight by Road, Rail, Aircraft and Ships is a highly energy-consuming activity with major pollution risks and consequences.

Motor Vehicle emissions made up of a range of noxious gases and particulate matter are responsible for as much as 80% of atmospheric pollution in built-up areas, with potentially serious health consequences.

Railway emissions vary according to whether locomotive power is by steam, diesel or electricity

Aircraft emissions are on the increase with over 2 billion air passengers per year and rising demand for air freighting.

Ocean Freighting of oil supplies has led to a continuing series of pollution disasters when oil tankers run aground in storms with devastating consequences for coastlines and marine life.

The following is a list of some of the oil tanker wrecks that have resulted in major oilspills in recent years:-

March 1967	— [Torrey Canyon English Channel	[100,000 tons
March 1978	— [Amoco Cadiz Brittany, France	[230,000 tons
March 1989	— [Exxon Valdez Alaska	[39,000 tons
Dec. 1992	— [Aegean Sea Spain, northwest	[80,000 tons
Dec. 1999	— [Erika France, northern	[20,000 tons
Nov. 2002	— [Prestige Spain	[50,000 tons

To tanker wrecks must be added the unrecorded spillages and discharges from freight and passenger vessels while making their way along the world's sealanes and harbours.

A SUMMARY OF HEALTH HAZARDS

Air Pollution

Noxious gases and particulate matter can lead to Respiratory & Cardiovascular diseases. Lead compounds can cause Neurological damage.

Water Pollution

Bacteria, parasites and some chemicals can lead to Gastric infections.

Soil Pollution

Some pesticides can cause Gastroenteritis, Nausea and Cardiovascular illness.

6.4 THE MDG ON ENVIRONMENT

GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY

TARGET 7.A: INTEGRATE THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT INTO COUNTRY POLICIES AND PROGRAMMES AND REVERSE THE LOSS OF ENVIRONMENTAL RESOURCES

TARGET 7.B: REDUCE BIODIVERSITY LOSS, ACHIEVING, BY 2010, A SIGNIFICANT REDUCTION IN THE RATE OF LOSS

INDICATORS FOR MONITORING PROGRESS

- 7.1 Proportion of land area covered by **forest**
- 7.2 **CO₂ emissions**, total, per capita and per \$1 GDP (PPP)
- 7.3 Consumption of **ozone**-depleting substances
- 7.4 Proportion of **fish** stocks within safe biological limits
- 7.5 Proportion of total **water** resources used
- 7.6 Proportion of terrestrial and marine **areas protected**
- 7.7 Proportion of **species** threatened with extinction

RELEVANT EXTRACTS FROM THE MDG 2009 REPORT

7.1 Deforestation

Reducing deforestation could play a key role in lowering greenhouse gas emissions. Deforestation continues at an alarming rate of about 13 million hectares per year (roughly equivalent to the land area of Bangladesh). This is partially counterbalanced by forest

planting, landscape restoration and the natural expansion of forests, which have significantly reduced the net loss of forest area. This net global loss over the period 2000-2005 is estimated at 7.3 million hectares per year, down from 8.9 million hectares per year in 1990-2000. The regions of sub-Saharan Africa and Latin America and the Caribbean continue to account for the largest net losses of forests.

Reducing deforestation and forest degradation helps mitigate climate change. Trees and plants absorb and store carbon, thus contributing to lower levels of carbon dioxide in the atmosphere. But when trees are cut down or burned, carbon dioxide is released into the air. Forestry accounted for 17.4 per cent of total anthropogenic greenhouse gas emissions in 2004 (in terms of CO₂ equivalents), primarily due to high levels of deforestation and forest degradation in developing countries

7.2 CO₂ Emissions

A continued rise in greenhouse gas emissions is another reminder of the urgency of the climate change problem. Carbon dioxide emissions contribute to the greenhouse gas effect — a rise in global temperatures that is already having an impact on the planet's people, plants and animals. In 2006, global carbon dioxide emissions continued their upward trend, reaching 29 billion metric tons, an increase of 2.5 per cent from the previous year. Emissions in 2006 were 31 per cent above the 1990 level.

Per capita emissions remain highest in the developed regions — about 12 metric tons of CO₂ per person per year, compared with about 3 metric tons in the developing regions and 0.8 metric tons in sub-Saharan Africa, the lowest regional value. Emissions per unit of economic output fell by more than 24 per cent in the developed regions and

by about 8 per cent in the developing regions. The continued growth of global emissions confirms that combating climate change must remain a priority for the world community.

7.3 Ozone Layer

Strong partnerships and sound national policies lead to extraordinary progress in protecting the ozone layer. From 1986 to 2007, the 195 countries that are currently party to the Montreal Protocol have achieved a 97 per cent reduction in the consumption of substances that deplete the Earth's ozone layer.

7.4 Fish Stocks

Global warming poses further threats to the health of the world's fisheries. Action is being taken to limit the impact of fishing and other human activities on exploited fish populations. Nevertheless, the percentage of depleted, fully exploited or overexploited and recovering fish species has increased from 70 per cent in 1995 to 80 per cent in 2006. To make matters worse, climate change is gradually altering marine and fresh water ecosystems. Such changes are affecting the seasonality of certain biological processes, thus disrupting marine and freshwater food webs. This, in turn, has unpredictable consequences for fish stocks.

7.5 Water Resources

Growing food needs require more

efficient use of water for agriculture. About 70 per cent of water withdrawn worldwide is for agriculture; in some regions, it is more than 80 per cent. When more than 75 per cent of river flows are diverted for agricultural, industrial and municipal purposes, there is simply not enough water to meet both human demands and environmental flow needs. Physical water scarcity — characterized by severe environmental degradation, declining groundwater, and water allocations that favour some groups over others — is approaching when this figure reaches 60 per cent, indicating that the world is facing an impending water crisis.

7.6 Protected Areas & 7.7 Biodiversity

Protected areas are the cornerstone of efforts to conserve the world's

species and ecosystems as well as a key component in climate change mitigation. However, only 12 per cent of the planet was under some form of protection by 2008. That amounts to about 18 million square kilometres of protected land and over 3 million square kilometres of protected territorial waters (that is, marine areas under national jurisdiction). Despite economic and other pressures, many developing countries have managed to protect vast stretches of both land and water. In 2007, for example, the Democratic Republic of the Congo established one of the largest protected tropical rainforests in the world. In Indonesia, seven new marine protected areas, covering a total of 9,000 square kilometres and containing 45 per cent of the region's shallow water ecosystems, were recently established.

Relevant Extracts from the MDG 2013 AFRICA Report:-

This report is the latest update by the U N Economic Commission for Africa (ECA) on the progress that Africa is making towards the Millennium Development Goals (MDGs).

Indicator 7.1: Proportion of land area covered by forest

There are no data available for this indicator for 2011, but there

is evidence from several African countries that the proportion of land area covered by forests is declining and that the rate of deforestation is alarming. Reasons for this trend include illegal logging and the use of forest land for investment purposes. In Liberia, for example, more than half the forests have been given to logging companies for investment. In the Democratic Republic of Congo, forests are cleared for mining activities.

Indicator 7.2: CO₂ emissions

Historically, CO₂ emissions in Africa have been low, with the continent contributing less than 4 per cent to total world emissions. Libya, South Africa, Seychelles, Equatorial Guinea and Algeria contributed most to emissions in Africa. Nonetheless, Africa remains at high risk of suffering the effects of climate change, which has been evidenced in the past few years

by severe droughts and floods.

Indicator 7.3: Consumption of ozone-depleting substances

This indicator tracks countries' progress in reducing and ultimately phasing out the consumption of ozone depleting substances in accordance with their commitments and schedules in the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer.

7. NATURAL RESOURCES



7. NATURAL RESOURCES

This Chapter deals with the occurrence and management of the Earth's Natural Resources which may conveniently be classified in seven groups as follows:-

7.1 WATER

7.2 LAND

7.3 BIOLOGICAL

7.4 MINERAL

7.5 MARINE

7.6 ATMOSPHERIC

7.7 SOLAR

The focus here is on the proven reserves of each Resource and on the conservation measures in place to maximise their sustainability, where applicable.

The exploitation of Natural Resources for productive and other purposes is to be dealt with in later chapters, but is previewed here to some extent in order to give an indication of the demands made upon these resources.

RESOURCE DEPLETION

Where a resource is **renewable** the usage rate needs to be kept below its regeneration rate in order to maintain sustainability.

However, where a resource is **non-renewable** then substitutes need to be found ahead of depletion.

7.1 WATER

Water is without question the most precious of all natural resources. It is vital for the continued existence of all life forms, both plant and animal. The sustainability of water supplies in adequate quantity and quality is thus a matter of great importance and concern, and is to be addressed below.

THE SOURCE OF THE WORLD'S WATER

The Hydrological Cycle of evaporation and precipitation of water is a natural mechanism for the constant replenishment of fresh water. The virtually limitless supply of water from the earth's oceans and of the necessary energy from the Sun ensures that fresh water is a highly renewable natural resource on a global scale.

THE STATISTICS OF WATER

The World's Water

An inventory of the world's water commissioned by UNESCO estimated that there are 1.4 Billion cubic kilometers of water on earth, both liquid and frozen.

Of this, **97%** is in the oceans, too salty to drink or to use for irrigation.

The rest, **3%**, is termed **fresh water** (as opposed to **saline**).

Fresh Water

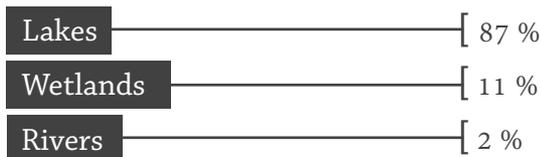
Only about **0.3%** of fresh water is readily accessible **surface water**.

Around **69%** is **frozen water** locked in polar ice-caps, glaciers, permanent snow (all declining due to global warming).

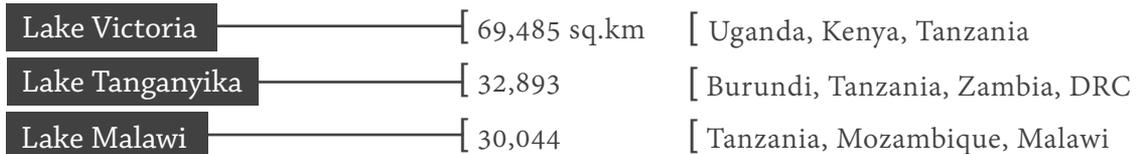
The balance is **ground water** of varying accessibility.

Surface Water

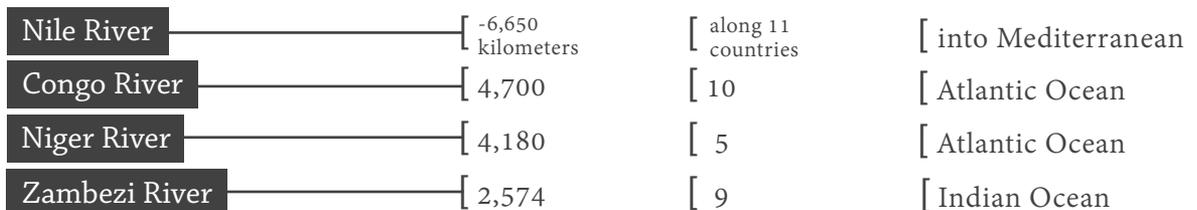
The location of the fresh surface water is approximately as follows:-



Major Lakes of Africa



Major Rivers of Africa



CLEAN DRINKING WATER

There is one further and most vital step in water quality to be addressed:-

Water which is fit and safe for human consumption.

The MDG Target 7.C calls for the reduction in the percentage of persons without sustainable access to safe drinking water. However, the UN-Habitat Report, 2009 states:-

.....• **1.1 Billion people** (16 % of world population) are still without such access, resulting in **12 million deaths** each year.

WATER-BORNE SANITATION

Here again, **2.5 Billion people** (36% of world population) are without access to improved sanitation.

FRESH WATER BENEFICIARIES

Agricultural

Usage estimated at 70% of total, mainly for irrigation to supplement natural rainfall, particularly in arid areas.

Industrial

Usage estimated at 22% of total, for power plant coolant, refineries, chemical solvent, manufacturing and numerous other industrial purposes.

Household

Usage estimated at 8% of total, including drinking water, bathing, cooking, sanitation and gardening.

WATER STRESS MANAGEMENT

Water demand already exceeds supply in many parts of the world and as the world population continues to rise, so too does the water demand.

In some regions, the stress on water resources is severe. Water withdrawals are highest in arid and semi-arid lands, where they are needed mostly for irrigation, and lowest in tropical countries.

WATER RIGHTS & CONFLICT

The framework for allocating water resources to water users (where such a framework exists) is known as water rights.

In areas with plentiful water and few users, such systems are generally not complicated or contentious. In other areas, especially arid areas where irrigation is practiced, such systems are often the source of conflict, both legal and physical.

WATER AS AN ENERGY RESOURCE

Hydro-electric power

The production of electrical power through the use of the gravitational force of falling or flowing water is the most widely used form of renewable energy. Once a hydroelectric complex is constructed, the project produces no direct waste, and has a considerably lower output level of the greenhouse gas carbon dioxide (CO₂) than fossil fuel powered energy plants. According to the EIA (Energy Information Administration) the worldwide installed hydroelectric capacity in 2006 supplied approximately 20% of the world's

electricity, and accounted for about 88% of electricity from renewable sources.

MDG REPORT 2009, RELEVANT EXTRACTS

The world is ahead of schedule in meeting the 2015 drinking water target. Yet a number of countries face an uphill battle: 884 million people worldwide still rely on unimproved water sources for their drinking, cooking, bathing and other domestic activities. Of these, 84 per cent (746 million people) live in rural areas.

Worldwide, only 27 per cent of the rural population enjoyed the convenience and substantial health benefits of having water piped into their homes or onto their premises in 2006. Fifty per cent of rural dwellers relied on other improved drinking water sources, such as public taps, hand pumps, improved dug wells or springs (a small proportion of this population relied on rainwater). And nearly one quarter (24 per cent) of the rural population obtained their drinking water from 'unimproved' sources: surface water such as lakes, rivers, dams or from unprotected dug wells or springs.

7.2 LAND

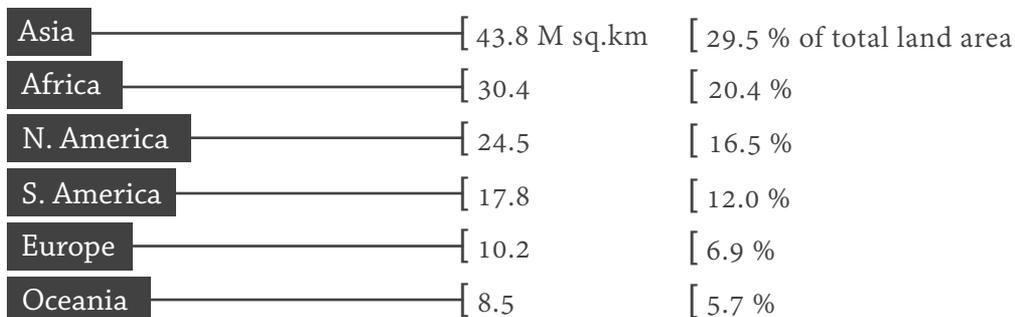
Land is a finite resource and as such presents the challenge of prioritising and optimising the many uses to which the world's land can and must be put. The often competing demands which land is called upon to serve are examined below.

THE STATISTICS OF LAND (CIA 2009)

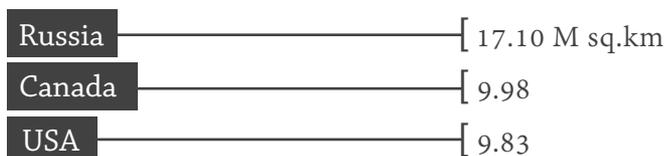
The surface area of the world is **510 million square kilometres**.

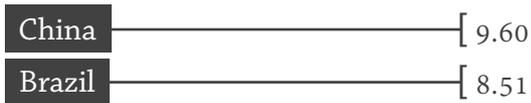
Of this the **Land Area** is close to **29%** or **149 million square kilometres**

Areas by Continent

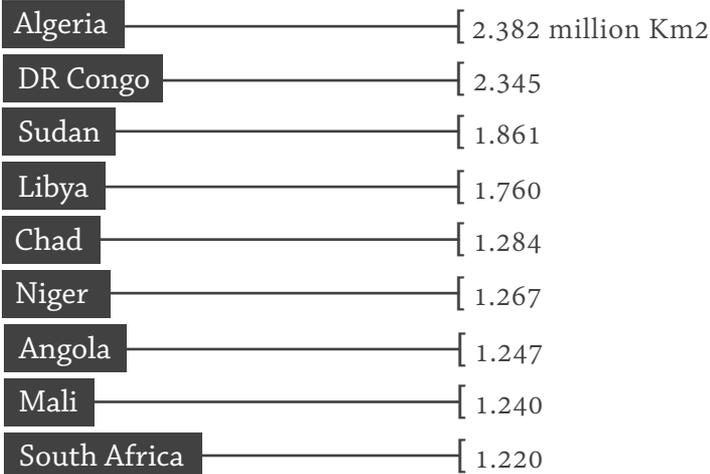


Areas of Top 5 Countries





Top 10 African Countries by Land Area:-



One of the smallest countries in Africa is Swaziland at 17,364 square kilometres. Madagascar is the world's fourth largest island at 587,713 square kilometres

POPULATION DENSITY

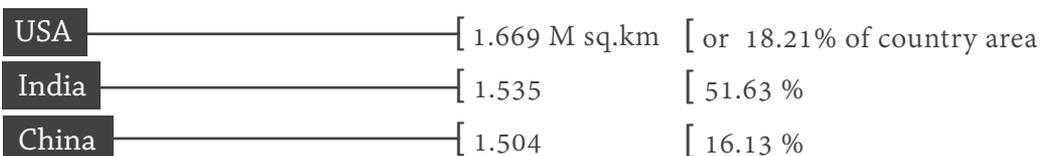
Population Density averaged 33 persons per Km² in **Africa** and 47 in the World.

AGRICULTURAL LAND USE

One of the most central roles of land utilization is food production. The global area of **Cultivated Land** (including arable and permanent crop land) is estimated (CIA,2005) to be

17.3 million square kilometres, or 11.61% of total land area including 2.77 M sq.km under irrigation

The top ten countries by **land area under cultivation** are:-



Russia	[1.192	[7.28 %
Brazil	[0.661	[7.82 %
Canada	[0.475	[5.22 %
Australia	[0.472	[6.19 %
Ukraine	[0.334	[55.30 %
Indonesia	[0.330	[18.07 %
Nigeria	[0.329	[36.16 %

Note that Nigeria, India and Ukraine have very high proportions of their land under cultivation.

Note also that China has 8.7% of the world's cultivated land, yet manages to feed 20% of the world's population.

Cultivated Land Extension

There is both the potential and a definite need to increase the amount of land under cultivation beyond the present 17.3 M Sq.km (as well as improving yields), having regard not only to continuing growth in population, but to the existing inadequate levels of nutrition that keep over 1 billion people in a chronic state of hunger.

The **African Continent**, currently with low levels of cultivation by comparison with other regions, seems to offer the best potential for such an increase. A McKinsey Report found that Africa has 60% of the world's as yet uncultivated arable land.

OTHER LAND USE

The 88.39% of Land other than Cultivated Land includes the following:-

Natural

- *Natural Forests & Grasslands About 30 %*
- *Deserts About 30%*
- *Mountains*

Developed

- *Urban & Municipal*
- *Industrial & Mining*
- *Infrastructural (Transport, Power, etc)*

LAND OWNERSHIP

Historical

- ⋮.....• *Hunter-Gathering to Cultivation*
- Feudal System*
- Subsistence Farming*
- Industrialisation & Urbanisation*

Present day

- ⋮.....• *State*
- Private (75% of private land owned by 2.5% of world population)*
- Communal*
- Leasing to foreigners (common in Africa)*

PROTECTED LAND

Nature Reserves

Conservancies

MDG REPORT 2009, Relevant Extracts

Protected areas are the cornerstone of efforts to conserve the world's ecosystems.

However, only 12 per cent of the planet was under some form of protection by 2008.

This amounts to about 18 million square kilometres of protected land. Deforestation continues at an alarming rate of about 13 million hectares per year (roughly equivalent to the land area of Bangladesh). This is partially counterbalanced by forest planting, landscape restoration and the natural expansion of forests, which have significantly reduced the net loss of forest area.

In 2007 the Democratic Republic of the Congo established one of the largest protected tropical rainforests in the world

7.3 BIOLOGICAL

Natural indigenous biological resources include **animal** life and **plant** life.

These vary greatly from country to country, according to the natural environment and terrain, whether arid or well-watered, mountainous or flat, forested, bush or grassland. An attempt is made here to present a global average picture from information sourced from the International Union for the Conservation of Nature (IUCN)

CLASSIFICATION & STATISTICS

Animal Species

Mammals	[5,400 species
Birds	[10,000
Reptiles	[8,000
Amphibians	[6,000
Insects	[1million

Plant Species

All types	[300,000 species
-----------	-------------------

THREAT OF SPECIES EXTINCTION

The main drivers of this threat are converting natural areas to farming and urban development, introducing invasive alien species, polluting or over-exploiting resources including water and soils and harvesting wild plants and animals at unsustainable levels.

Mammals	[1140 species under threat	[over 1 in 5
Birds	[1250	[1 in 8
Amphibians	[2000	[1 in 3
Plants	[100,000 species under threat,	[1 in 3

MDG REPORT 2009, Relevant Extracts

In 2008, the number of species threatened with extinction worldwide continued to grow. According to the Red List Index of the International Union for Conservation of Nature, mammals are more threatened than birds. But both groups are more endangered in developing than in developed countries. Mammals are particularly at risk in South-Eastern Asia due to deforestation and hunting, while birds are most threatened on the islands of Oceania, primarily by invasive species.

Deforestation continues at an alarming rate of about 13 million hectares per year.

The net global loss over the period 2000-2005 is estimated at 7.3 million

hectares per year. The regions of sub-Saharan Africa and Latin America and the Caribbean continue to account for the largest net losses of forests.

7.4 MINERAL

The occurrence of useful and valuable substances in the body of the earth is examined here. Their extraction and their economic exploitation as commodities will be addressed in later chapters.

Of main concern here is the extent of the deposits, expressed as “Proven Reserves” and defined as those quantities which, by analysis of geological and engineering data, can be estimated with a high degree of confidence to be commercially recoverable from a given date forward, from known reservoirs and under current economic conditions.

Two groups of mineral resources can be defined:-

7.4.1 Fossil Fuels

7.4.2 Minerals & Ores

7.4.1 FOSSIL FUELS

Fossil fuels are fuels formed by natural resources such as anaerobic decomposition of buried dead organisms. The age of the organisms and their resulting fossil fuels is typically millions of years, sometimes exceeding 650 million years. The fossil fuels include coal, petroleum, and natural gas which contain high percentages of carbon. Fossil fuels are non-renewable resources because they take millions of years to form.

COAL

Of the three fossil fuels, coal has the most widely distributed reserves; coal is mined in over 100 countries, and on all continents except Antarctica. The largest reserves are found in the USA, Russia, China, India, Australia and South Africa.

Proven reserves (2007, EIA,BP):-

World 909.1 Billion Metric Tons

USA	[246.6 B.M.Ts	[or 22.5 % share of world reserves
Russia	[157.0	[14.3
China	[114.5	[10.5
India	[92.5	[8.4
Australia	[78.5	[7.2
South Africa	[48.8	[4.4

These 6 countries account for two thirds of world coal reserves

Years left at current usage:-

Predictions differ from one authority to another according to assumptions made of future discoveries of coal deposits and of future consumption patterns.

The EIA (Energy Information Administration) in its 2008 Report predicts **164 years**.

British Petroleum (BP) in a 2007 Report predicts **148 years**.

OIL (PETROLEUM)

Petroleum is a naturally occurring liquid found in rock formations. It is generally accepted that oil, like other fossil fuels, formed from the fossilized remains of dead plants and animals by exposure to heat and pressure in the Earth's crust over hundreds of millions of years, gradually transforming into oil reservoirs.

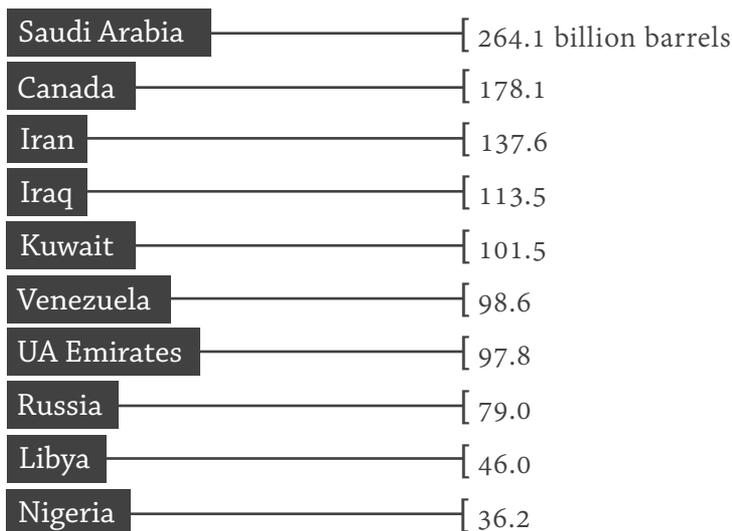
The unit of measurement is a Barrel (equal to 159 litres)

Proven Reserves (CIA, EIA 2009):-

World: 1,365 Billion Barrels

Regions: Middle East 56 %; North America 16%; Africa 9 %;
Central&South America 8 %; Eurasia 7 %; other 4 %.

Countries, Top 10:-



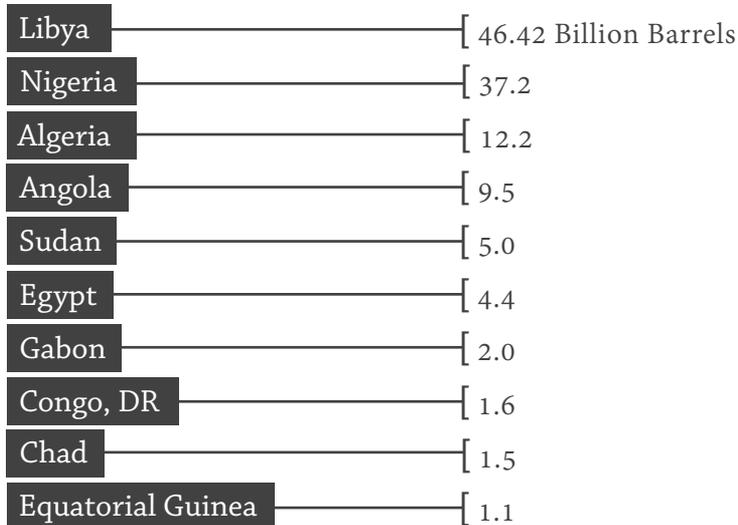
The first 4 countries account for 50.8% of World oil reserves.

The top 10 account for 84.4%.

Years left at current usage

Estimates range from **40 to 80 years**.

Oil - proven reserves Top 10 in AFRICA (2011)



NATURAL GAS

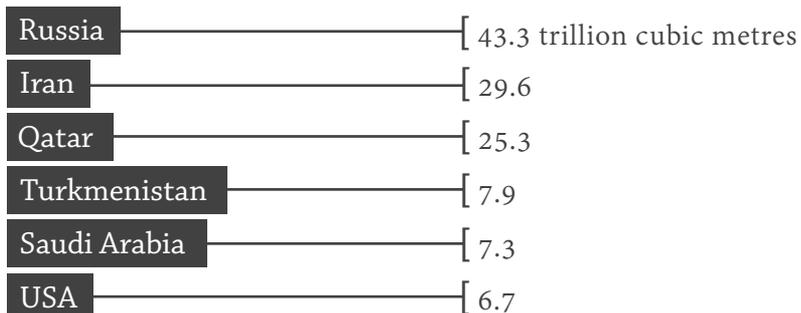
Natural gas is a gas consisting primarily of methane. It is found associated with other fossil fuels, in coal beds and oil fields; or “non-associated” (isolated in natural gas fields).

Unit of measurement is a cubic metre, taken at 0 deg. C temperature and 1 Atm. pressure.

Proven Reserves (CIA, EIA 2009)

World: 182 Trillion cubic metres

Countries, Top 10:-





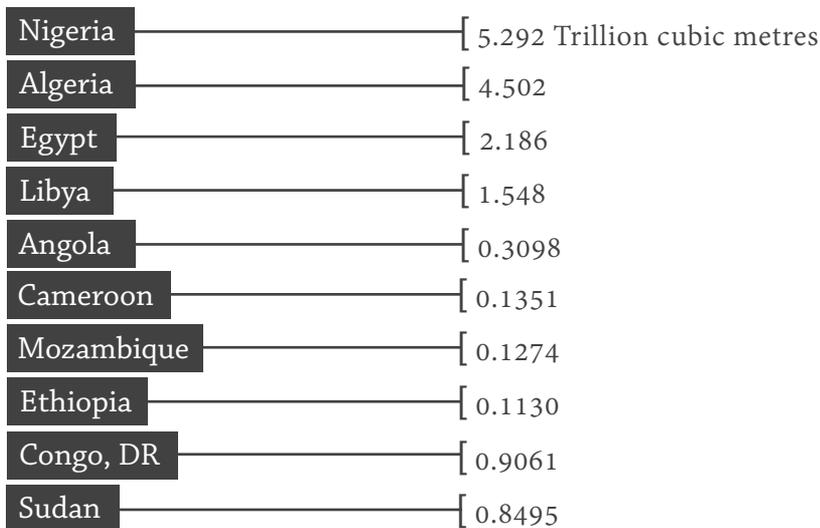
The first 3 countries account for 54% of World gas reserves.

The top 10 account for 77%.

Years left at current usage

EIA estimate: **61 years**

Natural gas - proven reserves Top 10 in AFRICA (2011)



FOSSIL FUELS AS AN ENERGY RESOURCE

It was estimated by the Energy Information Administration that in 2007 primary sources of energy consisted of petroleum 36.0%, coal 27.4%, natural gas 23.0%, amounting to an 86.4% share for fossil fuels in primary energy consumption in the world.

7.4.2 MINERALS & ORES

The Earth's crust is composed of numerous substances, many of which after extraction and refining become useful and valuable commodities with commercial and industrial value (to be elaborated in later chapters).

For the present purpose, a list follows of the more important materials with an indication of the countries where their major ore deposits occur (according to the US & British Geological Surveys), in order of their size.

PRECIOUS METALS

•	Gold	<i>China, Australia, USA, South Africa, Peru.</i>
	Platinum	<i>South Africa, Russia, Canada, Zimbabwe.</i>
	Palladium	<i>Russia, South Africa, Canada, USA.</i>
	Silver	<i>Peru, Mexico, China, Australia, Chile.</i>

BASE METALS

•	Iron	<i>China, Brazil, Australia, India, Russia.</i>
	Copper	<i>Chile, USA, Peru, China, Australia</i>
	Aluminium	<i>China, Russia, USA, Canada, Australia.</i>
	Nickel	<i>Russia, Canada, Australia, Indonesia, New Caledonia</i>
	Lead	<i>China, Australia, USA, Peru, Mexico.</i>
	Tin	<i>China, Malaysia, Peru, Indonesia, Brazil.</i>
	Zinc	<i>China, Australia, Peru, USA, Canada.</i>

SOME OTHERS

•	Uranium	<i>Australia, Kazakhstan, Russia, South Africa, Canada.</i>
	Diamonds	<i>Botswana, Russia, Canada, South Africa, DR Congo.</i>

MINERAL-RICH COUNTRIES

Within the above-mentioned minerals the most prominent countries are, in order:-

Australia, China, Canada & Russia, USA & Peru, **South Africa.**

AFRICA has a large quantity of **natural resources** including oil, diamonds, gold, iron, cobalt, uranium, copper, bauxite, silver, petroleum and many others.

African mineral reserves rank first or second for bauxite, cobalt, diamonds, phosphate rock, platinum-group metals, vermiculite, and zirconium. Many other minerals are present in quantity. As an indication of the richness of African mineral resources, the 2005 share of world production from African soil was bauxite 9%; aluminium 5%; chromite 44%; cobalt 57%; copper 5%; gold 21%; iron ore 4%; steel 2%; lead 3%; manganese 39%; zinc 2%; cement 4%; natural diamond 46%; graphite 2%; phosphate rock 31%; coal 5%; mineral fuels (including coal) & petroleum 13%; uranium 16%.

African Exploration activity, as defined by African exploration budgets reported by the Metals Economics Group (MEG), increased to \$807 million in 2005 from \$572 million in 2004. Africa's share of the world exploration budget increased slightly to 16.5% in 2005 from 16.1% in 2004. In 2005, the principal mineral targets in Africa were copper, diamond, gold, and platinum group metals (PGM).

In 2012 Africa experienced the second-largest increase in both percentage and dollar terms. With its share of worldwide exploration budgets rising to 17%, it jumped from

third to second place regionally in 2012 with a total budget of \$3,570.

For the second time in the past three years, the Democratic Republic of Congo held top place for exploration spending in Africa. An increased focus on West Africa translated into gold receiving the largest dollar increase in 2012, although gold's share of overall African budgets fell to 51% from 53% in 2011.

RELEVANT ISSUES

OWNERSHIP & EXTRACTION of MINERAL RESOURCES

Several variations are in effect in different countries:-

State ownership and operation

State licensing of exploration and extraction

Private ownership and operation

MINERAL RESOURCE CONFLICTS

Arctic Exploration

7.5 MARINE

Marine ecosystems are among the largest of Earth's aquatic ecosystems. They include oceans, salt marsh and intertidal ecology, estuaries and lagoons, mangroves and coral reefs, the deep sea and the sea floor.

STATISTICS OF THE OCEANS (CIA 2009)

The oceans take up **70.9%** or **361 million square kilometers** of the world's surface area.

Areas by Ocean

Pacific Ocean	[155.6 M sq.km.	[42.9% of total ocean area
Atlantic Ocean	[76.8	[20.8%
Indian Ocean	[68.6	[18.8%
Southern Ocean	[20.3	[5.5%
Arctic Ocean	[14.1	[3.9%

MARINE LIFE

Over 250,000 species of marine life have so far been identified, falling into 4 groups:-

Fish Invertebrates Mammals Reptiles

New species continue to be discovered while some known species are being threatened with extinction due to overfishing and other factors.

OCEANS AS A FOOD SOURCE

Historically the oceans have provided an important source of food and of livelihood to coastal communities and subsequently to inland populations. According to FAO statistics, the total number of commercial fishermen and fish farmers is estimated to be 38 million. Fisheries and aquaculture provide direct and indirect employment to over 500 million people.

Total world capture fisheries production in 2000 was 86 million tons (FAO 2002).

The top producing countries were, in order, China, Peru, Japan, USA, Chile, Indonesia, Russia, India, Thailand, Norway and Iceland.

RELEVANT ISSUES

Fishing Rights

UN Conference on the Law of the Sea (UNCLOS) ratified by 160 countries defines territorial waters within which a coastal nation has control of all marine resources including fishing, oil exploration and mining.

Overfishing

.....● *Fisheries management*

Marine Protected Areas (MPA's)

See below under MDG Report

OCEANS AS A MINERAL SOURCE

Oceans host a vast variety of geological processes responsible for the formation and concentration of mineral resources, and are the ultimate repository of many materials eroded or dissolved from the land surface. Hence, oceans contain vast quantities of materials that presently serve as major resources for human activity (including offshore oil and gas deposits). Today, direct extraction of minerals from the ocean is limited to salt; magnesium; placer gold, tin, titanium, and diamonds.

RELEVANT ISSUES

Exploration & Extraction Rights

.....● *UNCLOS*

Location Types

.....● *Continental shelf*
 Deep sea
 Sea bed

OCEANS AS AN ENERGY RESOURCE

Ocean movements including Wave Action, Tidal Rise & Fall and Ocean Currents can all be harnessed as energy sources. The technologies to do so are in their infancy but pressures to develop renewable energy are accelerating their progress.

Africa has a large coastline, where wind power and wave power resources are abundant and underutilised in the north and south.

MDG REPORT 2009, Relevant Extracts

In Indonesia, seven new marine protected areas, covering a total of 9,000 square kilometres and containing 45 per cent of the region's shallow water ecosystems, were recently established.

Over 3 million square kilometres of territorial waters (that is, marine areas under national jurisdiction) are protected. Since territorial waters represent only a small fraction of the entire ocean area, this means that less than 1 per cent of the world's ocean body is protected.

Action is being taken to limit the impact of fishing and other human activities on exploited fish populations. Nevertheless, the percentage of depleted, fully exploited or overexploited and recovering fish species has increased from 70 per cent in 1995 to 80 per cent in 2006. To make matters worse, climate change is gradually altering marine ecosystems. Such changes are affecting the seasonality of certain biological processes, thus disrupting marine food webs. This, in turn, has unpredictable consequences for fish stocks.

7.6 ATMOSPHERIC

GASES

Nitrogen (78.09%), Oxygen (20.95%) and Argon (0.93%) are the dominant gases in the earth's atmosphere. All three have important industrial uses and are extracted and purified for these purposes. In addition, Oxygen has important medical applications.

THE ATMOSPHERE AS AN ENERGY RESOURCE

Wind Power is the conversion of wind energy into a useful form of energy, such as using wind turbines to generate electricity, wind mills for mechanical power, wind pumps for pumping water or drainage, or sails to propel ships.

As of May 2009, 80 countries around the world were using wind power on a commercial basis. Several countries have achieved relatively high levels of wind power penetration such as 20% of stationary electricity production in Denmark, 14% in Ireland and Portugal, 11% in Spain, and 8% in Germany.

At the end of 2009, worldwide wind-powered energy production was 340 TWh, which is about 2% of worldwide electricity usage, and has doubled in the past three years. (World Wind Energy Association)

In Africa wind is far less uniformly distributed than solar resources, with optimal locations positioned near special topographical funneling features close to coastal locations, mountain ranges, and other natural channels in the north and south. The availability of wind on the western coast of Africa is substantial, exceeding 3,750 kW•h, and will accommodate the future prospect for energy demands. Central Africa has lower than average wind resources to work with.

7.7 SOLAR

THE SUN AS AN ENERGY RESOURCE

The amount of solar energy reaching the surface of the planet is so vast that in one year it is about twice as much as will ever be obtained from all of the Earth's non-renewable resources of coal, oil, natural gas, and mined uranium combined.

The constant replenishment of fresh water by the **Hydrological Cycle** of evaporation and precipitation is totally dependent upon the Sun's energy.

By **photosynthesis** green plants convert solar energy into chemical energy, which produces food, wood and the biomass from which fossil fuels are derived.

Solar Power

Solar power is by far the Earth's most available energy source, easily capable of providing many times the total current energy demand.

Sunlight can be converted directly into electricity using **Photovoltaics** (PV), or indirectly with **Concentrating Solar Power** (CSP), which normally focuses the sun's energy to boil water, then used to provide power.

A solar cell, or photovoltaic cell (PV), is a device that converts light into electric current using the photoelectric effect

Concentrating Solar Power (CSP) systems use lenses or mirrors and tracking systems to focus a large area of sunlight into a small beam. The concentrated heat is then used as a heat source for a conventional power plant

Solar power can be expected to play an ever increasing role in addressing the World's energy needs as the technologies are developed further and installation costs reduced.

Many African countries receive on average 325 days per year of bright sunlight. This gives solar power the potential to bring energy to virtually any location in Africa without the need for expensive large scale grid level infrastructural developments. The distribution of solar resources across Africa is fairly uniform, with more than 80 percent of the landscape receiving almost 2000 kW•h per square meter per year. A recent study

indicates that a solar generating facility covering just 0.3% of the area comprising North Africa could supply all of the energy required by the European Union.

CONCLUSION

Natural Resources provide the starting point for all food & water, shelter & clothing, energy, and raw materials for construction & manufacture of products of every description.

Sustainability of these resources either by renewal or replacement is clearly vital to the continued existence of human life as we know it.

8. Infrastructure



8. INFRASTRUCTURE

BACKGROUND

Infrastructure refers to the basic physical and organisational facilities needed for the functioning of a society and its economy, including roads, water supply, sewers, power grids, telecommunications, and so forth. Viewed functionally, infrastructure facilitates the production of goods and services; for example, roads enable the transport of raw materials to a factory, and also the distribution of finished products to markets.

Social Infrastructure includes the physical and organisational structures of such basic social services as hospitals, schools and recreational facilities. (See also Basic Amenities under section A.6 in Chapter 4.3)

In summary, Infrastructure provides the bridges needed to facilitate the conversion of natural resources into commodities, goods and services of value to human society.

The following headings are used here:-

8.1 TRANSPORTATION

8.2 ENERGY

8.3 WATER MANAGEMENT

8.4 COMMUNICATIONS

8.5 WASTE MANAGEMENT

8.6 HEALTH & EDUCATION

8.7 CULTURAL, SPORT & RECREATION

RELEVANT ISSUES

Funding & Financing

Considerable sums required for: Establishment
 Operating
 Maintenance

Sources: Global Institutions (World Bank, see mandate in 5.2.2)

Regional (Development Banks)

Country (State Budget, National Development Banks)

Private Sector (Investment Banks, Corporates)

Public/Private Partnerships

A World Bank report of 2009 estimates that Africa would need to invest \$93Billion per year for 10 years in order to meet its infrastructure requirements.

Ownership

Regional: Joint ownership by 2 or more countries.

Country: State enterprises.

Private: Companies.

Public/Private Partnerships

8.1 TRANSPORTATION

Transportation Infrastructure includes the following:-

Road and highway networks, and all related structures

Railway systems

Canals and navigable waterways

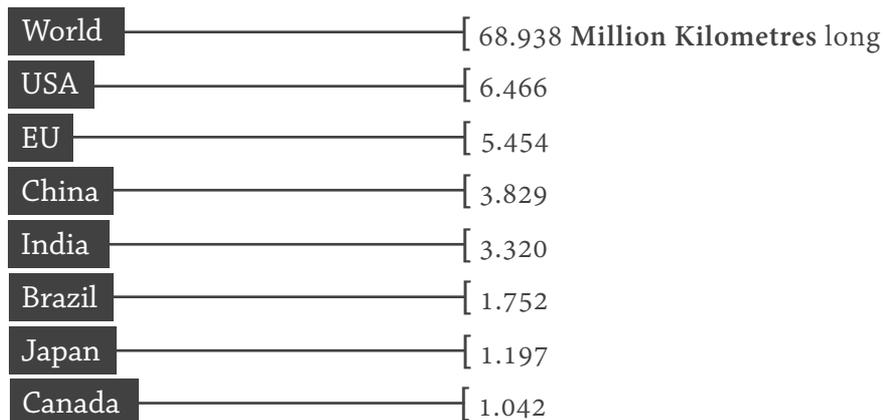
Seaports and lighthouses

Airports, including air navigational systems

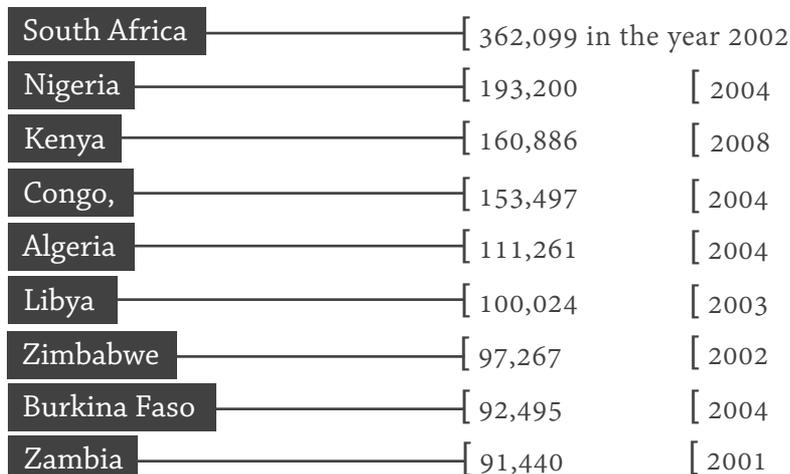
Mass transit systems (Commuter rail, subways, tramways, trolleys and buses)

ROAD NETWORKS

Extent (CIA,2008):-



Roadways (km) in Africa



Tanzania [91,049 [2007

RAIL NETWORKS

Extent (International Union of Railways,IUR, 2009):-

World	[1.371 Million Kilometres long
USA	[0.226
Russia	[0.128
China	[0.086
India	[0.063
Canada	[0.057

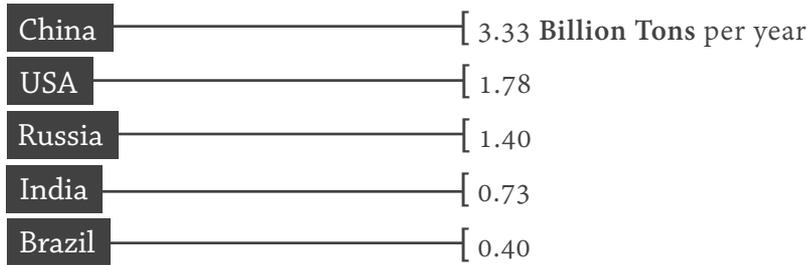
Railways (km) in Africa

South Africa	[20,192 in the year 2008
Sudan	[5,978 [2008
Egypt	[5,083 [2009
Mozambique	[4,787 [2008
Congo, DR	[4,007 [2008
Algeria	[3,973 [2008
Tanzania	[3,689 [2008
Niger	[3,505 [2008
Nigeria	[3,505 [2008
Zimbabwe	[3,427 [2008

Usage, Passenger

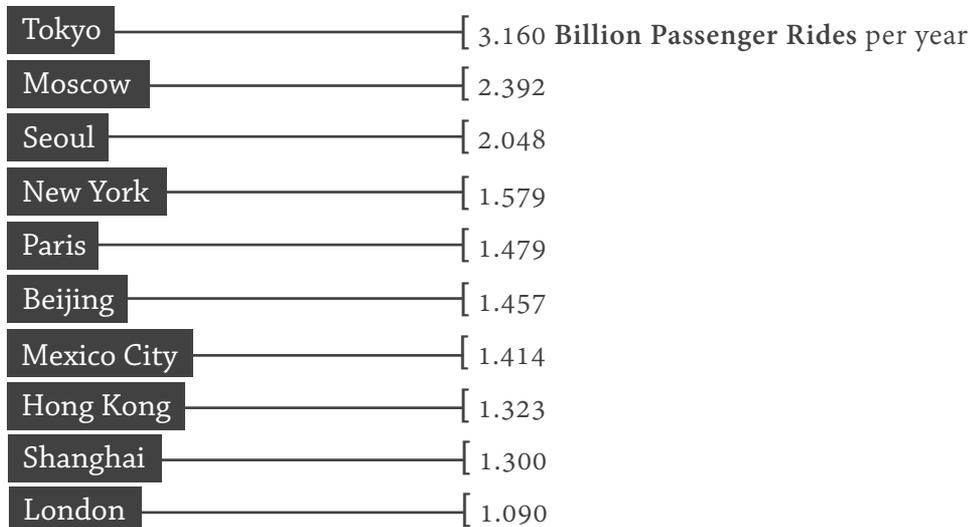
India	[10.10 Billion Passengers per year
Japan	[8.78
Germany	[1.85
China	[1.52
Russia	[1.32

Usage, Freight



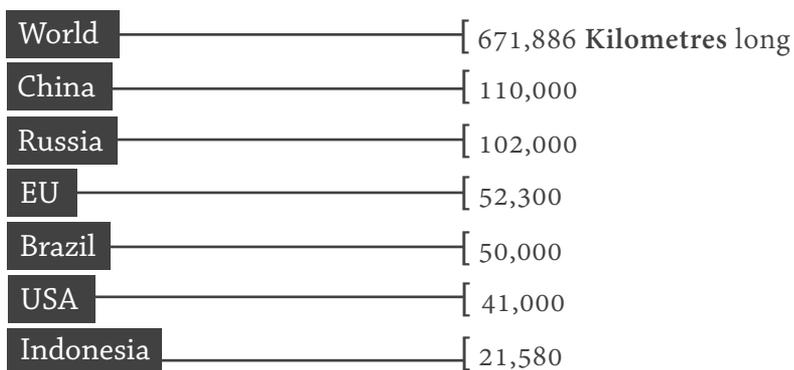
METRO SUBWAY SYSTEMS

Usage, Top ten



WATERWAY SYSTEMS

Extent (CIA, 2008):-



Waterways (km) in Africa Year 2011

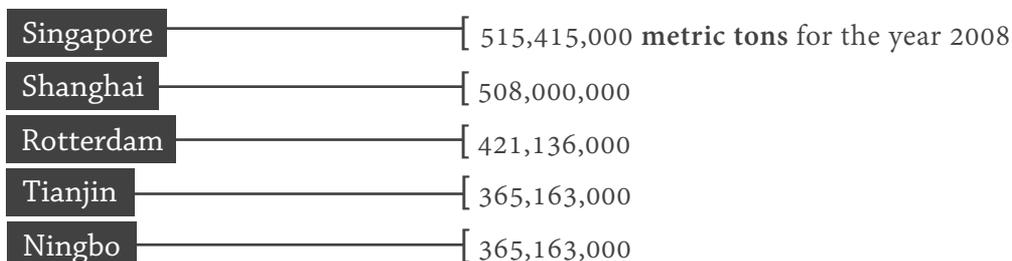


The Suez Canal is an artificial sea-level waterway in Egypt, connecting the Mediterranean Sea and the Red Sea. Opened in November 1869 after 10 years of construction work, it allows transportation by water between Europe and Asia without navigation around Africa. When first built, the canal was 164 km long and 8 m deep. After multiple enlargements, the canal is 193 km long, 24 m deep and 205 metres wide as of 2010. A railway on the west bank runs parallel to the canal for its entire length. By 1955 approximately two-thirds of Europe's oil passed through the canal. About 7.5% of world sea trade is carried via the canal today. In 2008, a total of 21,415 vessels passed through the canal (about 60 a day) and the receipts from the canal totaled \$5.381 billion, with the average cost per-ship at roughly \$251,000.

The main alternative is travelling around Cape Agulhas at the south end of the African continent, commonly referred to as the Cape of Good Hope route. This was the only route before the canal was constructed, and still the only route for ships which are too large to pass through the canal.

SEAPORTS

Cargo Volumes, Top Five



SEA PORTS of AFRICA

Over 60 ports in Africa provide the means of shipping and receiving the continent's exports and imports. The following is a list of some of the more important ports.

Major Indian Ocean Ports

- *South Africa – Durban, Richards Bay.*
- *Mozambique – Maputo, Beira.*
- *Tanzania – Dar es Salaam*
- *Kenya – Mombasa*
- *Somalia – Mogadishu.*
- *Djibouti – Djibouti*
- *Sudan – Port Sudan*

Major Atlantic Ocean Ports

- *South Africa – Cape Town, Saldanha Bay*
- *Namibia – Walvis Bay*
- *Angola – Luanda*
- *Nigeria – Lagos*
- *Ghana – Tema*
- *Cote d'Ivoire – Abidjan*
- *Senegal – Dakar*

Major Mediterranean Ports

- *Morocco – Casablanca, Tangier*
- *Algeria – Algiers*
- *Libya – Tripoli, Benghazi*
- *Egypt – Alexandria*

Landlocked African Countries. Of the 55 countries in Africa, 16 are landlocked and are obliged to rely on their neighbours with seaports and on the existence of rail and road corridors for their export and import shipping. A number of **transport corridors** have been established for this purpose on the basis of bilateral and multilateral agreements.

The Port of Djibouti handles the imports to and exports from neighboring Ethiopia, which depends on the harbor as its main maritime outlet.

The Port of Mombasa handles the imports destined for Uganda, Burundi, Rwanda, South Sudan, DRC and Somalia, and the exports from the region of tea and coffee.

The port handled a total of 22million tons of cargo during the year of 2012.

Specialised Ports

The **Richards Bay Coal Terminal** (RBCT), located on the eastern coast of South Africa, is one of the world's largest **coal export** terminals. It began operations with a capacity of 12 million tons per year in 1976, and has since gone through several capacity

expansions, which have increased the export terminal's design capacity to its current 91 million tons per year. According to one report, proposals to expand the RBCT are constrained by inadequate rail capacity to transport coal produced at inland coalfields to the RBCT.

Richards Bay exports, mostly coal, amounted to 80 million tons for the year 2012.

Container transport in Sub-Saharan Africa

Of the 7.6 million 20-foot equivalent units (TEUs) handled by all Sub-Saharan African ports in 2005, Durban handled nearly 2 million TEUs, and the three main South African ports together handled more than 3 million TEUs.

West Africa accounts for less than 1 percent of total world container traffic and for little more than 2 percent of all African traffic. East Africa has a heavy concentration in Mombasa (6 percent of the Sub-Saharan African total, according to UNCTAD, while West Africa has five ports handling more than 350,000 TEUs each.

The **Port of Durban** in Durban, South Africa, is the largest **container** terminal in the Southern Hemisphere, according to the American Association of Port Authorities World Port Rankings. In 2010, the port handled approximately 2.5 million TEUs(standard units)

General Cargo

From 1995 to 2005, general cargo has grown at an average annual rate of 6.6 percent and at a rate as high as 15.7 percent in southern Africa, rates higher than in the rest of the world because of later containerization. General cargo has traditionally been the major type of cargo moved to landlocked countries.

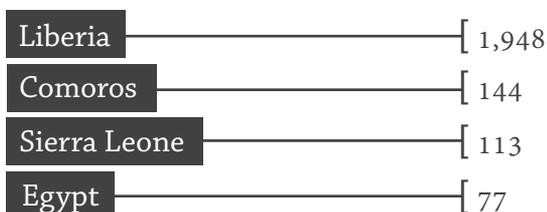
Dry bulk traffic is sometimes handled at common-user general cargo facilities, but the major flows (grain from Mombasa, ferrochrome from Maputo, and coal from Richards Bay) pass through privately owned and operated dry and liquid bulk terminals.

Liquid bulk traffic is predominantly oil, with 11 countries (dominated by Nigeria and Angola) supplying 12 percent of world demand and 19 percent of U.S. demand.

In 2006, oil made up 85 percent of exports by value from West and Central Africa.

For the most part, African countries are exporters of minerals (including oil) and agricultural products, handled either by specialized or dedicated dry or liquid bulk terminals or by general cargo facilities.

Merchant marine of Africa Year 2008

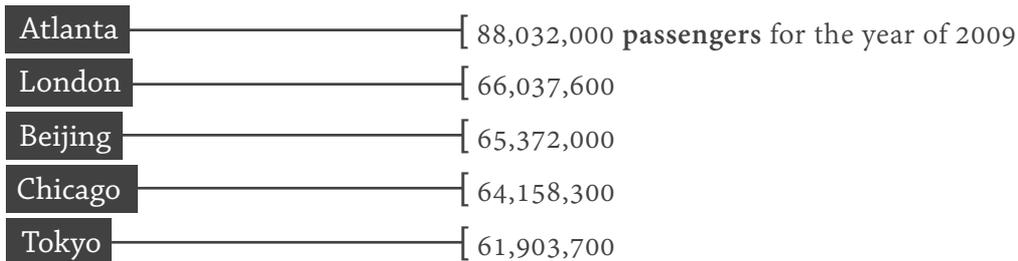




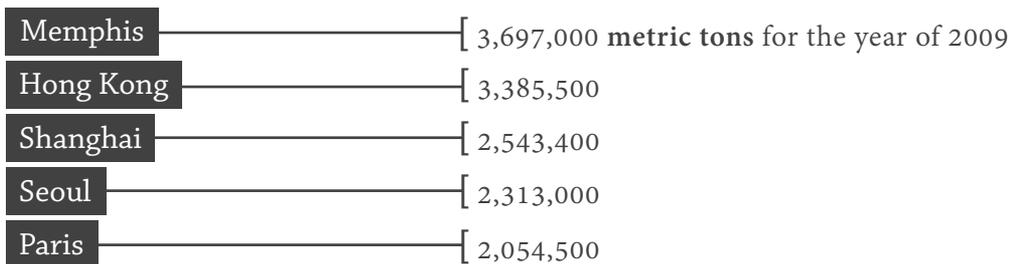
Definition: Merchant marine may be defined as all ships engaged in the carriage of goods; or all commercial vessels excluding tugs, fishing vessels, offshore oil rigs, etc.

AIRPORTS

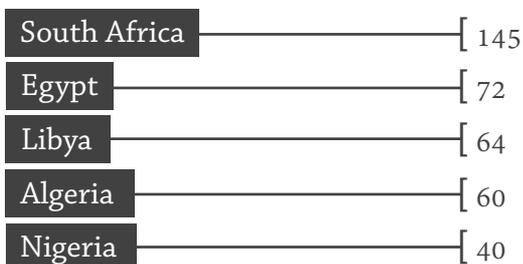
Passenger Volumes, Top Five (ACI-Airports Council International)

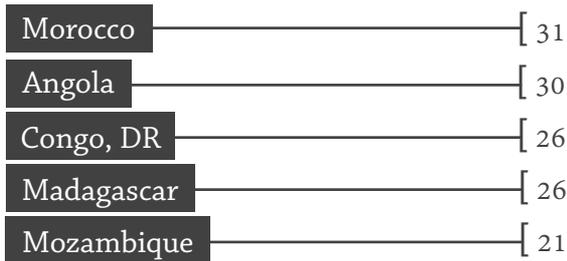


Cargo Volumes, loaded & unloaded, Top Five (ACI)

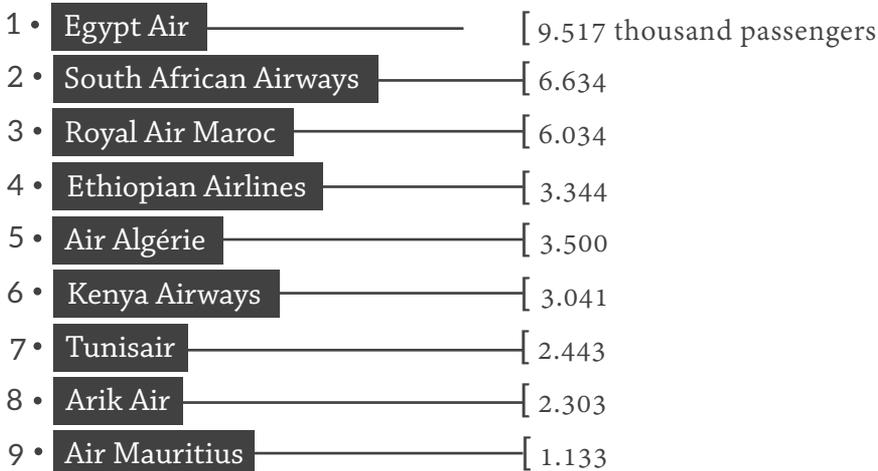


Airports in Africa - with paved runways Year 2012





List of largest Airlines in Africa (Year 2010/2011)



8.2 ENERGY

Electrical power network, including generation plants, electric grid, substations and local distribution.

Natural gas pipelines, with storage and distribution terminals.

Petroleum pipelines, including associated storage and distribution terminals.

Specialized facilities for storing and transporting coal.

POWER GENERATION PLANTS, World's largest.

Thermal, Fossil Fuel Based Plants:-

Coal Fired:

•	TAIWAN, Taichung	5,780 Megawatts
•	CHINA, Guodian	5,000
•	CHINA, Waigaoqiao	5,000

Fuel Oil:

•	RUSSIA, Surgut-2	4,800 MW
---	------------------	----------

Natural Gas:

.....• *JAPAN, Kawgoe* 4,800 MW

It was estimated by the **Energy Information Administration (EIA)** that in 2007 primary sources of energy consisted of petroleum 36.0%, coal 27.4%, and natural gas 23.0%, amounting to an 86.4% share for fossil fuels in primary energy consumption in the world. Non-fossil sources in 2006 included hydroelectric 6.3%, nuclear 8.5%, and other (geothermal, solar, tide, wind, wood, waste) amounting to 0.9 percent.

Nuclear Plants:- *JAPAN, Kariwa* 8,212 Megawatts
 CANADA, Bruce 7,276

The above are the two largest of a total of 441 reactors worldwide, with 104 in USA, 58 in France, 55 in Japan and 32 in Russia.

South Africa is the only country in Africa with a commercial nuclear power plant. Two reactors located at the Koeberg nuclear power station account for around 5% of South Africa's electricity production. Spent fuel is disposed of at Vaalputs Radioactive Waste Disposal Facility in the Northern Cape.

Renewable Source Based Plants:-**Hydroelectric**

.....• *CHINA, Three Gorges*18,200 Megawatts
 BRAZIL, Itaipu14,000
 VENEZUELA, Guri10,200

Wind

.....• *USA, Roscoe*782 MW

Geothermal

.....• *MEXICO, Cerro Prieto*720 MW

Biomass

.....• *FINLAND, Alholmens* 265 MW

Tidal

.....• *FRANCE, Rance* 240 MW

Solar, thermal

.....• *SPAIN, Solnova* 150 MW.....150 MW

Solar, p.voltaic

.....• CANADA, Sarnia80 MW

HYDROELECTRIC IN AFRICA

The Grand Ethiopian Renaissance Dam is an under-construction gravity dam on the Blue Nile River in Ethiopia. At 6,000 MW, the dam will be the largest hydroelectric power plant in Africa when completed, as well as the 13th or 14th largest in the world. The reservoir at 63 billion cubic meters will be one of the continent's largest.

The precise impact of the dam on the downstream countries is not known. Egypt and Sudan fear a temporary reduction of water availability due to the filling of the dam and a permanent reduction because of evaporation from the reservoir. The reservoir volume is about equivalent to the annual flow of the Nile at the Sudanese-Egyptian border (65.5 billion cubic metres). This loss to downstream countries would most likely be spread over several years.

The Grand Inga Dam is a proposed hydroelectric dam on the Congo River at Inga Falls in the Democratic Republic of the Congo.

The proposed dam is the fourth and largest of the Inga dams, 8 km from Inga-I, 7.3 km from Inga-II, and 6.5 km from Inga-III now under construction.

The dam has an expected generating capacity of 39,000 MW, with 52 turbines each with a capacity of 750 MW. This is a significantly larger capacity than the Three Gorges Dam, which is currently known as the largest energy-generating body ever built.

The Aswan High Dam on the Nile River in Egypt has a capacity of 2,100 MW

The Cahora Bassa Dam on the Zambezi River in Mozambique, capacity of 2,025 MW

OTHER RENEWABLE ENERGY SOURCES in AFRICA

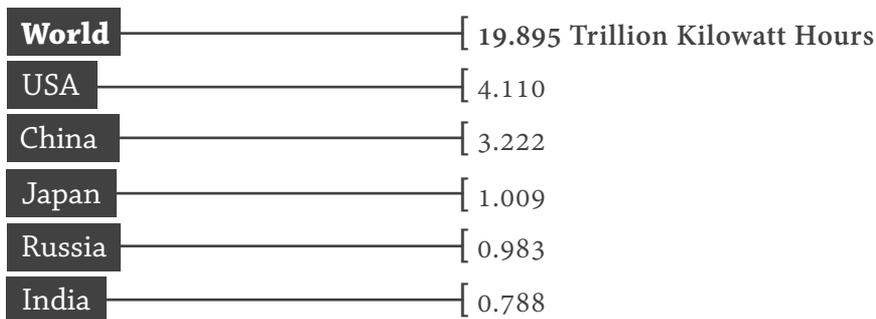
Africa has a large coastline, where **wind power** and **wave power** resources are abundant and underutilized in the north and south.

Wind is far less uniformly distributed than solar resources, with optimal locations positioned near special topographical funneling features close to coastal locations, mountain ranges, and other natural channels in the north and south. The availability of wind on the western coast of Africa is substantial, exceeding 3,750 kW•h, and will accommodate the future prospect for energy demands.

Geothermal resources in Africa

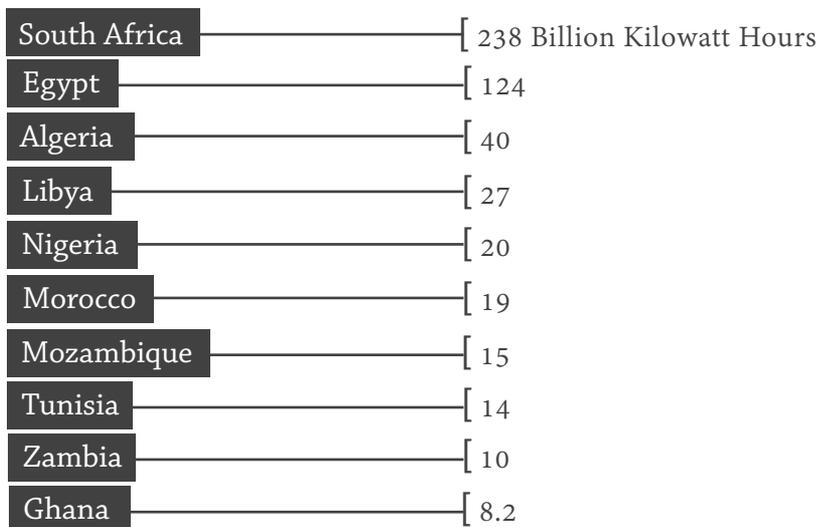
There is enormous potential for geothermal energy in the East African Rift Valley which is roughly 3,700 miles in length and spans several countries in East Africa including Eritrea, Ethiopia, Djibouti, Kenya, Uganda, and Zambia.

Electricity production (CIA,2008)



The above 5 countries produce just over 50% of the World's electricity.

African Electricity - production (Billion kWh) Year 2012



South Africa produces around 240,300 gigawatt-hours electricity annually (2007)

Most of this electricity is consumed domestically, but around 12,000 gigawatt-hours are exported annually to Swaziland, Botswana, Mozambique, Lesotho, Namibia, Zambia, Zimbabwe and other Southern African Development Community (SADC) countries participating in the Southern African Power Pool.

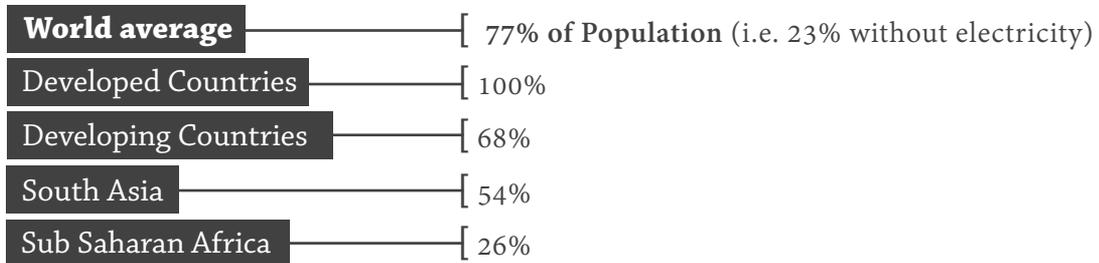
South Africa supplements its electricity supply by importing around 9,000 gigawatt-hours per year from the Cahora Bassa hydroelectric generation station in Mozambique via the 1,000MW Cahora Bassa high-voltage direct current transmission system.

Most power stations in South Africa are owned and operated by state-owned Eskom and these plants account for 95% of all the electricity produced in South Africa and 45% of all electricity produced on the African continent.

Around 77% of South Africa's energy needs are directly derived from coal and 81% of

all coal consumed domestically goes towards electricity production

POPULATION ACCESS TO ELECTRICITY (MDG,2008)

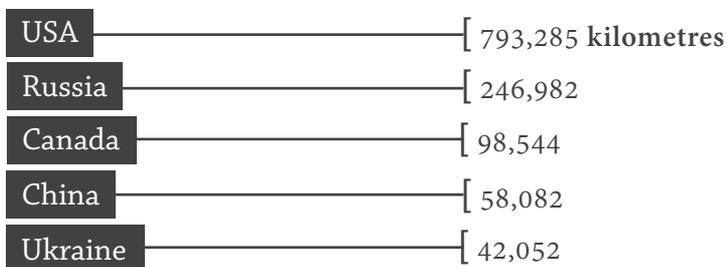


PIPELINES (CIA, 2008)

Pipelines are extensively used for conveying oil, both crude and refined, petroleum products, natural gas, liquid petroleum gas, etc.

CIA lists 120 countries with such pipelines, including 82 countries with pipelines exceeding 1,000 kilometres in total length, and 30 exceeding 10,000 kilometres.

Top 5:-



The Mozambique–South Africa Oil Pipeline is a proposed multiproduct petrol and diesel fuel pipeline from Maputo to Gauteng, South Africa. The 500 kilometres (310 mi) long pipeline will run from an existing coastal fuel-storage facility at Matola harbour in Mozambique to Nelspruit, Mpumalanga in South Africa. From there the pipeline will then continue to Kendal in Mpumalanga, where it could join the current Transnet Pipelines petroleum pipeline network. The project also foresees potential transport to neighboring countries, such as Botswana

The initial capacity of the pipeline will be 6 million cubic meters of oil per year.

The South Sudan – Sudan Pipeline runs for 1,500 kilometres from oil wells in landlocked South Sudan to Sudan where exports are made from Port Sudan

8.3 WATER MANAGEMENT

Drinking water supply, including the system of storage reservoirs, filtration and treatment plants and distribution.

Sewage collection and disposal of waste water

Drainage systems (storm sewers, ditches, etc.)

Irrigation systems (reservoirs, irrigation canals)

Flood control systems (dikes, levees, pumping stations and floodgates)

The UN-Habitat Report of **2009** provides the following statistics:-

CLEAN DRINKING WATER

Population without access to clean water: **1.1 Billion** people (16% of World Population)

Provision :	Improved Coverage (% of population)	Household Connection (% of households)
WORLD average	[87%	[54%
More developed countries	[99%	[93%
Less developed countries	[84%	[46%
Least developed countries	[65%	[14%

SANITATION

Population without access to “improved” sanitation: **2.5 Billion** (36% of World Population)

Provision of Improved Coverage (% of population):-

WORLD average	[62 %
More developed countries	[99 %
Less	[53 %
Least	[36 %

RESERVOIRS

The following are the world’s ten largest reservoirs by surface area:

- 1 • Lake Volta [8,482 km² [Ghana

2 •	Smallwood Reservoir	[6,527 km ²	[Canada
3 •	Kuybyshev Reservoir	[6,450 km ²	[Russia
4 •	Lake Kariba	[5,580 km ²	[Zimbabwe, Zambia
5 •	Bukhtarma Reservoir	[5,490 km ²	[Kazakhstan
6 •	Bratsk Reservoir	[5,426 km ²	[Russia
7 •	Lake Nasser	[5,248 km ²	[Egypt, Sudan
8 •	Rybinsk Reservoir	[4,580 km ²	[Russia
9 •	Caniapiscou Reservoir	[4,318 km ²	[Canada
10 •	Lake Guri	[4,250 km ²	[Venezuela

8.4 COMMUNICATIONS

Postal service, including sorting facilities.

Telephone networks (land lines) including switching systems

Mobile phone networks

Television and radio transmission stations.

Internet backbone, including high-speed data cables, routers and servers.

Communication satellites

Undersea cables

TELEPHONE, LANDLINE (CIA, MDG, 2008)

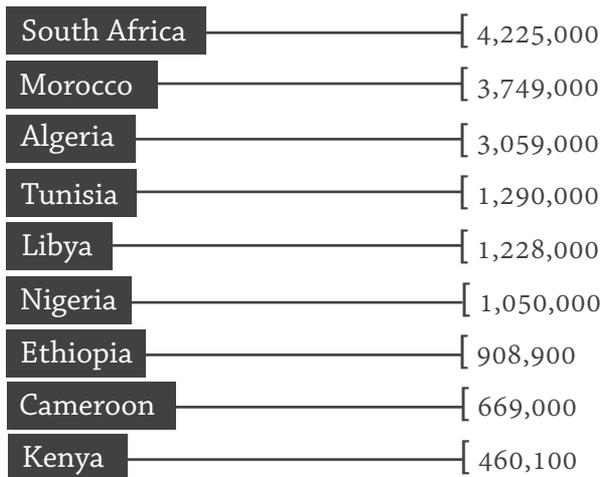
World 1268 million mainlines in use - 19 % of total population
 Developing Countries 13% penetration

Top 5:-

China	[314 million
USA	[150
Germany	[49
Japan	[48
Russia	[44

Telephones - main lines in Africa Year 2009

Egypt	[9,618,000
-------	-------------



TELEPHONE, MOBILE (CIA, MDG, 2008)

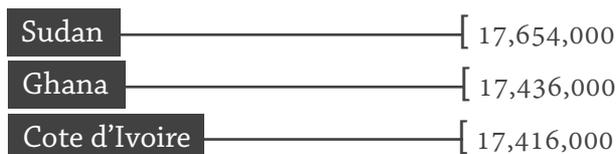
World 4017 million cell phones in use - 59 % of total population
Developing Countries 39 % penetration
Sub-Saharan Africa 25 % (from 2 % in year 2000)

Top 5:-



Telephones - mobile cellular in Africa Year 2009

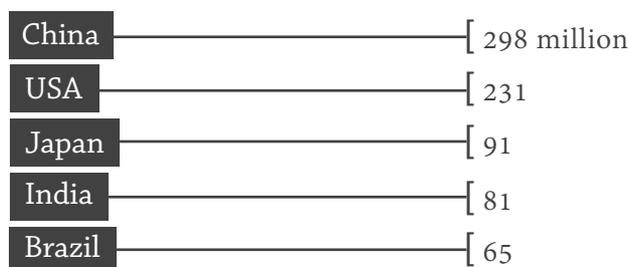




INTERNET (CIA, MDG, 2008)

World 1604 million internet users- 24 % of total population
 Developing Countries: 64 % penetration
 Developing Countries: 13 %
 LDCs: 2 %

Top 5:-

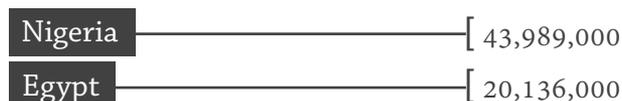


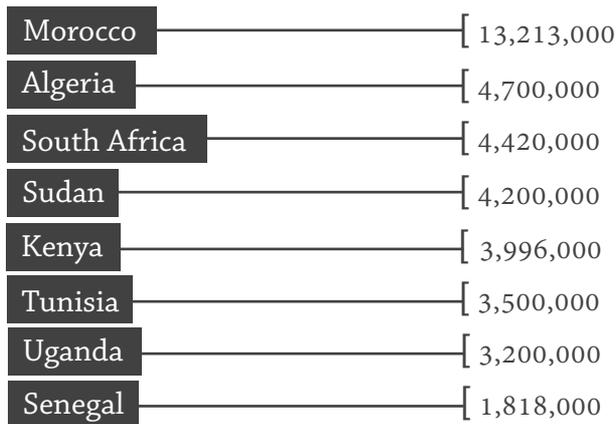
Access to the Internet grew from an estimated 10 million people in 1993, to almost 40 million in 1995, to 670 million in 2002, and to 2.45 billion in 2011. With market saturation, growth in the number of Internet users is slowing in industrialised countries, but continues in Asia, Africa, Latin America, the Caribbean, and the Middle East.

Penetration in Africa 2 % in 2005 10 % in 2010 16 % in 2013

The International Telecommunication Union held the first Connect the World meeting in Kigali, Rwanda (in October 2007) as a demonstration that the development of telecommunications in Africa is considered a key intermediate objective for the fulfillment of the Millennium Development Goals.

Internet users in Africa Year 2009





Infrastructure development

A number of projects have been started that aim at bringing more bandwidth to Africa.

UNDERSEA CABLES

The West African Cable System (WACS) was first launched on the 11th May 2011.

The 17,200km WACS fibre optic submarine cable system spans the west coast of Africa, starting at Yzerfontein near Cape Town, South Africa and terminating in the U K.

WACS links 14 countries – South Africa, Namibia, Angola, the Democratic Republic of Congo (DRC), the Republic of Congo, Cameroon, Nigeria, Togo, Ghana, Ivory Coast, Cape Verde, the Canary Islands, Portugal, and the UK.

The Eastern Africa Submarine Cable System (EASSy) is an undersea fibre optic cable system connecting countries of eastern Africa to the rest of the world.

EASSy runs from Mtunzini in South Africa to Port Sudan in Sudan, with landing points in nine countries and is connected to at least ten landlocked countries.

EASSy is the highest capacity system serving sub-Saharan Africa, with a 4.72 terabit per second, 2 fibre-pair configuration. EASSy interconnects with multiple international submarine cable networks for onward connectivity to Europe, the Americas, the Middle East and Asia.

8.5 WASTE MANAGEMENT

Municipal garbage and recyclables collection;

Solid waste landfills

Solid waste incinerators

Materials recovery facilities

Hazardous waste disposal facilities;

8.6 HEALTH & EDUCATION

The health care system, including hospitals, clinics and training facilities.

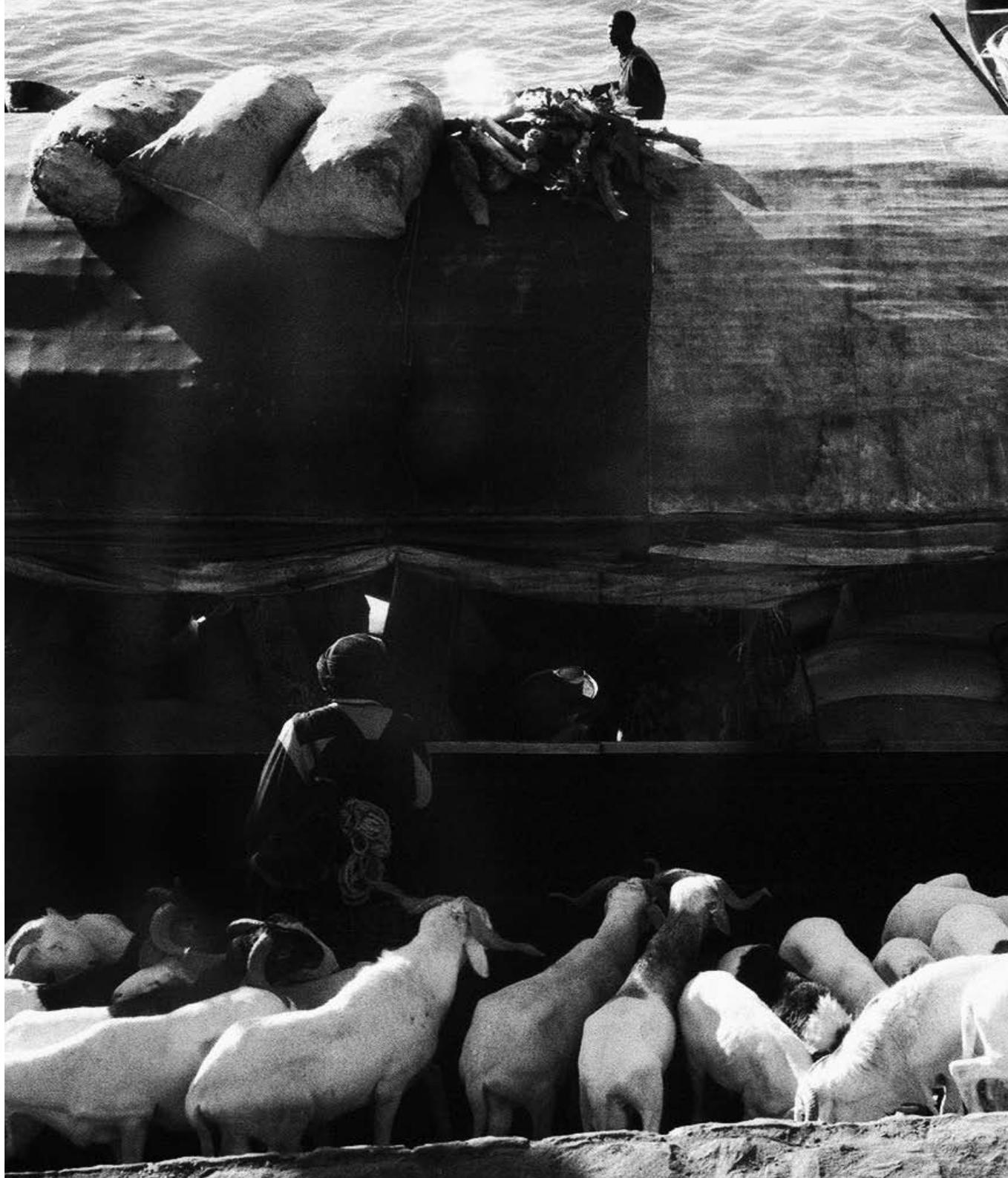
The educational and research system, including elementary and secondary schools, universities, specialised colleges and research institutions.

8.7 CULTURAL, SPORTS & RECREATION

Cultural infrastructure, such as concert halls, museums, libraries, theatres.

Sports and recreational infrastructure, such as stadiums, parks, sports facilities.

9. PRODUCTION



9. PRODUCTION

BACKGROUND

With the subject of productive activity we enter into the engine-room of modern human society. The productive capacity of any country or group of countries is made up of:-

Agricultural Output

Industrial Output

Services Provision

Attempts to place a monetary value on these components have led to the concept of Gross Domestic Product (GDP) which is an expression of the summation of these three sectors of productive activity.

A fuller definition of GDP and related variations will be given in a later chapter.

GDP is widely recognised and used as an important indicator of the health, strength and stage of development of a nation's economy.

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are to be used:-

9.0 OVERVIEW

9.1 AGRICULTURE

9.2 MINING

9.3 MANUFACTURING

9.4 SERVICES

It will be noted that the Industrial sector has been sub-divided into Mining and Manufacturing in order to provide more detail between a primary raw material activity and a secondary processing activity.

9.0 OVERVIEW

CONTRIBUTION OF SECTORS TO GDP

For the year 2009, according to CIA World Fact Book, GDP(Nominal) was as follows:-

World Total	[\$ 57,937 billion	
Agriculture	[3,476 billion	[or 6.0 % of total
Industrial	[17,729	[30.6 %
Services	[36,732	[63.4 %

These figures place the relative strengths of the three sectors in perspective.

LEADING COUNTRIES BY SECTOR (2009, CIA)

Agriculture:-

China	[\$ 520 billion	[or 10.6 % of its GDP
EU	[312	[1.9 %
India	[210	[17.0 %
USA	[171	[1.2 %
Brazil	[96	[6.1 %
Indonesia	[83	[15.3 %
Japan	[81	[1.6 %

Industrial:-

EU	[\$ 4,145billion	[or 25.2% of its GDP
USA	[3,122	[21.9 %
China	[2,297	[46.8 %
Japan	[1,110	[21.9 %

Services:-

EU	[\$ 11,974billion	[or 72.8% of its GDP
USA	[10,963	[76.9 %
Japan	[3,877	[76.5 %
China	[2,091	[42.6 %

All Sectors Combined:-

World	[\$ 57,937billion	[100% of GWP
EU	[16,447	[28.4 %
USA	[14,256	[24.6 %
Japan	[5,068	[8.7 %
China	[4,909	[8.5 %
Brazil	[1,574	[2.7 %
India	[1,236	[2.1 %

COUNTRY STAGES OF DEVELOPMENT

A primary challenge facing all countries is that of providing food for their populations. This necessitates an appropriate agricultural output, particularly for Developing Countries with large populations such as China, India, Indonesia and Brazil. Thus the GDPs of most of these countries have a high contribution in the Agricultural Sector as shown above.

Mature Industrialised Countries such as USA, EU and Japan have GDPs with high contributions in the Industrial and Services Sectors, in particular the latter.

9.1 AGRICULTURE

9.1.0 BACKGROUND

Agriculture is the cultivation of plants and animals for producing food, feed, fibre, and other products used to sustain life.

Agriculture was the key implement in the rise of sedentary human civilization, whereby farming of domesticated species created food surpluses that nurtured the development of civilization.

Most of the statistics in this section are sourced from Food & Agriculture Organisation (FAO).

9.1.1 CROPS

A crop is plant life that is grown to be harvested as food, livestock fodder, and other economic purpose. Major world crops include maize (corn), wheat, rice, soybeans, hay, potatoes and cotton.

Important categories of crops include grains, pulses (legumes), forage, and fruits and vegetables. Specific crops are cultivated in distinct growing regions throughout the world.

9.1.1.1 FOOD CROPS

Cereals, grains, or cereal grains are grasses cultivated for the edible components of their fruit seeds.

Cereal grains are grown in greater quantities and provide more food energy worldwide than any other type of crop; they are therefore termed staple crops. Maize, wheat and rice together accounted for 87% of all grain production worldwide, and 43% of all food calories in 2003.

Maize

A staple food of people in America, **Africa**, and of livestock worldwide.

A large portion of maize crops are grown for purposes other than human consumption. Maize is widely cultivated throughout the world, and a greater weight of maize is produced each year than any other grain. In 2009, over 159 million hectares of maize were planted worldwide, with a yield of over 5 tons/hectare.

World production (2009) **817 Million tons.** US 41 %, China 20 %, Brazil 6 %.

Rice

The primary cereal of tropical and some temperate regions

Since a large portion of maize crops are grown for purposes other than human consumption, rice is the most important grain with regard to human nutrition and caloric intake, providing more than one fifth of the calories consumed worldwide by the human species.

World production (2008) **685 Million tons.** China 27 %, India 21 %, Indonesia 8 %.

Wheat

The primary cereal of temperate regions. It has a worldwide consumption but it is a staple food of North America, Europe, Australia and New Zealand.

World production (2008) **690 Million tons.** China 16 %, India 11 %, US 10 %.

The main producers in **Africa** are Morocco, Egypt and South Africa.

Barley

Grown for malting and livestock on land too poor or too cold for wheat.

Barley has many uses. It serves as a major animal fodder, as a base malt for beer, and as a component of various health foods.

In a 2007 ranking of cereal crops in the world, barley was fourth both in terms of quantity produced and in area of cultivation (566,000 km²).

World production (2007) **136 Million tons.** EU 43 %, Russia 12 %, Canada 9 %.

Sorghum

Sorghum is used for food, fodder, and the production of alcoholic beverages. It is drought and heat tolerant, and is especially important in arid regions. It is an important food crop in **Africa**, Central America, and South Asia, and is the fifth

most important cereal crop grown in the world. The FAO reports that 440,000 square kilometres were devoted worldwide to sorghum production in 2004.

World production (2008) **66 Million tons.** US 18 %, Nigeria 14 %, India 12 %.

Millets

Millets are important crops in the semi-arid tropics of Asia and Africa (especially in India, Nigeria, Niger and Mali), with 97% of millet production in developing countries. The crop is favored due to its productivity and short growing season under dry, high temperature conditions.

OTHER MAJOR FOOD CROPS

Soybean

The soybean or soya bean is a species of legume native to East Asia, widely grown for its edible bean which has numerous uses. The plant is classed as an oilseed.

World production (2008) **231 Million tons.** US 35 %, Brazil 26 %, Argentine 20 %.

Potato

The annual diet of an average global citizen in the first decade of the 21st century included about 33 kg (or 73 lb) of potato. It remains an essential crop in Europe (especially eastern and central Europe), where per capita production is still the highest in the world, but the most rapid expansion over the past few decades has occurred in southern and eastern Asia.

World production (2008) **315 Million tons.** China 22 %, Russia 12 %, India 8 %.

Sugarcane

Today, sugarcane is grown in over 110 countries. According to the FAO the total quantity of sugarcane produced worldwide in 2009 amounts to 22.4% of the total world agricultural production of all crops by weight.

More than half of the world sugar supply is obtained from sugar cane, which is grown in tropical and subtropical climates. The rest is supplied by the sugar beet, which is grown in temperate countries.

World production (2009) **1,743 Million tons**. Brazil 37 %, India 20 %, China 7 %.

Major producers in **Africa** are South Africa, Mauritius and Swaziland

Sugar beet

Sugar beet is the chief source of sugar for most of Europe and is grown extensively in Russia, Ukraine, Germany, France, and Poland. The U.S. harvested 1,004,600 acres (4 065 km²) of sugar beets in 2008.

Beet sugar accounts for 30% of the world's sugar production

World production (2009) **242 Million tons**. France 12 %, Germany 10 %, US 10 %.

9.1.1.2 NON-FOOD CROPS

Cotton

The largest producers of cotton, currently (2009), are China and India, with annual production of about 34 million bales and 24 million bales, respectively. Most of this production is consumed by their respective textile industries

The unit of measurement is in 480-pound bales

Sisal

Traditionally used for rope and twine, sisal has many uses, including paper, cloth, wall coverings and carpets.

Global production of sisal fibre in 2007 amounted to 240 thousand tonnes of which Brazil, the largest producing country, produced 113,000 tonnes

Tanzania produced 37,000 tons, Kenya 27,600 tonnes, and 9,000 tonnes were produced in Madagascar with smaller amounts coming from South Africa and Mozambique.

9.1.2 LIVESTOCK

Livestock refers to domesticated animals raised in an agricultural setting to produce commodities such as food, fiber and labour. Livestock may be raised for subsistence or for profit. Animal husbandry has been practised in many cultures since the transition to farming from hunter-gatherer lifestyles. The economic value of livestock includes:-

Meat • *The production of a useful form of dietary protein and energy.*

Dairy products • *Mammalian livestock can be used as a source of milk, which can in turn easily be processed into other dairy products,*

Fiber • *Livestock produce a range of fiber/textiles. For example, sheep and goats produce wool and mohair; cows, deer, and sheep skins can be made into leather.*

- Fertilizer** • *Manure can be spread on fields to increase crop yields.*
- Labour** • *Animals such as horses, donkey, and yaks can be used for mechanical energy, including ploughing fields, transporting goods, and military functions*
- Cattle** • *World population (2009) 1,300 Million Cattle India 22 %, Brazil 14 %, China 11 %.*
- Milk** • *World production (2004) 619 Million Tons India 18%, US 13%, China 5%.*
- Sheep** • *World population (2008) 1,078 Million Sheep China 13%, Australia 7 %, India 6 %.*
- Wool** • *World production (2005) 1.3 Million Tons Australia 25 %, China 18 %, NZ 11 %.*
- Poultry** • *World population (2004) 15,854 Million Chickens China 24 %, US 12 %, Indonesia 8 % or more than double the world's human population.
World egg production (2004) 63 Million Tons*
- Meat** • *World production (2004) 259 Million Tons*

9.1.3 FOOD PRODUCTION

Most staple foods derive either from cereals such as wheat, barley, maize, or rice, or starchy root vegetables such as potatoes, yams, taro, and cassava. Other staple foods include pulses (dried legumes), sago (derived from the pith of the sago palm tree), and fruits such as breadfruit and plantains

During the **50** years from **1960** to **2009** the world's population increased rapidly from 3.0 billion to 6.8 billion people, a growth factor of **2.26** times in the 50 years. Remarkably, food production during that period has largely kept pace with the population increase, judging by the production records kept by the FAO for the main staples as follows:-

Maize	[205 to 871 million tons	[or 4.25 times growth
Rice	[285 to 679	[2.38
Wheat	[222 to 682	[3.07
Barley	[72 to 150	[2.08
Sorghum	[41 to 62	[1.51

This can be attributed to the so-called Green Revolution, which commenced around 1940 and got into its stride from 1960 onwards, encompassing new technologies of irrigation, mechanisation, crop rotation, fertilisers, herbicides, high-yield seed species

and other developments in farming methods.

A case might be made for population growth being facilitated by the availability of increasing food supplies during this time.

Conversely, population growth could be seen as responsible for accelerating the Green Revolution process so as to satisfy the increasing demand for food.

It is not surprising that the countries with the largest populations, China, India, USA, Indonesia & Brazil in that order, feature prominently amongst the leading producers of staple foods, both from the aspect of number of hands to do the work, and number of mouths to feed.

According to the CIA Factbook 2008, 40% of the world's labourers are employed in agriculture, making it by far the most common occupation. While primary agricultural production accounts for only 6% of the Gross World Product (GWP), much industrial production derives from the subsequent processing of agricultural products, such as food and fiber.

RELEVANT FOOD ISSUES

Food Crises

Price escalation

Crop failure

Diseases, Crop & Livestock

Export Bans

Food Riots

Food Aid

See Chapter 4, Part A.4 FOOD SECURITY

Food Production Potential

See Chapter 7.2 AGRICULTURAL LAND USE

9.1.4 FORESTRY

Two types of forests may be distinguished:-

Natural or indigenous forest

Cultivated or planted forest.

Both are exploited mainly for their wood, but also for exuded substances such as rubber latex, gums and resins.

Wood uses include fuel (firewood), the manufacture of pulp and paper, board and plywood, furniture, etc. and in construction.

SOME RELATED STATISTICS

Extent of Natural Forests

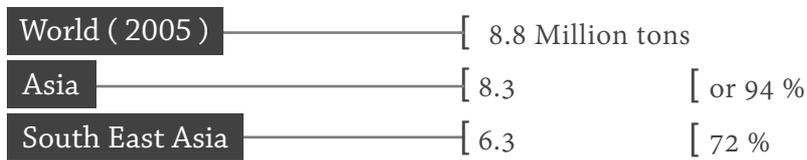
The world's natural forests cover an area of 4.6 Billion hectares (46 million sq.km.)

Of this, Russia has 22%, or over 1.0 Billion hectares, an area larger than

the total land area of USA.

In **Africa**, DR Congo has over 1.2 Million hectares or 52% of its land area while Mozambique has 0.62 Million hectares or 78% of its land area.

Rubber Production (excluding synthetic rubber)



including Thailand, Indonesia, Malaysia in that order.

Total area of rubber plantations: 3.6 Million hectares.

Source: ANRPC-Association of Natural Rubber Producing Countries

9.1.5 FISHING & AQUACULTURE

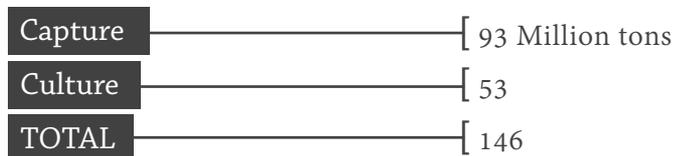
Fish are harvested through commercial fishing and aquaculture.

Commercial Fishing is the capture of fish in the wild.

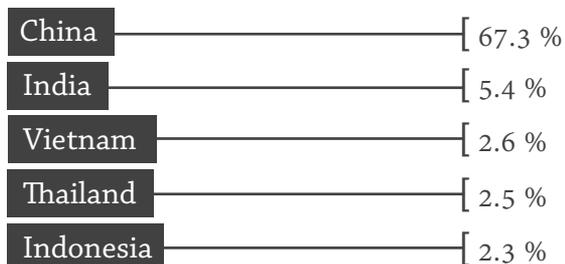
Aquaculture, also known as aquafarming, is the farming of aquatic organisms such as fish, crustaceans, molluscs and aquatic plants. Aquaculture involves cultivating freshwater and saltwater populations under controlled conditions.

According to the Food and Agriculture Organization (FAO), the world harvest in 2005 consisted of 93.2 million tons captured by commercial fishing in wild fisheries, plus 48.1 million tons produced by fish farms, totaling 141.3 million tons

In 2010 the quantities were:-



Leading Countries in Aquaculture:-



9.1.6 AGRICULTURE ISSUES

Land sale & leasing

Diseases

Genetically Modified Organisms (GMOs)

Biofuels

Commodities Trading

Chinese dominance

China is the leading producer in Rice, Wheat, Potatoes, Sheep, and Aquaculture.

9.2 MINING

9.2.0 BACKGROUND

Mining is the extraction of valuable minerals or other geological materials from the earth, from an ore body, vein or seam. Materials recovered by mining include base metals, precious metals, iron, uranium, coal, diamonds, limestone, oil shale, rock salt and potash. Mining in a wider sense includes extraction of resources such as oil and natural gas by drilling operations.

Geological exploration establishes the existence of viable deposits and size of reserves.

Extraction is followed by a suitable refining process.

9.2.1 FOSSIL FUELS

Most of the statistics in this section are sourced from the BP Review of World Energy.

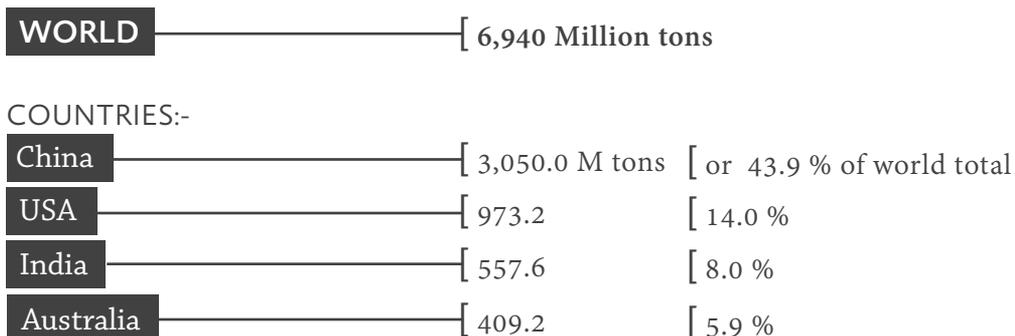
9.2.1.1 COAL

Coal, a fossil fuel, is the largest source of energy for the generation of electricity worldwide. Coal is extracted from the ground by mining, either underground by shaft mining through the seams, or in open pits.

Coal is primarily used as a solid fuel to produce electricity and heat through combustion.

China is by far the largest producer of coal in the world.

Coal Production (2009):-



Russia [298.1 [4.3 %

The top 5 countries above produced over 75% of the world's output in 2009. In all, 32 countries each produced in excess of 5 million tons during the year, including one country in **Africa**, namely **South Africa** which produced 250 million tons. World production in 2009 showed an increase of 34% over the year of 2003.

9.2.1.2 OIL & GAS

Oil production refers to **barrels** of crude oil extracted **each day** from drilling operations. (A Barrel is equivalent to 42US gallons or 158.9873 litres)

Over 80% of the world's reserves of oil and natural gas are controlled by national oil companies. Of the world's 20 largest oil companies, 15 are state-owned

Oil Production (2009):-

WORLD [84.24 Million Barrels per day

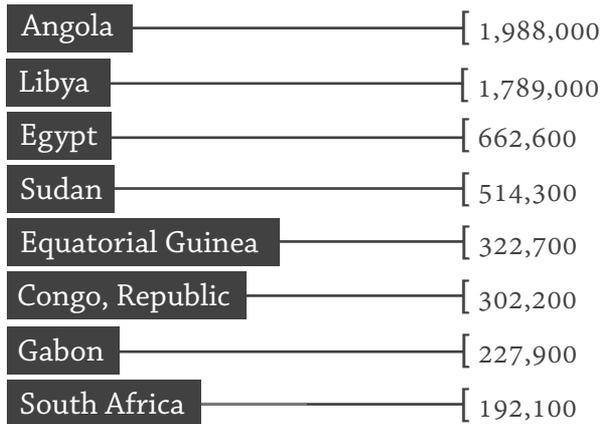
COUNTRIES:-

Russia	[10,120,000 bbl/day	[or 12.0 % of world total
Saudi Arabia	[9,764,000	[11.6 %
USA	[9,056,000	[10.8 %
Iran	[4,172,000	[5.0 %
China	[3,991,000	[4.7 %
Canada	[3,289,000	[3.9 %
UAEmirates	[2,798,000	[3.3 %
Mexico	[2,602,000	[3.1 %
Kuwait	[2,494,000	[2.9 %
Iraq	[2,420,000	[2.9 %

The top 3 countries produced over a third of the world's output in 2009. In all, 22 countries each produced in excess of 1 million barrels per day

Oil production in Africa (bbl/day)

Nigeria	[2,458,000 in 2010
Algeria	[2,078,000



Oil Producer Union

The 'Organization of the Petroleum Exporting Countries' (**OPEC**) is an intergovernmental organisation with a membership of twelve countries as follows:-

Middle East, 6 countries: Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates.
Africa, 4 countries: **Algeria, Angola, Libya, Nigeria**.
 S. America, 2 countries: Ecuador and Venezuela.

OPEC production is currently around 29.6 million bbl/day or 35% of world production.

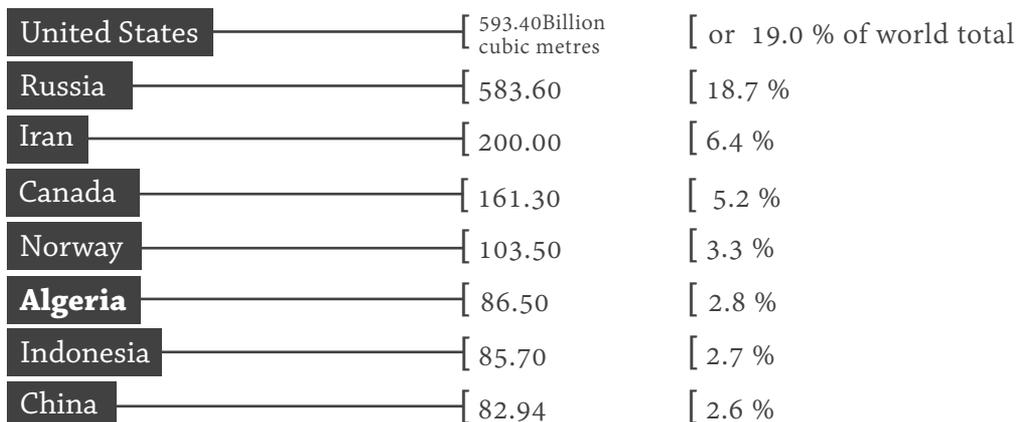
Oil Price

The highest price on record was \$147 per barrel in July 2008.

Natural Gas Production (2009):-

WORLD [3127 Billion cubic metres

COUNTRIES:-



Netherlands	[79.58	[2.5 %
Saudi Arabia	[77.10	[2.5 %

The top 3 countries produced nearly 50% of the world's output in 2009.

In all, 20 countries each produced in excess of 40 billion cubic metres during the year.

Natural Gas production in Africa (cubic meters)

Algeria	[85,140,000,000 in 2009
Egypt	[62,690,000,000
Nigeria	[23,210,000,000
Libya	[15,900,000,000
Equatorial Guinea	[6,270,000,000
Mozambique	[3,600,000,000
Tunisia	[3,600,000,000
South Africa	[1,900,000,000
Cote d'Ivoire	[1,600,000,000
Angola	[690,000,000

9.2.2 MINERALS & ORES

9.2.2.1 PRECIOUS METALS

A precious metal is a rare, naturally occurring metallic chemical element of high economic value. Chemically, the precious metals are less reactive than most elements, have high lustre, are softer or more ductile, and have higher melting points than other metals. Historically, precious metals were important as currency, but are now regarded mainly as investment and industrial commodities

GOLD

Historically the properties of Gold with its comparative rarity, aesthetic appearance & lustre and high durability have qualified it as a sought-after store of wealth in the forms of jewelry, coins and bars; this in addition to its industrial and dental uses. It is estimated that of all the gold ever mined (totaling around 165,000 tons as at 2009) approximately 85% is still in circulation in accessible form in homes and bank vaults, with the other 15% having been lost or used in non-recyclable industrial applications. Gold's special status as a store of value will be revisited in later Chapters.

Gold Production (2009) [WorldGoldCouncil]:-

WORLD [2,572 tons (or 82.7 Million troy ounces)

COUNTRIES:-

China	[314 tons	[or 11.8 % of world total
Australia	[227	[8.6 %
USA	[216	[8.1 %
South Africa	[205	[7.7 %
Russia	[205	[7.7 %
Peru	[180	[6.8 %

The top 6 countries produced 50% of the world's output in 2009.

Since 1880 **South Africa** has been the source of about half of all gold produced globally from that time to the present. It was the largest annual producer for 100 years up to 2007 when it was overtaken by China and subsequently by USA and Australia. The price of gold reached \$1,800 per troy ounce in August 2011

PLATINUM

Platinum is an extremely rare metal, occurring at a concentration of only 0.005 ppm in the Earth's crust

Platinum is used in catalytic converters for vehicle emission control (55%), jewelry (20%), electronics (5%) and various other applications.

Platinum Production (2009)[US Geological Survey]:-

WORLD [178,000 kilograms (or 5,722,700 troy ounces)

COUNTRIES:-

South Africa	[140,000 Kgs	[or 78.7 % of world total
Russia	[20,000	[11.2
Zimbabwe	[6,000	[3.4
Canada	[5,000	[2.8%
USA	[3,800	[2.1%

The top 3 countries produced over 90% of the world's output in 2009.

The price of platinum was around \$1,800 per troy ounce in early 2011.

PALLADIUM

Palladium is a soft silver-white metal that resembles platinum. It is the least dense and has the lowest melting point of the platinum group metals.

The largest use of palladium today is in catalytic converters

Palladium Production (2009) USGS:-

WORLD [195,000 kilograms (or 6,301,400 troy ounces)

COUNTRIES:-

Russia	[80,000 Kgs	[or 41.0 % of world total
South Africa	[79,000	[40.5 %
USA	[12,500	[6.4 %
Canada	[9,000	[4.6 %
Zimbabwe	[4,800	[2.5 %

The top 4 countries produced over 90% of the world's output in 2009.

The price of palladium in 2010 was about \$500 per troy ounce

SILVER

Silver has long been valued as a precious metal, and used to make ornaments, jewelry, high-value tableware, utensils (hence the term silverware), and currency coins. . In 2009, the main demand resulted from industrial applications (40%), jewellery, and coins.

Silver Production (2010) [Silver Institute]:-

WORLD [22,887 tons (or 735.9 Million troy ounces)

COUNTRIES:-

Mexico	[4,000 tons	[or 17.5 % of world total
Peru	[3,611	[15.8 %
China	[3,085	[13.5 %
Australia	[1,863	[8.1 %
Chile	[1,275	[5.6 %

The top 5 countries produced over 60% of the world's mined output in 2010.

African production included Morocco (240 tons) and South Africa (80 tons).

At an April 2011 price of about \$49 per troy ounce silver is about 3% the price of gold.

9.2.2.2 BASE METALS

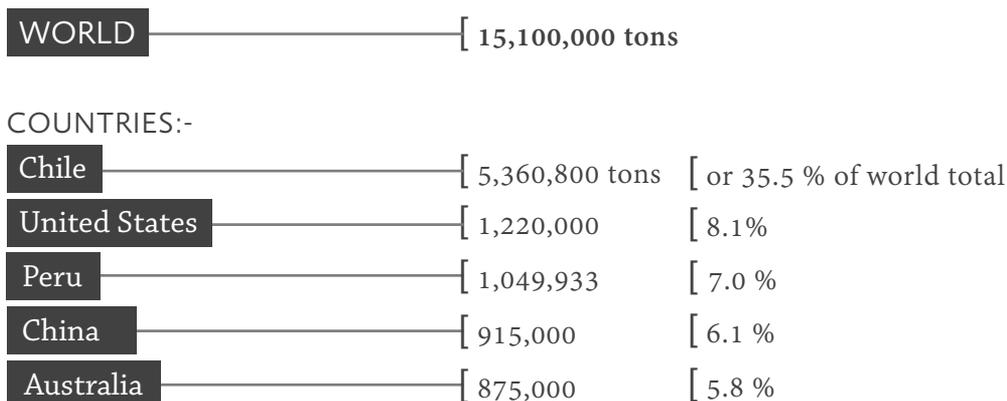
COPPER

Copper is a ductile metal with very high thermal and electrical conductivity.

The major applications of copper are in electrical wires (60%), roofing and plumbing (20%) and industrial machinery (15%).

Copper is 100% recyclable without any loss of quality. In volume, copper is the third most recycled metal after iron and aluminium. It is estimated that 80% of the copper ever mined is still in use today.

Copper Production (2009) [BritishGeologicalSurvey]



The top 3 countries produced over 50% of the world's output in 2009.

African production included Zambia (700 tons), DRC (300 tons) & RSA (100 tons).

The price of copper reached \$10,000 per ton in February 2011.

ALUMINIUM

Aluminium is the most abundant metal in the Earth's crust.

Aluminium is remarkable for the metal's low density and for its ability to resist corrosion; it is a good thermal and electrical conductor, having 59% the conductivity of copper.

Some of the many uses for aluminium metal are in:

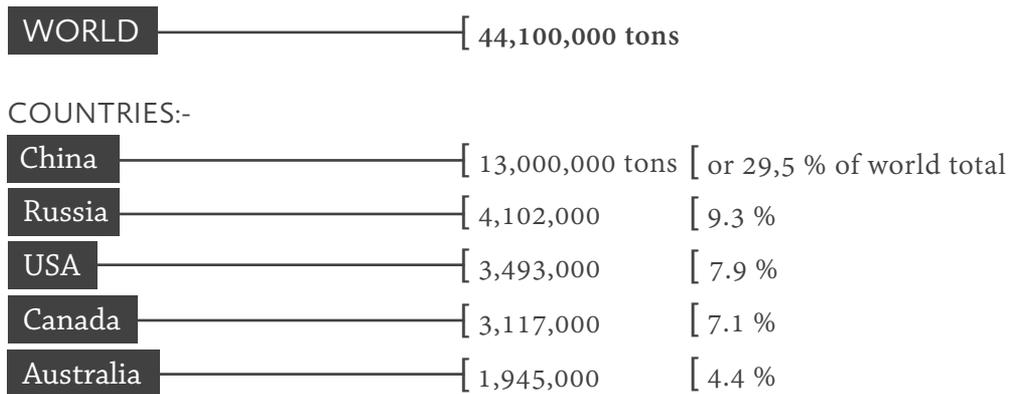
Transportation (automobiles, aircraft, trucks, railway cars, marine vessels, bicycles etc.)

Packaging (cans, foil, etc.)

Construction (windows, doors, siding, building wire, etc.)

Aluminium is 100% recyclable without any loss of its natural qualities. Recovery of the metal via recycling has become an important facet of the aluminium industry. Aluminium is the most widely used non-ferrous metal. Global production of aluminium in 2005 was 31.9 million tons, exceeding that of any other metal except iron (837million tons). Forecast for 2012 is 42–45 million tons.

Aluminium Production (2009) [USGS]



The top 5 countries produced over 55% of the world's output in 2009

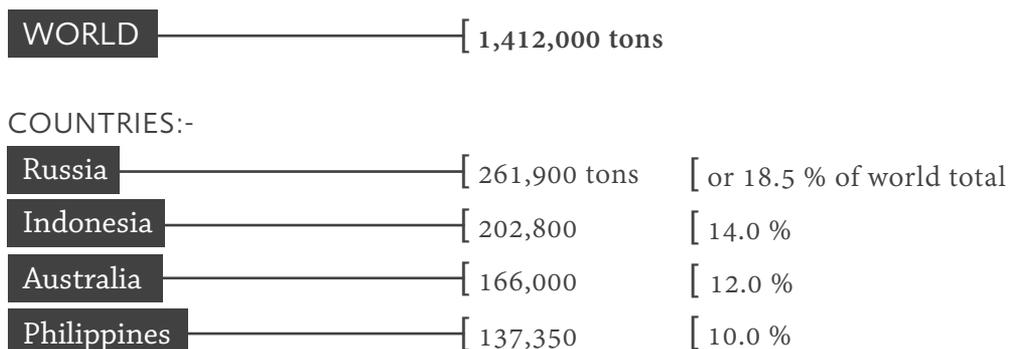
African production included: RSA 800,000 tons, Mozambique 560,000 tons and Egypt 265,000 tons.

The price of Aluminium during 2010 was around \$2750 per ton.

NICKEL

Nickel is used in many industrial and consumer products, including stainless steel, magnets, coinage, rechargeable batteries, and special alloys. It is also used for plating. The amounts of nickel used for various applications are 60% in nickel steels, 14% in nickel-copper alloys and nickel silver, 9% in making special alloys and 6% in plating.

Nickel Production (2009) [BGS]



Canada [136,594 [10.0 %

The top 5 countries produced over 64% of the world's mine output in 2009.

African production included: RSA 40,000 tons and Botswana 25,000 tons.

The market price of nickel reached \$29,000 per ton in April 2011

LEAD

Lead is used in building construction, lead-acid batteries, bullets and shots, weights, as part of solders, pewters, fusible alloys and as a radiation shield.

Lead Production (2009) [BGS]

WORLD [8,900,000 tons

COUNTRIES:-

China [3,707,900 tons [or 41.7 % of world total

USA [1,214,100 [13.6 %

Germany [390,600 [4.4 %

UK [301,865 [3.4 %

Canada [258,854 [2.9 %

The top 5 countries produced 66% of the world's refined lead output in 2009.

About half is produced from recycled scrap and the rest from mine output.

African production included :- RSA 55,000 tons and Morocco 35,000 tons.

The price of lead in April 2011 was \$2,500 per ton

TIN

This silvery metal is not easily oxidized in air and is used to coat other metals to prevent corrosion.

Because of its low toxicity, tin-plated metal is also used for food packaging, giving the name to tin cans, which are made mostly of steel.

In 2006, about half of tin produced was used in solder. The rest was divided between tin plating, tin chemicals, brass and bronze, and other uses.

Tin Production (2009) [BGS]

WORLD [279,000 tons

COUNTRIES:-

China	[128,000 tons	[or 45.9 % of world total
Indonesia	[46,078	[16.5 %
Peru	[37,530	[13.5 %
Bolivia	[19,581	[13.5 %

The top 3 countries produced over 75% of the world's **mine output** in 2009.

African production included:- DRC 10,000 tons and Rwanda 3,000 tons.

Total smelter output was 313,000 tons

The price of tin was around \$25,000 per ton in mid 2011

ZINC

Zinc makes up about 75 ppm (0.0075%) of the Earth's crust, making it the 24th most abundant element within the crust.

Zinc is the fourth most common metal in use, trailing only iron, aluminium, and copper with an annual production of about 10 million tons.

Applications of zinc include Galvanizing (59%), Die-casting (16%)

Brass and bronze (10%), Rolled zinc (6.5%) & Chemicals (6.0%)

Zinc Production (2009) [BGS]

WORLD [11,400,000 tons

COUNTRIES:-

China	[3,091,600 tons	[or 27.1 % of world total
Peru	[1,509,000	[13.2 %
Australia	[1,290,000	[11.3 %
USA	[735,000	[6.4 %
Canada	[698,900	[6.1 %

The top 5 countries produced over 64% of world mine output in 2009.

About 70% of the world's zinc originates from mining, while the remaining 30% comes from recycling secondary zinc

African production included:- Namibia 200,000 tons, Morocco 45,000 tons and South Africa 30,000 tons.

The price of zinc was around \$2,300 per ton in mid 2011

IRON

Iron is the most common element in the whole planet Earth, forming much of Earth's outer and inner core; and it is the fourth most common element in the Earth's crust.

Iron is the **most widely used** of all metals, accounting for 95% of worldwide metal production. Its low cost and high strength make it indispensable in engineering applications such as the construction of machinery and machine tools, automobiles, the hulls of large ships, and structural components for buildings. Since pure iron is quite soft, it is most commonly used in the form of steel. (See later in this Chapter under 9.3.1.6)

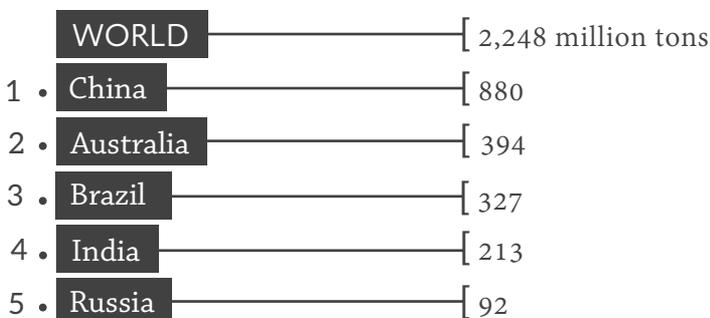
Iron ore is the raw material used to make pig iron, which is one of the main raw materials to make steel. Almost all (98%) of the mined iron ore is used for the production of steel which in turn is essential to maintain a strong industrial base. Indeed, it has been argued that iron ore is more integral to the global economy than any other commodity, except perhaps oil.

Mining iron ore is a high volume low margin activity, as the value of iron is significantly lower than other base metals. It is highly capital intensive, and requires significant investment in infrastructure such as rail in order to transport the ore from the mine to a freight terminal. For these reasons, iron ore production is concentrated in the hands of a few major corporations.

The **seaborne trade** in iron ore, that is, iron ore to be shipped to other countries, was 849million tons in 2004. Australia and Brazil dominate the seaborne trade, with 72% of the market between them.

Iron Ore Production (2009) [BGS]

Iron ore is mined in about 50 countries. The five largest of these producing countries accounted for about 85% of total world production in 2009. [BGS]



African production included :- RSA 55 million tons, Mauritania 10 million tons.

SOME OTHER BASE METALS

Cobalt

Zirconium
Vanadium
Chromium & Ferrochrome
Titanium
Lithium

Rare Earths

9.2.2.3 OTHER MINERALS

Uranium

A prominent use of uranium from mining is as fuel for nuclear power plants. The worldwide production of uranium in 2009 amounted to 50,700 tonnes. Kazakhstan, Canada, and Australia were the top three producers and together accounted for 63% of world uranium production. Other important uranium producing countries in excess of 1000 tonnes per year are **Namibia**, Russia, **Niger**, Uzbekistan, and USA.

Diamonds

The worldwide production of diamonds in 2009 amounted to 121 million carats. The top 5 producers were Russia, **DRC, Botswana, Angola and Zimbabwe**, accounting for 73% of world diamond production

Manganese

The worldwide production of manganese in 2009 amounted to 34 million tonnes. The top 5 producers were China, **South Africa**, Australia, **Gabon** and India, accounting for 79% of world manganese production.

9.2.3 MINING ISSUES

Exploration

Prospecting Rights

Mining Rights

Ownership

Safety, Health, Diseases

Beneficiation

Chinese dominance

China is the leading producer of Coal, Gold, Aluminium, Lead, Tin, Zinc & Iron ore.

9.3 MANUFACTURING

9.3.0 BACKGROUND

Manufacturing industry is concerned with production of goods that are either finished usable products or **intermediate products** for further processing or incorporating into other **final products**.

This sector is sometimes divided into light industry and heavy industry.

Largest countries by industrial output (IMF, 2013)



9.3.1 CATEGORIES

Some of the many Manufacturing Categories are listed below.

Where available, relevant statistics are provided

9.3.1.1 FOOD & BEVERAGE

Processed food sales worldwide are approximately US\$3.2 trillion (2004).

In the U.S.A. consumers spend approximately US\$1 trillion annually on food, or nearly 10 percent of GDP. Over 16.5 million people are employed in the food industry.

In the United Kingdom, the food industry has a turnover in excess of £70bn. It is the largest manufacturing sector in the UK and represents around 15% of total manufacturing. Around 13% of the people working in manufacturing in the UK work in the food and drink industry

9.3.1.2 WOOD, PULP & PAPER

The pulp and paper industry comprises companies that use wood as raw material and produce pulp, paper, board and other cellulose-based products.

The industry is dominated by North American, northern European and East Asian countries. Australasia and Brazil also have significant pulp and paper enterprises. According to data by RISI, main producing countries of paper and paperboard, not including pulp, in the world are as follows:

1 • **China** [92,599 thousand tons in 2010

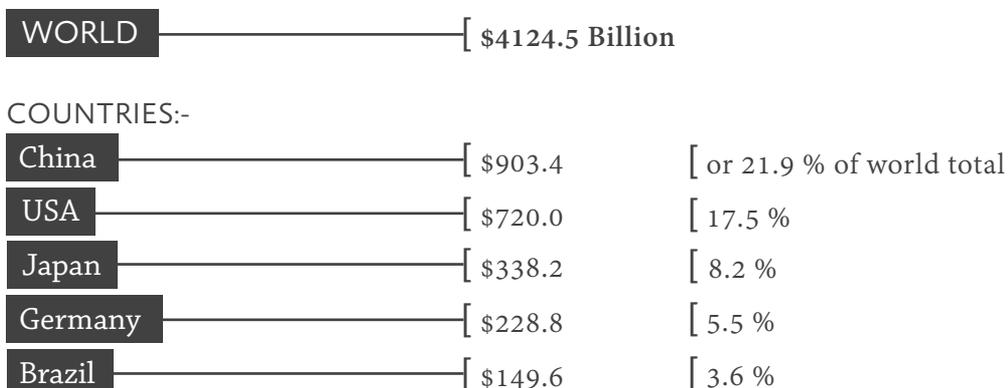


9.3.1.3 TEXTILE & CLOTHING

The textile industry is primarily concerned with the production of yarn, and cloth and the subsequent design and manufacture of clothing and other products. The raw material may be natural or synthetic using products of the chemical industry. Cotton remains the most important natural fibre. In the year 2007, the global yield was 25 million tons from 35 million hectares cultivated in more than 50 countries.

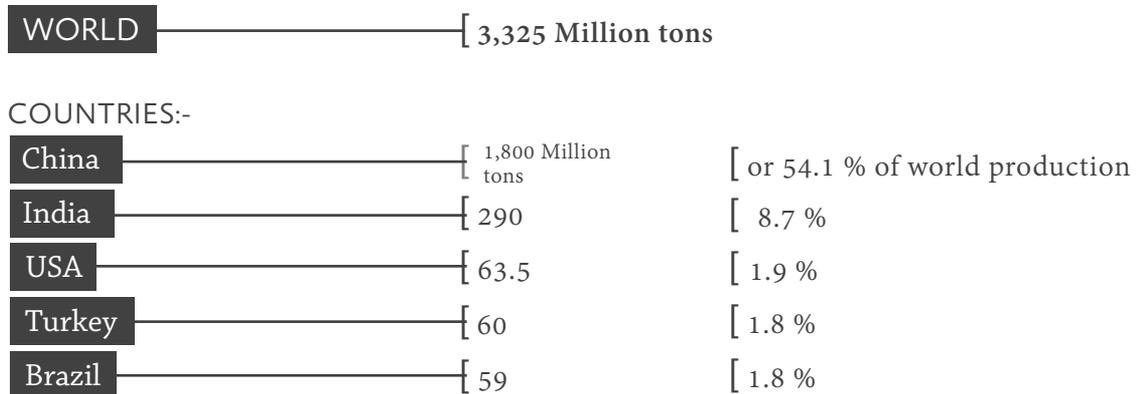
9.3.1.4 CHEMICAL & PHARMACEUTICAL

The **chemical industry** comprises the companies that produce industrial chemicals by converting raw materials (oil, natural gas, air, water, metals, and minerals) into more than 70,000 different products. The bulk of the world's \$4 trillion chemical output in 2010 (according to the American Chemistry Council) was accounted for by a handful of industrialised nations as follows:-



9.3.1.5 CONSTRUCTION

Cement production is basic to construction in any country and is a good indicator of the level of construction activity. The following is a list of the top 5 countries by cement production in 2010 based on the USGS Mineral Program Cement Report:-

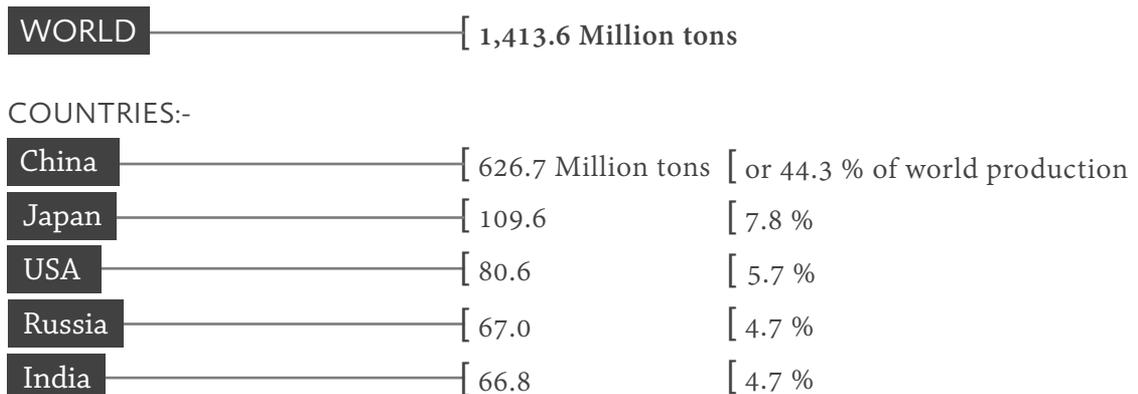


African production included Egypt at 45 million tons.

9.3.1.6 STEEL & METALWORKING

Steel production is likewise basic to a country's industry and a good indicator of the level of manufacturing activity.

In 2010, world crude steel production according to the World Steel Association was as follows:-



The top 5 accounted for over two-thirds of world production in 2010.

African production included: - RSA 7 million tons, Egypt 6 million tons

9.3.1.7 AUTO, SHIP, AIRCRAFT

The following is a list of countries by **motor vehicle** production during 2010 based on an OICA (Org.Int. des Constructeurs d'Automobiles) report. Figures include passenger

cars, light commercial vehicles, minibuses, trucks, buses and coaches

WORLD [77,609,901 vehicles

COUNTRIES:-

China	[18,264,667
EU	[16,904,436
Japan	[9,625,940
USA	[7,761,443
Germany	[5,905,985
South Korea	[4,271,941

African production included RSA – 472,049 units and Egypt – 116,683 units.

China is the largest **shipbuilder** in the world in terms of compensated gross tons of

ships as of 2010, at a total of 15.9 million tons, followed by South Korea with 11.77 million.

In terms of monetary value of the ships, South Korea is still the largest shipbuilder in the world as of 2010 at a total value of \$30.61 billion, followed by China

Japan lost its leading position in the industry to South Korea in 2004, and its market share has since fallen sharply.

The entire European market share has fallen to only a tenth of South Korea's, and the outputs of the rest of the world have become negligible.

The world's two largest **aircraft manufacturers** are Boeing (USA) and Airbus (EU).

Boeing revenue was \$ 68.7 Billion in 2011, with 164,000 employees.

Airbus revenue was Euro 33.1 Billion in 2011, with 63,000 employees

9.3.2 MANUFACTURING ISSUES

Industrial Development Zones (IDZs)

China as the “Workshop of the World”

China is the leading producer of Chemicals, Cement, Steel, Motor vehicles and Ships.

9.4 SERVICES

9.4.0 BACKGROUND

The service sector consists of those activities where people offer their expertise and time to produce a desired result in terms of rendering a particular service rather than producing goods. Thus the basic characteristic of this sector is the production of services instead of physical end products.

The nature of such services is extremely varied as will be seen from a partial list below.

9.4.1 SERVICE CATEGORIES

Government • *Public Utilities: electricity, gas, water, waste management*
Public administration
Public health
Education
Social services

Communications • *Telephones, postal, radio & TV, news media*

Entertainment • *Concerts, cinemas, museums, art galleries, sporting events*

Personal • *Medical, fitness, security*

Hospitality • *Hotels, restaurants, catering*

Distribution • *Warehousing, transport*

Business • *Wholesaling, retailing, franchising*

Real Estate • *Building maintenance, accommodation*

Financial services • *Banking, insurance, accounting, advising*

Legal services

Tourism

Some Tourism Statistics:-

According to the World Tourist Organisation, for the year 2010:

Total **number of tourists** was **940 million** of whom

76.8 million	— [(8.2 %) visited	[FRANCE	[and spent \$46.3 Billion
59.7	— [(6.4 %)	[USA	[\$ 103.5
55.7	— [(5.9 %)	[CHINA	[\$ 45.8



Total **tourist expenditure** for the year was **\$919 Billion**

GERMANY (8.5%), USA (8.2%), CHINA (6.0%), UK (5.3%), FRANCE (4.3%)

GENERAL PRODUCTION ISSUES

OWNERSHIP

Nationalisation

Privatisation

Public/Private

CAPITAL INVESTMENT

Capital Expenditure

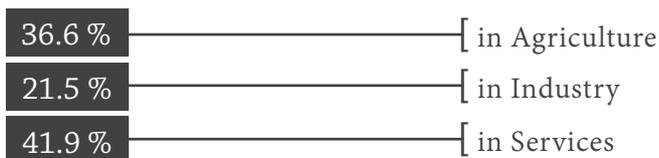
Running Costs

EMPLOYMENT

Management

Labour

According to CIA 2010 statistics, World labour force was engaged as follows:-



Trade Unions

Productivity (Output per worker or per hour)

COSTS OF PRODUCTION

Inputs

Raw Material Supplies

Salaries & Wages

Depreciation

Power, etc

Taxation

COMMODIFICATION

Certain products, in both the agricultural and mineral categories, qualify to be traded on world markets as defined commodities by virtue of their degree of purity and refinement and of their acceptance as meeting universal standards, regardless of origin. More and more products acquire commodity status as confidence in their consistency develops.

A number of international Exchanges as LME (London Metal Exchange), NYMEX (New York Mercantile Exchange), CBOT (Chicago Board of Trade) etc arrange trades between producers and consumers at daily published prices determined by supply, demand and other factors.

Speculation and derivative trading will be examined in later Chapters.

For present purposes it is of interest to summarise all commodified products by volumes and values:-

VALUE SUMMARIES:-

Agricultural Commodities [FAO 2009]

Maize	[817 million tons	[\$51 Billion
Wheat	[690	[\$87
Rice	[685	[\$178
Soya	[231	[\$58
Group total	[\$374 Billion	

Energy Commodities 2009 [BGS]

Coal	[6,938 million tons	[\$900 Billion
Oil	[3,714 million barrels	[\$400
Group total	[\$1,300 Billion	

Precious Metal Commodities 2009 [BGS]

Gold	[82.7 million ounces	[\$150 Billion
Platinum	[5.723	[\$10
Palladium	[6.301	[\$4
Silver	[950	[\$40
Group total	[\$204 Billion	

Base Metal Commodities 2009 [BGS]

Copper	[18.3 million tons	[\$160 Billion
Aluminium	[36.9	[\$90
Nickel	[1.412	[\$35
Lead	[8.9	[\$22
Tin	[0.313	[\$8
Zinc	[11.4	[\$25
Group total	[\$340 Billion	

**Grand Total of all four Commodity Groups
\$2,218 Billion**

It should be noted that the values above are rounded estimates based on spot commodity prices (August 2011) and will alter with the constant movement of prices resulting from fluctuations in supply and demand.

However they give some indication of the relative importance in value terms of each group and each commodity.

Two very important items which do not lend themselves to commodity trading but are bought and sold on a contract basis are the following:-

Natural Gas	[3127 Billion cubic metres in year 2009
Iron : Ore	[2248 Million tons in year 2009
Pig	[954
Crude Steel	[1224

SUSTAINABILITY OF PRODUCTION

Agricultural

The production of Crops and Livestock should be capable of substantial increase for the foreseeable future. Improved land use, yields and farming methods are possible for raising outputs sufficiently to respond to population growth and to the need for improved nutrition levels.

Mining, Energy Minerals

As described in Chapter 7, known global reserves of fossil fuels will at present rates of consumption be exhausted in a matter of years:-

Coal	[150 years
Oil	[80
Gas	[60

Further discoveries are unlikely to extend the time horizon substantially, stressing the importance of exploiting renewable sources of energy.

Mining, Metals

By definition, Precious Metals mining production will dwindle as known reserves are extracted with increasing difficulty and as their rarity militates against new discoveries. Base Metals, on the other hand, generally occur more widely in the earth's crust, so sustainability of supply is not a looming threat.

PRODUCT LIFESPAN

Agricultural

Food products have a short shelf life, depending on storage conditions.

Non-food products such as wool, cotton, and leather articles have a medium life.

Minerals

Fossil fuels have a once-off life, disappearing after use.

Precious metals long to virtually permanent lifespan.

Base metals generally long, depending on oxidation-resistance.

DISTRIBUTION

Warehousing

Domestic Market

Export Markets

Logistics

Road

Rail

Shipping

Airfreight

ULTIMATE DESTINATION of Final Goods & Services

Domestic

This includes domestic consumption (see Chapter 11) and fixed capital formation.

Foreign Trade

Exports of goods & services will be dealt with in Chapter 10.

CONCLUSION

The length of this Chapter is some indication of the very considerable effort that goes into meeting the material needs, in terms of goods and services, of the 7 Billion inhabitants of the planet.

Subsequent chapters will deal with the organisation, challenges and opportunities involved in delivering the fruits of this activity.

10. TRADE



10. TRADE

BACKGROUND

In today's world no country is so self-sufficient as to be able to provide all of its needs from its own production. Every country is obliged (or chooses) to import some products which other countries are in a position to supply. This complex international flow of goods and services is the subject of this Chapter on Global Trade.

In years gone by, such trade was often done on a barter basis, that is, the exchange of merchandise without monetary payment being involved. Specific trade routes such as the Silk Road were established for the safe physical movement of goods.

Today, sophisticated payment systems and logistical arrangements are the norm.

ARRANGEMENT OF THIS CHAPTER

10.1 ORGANIZATIONS

10.2 AGREEMENTS

10.3 TRADE FLOWS

10.4 ACCOUNTING

10.1 TRADE ORGANIZATIONS

WTO

The World Trade Organization (WTO) is the global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The stated goal is to help producers of goods and services, exporters, and importers to conduct their business.

The WTO has 155 members and 29 observers

Russia is the biggest economy outside WTO, but its accession is expected shortly.

The World Trade Organization deals with the global rules of trade between nations. Its stated main function is to ensure that trade flows as smoothly, predictably and freely as possible.

The organization officially commenced on January 1, 1995 under the Marrakech Agreement, replacing the General Agreement on Tariffs and Trade (GATT), which had come into being in 1948 . The organization deals with regulation of trade between participating countries; it provides a framework for negotiating and formalizing trade agreements, and a dispute resolution process aimed at enforcing participants' adherence to WTO negotiated and agreed rules. The organization is currently endeavoring to persist with a trade negotiation called the Doha Development Agenda (or Doha Round), which was launched in 2001 to enhance equitable participation of

poorer countries which represent a majority of the world's population. As of 2008, talks had stalled over a divide on major issues, such as agricultural subsidies, industrial tariffs and non-tariff barriers, services, and trade remedies

UNCTAD

The United Nations Conference on Trade and Development (UNCTAD) was established in 1964 as a permanent intergovernmental body. It is the principal organ of the United Nations General Assembly dealing with trade, investment, and development issues. The organization's stated goals are to "maximize the trade, investment and development opportunities of developing countries and assist them in their efforts to integrate into the world economy on an equitable basis."

The creation of the conference was based on concerns of developing countries over the international market, multi-national corporations, and great disparity between developed nations and developing nations.

ITC

The International Trade Centre (ITC) formed in 1964 has a joint mandate from the WTO and the United Nations through UNCTAD and supports their regulatory, research and policy strategies towards promoting export success in developing countries.

UNMDG

While not a trade organization as such, the UN Millennium Development Goals signed by 189 countries in September 2000 are concerned, in **Goal 8**, with Market Access for developing countries and include the following **Indicators** for monitoring progress:-

8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty

8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries

RELEVANT EXTRACTS FROM THE MDG GAP REPORT OF 2011

Market access indicators

Significant impediments to market access for LDC products persist

Tariff barriers and tariff preferences

Tariffs on LDC exports have changed little since 2005. Extending duty-free,

quota-free treatment to all LDC exports would have no significant impact on developed countries.

Rules of origin should be simple, transparent and predictable

Agriculture subsidies in OECD countries

Agricultural subsidies in developed countries have a strong adverse impact

on developing-country trade

The fragile global recovery and its impact on trade

Trade flows recovered following the crisis, but developing countries, especially LDCs, remain vulnerable

Trade finance

Low-income countries continue to face difficulties in accessing trade finance

Trade-restrictive measures

LDCs have been especially affected by restrictive measures

The Doha Round at risk of failure

After almost 10 years of negotiations, serious gaps in position stand in the way of concluding the Doha Round.

A failure of the Round might call into question the international commitment to the multilateral system.

10.2 TRADE AGREEMENTS

A trade agreement is classified as **Bilateral** when signed between two sides, where each side could be a country, a trade bloc or an informal group of countries.

A trade agreement signed between more than two sides (typically neighboring or in the same region) is classified as **Multilateral**.

A **Preferential** trade agreement gives preferential access to certain products from the participating countries.

Regional

While the regulation of international trade is done through the World Trade Organization at the global level, several regional arrangements such as MERCOSUR in South America between Argentina, Brazil, Uruguay and Paraguay; the North American Free Trade Agreement (NAFTA) between the United States, Canada and Mexico; and the European Union between 27 independent states are in effect.

African Regional

The African Growth and Opportunity Act, or AGOA, is legislation that was approved by the U.S. Congress in May 2000. The purpose of this legislation is to assist the economies of sub-Saharan Africa and to improve economic relations between the United States and the region. The legislation authorized the President of the United States to determine which sub-Saharan African countries would be eligible for AGOA on an annual basis.

AGOA provides trade preferences for quota and duty-free entry into the United States for certain goods, expanding the benefits under the Generalized System of Preferences (GSP) program. Notably, AGOA expanded market access for textile and apparel goods into the United States for eligible countries, though many other goods such as horticultural products, automobiles and steel are also included.

Initially, AGOA was set to expire in 2008, but the United States Congress passed the AGOA Acceleration Act of 2004, which extended the legislation to 2015. Further extensions may be possible.

Statistics suggest a positive balance of trade for AGOA participant countries. In year 2012, the United States exported \$20.6 Billion in goods to the 41 AGOA countries, and the U.S. imported \$46.6 Billion for a balance of \$26 Billion in favour of the AGOA countries.

The Southern African Customs Union (SACU) is a customs union among five countries of Southern Africa: Botswana, Lesotho, Namibia, South Africa and Swaziland. Its aim is to maintain the free interchange of goods between member countries. It provides for a common external tariff and a common excise tariff to this common customs area. All customs and excise collected in the common customs area are paid into South Africa's National Revenue Fund. The revenue is shared among members

The African Free Trade Area announced at the EAC-SADC-COMESA Summit of 2008 is the proposed realization of a free trade zone spanning the length of the African continent from Cape to Cairo. This would be the first step towards achieving the African Union's goal of total regional integration by the creation of a free trade area, a customs union, a single market, a central bank, and a common currency. The current plan is to establish an African Economic Community with a single currency by 2023

10.3 TRADE FLOWS

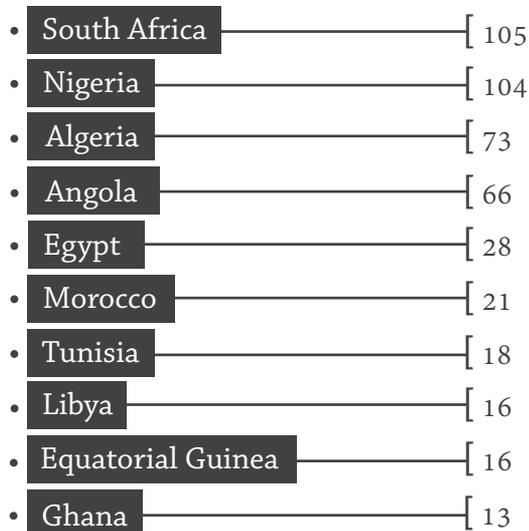
EXPORTS By Country

WORLD \$14,920 Billion in year 2010 [WTO]

1 •	China	[\$ 1,581	[or 10.6 % of world exports
2 •	Germany	[\$ 1,303	[8.7 %
3 •	United States	[\$ 1,289	[8.6 %
4 •	Japan	[\$ 765.2	[5.1 %
5 •	France	[\$ 517.3	[3.5 %
6 •	Netherlands	[\$ 485.9	
7 •	South Korea	[\$ 464.3	
8 •	Italy	[\$ 448.4	
9 •	U.K.	[\$ 410.3	
10 •	Russia	[\$ 400.1	

The top 5 countries accounted for 36.5% of all exports in 2010.

By African Countries (Billion \$) in 2011

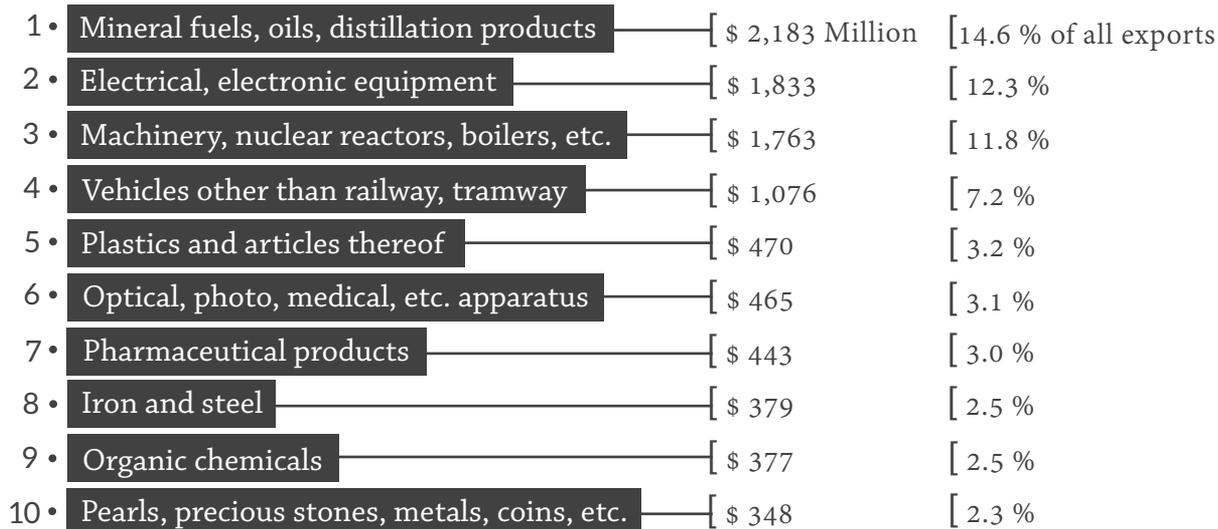


The continent of Africa accounted for 3.4% of all exports

By Goods & Services

Top traded commodities (exports), year 2010.

Source: International Trade Centre [ITC]



Energy commodity exports, year 2009.[CIA]

Oil: Top3 exporters:-

Saudi Arabia	[12.0 % of total oil exports
Russia	[11.5 %
Iran	[4.0 %

Gas: Top 3 exporters:-

Russia	[22.5 % of total gas exports
Norway	[10.1 %
Canada	[9.3 %

Energy Exports by African Countries, year 2009

Oil - exports (bbl/day)

Nigeria	[2,102,000
Angola	[1,851,000
Algeria	[1,694,000
Libya	[1,580,000
Equatorial Guinea	[395,000
Sudan	[383,900
Gabon	[213,500
Congo, Republic	[211,800
Egypt	[163,000
Chad	[115,000

Natural gas - exports (cubic meters)

Algeria	[55,280,000,000
Egypt	[18,320,000,000
Nigeria	[15,990,000,000
Libya	[9,890,000,000
Equatorial Guinea	[4,720,000,000

Mozambique [3,500,000,000

IMPORTS

By Country

WORLD \$14,920 Billion in year 2010 [WTO]

1.	United States	[\$ 1,936	[or 13.0 % of world imports
2.	China	[\$ 1,327	[8.9 %
3.	Germany	[\$ 1,099	[7.4 %
4.	Japan	[\$ 639.1	[4.3%
5.	France	[\$ 590.5	[4.0%
6.	U. K.	[\$ 561.6	
7.	Italy	[\$ 473.1	
8.	Netherlands	[\$ 429.0	
9.	South Korea	[\$ 422.4	
10.	Canada	[\$ 401.0	

The top 5 countries accounted for 37.6% of all imports in **2010**

Imports by African Countries

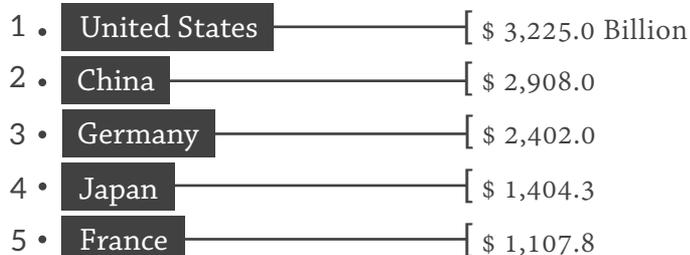
Imports (Billion \$) in 2011

South Africa	[103
Nigeria	[69
Egypt	[54
Algeria	[44
Morocco	[40
Tunisia	[24
Angola	[22
Ghana	[15
Kenya	[13
Libya	[10

The continent of Africa accounted for 2.7% of all imports

TOTAL INTERNATIONAL TRADE

The countries with the highest **combined exports & imports** in 2010 were [CIA]:



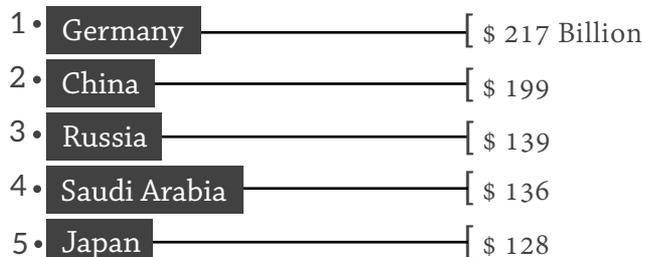
The European Union accounted for \$3,764 Billion (not including internal trade).

Trade with African Continent (exports + imports):-

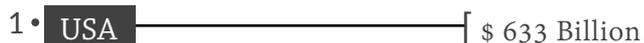


TRADE BALANCES

Countries with the highest **trade surpluses** in 2010 were [CIA]:-



Countries with the highest **trade deficits** in 2010 were:-



2•	U.K.	[\$ 141
3•	India	[\$ 126
4•	France	[\$ 69
5•	Spain	[\$ 56

TRADE PARTNERS

For most countries in the world, their leading export and import trading partner in terms of value is either the European Union, or to a lesser degree, the United States. Other countries like China, Japan, Russia, Brazil and **South Africa** are emerging as significant markets or source countries in different parts of the world.

The European Union and the United States are each other's largest export market. However both the European Union and the United States have China as their largest origin of imports. China's own largest source of imports is Japan, which in turn has China as its largest import and export trading partner.

South Africa is the leading export market for the following African countries:-

Ghana, Mali, Namibia, Swaziland and Zimbabwe.

South Africa is also the leading source of imports into the following African countries:-

Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Zambia, Zimbabwe.

TRADE ROUTES & LOGISTICS

In chapter 8.1 details were given regarding transport of merchandise from one country to another by Rail, Road, Shipping and Air. Special reference was made to landlocked countries (16 in Africa) and to specialised ports, terminals and land corridors.

TRADE FINANCE

Shipping

Forwarding, Freight (Ocean, Air, Trucking), Customs Clearance.

Insurance

Export Credit Insurance, Damage insurance.

Foreign Exchange (Forex)

Government requirements where applicable

Payment

Bank Letter of Credit; payment against Bill of Lading
Other

10.4 ACCOUNTING

Trade Balance

A country's Trade Balance is a primary component in its National Accounts. It is expressed as a Surplus or as a Deficit, depending on whether the outflow of merchandise is greater or less than the inflow during the period concerned. Some countries account only for Goods, others include Services in their Trade Balance. In general, services amount to 20% or less of total trade.

Current Account Balance & Balance of Payments

These National Account entities start with the Trade Balance but then go on to include the monetary flows of other international transactions. Their composition and importance are to be addressed in later Chapters.

RELEVANT ISSUES

TRADE BARRIERS

- Tariffs
- Subsidies
- Quotas
- Import Licensing, Permits.
- Trade Sanctions
- Export Bans, Suspensions, Permits

MDG 8

Market Access

PROTECTIONISM

Beggars-thy-neighbour Policy Trade wars, currency manipulation.

DUMPING

Dumping occurs when manufacturers export a product to another country at a price below the price charged in their home market.

FAIR TRADE Principles

TERMS OF TRADE

COMPARATIVE ADVANTAGE

IMPORT SUBSTITUTION

OUTSOURCING

EXCHANGE RATE

A country's exchange rate has an influence on its trade balance.

Export prices will be increased by a strengthening currency and decreased by a weakening currency, thus adversely or beneficially affecting competitiveness and potential export volumes.

Conversely, **Import costs** will benefit from a strong currency.

In turn, the trade balance is one of the many factors influencing the exchange rate.

CONCLUDING REMARKS

The importance of international trade in today's world cannot be overemphasised. The scramble for export markets in order to boost production, achieve economy of scale and thereby greater economic growth is seen as assisting countries to pay their way in a competitive world. Such trade has acted as a powerful catalyst for opening up national borders for the flow of goods, services and technology and has had the effect of promoting the interconnectedness and interdependence of countries and regions of the globe. Later chapters will deal with the financial and other implications of this global interaction.

11. CONSUMPTION



11. CONSUMPTION

BACKGROUND

While production is a supply related activity, consumption is demand related. Ideally the two should be in balance at all times, primarily driven by demand but tracked by appropriate production levels. Should production falter due to adverse circumstances such as droughts, plant breakdowns, etc then inventories in silos or warehouses may be called upon; and in extreme cases emergency imports could be resorted to in order to make up the deficit.

Each country consumes what it produces, less what it exports, plus what it imports.

CATEGORIES

Household Expenditure

Consumer spending includes three broad categories of personal spending.

Durable goods: motor vehicles and parts, furnishings and durable household equipment, recreational goods

Nondurable goods: food and beverages, clothing and footwear, gasoline and other energy goods,

Services: housing and utilities, health care, transportation services, recreation services, food services and accommodations, financial services and insurance and other services

Government Expenditure

Government final consumption expenditure (GFCE) is a transaction of the national account's use of income account representing government expenditure on goods and services that are used for the direct satisfaction of individual needs or collective needs of members of the community.

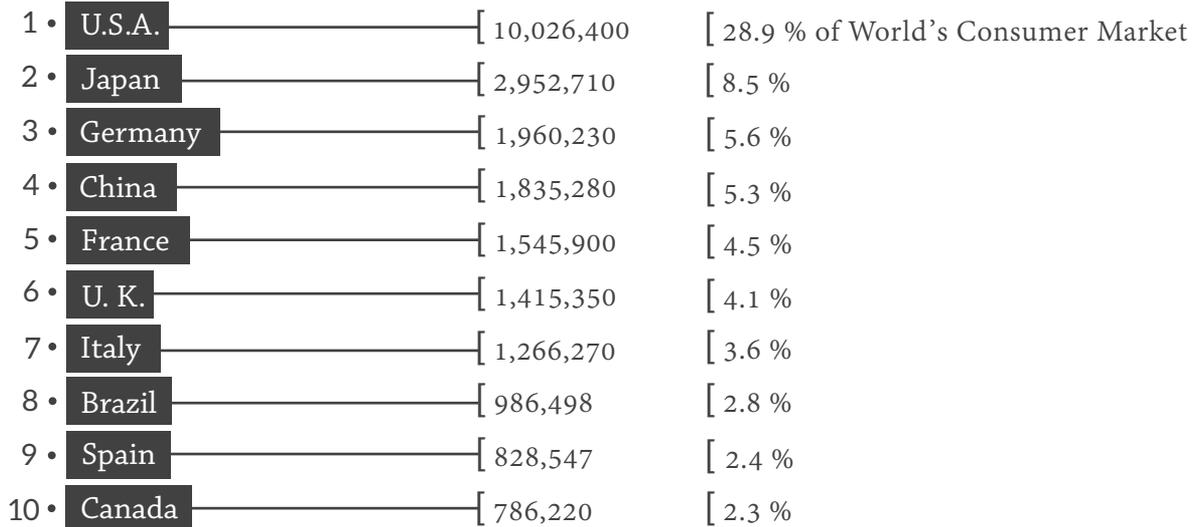
Data on government final consumption expenditure shed light on the involvement of governments in providing goods and services for the direct needs of the population. A high government share in the provision of individual consumption goods and services is often found in countries known as welfare states.

STATISTICS

Consumer Expenditure

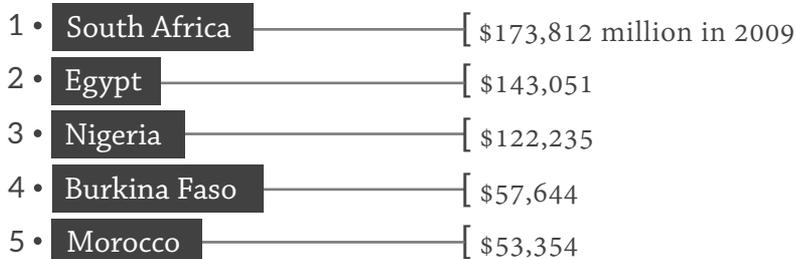
Below is a list of the largest consumer markets of the world in 2009. The countries are sorted by their **Household final consumption expenditure** (HFCE) which represents consumer spending in nominal terms. The figures are from the United Nations Statistics Division

World \$34,689,062million



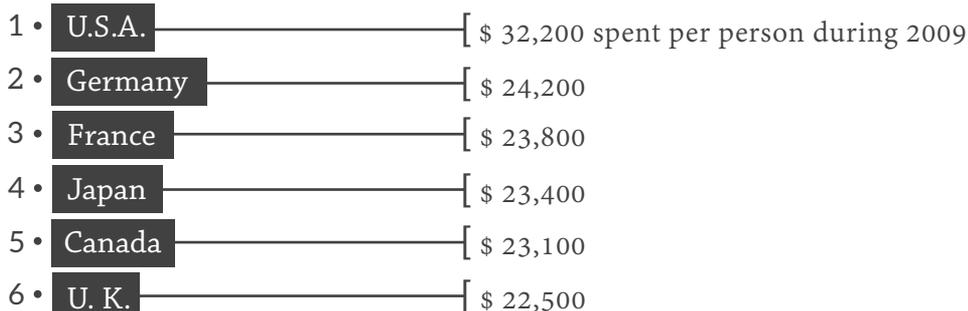
The top 5 countries accounted for over 50% of world consumer expenditure in year 2009.

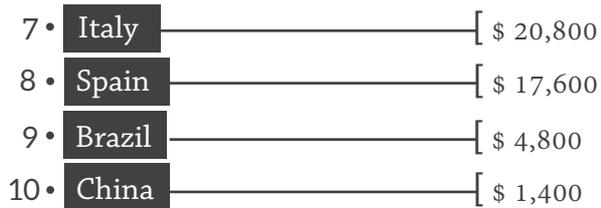
African Consumer Markets



Per Capita Consumption Expenditure

When the population numbers of the above countries are taken into account, the following picture then emerges:-

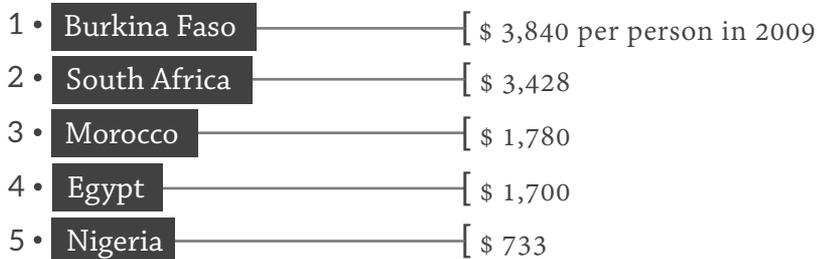




World \$5,000 per person on average.

Each USA citizen spent 23 times as much as each Chinese citizen during that year.

Africa



HFCE AS ECONOMIC DRIVER

According to UN Stats, household consumption expenditure is generally the main driver of each economy. For 8 of the above countries their HFCE contributed between 55% and 65% to their GDPs in 2009, while World total HFCE was 60% of GWP.

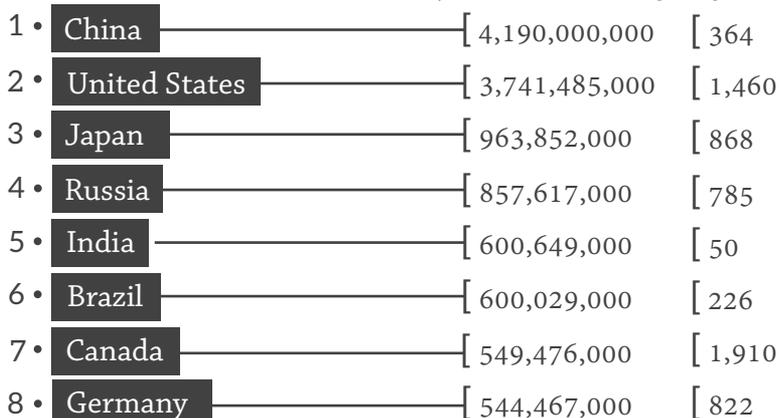
The USA reached 71% and China 37% of their GDPs.

Africa exceeded 60% of GDP

Energy Consumption

Electricity [EIA, 2009]

World 17,109,665,000 MW.h/yr or 297watts per person



9 •	France	[460,944,000	[851
10 •	South Korea	[386,169,000	[879

The top 5 countries consumed over 60% of the world's electricity in year 2009.
At individual level, each US citizen consumed 1.7 times as much as each Japanese.

Japanese	• Chinese	• Brazilian
1.7 times each	4.1 times each	6.5 times each
	• Indian	
	29.2 times	

Electricity consumption in Africa

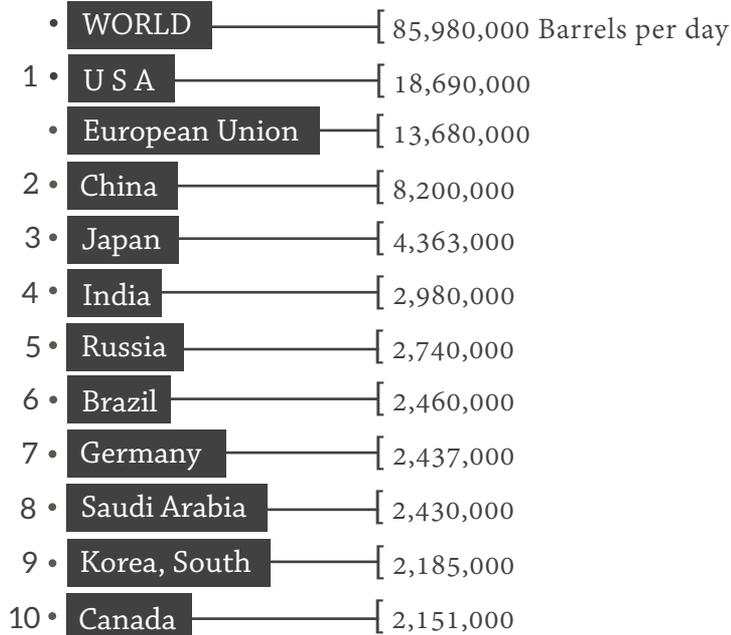
South Africa	[212 Billion kWh in 2012
Egypt	[109
Algeria	[31
Libya	[23
Morocco	[21
Nigeria	[18
Tunisia	[12
Zimbabwe	[12
Mozambique	[10
Zambia	[8

Electricity consumption per capita in Africa

South Africa	[4,347 kWh per person in 2012
Libya	[4,078
Seychelles	[2,686
Namibia	[1,814
Mauritius	[1,701
Botswana	[1,358
Egypt	[1,304
Tunisia	[1,164



Oil [CIA, 2009]



The top 5 countries accounted for 43% of the world's oil consumption in 2009.

Consumption by Population Wealth Levels

According to UN Statistics consumption by the richest & poorest quintiles of the world's population is as follows:-

Product	Richest 20%	Poorest 20%
Meat & Fish	45 %	5 %
Energy	58 %	4 %
Paper	84 %	1 %
Telephones	74 %	2 %
Vehicles	87 %	1 %

PRICES

The shifting relationship between supply and demand will have an influence on the

price of a product at any point in time

Consumer Price Index (CPI)

A consumer price index (CPI) measures changes in the price level of consumer goods and services purchased by households.

The CPI is a statistical estimate constructed using the prices of a sample of representative items whose prices are collected periodically. The annual percentage change in a CPI is used as a measure of **inflation**. A CPI can be used to index (i.e., adjust for the effect of inflation) the real value of wages, salaries, pensions, for regulating prices and for deflating monetary magnitudes to show changes in real values

Value Added Tax (VAT)

A value added tax or value-added tax (VAT) is a form of consumption tax. From the perspective of the buyer, it is a tax on the purchase price. The rate varies from 4% to 27% according to country, except for 11 countries (including USA) where there is no VAT as of November 2011.

RELEVANT ISSUES

Consumer Credit/Debt

Consumer Protection

Price Control

Subsidies

CONCLUDING REMARKS

Consumption spending has been identified above as an important economic driver. In the next Chapter the **Global Economy** is examined and analysed.

12. ECONOMIC ACTIVITY



12. ECONOMIC ACTIVITY

BACKGROUND

Previous Chapters have referred to numerous factors which provide the basis for a healthy economy. They include:-

A **Work Force** with suitable education and training and access to economic activity.
Natural Resources to provide raw materials and energy.
Infrastructure to facilitate the conversion of these resources.
Production of goods and services to meet the material needs of the global population.
Distribution and **Consumption** of these goods and services.

This Chapter examines in some detail the overall results of this economic activity and its dimensions at global, regional and country levels, and attempts to provide a macroeconomic perspective.

Later Chapters will address the impact on the global economy of Finance, Speculation, Corporations and the building of Reserves.

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are used here:-

- 12.1 INSTITUTIONS
- 12.2 MEASUREMENT OF ECONOMIC ACTIVITY
- 12.3 STATISTICS OF ECONOMIC ACTIVITY
- 12.4 RATE OF ECONOMIC GROWTH
- 12.5 PER CAPITA PERSPECTIVE
- 12.6 DEVELOPMENT STAGES

12.1 INSTITUTIONS

Global organizations concerned with the promotion of Economic Activity and Development are briefly listed below; for details see Chapters 3&5.

U.N. BODIES

- *World Bank Group, IMF, UNCTAD, FAO, ILO, WTO*
Regional Economic Commissions

INTERGOVERNMENTAL

- *OECD, African Economic Communities; see Chapter 3*

12.2 MEASUREMENT OF ECONOMIC ACTIVITY

Gross domestic product (GDP) refers to the market value of all final goods and services produced within a country in a given period.

Gross National Product (GNP) is the market value of all products and services produced in one year by labour and property supplied by the **residents** of a country. Unlike Gross Domestic Product (GDP), which defines production based on the geographical location of production, GNP allocates production based on ownership.

The GNI per capita is the value of a country's final income in a year, **divided by its population**. It reflects the average income of a country's citizens.

12.3 STATISTICS OF ECONOMIC ACTIVITY

LIST OF 20 LARGEST ECONOMIES IN NOMINAL GDP IN 2011 (IMF)

Country	GDP (billions of USD)	[Share of Global GDP]
World	[70,011.680	[100.00 %
European Union	[17,960.206	[25.65 %
1 • United States	[15,064.816	[21.52 %
2 • China	[6,988.470	[9.98 %
3 • Japan	[5,855.383	[8.36 %
4 • Germany	[3,628.623	[5.18 %
5 • France	[2,808.265	[4.01 %
6 • Brazil	[2,517.927	[3.60 %
7 • U. K.	[2,480.978	[3.54 %
8 • Italy	[2,245.706	[3.21 %
9 • Russia	[1,884.903	[2.69 %
10 • India	[1,843.382	[2.63 %
11 • Canada	[1,758.680	[2.51 %
12 • Spain	[1,536.479	[2.19 %
13 • Australia	[1,507.402	[2.15 %
14 • Mexico	[1,185.215	[1.69 %
15 • South Korea	[1,163.847	[1.66 %
16 • Netherlands	[858.282	[1.23 %

17 •	Indonesia	[834.335	[1.19 %
18 •	Turkey	[763.096	[1.09 %
19 •	Switzerland	[665.898	[0.95 %
20 •	Sweden	[571.567	[0.82 %
	Remaining Countries	[13,848.426	[19.78 %

Thus the top 20 countries accounted for over 80% of global total, while the USA & EU combined accounted for close to 50%.

GDP (Nominal) by Continents

List by the International Monetary Fund for year **2010**.

	World	[\$ 54,954,126million	
1 •	Europe	[18,775,170	[34.17 % of Global
2 •	North America	[17,387,297	[31.64 %
3 •	Asia	[12,245,250	[22.28 %
4 •	South America	[3,542,535	[6.45 %
5 •	Africa	[1,610,887	[2.93 %
6 •	Oceania	[1,392,987	[2.53 %

Lists of Largest Economies in each Continent in Nominal GDP, 2010 (IMF)

Europe

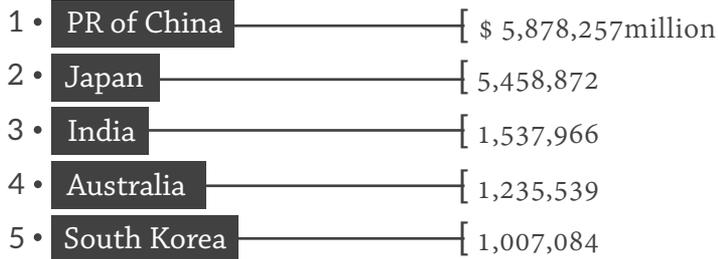
	European Union	[\$ 16,282 Billion
1 •	Germany	[3,315
2 •	France	[2,582
3 •	United Kingdom	[2,247
4 •	Italy	[2,055
5 •	Russia	[1,465

North america

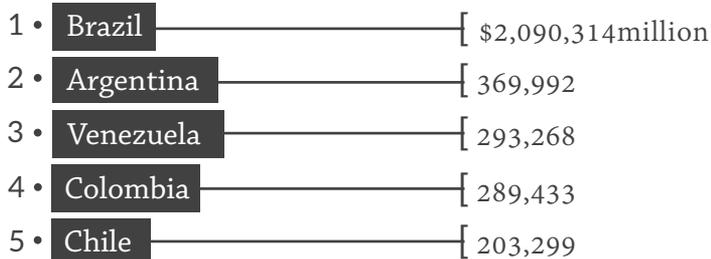
1 •	United States	[\$ 14,657,800million
-----	---------------	------------------------



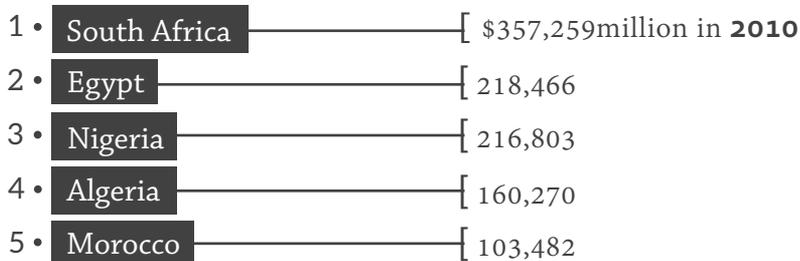
Asia & pacific



South america



Africa



World \$71,707,302 Billion in 2012

Africa 1,880.380



3 •	Egypt	[256.729
4 •	Algeria	[207.794
5 •	Angola	[118.719
6 •	Morocco	[97.530
7 •	Sudan	[59.941
8 •	Tunisia	[45.611
9 •	Ghana	[38.939
10 •	Libya	[36.874
41 •	Lesotho	[2.453
42 •	Burundi	[2.356
43 •	Sierra Leone	[2.196
44 •	CARepublic	[2.165
45 •	Cape Verde	[1.903
46 •	Djibouti	[1.239
47 •	Liberia	[1.154
48 •	Seychelles	[1.014
49 •	The Gambia	[0.977
50 •	Guinea-Bissau	[0.969

THE EMERGENCE OF CHINA

The GDP of China reached close to \$7 trillion in 2011. This is over a hundred times more than in 1978 when Deng Xiaoping initiated open-market policies.

On the way, China surpassed the UK & France in 2005, Germany in 2007, and Japan in 2010.

China now occupies second position in the world at just under half the GDP of the USA.

ECONOMY OF NIGERIA

In April 2014, as a result of a rebasing process, Nigeria's economy became the largest in Africa, with a nominal GDP of more than \$500 billion, and overtook South Africa to become the largest economy in Africa and the world's 21st largest economy.

12.4 RATE OF ECONOMIC GROWTH

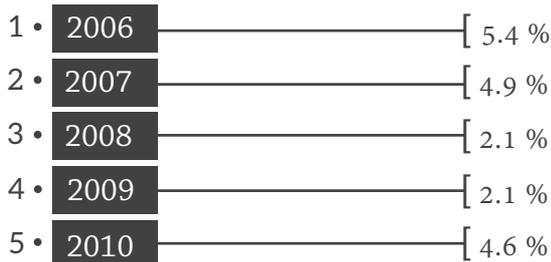
A growth rate of 2.5% per annum leads to a doubling of GDP within 29 years, whilst

a growth rate of 8% per annum (an average exceeded by China between 2000 and 2010) leads to a doubling of GDP within 10 years. Thus, a small difference in economic growth rates between countries can result in very different standards of living for their populations if this small difference continues for many years.

Some selected high-growth rates for 2010 (IMF):-



World Average Growth in recent years was as follows:-



Low growth in 2008/9 reflects the recession of those years during which many industrialised countries (such as USA, UK, France, Germany, Japan) experienced **negative** growth, that is, contraction.

African growth rates (2012- African Development Bank)



Zambia	[7.6 %
Rwanda	[7.2 %

12.5 PER CAPITA STATISTICS

Knowing a country's **GNI per capita** is a good first step toward understanding the country's economic strengths and needs, as well as the general standard of living enjoyed by the average citizen. The greater the economic output, the more there will be to share; however the greater the population the smaller the average **individual** share will be.

The interplay between economic output and population size is complex and dependent on many factors such as resources, productivity and level of industrialisation. This is illustrated by the table below of some selected countries, their population size and their GNI per capita arranged in descending order:-

COUNTRY	POPULATION Millions	GNI PER CAPITA (WB 2010) \$
1 • Singapore	[5	[\$ 55,380
2 • USA	[314	[47,120
3 • Australia	[22	[38,380
4 • Germany	[81	[38,140
5 • Japan	[127	[34,780
6 • Russia	[138	[19,190
7 • Mexico	[115	[14,360
8 • Brazil	[206	[10,920
9 • China	[1,343	[7,570
10 • India	[1,205	[3,560
• WORLD	[7,000	[11,081 average

Singapore leads this list as a result of its high economic achievements by a very small population, with the average Singaporean enjoying substantial benefits.

Even though the Chinese economy is making rapid strides and is expected to pass that of the USA in GDP terms in the not too distant future, nevertheless the prosperity level of the average US citizen is many times that of the average Chinese citizen - 6.22 times in the year 2010 from the above statistics.

African per capita statistics

1 •	Equatorial Guinea	[\$ 14,660 per person in 2011
2 •	Seychelles	[11,170
3 •	Gabon	[10,653
4 •	Botswana	[9,480
5 •	Mauritius	[8,776
6 •	South Africa	[8,066
7 •	Namibia	[5,828
8 •	Libya	[5,691
9 •	Algeria	[5,304
10 •	Angola	[5,143
41 •	Guinea	[492
42 •	Uganda	[477
43 •	Eritrea	[475
44 •	Madagascar	[458
45 •	Central African R	[456
46 •	Niger	[399
47 •	Sierra Leone	[366
48 •	Ethiopia	[359
49 •	Malawi	[350
50 •	Liberia	[297

12.6 DEVELOPMENT STAGES

Degrees of Industrialisation

Chapter 2.3 details how several authorities grade the countries of the world according to their economic wealth from low income to high income and dependant upon their levels of industrialisation. Several countries have shown in recent years how it is possible to migrate to the level of “mature” economies.

Development Aid

See Chapter 5.2 for details.

RELEVANT ECONOMIC ISSUES

Economic System

Capitalist

Socialist

Mixed

Corporations

The role of Corporations in the Global Economy will be examined in some detail in a later Chapter.

Financing

The financing of a country's economic growth will be addressed in the next chapter.

Economic Development Zones (EDZs)

Research & Development (R&D)

Economic Crises

Recession

A recession is a business cycle contraction, a general slowdown in economic activity. Macroeconomic indicators such as GDP, employment, investment spending, capacity utilization, household income, business profits, all fall, while bankruptcies and the unemployment rate rise.

Recessions are defined by some authorities as 2 successive quarters of negative growth.

Depression

A depression is a sustained, long-term downturn in economic activity. It is a more severe downturn than a recession.

Stagflation

Stagflation is a condition of slow economic growth and relatively high unemployment - a time of stagnation - accompanied by a rise in prices, or inflation.

13. FINANCIAL SYSTEM



13. FINANCIAL SYSTEM

BACKGROUND

In the last Chapter the focus of attention was on the elements which go to make up, and run, a healthy and vibrant economy.

In this Chapter, the **financing** of economic activity is addressed, and some attention will also be given to special financial measures used to assist faltering economies in returning to health, or to achieve health in the first place.

Core Financing

Funding the main elements of an economy:-

Work Force (see Chapter 4)

Wages, Salaries, Benefits

Housing, Amenities, Healthcare, Education & Training

Infrastructure (see Chapter 8)

Installation, Operation, Maintenance

Energy, Water, Communications, Transport, Social

Production (see Chapter 9)

Agriculture, Industry, Services

Plant & Machinery, Inputs, Running Costs, Maintenance

Trade (see Chapter 10)

Foreign Exchange, Shipping, Insurance

The heart of cross-border capital flows.

Consumption (see Chapter 11)

Distribution, Household Credit & Expenditure

Sources of Core Finance

Government

Budget allocations, Development Banks, Sovereign Funds

Private Sector

Banks, Corporations (profits, dividends), Household savings.

Public Private Partnerships (PPP)

Global Financial Institutions

World Bank Group

Aid and Remedial Finance

For Poor and Ailing economies.

Development Aid (see Chapter 5)

Official Development Assistance (ODA) for Least Developed Countries (LDCs) by 189 signatory countries to the Millennium Development Goals (MDGs)

Grant Aid from the World Bank Group

Loan Aid from the International Monetary Fund (IMF)

Debt Relief for Heavily Indebted Poor Countries (HIPC); MDG Target 8.

Remedial Assistance (this Chapter 13.9)

Financial Crises:-

Sub-prime Mortgage Crisis, USA 2008 US Govt. & taxpayers.

European Sovereign Debt Crisis, IMF, European Central Bank

LATER CHAPTERS

There are certain subjects with strong financial connotations which require special treatment and these will be addressed in their own separate chapters. They are:-

The Role of Corporations

Speculative Investment

Reserve Building

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are used here:-

13.1 FINANCIAL INSTITUTIONS

13.2 NATIONAL BUDGETS

13.3 MONEY SUPPLY

13.4 CREDIT

13.5 DEBT

13.6 SAVINGS & INVESTMENT

13.7 FINANCIAL INSTRUMENTS

13.8 CROSS-BORDER TRANSACTIONS

13.9 FINANCIAL CRISES

13.1 FINANCIAL INSTITUTIONS

A financial institution is an institution that provides financial services for its clients or members. They are responsible for transferring funds from investors to companies and other entities in need of those funds. Thus financial institutions facilitate the flow of money through the economy.

Most financial institutions are regulated by the government.

National and **International** levels of financial institutions are addressed here.

13.1.1 NATIONAL FINANCIAL INSTITUTIONS

Commercial Banks

A bank is a financial institution and a financial intermediary that accepts deposits

and channels those deposits into lending activities, either directly or through capital markets. A bank connects customers that have capital deficits to customers with capital surpluses.

Due to their critical status within the financial system and the economy generally, banks are highly regulated in most countries. Most banks operate under a system known as fractional reserve banking where they hold a small reserve of the funds deposited and lend out the rest for profit. They are generally subject to minimum capital requirements which are based on an international set of capital standards, known as the Basel Accords.

Types of banks. Banks' activities can be divided into **retail banking**, dealing directly with individuals and small businesses; **business banking**, providing services to mid-market business; **corporate banking**, directed at large business entities; **private banking**, providing wealth management services to high net worth individuals and families; and **investment banking**, relating to activities on the financial markets. Most banks are profit-making, private enterprises. However, some are owned by government, or are non-profit organizations.

Investment banks' business can broadly be categorized into corporate finance and advisory work, treasury dealing, investment management and securities trading. Most investment banks' work is undertaken on behalf of large companies, banks and government organizations with some also providing a service to wealthy individuals. In the year 2009, according to International Financial Services London (IFSL), Fee Revenue for investment banks globally was \$66.3 billion, with 46% generated in USA and 30% in Europe.

Islamic banks adhere to the concepts of Islamic law. This form of banking revolves around several well-established principles based on Islamic canons. All banking activities must avoid interest, a concept that is forbidden in Islam. Instead, the bank earns profit (markup) and fees on the financing facilities that it extends to customers. The global market for Islamic financial services, as measured by sharia compliant assets, is estimated by IFSL to have reached \$951bn at end-2008.

Shadow Banking System

The shadow banking system is the collection of financial entities, infrastructure and practices which support financial transactions that occur beyond the reach of existing state sanctioned monitoring and regulation. It includes entities such as hedge funds, money market funds and structured investment vehicles (SIVs). Investment banks may conduct much of their business within the shadow banking system (SBS), but most are not SBS institutions themselves.

This largely unregulated sector was worth about \$60 trillion in 2010, having grown

from an estimated \$27 trillion in 2002, according to the FSB. While the sector's assets declined during the global financial crisis, they have since returned to their pre-crisis peak.

Extent of the world's banking sector

The Largest Banking Centres

1 •	USA	[7,085 Banks	[82,547 Branches at end 2008
2 •	Germany	[2,169	[39,565
3 •	Italy	[799	[34,146
4 •	France	[394	[27,875
5 •	Switzerland	[327	[3,488
6 •	U.K.	[324	[10,300
7 •	Japan	[150	[12,000
8 •	China	[144	[67,000 (top 4 banks only)

The Largest Deposit Holders

1 •	USA	[\$ 8,082 Billion at end 2008
2 •	Japan	[\$ 6,600
3 •	U.K.	[\$ 5,440
4 •	Germany	[\$ 4,323
5 •	France	[\$ 2,172

BANK ASSETS BY REGION

WORLD Total \$96.4 Trillion (2008/9)

EU 56 %; Asia 14 %; USA 13 %; Other 17 %.

Sources: European Banking Federation, US Federal Reserve, Bank of Japan, Financial Services Authority

North Africa

1. National Bank of Egypt. Total Assets of \$40bn.
2. Banque Extérieur D'Algérie. Total Assets of \$33bn.
3. Attijariwafa Bank, Morocco. Total Assets of \$32bn.
4. Crédit Populaire du Maroc. Total Assets of \$23bn.
5. Gumhouria Bank, Libya. Total Assets of \$21bn.

West Africa

1. Zenith International Bank, Nigeria. Total Assets of \$15bn.
2. First Bank of Nigeria. Total Assets of \$14bn.
3. Intercontinental Bank, Nigeria. Total Assets of \$12bn.
4. United Bank for Africa, Nigeria. Total Assets of \$11bn.
5. Union Bank of Nigeria. Total Assets of \$9bn.

East Africa

1. Commercial Bank of Ethiopia. Total Assets of \$5bn.
2. Kenya Commercial Bank. Total Assets of \$2bn.
3. Barclays Bank of Kenya. Total Assets of \$2bn.
4. Commercial Bank of Eritrea. Total Assets of \$1.3bn
5. Bank of Khartoum. Total Assets of \$1.3bn

Southern Africa

1. Standard Bank, South Africa. Total Assets of \$134bn.
2. ABSA Group, South Africa. Total Assets of \$96bn.
3. Standard Bank of South Africa. Total Assets of \$81bn.
4. First Rand Bank, South Africa. Total Assets of \$60bn.
5. Nedbank, South Africa. Total Assets of \$60bn

Central Africa

1. Citibank, Gabon. Total Assets of \$2.3bn.
2. Groupe BGFIBank, Gabon. Total Assets of \$1.8bn.
3. BGFIBank SA, Gabon. Total Assets of \$1.2bn.
4. CCEI Bank GE, Equatorial Guinea. Total Assets of \$1bn.
5. Banque Internationale Pour L'Épargne et le Crédit, Cameroon. Total Assets of \$947m.

Source: Development Afrique (2010)

State-Owned Financial Institutions

DEVELOPMENT BANKS (DFIS)

The African Development Bank Group (AfDB) is a regional multilateral Development Finance Institution established to contribute to the economic development and social progress of 53 African countries. The AfDB was founded in 1964 and comprises three entities: The African Development Bank, the African Development Fund and the Nigeria Trust Fund.

CENTRAL BANKS

RESERVE BANKS

TREASURY**FINANCE MINISTRY**

These institutions will be examined in later chapters.

RELEVANT BANKING ISSUES

Banking crises have developed many times throughout history, when one or more risks have materialized for a banking sector as a whole. Prominent examples include the bank run that occurred during the Great Depression, the U.S. Savings and Loan crisis in the 1980s and early 1990s, the Japanese banking crisis during the 1990s, and the sub-prime mortgage crisis in the late 2000s.

Bank Rescues

A bailout is an act of loaning or giving capital to an entity that is in danger of failing, in an attempt to save it from bankruptcy, insolvency, or total liquidation and ruin; or to allow a failing entity to fail without spreading contagion.

REGULATION**STRESS TESTING****CAPITAL ADEQUACY****PROPRIETARY TRADING****INTERBANK LENDING RATES****13.1.2 INTERNATIONAL FINANCIAL INSTITUTIONS****WORLD BANK GROUP (WBG)**

The World Bank aims to provide funding, or offer favourable terms to **development projects** mostly in developing countries, that could not be obtained from the private sector. See Chapter 5.

INTERNATIONAL MONETARY FUND (IMF)

The International Monetary Fund keeps account of international balance of payments accounts of member states. The IMF acts as a lender of last resort for members in financial distress, e.g., currency crisis, problems meeting balance of payment when in deficit, and debt default. See Chapter 5.

BANK FOR INTERNATIONAL SETTLEMENTS (BIS)

The Bank for International Settlements (BIS) is an intergovernmental organization of central banks which “fosters international monetary and financial cooperation and serves as a bank for central banks.” Based in Basel, Switzerland, the BIS was established by the Hague agreements of 1930. It has two subsidiary bodies that are important actors in the global financial system in their own right - the Basel Committee on Banking Supervision, and the Financial Stability Board.

MONETARY UNIONS

The Eurozone is an Economic and Monetary Union (EMU) of 17 European Union (EU) member states that have adopted the euro (€) as their common currency and sole legal tender.

Monetary policy of the zone is the responsibility of the European Central Bank (ECB)

The Eurozone currently consists of Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, and Spain.

Population (2011) 331,962,860

GDP (2010) €9.2 trillion

The African Union is the largest international economic grouping on the African continent. The confederation's goals include the creation of a free trade area, a customs union, a single market, and a common currency, thereby establishing an African Economic and Monetary Union. The AU plans also include a transitional African Monetary Fund leading to an African Central Bank.

Some parties support development of an even more unified United States of Africa.

RELEVANT ISSUES

(See under 5.2.2 Loan Aid)

Loan Conditions

Structural Adjustment Programmes (SAPs)

Default

Debt Forgiveness per MDG8

13.2 NATIONAL BUDGETS

Budgeting involves the balancing of Expenditure against the available Income.

At a national level income (Revenue) comes from taxes, duties, fees and other government related sources. Taxes include personal and corporate income taxes, value added taxes, excise taxes, and tariffs.

Expenditure goes into government consumption (GFCE-see Chapter 11), grants, transfers and capital investment such as infrastructure.

Balancing the Budget

Where expenditure exceeds revenue, the **deficit** must be made up by borrowing, thus adding to the National Debt. Where there is a **surplus** then the National Debt will be reduced accordingly.

Deficit budgeting is at present much more common than surplus budgeting, while exact balancing is rare. World average for 2011 was -4.2% of GDP.

Fiscal Policy

Fiscal policy is the use of government expenditure and revenue collection to influence the economy.

Changes in the level and composition of taxation and government spending can impact

the following variables in the economy:

- Aggregate demand and the level of economic activity;
- The pattern of resource allocation;
- The distribution of income.

Budgetary Statistics

The following chart shows revenues, expenditures and resulting deficit or surplus of government budget for the Top 15 countries ranked by budget revenues for the year 2011. The data is taken mainly from CIA World Factbook.

	Revenues	Expenditure (Billion USD)	Deficit/Surplus % of GDP
1 • United States	[2,264	[3,604	[-8.9
2 • Japan	[1,984	[2,483	[-8.5
3 • Germany	[1,582	[1,643	[-1.7
4 • China	[1,555	[1,681	
5 • France	[1,383	[1,547	[-5.8
6 • Italy	[1,041	[1,122	[-3.6
7 • U.K.	[1,015	[1,232	[-8.8
8 • Brazil	[1,005	[931	[+2.9
9 • Canada	[678	[745	[-3.8
10 • Spain	[562	[662	[-6.5
11 • Australia	[468	[506	[-2.5
12 • Netherlands	[392	[425	
13 • Russia	[383	[376	[+0.4
14 • South Korea	[268	[242	[+2.2
15 • Mexico	[266	[295	[-2.4

Top 5 African Countries:-

33 • South Africa	[103	[118	[Deficit
41 • Algeria	[103	[79	[Deficit
51 • Egypt	[45	[68	[Deficit
53 • Angola	[43	[35	[Surplus

Note: For some federations like Brazil, Mexico, and the United States, only the federal budget is shown. For most other countries the total budget is shown.

In the USA federal spending represents only 60% of total public spending (6 trillion USD in 2011).

Kuwait is probably the champion **surplus** budgeting country. In 2009 it recorded a surplus of \$22.4 Billion, it's **11th consecutive** surplus.

TAXATION

Income Tax

An income tax is a tax levied on the income of individuals or businesses (corporations or other legal entities). Various income tax systems exist, with varying degrees of tax incidence. Income taxation can be progressive, proportional, or regressive.

Sales Tax

VAT (Value Added Tax) is applied in over 150 countries, ranging from 27% in Hungary down to 5% in Japan. Eleven countries are VAT-free, according to OECD.

VAT accounts for 30% of all Revenue world wide.

Resource Taxes

Royalties, Windfall, Resource Rents

RELEVANT ISSUES

Tax Evasion

Tax Havens

Money Laundering

13.3 MONEY SUPPLY

Monetary policy is the process by which the monetary authority of a country controls the supply of money, often targeting a rate of interest for the purpose of promoting economic growth and stability. The official goals usually include relatively stable prices and low unemployment. Monetary theory provides insight into how to craft optimal monetary policy. It is referred to as either being expansionary or contractionary, where an expansionary policy increases the total supply of money in the economy more rapidly than usual, and contractionary policy expands the money supply more slowly than usual or even shrinks it. **Expansionary** policy is traditionally used to try to combat unemployment in a recession by lowering interest rates in the hope that easy credit will entice businesses into expanding. **Contractionary** policy is intended to slow inflation in hopes of avoiding the resulting distortions and deterioration of asset values.

Money supply or money stock is the total amount of money available in an economy at a specific time.

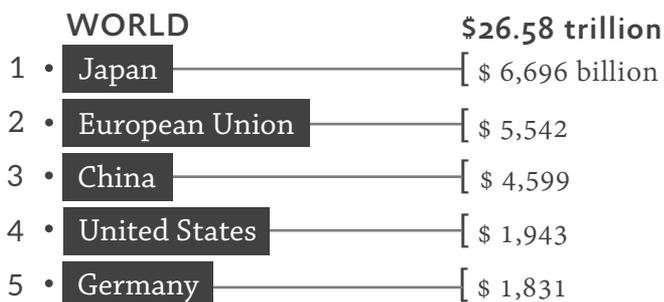
The **narrow** definition of money supply (classified as M0 or M1) includes notes and coins in circulation and money equivalents easily convertible into cash.

The **broad** definition (M2, M3, and M4) expands this to include various kinds of longer-term less liquid bank deposits, i.e. money that is not as readily available.

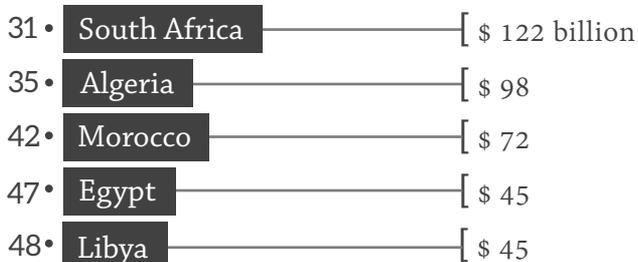
Stock of narrow money:

This entity, also known as “M1,” comprises the total quantity of currency in circulation (notes and coins) plus demand deposits denominated in the national currency held by nonbank financial institutions, state and local governments, nonfinancial public enterprises, and the private sector of the economy, measured at a specific point in time. Narrow money consists of more liquid assets than broad money and the assets generally function as a “medium of exchange” for an economy. [CIA definition]

Stock of **narrow money** as at 31 December 2011 est. (CIA)



African countries

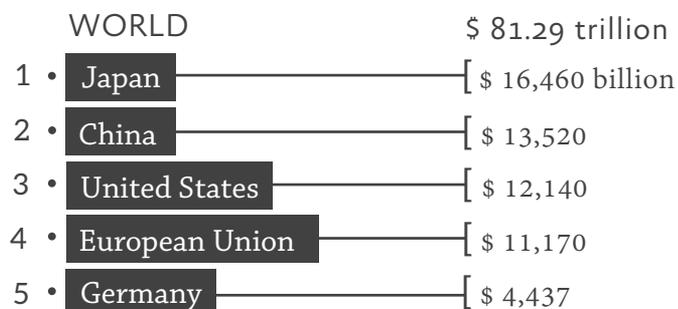


Stock of broad money:

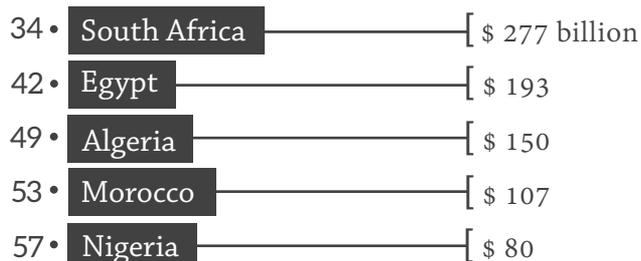
This entity covers all of “Narrow money,” plus the total quantity of time and savings deposits, credit union deposits, institutional money market funds, short-term repurchase agreements between the central bank and commercial deposit banks, and other large liquid assets held by nonbank financial institutions, state and local governments, nonfinancial public enterprises, and the private sector of the economy. In addition to

serving as a medium of exchange, broad money includes assets that are slightly less liquid than narrow money and the assets tend to function as a “store of value” - a means of holding wealth. [CIA definition]

Stock of **broad money** as at 31 December 2011 est. (CIA)



African countries



Liquidity Tightening

Reserve Requirement Ratio (RRR)

The proportion of deposits a bank, by law, must keep in cash or place with the central bank. An important tool for monetary policy, as a higher reserve requirement means fewer funds are available to a bank for lending purposes.

Liquidity Loosening

Quantitative Easing

Printing Money

Competition for Funds

Crowding Out

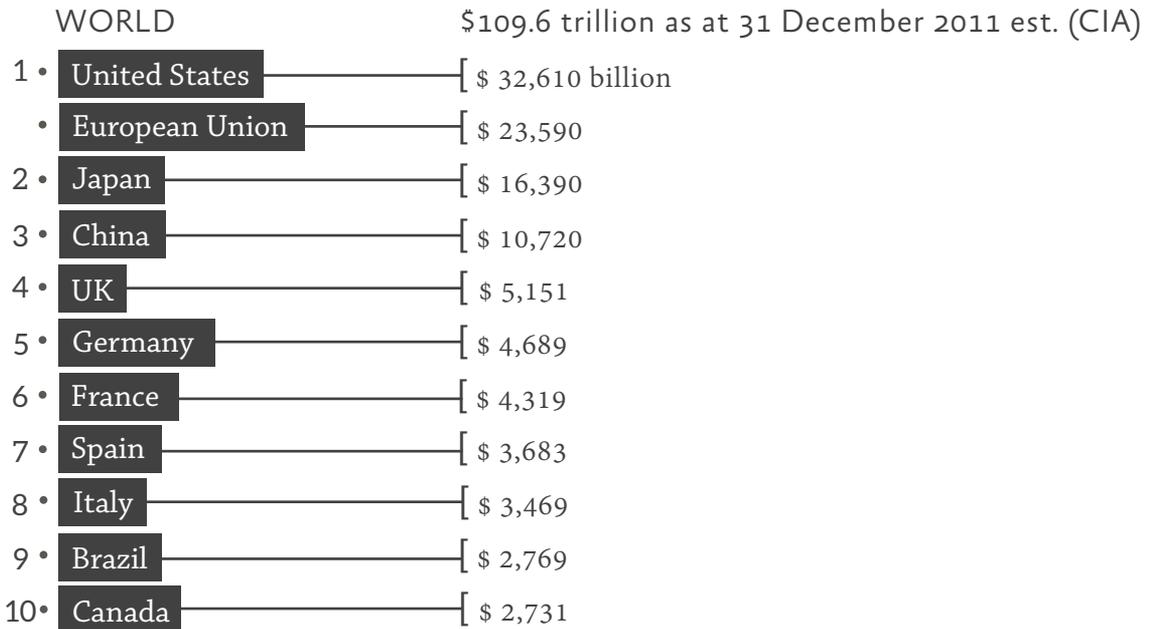
When government actions discourage businesses and consumers from following suit. Most often used in relation to excessive government borrowing, which pushes up interest rates and acts as a disincentive to other potential borrowers, in turn leading to a slowdown in economic activity.

13.4 CREDIT

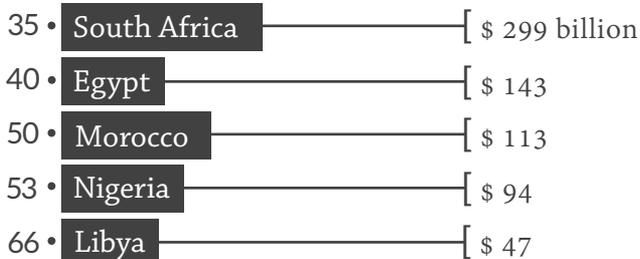
Credit encompasses any form of deferred payment. Credit is extended by a creditor, also known as a lender, to a debtor, also known as a borrower.

Stock of domestic credit:

This entity is the total quantity of credit provided by financial institutions to the central bank, state and local governments, public non-financial corporations, and the private sector.



African countries



SOME FORMS OF CREDIT EXTENSION

Loans

Secured

Unsecured

Credit Cards

Bank

Store

Bank Overdraft

CREDIT RATING AGENCIES

A credit rating agency (CRA) is a company that assigns credit ratings for issuers of certain types of debt obligations as well as the debt instruments themselves. In some cases, the services of the underlying debt are also given ratings.

In most cases, the issuers of securities are companies, special purpose entities, state and local governments, non-profit organizations, or national governments issuing debt-like securities (i.e., bonds) that can be traded on a secondary market. A credit rating for an issuer takes into consideration the issuer's credit worthiness (i.e., its ability to pay back a loan), and affects the interest rate applied to the particular security being issued.

The broad categories of credit ratings are **Investment Grade** and **Speculative Grade**.

The Big Three credit rating agencies are Standard & Poor's, Moody's Investor Service, and Fitch Ratings. Moody's and S&P each control about 40 percent of the market. Third-ranked Fitch Ratings has about a 14 percent market share.

13.5 DEBT

A debt is an obligation owed by one party (the debtor) to a second party, the creditor.

The debt is created when a creditor agrees to lend a sum of assets to a debtor.

Debt is usually granted with expected repayment; this includes repayment of the original sum, plus interest.

DEBT LEVELS

Household

Corporate (Internal & External)

In corporate finance, debt is a means of using anticipated future purchasing power in the present before it has actually been earned. Some companies and corporations use debt as a part of their overall corporate finance strategy.

Government

Governments usually borrow by issuing securities, such as bonds

Government debt can be categorized as **internal** (owed to lenders within the country) and **external** (owed to foreign lenders).

Sovereign debt usually refers to government debt that has been issued in a foreign currency.

Public Debt

Public Debt (also known as Government Debt or National Debt) is the total of all

central government borrowings, less repayments, that are denominated in a country's **home currency**.

Public debt should not be confused with external debt, which reflects foreign currency liabilities, see later.

Public Debt Top 10, 2010 estimate (CIA)

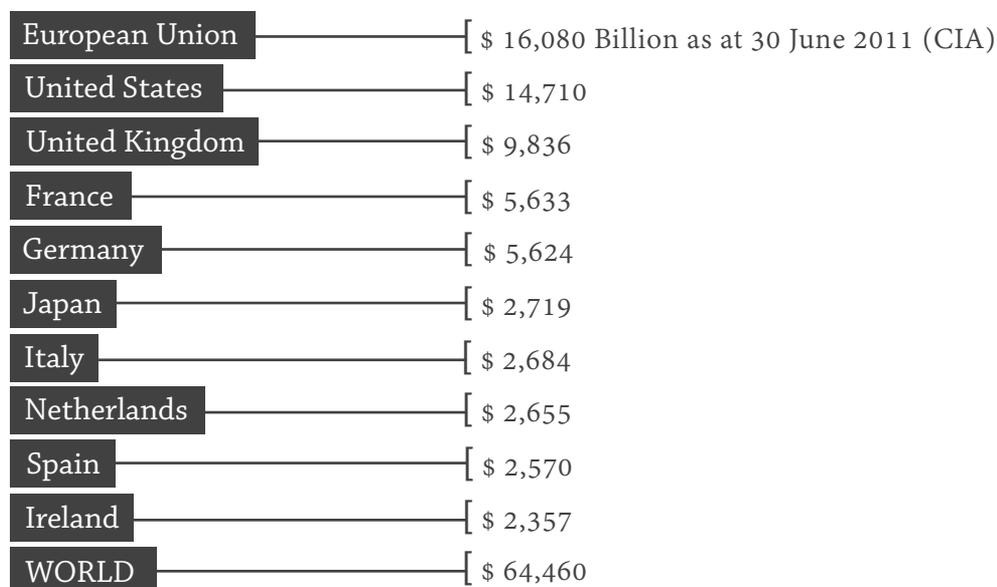
Country	Public Debt	% of GDP
USA	[\$ 9,133billion	[62 %
Japan	[\$ 8,512	[198 %
Germany	[\$ 2,446	[83 %
Italy	[\$ 2,113	[119 %
India	[\$ 2,107	[52 %
China	[\$ 1,907	[19 %
France	[\$ 1,767	[82 %
UK	[\$ 1,654	[76 %
Brazil	[\$ 1,281	[59 %
Canada	[\$ 1,117	[84 %
WORLD		[59,9 %

African Public Debt

Zimbabwe	[220% of GDP in 2011	
Eritrea	[119	[2012
Sudan	[94	[2011
Sao Tome	[85	[2012
Egypt	[83	[2011
Sierra Leone	[83	[2012
Burundi	[78	[2012
Cape Verde	[74	[2012
Cote d'Ivoire	[65	[2011
Morocco	[64	[2011

External Debt

The External Debt of a country is the sum total of the debt, **public and private**, owed to nonresidents and repayable in internationally accepted currencies, goods, or services and which must be financed out of **foreign exchange earnings**.



African External Debt



INTERNATIONAL DEBT COMPARISONS

Gross debt as percentage of GDP

	2007	2010	2011 Forecast
Greece	[104 %	[123 %	[130 %
Italy	[112 %	[116 %	[119 %
Portugal	[71 %	[91 %	[97 %
United Kingdom	[47 %	[83 %	[94 %
Ireland	[28 %	[81 %	[93 %
France	[64 %	[82 %	[87 %
Germany	[65 %	[82 %	[85 %
Austria	[62 %	[78 %	[82 %
Netherlands	[52 %	[77 %	[82 %
Spain	[42 %	[68 %	[74 %
Japan	[167 %	[197 %	[204 %
United States	[62 %	[92 %	[100 %
Russia	[5.9 %	[9.5 %	[9 %
Asia	[37 %	[40 %	[41 %
Latin America	[41 %	[37 %	[35 %
Central Europe	[23 %	[28 %	[29 %

Sources: IMF, World Economic Outlook (emerging market economies); OECD, Economic Outlook (advanced economies)

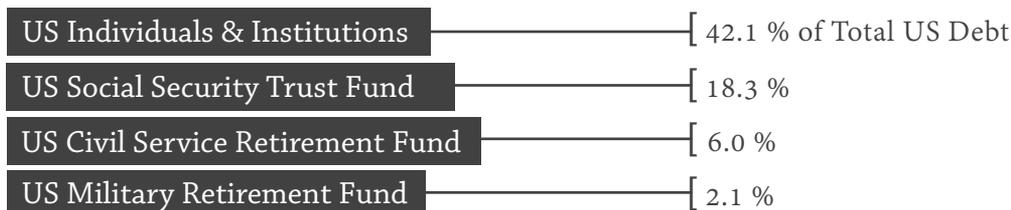
HOLDERS OF DEBT

To provide insight into the holders of public and external debt, details are provided below of the investors, both internal and foreign, in **United States** Treasury Securities:-

Ownership of US Debt

Total: \$14,300 billion as at end May 2011 (US Treasury) Internal: \$9,800 or 68.5% of total Foreign: \$4,500 or 31.5%

Internal Ownership of US Debt



Foreign Ownership of US Debt



DEBT SERVICING ISSUES

Loan Conditions

Interest rate

Capital repayment

Debt Trap

Default

Restructuring

Forgiveness (MDG 8- HIPC's)

Odious Debt

13.6 SAVINGS & INVESTMENT

Saving is income not spent, or deferred consumption.

Investment can be defined as the committing of assets to an enterprise or other purpose in the expectation of a return beyond the original capital sum.

Two kinds of investment can be discerned:-

Productive Investment, generally of a long-term nature, committed to the acquisition of infrastructure, plant & machinery, and inventories of raw materials which provide the basis for future production of commodities, goods and services.

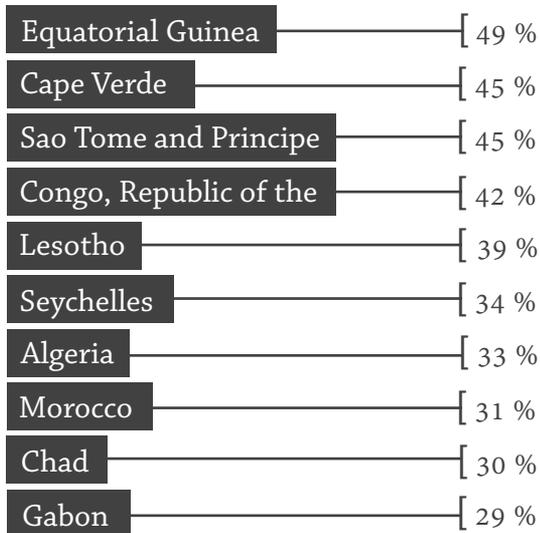
Speculative Investment, generally of a short-term nature, for quick financial gain. This investment type will be addressed in a later chapter.

FIXED INVESTMENT

Gross Fixed Investment is the expenditure on fixed assets, such as factories, machinery, equipment, dwellings, etc. It is expressed here as a percentage of GDP:-



African Countries:-



FOREIGN DIRECT INVESTMENT (FDI)

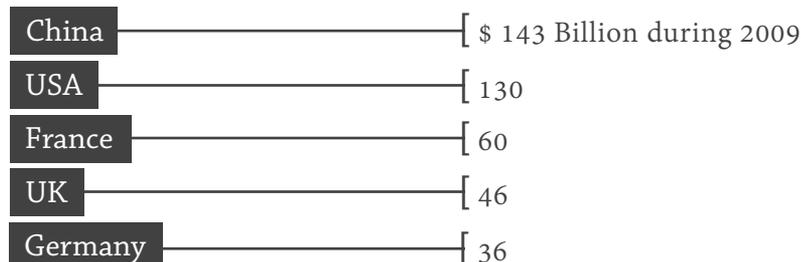
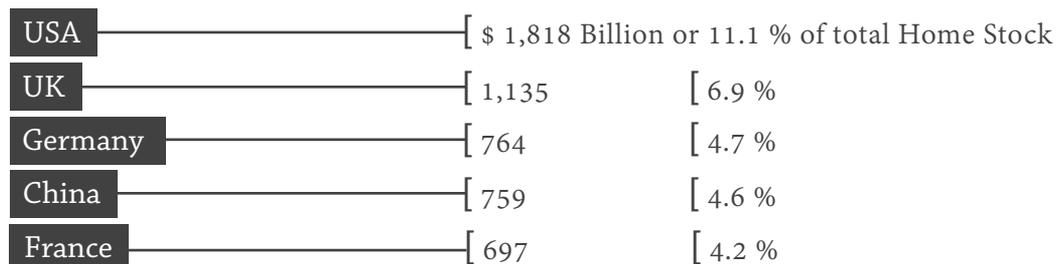
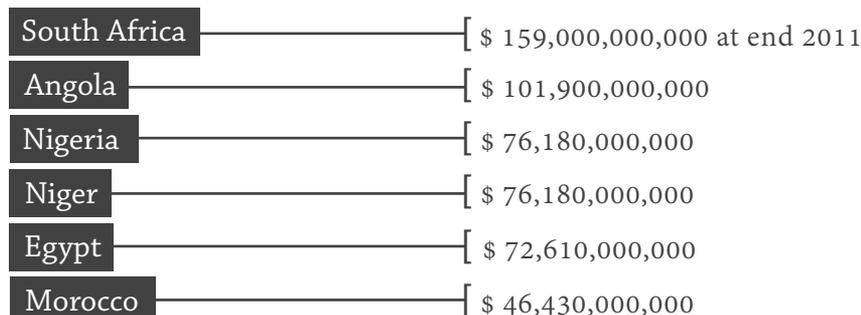
Foreign direct investment (FDI) refers to long term participation by an entity in country A into an entity in country B. It usually involves participation in management, joint-venture, transfer of technology and expertise.

FDI is a measure of foreign ownership of productive assets, such as factories, mines and land. Increasing foreign investment can be used as one measure of growing economic globalization. The largest flows of foreign investment occur between the industrialized countries (North America, Western Europe and Japan).

There are 2 types of FDI: **inward** foreign direct investment (into the recipient country) **outward** foreign direct investment (from the investor country) resulting in a net FDI **flow** (positive or negative) over a period (generally a year), and a **stock** of FDI which is the cumulative total at any given point of time.

INWARD FDI**Yearly Inflows:-****World Total:** \$1,114 Billion during 2009 (UNCTAD 2010 Report)

Into Developed Countries: 566 (51 %) Into Developing Countries : 478 (43 %)

Top 5 Recipient Countries:-**Accumulated Stock at Home:-****World Inward Stock:** \$16,420 Billion as at end 2008 (UNCTAD 2010 Report)**Top 5 Recipient Countries:-****Africa Inward Stock, Recipient Countries:-**

Tunisia	[\$ 32,260,000,000
Algeria	[\$ 22,500,000,000
Libya	[\$ 16,130,000,000
Chad	[\$ 4,500,000,000

Definition: This entry gives the cumulative value of all investments in the home country made directly by residents - primarily companies - of other countries as of the end of the time period indicated.

OUTWARD FDI

Yearly Outflows:-

World Total: \$1,101 Billion during 2009 (UNCTAD 2010 Report)

From Developed Countries: 821 (75 %) | From Developing Countries: 229 (21 %)

Top 5 Investor Countries:-

USA	[\$248 Billion during 2009
France	[147
China	[100
Japan	[75
Germany	[63

Accumulated Stock Abroad:-

World Outward Stock: \$17,030 Billion as at end 2008 (UNCTAD 2009 Report)

Top 5 Investor Countries:-

USA	[2,306 or 13.5% of total stock abroad
UK	[1,487 [8.7 %
France	[1,005 [5.9 %
Germany	[941 [5.5 %
Netherlands	[652 [3.8 %

African Outward Stock, Investor Countries:-

South Africa	[\$ 89,960,000,000 at end 2011
Libya	[\$ 16,780,000,000
Nigeria	[\$ 10,250,000,000
Niger	[\$ 10,250,000,000
Angola	[\$ 6,346,000,000
Egypt	[\$ 6,073,000,000
Algeria	[\$ 1,914,000,000
Morocco	[\$ 1,329,000,000
Tunisia	[\$ 310,000,000
Kenya	[\$ 300,000,000

Definition: This entry gives the cumulative value of all investments in foreign countries made directly by residents - primarily companies - **of the home country**, as of the end of the time period indicated.

FDI Incentives

Incentives to attract FDI may include the following forms:-

- Tax concessions
- Preferential tariffs
- EPZs - Export Processing Zones
- Free land or land subsidies
- Relocation & expatriation subsidies
- Job training & employment subsidies
- Infrastructure subsidies
- R&D support

INVESTOR PROFILES

Global

Multinational Corporations (MNCs)

Regional

Regional Development Banks

Country

State Sovereign Investment Funds

State Development Banks

Private Sector

The above types of investors are described elsewhere.

13.7 FINANCIAL INSTRUMENTS & FUNDS

Loans

See section 13.4

Credit line An agreement to lend money up to a specific amount for a stated period.

Bonds

Governments, companies and other organizations issue bonds to raise money; in doing so, they have an obligation to repay the bondholder according to specific terms. Once issued, bonds - including the right to receive the issuer's repayments - can be traded on established markets. In most cases, a bond is redeemable at face value on a particular date, and has a fixed rate of interest that is paid at regular intervals through to maturity. The coupon rate is the interest rate attached to the bond, while the yield is the final return on the investment, calculated as the coupon rate divided by the price at which the bond was purchased.

Features

Structure: Yield, Coupon Rate, Payment frequency, Spread

Risk Profile.

Maturity: Long, Short

Auctions: Over subscribed, under subscribed

Main Buyers: Pension Funds, Banks

Types

A **government bond** is a bond issued by a national government. Such bonds are often denominated in the country's domestic currency. Government bonds are sometimes regarded as risk-free bonds, because national governments can raise taxes or reduce spending up to a certain point; in many cases they "print more money" to redeem the bond at maturity. Most developed country governments are prohibited by law from printing money directly, that function having been relegated to their central banks. However, central banks may buy government bonds in order to finance government spending, thereby monetizing the debt.

A **corporate bond** is a bond issue by a corporation. It is a bond that a corporation issues to raise money in order to expand its business. The term is usually applied to longer-term debt instruments, generally with a maturity date falling at least a year after their issue date.

Size of the Bond Market

As of 2009, the size of the worldwide bond market (total debt outstanding) was an estimated \$82.2 trillion, increasing to a record **\$95 trillion** in 2010 according to Bank

for International Settlements (BIS).

The US was the largest market with 39% of the total followed by Japan at 20%.

Domestic bonds accounted for 70% of the total and **international bonds** for 30%.

Thus at the end of 2010 the **global bond market** at \$95 trillion was much larger than the global equity market which had a market capitalization of around **\$55 trillion**.

Growth of the bond market since the start of the economic slowdown was largely a result of an increase in issuance by governments.

Pension Fund

A **pension fund** is any plan, fund, or scheme which provides **retirement income**.

Pension funds are important shareholders of listed and private companies. They are especially important to the stock market where large institutional investors dominate.

In January 2008, The Economist reported the Morgan Stanley estimate that pension funds worldwide held over **US\$20 trillion** in assets, the largest for any category of investor; ahead of mutual funds, insurance companies, currency reserves, sovereign wealth funds, hedge funds, or private equity.

Pension fund assets. Global pension assets totaled **\$29.9 trillion** at the end of 2010 according to TheCityUK estimates based on OECD data.

The US was the largest single market with \$17.4 trillion in pension assets, nearly 60% of the world total. The UK was the second largest centre with 10% of the world total, followed by Japan and Netherlands with around 5% each.

The Japanese Government Pension Investment Fund (GPIF) in the year ended March 31, 2011 GPIF was the world's largest public pension fund with assets of \$1.5 trillion.

Mutual Funds

A **mutual fund** is a type of professionally-managed **collective investment scheme** that pools money from many investors to purchase securities. Investors are effectively shareholders in the fund in proportion to their investment.

Mutual funds' assets reached **\$24.7 trillion** in 2010, with the US by far the biggest source of funds with more than a half of the world total.

Insurance

Insurance is defined as the equitable transfer of the risk of a loss, from one entity to another, in exchange for payment. An insurer is a company selling the insurance; the insured, or policyholder, is the person or entity buying the insurance policy.

The amount to be charged for a certain amount of insurance coverage is called the premium.

Global insurance premiums grew by 2.7% in 2010 to **\$4.3 trillion**.

With premium income of \$1,620bn, Europe was the most important region in 2010,

followed by North America \$1,409bn and Asia \$1,161bn.

The US and Japan alone accounted for 40% of world insurance.

Emerging economies with over 85% of the world's population accounted for only around 15% of premiums.

Insurance fund assets. TheCityUK estimates that insurance companies globally held around **\$24.6 trillion** of funds under management at the end of 2010.

Approximately four-fifths of the total was from long-term insurance policies and the remainder from general policies, such as health, property and casualty insurance.

Mortgages

A house is usually the most expensive single purchase an individual or family makes, and often costs at least several times the annual household income. Given the high cost, most individuals do not have enough savings on hand to pay the entire amount outright. In many countries, mortgage loans are available from financial institutions in return for interest. If the home owner fails to meet the agreed repayment schedule, a foreclosure (repossession) may result.

Global Fund Management

The following statistical analysis is provided by the October 2011 Report of TheCityUK and relates to the year 2010. According to TheCityUK estimates, assets under management of the global **fund management industry** totaled over **\$117 trillion** at end 2010.

These assets fall into 3 categories as follows:-

According to TheCityUK estimates, assets under management of the global **fund management industry** totaled over **\$117 trillion** at end 2010.

These assets fall into 3 categories as follows:-

Conventional funds (pension funds, mutual funds and insurance companies) totaling **\$79.3 trillion** at the end of 2010.

Alternative funds (hedge funds, private equity funds, exchange traded funds and sovereign wealth funds) totaling **\$9.9 trillion** at end 2010.

Private wealth funds (high net-worth individuals) with assets of **\$42.7 trillion** at end 2010, about a third of which was incorporated in other forms of investment management.

Speculative Instruments

Speculative financial instruments (or "products") include stocks, exchange-traded

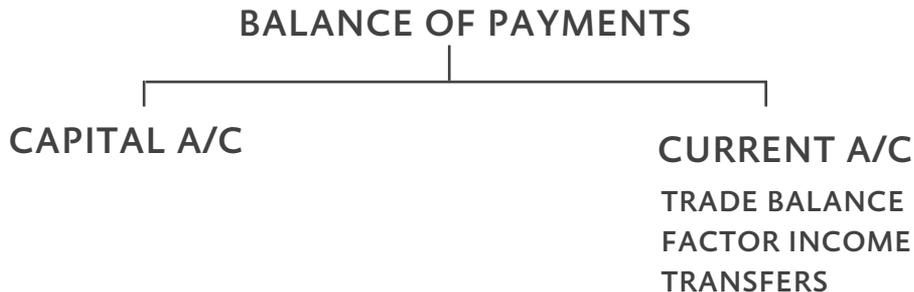
funds, forward contracts, swaps, options, many types of over-the-counter and derivative products, and futures contracts. Some of these will be examined in the next chapter.

13.8 CROSS-BORDER TRANSACTIONS

FINANCIAL ACCOUNTING CONVENTIONS

The accounting system for international financial transactions devised by the IMF has found universal acceptance and has been adopted by most countries.

The structure of the IMF system can be summarized as follows:-



At the apex of the system is the **Balance of Payments (BOP)** account which incorporates and tracks all financial flows in and out of a country over a specified period (usually a year) and is thus an accounting record of all monetary transactions between a country and the rest of the world

It has 2 sub-accounts: The **Capital Account of the BOP**

The **Current Account of the BOP** (with 3 components)

THE CAPITAL ACCOUNT

The **Capital Account** records all inflows and outflows of **investment** which secures for the investor ownership (or part-ownership) of assets in a foreign country. Such assets include: **Fixed Productive Assets** (factories, buildings, machinery, etc.), long-term.

Portfolio Assets (shares, bonds, etc.), medium-term

Speculative Derivatives, short-term.

Thus, the Capital Account reflects changes in the national ownership of assets and may be seen as a driver of globalization.

Subsequent withdrawal of any of the above investments results in a reversal of the original direction of flow.

Foreign Direct Investment (FDI) falls under the Capital Account and is analyzed in some detail in this Chapter under section 13.6

THE CURRENT ACCOUNT

The Current Account is so-called since it covers current transactions that will not be subject to reversal as is the possibility with Capital Account transactions.

As shown above, the **Current Account** is itself made up of three components, related to:

Trade
Income
Transfers

The financial flows generated by these components will now be addressed in turn.

TRADE

Receipts for Exports; Payments for Imports.

These flows form each country's **Trade Balance**, which reflects the capacity of the country to earn foreign exchange and generate economic growth. Statistics of the value of world trade are to be found in Chapter 10.

INCOME

Inward income flows derive from earnings received from investments made abroad, including rents, interest, profits and dividends (RIPD) and also from compensation (wages, etc) earned by foreign workers.

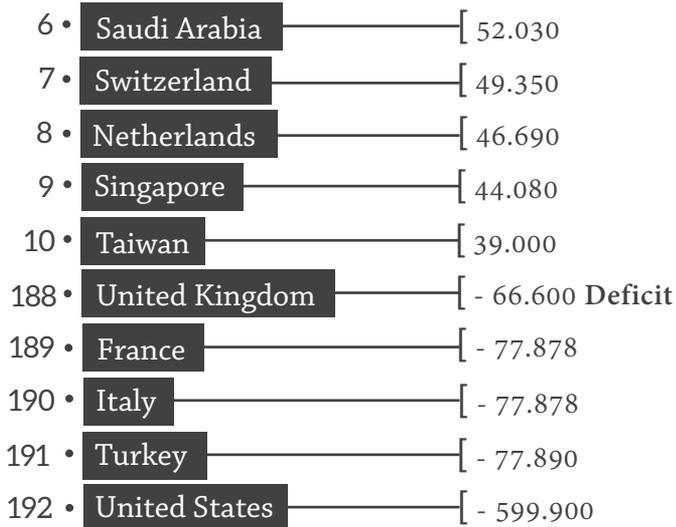
TRANSFERS

Transfer flows include pension & welfare payments to retired workers living abroad, government subsidies for some foreign investors, and workers' remittances to home countries.

CURRENT ACCOUNT STATISTICS

This is a list of countries by current account balance (CAB), based on data from 2010 as listed in the CIA World Factbook

Rank	Country	CAB (billion US dollars)
1 •	China	[280.600 Surplus
2 •	Germany	[149.300
3 •	Japan	[122.800
4 •	Russia	[90.510
5 •	Norway	[60.230



Some African Countries (CIA, 2012)



Action to reduce a substantial current account deficit usually involves increasing exports or decreasing imports or both. Adjusting government spending to favour domestic suppliers is also effective.

FOREIGN AID

Another activity responsible for the international flow of funds is the provision of **Humanitarian Aid** and **Development Aid**

See Chapter 5 for details

When the aid is in the form of a **grant** with no debt incurred or implied, then the flow will be in one direction only. When it is in the form of a **loan** then the recipient country will need to make provision for its repayment.

Sources of Aid Finance include UN Agencies, World Bank, IMF, Advanced Countries and global NGOs

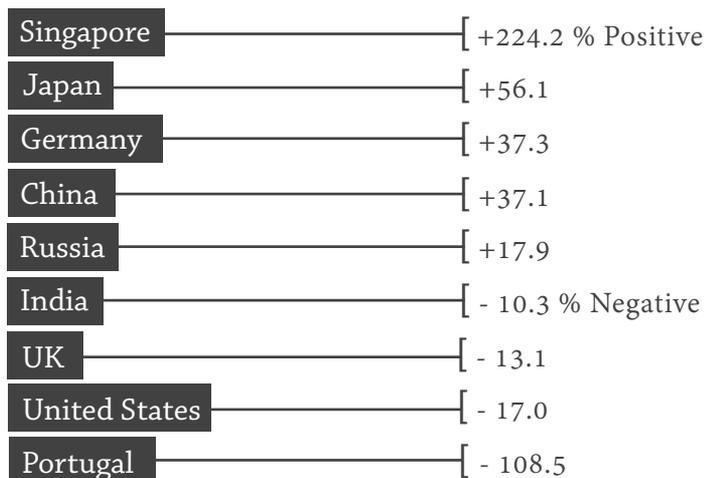
IMPACT ON OFFICIAL RESERVES

All financial flows arriving in a country, as detailed above, will have the effect of increasing that country's **Foreign Exchange Reserves**. Conversely, all outflowing payments will deplete those reserves. This, in effect, is the balancing mechanism for the Balance of Payments.

The Global Reserve System will be addressed in some detail in a later Chapter, but suffice it to say here that a country's Foreign Exchange Reserves are highly important for settling its international obligations and must be adequate at all times to at least pay for three months of imports.

INTERNATIONAL INVESTMENT POSITION

A country's **international investment position (IIP)** is a financial statement setting out the value and composition of that country's external financial assets and liabilities. Data mostly from IMF show the net cumulative position for selected countries as at end 2010 expressed as a percentage of GDP



RELEVANT ISSUES

Capital Flows, Cross-border

Capital Controls.

Transfer Pricing

13.9 FINANCIAL CRISES

The Sub-prime Mortgage Crisis

The U.S. subprime mortgage crisis was one of the first indicators of the late-2000s financial crisis, characterized by a rise in subprime mortgage delinquencies and foreclosures, and the resulting decline of securities backed by such mortgages.

The European sovereign debt crisis is an ongoing (March 2012) financial crisis that has made it difficult or impossible for some countries in the euro area to re-finance their government debt without the assistance of third parties.

Amongst the **criteria** for continued membership of the EU are:

Public Debt not exceeding 60% of GDP.

Budget Deficit not exceeding 3% of GDP.

Statistics provided by Eurostat, IMF and CIA for 2010/2011 reveal the following:-

Country	Public Debt as % of GDP	Budget Deficit as % of GDP
Greece	[143 %	[10.5 %
Italy	[119 %	[4.6 %
Ireland	[95 %	[32.4 %
Belgium	[96 %	[4.1 %
Portugal	[93 %	[9.1 %
France	[83 %	[7.0 %
Germany	[83 %	[3.3 %
Spain	[60 %	[9.2 %

Clearly none of the above countries meets the criteria.

REMEDIAL ASSISTANCE

A core responsibility of the IMF is to provide loans to member countries experiencing balance of payments problems. This financial assistance enables countries to rebuild their international reserves, stabilize their currencies, continue paying for imports, and restore conditions for strong economic growth, while undertaking policies to correct underlying problems.

CONCLUDING REMARKS

This Chapter has been devoted to the financing of what is referred to as the **Real**

Economy, namely the part of the economy that is concerned with actually producing goods and services, as opposed to the part of the economy that is concerned with speculative buying and selling on the financial markets. This latter part will form the subject of the following chapter.

14. FINANCIAL CASINOS



14. FINANCIAL CASINOS

BACKGROUND

In the previous Chapter focus of attention was on the **constructive** applications of finance in supporting a healthy economy. It is now time to examine the **speculative** applications of finance directed towards financial gain, or simply put, the use of money to make money.

This will mean coming to grips with a culture of gambling which involves making risk assessments and placing bets, while being exposed to the unpredictability and volatility of market forces; and striking a balance between risk appetite and risk aversion.

The strategies and plethora of complex derivatives which have been developed in this environment will also require attention.

Financial speculation can involve the trading (buying, holding, selling) and short-selling of stocks, bonds, commodities, currencies, collectibles, real estate, derivatives, or any valuable financial instrument in an attempt to profit from fluctuations in its price irrespective of its underlying value, as opposed to buying it for use or for income via methods such as dividends or interest. Speculators in an asset may have no intention to have long term exposure to that asset.

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are used here:

14.1 THE PLAYERS

14.2 MARKETS & EXCHANGES

14.3 FUNDS & ASSET MANAGEMENT

14.4 SPECULATIVE PRODUCTS

14.5 SPECULATIVE STRATEGIES

14.6 CRISES

14.7 REMEDIAL ACTION

14.1 THE PLAYERS

Participants in the Global Casino can be categorized into 3 groups:

The Gamblers

- ⋮.....● *including Individuals with disposable income*
Institutional Investors such as Pension Funds Government Agencies
such as Sovereign Wealth Funds

The Operators

- ⋮.....● *including Financial Intermediaries, Exchanges, Brokers, Traders, Credit Rating Agencies and Fund Managers*

The Proprietors

- ⋮.....● *mainly the primary generators of Corporate Wealth in the productive and financial sectors.*

Some participants such as Banks are able to function both as proprietors and operators.

14.2 MARKETS & EXCHANGES

Financial market is a general term for an exchange that facilitates the trading of financial instruments, such as stocks, bonds, foreign exchange, or commodities.

Types of financial markets

The financial markets include the following subtypes:

Capital markets which consist of:

Stock markets, which provide financing through the issuance of shares and enable the subsequent trading thereof.

Bond markets, which provide financing through the issuance of bonds, and enable the subsequent trading thereof.

Commodity markets, which facilitate the trading of commodities.

Derivatives markets, which provide instruments for the management of financial risk.

Futures markets, which provide standardized forward contracts for trading products at some future date.

Insurance markets, which facilitate the redistribution of various risks.

Foreign exchange markets, which facilitate the trading of foreign exchange.

The capital markets may also be divided into **primary** markets and **secondary** markets. Newly formed (issued) securities are bought or sold in primary markets, such as during initial public offerings (IPOs). Secondary markets allow investors to buy and sell existing securities. The transactions in primary markets exist between issuers and investors, while in secondary market transactions exist among investors.

Stock Markets

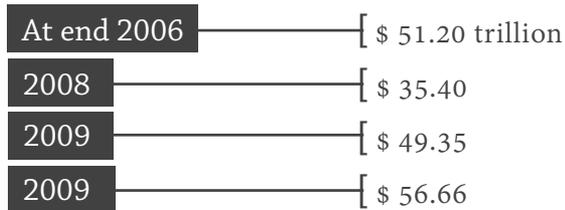
Market Capitalization is the total value of tradable shares issued by publicly traded companies at a price determined in the national stock markets on the final day of the period indicated. It is simply the latest price per share multiplied by the total number of outstanding shares, cumulated over all companies listed on the particular exchange. Shares outstanding are shares that have been authorized, issued, and purchased by

investors and are held by them. They have voting rights and represent ownership in the corporation by the person that holds the shares.

Statistics

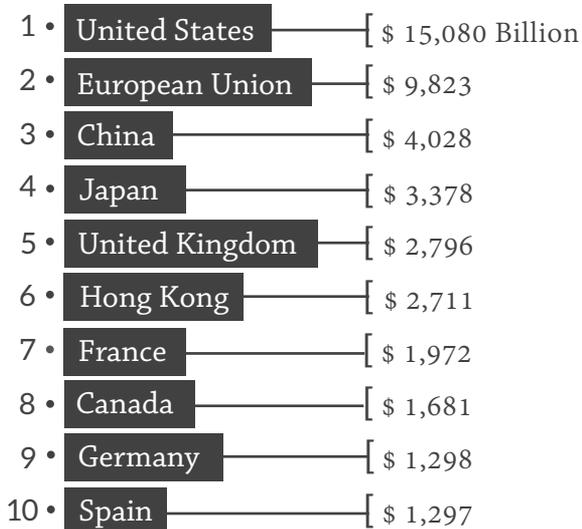
The following statistics are drawn from World Federation of Exchanges (WFE) and CIA.

The **total market capitalization** of all publicly traded companies in the world



These numbers approach those of **World GDP** and are an indicator of the impact on economic activity of Corporations and of their ability to generate and accumulate wealth; this will be revisited in the following chapter.

Market capitalization by country at end 2009



Major Stock Exchanges: Year ended 31 December 2011

Rank	Economy	Stock Exchange	Location	Market Capitalization
1	USA&Europe	NYSE Euronext	[New York City	[14,242 USD Billions
2	USA&Europe	NASDAQ OMX	[New York City	[4,687

3 •	Japan	— [Tokyo SE	[Tokyo	[3,325
4 •	UK	— [London SE	[London	[3,266
5 •	China	— [Shanghai SE	[Shanghai	[2,357
6 •	Hong Kong	— [Hong Kong SE	[Hong Kong	[2,258
7 •	Canada	— [Toronto SE	[Toronto	[1,912
8 •	Brazil	— [BM&F Bovespa	[São Paulo	[1,229
9 •	Australia	— [Australian SE	[Sydney	[1,229
10 •	Germany	— [Deutsche Borse	[Frankfurt	[1,185
11 •	Switzerland	— [SIX Swiss Exchange	[Zurich	[1,090
12 •	China	— [Shenzhen SE	[Shenzhen	[1,055
13 •	Spain	— [BME Spanish SE	[Madrid	[1,031
14 •	India	— [Bombay SE	[Mumbai	[1,007
15 •	South Korea	— [Korea Exchange	[Seoul	[996
16 •	India	— [National SE of India	[Mumbai	[985
17 •	Russia	— [MICEX-RTS	[Moscow	[800
18 •	South Africa	— [JSE Limited	[Johannesburg	[789

Definition: This entry gives the value of shares issued by publicly traded companies at a price determined in the national stock markets on the final day of the period indicated. It is simply the latest price per share multiplied by the total number of outstanding shares, cumulated over all companies listed on the particular exchange. According to the WFE there were 112 billion trades with a trading value of \$62,986 billion during the year of 2011 on their 54 member exchanges; and as at the end of the year there was a total of 45,953 listed companies (average of 851 listings per exchange) with a market capitalization of \$47,401 billion

AFRICAN STOCK EXCHANGES

As of 2012, Africa has 23 stock exchanges, twice as many as it had 20 years earlier. Nonetheless, African stock exchanges still account for less than 1% of the world's stock exchange activity.

African Stock Market value of publicly traded shares

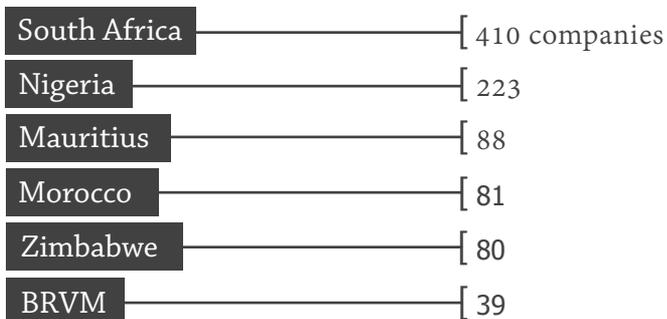
South Africa — [\$ 855,700,000,000 in 2011



Regional stock exchange

The BRVM serves the countries of Benin, Burkina Faso, Guinea Bissau, Côte d'Ivoire, Mali, Niger, Senegal and Togo;

African Stock Exchanges by Company Listings



Bond Markets

Governments, companies and other organizations issue **bonds** to raise money; in doing so, they have an obligation to repay the bondholder according to specific terms. Once issued, bonds - including the right to receive the issuer's repayments - can be traded on established markets

According to WFE, Bond Markets traded a total of **\$32,556 billion** in bonds during 2011.

Commodity & Futures Markets

Commodity markets are markets where raw or primary products are exchanged.

These raw commodities are traded on regulated commodities exchanges, in which they are bought and sold in standardized contracts.

Most commodity markets across the world trade in commodified agricultural and

mineral products and contracts based on them. These contracts can include spot prices, forwards, futures and options on futures. Other sophisticated products may include interest rates, environmental instruments, swaps, or ocean freight contracts.

A futures exchange or futures market is a central financial exchange where people can trade standardized futures contracts; that is, a contract to buy specific quantities of a commodity or financial instrument at a specified price with delivery set at a specified time in the future.

Derivative Markets

The derivatives market is the financial market for derivatives, financial instruments like futures contracts or options, which are derived from other forms of assets.

The value of the derivative is set out in a derivative contract, which can either be traded on an exchange, in what are called exchange-traded contracts, or traded off-exchange, in the over-the-counter market (OTC).

Those traded on exchanges, such as interest rate futures, allow traders to speculate on the future direction of interest rates, and those privately negotiated between two parties are known as over-the-counter (OTC) derivatives.

The total notional amount of all the outstanding positions at the end of June 2004 stood at \$220 trillion. By the end of 2007 this figure had risen to \$596 trillion and in 2009 it stood at \$615 trillion. (Source: Bank for International Settlements)

Forex Markets

A foreign exchange (forex) market is one where currencies (foreign exchange) are traded. Gains or losses are made from the movement of exchange rates.

14.3 FUNDS & ASSET MANAGEMENT

TheCityUK 2011 Report

Alternative Funds (or Non-conventional Funds) consist of private equity funds, exchange traded funds, hedge funds and sovereign wealth funds.

They totaled close to **\$10 trillion** at the end of 2010

Private Equity Funds

Private equity is an asset class consisting of equity securities in operating companies that are not publicly traded on a stock exchange.

A private equity investment will generally be made by a private equity firm, a venture capital firm or an angel investor. Each of these categories of investor has its own set of goals, preferences and investment strategies; each however providing working capital to a target company to nurture expansion, new product development, or restructuring of the company's operations, management, or ownership.

This is equity or quasi equity funding provided by professional investors to mature

private companies with the aim of gaining a financial return through interests, dividends and capital gain at exit.

The state of the industry as of August 2011 is as follows:-

Nearly \$180bn of private equity was invested globally in 2010,

Exit activity totaled \$232bn globally in 2010,

Private equity funds under management totaled **\$2.4 trillion** at the end of 2010.

Funds available for investments totaled 40% of overall assets under management or some \$1 trillion.

Exchange-Traded Funds

Exchange-traded funds (ETFs) are listed and tradable on stock exchanges, so they can be bought and sold during the trading day.

Exchange traded funds (ETFs) are a portfolio or basket of securities, which provide diversification, yet this investment vehicle is unique in that it trades on an exchange just like the shares of a common company stock does.

The global ETF industry had 2,459 ETFs on more than 40 exchanges around the world at the end of 2010. (Financial Times)

Assets invested in ETFs increased by 27% in 2010 to a record **\$1,311bn**.

Hedge Funds

Hedge funds are investment funds that aim to meet high targeted returns using aggressive trading strategies, often across several asset classes. Hedge fund managers can take both long and short positions to maximise returns or use other methods, sometimes purely speculative. The need to achieve high returns can involve the movement of large amounts of funds from one market, asset class or currency to another, involving a high degree of risk to the investor.

Funds of hedge funds are marketed by investment banks and other asset managers as a way to spread investor risk across several hedge fund strategies.

According to Hedge Fund Research (HFR) asset hedge funds' assets under management increased by 13% in 2010 to **\$1,920bn**.

In total, pension funds, endowments and wealthy investors added \$55.5 billion in new money in 2010, the highest annual total since 2007

The number of hedge funds totaled over 9,500 at the end of the year with new hedge funds launches outpacing fund liquidations

Mutual Funds

Collective Investment Funds

A mutual fund is an open-ended investment fund that gathers capital from a number

of investors to create a pool of money that is then re-invested into stocks, bonds and other assets.

Investors are effectively shareholders in the fund in proportion to their investment. Mutual funds are called unit trusts in the UK.

Sovereign Wealth Funds (SWF)

A sovereign wealth fund (SWF) is a government or state run fund usually created by profits from natural resources such as oil, gas or minerals. Their assets grew dramatically when oil prices rose to record levels. Some of the largest SWFs are in the oil-rich Middle East. See later chapter.

Sovereign wealth funds (SWFs) Assets under management of SWFs increased by 11% in 2010 to a record **\$4.2 trillion**. SWFs funded by commodities exports, primarily oil exports, accounted for nearly two-thirds of assets. The remainder was funded by transfer of assets from official foreign exchange reserves, and in some cases from government budget surpluses, pension reserves and privatization revenue.

14.4 SPECULATIVE PRODUCTS

There are a number of different financial products that have been devised in the past to speculate on financial markets. These range from trading in physical shares either direct or via margin lending, to using derivatives such as futures, options or covered warrants.

Several such products, with varying degrees of sophistication and transparency are described below.

Securitization

Securitization is the financial practice of pooling various types of contractual debt such as residential mortgages, commercial mortgages, auto loans or credit card debt obligations and selling this consolidated debt as bonds, pass-through securities, **OR** Collateralized mortgage obligation (CMOs), to various investors. The principal and interest on the debt, underlying the security, is paid back to the various investors regularly. Securities backed by mortgage receivables are called mortgage-backed securities (MBS), while those backed by other types of receivables are asset-backed securities (ABS).

Critics have suggested that the complexity inherent in securitization can limit investors' ability to monitor risk. Private, competitive mortgage securitization is believed to have played an important role in the U.S. subprime mortgage crisis.

According to the WFE Report, there were 1,086,955 Securitization Listings during 2011 and a turnover value of \$1,150 Billion.

Derivatives

Derivatives are financial instruments whose value is derived from the value of an underlying asset (such as gold, wheat or other commodities) or other financial instruments including bonds, or market benchmarks such as interest rates.

According to the WFE Report there were **18.5 Billion contracts** traded in 2011 made up of 14.15B Equity, 3.23B Interest Rate and 1.12B Commodity contracts.

Swaps

In finance, a **swap** is a derivative in which counterparties exchange cash flows of one party's financial instrument for those of the other party's financial instrument.

Swaps can be used to hedge certain risks such as interest rate risk, or to speculate on changes in the expected direction of underlying prices.

Today, swaps are among the most heavily traded financial contracts in the world: the total amount of interest rates and currency swaps outstanding is more than **\$426.7 trillion** in 2009, according to International Swaps and Derivatives Association (ISDA). A Commodity Swap is a swap in which exchanged cash flows are dependent on the price of an underlying commodity. A commodity swap is usually used to hedge against the price of a commodity.

Credit Default Swaps (CDS)

A credit default swap (CDS) is a financial swap agreement that the seller of the CDS will compensate the buyer in the event of a loan default or other credit event. The buyer of the CDS makes a series of fee payments to the seller and, in exchange, receives a payoff if the loan defaults.

Like all swaps and other financial derivatives, CDS may either be used to hedge risks (specifically, to insure creditors against default) or to profit from speculation.

The volume of CDS outstanding increased 100-fold from 1998 to 2008, with estimates of the debt covered by CDS contracts ranging from **US\$33 to \$47** trillion, as of November 2008.

Collateralized Debt Obligation (CDO)

Collateralized debt obligations (CDOs) are a type of structured asset-backed security split into different risk classes, or tranches, whereby "senior" tranches are considered the safest securities. Interest and principal payments are made in order of seniority, so that junior tranches offer higher coupon payments (and interest rates) or lower prices to compensate for additional default risk

CDOs can be created as long as global investors are willing to provide the money to purchase the pool of bonds the CDO owns. CDO volume grew significantly during the years 2000–2006, and then declined dramatically in the wake of the subprime mortgage crisis, which began in 2007. Many of the assets held by these CDOs had been

subprime mortgage-backed bonds.

Contract for Difference

A contract for difference (or CFD) is a contract between two parties, typically described as “buyer” and “seller”, stipulating that the seller will pay to the buyer the difference between the current value of an asset, and its value at contract time. (If the difference is negative, then the buyer pays instead to the seller.) In effect CFDs are financial derivatives that allow traders to take advantage of prices moving up (long positions) or prices moving down (short positions) on underlying financial instruments and are often used to speculate on those markets.

CFDs are typically traded over-the-counter with a broker or market maker.

14.5 SPECULATIVE STRATEGIES

Hedging

A hedge is an investment position intended to offset potential losses that may be incurred by a companion investment and is designed to limit or reduce any substantial losses suffered by an individual or an organization.

A hedge can be constructed from many types of financial instruments, including stocks, exchange-traded funds, insurance, forward contracts, swaps, options, many types of over-the-counter and derivative products, and futures contracts.

Categories of hedgeable risk

There are various types of risk that can be protected against with a hedge, including:-

Commodity risk: arising from potential movements in the value of commodity contracts, which include agricultural products, metals, and energy products.

Credit risk: the risk of non-repayment. Since credit risk is the natural business of banks, but an unwanted risk for commercial traders, an early market developed between banks and traders that involved selling obligations at a discounted rate.

Currency risk (also known as Foreign Exchange Risk hedging) to guard against adverse currency fluctuations.

Interest rate risk: the risk that the relative value of an interest-bearing liability, such as a loan or a bond, will worsen due to an interest rate increase. Interest rate risks can be hedged using fixed-income instruments or interest rate swaps.

Equity risk: the risk that investments will depreciate because of stock market dynamics.

Volumetric risk: the risk that customer demand is more or less than expected.

Short Selling

Short selling (also known as shorting or going short) is the practice of selling assets,

usually securities, that have been **borrowed** from a third party (usually a broker) with the intention of buying identical assets back at a later date to return to that third party on the expectation that they will be cheaper to repurchase in the future.. The short seller hopes to profit from a decline in the price of the assets between the sale and the repurchase, as the seller will pay less to buy the assets than was received on selling them. The short seller will incur a loss if the price of the assets rises.

Short selling is almost always conducted with assets traded in public securities, commodities or currency markets, as on such markets the amount being made or lost can be monitored in real time and it is generally possible to buy back the borrowed assets whenever required. Because such assets are fungible, any assets of the same type bought on those markets can be used to return to the lender.

Naked short selling, or naked shorting, is the practice of short-selling a tradable asset of any kind **without first borrowing** the security or ensuring that the security can be borrowed, as is conventionally done in a short sale. When the seller does not obtain the shares within the required time frame, the result is known as a “failure to deliver”. The transaction generally remains open until the shares are acquired by the seller, or the seller’s broker settles the trade

In June 2010, due to the economic crisis Germany permanently banned naked short selling.

In August 2011, France, Italy, Spain, Belgium and South Korea banned all short selling in their financial stocks.

Arbitrage

Arbitrage is the practice of taking advantage of a price difference for the same asset between two or more markets: striking a combination of matching deals that capitalise upon the imbalance, the profit being the difference between the market prices.

Carry Trade

A carry trade is a strategy in which an investor borrows money at a low interest rate in order to invest in an asset that is likely to provide a higher return. This strategy is very common in the foreign exchange market. For example, in the period up to 2007 many investors borrowed in Japanese yen or Swiss francs, taking advantage of very low interest rates in Japan and Switzerland, and used the money to take long positions in currencies backed by high interest rates, such as the Australian and New Zealand dollars and South African rand.

14.6 CRISES

Stock Market Crashes

This is a partial list of Stock Market Crashes:-

1929	[Wall Street Crash
1997	[Asian Crisis
1998	[Russian Crisis
2000	[Dot Com Bubble
2001	[Aftermath of September 11 attack
2008	[Subprime Mortgage Crisis
2010	[EU Sovereign Debt Crisis

Subprime Mortgage Crisis

The mortgage market was estimated at \$12 trillion with approximately 9.2% of loans either seriously delinquent or in foreclosure through August 2008.

Impact on US Banks

The five largest U.S. investment banks, with combined liabilities or debts of \$4 trillion, either went bankrupt (Lehman Brothers), were taken over by other companies (Bear Stearns and Merrill Lynch), or were bailed-out by the U.S. government (Goldman Sachs and Morgan Stanley) during 2008. Government-sponsored enterprises (GSE) Fannie Mae and Freddie Mac either directly owed or guaranteed nearly \$5 trillion in mortgage obligations, with a similarly weak capital base, when they were placed into receivership in September 2008.

Impact on US Households

Between June 2007 and November 2008, Americans lost more than a quarter of their net worth. By early November 2008, a broad U.S. stock index, the S&P 500, was down 45 percent from its 2007 high. Housing prices had dropped 20% from their 2006 peak, with futures markets signaling a 30–35% potential drop. Total home equity in the United States, which was valued at \$13 trillion at its peak in 2006, had dropped to \$8.8 trillion by mid-2008 and was still falling in late 2008. Total retirement assets, Americans' second-largest household asset, dropped by 22 percent, from \$10.3 trillion in 2006 to \$8 trillion in mid-2008. During the same period, savings and investment assets (apart from retirement savings) lost \$1.2 trillion and pension assets lost \$1.3 trillion. Taken together, these losses total \$8.3 trillion

14.7 PROPOSED REMEDIAL ACTIONS

Financial Transaction Taxes

Tobin Tax for currency transactions

Robin Hood Tax for a wide range of speculative asset transfers

Short Selling Limitation

Banning or controlling of shorting.

Capital Controls

Taxation of inflow and outflow of short-term “hot money” (see Carry Trade).

Regulatory Framework

Recognizing that gambling is addictive and discouraging reckless speculation.

15. CORPORATES



15. CORPORATES

BACKGROUND

In the previous chapter attention was drawn to the World Federation of Exchanges (WFE) Report of 2011 in which the market capitalization of the **45,953 companies** listed on their member exchanges stood at a total of **\$47,401 Billion** at end of 2011. This is a figure of around 67% of global GDP at that time.

This Chapter examines the role of Corporates in their contribution to world GDP and in amassing this wealth.

Synonyms: Corporation, Business, Firm, Company, Enterprise.

Some Definitions

Business Organization Types

Types of business entity defined in the legal systems of various countries include corporations, cooperatives, partnerships, and sole proprietorships.

Origins

Early corporations were established by charter granted by a monarch or passed by a parliament or legislature. During the time of colonial expansion in the 17th century, many European nations chartered corporations to lead colonial ventures, such as the Dutch East India Company or the Hudson's Bay Company, and these corporations came to play a large part in the history of corporate colonialism.

Registration

Most jurisdictions now allow the creation of new corporations through registration. In addition to legal personality, registered companies tend to have limited liability, be owned by shareholders who can transfer their shares to others, and be controlled by a board of directors whom the shareholders appoint.

Limited Liability

A corporation is created under the laws of a state as a separate legal entity that has privileges and liabilities distinct from those of its members. An important (but not universal) contemporary feature of a corporation is limited liability. If a corporation fails, shareholders may lose their investments, and employees may lose their jobs, but neither will be liable for debts to the corporation's creditors.

Capital Raising

Publicly traded companies are able to raise finance and capital through the sale (in the

primary or secondary market) of their securities, whether debt or equity. Herein lies the importance of **publicly traded corporations**. Prior to their existence, it was difficult to obtain large amounts of capital for private enterprises.

The shares of a publicly traded company are often traded on a stock exchange. The value or “size” of a company is called its market capitalization. This is calculated as the number of shares outstanding (as opposed to authorized but not necessarily issued) times the current market price per share.

Rights and Responsibilities

Despite not being natural persons, corporations are recognized by the law to have rights and responsibilities like natural persons. Insolvency may result in a form of corporate ‘death’, when creditors force the liquidation and dissolution of the corporation under court order, but it most often results in a restructuring of corporate holdings.

A subsidiary or daughter company is a company that is completely or partly owned and wholly controlled by another company that owns more than half of the subsidiary’s stock.

Dividends are payments made by a corporation to its shareholder members. When a corporation earns a profit or surplus, it can be put to two uses: either re-invested in the business (called retained earnings), or distributed to shareholders.

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are used here:-

15.1 STRUCTURING & FUNCTION

15.2 SIZE MEASUREMENT

15.3 STATE-OWNED ENTERPRISES

15.4 MERGERS & ACQUISITIONS

15.5 CROSS-BORDER ACTIVITY

15.1 STRUCTURING & FUNCTION

The evolution of a Corporation is followed here.

Establishment

Registration as required by the country's laws.

Raising of capital: Market Listing by Initial Public Offering (IPO)

Bond Issuance

Appointment of Board of Directors, and Chairperson.

Engagement of employees

Corporate Hierarchy

Owners

Partners, Shareholders

Management

Board of Directors (+Chairperson),

Executive (+ Chief Executive Officer, CEO)

Employees

Corporate Levels

State Owned Enterprises

Private Sector:

Listed Companies

Unlisted Companies

Operation

A successfully run corporation is able to expand its operations in several ways:-

Organic Growth, gaining in market share; introducing sought-after products.

Acquisition of another company, usually in a related field.

Merging with another company, with mutual benefit

Internationalizing, by establishing foreign subsidiaries

M&A (Mergers and Acquisitions) and Cross-Border Activities will be examined in some detail below.

Winding up

In the event that a corporation is failing, it may be wound up in a number of ways depending upon the laws of the country concerned and upon the circumstances of solvency. Final closure may be in the form of voluntary liquidation, enforced liquidation or bankruptcy.

Corporate Benefits

Country & Communities benefit from the production of Goods and Services (see Chapter 9) and the contribution towards building and maintaining a healthy Economy.

The State receives revenue in the form of Company Tax and VAT (see Chapter 13).

The Owners profit by Capital Growth and Dividends.

The Employees receive Compensation in the form of Salaries, Wages and Bonuses and in some cases Additional Benefits such as pensions, healthcare and housing allowances.

Corporate Responsibilities

The UN Global Compact, which enjoys universal consensus, asks companies to

embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment and anti-corruption:

Human Rights

Businesses should support and respect the protection of internationally proclaimed human rights; and make sure that they are not complicit in human rights abuses.

Labour Standards

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced and compulsory labour; the effective abolition of child labour; and the elimination of discrimination in respect of employment and occupation.

Environment

Businesses should support a precautionary approach to environmental challenges; undertake initiatives to promote greater environmental responsibility; and encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Businesses should work against corruption in all its forms, including extortion and bribery.

Additional CSR (Corporate Social Responsibility)

Monopolistic Practices

Not to engage in: Price collusion and market share agreements.

Driving out or buying out small competitors.

Cartel Formation

Responsible involvement in Alcohol, tobacco, gambling, arms trade.

15.2 SIZE MEASUREMENT

Criteria

There are several means of expressing the **size** of a corporation, each having a particular perspective.

Firstly there is **annual turnover** (revenue, income, sales) of the corporation for a particular year (calendar or financial), usually the latest available. This is also an expression of the corporation's contribution to GDP, and invites comparison with GDP. Secondly, **net profit or loss** for a particular year. However, this may be only a one-off reflection of economic conditions during that year, but will at least be an indication of a trend.

Thirdly, the **net asset value (NAV)** at a particular point in time, usually at year end. This is an indication of the **accumulated** health and strength of the business.

Fourthly, the **market capitalization** of a publicly listed company at a particular point in time. This is a reflection of the market's perception of the value of the company at that time.

STATISTICS

15.2.1 LIST OF COMPANIES BY REVENUE (FORBES-2012)

1 •	ExxonMobil	[Oil and Gas	[\$ 486.429 Billion	[United States
2 •	Royal Dutch Shell	[Oil and Gas	[\$ 470.171	[Netherlands
3 •	Walmart	[Retailing	[\$ 446.950	[United States
4 •	BP	[Oil and Gas	[\$ 386.460	[United Kingdom
5 •	Vitol	[Commodities	[\$ 297.000 Private	[Netherlands and Switzerland
6 •	Sinopec	[Oil and Gas	[\$ 273.420	[China
7 •	Chevron	[Oil and Gas	[\$ 253.706	[United States
8 •	ConocoPhillips	[Oil and Gas	[\$ 251.226	[United States
9 •	Toyota Motors	[Automotive	[\$ 235.890	[Japan
10 •	State Grid Corporation of China		[\$ 226.294 Govt-owned	[China
11 •	PetroChina	[Oil and Gas	[\$ 221.570	[China
12 •	Total S.A.	[Oil and Gas	[\$ 220.415	[France
13 •	Volkswagen Group	[Automotive	[\$ 210.776	[Germany
14 •	Japan Post Holdings	[Conglomerate	[\$ 203.958 Govt-owned	[Japan
15 •	Glencore	[Commodities	[\$ 186.200	[Switzerland
16 •	Saudi Aramco	[Oil and Gas	[\$ 182.396 Govt-owned	[Saudi Arabia
17 •	Gazprom	[Oil and Gas	[\$ 158.100	[Russia
18 •	Fannie Mae	[Financial services	[\$ 153.800	[United States
19 •	General Motors	[Automotive	[\$ 150.280	[United States
20 •	General Electric	[Conglomerate	[\$ 147.300	[United States

Dominant Sectors in the above list are:

Oil & Gas with \$2,720 Billion or over 50% of total list revenue

Automotive \$597 Billion (10%)

GDP Comparisons

The **top 4** companies had a total sales income of **\$1,790 Billion**, compared with the GDP of the entire **Continent of Africa** (54 countries) of **\$1,611 Billion** in 2010 (IMF). Each and every company on this list had Turnovers in excess of the GDPs of over 150 countries with lower-end economies.

15.2.2 COMPANY PROFITS (FORBES-2012)

1 •	Exxon Mobil	[United States	[\$ 41.1 B
2 •	Apple	[United States	[\$ 33.0 B
3 •	Gazprom	[Russia	[\$ 31.7 B
4 •	Royal Dutch Shell	[Netherlands	[\$ 30.9 B
5 •	Chevron	[United States	[\$ 26.9 B
6 •	BP	[United Kingdom	[\$ 25.7 B
7 •	ICBC	[China	[\$ 25.1 B
8 •	Volkswagen Group	[Germany	[\$ 21.5 B
9 •	PetroChina	[China	[\$ 20.6 B
10 •	China Construction Bank		[\$ 20.5 B
11 •	Petrobras-PetróleoBrasil	[Brazil	[\$ 20.1 B
12 •	JPMorgan Chase	[United States	[\$ 19.0 B
13 •	HSBC Holdings	[U.K.	[\$ 16.2 B
14 •	Total	[France	[\$ 15.9 B
15 •	Wells Fargo	[United States	[\$ 15.9 B
16 •	Bank of China	[China	[\$ 15.8 B
17 •	Wal-Mart Stores	[United States	[\$ 15.7 B
18 •	Agricultural Bank of China		[\$ 14.4 B
19 •	General Electric	[United States	[\$ 14.2 B
20 •	Citigroup	[United States	[\$ 11.1 B

Prominent Sectors

Oil & Gas: 8 companies, generally the most profitable
Banks: 8 companies

15.2.3 LIST OF TOP 20 COMPANIES BY ASSETS (FORBES 2012 LIST)

1 • **HSBC** [UK [Banking [\$ 2,550.0 Billion

2 •	BNP Paribas	France	[Banking	[2,539.0
3 •	JP Morgan Chase	USA	[Banking	[2,265.8
4 •	ICBC	China	[Banking	[2,039.1
5 •	Citigroup	USA	[Banking	[1,873.9
6 •	China Construction Bank			[1,637.8
7 •	Agricultural Bank of China			[1,563.9
8 •	Wells Fargo	USA	[Banking	[1,313.9
9 •	General Electric	USA	[Conglomerate	[717.2
10 •	Berkshire Hathaway	USA	[Conglomerate	[392.6
11 •	Royal Dutch Shell	Netherlands	[Oil and gas	[340.5
12 •	ExxonMobil	USA	[Oil and gas	[331.1
13 •	Volkswagen Group	Germany	[Automotive	[328.7
14 •	Petrobras	Brazil	[Oil and gas	[319.4
15 •	Petro China	China	[Oil and gas	[304.7
16 •	Gazprom	Russia	[Oil and gas	[302.6
17 •	BP	UK	[Oil and gas	[292.5
18 •	Total	France	[Oil and gas	[213.0
19 •	Chevron	USA	[Oil and gas	[209.5
20 •	Wal-Mart	USA	[Retailing	[193.4

Prominent Sectors

Banks occupy the first 8 positions with a total asset value of **\$15,784 Billion** Oil & Gas also 8 companies, total asset value **\$ 2,313 Billion**

15.2.4 LIST OF TOP TEN COMPANIES BY MARKET CAPITALIZATION 2012

Ycharts list as at May 12, 2012.

1 •	Apple	[Electronics	[\$ 528.38 Billion
2 •	ExxonMobil	[Oil and gas	[\$ 391.67

3 •	Microsoft	Information technology	[\$ 261.46
4 •	PetroChina	Oil and gas	[\$ 246.83
5 •	IBM	Information technology	[\$ 233.09
6 •	Wal-Mart	Retailing	[\$ 222.10
7 •	China Mobile	Telecommunications	[\$ 204.64
8 •	Royal Dutch Shell	Oil and gas	[\$ 203.19
9 •	General Electric	Conglomerate	[\$ 203.16
10 •	AT&T	Telecommunications	[\$ 199.74

Record Market Capitalization

On December 30, 1999 Microsoft reached an intraday high share price of \$119.94. With 5,160,024,593 outstanding shares it had a market capitalization of \$618.9 billion. This was the highest market capitalization ever reached by a publicly traded company. Adjusting for inflation to 2012, Microsoft's market capitalization would be \$846 billion.

The total market capitalization of all publicly traded companies in the world was US\$51.2 trillion in January 2007 and rose as high as US\$57.5 trillion in May 2008 before dropping below US\$50 trillion in August 2008 and US\$40 trillion in September 2008 as a result of the financial crisis.

15.2.5 THE WORLD'S LARGEST EMPLOYERS, 2012 (BBC)

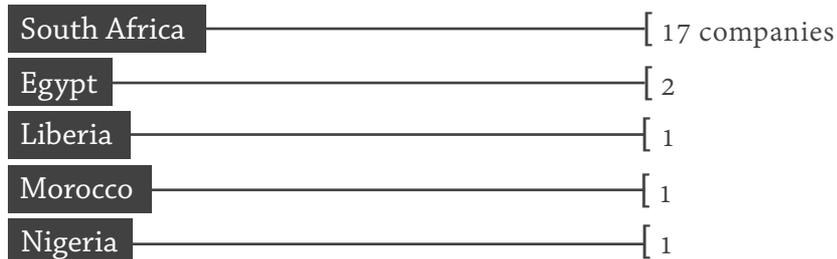
Employer	Employees	Headquarters
United States Department of Defense	[3.2 million	[United States
People's Liberation Army	[2.3 million	[China
Walmart	[2.1 million	[United States
McDonald's (including franchises)	[1.9 million	[United States
National Health Service	[1.7 million	[United Kingdom
China National Petroleum Corp.	[1.6 million	[People's Republic of China
State Grid Corporation of China	[1.5 million	[People's Republic of China
Indian Railways	[1.4 million	[India
Indian Armed Forces	[1.3 million	[India
HonHai Precision Industry (Foxconn)	[1.2 million	[Taiwan

Whilst not a financial indicator, number of employees in an enterprise is indicative of size. The enterprises shown above are a mix of commercial corporations and other entities for comparison.

15.2.6 MAJOR AFRICAN CORPORATIONS (FORBES, 2013)

The US publisher **Forbes** compiles annually a list of 2000 public companies ranked according to a combination of a number of criteria.

In their list for the year 2013 a total of 22 African companies appear as follows:-



The ten highest ranked African companies (all in RSA) are as follows:-

Ranking	Company	Sector
231	Standard Bank Group	Banking
320	Sasol	Oil & Gas
345	MTN	Telecommunications
397	First Rand	Banking
574	Sanlam	Financial Services
936	AngloGold Ashanti	Mining
966	Steinhoff	Household goods
987	Bidvest	Conglomerate
1053	Naspers	Media
1151	Shoprite	Retailing

15.3 STATE-OWNED ENTERPRISES

Government-owned Corporation

A government-owned corporation, state-owned enterprise (SOE) or parastatal is a legal entity created by a government to undertake commercial activities on behalf of an owner government.

Government-owned corporations often operate in sectors where there is a natural monopoly, or where the government has a strategic interest.

In most OPEC countries, the governments own the oil companies operating on their soil. A notable example is the Saudi national oil company, Saudi Aramco, which the Saudi government bought in 1988. The Saudi government also owns and operates Saudi Arabian Airlines.

Governments may also use profitable entities they own to support the general budget. State ownership may refer to ownership or control of any asset, industry, or enterprise at any level, national, regional or local. The process of bringing an asset into public ownership is called nationalization.

Corporatisation of an SOE by introducing corporate management structures and techniques may be a precursor to privatization.

SOUTH AFRICA

In South Africa the Department of Public Enterprises is the shareholder representative of the South African Government with oversight responsibility for state-owned enterprises in key sectors, including: Defence, Energy, Forestry, ICT, Mining and Transport.

The corporate entities that this department is responsible for are:

Alexkor – Mining sector (diamond mining)

Broadband Infraco – ICT sector (national backbone and international connectivity)

Denel – Aerospace and Defence sector (armaments manufacturer)

Eskom – Energy sector (national electricity utility)

South African Airways – Transport sector (international airline)

SA Express – Transport sector (regional and feeder airline)

SAFCOL – Forestry sector (manages forestry on state owned land)

Transnet – Transport and related infrastructure sector (railways, harbours, oil/fuel pipelines and terminals)

Telkom SA – Telecommunications sector (national fixed line telephone network)

Other state-owned corporate entities not under the Department of Public Enterprises include the South African Post Office and the South African Broadcasting Corporation.

STATE-OWNED COMPANIES

Some state-owned companies are far larger than even the largest public corporation. For example Saudi Aramco's value was estimated as \$781 billion at end 2006. More recent estimates put its value at over 2.2 trillion USD.

LIST OF STATE-OWNED OIL & GAS COMPANIES (FM, END 2006)

1 •	Saudi Aramco	[Saudi Arabia	[\$ 781,000 million, market value.
2 •	Pemex	[Mexico	[415,000
3 •	Petróleos de Venezuela		[388,000
4 •	Kuwait Petroleum Corp		[378,000
5 •	Petronas	[Malaysia	[232,000
6 •	Sonatrach	[Algeria	[224,000
7 •	National Iranian Oil Company		[220,000
8 •	Pertamina	[Indonesia	[140,000
9 •	Nigerian National Petroleum Corp		[120,000
10 •	Abu Dhabi National Oil Company		[103,000
11 •	Inoc	[Iraq	[102,000
12 •	Libya National Oil Company		[99,000

PEOPLE'S REPUBLIC OF CHINA

Upon the establishment of the People's Republic of China in 1949, all business enterprises became the property of the government.

The transition to a socialist market economy began in 1978 when Deng Xiaoping introduced his program of "Socialism with Chinese characteristics". Initial reforms in decollectivising agriculture and allowing private businesses and foreign investment in the late 1970s and early 1980s later led to large-scale radical reforms, consisting of some privatization of the state sector and liberalization of trade.

By 2005 the market-oriented reforms, including privatisation, was virtually halted and partially reversed.

In 2006, the Chinese government announced that the armaments, power generation and distribution, oil and petrochemicals, telecommunications, coal, aviation and shipping industries were to remain under absolute state control and public ownership by law.

The state retains indirect control in directing the non-state economy through the financial system, which lends according to state priorities and regulation.

15.4 MERGERS & ACQUISITIONS

Merger

In the pure sense of the term, a merger happens when two firms agree to go forward as a single new company rather than remain separately owned and operated. This kind of action is more precisely referred to as a "merger of equals".

Acquisition

When one company takes over another and clearly establishes itself as the new owner, the purchase is called an acquisition. From a legal point of view, the target company ceases to exist, the buyer “swallows” the business and the buyer’s stock continues to be traded.

The takeover is termed Hostile if against the wishes of the target company’s management.

Top 10 M&A deals worldwide by value (in mil. USD) from 2000 to 2010

Rank	Year	Purchaser	Purchased	Transaction value
1.	2000	[AOL Inc. (America Online)	[Time Warner	[\$ 164,747 million
2.	2000	[GlaxoWellcome	[SmithKlineBeecham	[75,961
3.	2004	[Royal Dutch Petroleum.	[“Shell” Transport & Trading	[74,559
4.	2006	[AT&T Inc.	[BellSouth Corporation	[72,671
5.	2001	[Comcast Corporation	[AT&T Broadband	[72,041
6.	2009	[Pfizer Inc.	[Wyeth	[68,000
7.	2000	[Spin-off: Nortel Networks Corporation		[59,974
8.	2002	[Pfizer Inc.	[Pharmacia Corporation	[59,515
9.	2004	[JPMorgan Chase & Co	[Bank One Corporation	[58,761
10.	2008	[InBev Inc.	[Anheuser-Busch Companies, Inc.	[52,000

Source: Institute of Mergers, Acquisitions & Alliances [IMAA]

Regulatory Approval

Under many national jurisdictions approval of a merger or acquisition may be required to ensure that certain criteria will be met, relating to practices that restrict competition or that abuse a dominant position.

Locations of Transactions

M & A transactions can be either **domestic** where both parties are located in the same country, or **cross-border** involving transfer of capital and sometimes control from one country to another.

The latter transaction type is examined in the next sub-section.

15.5 CROSS-BORDER ACTIVITY

A MULTINATIONAL CORPORATION (MNC) is a corporation enterprise that manages production or delivers services in more than one country. It can also be

referred to as an international corporation.

Corporations may make a foreign direct investment. **Foreign direct investment** is direct investment into one country by a company in production located in another country either by buying a company in the country or by expanding operations of an existing business in the country. (For full details see Chapter 13.6)

Multinational corporations are important factors in the processes of globalization, sometimes involving loss of sovereignty in the host country.

National and local governments often compete against one another to attract MNC facilities, with the **expectation** of increased tax revenue, employment, and economic activity including technology transfer.

To compete, political entities may offer MNCs **incentives** such as

- Tax concessions
- Preferential tariffs
- EPZs - Export Processing Zones
- Free land or land subsidies
- Relocation & expatriation subsidies
- Job training & employment subsidies
- Infrastructure subsidies
- R&D support

Agreements

Bilateral Investment Agreements

Double Taxation Agreements

A TRANSNATIONAL CORPORATION (TNC) differs from a traditional MNC in that it does not identify itself with one national home. Whilst traditional MNCs are national companies with foreign subsidiaries, TNCs spread out their operations in many countries sustaining high levels of local responsiveness.

However, the terms TNC and MNC are often used interchangeably

CROSS-BORDER MERGER & ACQUISITION TRANSACTIONS

Cross-border M&A deals worth **over \$1 billion** completed in 2010

Source: UNCTAD, cross-border M&A database

Value	Acquired company	Acquiring company	Shares acquired
1 • \$t18.8 Billion	[Cadbury PLC UK	[Kraft Foods Inc United States	[100 %
2 • 10.7	[Zain Africa BV Nigeria	[Bharti Airtel Ltd India	
3 • 9.7	[Brasilcel NV Brazil	[Telefonica SA Spain	[50

4.	9.1	EDF Energy PLC U K	Investor Group HK China	[100
5.	9.0	Lihir Gold Ltd PNG	Newcrest Mining Ltd Australia	[100
6.	8.5	T-Mobile(UK)Ltd UK	France Telecom SA France	[100
7.	7.6	E ON AG Germany	PPL Corp United States	[100
8.	7.6	Solvay SA Belgium	Abbott Labs United States	[100
9.	7.3	FEMSA Mexico	Investor Group Netherlands	[100
10.	7.3	Repsol YPF Brasil SA Brazil	Sinopec Group China	[40

NUMBER OF CROSS-BORDER M&A TRANSACTIONS, BY SECTOR/ INDUSTRY, YEAR 2010 [UNCTAD]

Primary Sector (Agriculture & Mining)	[344 deals
Manufacturing	[1,286
Services	[3,775
TOTAL	[5,405

VALUE OF CROSS-BORDER M&A TRANSACTIONS, BY COUNTRIES, YEAR 2010 [UNCTAD]

Countries	Sales	Purchases
1. Developing countries	[\$ 82.813 Billion	[\$ 96.947 Billion
2. Developed countries	[\$ 251.705	[\$ 215.654
3. WORLD	[\$ 338.839	[\$ 338.839
4. EU	[\$ 113.639	[\$ 17.328
5. USA	[\$ 80.267	[\$ 86.342
6. Japan	[\$ 6.675	[\$ 31.016
7. China	[\$ 5.965	[\$ 29.201

GEOGRAPHICAL SPREAD OF TRANSNATIONAL CORPORATIONS 2010 (UNCTAD)

Area	Number of Parent Corporations	Number of Foreign Affiliates
1. World	[103,786	[892,114
2. Developed	[73,144	[373,612
3. Developing	[30,209	[512,531
4. Africa	[621	[6,673

MAJOR MULTINATIONAL CORPORATIONS WITH OPERATIONS IN AFRICA

Retailing

-● - **Unilever (UK, Netherlands)** South Africa, Nigeria, Ghana
- **Nestle (Switzerland)** South Africa
- **Walmart (USA)** in South Africa
- **KFC (USA)** in 14 African countries

Oil & Gas

-● - **Royal Dutch Shell (UK, Holland)** in 21 African countries
- **Tullow (Ireland, UK)** in 12 African countries
- **Statoil (Norway)** in Tanzania
- **ENI (Italy)** in Mozambique

Minerals

-● - **Glencore (Switzerland)** South Africa, Zambia, DRC, Equatorial Guinea
- **Vale (Brazil)** in Mozambique
- **Rio Tinto (UK)** South Africa, Zimbabwe, Guinea, Madagascar, Namibia.
- **First Quantum (Canada)** DRC, Zambia

Engineering

-● - **Siemens (Germany)** in 5 African Regions

Construction

-● - **Arcelor-Mittal (Luxembourg)** South Africa
- **Lafarge (France)** Egypt, South Africa

MAJOR AFRICAN MNCS WITH OPERATIONS IN OTHER AFRICAN COUNTRIES

Retailers

-● - **Shoprite (RSA)** in 16 African countries
- **Pick nPay (RSA)** in Zambia, Namibia, Mozambique, Zimbabwe, Botswana, Mauritius

- **Woolworths (RSA)** in 12 African countries
- **Massmart (RSA)** in 12 African countries
- **Famous Brands (RSA)** in Nigeria, Ghana, Zambia, Kenya, Mauritius

Conglomerate

- - **Dangote Industries (Nigeria)** in Benin, Cameroon, Ghana, Zambia, South Africa

Oil & Gas

- - **Sasol (RSA)** in Mozambique
- **Dangote Refinery (Nigeria)** in West Africa
- **Sacoil (RSA)** in DRC, Tunisia, Malawi, Botswana

Construction

- - **Pretoria Portland Cement (RSA)** in Botswana, Zimbabwe
- **Dangote Cement (Nigeria)** in Benin, Cameroon, Ghana, Zambia

Minerals

- - **Anglo American (RSA)** in Botswana
- **Goldfields (RSA)** Ghana, Mali

Major African MNCs with operations outside of Africa

Oil, Gas & Chemicals

- - **Sasol (RSA)** in Louisiana (USA)

Pulp & Paper

- - **Sappi (RSA)** in North America and Europe

Non-Equity Modes of Production

According to the UNCTAD World Investment Report of 2011, policies aimed at improving the integration of developing economies into global value chains must look beyond FDI and trade and will need to consider **non-equity modes (NEMs)** of international production, such as contract manufacturing, services outsourcing, contract farming, franchising, licensing, management contracts, and other types of contractual relationship through which TNCs assist in coordinating the activities of host country firms, without owning a stake in those firms.

Cross-border NEM activity worldwide is significant and particularly important in developing countries and is estimated to have generated over **\$2 trillion of sales** in 2009. Contract manufacturing and services outsourcing accounted for \$1.1–1.3 trillion, franchising \$330–350 billion, licensing \$340–360 billion, and management contracts around \$100 billion.

NEMs can yield significant development benefits:-

-● *They employ an estimated 14–16 million workers in developing countries.*
- Their value added represents up to 15 per cent of GDP in some economies.*
- Their exports account for 70–80 per cent of global exports in several industries.*

Overall, NEMs can support long-term industrial development by building productive capacity, including through technology dissemination and domestic enterprise development, and by helping developing countries gain access to global value.

RELEVANT ISSUES

Tax Avoidance

Tax Havens

Tax Manipulation, Transfer Pricing

Occupational Hazards & Diseases

Political Campaign Contributions

Political Lobbying

Privatization & Nationalization

Co-operatives

United Nations has declared 2012 the **International Year of Co-operatives (IYC)**

The International Co-operative Alliance (ICA) defines a co-operative as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.

Ranging from small-scale to multi-million dollar businesses across the globe, co-operatives employ more than 100 million women and men and have more than 800 million individual members.

Co-operative Sectors

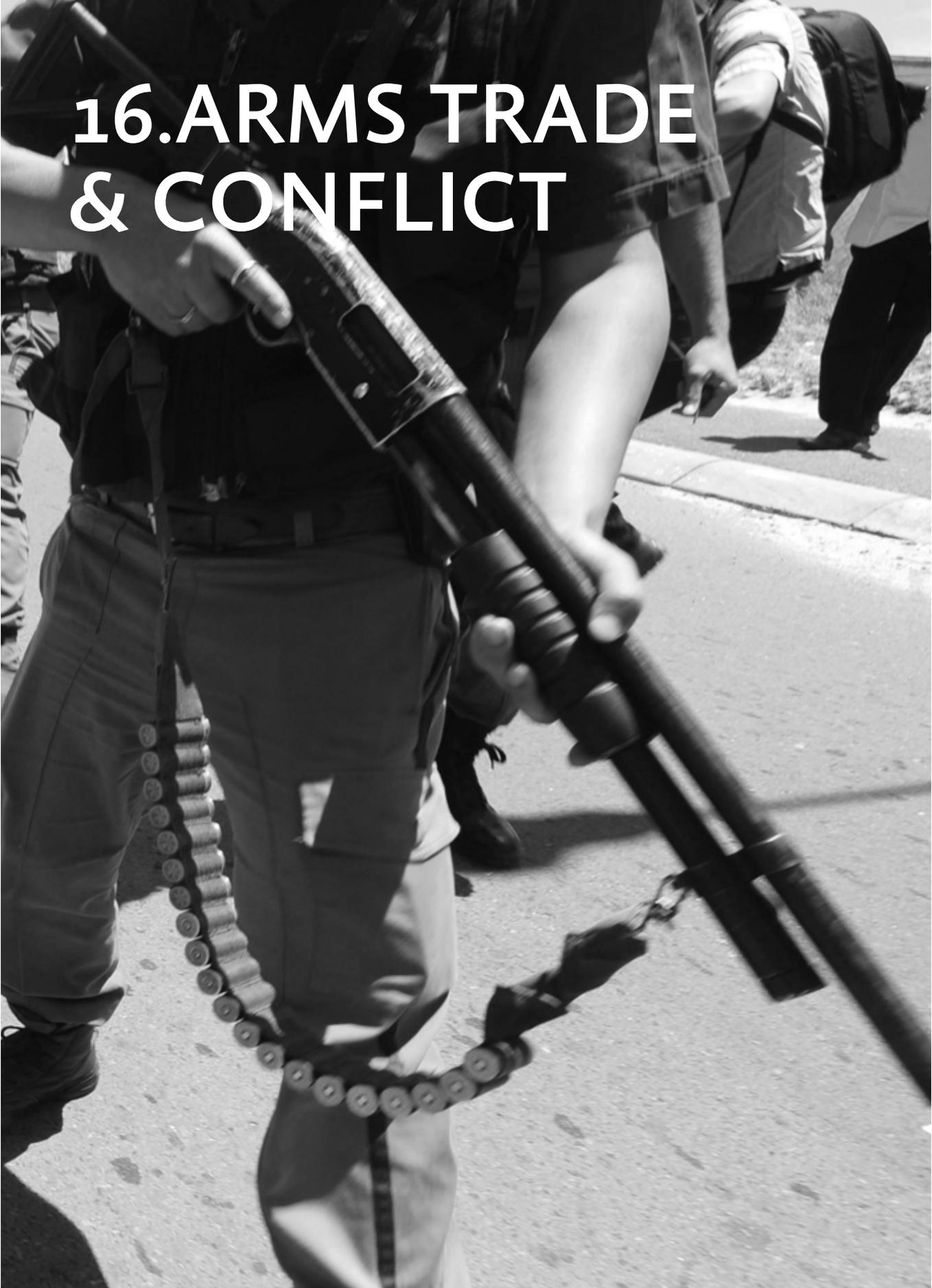
The co-operative model of enterprise can be applied to any business activity. They exist in traditional economic sectors such as agriculture, fisheries, consumer and financial services, housing, and production (workers' co-operatives). However, co-operative activity spans to large number of sectors and activities including car-sharing, child-care, health and social care, funeral, orchestras and philharmonics, schools, sports, tourism, utilities (electricity, water, gas, etc.), and transport (taxis, buses, etc).

CONCLUDING REMARKS

It is clear from the above that Corporates are the main generators and accumulators of wealth in today's world. With that wealth goes the power to influence, even determine,

the form of a country's government and the direction of its economic policy. The proportions of state and private sector ownership of corporate enterprises are pertinent here.

16. ARMS TRADE & CONFLICT



16. ARMS TRADE AND CONFLICT

THE MILITARY-INDUSTRIAL COMPLEX

BACKGROUND

Military–industrial complex, or Military–industrial-congressional complex, is a concept commonly used to refer to policy and monetary relationships between legislators, national armed forces, and the defence industrial base that supports them.

These relationships can also include lobbying for political approval of defence spending, political party contributions, and oversight of the industry.

The term gained popularity after its use in the farewell address of President Dwight D. Eisenhower on January 17, 1961, in reference to the system behind the military of the United States, though the term is applicable to any country with a similarly developed infrastructure.

Sources for this Chapter

Except where otherwise stated, all statistics in this Chapter are sourced from the Stockholm International Peace Research Institute. (SIPRI)

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are used here:-

16.1 THE ARMS INDUSTRY

16.2 MILITARY ACTIVITY

16.3 CONFLICT

16.1 THE ARMS INDUSTRY

Overview

The arms industry is a global business which manufactures weapons and military technology and equipment. It consists of commercial industry involved in research, development, production, and service of military material, equipment and facilities.

Arms producing companies, also referred to as defence contractors, produce arms mainly for the armed forces of states. Departments of government also operate in the arms industry, buying and selling weapons, munitions and other military items.

The arms industry also conducts significant research and development.

Many industrialized countries have a domestic arms industry to supply their own military forces. Some countries also have a substantial legal or illegal domestic trade in weapons for use by its citizens. An illegal trade in small arms is prevalent in many countries and regions affected by political instability.

16.1.1 ARMS MANUFACTURERS

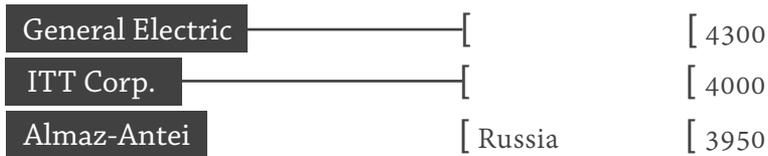
A defence contractor (or military contractor) is a business organization or individual that provides products or services to a military department of a government. Products typically include military aircraft, ships, vehicles, weaponry, and electronic systems. Services can include logistics, technical support and training communications support, and in some cases team-based engineering in cooperation with the government. Contractors have also assumed a much larger on-the-ground presence during recent Middle East conflicts involving USA military

A Private Military Company (PMC) provides military and security services. These combatants are commonly known as mercenaries, but PMCs refer to their business as the private military industry or The Circuit in an attempt to avoid the stigma associated with mercenaries

Under 1949 Geneva Conventions military contractors engaged in direct support of military operations may be legitimate targets of military attacks.

Top 20 defence contractors worldwide

Company	(country)	2010 arms sales (US\$ m.)
Lockheed Martin	[	[ \$ 35730 million
BAE Systems	[U.K.	[32880
Boeing	[	[ 31360
Northrop Grumman	[	[ 28150
General Dynamics	[	[ 23940
Raytheon	[	[ 22980
EADS	[Europe	[16360
Finmeccanica	[Italy	[14410
L-3 Communications	[	[ 13070
United Technologies	[	[ 11410
Thales Group	[France	[9950
SAIC	[	[ 8230
Oshkosh Truck	[	[ 7080
Computer Sciences Corp.	[	[ 5940
Honeywell	[	[ 5400
SAFRAN	[France	[4800
Rolls-Royce	[U.K.	[4330



Companies are **US-based**, unless indicated otherwise.

Source: <http://www.sipri.org>

Arms sales are defined by SIPRI as sales of military goods and services to military customers, including both domestic and export sales.

Companies in the sipri top 100 for 2010, by country



Country or region refers to the location of the company headquarters, not necessarily the location of production.

16.1.2 ARMS TRADE & TRANSFERS

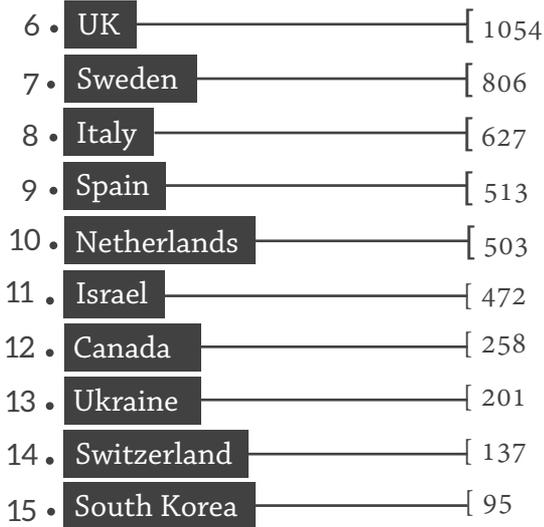
In the following 2 tables the unit of value is the so-called trend indicator value expressed in millions of US dollars at 1990s prices. These values do not represent actual financial flows but are a crude instrument to estimate volumes of arms transfers, regardless of the contracted prices, which can be as low as zero in the case of military aid.

The information is from the Stockholm International Peace Research Institute.(SIPRI)

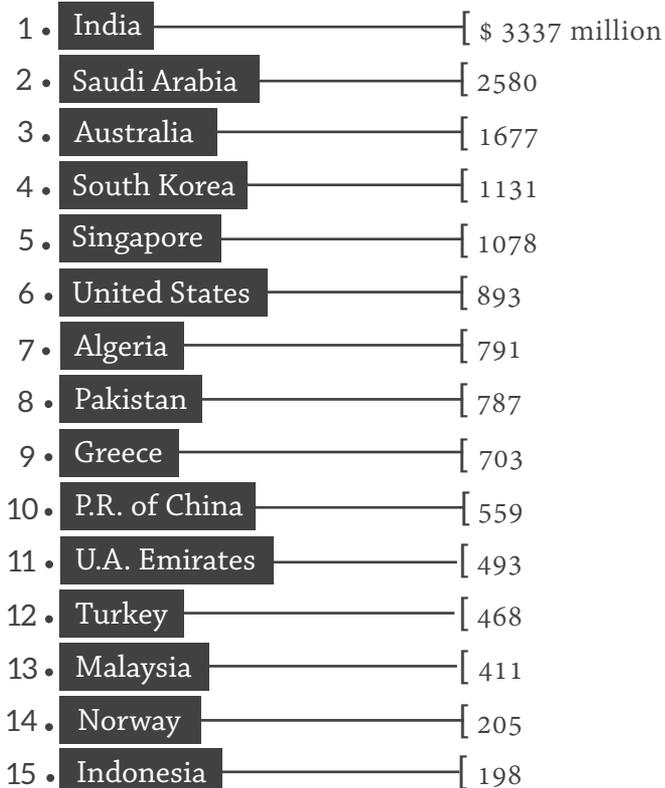
World's largest arms exporters

For the year 2010





World's largest arms importers For the year 2010



ARMS DEAL TYPES

Company to Domestic Government

Company to Foreign Government

Government to Government

Al Yamamah is the name of a series of record arms sales by the United Kingdom to Saudi Arabia, which have been paid for by the delivery of up to 600,000 barrels of crude oil per day to the UK government. The prime contractor has been BAE Systems and its predecessor British Aerospace. The first sales occurred in September 1985 and the most recent contract for 72 Eurofighter Typhoon multi role fighters was signed in August 2006.

It is Britain's largest ever export agreement, and employs some 5,000 people in Saudi Arabia.

INDIVIDUAL DEALERS

Intermediaries

An End-user certificate, or EUC, is a document used in international transfers, including sales and arms provided as aid, of weapons and ammunition to certify that the buyer is the final recipient of the materials, and is not planning on transferring the materials to another party.

Traders

Arms Smugglers

Exhibitions

Air Shows

Arms Trade Fairs

Arms Fairs promote weapons sales by giving arms dealers the chance to meet military delegations, government officials, other arms companies and suppliers, and interested individuals.

16.1.3 WEAPON TYPES & TREATIES

Conventional Weapons

Land-based weapons

This category includes everything from light arms to heavy artillery, and the majority of producers are small. Many are located in Developing countries. International trade in handguns, machine guns, tanks, armored personnel carriers and other relatively inexpensive weapons is substantial. There is relatively little regulation at the international level, and as a result, many weapons fall into the hands of organized crime, rebel forces, terrorists, or regimes under sanctions.

Small arms

The Control Arms Campaign, founded by Amnesty International, Oxfam, and the International Action Network on Small Arms, estimated in 2003 that there were over 639 million small arms in circulation, and that over 1,135 companies based in more than 98 different countries manufacture small arms and ammunition.

Small arms control in Africa

Over the past decade a framework for the control of small arms and light weapons (SALW) in Africa has gradually been created. Four arms control agreements have been adopted, mainly under the aegis of sub regional economic communities:

- The 2001 Protocol on the Control of Firearms, Ammunition and other related Materials in the SADC Region;
- The 2004 Nairobi Protocol for the Prevention, Control and Reduction of SALW in the Great Lakes Region and the Horn of Africa
- The 2006 ECOWAS Convention on SALW, their Ammunition and Other Related Materials; and
- The 2010 Central African Convention for the Control of SALW, their Ammunition, Parts and Components that can be used for their Manufacture, Repair and Assembly (Kinshasa Convention).

Aerospace systems

Encompassing military aircraft (both land-based and naval aviation), conventional missiles, and military satellites, this is the most technologically advanced sector of the market. It is also the least competitive from an economic standpoint, with a handful of companies dominating the entire market. The top clients and major producers are virtually all located in the western world, with the United States easily in first place. Prominent aerospace firms include Dassault Aviation, Sukhoi, EADS, Finmeccanica, Thales Group, Lockheed Martin, Boeing, and BAE Systems. There are also several multinational consortia mostly involved in the manufacturing of fighter jets, such as the Eurofighter.

Naval systems

All of the world's major powers maintain substantial maritime forces to provide a global presence, with the largest nations possessing aircraft carriers, nuclear submarines and advanced anti-air defence systems. The vast majority of military ships are conventionally powered, but some are nuclear-powered.

The Arms Trade Treaty is the name of a potential multilateral treaty that would control the international trade of **conventional weapons**. The treaty is in the preliminary stages of development and has not yet been officially negotiated.

Other Weapons

Chemical

The Chemical Weapons Convention (CWC) is an arms control agreement which outlaws the production, stockpiling and use of chemical weapons.

The Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, usually called the Geneva Protocol, is a treaty prohibiting the first use of chemical and biological weapons. It was signed at Geneva on June 17, 1925 and entered into force on February 8, 1928. It was registered in League of Nations Treaty Series on September 7, 1929.

Biological

The Biological Weapons Convention (or Biological and Toxin Weapons Convention) was the first multilateral disarmament treaty banning the production of an entire category of weapons. It was the result of prolonged efforts by the international community to establish a new instrument that would supplement the 1925 Geneva Protocol.

Landmines

The Ottawa Treaty or the Mine Ban Treaty, formally the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, completely bans all anti-personnel landmines (AP-mines).

Cluster Bombs

The Convention on Cluster Munitions (CCM) is an international treaty that prohibits the use of cluster bombs, a type of explosive weapon which scatters sub munitions (“bomblets”) over an area.

Missiles & Drones

The Missile Technology Control Regime (MTCR) is an informal and voluntary partnership between 34 countries to prevent the proliferation of missile and unmanned aerial vehicle technology capable of carrying a 500 kg payload at least 300 km.

Nuclear

The New START Treaty (for Strategic Arms Reduction Treaty) (Russian: -III) is a bilateral nuclear arms reduction treaty between the United States and the Russian Federation that was signed in Prague on April 8, 2010.

World nuclear forces, 2012

Country	Deployed warheads*	Other warheads	Total 2012
• USA	[2150	[5850	[8000

• Russia	[1800	[8200	[10000
• UK	[160	[65	[225
• France	[290	[10	[300
• China	[	[ 200	[240
• India	[	[ 80-100	[80-100
• Pakistan	[	[ 90-110	[90-110
• Israel	[	[ 80	[80
• North Korea	[[[?
• Total	[4400	[14600	[19000

Source: SIPRI Yearbook 2012

* "Deployed" means warheads placed on missiles or located on bases with operational forces

16.2 MILITARY ACTIVITY

16.2.1 BUDGET EXPENDITURES

World's largest defence budgets

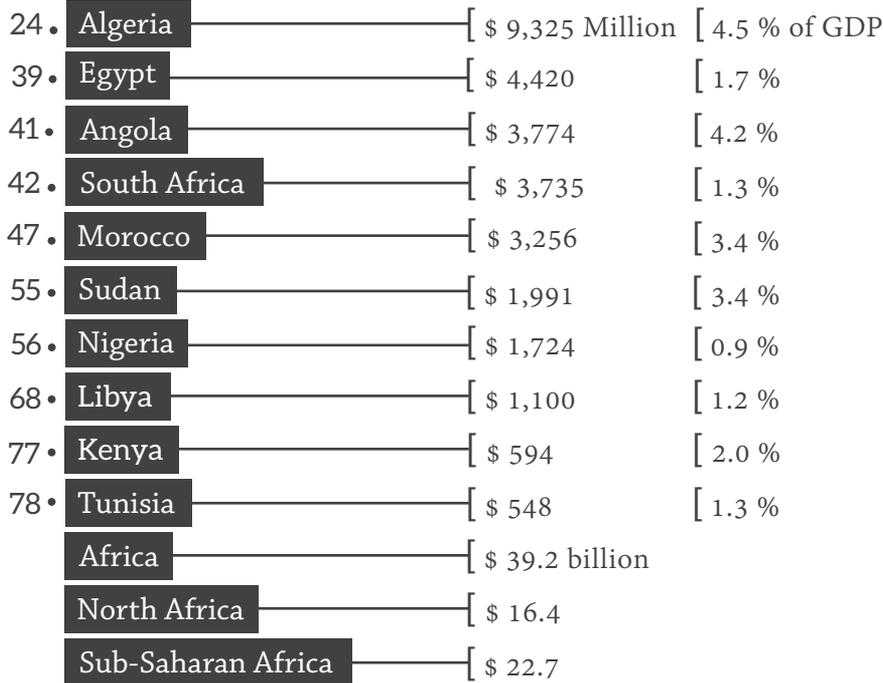
This is a list of the ten countries with the highest defence budgets for the year 2011, totaling \$1.29 trillion or 74% of total world military expenditures.

Rank	Country	Spending (\$ b.)	World Share (%)	% of GDP, 2011
1.	United States	[\$ 711.0 billion	[41.0 %	[4.7 %
2.	China	[143.0	[8.2	[2.0
3.	Russia	[71.9	[4.1	[3.9
4.	United Kingdom	[62.7	[3.6	[2.6
5.	France	[62.5	[3.6	[2.3
6.	Japan	[59.3	[3.4	[1.0
7.	Saudi Arabia	[48.5	[2.8	[8.7
8.	India	[46.8	[2.7	[2.5
9.	Germany	[46.7	[2.7	[1.3
10.	Brazil	[35.4	[2.0	[1.5
	World Total	[1735	[100	[2.5

Currently, the world's five largest military spenders (United States, China, Russia, the United Kingdom and France) are recognised to be world powers with each being a veto-wielding permanent member of the United Nations Security Council.

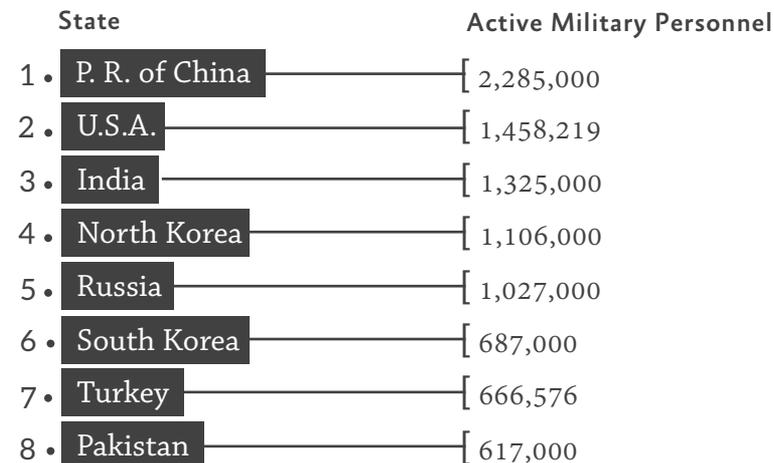
Between them they account for 60% of the world's military expenditure.

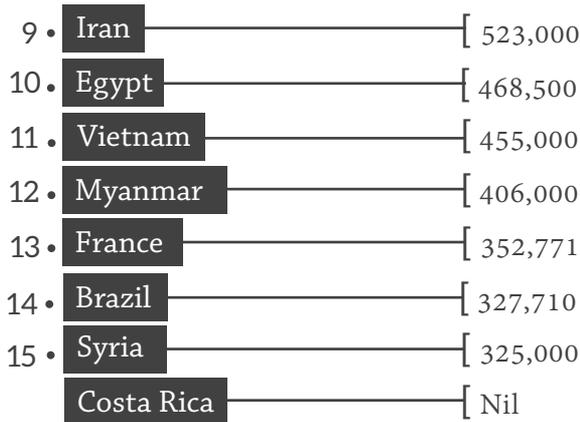
African Top Ten



16.2.2 DEFENCE FORCES

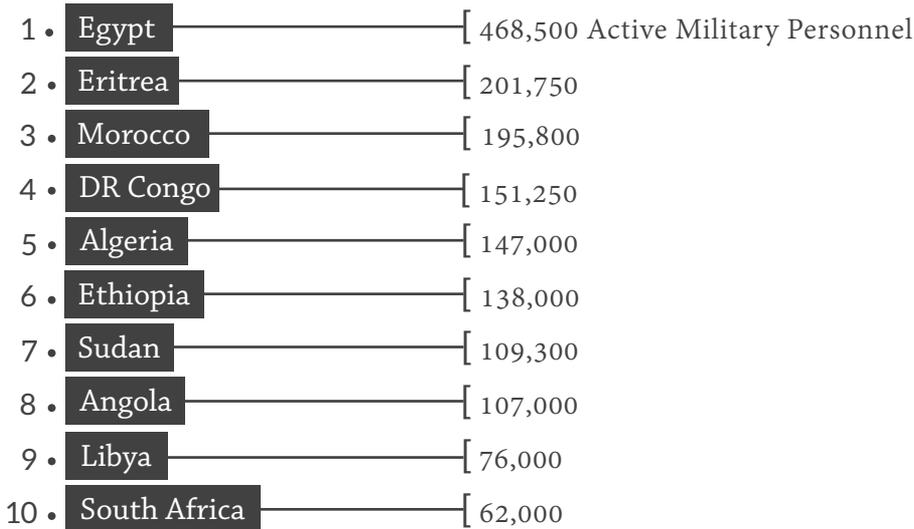
Defence Force Size, Top 15





Costa Rica by constitution does not have a defence force.

AFRICAN TOP TEN



16.2.3 MILITARY ALLIANCES

NATO

The North Atlantic Treaty Organization or **NATO** is an intergovernmental military alliance based on the North Atlantic Treaty which was signed on 4 April 1949. The organization constitutes a system of collective defence whereby its member states agree to mutual defence in response to an attack by any external party.

NATO's headquarters are in Brussels, Belgium, with 28 member states across North America and Europe,

The combined military spending of all NATO members accounts for over 70% of the world's defence spending.

ANZUS

The Australia, New Zealand, United States Security Treaty (ANZUS or ANZUS Treaty) is the military alliance which binds Australia and New Zealand and, separately, Australia and the United States to cooperate on defence matters in the Pacific Ocean area, though today the treaty is understood to relate to attacks worldwide.

USFJ

The United States Forces Japan (USFJ) refers to the various divisions of the United States Armed Forces that are stationed in Japan. Under the Treaty of Mutual Cooperation and Security between the United States and Japan, the United States is obliged to defend Japan in close cooperation with the Japan Self-Defense Forces for maritime defence, ballistic missile defence, domestic air control, communications security (COMSEC), and disaster response operations.

As of December 2009, there were 35,688 U.S. military personnel stationed in Japan with the United States Seventh Fleet based in Yokosuka, the 3rd Marine Expeditionary Force based in Okinawa and 130 USAF fighters stationed in the Misawa and Kadena Air Bases.

Other Overseas US Armed Forces

As of 31 December 2010, U.S. Armed Forces were stationed in 150 countries. Some of the largest contingents were the 103,700 in Afghanistan, the 52,440 in Germany, the 35,688 in Japan (USFJ), the 28,500 in Republic of Korea (USFK), the 9,660 in Italy, and the 9,015 in the United Kingdom respectively. These numbers change frequently due to the regular recall and deployment of units.

Altogether, 77,917 US military personnel were located in Europe, 141 in the former Soviet Union, 47,236 in East Asia and the Pacific, 3,362 in **North Africa**, the Near East, and South Asia, 1,355 in **sub-Saharan Africa** and 1,941 in the Western Hemisphere excluding the United States itself.

16.2.4 INTERNATIONAL INTERVENTIONS

U.N. Security Council

The United Nations Security Council (UNSC) is one of the principal organs of the United Nations and is charged with the maintenance of international peace and security. Its powers, outlined in the United Nations Charter, include the establishment of peacekeeping operations, the establishment of international sanctions, and the authorization of military action.

There are 15 members of the Security Council, consisting of five veto-wielding permanent members—China, France, Russia, the United Kingdom, and the United States—based on the great powers that were the victors of World War II and 10 elected non-permanent members with two-year terms.

On the issue of **War Crimes**, the Rome Statute of the International Criminal Court recognizes that the Security Council has authority to refer cases to the Court, where the Court could not otherwise exercise jurisdiction

Arms embargoes, financial sanctions and other restrictive measures

During 2012, 13 UN arms embargoes, 19 European Union (EU) arms embargoes, and 1 League of Arab States arms embargo were in force.

The UN Security Council failed to agree an arms embargo against Syria.

A variety of other restrictive measures have been used to prevent proliferation of nuclear, biological and chemical weapons, and missile systems for their delivery.

Multilateral arms embargoes in force, 2012

United Nations (13 embargoes)

- Al-Qaeda and associated individuals and entities
- Taliban
- Côte d'Ivoire, Eritrea, Iran, North Korea, Somalia, Sudan (Darfur)
- Non-Governmental Forces in DR Congo, Iraq, Lebanon, Liberia, Libya

Peacekeeping Missions

After a decade of increases in both the number of operations and personnel deployed, peacekeeping numbers plateaued in 2011 with 52 operations in total, and the number of peacekeepers deployed worldwide at 262 129.

See below for further details

International Criminal Court

The International Criminal Court (ICC) is a permanent tribunal to prosecute individuals for genocide, crimes against humanity, and **war crimes**.

War crimes are serious violations of the laws applicable in armed conflict (also known as international humanitarian law) giving rise to individual criminal responsibility.

Examples of such conduct include:-

- *“The murder, ill-treatment or deportation of civilian residents of an occupied territory to slave labour camps”,*
- “The murder or ill-treatment of prisoners of war”,*
- “The wanton destruction of cities, towns and villages,*
- and any devastation not justified by military, or civilian necessity”*

16.3 CONFLICT

Conflict Management & Peace Operations

A total of 52 peace operations were conducted in 2011 with the number of personnel deployed at 262 129.

The UN, with 20 operations, was the main conducting organization.

In terms of personnel deployed, NATO was the largest conducting organization with 137 463 personnel (52 per cent of the totals), mainly the International Security Assistance Force (ISAF) in Afghanistan

New peace operations

Four new peace operations were deployed in 2011:

.....● *two in **South Sudan**, one in **Libya** and one in Syria.*

Personnel deployed, by organization type, 2011

.....● *Ad hoc coalition, 3179 personnel (6 operations)*
Regional organization or alliance 153 603 personnel (26 operations)
United Nations 105 347 personnel (20 operations)

Personnel deployed, by location, 2011

.....● *Middle East, 16 627 personnel (11 operations)*
Europe, 11 932 personnel (15 operations)
Asia and Oceania 134 727 personnel (8 operations)
Americas 12 201 personnel (2 operations)
Africa 86 642 personnel (16 operations)

CHRONOLOGY 2012, selected events

1 Jan. The Atomic Energy Organization of Iran announces that Iran has manufactured a nuclear fuel rod.

10 Feb. Sudan and South Sudan sign a memorandum of understanding on non-aggression and cooperation.

22 Mar. Malian President Amadou Toumani Touré is overthrown in a coup.

12 Apr. A military coup d'état ousts the civilian government of Guinea-Bissau.

1 May Afghanistan and the USA sign a strategic partnership agreement on their relationship after 2014.

22 June A Turkish F-4 combat aircraft is shot down by Syrian forces.

2 July The 2012 UN Conference on the Arms Trade Treaty begins.

2 Aug. Kofi Annan resigns as the UN–Arab League Joint Special Envoy for Syria, and is replaced by Lakhdar Brahimi.

11 Sep. Japan announces that it has bought 3 of the disputed Senkaku (Diaoyu) Islands in the South China Sea.

10 Oct. A Syrian passenger aircraft is intercepted and forced to land at Ankara Airport.

29 Nov. The UN General Assembly adopts a resolution granting Palestine non-member state status at the UN.

12 Dec. North Korea successfully launches a Unha 3 rocket.

RECENT MAJOR CONFLICTS IN AFRICA

Countries

.....● *Central African Republic, Chad, DRC, Ethiopia, Kenya, Madagascar, Mali, Mozambique, Sudan, Uganda*

Rebel Forces

.....● *Al Qaeda, Al Shabaab, M23, Renamo, Taureg*

Types of Conflict

.....● *Political, Religious, Tribal, Military Coup*

Fatalities in ongoing conflicts

Conflict	Continent	Location	Fatalities in 2014
Syrian Civil War	[Asia	[Syria	[76,021
South Sudan Civil War	[Africa	[South Sudan	[40,000+
Iraqi Civil War	[Asia	[Iraq	[21,073+
War in Afghanistan	[Asia	[Afghanistan	[13,766
Boko Haram insurgency	[Africa	[Nigeria / Cameroon	[10,849
Mexican Drug War	[North America	[Mexico	[6,875+
Shia insurgency	[Asia	[Yemen	[6,800+
War in NWest Pakistan	[Asia	[Pakistan	[5,496
C. A. Republic conflict	[Africa	[CAR	[5,186+
War in Donbass	[Europe	[Ukraine	[4,771
War in Somalia	[Africa	[Somalia	[4,425
Libyan Civil War	[Africa	[Libya	[2,825
Israeli–Palestinian conflict	[Asia	[Israel/Palestine	[2,220+

Conflict Diamonds

Conflict diamonds, also known as 'blood' diamonds, are rough diamonds used by rebel movements or their allies to finance armed conflicts aimed at undermining legitimate governments.

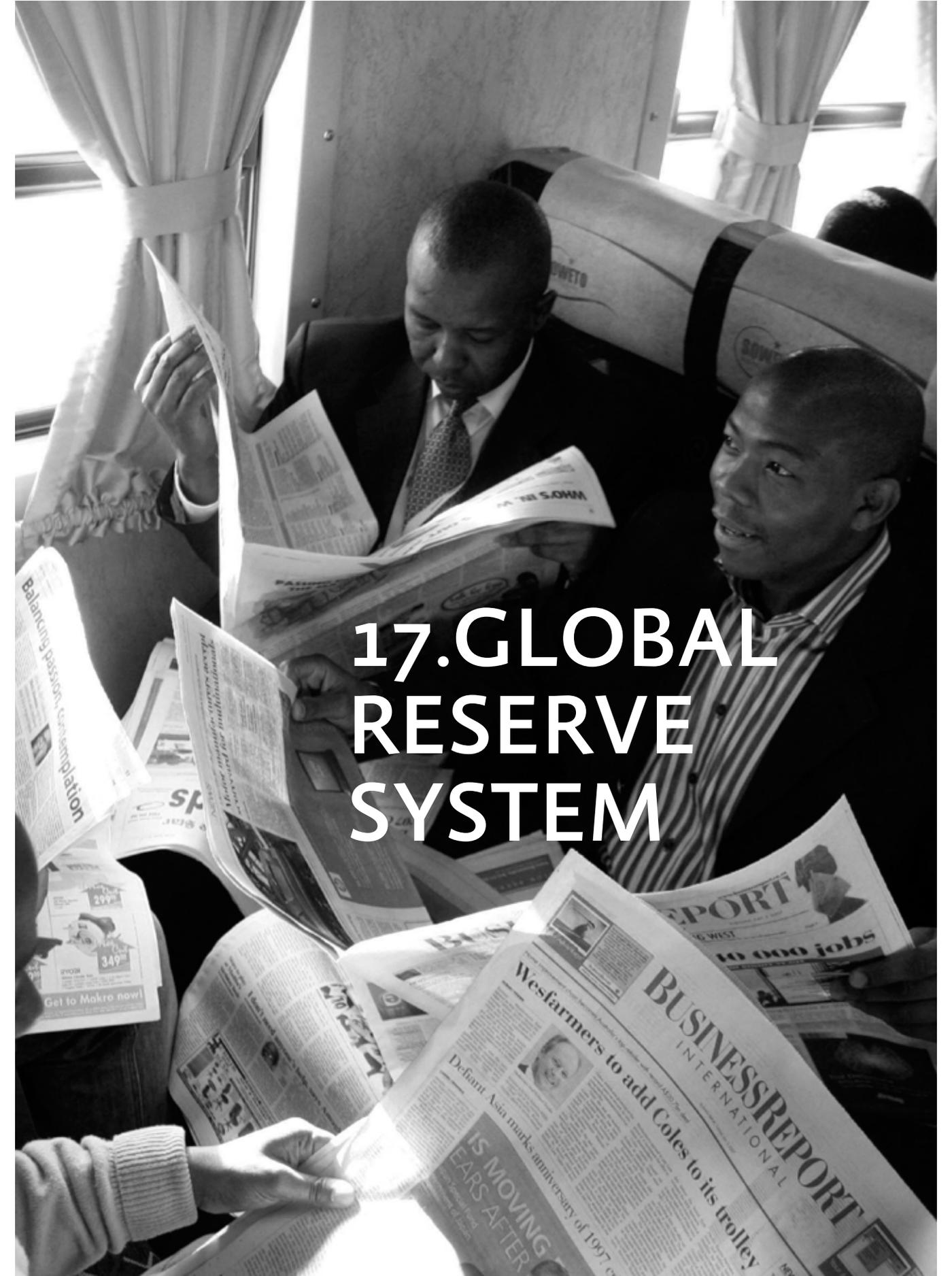
The Kimberley Process is an international certification scheme that regulates trade in rough diamonds. It aims to prevent the flow of conflict diamonds, while helping to protect legitimate trade in rough diamonds. There is now much greater stability in

countries that have previously suffered from conflicts funded in part by diamonds such as Sierra Leone, Angola, Liberia and the Democratic Republic of the Congo (DRC). The only current case of rebel forces controlling diamond-producing areas is in Côte d'Ivoire

The Global Peace Index 2012

The Global Peace Index (GPI), produced by the Institute for Economics and Peace, uses 23 indicators to rank 158 countries by their relative states of peace. There were improvements in the overall scores of all regions apart from the Middle East and North Africa in the 2012 GPI. For the first time since the GPI was launched in 2007, **sub-Saharan Africa** was not the least peaceful region. The events of the Arab Spring made the Middle East and **North Africa** the least peaceful region.

Rank	Country	Score
1•	Iceland	[1.113
2•	Denmark	[1.239
3•	New Zealand	[1.239
4•	Canada	[1.317
5•	Japan	[1.326
154•	Congo, DRC	[3.073
155•	Iraq	[3.192
156•	Sudan	[3.193
157•	Afghanistan	[3.252
158•	Somalia	[3.392



17. GLOBAL RESERVE SYSTEM

Balancing passion, contemplation

Get to Makro now!

Wesfarmers to add Coles to its trolley

10 000 jobs

BUSINESSREPORT INTERNATIONAL

Defiant Asia marks anniversary of 1997 crisis

IS MOVING EARS AFTER

17. GLOBAL RESERVE SYSTEM

BACKGROUND

The building of **Reserves** is by definition a form of insurance against some future adverse circumstance or event.

At an individual or household level it may take the form of an insurance policy.

At a corporate level it may be the setting aside of a portion of profits.

At a state level it is the establishment and management of dedicated funds.

This Chapter is concerned with the third level, known as the Global Reserve System.

ARRANGEMENT OF THIS CHAPTER

The following sub-headings are used here:-

17.1 CENTRAL BANKS

17.2 RELATED INTERNATIONAL ORGANIZATIONS

17.3 RESERVES

17.4 CURRENCY EXCHANGE RATES

17.5 SOVEREIGN WEALTH FUNDS

17.6 STRATEGIC RESERVES

17.1 CENTRAL BANKS

A **central bank**, reserve bank, or monetary authority is a public institution that manages a state's currency, money supply, and interest rates. Central banks also usually oversee the commercial banking system of their respective countries. In contrast to a commercial bank, a central bank possesses a monopoly on increasing the nation's monetary base, and printing the national currency, which usually serves as the nation's legal tender.

Examples include the European Central Bank (ECB), the Bank of England, the Bank of Japan (BOJ), the Federal Reserve of the United States, and the People's Bank of China.

ACTIVITIES AND RESPONSIBILITIES

Functions of a central bank may include:

- *implementing monetary policy (see below)*
- *determining Interest rates*
- *controlling the nation's entire money supply (see below)*
- *acting as the Government's banker and as a lender of last resort to the banking sector during times of bank insolvency or financial crisis*
- *managing the country's foreign exchange and gold reserves and the Government's stock register*
- *regulating and supervising the banking industry to prevent reckless or fraudulent*

behaviour

setting the official interest rate – used to manage both inflation and the country's exchange rate

Central banks in most developed nations are institutionally designed to be independent from political interference.

MONETARY POLICY

Monetary policy is the process by which the monetary authority of a country controls the supply of money, often targeting a rate of interest for the purpose of promoting economic growth and stability. The official goals usually include relatively stable prices and low unemployment.

Monetary policy is referred to as either being expansionary or contractionary, where an expansionary policy increases the total supply of money in the economy more rapidly than usual, and contractionary policy expands the money supply more slowly than usual or even shrinks it.

Expansionary policy is used to try to combat unemployment in a recession by lowering interest rates in the hope that easy credit will entice businesses into expanding.

Contractionary policy is intended to slow inflation in hopes of avoiding the resulting distortions and deterioration of asset values.

MONEY SUPPLY

Liquidity Tightening

Reserve Requirement Ratio (RRR)

This is the proportion of deposits a bank, by law, must keep in cash or place with the central bank. It is an important tool of monetary policy, as a higher reserve requirement means fewer funds are available to a bank for lending purposes.

Liquidity Loosening

Quantitative Easing

Printing Money

17.2 RELATED INTERNATIONAL ORGANIZATIONS

INTERNATIONAL MONETARY FUND (IMF)

The International Monetary Fund keeps a record of international balance of payments accounts of member states.

The IMF acts as a lender of last resort for members in financial distress, e.g., currency crisis, problems meeting balance of payment when in deficit and debt default.

See Chapters 5 and 13.

BANK FOR INTERNATIONAL SETTLEMENTS (BIS)

The Bank for International Settlements (BIS) is an intergovernmental organization of central banks which “fosters international monetary and financial cooperation and serves as a bank for central banks.”

Based in Basel, Switzerland, the BIS was established by the Hague agreements of 1930. It has two subsidiary bodies that are important actors in the global financial system in their own right - the Basel Committee on Banking Supervision, and the Financial Stability Board.

EUROZONE MONETARY UNION (EMU)

The Eurozone is an economic and monetary union (EMU) of 17 European Union (EU) member states that have adopted the euro (€) as their common currency and sole legal tender.

Monetary policy of the zone is the responsibility of the European Central Bank (ECB)

The Eurozone currently consists of Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain

Population (2011) 331,962,860

GDP (2010) €9.2 trillion

CHIANG MAI INITIATIVE (CMI)

The Chiang Mai Initiative (CMI) is a multilateral currency swap arrangement among the ten members of the Association of Southeast Asian Nations (ASEAN), the People's Republic of China, Japan, and South Korea; thirteen countries in all.

Member countries started this initiative to manage regional short-term liquidity problems and to facilitate the work of other international financial arrangements and organizations such as International Monetary Fund.

It draws from a foreign exchange reserves pool worth US\$120 billion at the time of the launch on 24 March 2010 and was expanded to \$240 billion in 2012.

17.3 RESERVES

FOREIGN-EXCHANGE RESERVES (also called forex reserves) in a strict sense are only the foreign currency deposits and bonds held by central banks and monetary authorities. However, the term in popular usage commonly includes:-

Foreign Currency

Gold Holdings (see below)

IMF Special Drawing Rights (SDRs). (See Chapter 5.2.2)

This broader figure is more accurately termed **official international reserves** or international reserves.

Balance of Payments effect on Official Reserves

All financial flows arriving in a country will have the effect of increasing that country's Foreign Exchange Reserves. Conversely, all outflowing payments will deplete those reserves. This, in effect, is the balancing mechanism for the Balance of Payments.

A country's Foreign Exchange Reserves are highly important for settling its international obligations and must be adequate at all times to pay for at least three months of imports.

Investment of Official Reserves

Some countries invest part of their Reserves in order to maximise their value, but such investments are likely to be in short-term instruments in order to preserve the flexibility of being able to respond to developments on a monthly or even daily basis.

List of foreign-exchange reserves by States

The list below is based on IMF and CIA data between April and June, 2012

1.	P. R. China	[3,305,000 Millions of US\$
2.	Japan	[1,277,716
	• Eurosystem*	[898,182
3.	Saudi Arabia	[592,358
4.	Russia	[510,432
5.	Taiwan	[389,028
6.	Switzerland	[383,612
7.	Brazil	[372,409
8.	Rep.of Korea	[316,837
9.	India	[286,019
10.	Germany	[239,449
11.	Singapore	[237,714
12.	Algeria	[185,900
13.	Italy	[173,245
14.	France	[171,905
15.	Thailand	[171,700
16.	Mexico	[159,341
17.	United States	[150,236
18.	Malaysia	[136,100

19•	U. K.	[128,484
20•	Indonesia	[116,413

* Eurosystem: EU member states which have adopted the euro, incl. ECB

TOTAL for the above list exceeds **\$10 Trillion**.

AFRICAN STATES (CIA, AT END 2012)

14•	Algeria	[\$ 191,600 million
22•	Libya	[117,200
37•	South Africa	[50,700
41•	Nigeria	[46,410
48•	Angola	[33,410
61•	Morocco	[17,540
64•	Egypt	[14,930
77•	Tunisia	[8,360
78•	Botswana	[7,839
86•	DR Congo	[6,091

CURRENCY COMPOSITION OF FOREIGN EXCHANGE RESERVES

US Dollar	[62.2 % of Global Reserves as at end 2011 (IMF, ECB)
Euro	[24.9 %
Pound Sterling	[4.0 %
Japanese Yen	[3.6 %
Swiss Franc	[0.1 %
Other	[5.2 %

Because of the dominant position of the US Dollar in Central Bank Reserves, it is said to have “reserve-currency status”.

Call for new major reserve currency

A report released by the United Nations Conference on Trade and Development in 2010, called for abandoning the U.S. dollar as the single major reserve currency.

Proposals have been made for the use of the International Monetary Fund’s (IMF)

special drawing rights (SDRs) as a reserve currency to be managed by a **global reserve bank**.

A GOLD RESERVE is the gold held by a central bank or nation intended as a store of value.

At the end of 2004, central banks and investment funds held 19% of all above-ground gold as bank reserve assets. It has been estimated that all the gold mined by the end of 2009 totaled 165,000 tonnes. At a price of US\$1900 per troy ounce, reached in September 2011, one tonne of gold has a value of approximately US\$61.1 million. The total value of all gold ever mined would exceed US\$10.1 trillion at that valuation.

WORLD OFFICIAL GOLD HOLDING (December 2010) [World Gold Council]

1.	United States	[8,133.5 tonnes	[76.6 % of National Reserves
2.	Germany	[3,396.3	[73.7 %
3.	I.M.F *	[2,814.0	[N.A.
4.	Italy	[2,451.8	[73.4 %
5.	France	[2,435.4	[71.8 %
6.	P. R. of China	[1,054.1	[01.8 %
7.	Switzerland	[1,040.1	[15.3 %
8.	Russian Federation	[883.2	[09.2 %
9.	Japan	[765.2	[03.5 %
10.	Netherlands	[612.5	[61.9 %
11.	India	[557.7	[09.6 %
12.	European Central Bank	[502.1	[35.0 %
13.	Taiwan	[422.4	[05.9 %
14.	Portugal	[382.5	[89.2 %
15.	Venezuela	[372.9	[67.7 %
16.	Saudi Arabia	[322.9	[03.3 %
17.	United Kingdom	[310.3	[17.6 %
18.	Lebanon	[286.8	[32.2 %
19.	Spain	[281.6	[39.2 %
20.	Austria	[280.0	[57.0 %

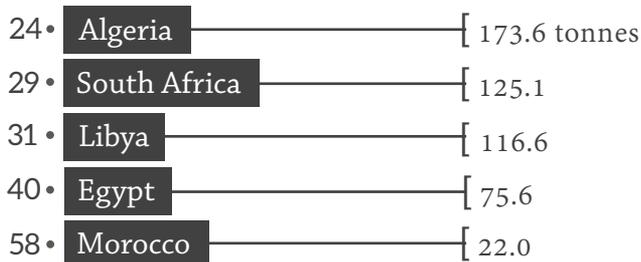
The combined gold holding of the European Union is 11,494.1 tonnes.

Total for Top 100 countries & organizations is **30,623.7 tonnes**.

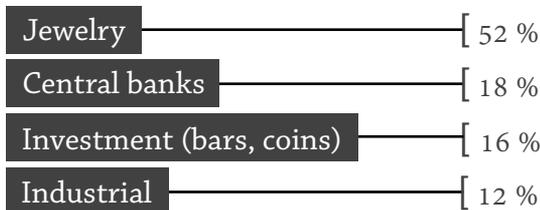
Note that China, Russia, Japan, India, Taiwan and Saudi Arabia all hold less than 10% of their reserves in gold.

Note also that USA, Germany, Italy, France and Portugal are highly dependent on gold at over 70% of their reserves.

AFRICAN OFFICIAL GOLD HOLDING



World gold holdings (2008) (Source: World Gold Council)



17.4 CURRENCY EXCHANGE RATES

An exchange-rate regime is the way an authority manages its currency in relation to other currencies and the foreign exchange market.

The basic types are:

a **floating exchange rate**, where the market dictates movements in the exchange rate;

a **pegged float**, where a central bank keeps the rate from deviating too far from a target band or value;

a **fixed exchange rate**, which ties the currency to another currency, mostly more widespread currencies such as the U.S. dollar or the euro or a basket of currencies.

In today's world, the majority of the world's currencies are floating.

Such currencies include the most widely traded currencies: the United States dollar, the euro, the Norwegian kroner, the Japanese yen, the British pound, the Swiss franc and the Australian dollar.

Central banks often participate in the markets to attempt to influence exchange rates. In cases of extreme appreciation or depreciation, a central bank will normally intervene to stabilize the currency. Thus, the exchange rate regimes of floating currencies may more technically be known as a **managed float**. Management by the central bank may take the form of buying or selling large lots in order to provide price support or resistance

Relationship between Exchange Rate and Foreign Trade

A country's exchange rate has an influence on its trade balance.

Export prices will be increased by a strengthening currency and decreased by a weakening currency, thus adversely or beneficially affecting competitiveness and potential export volumes.

Conversely, Import costs will benefit from a strong currency.

In turn, the trade balance is one of the many factors influencing the exchange rate.

17.5 SOVEREIGN WEALTH FUNDS

A number of countries are able to accumulate reserves well beyond normal requirements due either to being well endowed with valuable natural resources such as oil and gas, or to having large sustained Balance of Payments surpluses, budget surpluses, pension reserves and privatization revenue.

These excess reserves have led to the creation of Sovereign Wealth Funds, entities that invest and manage the national savings for the national benefit in various areas.

LARGEST SOVEREIGN WEALTH FUNDS (SWF INSTITUTE, 2012)

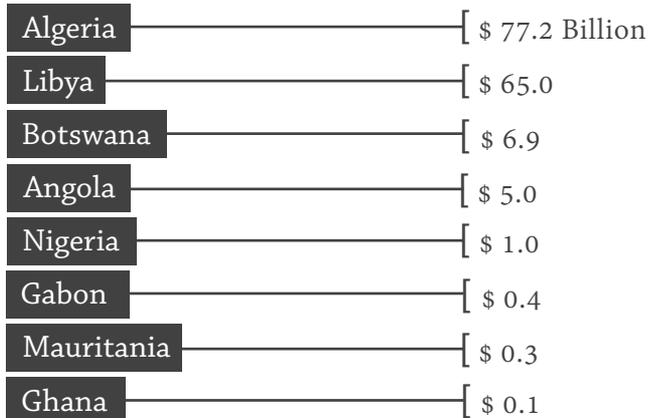
United Arab Emirates	Abu Dhabi Investment Authority	\$ 627 Billion	Oil
Norway	Government Pension Fund - Global	593	Oil
China	SAFE Investment Company	567.9	Non-commodity
Saudi Arabia	SAMA Foreign Holdings	532.8	Oil
China	China Investment Corporation	439.6	Non-commodity
Kuwait	Kuwait Investment Authority	296	Oil
Hong Kong	Hong Kong Monetary Authority	293.3	Non-commodity
Singapore	Govt of Singapore Investment Corporation	247.5	Non-commodity
Singapore	Temasek Holdings	157.5	Non-commodity
Russia	National Welfare Fund	149.7	Oil
China	National Social Security Fund	134.5	Non-commodity

Qatar [Qatar Investment Authority [100 [Oil

GLOBAL TOTAL as at July 2012 : \$5,064 Billion

Sources: Oil & Gas 57%, Other 43% budget surpluses, pension reserves and privatization revenue. **Regions: Asia 40%, Middle East 35%, Europe 17%, Other 8%**

AFRICAN SOVEREIGN WEALTH FUNDS



The source of the wealth of the above is Oil, except for Botswana (Diamonds)

17.6 STRATEGIC RESERVES

A strategic reserve is a term used to describe a reserve of a commodity or items, held back from normal use by governments, organisations or business in pursuance of a particular strategy or to cope with unexpected events.

A strategic reserve can be:

Financial in nature such as ring fenced funding or capital reserves of a large corporation.

A commodity, such as intervention stocks of food or petroleum

Specific machinery such as rail road cars or steam locomotives, to be used in an emergency situation.

Global strategic petroleum reserves

Global strategic petroleum reserves (“GSPR”) refer to crude oil inventories (or stockpiles) held by the government of a particular country, as well as private industry, for the purpose of providing economic and national security during an energy crisis. According to the International Energy Agency (IEA), approximately 4.1 billion barrels of oil are held in strategic reserves, of which 1.4 billion is government-controlled. The

remainder is held by private industry.

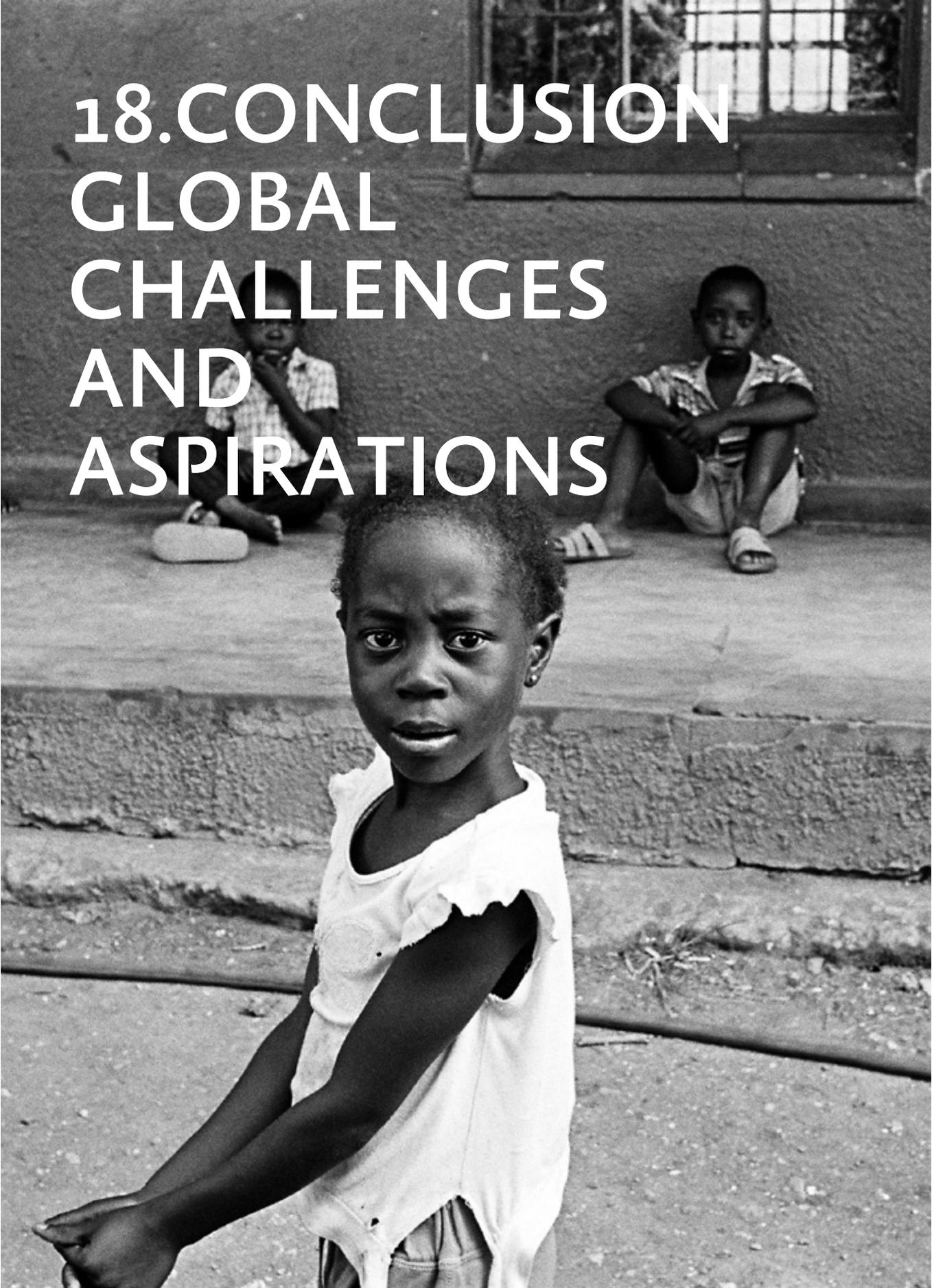
At present the US Strategic Petroleum Reserve is one of the largest strategic reserves, with much of the remainder held by the other 26 members of the International Energy Agency.

Other non-IEA countries have begun creating their own strategic petroleum reserves, with China having the largest of these new reserves.

CONCLUDING REMARKS

This final Chapter has been concerned with the accumulation and management of each country's Sovereign Assets. It is interesting to note that the countries which have been most successful in this activity come largely from the group of countries categorized as developing or emerging. This at a time when a group of countries categorized as developed or industrialized is in the middle of a Sovereign Debt Crisis.

18. CONCLUSION GLOBAL CHALLENGES AND ASPIRATIONS



18. CONCLUSION GLOBAL CHALLENGES AND ASPIRATIONS

The **United Nations Millennium Declaration** signed by 189 countries (see Appendix A) and the **Universal Declaration of Human Rights** adopted by the UN General Assembly in 1948 (see Appendix B) are an expression of many of the challenges facing the World's inhabitants and of their aspirations towards meeting those challenges. The following is a summary of these and some other challenges and aspirations.

QUALITY OF LIFE CHALLENGES

HUMAN SURVIVAL

Employment	Full Employment
Income	Eradicate Poverty
Food Security	Eradicate Hunger
Health Care	Improve Health Care
Shelter	Provide
Basic Amenities	Provide
Life Expectancy	Promote
Family Planning	Promote Birth Control

HUMAN DEVELOPMENT

Education	Compulsory, Free
Gender Parity	Promote
Social Security	Provide
Economic Activity Access	Promote
Social Facilities	Provide
Political Rights	Promote

ENVIRONMENTAL CHALLENGES

Climate Change	Mitigate & Manage
Pollution	Manage & Reduce
Resource Sustainability	Manage renewables Substitute for non-renewables

ECONOMIC CHALLENGES

Infrastructure
Production
Trade
Distribution
Consumption

Finance
Reserves

SECURITY CHALLENGES

Conflict, Internal & Cross-border, Dispute Resolution
Peace Maintenance

APPENDICES

APPENDIX A

The Millennium Declaration

In September 2000 147 heads of State and Government, and 189 nations in total, in the **United Nations Millennium Declaration** committed themselves to making the right to development a reality for everyone and to freeing the entire human race from want. They acknowledged that progress is based on sustainable economic growth, which must focus on the poor, with human rights at the centre. The objective of the Declaration is to promote “a comprehensive approach and a coordinated strategy, tackling many problems simultaneously across a broad front.”

The Declaration calls for halving by the year **2015**, the number of people who live on less than one dollar a day. This effort also involves finding solutions to hunger, malnutrition and disease, promoting gender equality and the empowerment of women, guaranteeing a basic education for everyone, and supporting the Agenda 21 principles of sustainable development. Direct support from the richer countries, in the form of aid, trade, debt relief and investment is to be provided to help the developing countries

.....

APPENDIX B

Universal Declaration of Human Rights

The Universal Declaration of Human Rights (UDHR) was adopted by the United Nations General Assembly on 10 December 1948 at Palais de Chaillot, Paris.

Economic, social and cultural rights are socio-economic human rights, such as the right to education, right to housing, right to adequate standard of living and the right to health. Economic, social and cultural rights are recognised and protected in international and regional human rights instruments. Member states have a legal obligation to respect, protect and fulfill economic, social and cultural rights and are expected to take “progressive action” towards their fulfillment. Some details follow:-

Article 22: Right to social security Everyone, as a member of society, has the right to **social security** and is entitled to realisation, through national effort and international co-operation and in accordance with the organisation and resources of each State, of the **economic, social and cultural rights** indispensable for his dignity and the free development of his personality.

Article 23: Right to work (1) Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against

unemployment. (2) Everyone, without any discrimination, has the right to equal pay for equal work. (3) Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection. (4) Everyone has the right to form and to join trade unions for the protection of his interests.

Article 24: Right to **rest & leisure** Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.

Article 25: Right to an adequate standard of living. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

Article 26: Right to **education**. Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.

Article 27: Right to **science and culture**. Everyone has the right to freely participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

Article 28: Everyone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized.

APPENDIX C

FINANCIAL ACCOUNTING SUMMARY

	Individual HOUSEHOLD	Private Sector CORPORATE	Public Sector STATE
INCOME	Wages & Salaries Pensions Social Grants Interest Dividends Credit Rent received	Sales Receipts Borrowing IPOs Corporate Bonds	Taxes Levies Duties Fines SOE Profits Aid (IMF, WorldBank) Borrowing
.....			
EXPENDITURE	Food & Clothing Maintenance Rent/Mortgage Healthcare Insurance Education Leisure Transport Income Tax Debt Servicing Capex	Compensation Capex Depreciation Maintenance Inputs Running Costs Debt Servicing Rental Company Tax Logistics Dividend Payments Transport Marketing Insurance	Departmental Allocations Grants Infrastructure Spending Debt Servicing
.....			
ASSETS	Fixed Property Household Contents Motor Cars Shares, Bonds Insurance Policies Annuities Savings Account Cash	Land Buildings Plant & Machinery Office Equipment Fixtures & Fittings Stock Goodwill Appreciation	State Property State Infrastructure State Owned Enterprises Natural Resources Reserves IMF SDRs

INDEX

SUBJECT

	Chapter	Section
AFFLUENT POPULATION	4	3A3
AGRICULTURAL OUTPUT	9	1
AGRICULTURE ISSUES	9	1.6
AID, Development	5	2
AID, Humanitarian	5	1
AIRPORTS	8	1
AMENITIES, Basic	4	3A6
ARMED CONFLICT	16	3
ARMS INDUSTRY	16	1
ARMS TRADE	16	
ATMOSPHERIC RESOURCES	7	6
BALANCE OF PAYMENTS	13	8
BANKS, Central	17	1
BANKS, Commercial	13	1.1
BIODIVERSITY	6	4
BIOLOGICAL RESOURCES	7	3
BUDGETS, National	13	2
CLIMATE CHANGE	6	2
COMMODIFICATION	9	5
COMMUNICATIONS	8	4
CONSUMPTION, Household, Government	11	
CO-OPERATIVES	15	
CORPORATE	15	
CORPORATE SIZE	15	2
CORPORATE STRUCTURE	15	1
CORPORATIONS, MNCs & TNCs	15	5
CORPORATIONS, State Owned	15	3
COUNTRY DEVELOPMENT RANKING	2	3
CREDIT	13	4
CROP PRODUCTION	9	1.1
CURRENT ACCOUNT	13	8
DEBT HOLDERS	13	5
DEBT RELIEF	5	2
DEBT, EXTERNAL	13	5
DEBT, PUBLIC	13	5

DEFORESTATION	6	4
DISASTERS, Seismic, Weather	6	1
DISEASES	4	3A5
DISTRIBUTION	9	4.1
ECONOMY	12	
ECONOMIC ACTIVITY, Access	4	3B4
ECONOMY, Growth Rate	12	4
ECONOMY, Per Capita	12	5
ECONOMY, Size	12	3
EDUCATION	4	3B1
EDUCATION INFRASTRUCTURE	8	6
EMPLOYMENT	4	3A2
EMPLOYMENT IN PRODUCTION	9	5
ENERGY CONSUMPTION	11	
ENERGY INFRASTRUCTURE	8	2
EXCHANGE RATE, Currency	17	4
EXPORTS	10	
FINANCIAL CRISES	13	9
FINANCIAL CROSS-BORDER ACCOUNTING	13	8
FINANCIAL INSTRUMENTS, MARKETS	13	7
FINANCIAL SYSTEM	13	
FISHING & AQUACULTURE	9	1.5
FOOD ISSUES	9	1.3
FOOD PRODUCTION	9	1.3
FOOD SECURITY	4	3A4
FORESTRY	4	1.4
FOSSIL FUEL PRODUCTION	9	2.1
FOSSIL FUEL RESOURCES	7	4.1
GENDER PARITY	4	3B2
GLOBAL WARMING	6	2
GOLD COINAGE	13	3
GOLD HOLDINGS	17	3
GOLD PRODUCTION	9	2.2.1
GOLD RESOURCES	7	4
HEALTH CARE	4	3A5
HEALTH INFRASTRUCTURE	8	6
HUMAN DEVELOPMENT INDEX	4	1

HYDRO-ELECTRIC POWER	7	1
IMPORTS	10	
INCOME, Poverty, Affluence	4	3A3
INDUSTRIALIZATION	12	6
INFLATION, Consumer Price Index (CPI)	11	
INFRASTRUCTURE	8	
INSTITUTIONS, Bretton Woods	5	2.2
INSTITUTIONS, INTERGOVERNMENTAL	3	2
INTERNATIONAL MONETARY FUND (IMF)	5	2.2
INTERNET USERS	8	4
INVESTMENT, Fixed	13	6
INVESTMENT, Foreign Direct (FDI)	13	6
LABOUR FORCE	1	2(h)
LAND ACCESS	4	3B4
LAND OWNERSHIP	7	2
LAND RESOURCES	7	2
LAND USE	7	2
LIFE EXPECTANCY	4	3A1
LITERACY	4	3B1
LIVESTOCK PRODUCTION	9	1.2
LOGISTICS	9	4.1
MANUFACTURING CATEGORIES	9	4.1
MANUFACTURING ISSUES	9	3.2
MANUFACTURING OUTPUT	9	2
MARINE RESOURCES	7	5
MARKET, CAPITAL	14	2
MARKET, COMMODITY	9	5
MERGERS & ACQUISITIONS	16	2
METALS, BASE	9	2.2.2
METALS, PRECIOUS	9	2.2.1
MILITARY ACTIVITY	16	2
MILLENNIUM DEVELOPMENT GOALS (MDGs)	4	2
MINERAL PRODUCTION	9	2.2
MINERAL RESOURCES	7	4
MINING ISSUES	9	2.3
MINING OUTPUT	9	2
MONEY SUPPLY	13	3
MORTALITY, Maternal, Infant, Child		3A5

NATIONAL ACCOUNTS	13	8
NATIONAL BUDGETS	13	2
NATIONALIZATION	15	
NATURAL DISASTERS	6	1
NATURAL RESOURCES	7	
OPEC Org. of Petroleum Exporting Countries	9	2.1.2
POLITICAL RIGHTS	4	3B6
POLLUTION	6	3
POPULATION MOVEMENT	1	3
POPULATION PROFILES	1	2
POPULATION STATISTICS	1	1
POVERTY	4	3A3
POWER GENERATION	8	2
PRIVATIZATION	15	
PRODUCTION	9	
PRODUCTION ISSUES	9	5
PRODUCTION SUSTAINABILITY	9	5
QUALITY OF LIFE, Human Survival	4	3A
QUALITY OF LIFE, Human Development	4	3B
RESERVES	17	
RESERVES, FOREX	17	3
RESERVES, GOLD	17	3
RESERVES, SDRs	17	3
RESERVES, STRATEGIC	17	6
RESOURCES, NATURAL	7	
SANITATION	4	3A6
SAVINGS	13	6
SEAPORTS	8	1
SERVICES CATEGORIES	9	4.1
SERVICES PROVISION	9	4
SHELTER & BASIC AMENITIES	4	3A6
SOCIAL ACTIVITY	4	3B5
SOCIAL INFRASTRUCTURE	8	7
SOCIAL SECURITY	4	B3
SOLAR POWER	7	7
SOLAR RESOURCES	7	7

SOVEREIGN WEALTH FUNDS	17	5
SPECIAL DRAWING RIGHTS (SDRs)	17	3
SPECULATION		14
SPECULATIVE FUNDS	14	3
SPECULATIVE INSTRUMENTS	14	4
SPECULATIVE MARKETS & EXCHANGES	14	2
SPECULATIVE STRATEGIES	14	5
STOCKMARKET CRASHES	14	6
TAXATION	13	2
TELEPHONE USERS	8	4
TOURISM	9	4.1
TRADE, Agreements, Partners, Balances, Orgs	10	
TRANSPORT POLLUTION	6	3
TRANSPORTATION, Road, Rail, Sea, Air	8	1
UNITED NATIONS SYSTEM	3	1
URBANIZATION	1	2(b)
WASTE MANAGEMENT	8	5
WATER MANAGEMENT	8	3
WATER RESOURCES	7	1
WIND POWER	7	6
WORK FORCE	4	3A2
WORLD BANK GROUP	5	2.2

ACKNOWLEDGEMENTS

This project could never have seen the light of day without the existence of the remarkable **INTERNET** and its access through the brilliant search engine of **GOOGLE**, with its triumphal announcements on being interrogated that it had found 631,000,000 results within 0.25 of a second (or similar).

And invariably, there was **WIKIPEDIA** at, or near, the top of the responses and providing a wealth not only of information, constantly updated, but also further lists of sources relevant to the subject in question.

Such sources include the plethora of **UNITED NATIONS AGENCIES** and innumerable **SPECIAL INTEREST ORGANIZATIONS** of relevance to the project.

A list of sources would not be complete without mentioning the **WORLD FACT BOOK** produced by the **CENTRAL INTELLIGENCE AGENCY (CIA)** of the USA, a veritable mine of information for the project.

During the course of researching the project, several hundred websites were consulted and many revisited where necessary.

Every effort has been made in the text to indicate the source used for a particular fact or statistic to enable the reader to verify or update the information