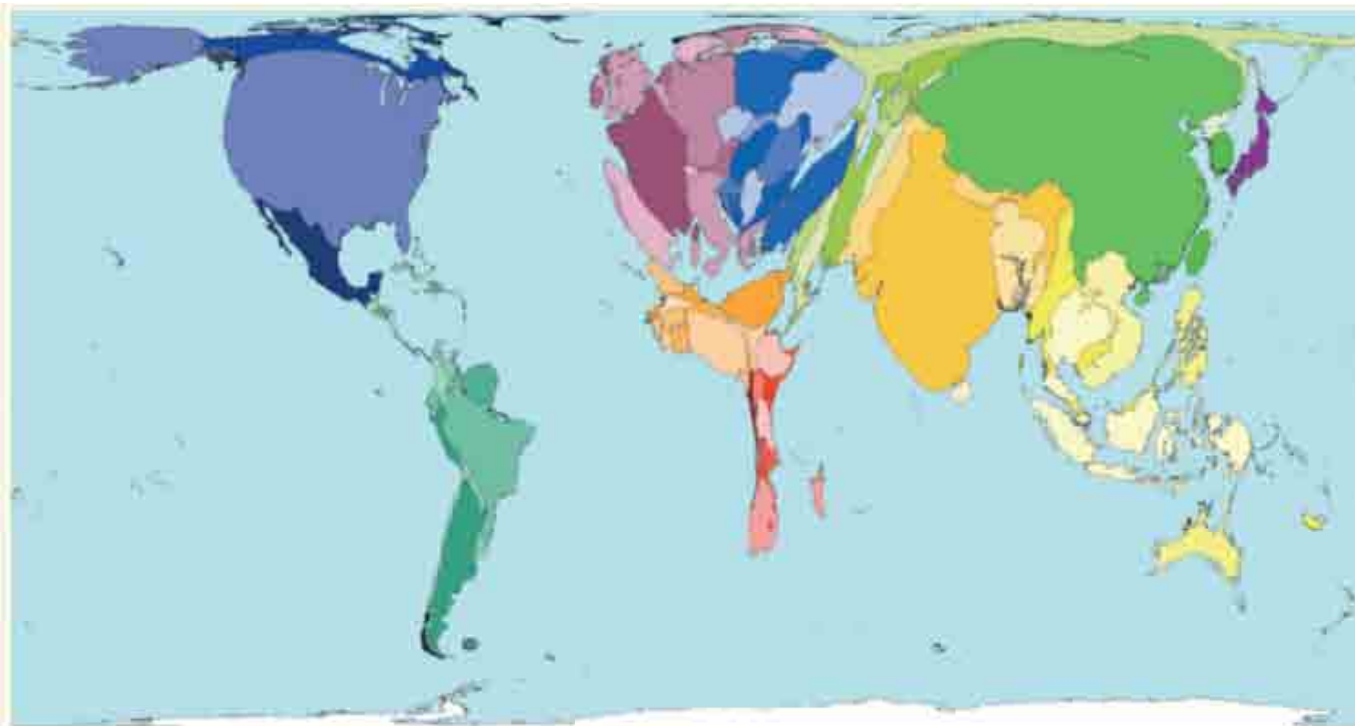


# Production and Work

# Cereals Produced



The world total annual cereal production in 2002 was recorded as weighing 2 billion tonnes. Cereal production includes cereals that are sold and those that are consumed by the producer.

All territories produce some cereals. However there is particularly low cereal production on some islands. Eight of the ten territories with the lowest per person cereal production are islands.

Eastern Asia produces the most cereals in total. North America produces the most cereals per person living there. North America produces twenty times more cereals per person living there than Central Africa produces.

Territory size shows the proportion of worldwide cereal production that occurs there.



Land area

#### Technical notes

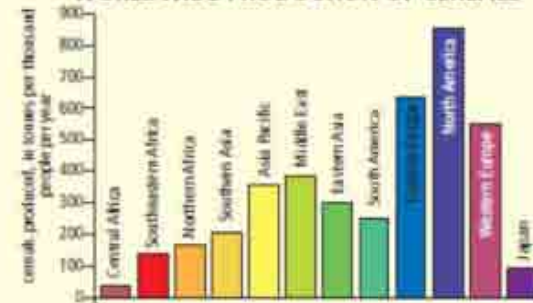
- Data are from the United Nations Environment Programme (2002) series on cereal production.
- A tonne is 1000 kilograms.
- See website for further information.

## MOST AND LEAST CEREALS PRODUCED

Rank	Territory	Value	Rank	Territory	Value
1	Denmark	1632	191	Bahamas	1.02
2	Hungary	1182	192	Barbados	0.73
3	France	1165	193	Jamaica	0.68
4	Canada	1160	194	Antigua & Barbuda	0.50
5	Kazakhstan	1028	195	Mauritius	0.25
6	United States	1027	196	Puerto Rico	0.12
7	Australia	965	197	United Arab Emirates	0.04
8	Greenland	857	198	Djibouti	0.02
9	Bulgaria	846	199	Maldives	0.02
10	Croatia	846	200	Saint Lucia	<0.01

tonnes of cereal produced per thousand people per year

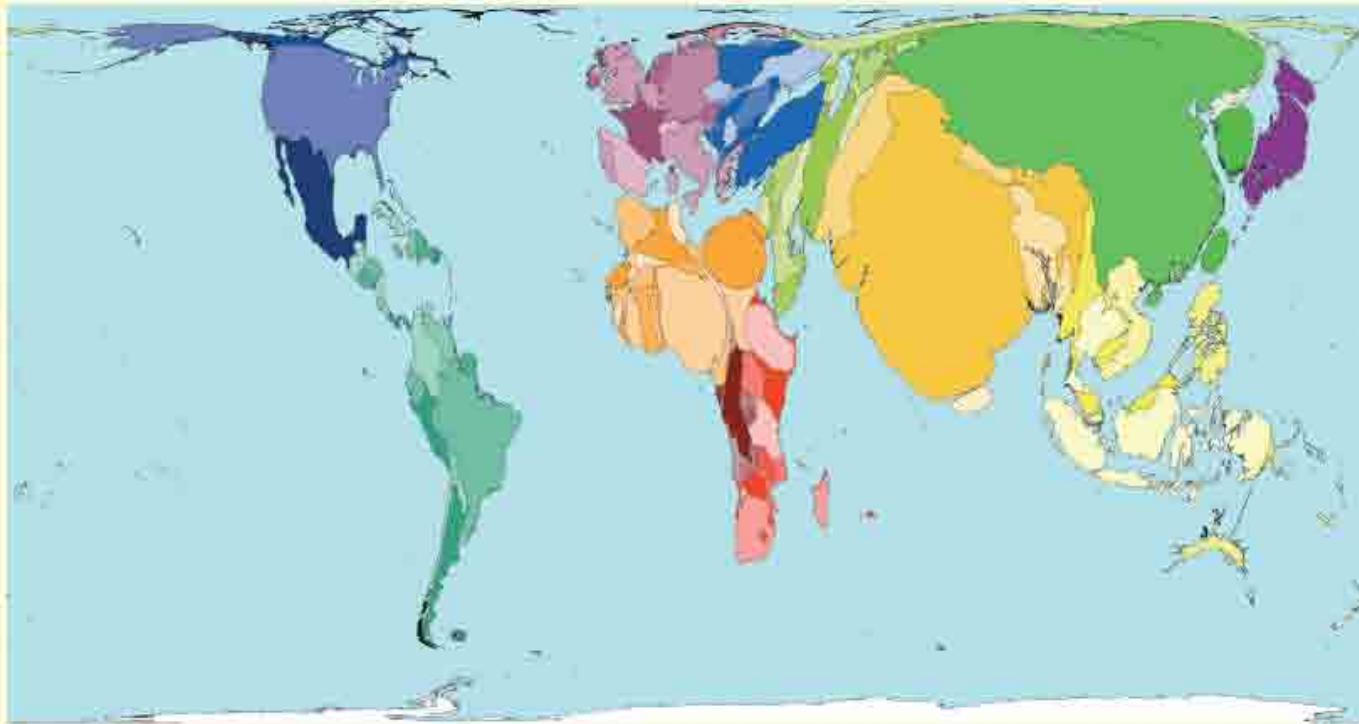
## WORLDWIDE PRODUCTION OF CEREALS



*“For about a third of the world’s population, rice equals life. The cereal provides more than half the daily calories that these people consume.”*

John Travis, 2002

# Vegetables Consumed



Vegetables here means all food, excluding meat. People in China and India consume the most vegetables, the largest populations live in China and India. Food consumption per person varies less than other topics, because people need to attain a certain calorific intake to survive. Intake is lowest where people go hungry. Intake is highest where less meat is eaten.

A close inspection of vegetable consumption per person by territory indicates large variations. The biggest difference is that the average person living in Turkey consumes more than three times the daily vegetables that the average person living in Somalia consumes.

Territory size shows the proportion of worldwide vegetable (vegetable here means everything except for meat) consumption that occurs there.



Land area

- Technical notes**
- Data are from the United Nations Environment Programme, 2005.
  - Vegetables here is all food stuffs that are not animal or fish products, as opposed to the usual definition of vegetables.
  - See website for further information.

## MOST AND LEAST VEGETABLES CONSUMED

Rank	Territory	Value	Rank	Territory	Value
1	Turkey	3128	191	Kenya	1736
2	Egypt	3066	192	Dem Republic Congo	1708
3	Tunisia	3003	193	Bahamas	1693
4	Syrian Arab Republic	2953	194	DPR Korea	1688
5	Libyan Arab Jamahiriya	2948	195	Burundi	1641
6	Morocco	2868	196	Afghanistan	1606
7	Greece	2851	197	Antigua & Barbuda	1594
8	Lebanon	2829	198	Eritrea	1530
9	Indonesia	2752	199	Mongolia	1071
10	Jordan	2748	200	Somalia	828

calories per person per day from vegetables

## DAILY VEGETABLE INTAKE PER PERSON

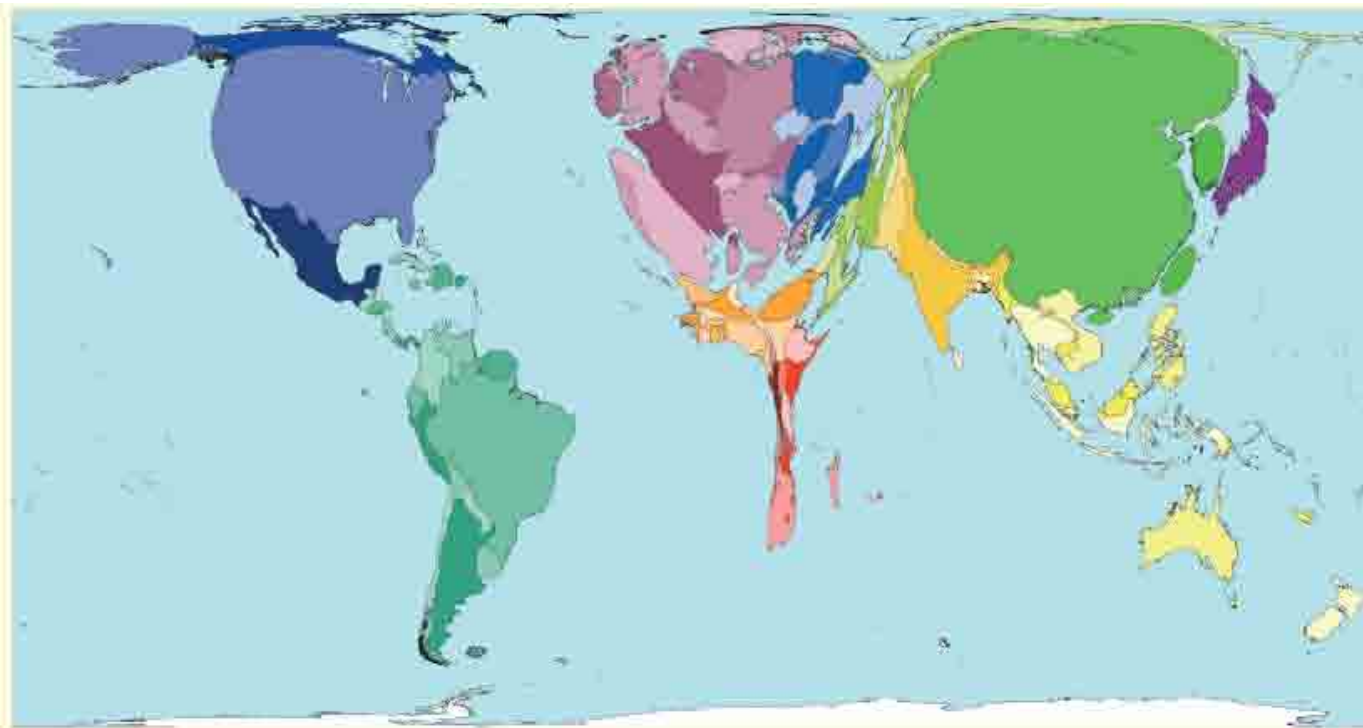


*“... there is always room for improvement and we challenge Americans to get fruits, get vegetables and get going to a healthier, happier you.”*

Apu Mody, 2006



# Meat Produced



China, the United States and Brazil produce the most meat in the world. The smallest producer of these three territories, Brazil, produces double the meat of any other territory. Together these three territories produce half of all the meat that is produced in the world.

The territories that produce the least meat are the Pacific islands of Niue, Nauru and Tuvalu; and the minute Holy See. Per person production of meat is lowest in Southern Asia and Central Africa.

Meat production is considerably lower than cereal production, in weight the worldwide annual production of meat is only a tenth of the weight of cereals produced.

Territory size shows the proportion of worldwide meat production that occurs there.



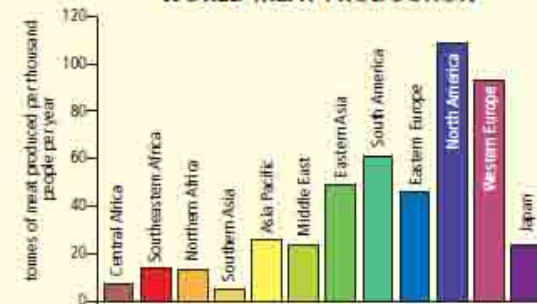
Land area

## MOST AND LEAST MEAT PRODUCED

Rank	Territory	Value	Rank	Territory	Value
1	Denmark	373	191	Malawi	4.18
2	New Zealand	351	192	Rwanda	4.17
3	Ireland	261	193	Bhutan	3.53
4	Australia	187	194	São Tomé & Príncipe	3.51
5	Netherlands	178	195	Guinea	3.48
6	Uruguay	174	196	Maldives	3.33
7	Belgium	162	197	Burundi	3.18
8	United States	129	198	Bangladesh	2.95
9	Canada	129	199	Comoros	2.66
10	Cyprus	125	200	Equatorial Guinea	0.92

tonnes of meat produced per thousand people per year.

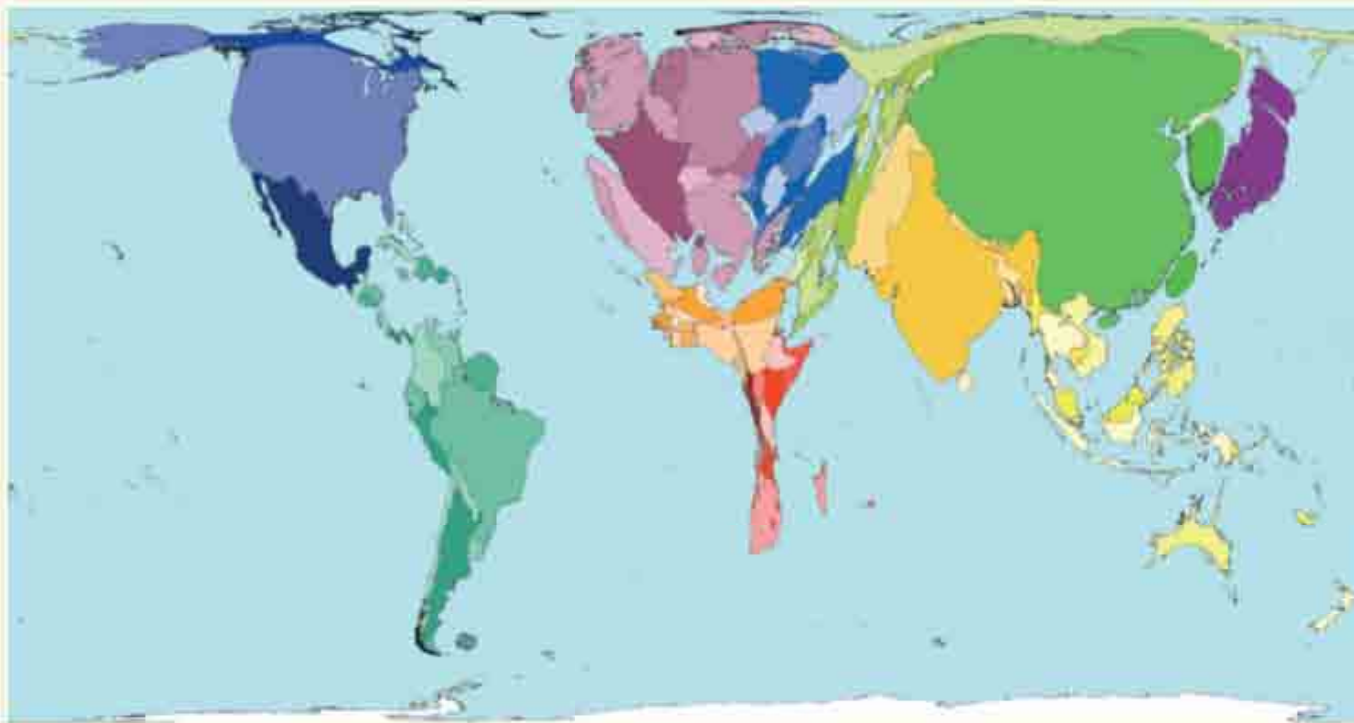
## WORLD MEAT PRODUCTION



**Technical notes**  
 • Data are from the United Nations Environment Programme's series on meat production.  
 • See website for further information.

*“British beef producers would be extinct were it not for subsidies and European tariffs. Brazilian meat threatens them only because it is so cheap that it can outcompete theirs even after trade taxes have been paid.”* George Monbiot, 2006

# Meat Consumed



Meat, as shown here, refers to all animal products that are consumed by people.

Meat consumption per person is highest in Western European territories. Nine of the top ten meat consuming populations live in Western Europe. The anomaly in this ranking is New Zealand, a territory that is famous for its high ratio of sheep to people and the production of lamb.

The most meat is consumed in China, a quarter of the world total. A fifth of the world population lives in China, eating on average 510 calories of meat per person, which is above the world average of 432 calories of meat per person.

Territory size shows the proportion of worldwide meat (including animal products) consumption that occurs there.



Land area

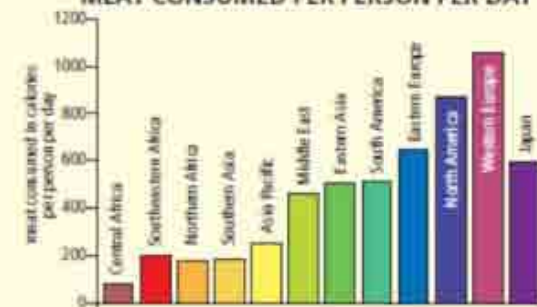
- Technical notes**
- Data are from the United Nations Environment Programme, 2005.
  - Meat, as defined here, includes edible animal products such as cheese and milk.
  - See website for further information.

## MOST AND LEAST MEAT CONSUMED

Rank	Territory	Value	Rank	Territory	Value
1	France	1334	191	Equatorial Guinea	80
2	New Zealand	1303	192	Bangladesh	69
3	Denmark	1259	193	Sierra Leone	66
4	Austria	1256	194	Liberia	65
5	Iceland	1224	195	Guinea	62
6	Finland	1195	196	Rwanda	60
7	Belgium	1151	197	Malawi	56
8	Netherlands	1135	198	Dem Republic Congo	47
9	Ireland	1126	199	Burundi	44
10	Norway	1124	200	Mozambique	44

calories of meat consumed per person per day

## MEAT CONSUMED PER PERSON PER DAY

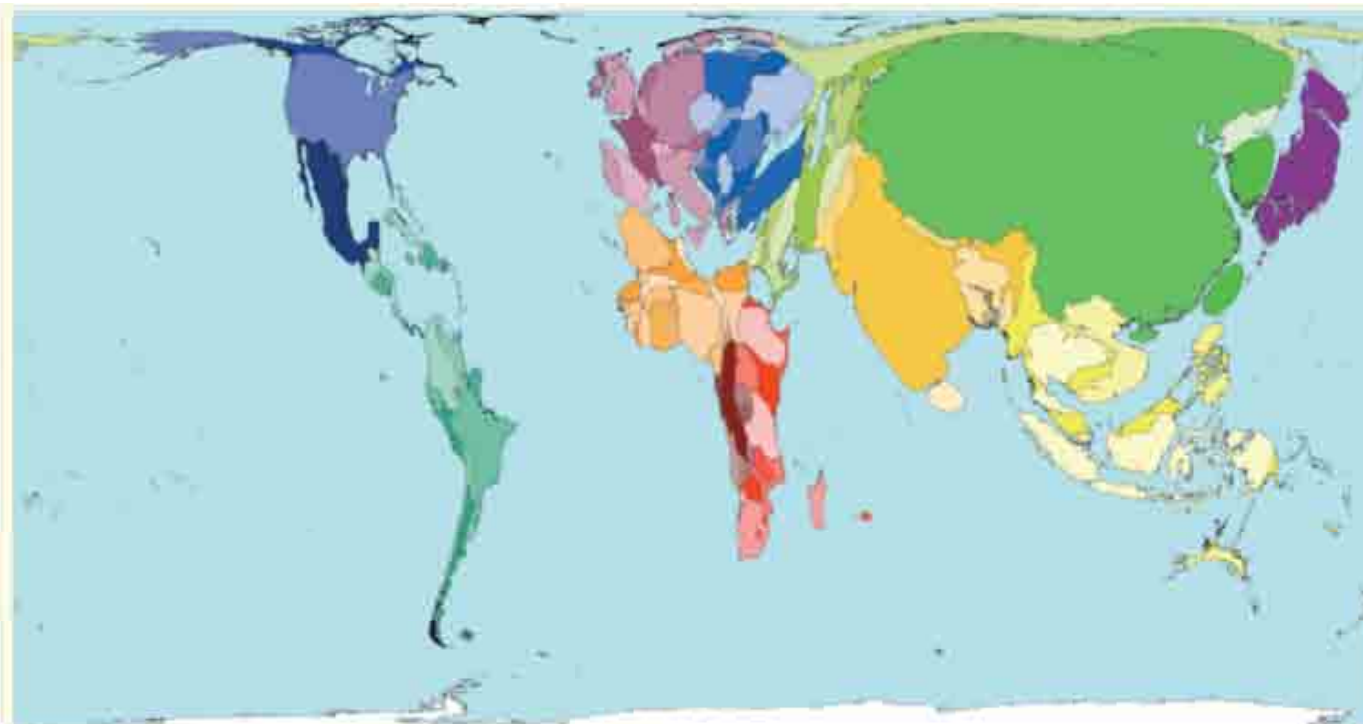


*"I want there to be no peasant in my kingdom so poor that he is unable to have a chicken in his pot every Sunday."*

Henri de Bourbon, 1598



# Industrial Women



Over a third of all the women who work in industry live in China. The main industries of China include the production of iron, steel, machines, armaments, textiles, chemical fertilizers, processed food, toys, automobiles and electronics.

Despite China's high total of female workers in industry, it is Eastern European territories where the highest proportions of the population are female industrial workers.

Southern Asia and Asia Pacific also have relatively high numbers of women working in industry. It is the very richest and the very poorest of regions where the fewest of the world's industrial women live.

Territory size shows the proportion of worldwide female industrial workers living there.



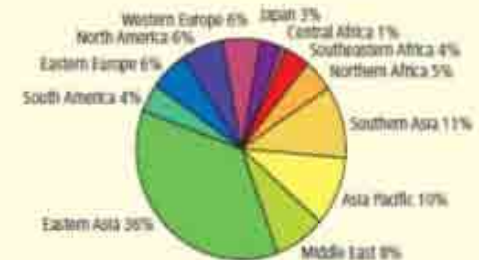
Land area

## MOST AND FEWEST WOMEN WORKING IN INDUSTRY

Rank	Territory	Value	Rank	Territory	Value
1	Czech Republic	7.2	191	Peru	1.2
2	Slovenia	6.7	192	Paraguay	1.1
3	Slovakia	6.7	193	Namibia	1.1
4	Mauritius	6.2	194	Belize	1.0
5	Estonia	5.8	195	Haiti	1.0
6	Morocco	5.7	196	Pakistan	1.0
7	Russian Federation	5.7	197	Egypt	0.8
8	Hungary	5.3	198	Gaza Strip & West Bank	0.3
9	Ukraine	5.1	199	Yemen	0.2
10	Armenia	5.1	200	Suriname	0.1

Industrial women as a percentage of the total population

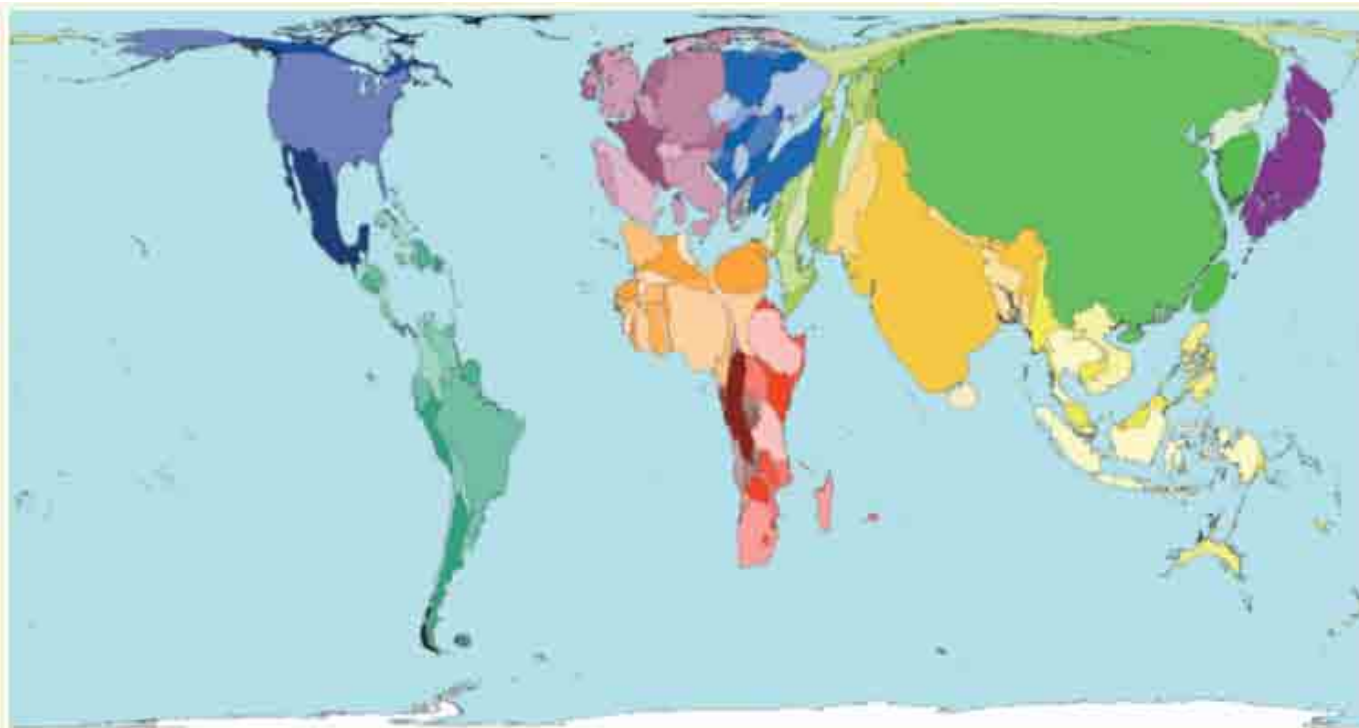
## WORLD DISTRIBUTION OF INDUSTRIAL WOMEN



*“In terms of the distribution of women within the industrial sector, women are highly concentrated in garments and textiles industries ...”*

United Nations Development Programme China, 2003

# Industrial Men



In total 519 million men work in industry. Industry here means manufacturing, the production of tangible goods. A third of the men that do industrial jobs live in Eastern Asia, the majority being in China.

As a proportion of the population, the most industrial men live in the Eastern European territories of the Czech Republic and Slovakia. The territory with the smallest proportion of the population being men that work in industry is Bangladesh. Most of the territories with very low proportions of the population that are men working in industry are either located in parts of Southern Asia or the Middle East.

Territory size shows the proportion of worldwide male industrial workers living there.



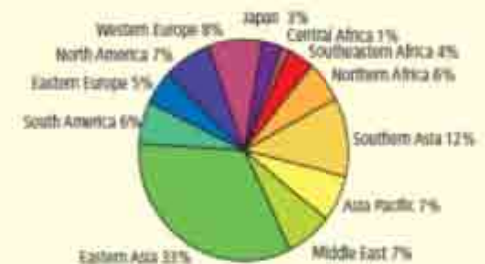
Land area

## MOST AND FEWEST MEN WORKING IN INDUSTRY\*

Rank	Territory	Value	Rank	Territory	Value
1	Czech Republic	15	191	Namibia	4.1
2	Slovakia	15	192	Bhutan	4.0
3	Portugal	13	193	Nepal	4.0
4	Slovenia	13	194	Maldives	3.7
5	Germany	13	195	Georgia	3.7
6	Estonia	13	196	Haiti	3.5
7	Suriname	13	197	Azerbaijan	3.5
8	China	12	198	Kyrgyzstan	3.2
9	Taiwan	12	199	Yemen	3.1
9	DPR Korea	12	200	Bangladesh	3.0

industrial men as a percentage of the total population\*

## WORLD DISTRIBUTION OF INDUSTRIAL MEN



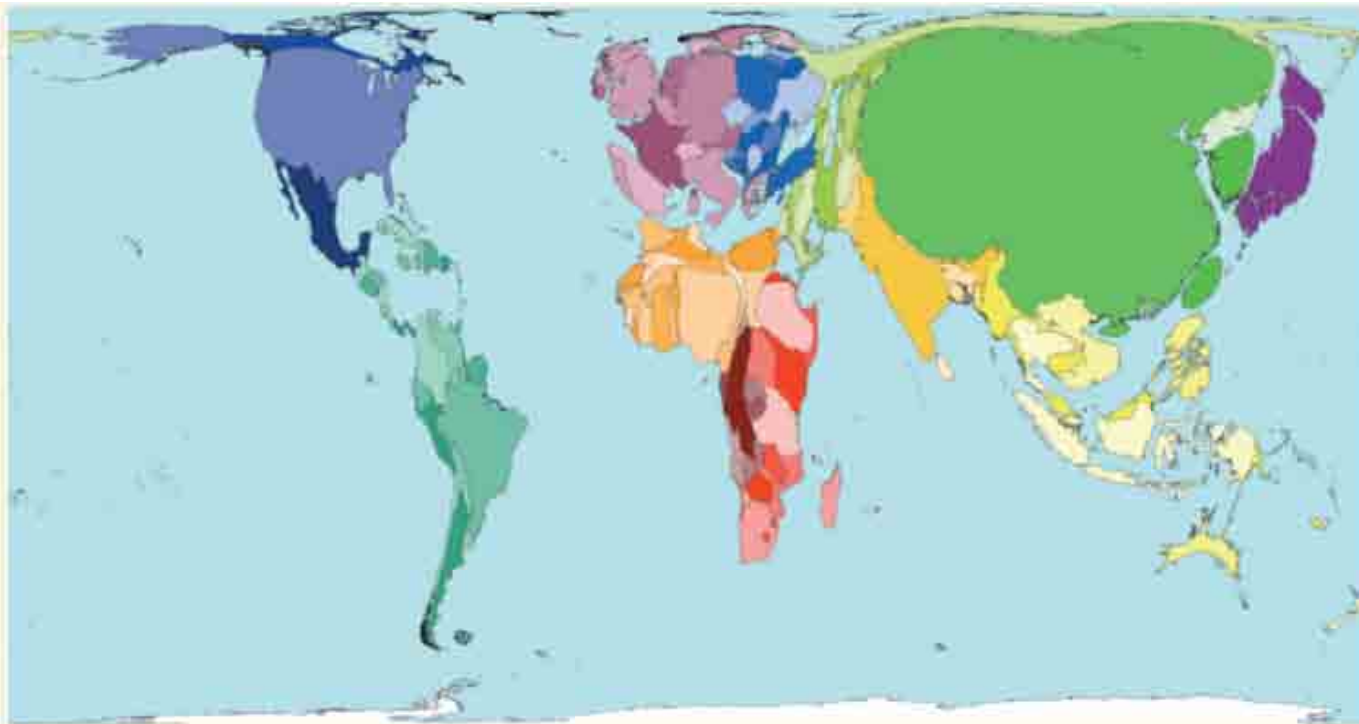
**Technical notes**  
 \* Data are from the United Nations Development Programme's 2004 Human Development Report.  
 • Due to missing data the regional average was assumed for Taiwan and DPR Korea, which occupy just ninth place in the table.  
 • See website for further information.

*“They earn about \$2,400 a year - nearly five times the average per capita income ... Rajesh Kumar Raghavji Santoki, 28, was earning more than \$500 a month, and owned a house, a motorcycle and van.”*

Amy Waldman, 2005



# Services Women



The populations with the highest proportions of women that work in the service industries live in Western European, North American and Eastern Asian territories. The populations with the lowest proportions of women working in services live in territories that are located in Southern Asia and the Middle East.

In Sweden 23% of the population is made up of women working in services. Therefore a majority of economically active women in Sweden work in the services sector.

Worldwide most women working in services live in China, making a female services workforce of 260 million, that is 35% of all female services workers.

Territory size shows the proportion of worldwide female services workers living there.



Land area

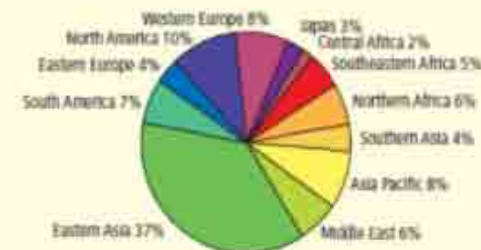
**Technical notes**  
 • Data are from United Nations Development Programme's 2004 Human Development Report.  
 • Due to missing data the regional average was assumed for Taiwan and DPR Korea, which occupy joint sixth place in the table.  
 • See website for further information.

## MOST AND FEWEST WOMEN WORKING IN SERVICE INDUSTRIES

Rank	Territory	Value	Rank	Territory	Value
1	Sweden	23	191	Sri Lanka	4.4
2	Bahamas	22	192	Saudi Arabia	4.3
3	Iceland	22	193	Oman	4.1
4	Canada	21	194	Nepal	2.5
5	Denmark	21	195	Bhutan	2.5
6	Norway	21	196	Bangladesh	2.5
7	United States	20	197	India	2.1
8	China	20	198	Pakistan	1.9
9	Taiwan	20	199	Gaza Strip & West Bank	1.6
9	DPR Korea	20	200	Yemen	0.7

service industry women as a percentage of the total population\*

## WORLD DISTRIBUTION OF SERVICES INDUSTRY WOMEN

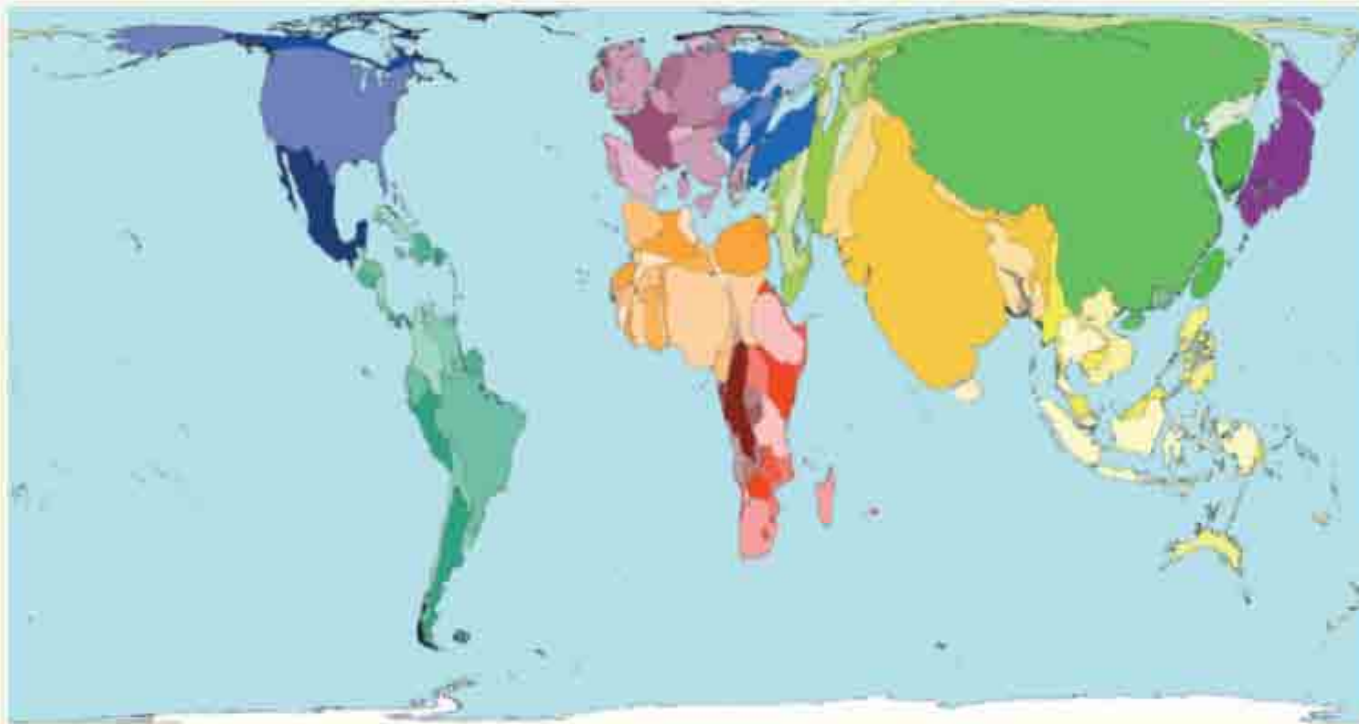


*“Girls are asking, ‘Do we get overtime? What are the benefits?’ Guangdong needs workers. Zhejiang and Shanghai need workers. They have more choices. So it’s difficult to find workers.”*

Kathy Deng, 2006



# Services Men



Service work does not produce a material object. Services include tasks such as call centre work, hospitality, armed forces and transportation. More men than women work in services.

The most services men work in China; then India; then the United States.

14% of the world's population is men that work in the service sector. The lowest percentage of men working in services is 5.5%, in Haiti.

Services workers live in every territory in the world, as many services must be performed in situ. Some services, such as call centres and data entry could occur anywhere, so long as there are good channels of communication.

Territory size shows the proportion of worldwide male services workers living there.

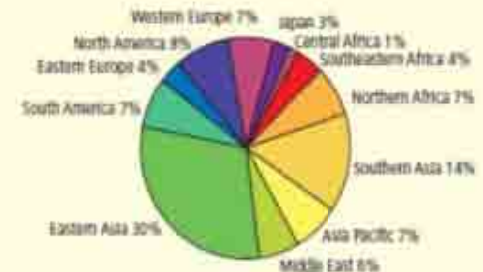


MOST AND FEWEST MEN WORKING IN SERVICE INDUSTRIES

Rank	Territory	Value	Rank	Territory	Value
1	Hong Kong (China)	24	191	Yemen	9.2
2	Singapore	21	192	Republic of Moldova	8.7
3	Bahrain	20	193	Pakistan	8.7
4	Switzerland	19	194	Bhutan	8.5
5	China	19	195	Nepal	8.4
6	Argentina	19	196	Kyrgyzstan	8.2
7	Taiwan	19	197	Romania	8.2
7	DPR Korea	19	198	Bangladesh	8.1
9	Canada	19	199	Guatemala	6.8
10	Australia	19	200	Haiti	5.5

service industry women as a percentage of the total population\*

WORLD DISTRIBUTION OF SERVICES INDUSTRY MEN

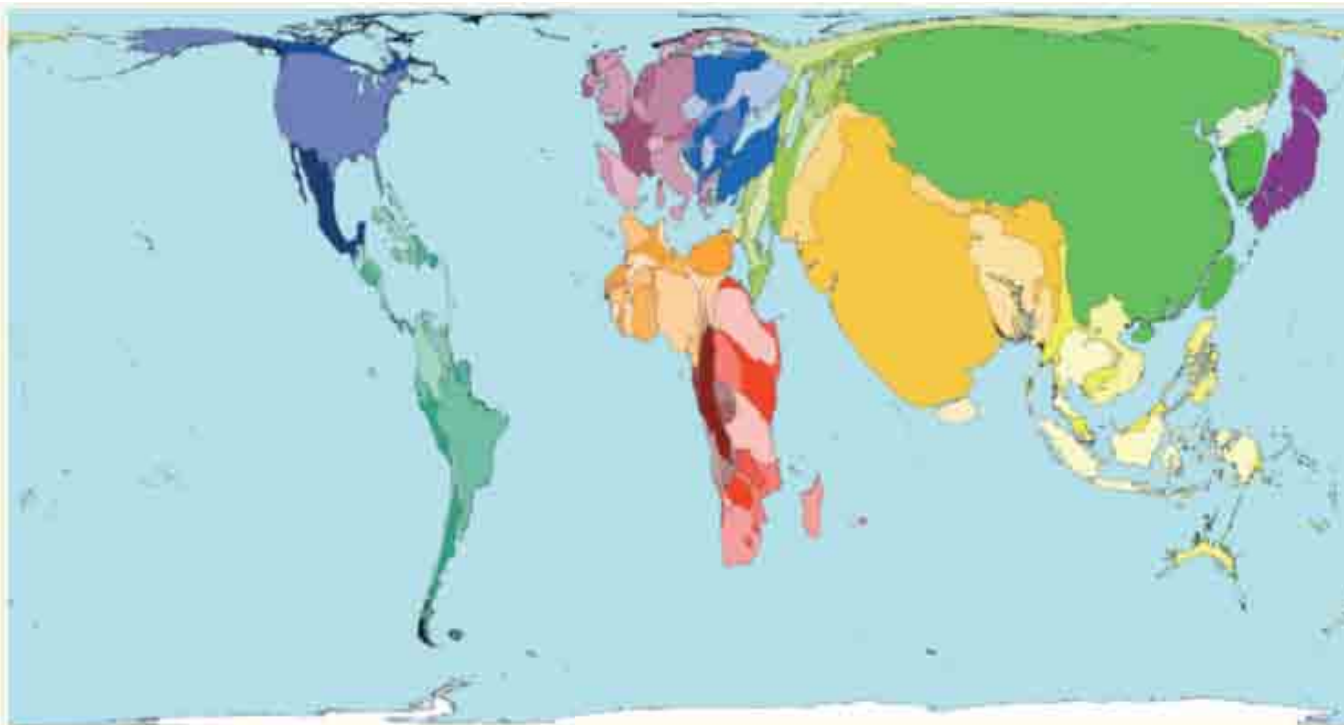


**Technical notes**  
 \* Data are from the United Nations Development Programme's 2004 Human Development Report.  
 \* Due to missing data the regional average was assumed for Taiwan and DPR Korea, which occupy joint seventh place in the table.  
 \* See website for further information.

*“These guys know accountancy, have computer skills, speak English and they are ready and willing - and that combination is a killer ...”*

Kiran Karnik, 2003

# Market-hours Women



Market-hours means paid work. The most market hours worked by women are worked in China. This results in a very large female workforce given China's big population. Eastern Asia, the region where China is located, has the second longest average market-hours worked by women: 4 hours and 30 minutes daily.

The longest market-hours worked by women are worked in Southeastern Africa, where 4 hours 32 minutes are worked daily on average.

The shortest female market-hours are worked in South America, where the average woman spends 2 hours and 12 minutes doing paid work each day. Men do the least domestic labour in South America.

Territory size shows the proportion of all hours of paid or market labour worked by women there.



Land area

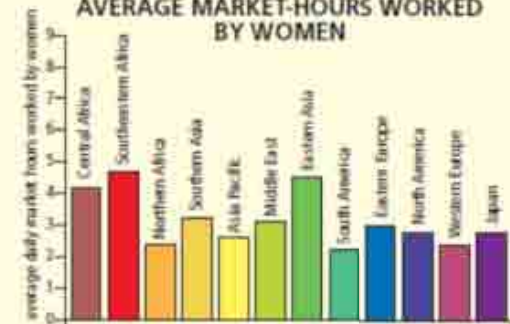
**Technical notes**  
 • Data are from the United Nations Development Programme's Human Development Report, 2004.  
 • \*Total population includes men and children, but only women in China, women work 1.72 hours.  
 • See website for further information.

## MOST AND LEAST MARKET HOURS WORKED BY WOMEN

Rank	Territory	Value	Rank	Territory	Value
1	China	1.72	191	Sudan	0.55
3	Taiwan	1.70	192	Guatemala	0.54
2	DPR Korea	1.70	193	Malta	0.54
4	Mozambique	1.67	194	Algeria	0.53
5	United Republic Tanzania	1.61	195	Yemen	0.51
6	Russian Federation	1.59	196	Libyan Arab Jamahiriya	0.45
7	Armenia	1.58	197	Belize	0.44
8	Kenya	1.56	198	Saudi Arabia	0.43
9	Mongolia	1.53	199	Oman	0.40
10	Malawi	1.51	200	Gaza Strip & West Bank	0.17

total daily market hours worked by women divided by total population\*

## AVERAGE MARKET-HOURS WORKED BY WOMEN

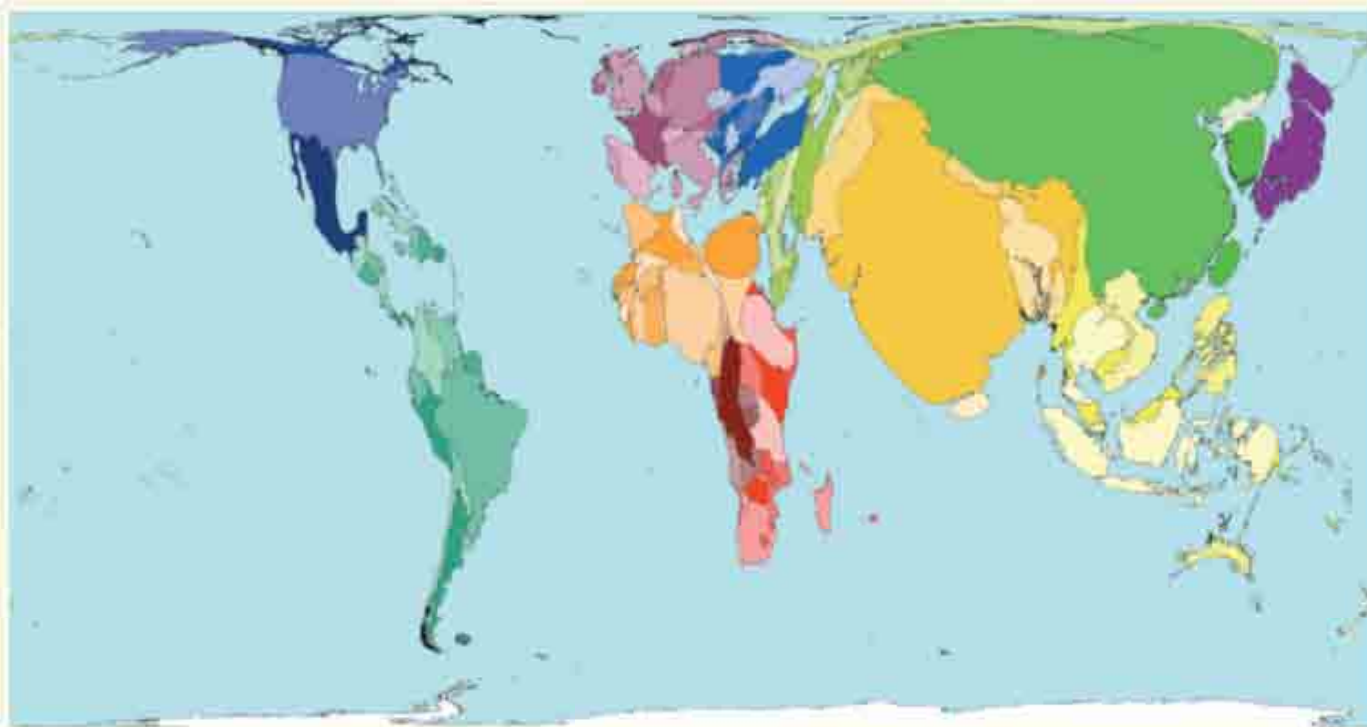


*“Jessica Hu ... inspects a bin of parts on the floor of a factory in north China. The products she monitors include wing parts for the Boeing 737 ...”*

Kristi Heim, 2005



# Market-hours Men



The ten territories where men spend the fewest hours everyday doing paid work are all in the Middle East. However regions other than the Middle East are where the average man spends least time doing paid work. In Eastern Europe, Western Europe and North America the average man spends 4 hours and 30 minutes doing paid work. This is almost half of the time spent working by the average man in Central Africa. In Central Africa the average man does paid work for 8 hours and 6 minutes everyday.

Taking averages means that those men who cannot and do not work, are included with those who work considerably longer than the average.

Territory size shows the proportion of all hours of paid or market labour worked by men there.



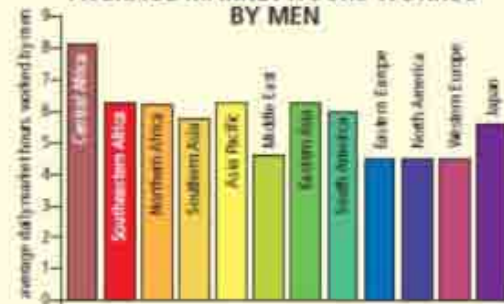
Land area

## MOST AND LEAST MARKET HOURS WORKED BY MEN

Rank	Territory	Value	Rank	Territory	Value
1	Hong Kong (China)	2.47	191	Turkmenistan	1.55
2	Thailand	2.45	192	Kyrgyzstan	1.51
3	Sao Tome and Principe	2.42	193	Uzbekistan	1.51
4	Rwanda	2.41	194	Oman	1.51
5	Japan	2.41	195	Jordan	1.48
6	China	2.40	196	Syrian Arab Republic	1.48
7	Taiwan	2.39	197	Saudi Arabia	1.44
7	DPR Korea	2.39	198	Tajikistan	1.41
9	Singapore	2.37	199	Yemen	1.33
10	Equatorial Guinea	2.33	200	Gaza Strip & West Bank	1.14

*total daily market hours worked by men divided by total population\**

## AVERAGE MARKET-HOURS WORKED BY MEN



*"If a machine wears out in half the present normal time ... a new machine has to be made to replace it ... but if a man wears out in half the time, the world is poorer, and that needs no demonstration."* William Hesketh Lever, date unknown

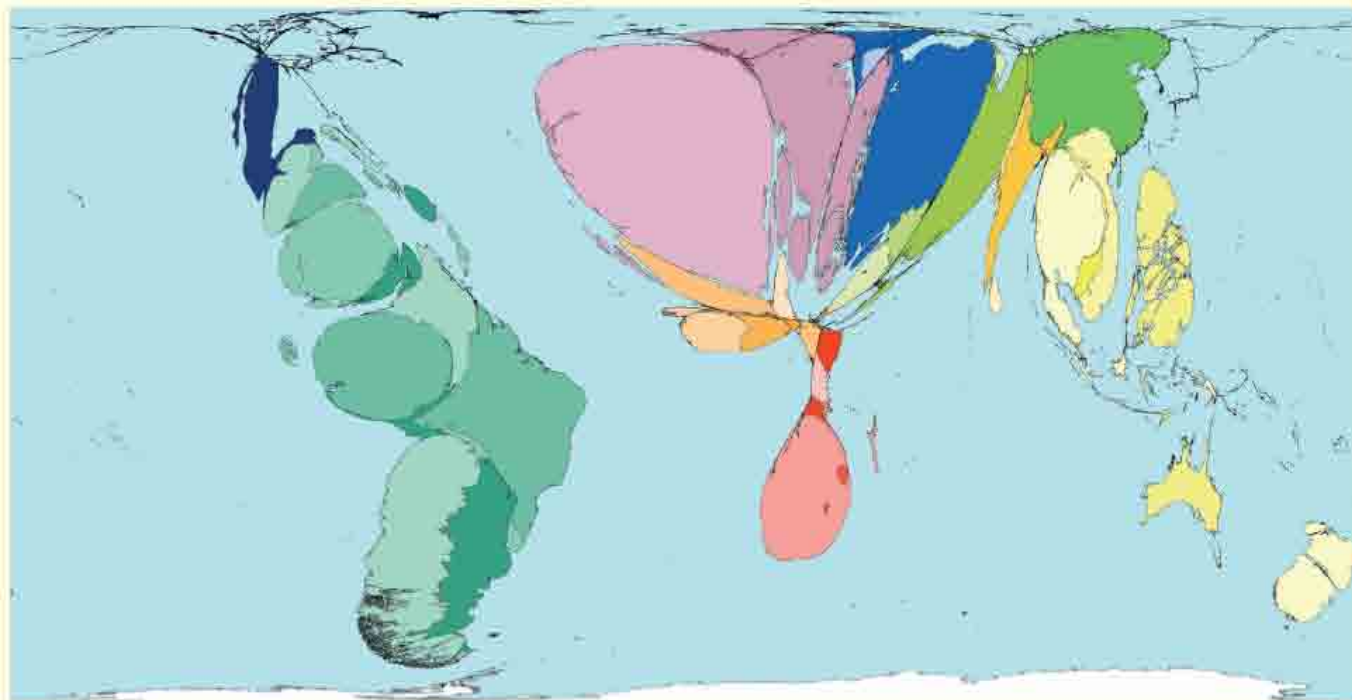
# Production and Work Summary

- Market-hours is not proportional to earning in many parts of world
- Service sector is the king of job creation



Food

# Fruits Exports



South American territories export twice as much fruit (net) as territories in any other region, except for Western Europe. Net exports are shown when positive. That is when more is exported than is imported. As almost every territory within South America has positive net fruit exports, they all appear on the map here. This is also the reason why the regional net total of exports for South America shown below are so significant. Whereas, as a region, Western Europe is not a net exporter.

Territories located more than 50 degrees of latitude North are rarely net fruit exporters.

Territory size shows the proportion of worldwide net exports of fruit (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

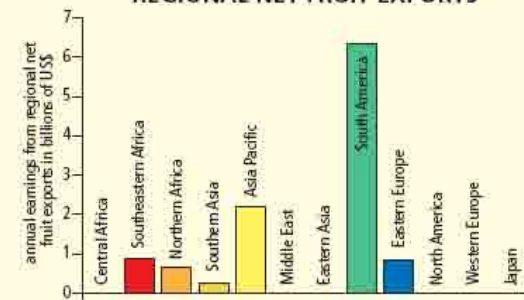
**Technical notes**  
 • Data source: United Nations Conference on Trade and Development, 2002.  
 • \*There were no net exports of fruit recorded for 113 territories.  
 • Fruit includes fresh, preserved and prepared fruit, as well as nuts.  
 • See website for further information.

## MOST AND LEAST US\$ OF NET FRUIT EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Costa Rica	187	78	Pakistan	0.27
2	Saint Lucia	187	79	India	0.24
3	St Vincent & The Grenadines	160	80	Indonesia	0.22
4	Dominica	119	81	Bulgaria	0.17
5	New Zealand	107	82	Myanmar	0.06
6	Chile	95	83	Sao Tome and Principe	0.03
7	Spain	89	84	Ethiopia	0.02
8	Ecuador	79	85	Central African Republic	0.01
9	Belize	61	86	Uganda	0.01
10	Greece	43	87	Rwanda	<0.01

annual US\$ worth of fruit exported per person living in that territory\*

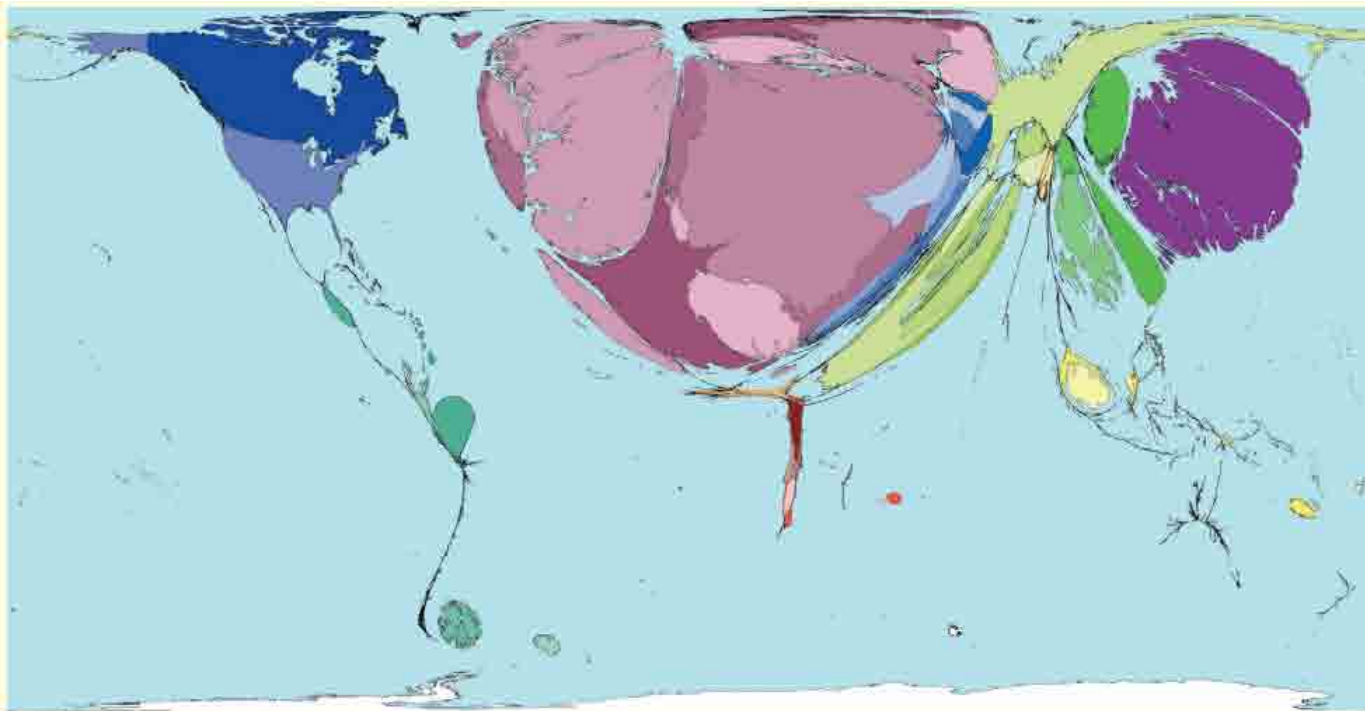
## REGIONAL NET FRUIT EXPORTS



*“Originally a native of Mexico, the papaya has been grown in Southeast Asia since the 16th century and the long yellow or orange fruit, rich in Vitamins A and C, is a well-established component of Thai cuisine.”* Phuket-Plaza, 2005



# Fruits Imports



The net fruit imports of Western European territories are four times greater than the combined net fruit imports of territories in any other region. This is when only the values for territories with positive net imports are added together. The map shows these figures.

An alternative total is net imports to the region as a whole - the graph shows these. By this measure Western Europe has only double the net fruit imports of any other region. Half of the territories in the top ten table of fruit imports per person are in Western Europe.

Territory size shows the proportion of worldwide net imports of fruit (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

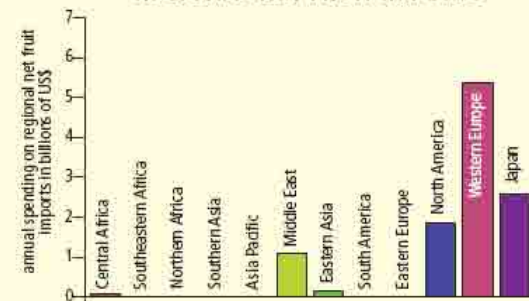
**Technical notes**  
 • Data source: United Nations Conference on Trade and Development, 2002.  
 • \*There were no net imports of fruit recorded for 87 territories.  
 • Fruit includes fresh, preserved and prepared fruit, as well as nuts.  
 • See website for further information.

## MOST AND LEAST US\$ OF NET FRUIT IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Luxembourg	114	104	Somalia	0.08
2	Bahrain	108	105	Kazakhstan	0.07
3	United Arab Emirates	97	106	Liberia	0.06
4	Hong Kong (China)	89	107	Chad	0.05
5	Andorra	82	108	Egypt	0.04
6	Switzerland	73	109	Guinea	0.03
7	Qatar	72	110	Nigeria	0.03
8	Norway	68	111	Algeria	0.03
9	Greenland	66	112	Togo	0.02
10	Iceland	64	113	Burundi	<0.01

annual US\$ worth of fruit imported per person living in that territory\*

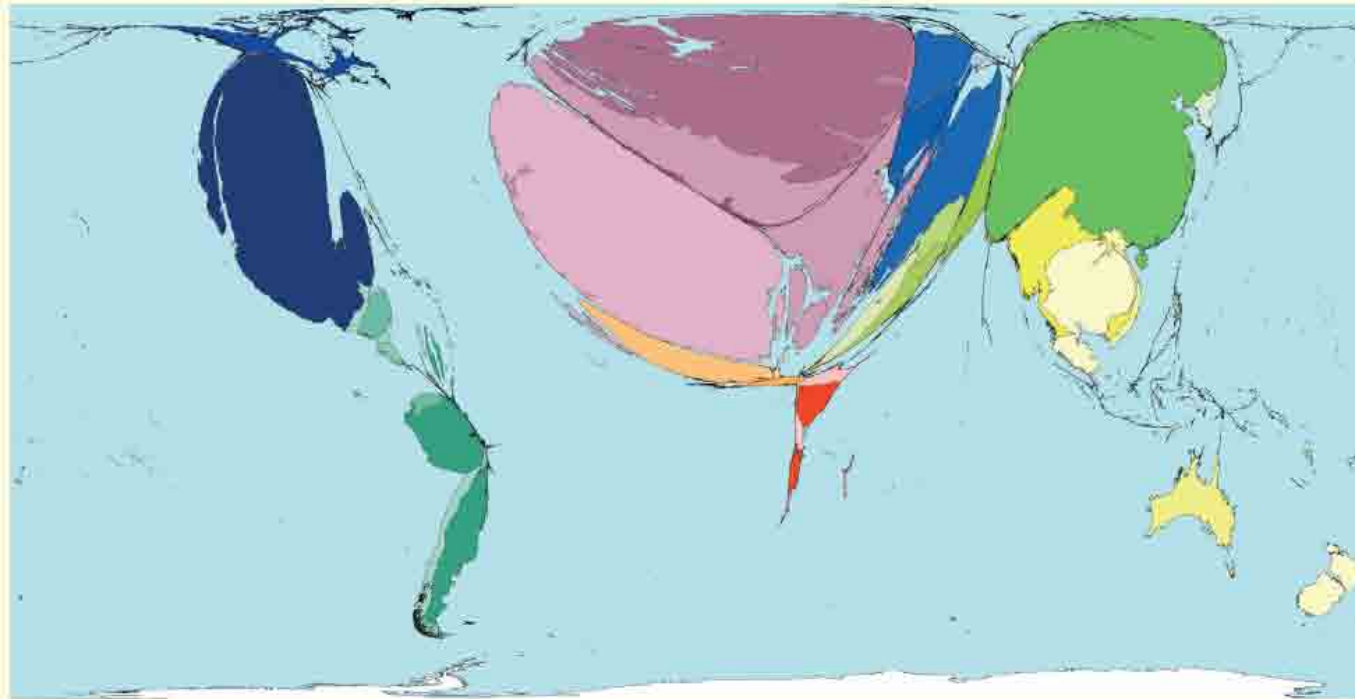
## REGIONAL NET FRUIT IMPORTS



*“In Japan, dark-orange persimmon fruits on trees set against the backdrop of a clear blue autumn sky is a common sight. There are about one thousand kinds of persimmon in Japan.”*

kakishibu.co.jp, 2006

# Vegetables Exports



Spain, the Netherlands, China and Mexico are the biggest net exporters of vegetables. Together they account for 64% of worldwide net vegetable exports, as measured in US dollars worth of vegetables.

The map of net vegetable exports would have a different shape were exports measured by weight, not value in US dollars. This would particularly be the case if a territory specialised in expensive artichokes, or cheaper, but much heavier, potatoes.

Territory size shows the proportion of worldwide net exports of vegetables (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



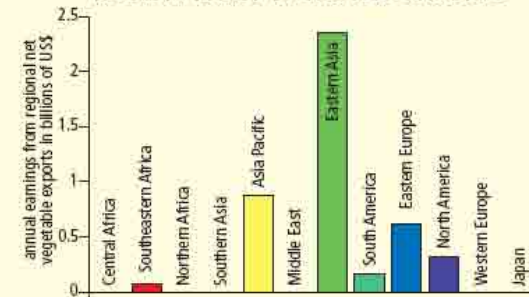
Land area

## MOST AND LEAST US\$ OF NET VEGETABLE EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Netherlands	191	59	Ukraine	0.39
2	Belgium	83	60	Bhutan	0.33
3	Spain	75	61	Malawi	0.20
4	Tonga	61	62	Madagascar	0.12
5	New Zealand	43	63	Uganda	0.08
6	Vanuatu	22	64	Nepal	0.06
7	Mexico	20	65	South Africa	0.06
8	Israel	20	66	Sudan	0.06
9	Jordan	18	67	Turkmenistan	0.02
10	Hungary	16	68	Cameroon	0.01

annual US\$ worth of vegetables exported per person living in that territory\*

## REGIONAL NET VEGETABLE EXPORTS



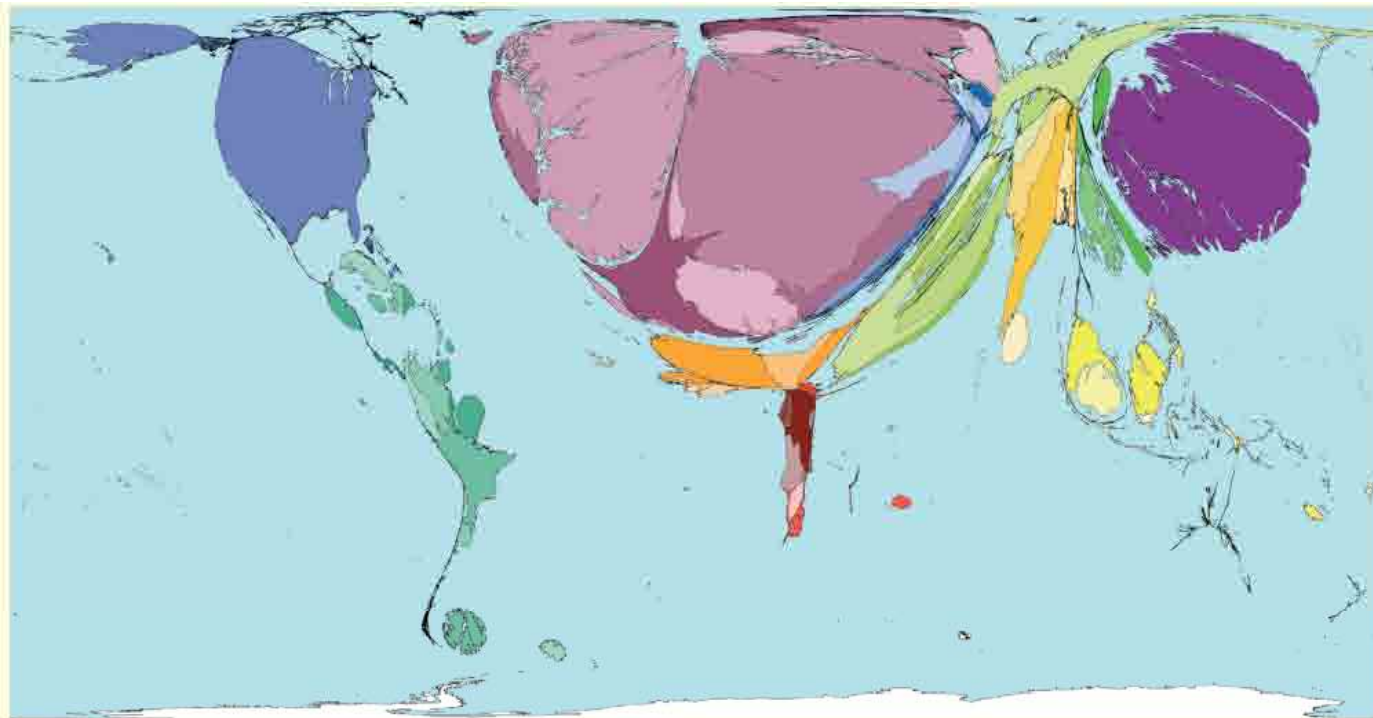
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \* There were no net exports of vegetables recorded for 132 territories.
  - Vegetables includes fresh vegetables, preserved vegetables and prepared vegetables.
  - See website for further information.

*“The Netherlands is the world’s leading vegetable exporter. It is important to note that although they are the top exporter, they are only the 28th largest vegetable producer in the world ...”*

Shari Kosco, 2003



# Vegetables Imports



Germany and the United Kingdom import the most US\$ worth of vegetables (net). Spain and the Netherlands export the highest US\$ worth of vegetables (net).

The volume of Western European vegetable trade partly reflects the large number of territorial borders within Europe. If the United States (with two and a half times the land area of Western Europe) were divided into 24 territories rather than just one, what is currently internal trade in vegetables would become 'international'. The United States would consequently be more dominant on this map. As internal trade is not shown the United States remains smaller than Europe.

Territory size shows the proportion of worldwide net imports of vegetables (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



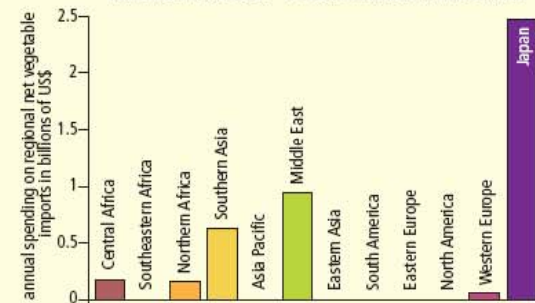
Land area

## MOST AND LEAST US\$ OF NET VEGETABLE IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Andorra	178	123	Holy See	0.16
2	Luxembourg	149	124	Indonesia	0.15
3	United Arab Emirates	88	125	Armenia	0.11
4	Greenland	83	126	Mozambique	0.10
5	Bahrain	71	127	Kazakhstan	0.09
6	Qatar	69	128	Ghana	0.08
7	Bahamas	65	129	Central African Republic	0.07
8	Switzerland	60	130	Burkina Faso	0.05
9	Saint Lucia	51	131	Nigeria	0.03
10	Saint Kitts & Nevis	51	132	Burundi	0.02

annual US\$ worth of vegetables imported per person living in that territory\*

## REGIONAL NET VEGETABLE IMPORTS



**Technical notes**

- Data source: United Nations Conference on Trade and Development, 2002.
- \*There were no net vegetable imports recorded for 68 territories.
- Vegetables includes fresh vegetables, preserved vegetables and prepared vegetables.
- See website for further information.

*“In Switzerland the domestic organic label, Bio Suisse, actually prohibits air transport of organic products.”*

James J. Ferguson, 2004

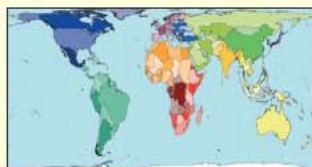
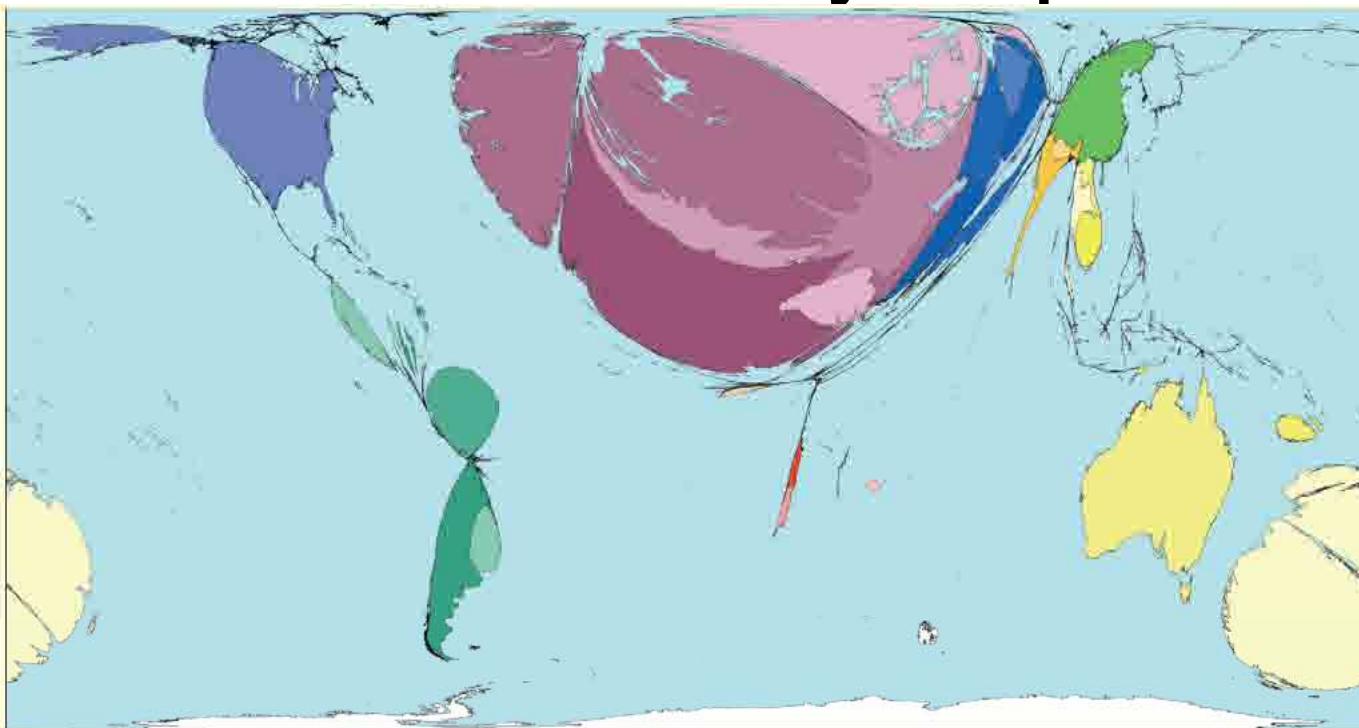
# Dairy Exports

Dairy products include milk, butter, cheese and eggs. Dairy products make up 0.8% of world trade. As with many trade maps, Europe is large and Africa is very small on this map. Their relative sizes result from the combination of the goods moved and the US dollar value of these goods. The value of goods depends partly on exchange rates.

In terms of US dollars worth of dairy products exported (net), New Zealand has the highest per person earnings at US\$ 641 a year. Dairy produce from New Zealand is exported to 140 different territories, 3.5 million dairy cows live there.

Less than a quarter of the world territories have net dairy exports.

Territory size shows the proportion of worldwide net exports of dairy produce (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

#### Technical notes

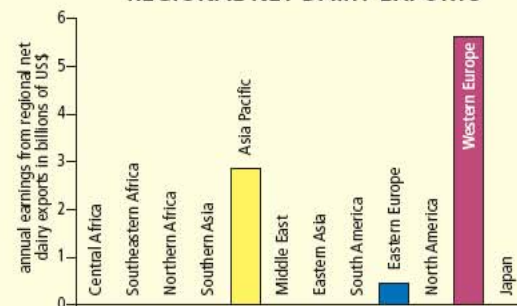
- Data source: United Nations Conference on Trade and Development, 2002.
- \*There were no net dairy exports recorded for 155 territories.
- Dairy products include milk, cream, butter, cheese, curd, eggs, margarine and shortening.
- See website for further information.

## MOST AND LEAST US\$ OF NET DAIRY EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	New Zealand	641	36	Thailand	0.89
2	Ireland	320	37	Slovenia	0.85
3	Denmark	282	38	Nepal	0.80
4	Netherlands	170	39	Ukraine	0.78
5	Australia	60	40	Cote d'Ivoire	0.72
6	France	38	41	Kyrgyzstan	0.41
7	Belgium	36	42	South Africa	0.35
8	Lithuania	29	43	China	0.29
9	Switzerland	29	44	India	0.08
10	Uruguay	29	45	Bhutan	0.07

annual US\$ worth of net dairy exports per person living in that territory\*

## REGIONAL NET DAIRY EXPORTS

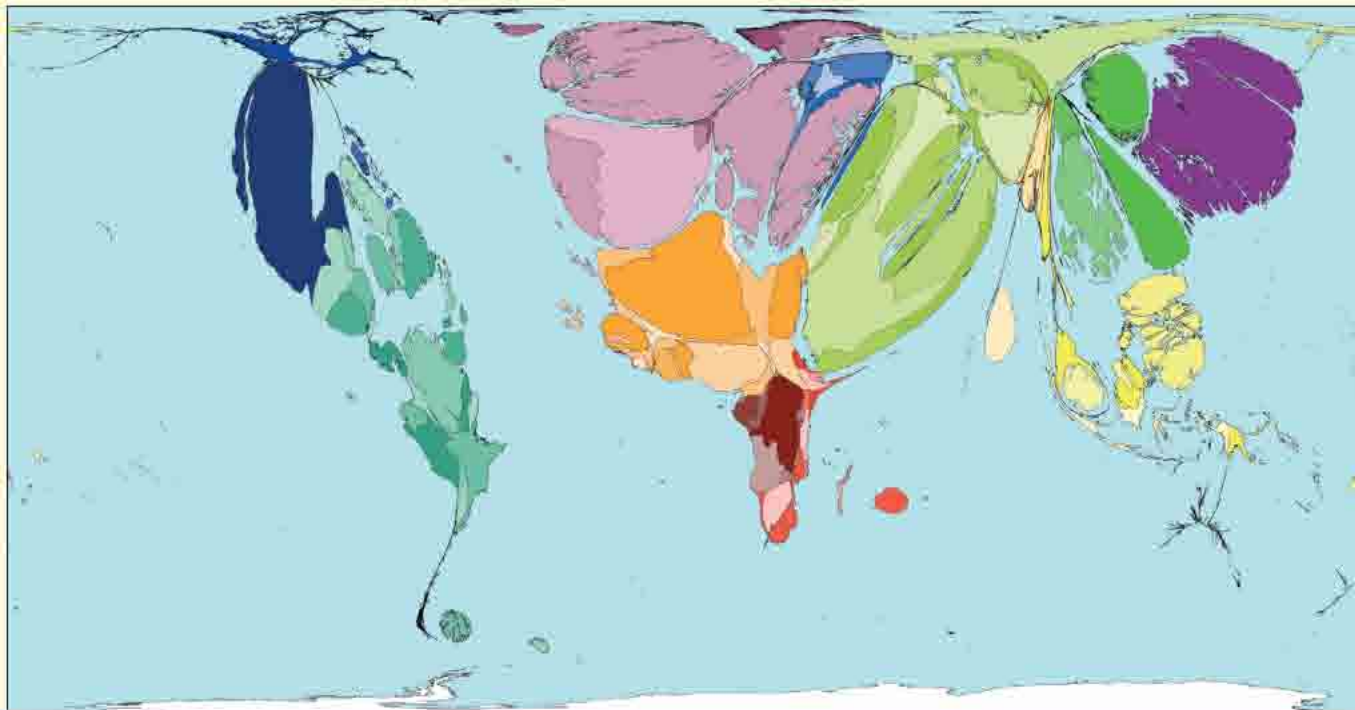


*“With 14-19 head of cattle per person, the Maasai are one of the wealthiest cattle-owning peoples in Africa.”*

Jens Finke, 2003



# Dairy Imports



Dairy imports exceed exports in every region except for Asia Pacific, Eastern Europe and Western Europe. The Middle East, Northern Africa and Japan have the largest regional net imports. The map shows territory-level imports. Territories with net imports may be part of regions with net exports.

We have shown maps of net trade. These show the flow of money out of territories on the import maps and into territories on the export maps. The goods go the opposite way.

Territory size shows the proportion of worldwide net imports of dairy produce (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

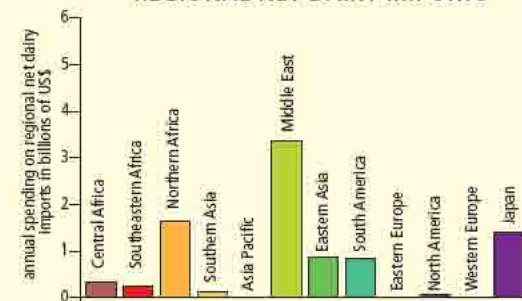
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net dairy product imports recorded for 45 territories.
  - Dairy products include milk, cream, butter, cheese, curd, eggs, margarine and shortening.
  - See website for further information.

## MOST AND LEAST US\$ OF NET DAIRY IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Andorra	531	146	Burundi	0.32
2	Greenland	257	147	Republic of Moldova	0.31
3	Qatar	190	148	Liberia	0.29
4	Bahamas	169	149	Uganda	0.29
5	Saint Lucia	141	150	Ethiopia	0.24
6	Tuvalu	135	151	Viet Nam	0.23
7	Bahrain	133	152	Kenya	0.23
8	Saint Kitts & Nevis	132	153	Tajikistan	0.13
9	United Arab Emirates	131	154	Chile	0.07
10	Niue	129	155	Pakistan	0.07

annual US\$ worth of dairy imports per person living in that territory\*

## REGIONAL NET DAIRY IMPORTS

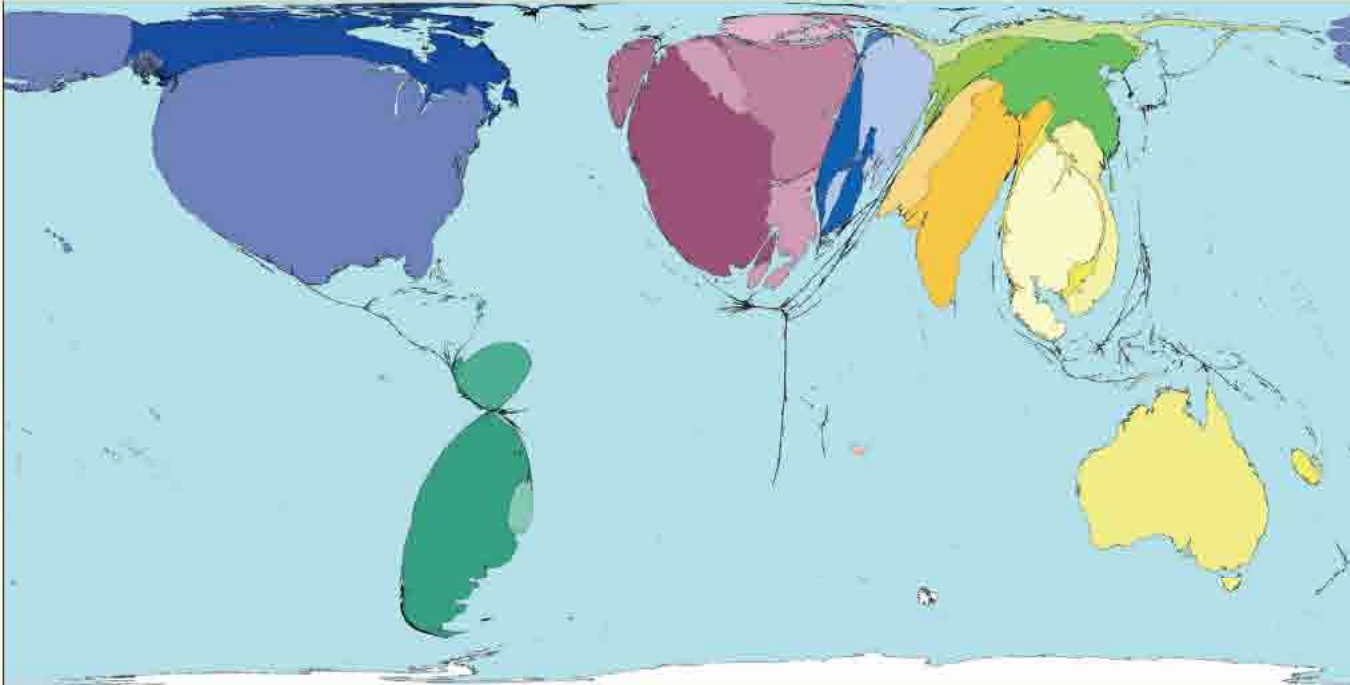


*“High on the Tibetan plateau, nomadic yak-herders have been grazing their semi-wild herds for 10 000 years, making theirs the world's oldest existing agricultural enterprise ...”*

Jonathan S. White, 2001



# Cereals Exports



Cereals include wheat, rice, barley and maize (sometimes called corn). Cereals provide the main carbohydrate component of our diets. The United States, France and Australia are the three largest net exporters of cereals. Rich territories make the most money per person from net cereal exports.

No region dominates the map of cereal exports. At least one territory in each region has net exports. Nevertheless Africa, the Middle East, Eastern Asia, South America and Japan, as regions, have net cereal imports. This suggests that the net exporting territories within these regions do not meet regional demand.

Territory size shows the proportion of worldwide net exports of cereals (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

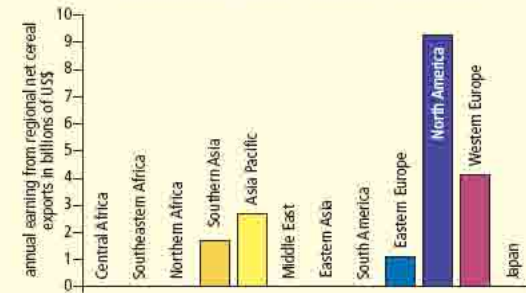
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net cereal exports recorded for 157 territories.
  - Cereals include wheat, rice, barley and maize. This map shows both milled (flour) and unmilled cereals.
  - See website for further information.

## MOST AND LEAST US\$ OF NET CEREAL EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Australia	158	34	Russian Federation	4.34
2	Ireland	84	35	Bosnia-Herzegovina	4.22
3	Canada	73	36	Pakistan	3.92
4	Denmark	70	37	Slovakia	2.30
5	France	61	38	Paraguay	2.21
6	Argentina	61	39	Myanmar	1.77
7	Uruguay	40	40	India	1.61
8	Belgium	37	41	China	0.97
9	Guyana	35	42	Czech Republic	0.87
10	Hungary	33	43	Romania	0.44

annual US\$ worth of net cereal exports per person living in that territory\*

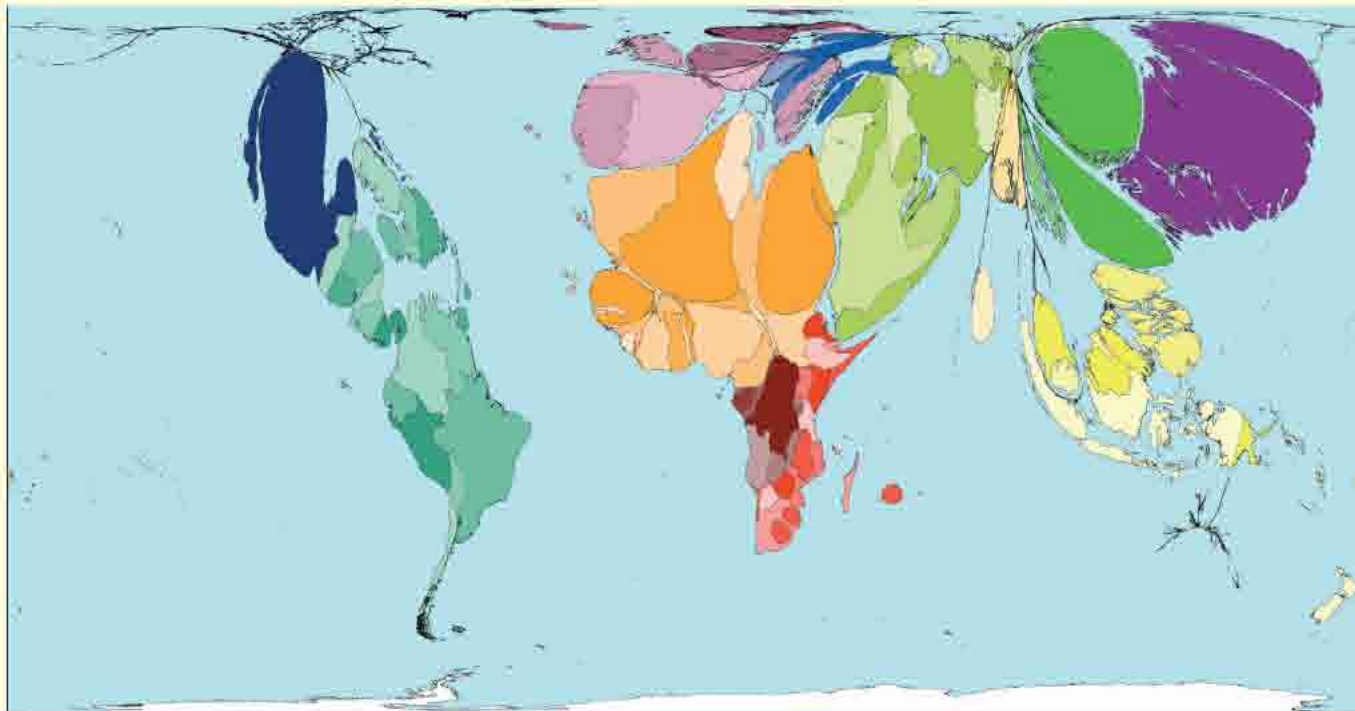
## REGIONAL NET CEREAL EXPORTS



*“Lao food is traditionally eaten with sticky rice, with the fingers. In the countryside, people will all eat family style, sitting on the floor, sharing a few dishes.”*

Visit Laos, 2005

# Cereal Imports



Four out of every five territories have net cereal imports. Exports and imports are measured by cost. Exports are valued when they leave a territory. Import cost equals the export cost plus the cost of transport between territories. Therefore total import costs are higher than total export costs.

African territories together receive more of the world share of net imports of cereals than they do for net imports of fruit, vegetables, meat, fish, groceries, or alcohol and cigarettes.

Territory size shows the proportion of worldwide net imports of cereals (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

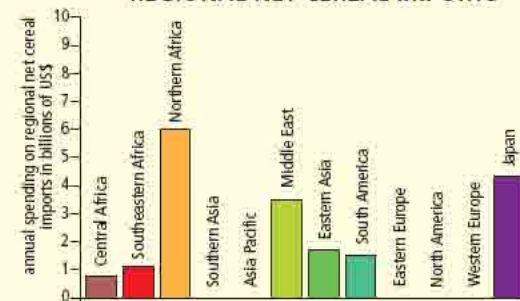
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net cereal imports recorded for 43 territories
  - Cereals include wheat, rice, barley and maize. This map shows both milled (flour) and unmilled cereals.
  - See website for further information.

## MOST AND LEAST US\$ OF NET CEREAL IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Andorra	166	148	United Republic of Tanzania	1.51
2	Brunei Darussalam	133	149	Suriname	1.43
3	Cyprus	125	150	Nepal	1.43
4	Luxembourg	119	151	Turkey	1.36
5	Malta	117	152	DPR Korea	1.21
6	Saint Lucia	115	153	Burundi	1.21
7	Tuvalu	112	154	Austria	1.11
8	United Arab Emirates	111	155	Mali	1.06
9	Greenland	109	156	Liberia	0.72
10	Iceland	109	157	Poland	0.64

annual US\$ worth of net cereal imports per person living in that territory\*

## REGIONAL NET CEREAL IMPORTS

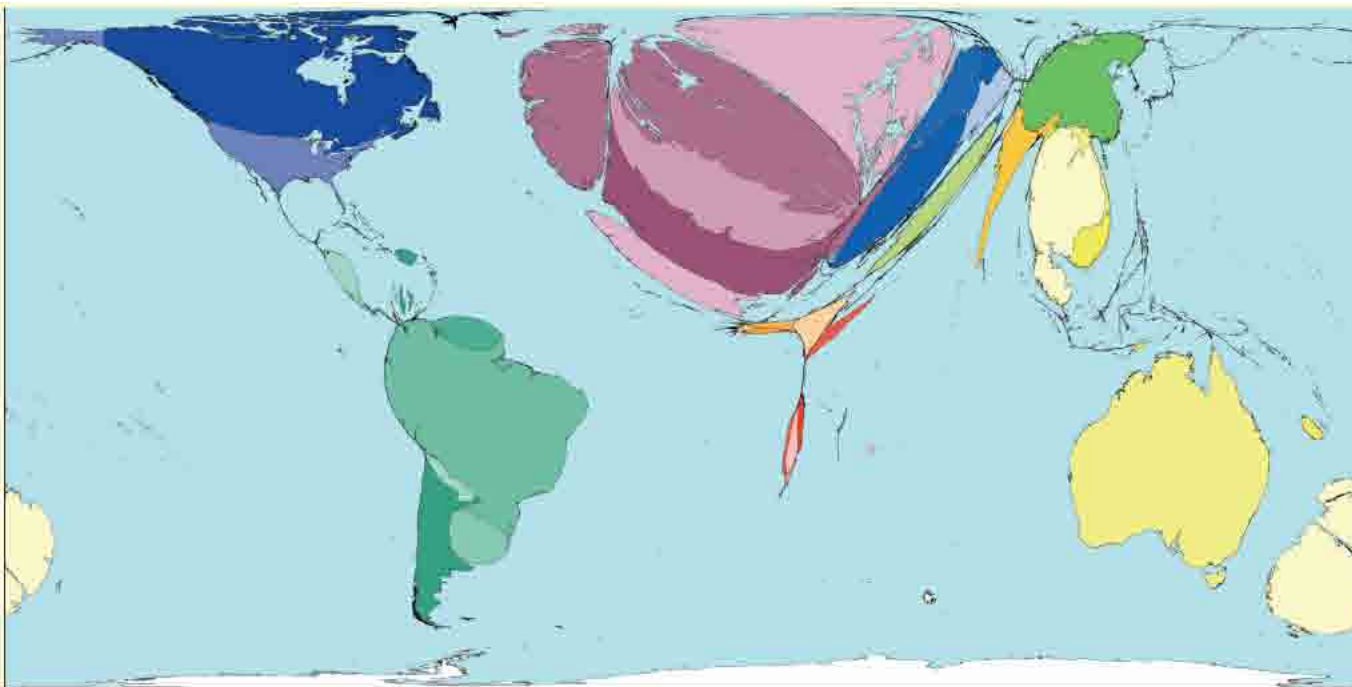


*“Maize was introduced in Africa by Portuguese explorers in the beginning of the 16th century. It has since become Africa’s second most important food crop, behind cassava ...”*

Africancrops.net, 2006



# Meat Exports



Meat can be exported in various forms: chilled, frozen, dried, salted, smoked, or as a live animal. Denmark, famous for its bacon, and New Zealand, famous for its lamb, both earn over US\$500 annually per person living there in meat exports. In Ethiopia, with the lowest per person earnings from net meat exports, earnings are over ten thousand times lower than in Denmark and New Zealand.

The highest regional net meat exports are from Asia Pacific and South America. Within South America net meat exports from Brazil are more than five times greater than from any other South American territory.

Territory size shows the proportion of worldwide net exports of meat (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

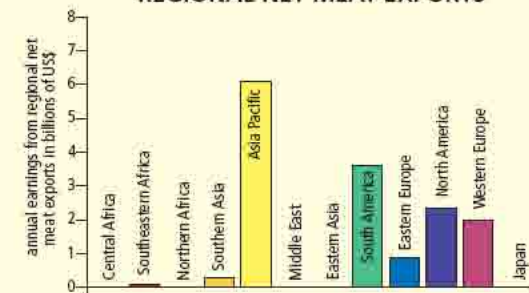
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net meat exports recorded for 138 territories.
  - Meat can be transported fresh, chilled, frozen, salted, smoked, dried, or otherwise preserved. Meat can also be transported as live animals.
  - See website for further information.

## MOST AND LEAST US\$ OF NET MEAT EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Denmark	592	53	Czech Republic	0.35
2	New Zealand	524	54	Myanmar	0.33
3	Ireland	341	55	India	0.27
4	Australia	190	56	Bhutan	0.26
5	Netherlands	181	57	Viet Nam	0.19
6	Belgium	148	58	Chile	0.19
7	Canada	106	59	South Africa	0.15
8	Uruguay	87	60	Pakistan	0.10
9	Hungary	68	61	Kenya	0.07
10	Botswana	31	62	Ethiopia	0.03

annual US\$ worth of meat exported per person living in that territory\*

## REGIONAL NET MEAT EXPORTS

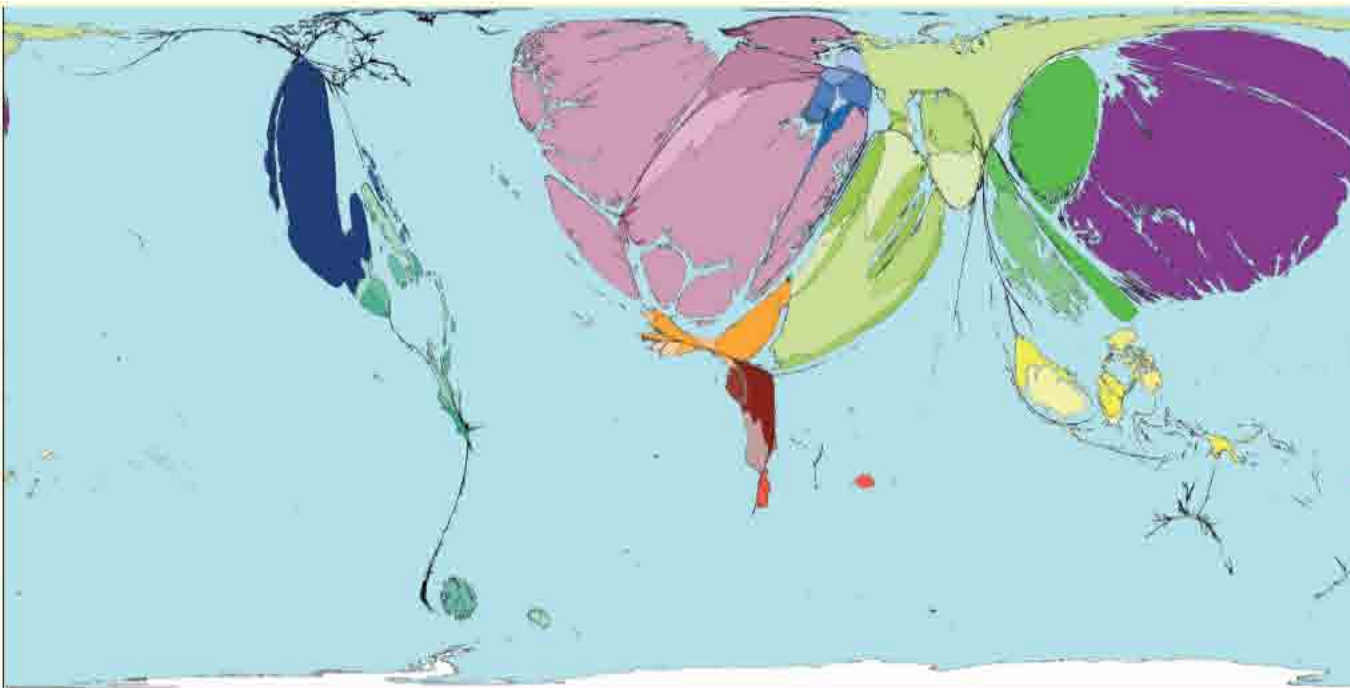


*“Between 1990 and 2001 the percentage of Europe’s processed meat imports that came from Brazil rose from 40 to 74 percent”*

Centre for International Forestry Research, 2004



# Meat Imports



If everybody living in Andorra spent the same amount on net meat imports, they would each spend US\$405 annually. Whilst this is the highest per person spending in the world, Andorra has a relatively small population. It is Japan that brings in the highest absolute total net meat imports, accounting for a quarter of the world total.

Japan (the only territory that is an entire region) has the highest regional imports, of the five regions that do have net meat imports. Northern Africa has the lowest. When comparing net regional totals Japan accounts for half of net meat imports by value.

Territory size shows the proportion of worldwide net imports of meat (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

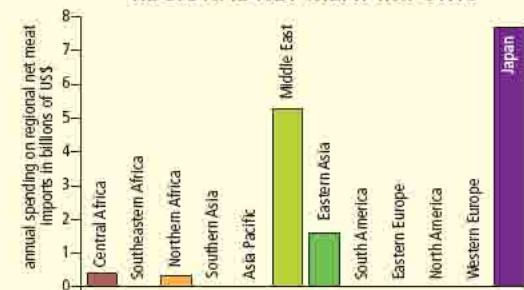
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net meat imports recorded for 62 territories.
  - Meat can be transported fresh, chilled, frozen, salted, smoked, dried, or otherwise preserved.
  - Meat can also be transported as live animals.
  - See website for further information.

## MOST AND LEAST US\$ OF NET MEAT IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Andorra	405	129	Uganda	0.03
2	Tuvalu	248	130	Central African Republic	0.03
3	Greenland	242	131	Rwanda	0.03
4	Bahamas	196	132	Zambia	0.03
5	Luxembourg	192	133	Madagascar	0.02
6	Cook Islands	175	134	United Republic Tanzania	0.02
7	Qatar	158	135	Burundi	0.02
8	Niue	151	136	Nigeria	0.02
9	Hong Kong (China)	148	137	Nepal	0.01
10	Saint Lucia	143	138	Mali	<0.01

annual US\$ worth of net meat imports per person living in that territory\*

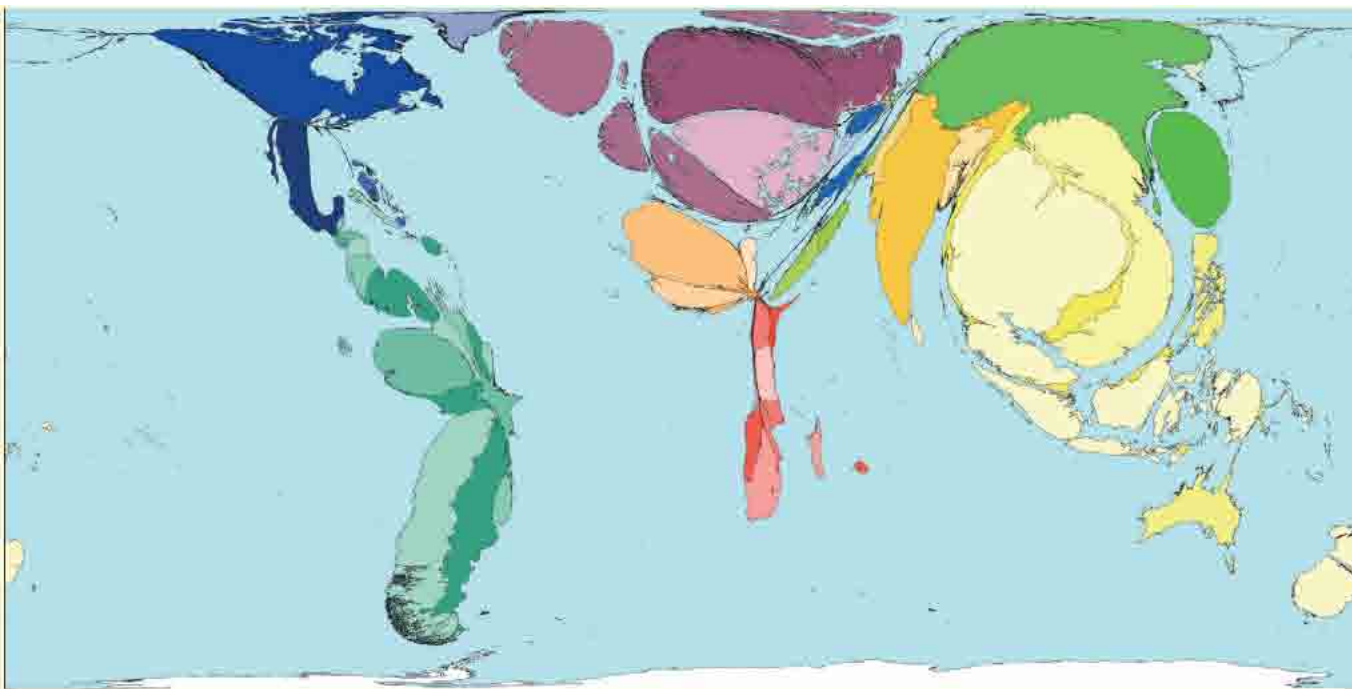
## REGIONAL NET MEAT IMPORTS



*“Throughout history, the ubiquitous chicken has maintained an important and constant presence in many cultures worldwide.”*

Kay Chin, 2001

# Fish Exports



Asia Pacific and South America catch and ship the highest regional net fish exports. At territory-level Thailand, China and Norway produce the highest US\$ value of net fish exports, and together they make up one third of worldwide net fish exports.

Whilst island territories of Asia Pacific have high net fish exports, Central American islands often are not net exporters of fish. Japan is a net importer of fish so is not given an area on this map, nor as a region on the graph below.

Note that the total area of the territories on this map is equal (but differently distributed) to that for fish imports. This is also true for the area of the bars on the graph below.

Territory size shows the proportion of worldwide net exports of fish (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

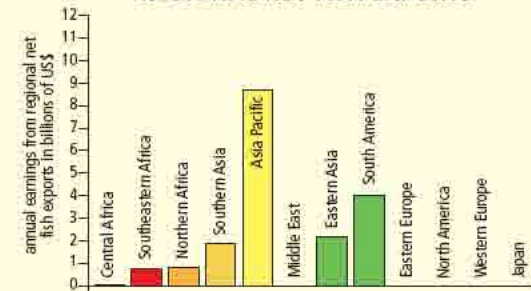
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net fish exports recorded for 99 territories.
  - Fish can be transported fresh, chilled, frozen, salted, dried, or otherwise preserved. Fish includes shellfish.
  - See website for further information.

## MOST AND LEAST US\$ OF NET FISH EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Greenland	4681	92	Armenia	0.33
2	Iceland	3751	93	Eritrea	0.27
3	Norway	677	94	Democratic Republic of Congo	0.23
4	Bahamas	362	95	Equatorial Guinea	0.23
5	Denmark	264	96	Mali	0.18
6	Maldives	174	97	Guinea	0.13
7	New Zealand	169	98	Zimbabwe	0.10
8	Kiribati	101	99	Turkmenistan	0.02
9	Panama	100	100	Burundi	<0.01
10	Chile	97	101	Sudan	<0.01

annual US\$ worth of net fish exports per person living in that territory\*

## REGIONAL NET FISH EXPORTS

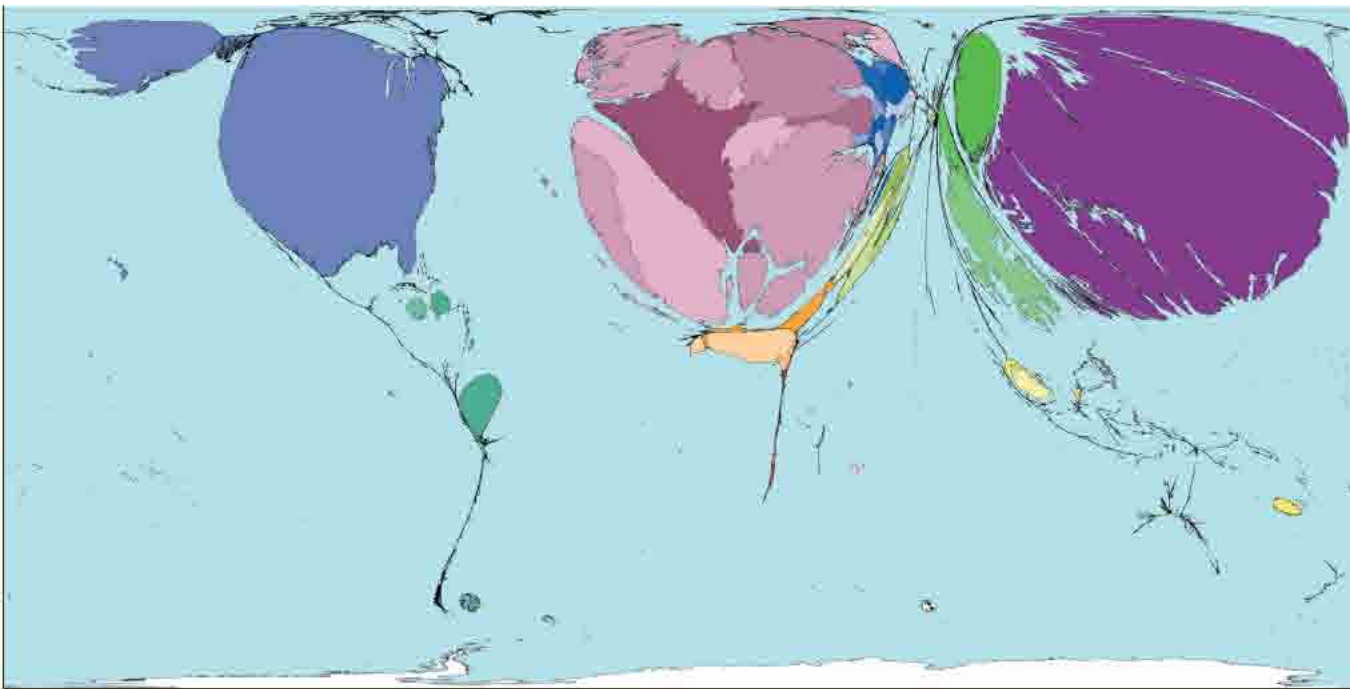


*“There is no firm evidence to show that fish exports are detrimental to food security in the exporting country as generally the products exported are different from those consumed locally.”*

Helga Josupeit, 1998



# Fish Imports



Eight of the ten territories with the lowest per person net fish imports are landlocked territories. Of the other two, Senegal has some coastline, and Haiti is half of an island. Only three of the ten territories with the highest per person net fish imports are landlocked. So distance from the coast is not the main determinant of the value of fish imported. As with almost all trade, rich countries tend to either import the most, or make the most money from their exports.

The highest net fish imports are to Japan, followed by Western European territories, followed by the United States. Together net imports to these territories constitute 89% of net fish imports to all territories.

Territory size shows the proportion of worldwide net imports of fish (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



**Technical notes**

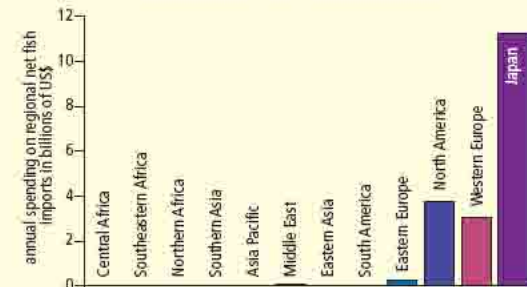
- Data source: United Nations Conference on Trade and Development, 2002.
- \*There were no net fish imports recorded for 101 territories.
- Fish can be transported fresh, chilled, frozen, salted, dried, or otherwise preserved. Fish includes shellfish.
- See website for further information.

## MOST AND LEAST US\$ OF NET FISH IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Andorra	187	90	Haiti	0.05
2	Hong Kong (China)	176	91	Mongolia	0.05
3	Luxembourg	98	92	Chad	0.03
4	Japan	88	93	Tajikistan	0.03
5	Seychelles	63	94	Senegal	0.03
6	Portugal	56	95	Rwanda	0.02
7	Niue	51	96	Central African Republic	0.02
8	Switzerland	43	97	Nepal	0.01
9	Belgium	42	98	Malawi	0.01
10	Spain	41	99	Ethiopia	0.00

annual US\$ worth of net fish imports per person living in that territory\*

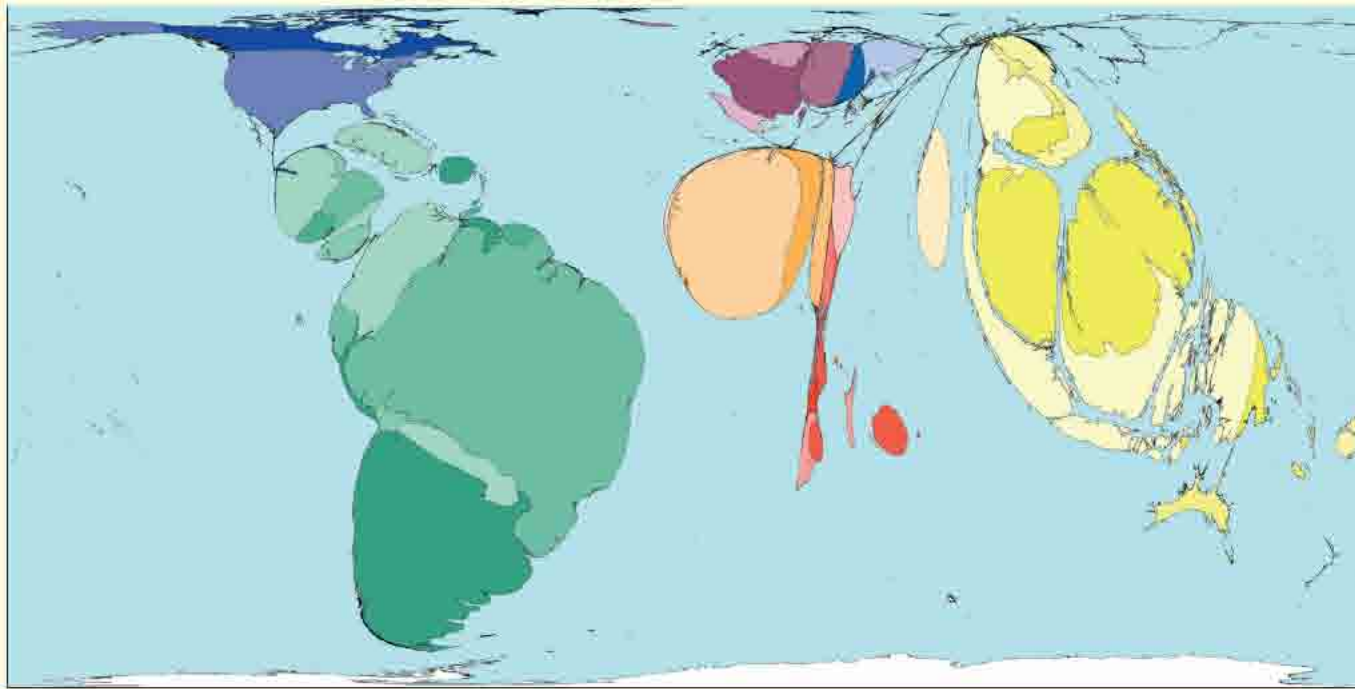
## REGIONAL NET FISH IMPORTS



*“Fugu (blow fish) is a fish which contains deadly poison in the organs. Despite the risk, fugu dishes remain special feasts in Japan.”*

Setsuko Yoshizuka, 2006

# Grocery Exports



Groceries include sugar, honey, cocoa, chocolate, tea, mate (a tea-like drink) and spices. Almost half of this category, when measured in US\$, is oils from vegetables and animals. Territories in South America and Asia Pacific together make up three quarters of net grocery exports. Net exports at regional level are from South America, Asia Pacific, North America, Southeastern Africa and Northern Africa.

Most of Asia and Europe are not visible on this map. This means that the grocery imports to these places exceed the exports from them. Mauritius, which exports (net) the nineteenth highest value of groceries, makes most money per person from this trade.

Territory size shows the proportion of worldwide net exports of groceries (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



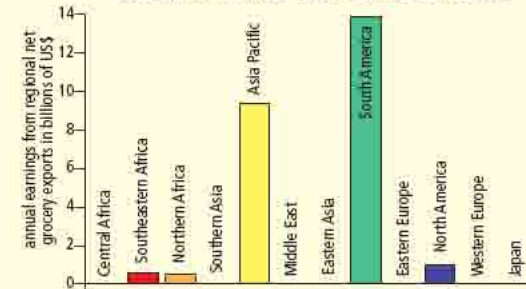
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net exports of groceries recorded for 127 territories.
  - Groceries include sugar, honey, coffee, tea, mate, cocoa, chocolate, spices, seeds for oils, and cooking oils.
  - See website for further information.

## MOST AND LEAST US\$ OF NET GROCERY EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Mauritius	211	64	Philippines	1.79
2	Malaysia	174	65	Zambia	1.75
3	Fiji	152	66	Rwanda	1.63
4	Cote d'Ivoire	145	67	Jamaica	1.57
5	Saint Kitts & Nevis	126	68	Bhutan	1.48
6	Grenada	99	69	Congo	1.43
7	Guyana	96	70	Western Sahara	1.23
8	Argentina	94	71	Togo	0.93
9	Belize	91	72	Kenya	0.38
10	Paraguay	72	73	United Republic of Tanzania	0.16

annual US\$ worth of net grocery exports per person living in that territory\*

## REGIONAL NET GROCERY EXPORTS

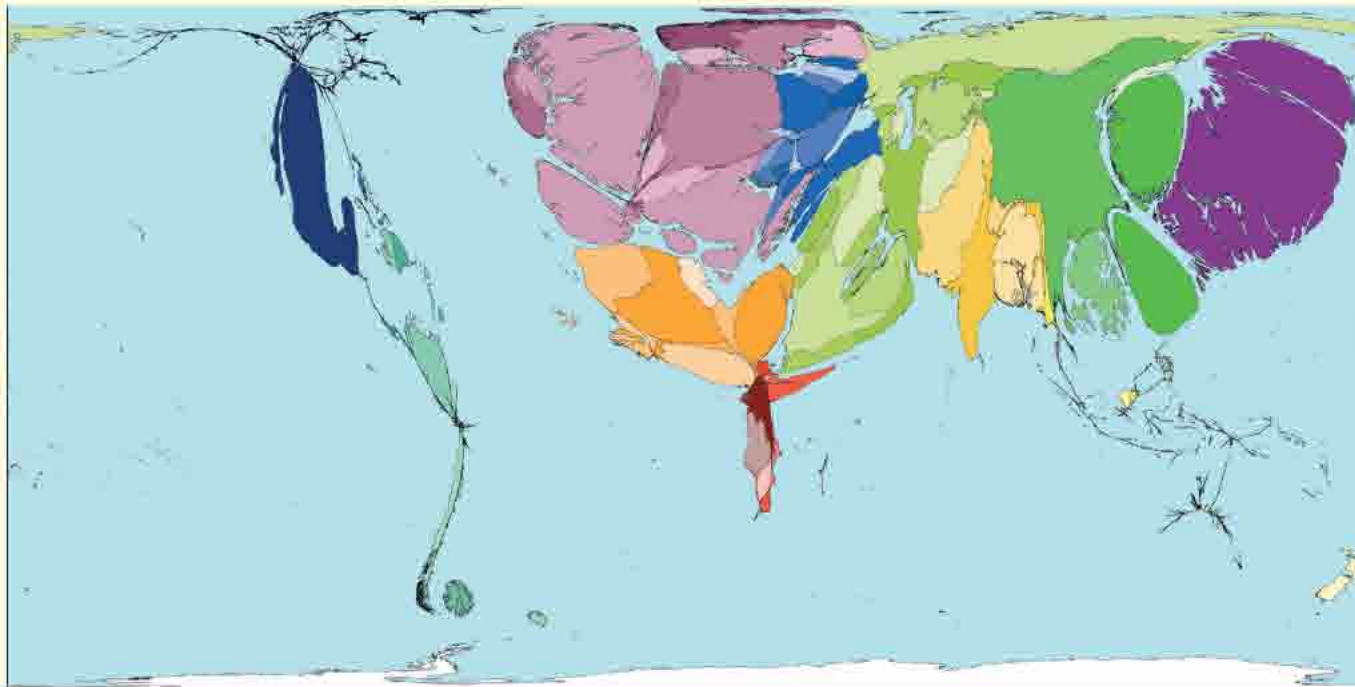


*“ 'The food of the gods', as cocoa was called 500 years ago when the Spanish came upon it in South America, remains a precious commodity.”*

International Cocoa Organization, 2006



# Grocery Imports



62% of all territories have net grocery imports, which means that the remaining 38% meet their demands. The map shows that net imports are, broadly speaking, to more northern latitudes. Therefore net exports tend to come from more southern latitudes: Asia Pacific and South America. There are however anomalies such as the United States, Canada and France. Further, Southern Africa has neither large net imports, nor large net exports.

The highest value of net grocery imports is to Japan. Imports to Japan are one and a half times the value of those to the second largest importer, China. Further, the population of China is ten times larger than Japan. So, per person living there, Japan imports (net) sixteen times more groceries than China.

Territory size shows the proportion of worldwide net imports of groceries (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

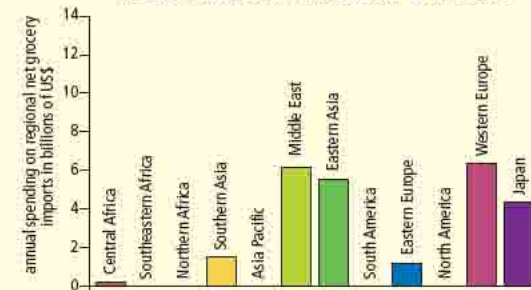
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net grocery imports recorded for 73 territories.
  - Groceries include sugar, honey, coffee, tea, mate, cocoa, chocolate, spices, seeds for oils, and cooking oils.
  - See website for further information.

## MOST AND LEAST US\$ OF NET GROCERY IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Andorra	431	118	Myanmar	1.23
2	Luxembourg	301	119	Mozambique	1.18
3	Greenland	135	120	Uruguay	1.07
4	United Arab Emirates	128	121	Mali	0.96
5	Qatar	122	122	Chad	0.80
6	Tuvalu	122	123	Burkina Faso	0.71
7	Hong Kong (China)	121	124	Liberia	0.55
8	Bahamas	120	125	India	0.54
9	Antigua & Barbuda	114	126	Central African Republic	0.24
10	Malta	108	127	Sudan	0.06

annual US\$ worth of net groceries imported per person living in that territory\*

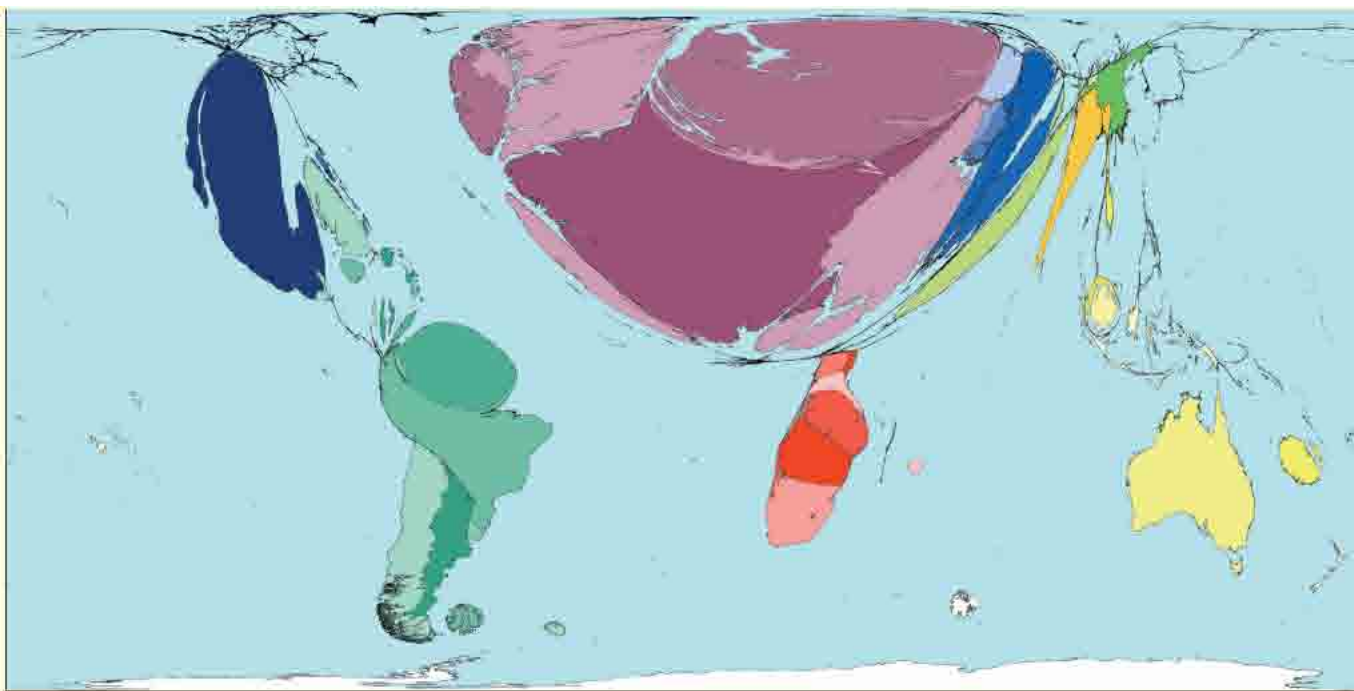
## REGIONAL NET GROCERY IMPORTS



*“... to avoid devastating price hikes, Cubans rushed to stock up on pasta, canned food, cooking oil and soap yesterday after the government announced emergency measures in the face of new US sanctions ...”*

Anthony Boadle, 2004

# Alcohol and Cigarette Exports



Alcohol and cigarettes account for 0.9% of money spent on international trade. Western European territories alone profit from two thirds of the worldwide net exports. Regional exports from Western Europe are 72% of all regional exports. France and the Netherlands have the highest value of exports, and both these territories are in the top ten list of net exporters by population.

Although South American territories together are the second biggest net exporters of cigarettes and alcohol, only one South American territory, Chile, features in the top ten net exporters when earnings are divided by population.

Territory size shows the proportion of worldwide net exports of alcohol and cigarettes (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

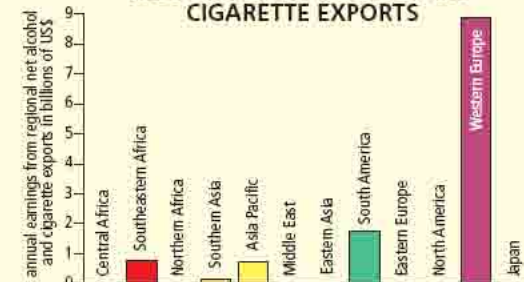
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - \*There were no net alcohol-cigarettes exports recorded for 135 territories.
  - Alcohol means beverages, tobacco includes manufactured, un-manufactured and refuse.
  - See website for further information.

## MOST AND LEAST US\$ OF CIGARETTE AND ALCOHOL NET EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Netherlands	211	56	Hong Kong (China)	0.85
2	Niue	126	57	Kenya	0.42
3	United Arab Emirates	117	58	Indonesia	0.29
4	Bahamas	104	59	India	0.20
5	Ireland	83	60	Burundi	0.18
6	France	82	61	Azerbaijan	0.15
7	Australia	49	62	Nicaragua	0.12
8	TFYR Macedonia	47	63	China	0.11
9	Republic of Moldova	44	64	Pakistan	0.02
10	Chile	38	65	Mozambique	0.00

annual US\$ worth of cigarette and alcohol exports per person living in that territory\*

## REGIONAL NET ALCOHOL AND CIGARETTE EXPORTS

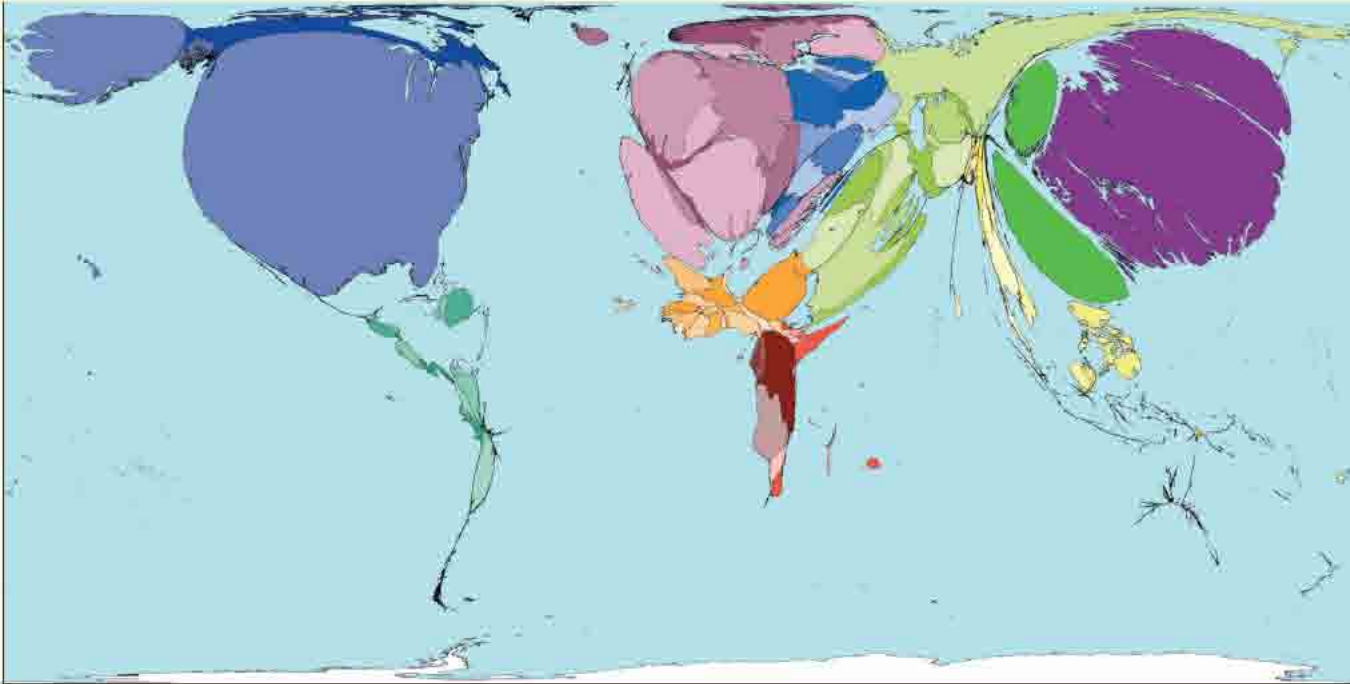


*“A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and the black stinking fume thereof ...”*

James Charles Stuart, 1604 [referring to smoking tobacco]



# Alcohol and Cigarette Imports



The United States and Japan have the highest value of net alcohol and cigarette imports in the world. The lowest (positive) values of net imports are for the Cook Islands, Comoros and Tuvalu.

Trade is the basis of our subsistence, underpinning the economic system with which most of the world population now engages. Trade maps demonstrate the contours of movement of goods and money around the globe. Trade links territories into relationships of supply and demand, of dependence and sometimes interdependence. The nature of these relationships affects the wealth and poverty of all involved.

Territory size shows the proportion of worldwide net imports of alcohol and cigarettes (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



**Technical notes**

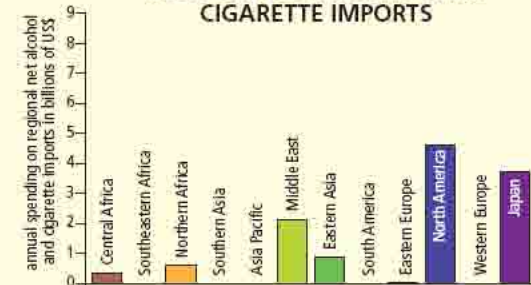
- Data source: United Nations Conference on Trade and Development, 2002.
- \*There were no net alcohol and cigarettes imports recorded for 65 territories.
- Alcohol means beverages; tobacco includes manufactured, un-manufactured and refuse.
- See website for further information.
- Note the accurate recording of trade relies on levels of illicit trade being insignificant.

## MOST AND LEAST US\$ OF NET ALCOHOL AND CIGARETTE IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Andorra	1172	126	Nigeria	0.35
2	Luxembourg	302	127	Nepal	0.33
3	Greenland	213	128	Liberia	0.30
4	Brunei Darussalam	123	129	Rwanda	0.29
5	Iceland	117	130	Cameroon	0.19
6	Bahrain	92	131	Madagascar	0.18
7	Switzerland	77	132	Bangladesh	0.13
8	Tuvalu	75	133	Malaysia	0.13
9	Norway	58	134	Ethiopia	0.12
10	Belgium	48	135	Bosnia Herzegovina	0.09

annual US\$ worth of net alcohol and cigarette imports per person living in that territory\*

## REGIONAL NET ALCOHOL AND CIGARETTE IMPORTS



*“Myth: Alcohol is a good way to cope with cold weather. Fact: Alcohol makes blood vessels of the skin dilate and the skin feels warm.”*

Hans Olav Fekjaer, 1993

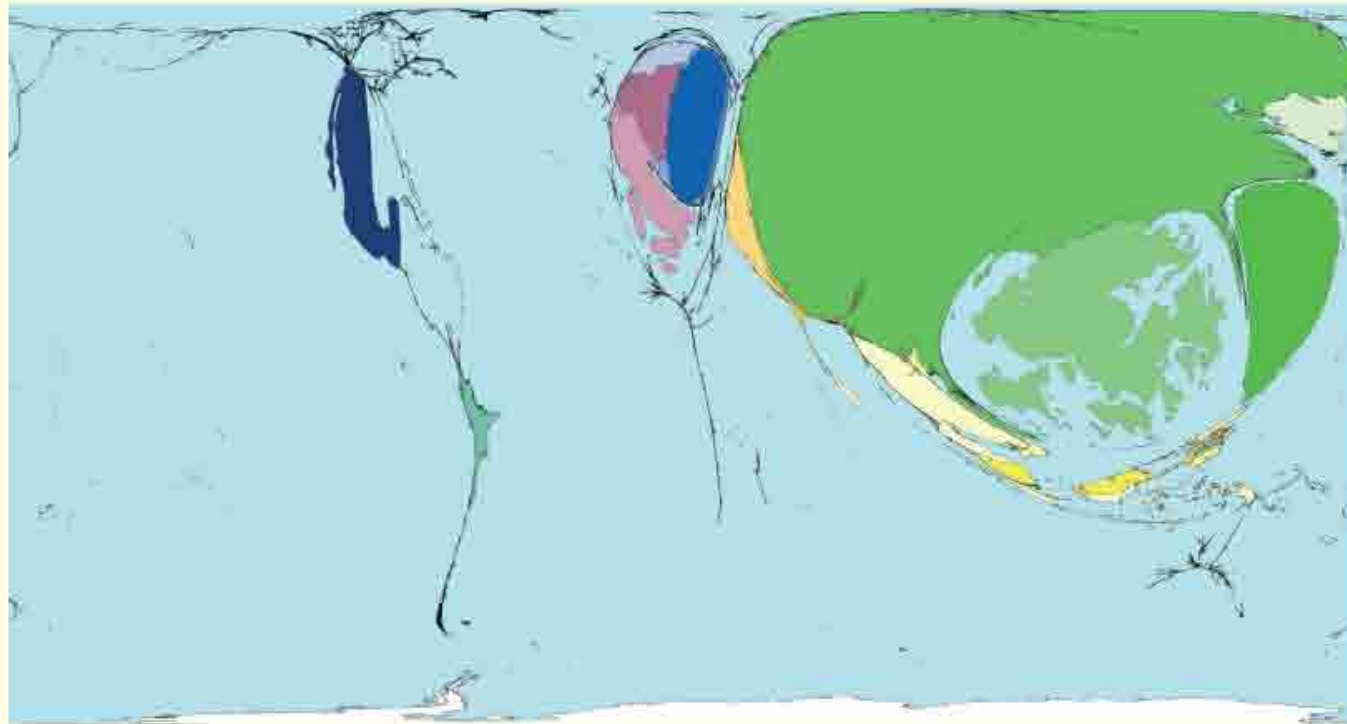
# Food Summary

- >10 billion dollars of business for each item of food category
- Net exporters; Western Europe and South America, are champion on this category



Goods

# Toy Exports



More toys are exported (US\$ net) from Eastern Asia than from any other region. The value of net exports depends on a combination of how much is exported, how much is imported, and the prices paid.

In terms of earnings from toy exports, there is considerable variation between Eastern Asian territories. Net exports earnings per person from Hong Kong are more than 10 times greater than those from Taiwan, and almost 100 times greater than those from China.

Toys, including sports equipment, make up 1% of worldwide exports when measured in US dollars.

Territory size shows the proportion of worldwide net exports of toys (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



**Technical notes**

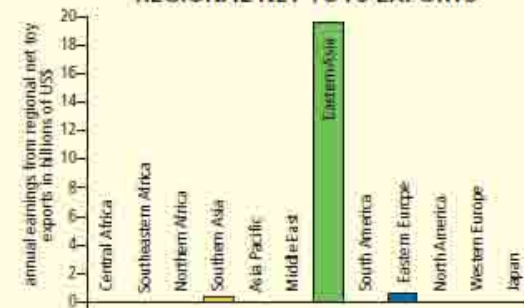
- Data source: United Nations Conference on Trade and Development, 2003.
- \*There were no net toy exports recorded for 167 territories. Ranks 26 to 31 were excluded from the table because the estimates per person for these positions were identical.
- See website for further information.

## MOST AND LEAST US\$ OF NET TOY EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Hong Kong (China)	800	17	Philippines	1.20
2	Malta	91	18	Sri Lanka	1.14
3	Taiwan	75	19	Belarus	0.63
4	Hungary	62	20	Brazil	0.61
5	Austria	38	21	Viet Nam	0.59
6	Slovenia	15	22	Indonesia	0.57
7	DPR Korea	14	23	Tunisia	0.35
8	Czech Republic	11	24	Ukraine	0.14
9	China	9	25	Bulgaria	0.11
10	Italy	8	33	India	0.03

US\$ worth of toys exported annually, per person living in that territory\*

## REGIONAL NET TOYS EXPORTS



*“At City Toys Ltd., ... Shenzhen, youngsters worked 16-hour days, seven days a week”*

Agence France-Press, 2000



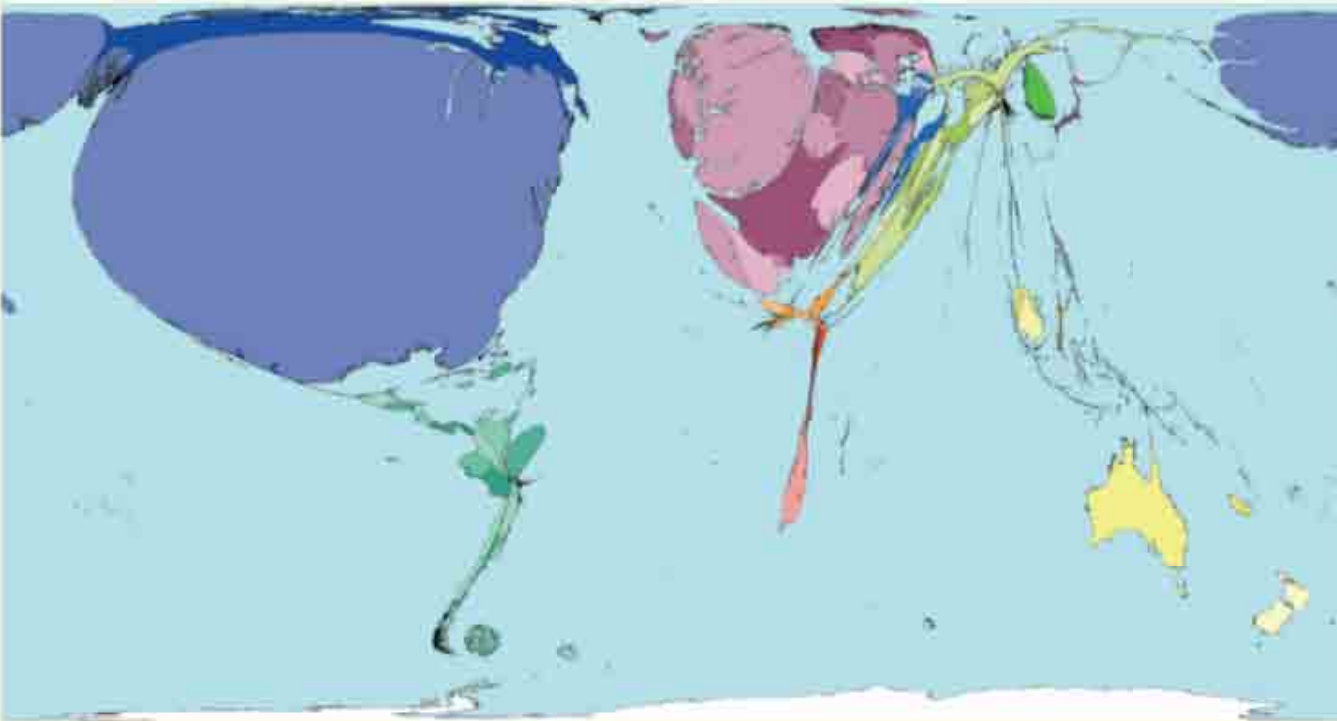
# Toy Imports

Most imports of toys (US\$ net) are to the United States, followed by the United Kingdom. Toys are fun but not necessities. Thus toy imports give an indication of disposable incomes.

The lowest imports of toys (US\$ net) per person are to territories in Africa and also Tajikistan (in the Middle East). Central Africa, Southeastern Africa, Southern Asia and Northern Africa contain the poorest territories in the world.

The highest imports of toys (US\$ net) per person are to territories in Western Europe, North America, Asia Pacific and Eastern Europe.

Territory size shows the proportion of worldwide net imports of toys (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

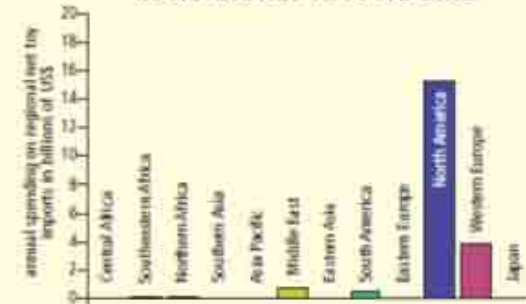
**Technical notes**  
 • Data source: United Nations Conference on Trade and Development, 2002  
 • \*There were no net toy imports recorded for 33 territories.  
 • The toy's category includes sporting goods.  
 • See website for further information.

## MOST AND LEAST US\$ OF NET TOY IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Andorra	340	158	Niger	0.03
2	Greenland	57	159	Mali	0.03
3	United States	51	160	Ethiopia	0.02
4	Iceland	48	161	Chad	0.02
5	Norway	48	162	Rwanda	0.02
6	Niue	39	163	Togo	0.01
7	Luxembourg	36	164	Burundi	0.01
8	New Zealand	36	165	Liberia	0.01
9	Cyprus	35	166	Sierra Leone	0.01
10	Cuba	33	167	Tajikistan	<0.01

US\$ worth of toys imported annually per person living in that territory\*

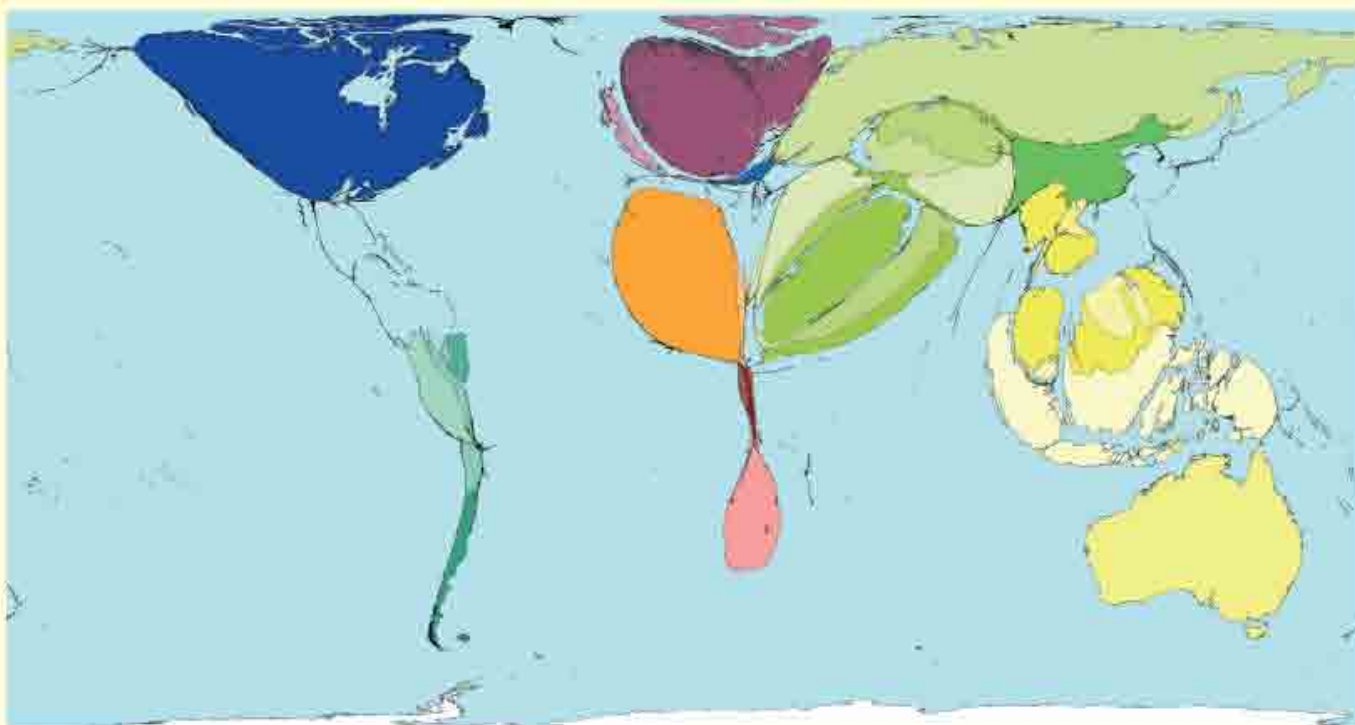
## REGIONAL NET TOYS EXPORTS



*“Is there a present that a child or family member just has to have and you can’t find it in any store?”*

Kidsource, 2000

# Coal and Gas Exports



The Middle East and Asia Pacific are the main net exporting regions for coal and gas. The territories in these regions export up to 60% of all gas and coal exports in the world (US\$ net). Of the 53 net exporting territories, 15 are in Asia Pacific, and 13 are in the Middle East.

In some regions there is only one net exporting territory: in Southern Asia this is Bhutan; in Eastern Europe this is Poland; and in North America this is Canada. Japan has no net gas and coal exports and hence relies on imports.

Gas and coal exports are 2% of all world exports.

Territory size shows the proportion of worldwide net exports of gas and coal (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

#### Technical notes

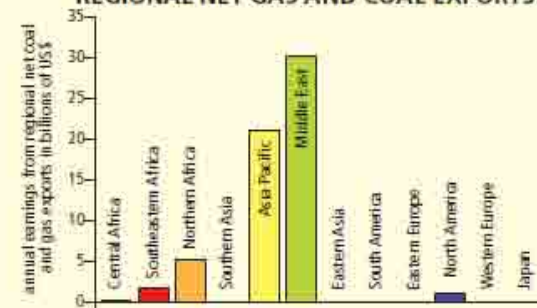
- Data source: United Nations Conference on Trade and Development, 2002.
- \*There were no net gas and coal exports recorded for 147 territories. Guinea-Bissau and Niue have neither net imports nor net exports of coal and gas.
- The gas and coal category includes coal, lignite, peat, briquettes, coke, semi-coke, natural and manufactured gas, and electric current.
- See website for further information.

## MOST AND LEAST US\$ OF NET COAL AND GAS EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Qatar	6225	44	Angola	2.22
2	Bruner Darussalam	3943	45	New Zealand	2.08
3	Norway	1872	46	China	1.90
4	United Arab Emirates	628	47	Viet Nam	1.27
5	Canada	447	48	Mozambique	0.79
6	Australia	445	49	Bhutan	0.68
7	Oman	406	50	Uganda	0.59
8	Kuwait	323	51	Sudan	0.54
9	Trinidad & Tobago	300	52	Somalia	0.13
10	Turkmenistan	194	53	Cote d'Ivoire	0.07

US\$ worth of coal and gas exports per person living in that territory\*

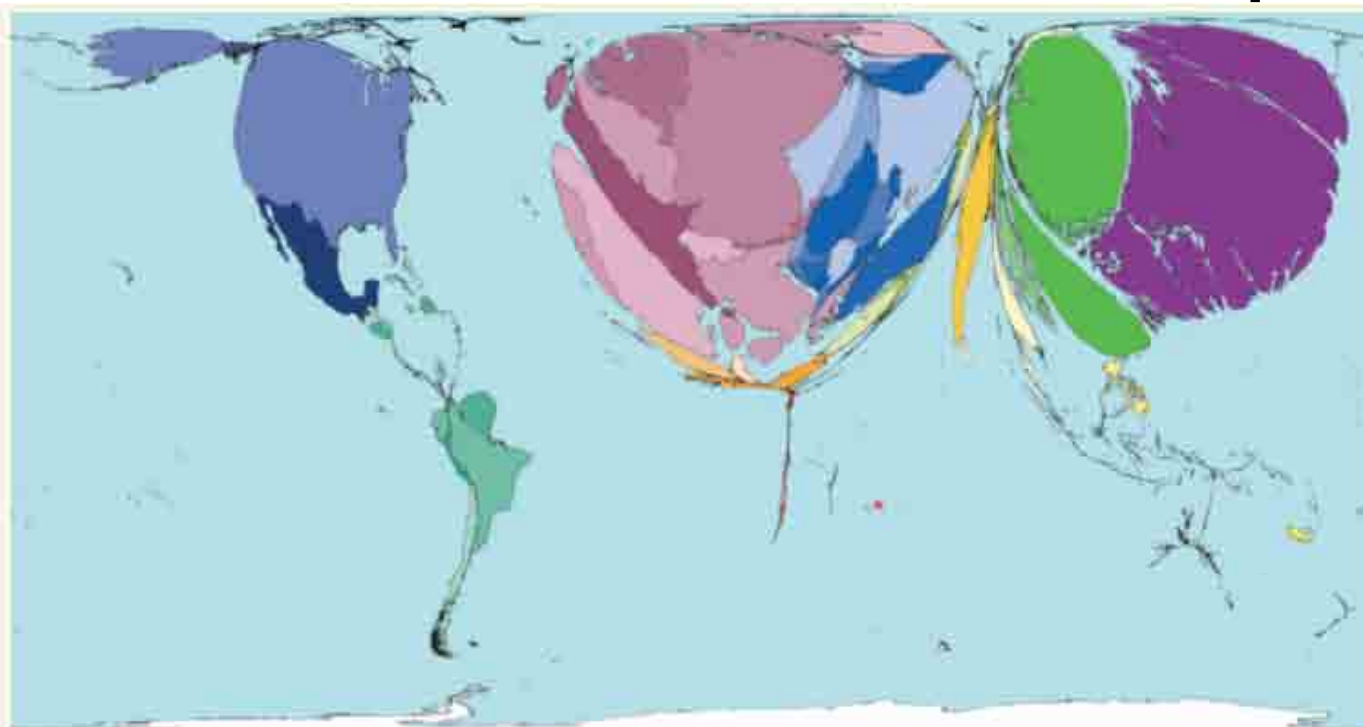
## REGIONAL NET GAS AND COAL EXPORTS



“Coal is Australia’s major mineral export and accounts for nearly 25% of Australia’s export earnings.” MBendi, 2004



# Coal and Gas Imports



Coal and gas are burned as fuel to produce heat and electricity. In some territories coal and gas are a major source of energy. Other power sources include wood, petroleum, nuclear, and hydroelectrics. Imports depend on the demand for power, and the availability of affordable power sources.

Japan has the largest total of net imports of gas and coal. Belgium has the highest imports when measured per person. When divided equally, US\$199 worth of coal and gas is imported (net) for each of the 10.3 million people living in Belgium.

Territory size shows the proportion of worldwide net imports of coal and gas (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.

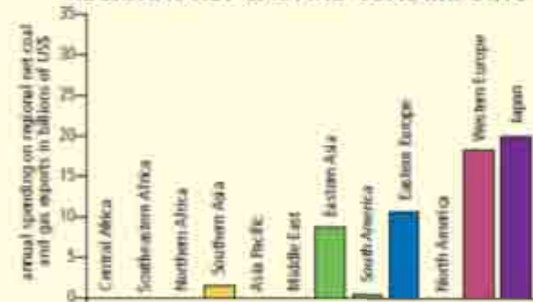


**MOST AND LEAST US\$ OF NET GAS AND COAL IMPORTS**

Rank	Territory	Value	Rank	Territory	Value
1	Belgium	199	136	Zambia	0.03
2	Finland	170	137	Guinea	0.02
3	Slovakia	164	138	Solomon Islands	0.02
4	Japan	157	139	Madagascar	0.02
5	Netherlands	156	140	Rwanda	0.01
6	Republic of Korea	150	141	Burundi	0.01
7	Hong Kong (China)	146	142	Ethiopia	0.01
8	Czech Republic	138	143	Djibouti	0.01
9	Taiwan	136	144	Chad	<0.01
10	Hungary	134	145	Liberia	<0.01

US\$ worth of gas and coal imports per person living in that territory\*

**REGIONAL NET GAS AND COAL IMPORTS**



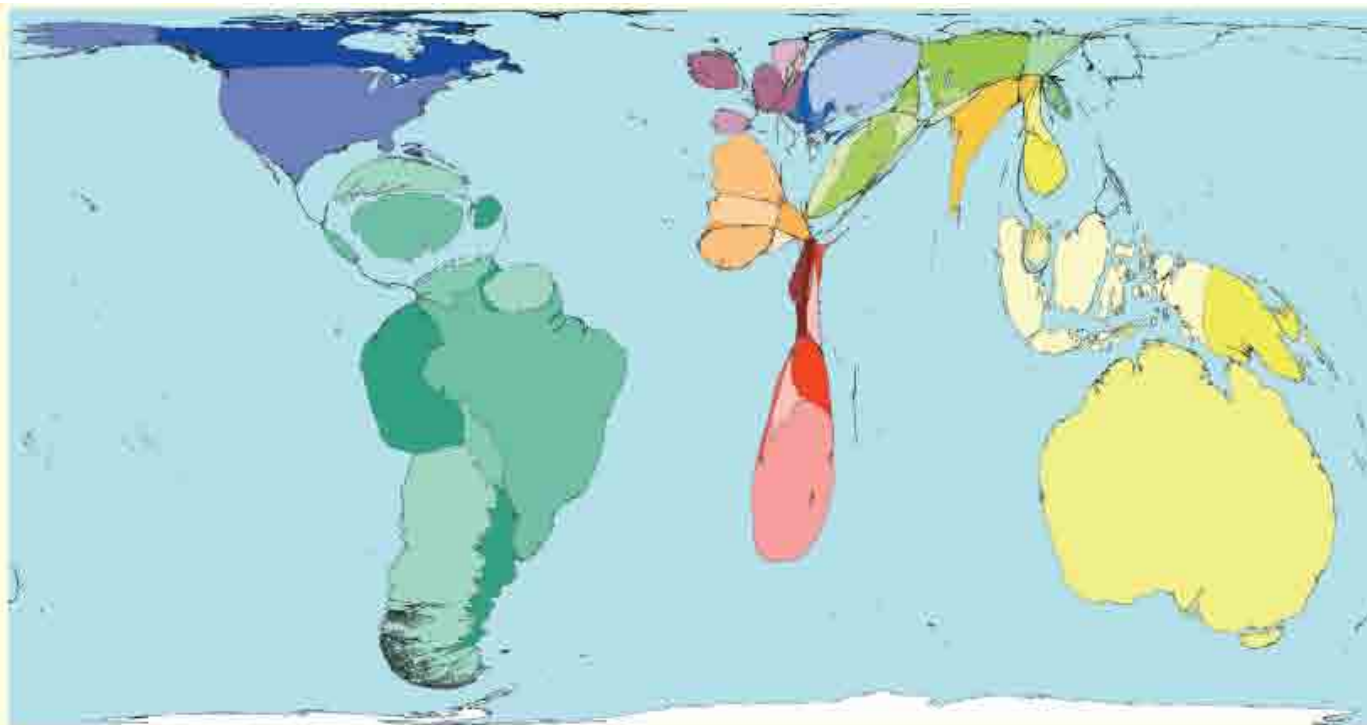
**Technical notes**

- \* Data source: United Nations Conference on Trade and Development, 2003.
- \* There were no net gas and coal imports recorded for 53 territories. Guinea-Bissau and Niue have neither net imports nor net exports of coal and gas.
- \* The gas and coal category includes coal, lignite, peat, briquettes, coke, semi-coke, natural and manufactured gas, and electric current.
- \* See website for further information.

*“Eighty percent of Russia’s gas exports pass through Ukraine, a crucial weak point in what is acknowledged to be a powerful lever of Russian foreign policy.”*

Steven Eke, 2005

# Ores Exports



Of all earnings from exports worldwide, 1.2% is from ores. Ores are the unprocessed state in which minerals are found. If the minerals are of value to people, they are extracted. Ores are put to many uses, ranging from making fertilisers and steel, to the working of precious metals to make jewellery. Also in this category are sand, stone, gravel and scrap metals.

Territories in South America and Asia Pacific have the largest total ore exports (US\$ net). Territories in these regions are also the top five in the table of highest ore exports when measured per person.

Territory size shows the proportion of worldwide net exports of ores (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

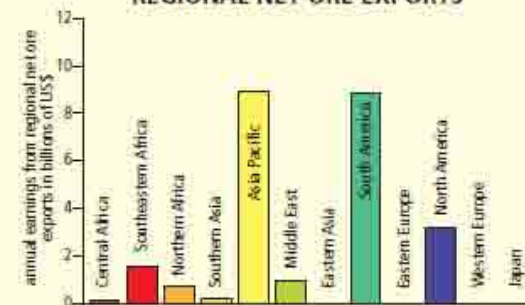
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2002.
  - There were no net ore exports recorded for 109 territories.
  - Ores include crude fertilisers and base metal ores.
  - See website for further information.

## MOST AND LEAST US\$ OF NET ORE EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Suriname	751	82	Yemen	0.56
2	Australia	356	83	Myanmar	0.45
3	Jamaica	273	84	India	0.40
4	Chile	145	85	Nicaragua	0.16
5	Papua New Guinea	141	86	Tajikistan	0.16
6	Bahamas	103	87	Madagascar	0.07
7	Mauritania	71	88	Albania	0.05
8	Mongolia	65	89	Mozambique	0.02
9	Jordan	60	90	Central African Republic	0.01
10	Botswana	59	91	Haiti	0.01

US\$ worth of annual ore exports per person living in that territory\*

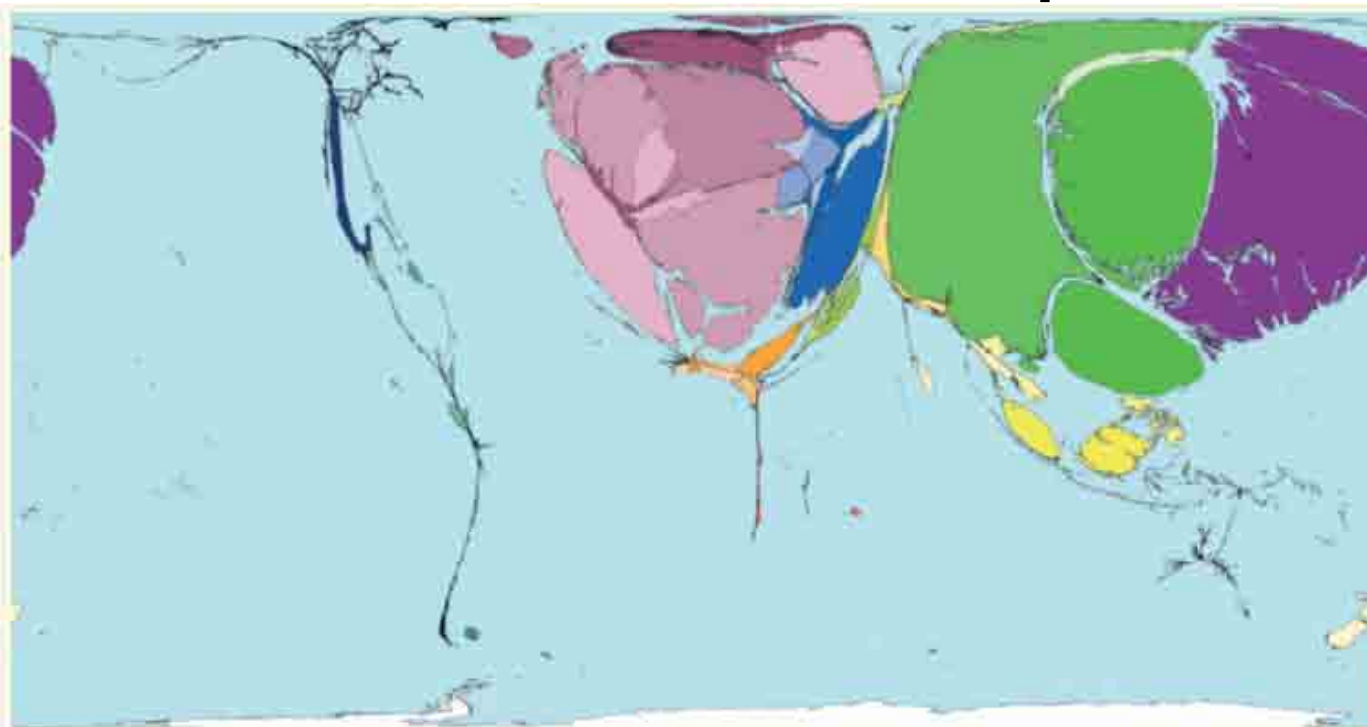
## REGIONAL NET ORE EXPORTS



*“As global metals prices rise, a new Latin American mining rush is underway ...”* Kelly Hearn, 2005



# Ores Imports



Eastern Asia, Western Europe and Japan are the main ore importing regions. Over two thirds of the territories in these regions have ore imports (net US\$).

There are only very low levels of ore imports to territories in any other region. Half of the territories in the main ore exporting regions (South America and Asia Pacific) actually have net ore imports. However, these net imports are considerably lower than the net exports made by the other territories in those regions.

It is likely that once these imported ores have been processed they will move again, in a new form, perhaps as iron, steel or finished goods.

Territory size shows the proportion of worldwide net imports of ores (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

#### Technical notes

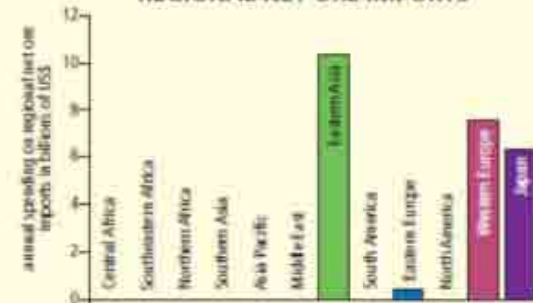
- Data source: United Nations Conference on Trade and Development, 2002.
- \*There were no net ore imports recorded for 97 territories.
- Ores include crude fertilizers and base metal ores.

## MOST AND LEAST US\$ OF NET ORE IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Luxembourg	809	100	Liberia	0.10
2	Iceland	244	101	Sudan	0.09
3	Norway	193	102	Comoros	0.08
4	Finland	147	103	Ethiopia	0.07
5	Belgium	85	104	Colombia	0.07
6	Republic of Korea	72	105	Eritrea	0.04
7	Qatar	71	106	Angola	0.03
8	Taiwan	67	107	Uganda	0.03
9	Slovenia	50	108	Mali	0.03
10	Japan	49	109	Guinea-Bissau	0.02

US\$ worth of annual ore imports per person living in that territory\*

## REGIONAL NET ORE IMPORTS



*“... raw iron is alloyed with a variety of elements (such as tungsten, manganese, nickel, vanadium, chromium) to strengthen and harden it ...”*

Mineral Information Institute, 2006

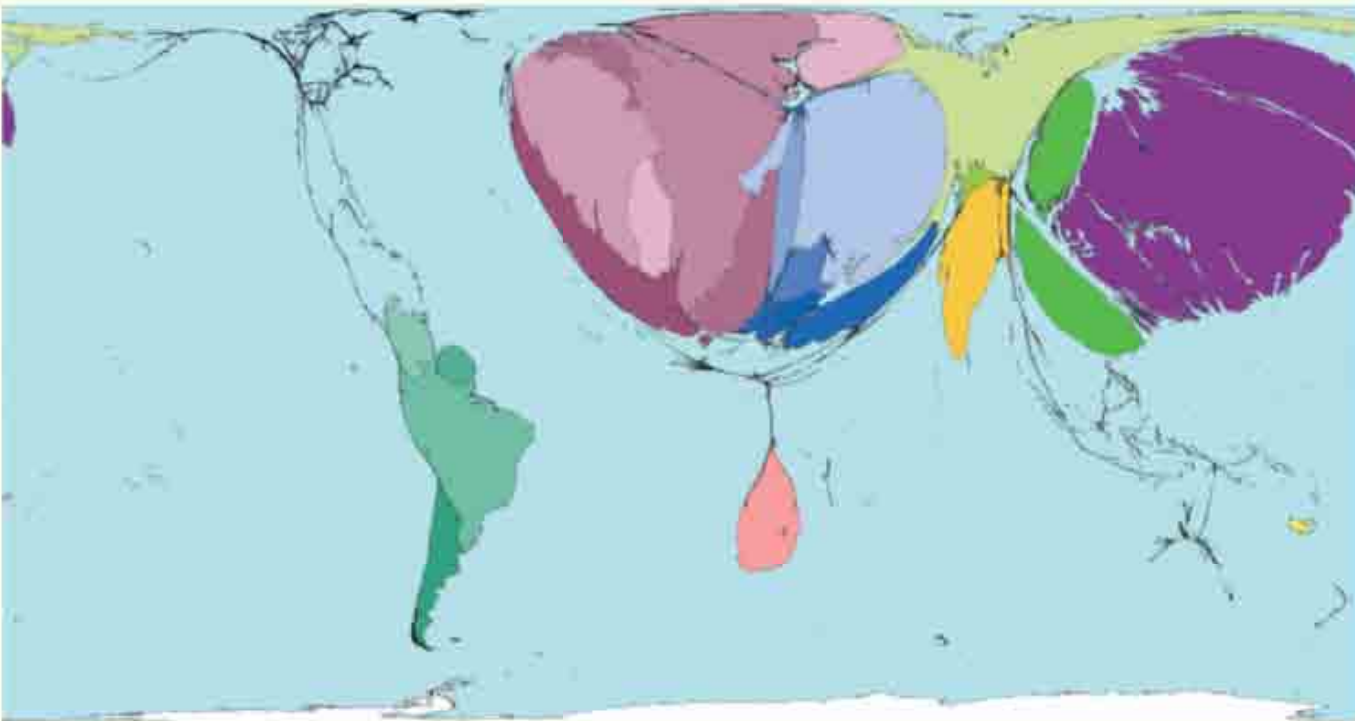
# Steel Exports

Earnings from steel exports are 2.2% of export earnings. The category mapped here includes steel and iron but not iron ore. Steel and iron are used to make railway tracks, pipes, tubes and wire, amongst other things.

The top five exporting (US\$ net) territories when measured per person are all in Western Europe. The top five per person importers of ores are also Western European territories.

Only 32 (out of 200) territories are net steel exporters. None of these 32 territories are in Northern Africa, Central Africa, North America or Asia Pacific. New Caledonia, the only yellow island shown, is a territory of France.

Territory size shows the proportion of worldwide net exports of steel (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

#### Technical notes

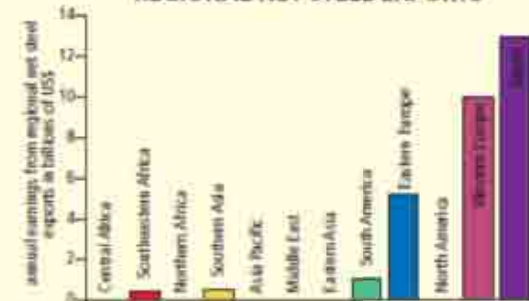
- Data source: United Nations Conference on Trade and Development, 2002.
- \* There were no net steel exports recorded for 133 territories.
- The data used here includes iron and steel.
- See website for further information.

## MOST AND LEAST US\$ OF NET STEEL EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Luxembourg	2339	23	Bosnia Herzegovina	19.75
2	Belgium	832	24	Romania	17.37
3	Finland	215	25	Venezuela	16.91
4	Sweden	192	26	Argentina	16.05
5	Austria	147	27	Brazil	13.59
6	Slovakia	120	28	Turkey	12.68
7	Japan	101	29	Trinidad & Tobago	9.74
8	Ukraine	94	30	Kazakhstan	8.25
9	Taiwan	73	31	Puerto Rico	2.33
10	Germany	51	32	India	1.32

US\$ worth annual steel exports of per person living in that territory\*

## REGIONAL NET STEEL EXPORTS

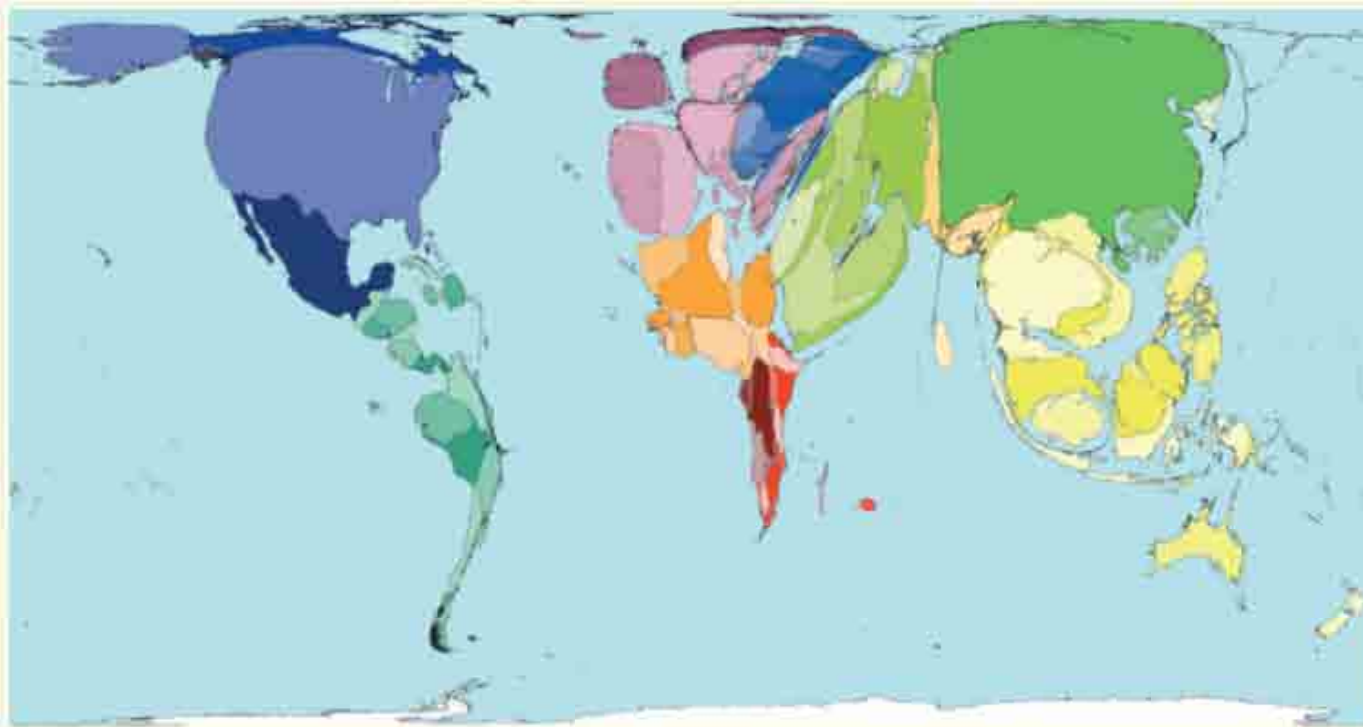


The Sheffield Star, 1941

*“Steel for ships, planes, tanks and craftsmen to shape it. That was the Empire’s call to Sheffield in the hour of peril.”*



# Steel Imports



Of the 200 territories mapped here, 162 are net steel importers. Major steel-importing territories are China and the United States, followed by Thailand, Mexico and Malaysia. The territories with the lowest net steel imports are islands in Asia Pacific: Niue, Nauru, Kiribati and Palau.

Whilst steel imports (US\$ net) to China are 12,500 times larger than those to Niue, Nauru, Kiribati and Palau combined, the net import value per person is very similar. However, compared to the United States, people living in these Asia Pacific islands, and China, import (US\$ net) less than a quarter of the value of steel per person.

Territory size shows the proportion of worldwide net imports of steel (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

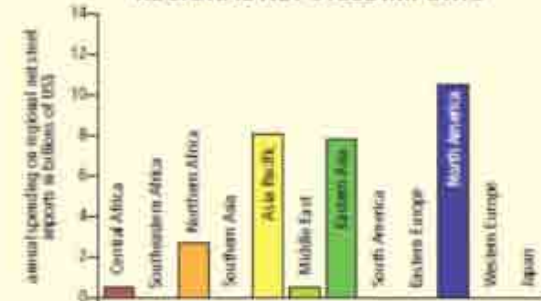
**Technical notes**  
 • Data source: United Nations Conference on Trade and Development, 2002.  
 • \*There were no net steel exports recorded for 32 territories.  
 • The data used here includes iron and steel.  
 • See website for further information.

## MOST AND LEAST US\$ OF NET STEEL IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	United Arab Emirates	295	159	Rwanda	1.04
2	Brunei Darussalam	243	160	Comoros	1.02
3	Singapore	230	161	Madagascar	0.95
4	Kuwait	197	162	Nepal	0.89
5	Andorra	162	163	Burundi	0.78
6	Ireland	147	164	Niger	0.72
7	Denmark	146	165	Central African Republic	0.32
8	Saint Kitts & Nevis	130	166	Liberia	0.16
9	Bahrain	128	167	United Kingdom	0.11
10	Norway	107	168	Somalia	0.03

US\$ worth of annual net steel imports per person living in that territory\*

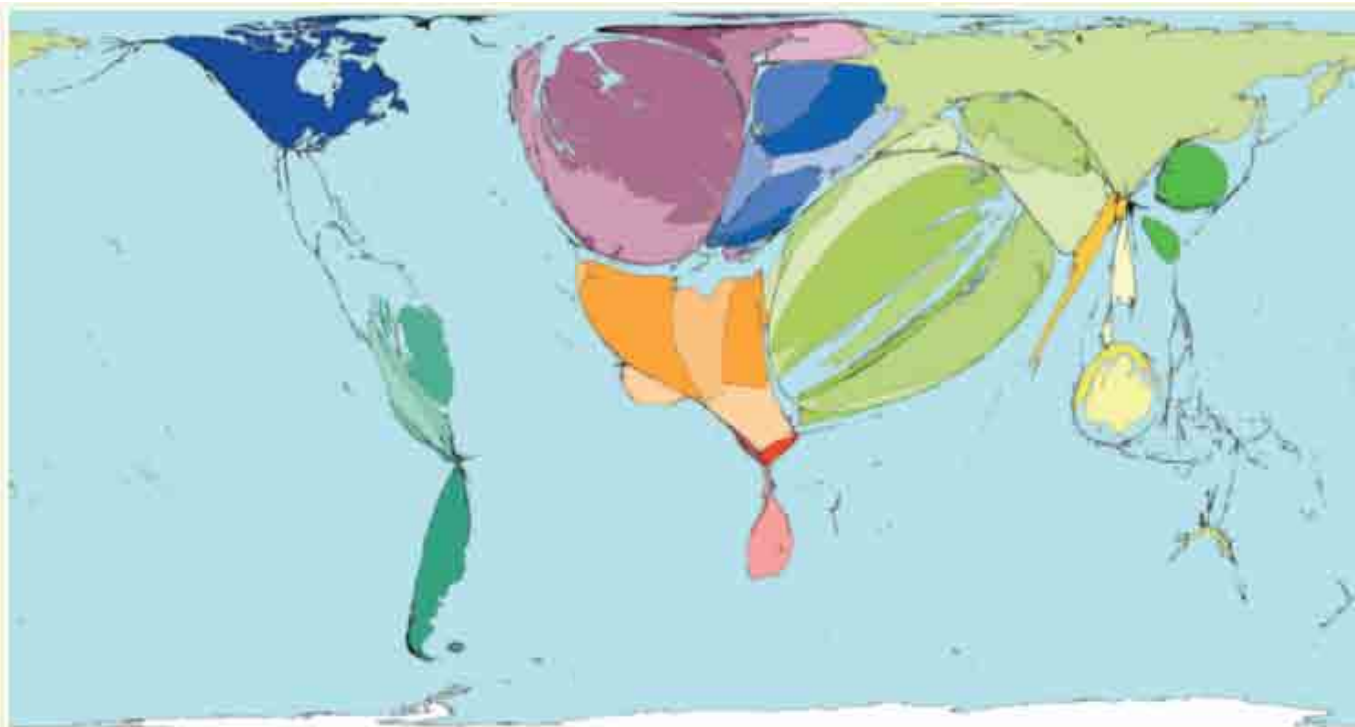
## REGIONAL NET STEEL IMPORTS



*“Indian steel products are currently being exported to Pakistan via Dubai. North Pakistan gets imported steel and steel melting scrap via Karachi, over 1,500 km away ...”*

Anand S T Das, 2006

# Refined Petroleum Exports



Petroleum refinement includes various steps: fractionation separates the hydrocarbon compounds within the crude petroleum; conversion changes the hydrocarbon structures; treatment to remove impurities and further separation processes; blending and formulating produces the finished products. The products of refinement include fuel oils, kerosene, gasoline and lubricating oils. Refined petroleum is 2.4% of worldwide earnings from exports.

The Middle East has the highest net refined petroleum exports (US\$), this region is where most extraction occurs and has the largest known oil reserves.

Territory size shows the proportion of worldwide net exports of refined petroleum (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



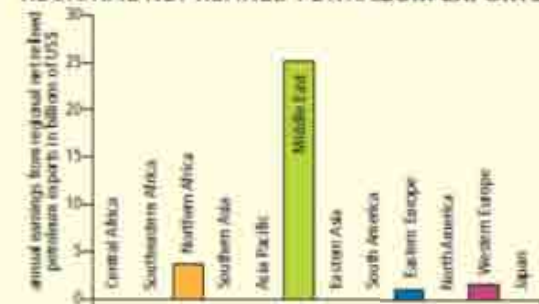
Land area

## MOST AND LEAST US\$ OF NET REFINED PETROLEUM EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Bahrain	3160	53	Bosnia Herzegovina	4.07
2	Kuwait	1995	54	Kenya	3.56
3	United Arab Emirates	1285	55	Angola	3.44
4	Qatar	869	56	Australia	3.06
5	Trinidad & Tobago	853	57	Morocco	2.08
6	Netherlands	447	58	Peru	1.25
7	Singapore	380	59	India	0.48
8	Lithuania	278	60	Cameroon	0.20
9	Belgium	230	62	Democratic Republic of Congo	0.04
10	Libyan Arab Jamahiriya	225	63	Equatorial Guinea	0.04

US\$ worth of annual net refined petroleum exports per person living in that territory\*

## REGIONAL NET REFINED PETROLEUM EXPORTS



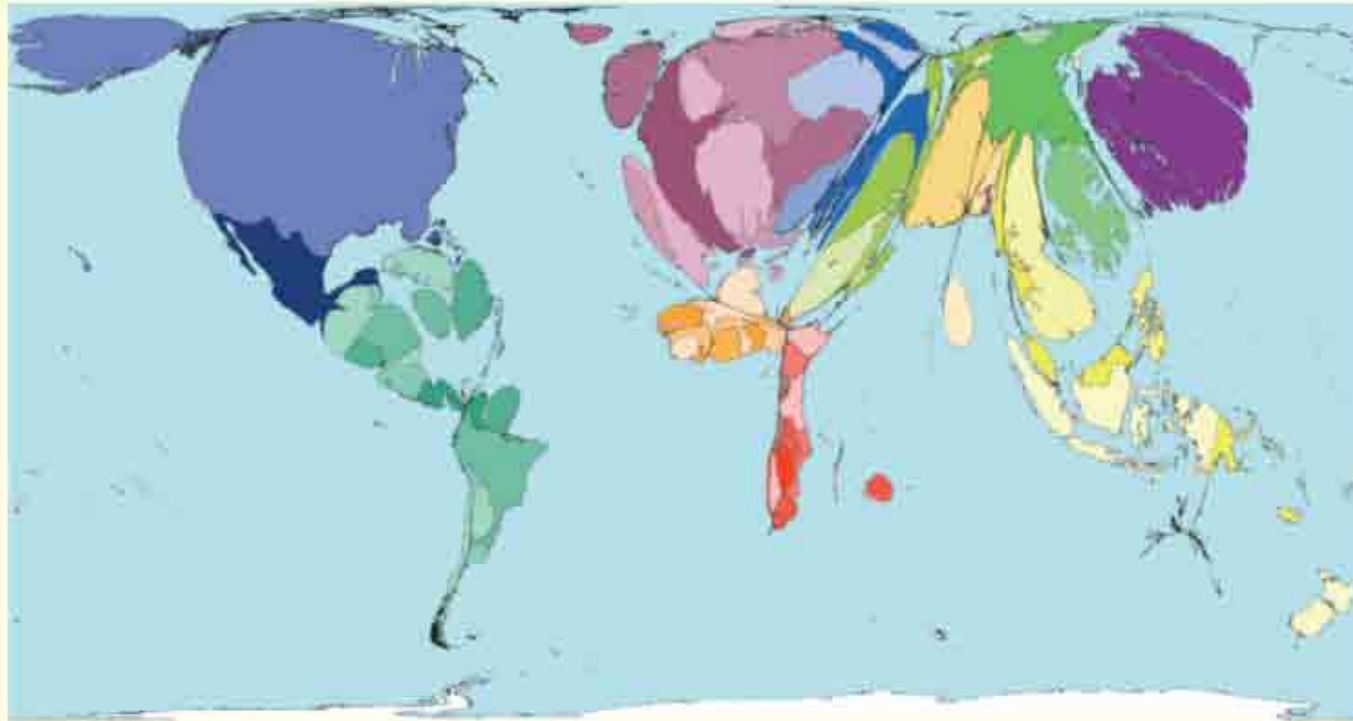
**Technical notes**  
 • Data source: United Nations Conference on Trade and Development, 2003.  
 • \*There were no net refined petroleum exports recorded for 136 territories.  
 • Refined petroleum includes gasoline, kerosene, diesel, lubricating oils and diesel fuels.  
 • See website for further information.

*“The rapid economic growth of the 1960s was driven by expansion of energy-consuming industries based on lavish use of cheap Middle East oil.”*

Yoko Kitazawa, 1990



# Refined Petroleum Imports



The components into which petroleum can be split have various uses. Petroleum uses include fuel for vehicles, to heat homes and to generate electricity.

Over two-thirds of all territories are net importers of refined petroleum. The biggest net importers are the United States, Japan and Hong Kong. The value of net refined petroleum imports to the United States is almost three times larger than the imports to Japan, the second biggest net importer.

Taking regions as a whole, the highest net importer is North America, followed by Western Europe, then Asia Pacific. Indonesia and Viet Nam both have imports that are four times larger than those to any other territory in Asia Pacific.

Territory size shows the proportion of worldwide net imports of refined petroleum (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

#### Technical notes

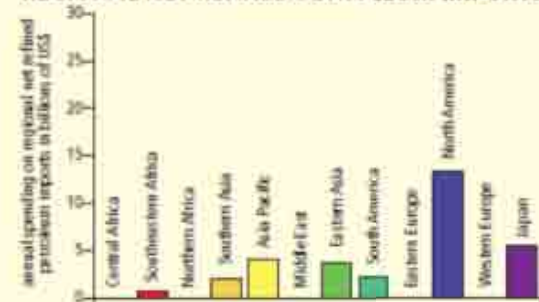
- Data source: United Nations Conference on Trade and Development, 2002.
- \*There were no net refined petroleum imports recorded for 62 territories.
- Refined petroleum includes gasoline, kerosene, distillates, lubricating oils and diesel fuel.
- See website for further information.

## MOST AND LEAST US\$ OF NET REFINED PETROLEUM IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Luxembourg	1547	129	China	1.60
2	Andorra	777	130	Somalia	1.57
3	Greenland	633	131	Eritrea	1.30
4	Iceland	539	132	Bhutan	1.27
5	Bahamas	389	133	Nigeria	1.03
6	Hong Kong (China)	373	134	Guinea-Bissau	0.64
7	Antigua & Barbuda	302	135	Central African Republic	0.58
8	Malta	289	136	Madagascar	0.51
9	Slovenia	277	137	Chad	0.42
10	Switzerland	253	138	Hungary	0.15

US\$ worth of annual refined petroleum imports per person living in that territory\*

## REGIONAL NET REFINED PETROLEUM IMPORTS



*"In fact China, with a fifth of the world's population, consumes only 4% of the world's daily oil output. It imports about three million barrels a day. A lot to be sure, but far below American consumption."*

Rupert Wingfield-Hayes, 2006

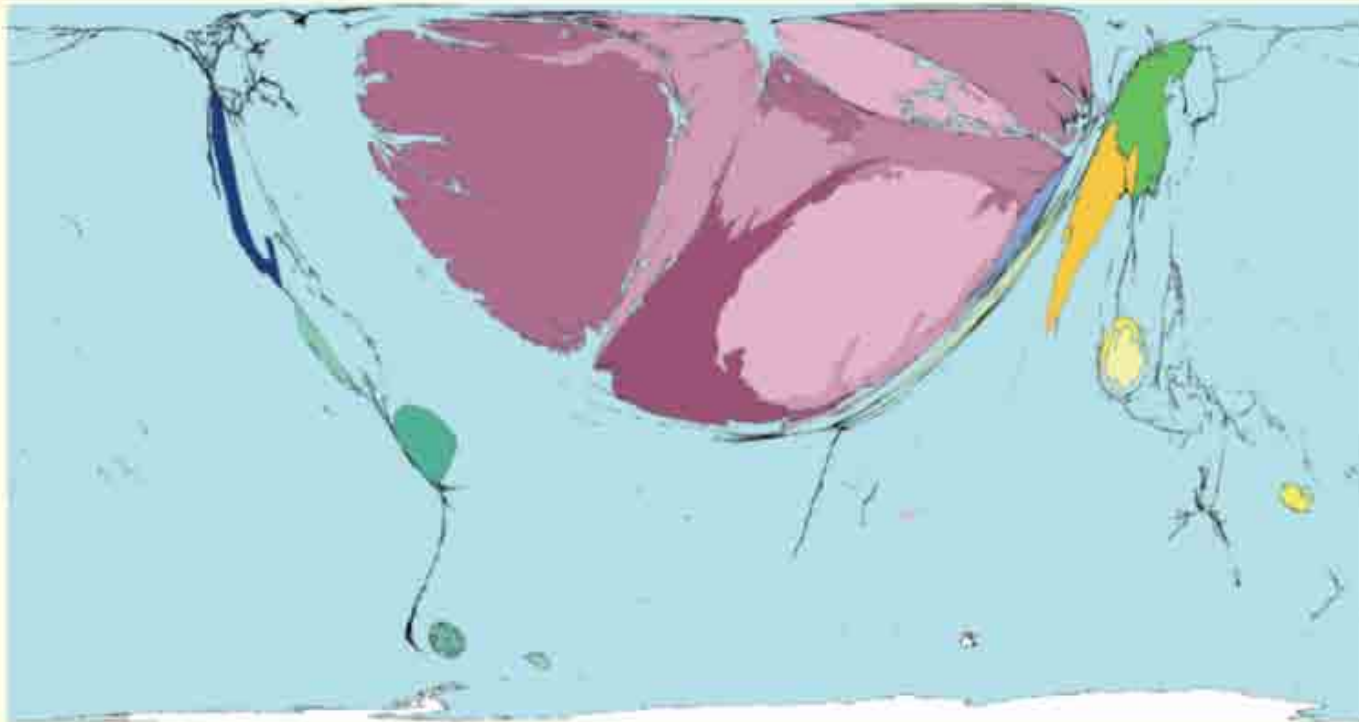
# Medicine Exports

Of worldwide export earnings, 3.2% is from medicine exports. Here, medicines include medical equipment.

Territories in Western Europe receive 74% of all earnings from exports of medicines. These territories account for 91% of net medicine exports (US\$). Ireland has the highest value of exports (US\$ net). Much of the Ireland trade is the export of imports.

Non-European net exporters include China, India, Mexico and Singapore. India is a major source of medicines. Indian medicines are sold more cheaply than European medicines, therefore India's export earnings are lower, so India appears smaller on this map.

Territory size shows the proportion of worldwide net exports of medicine (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

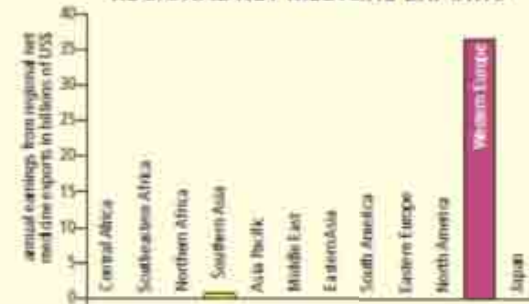
- Technical notes**
- Data source: United Nations Conference on Trade and Development, 2000
  - \*There were no net medicine exports recorded for 176 territories.
  - The Western European average was assumed for San Marino, Monaco, Liechtenstein and Holy See.
  - Medicines include pharmaceuticals and medical instruments.
  - See website for further information.

## MOST AND LEAST US\$ OF NET MEDICINE EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Ireland	3619	15	Netherlands	44.31
2	Switzerland	1179	16	Israel	42.44
3	Denmark	496	17	Germany	20.56
4	Sweden	355	18	Malta	20.09
5	Belgium	193	19	Italy	7.16
6	Slovenia	154	20	Jordan	5.54
7	Singapore	128	21	Mexico	5.30
...	Western European Average	93	22	Hong Kong (China)	5.22
12	France	77	23	India	1.00
13	United Kingdom	71	24	China	0.86

US\$ worth of annual medicine exports per person living in that territory\*

## REGIONAL NET MEDICINE EXPORTS



*“... in the pharmaceutical sector the winners will be the large northern-based transnational companies ...”*

John Sulston, 2001

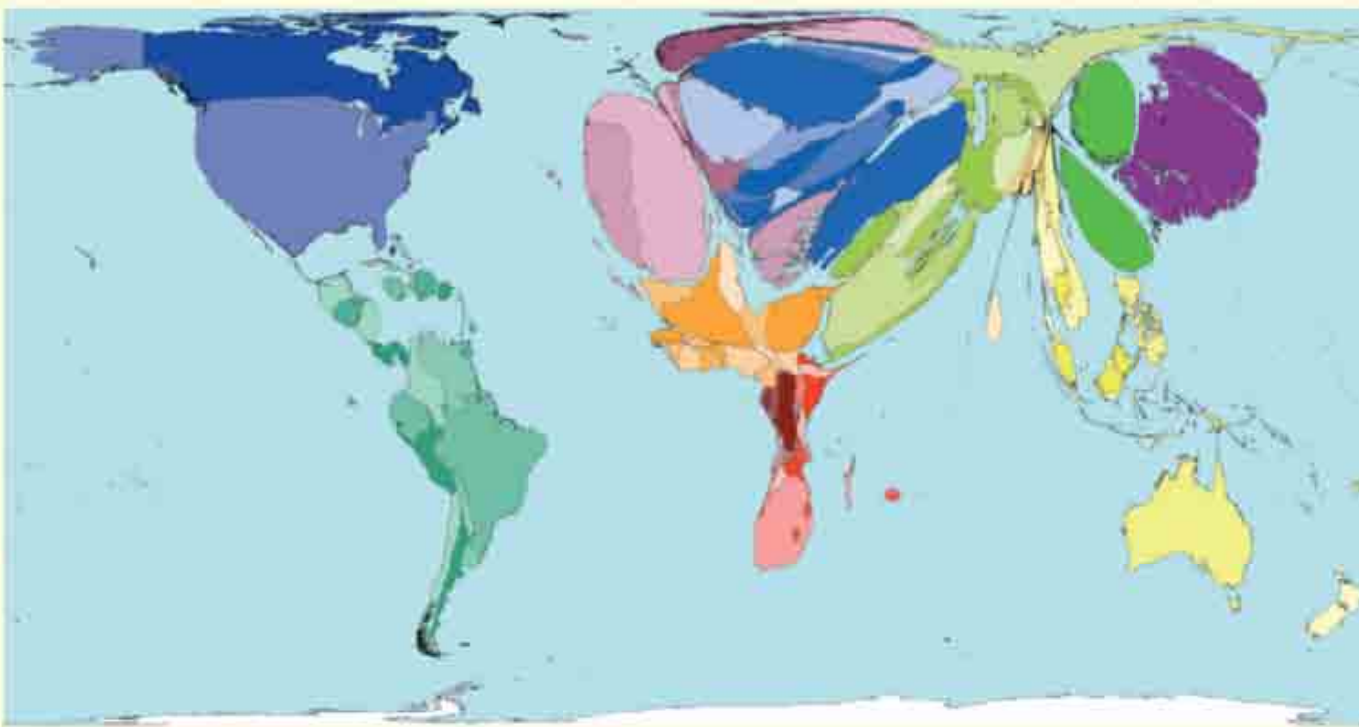


# Medicine Imports

Nearly 90% of the territories mapped are net medicine importers. There is huge variation in the spending per person on imported medicines. The highest spending per person is in Luxembourg, where US\$ 406 is spent on net imports of medicines per person, per year.

At the other extreme, in Tajikistan, only 9 US cents are spent per person on net imports of medicines. This does not necessarily mean that there is very little medicine in Tajikistan, because there might also be domestic production of medicines and even exports of these. But for this territory that is not significant.

Territory size shows the proportion of worldwide net imports of medicines (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

#### Technical notes

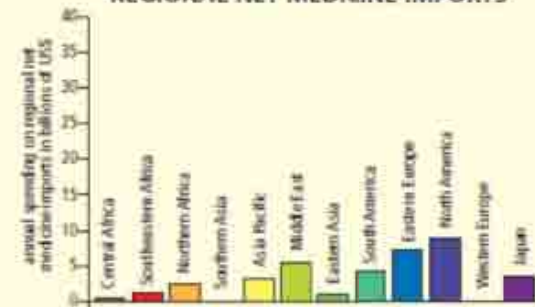
- Data source: United Nations Conference on Trade and Development, 2002
- \*There were no net medicine imports recorded for 34 territories.
- Medicines include pharmaceuticals and medical instruments.
- See website for further information.

## MOST AND LEAST US\$ OF NET MEDICINE IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Luxembourg	406	167	Bangladesh	0.82
2	Andorra	235	168	Ethiopia	0.75
3	Norway	155	169	Sierra Leone	0.73
4	Qatar	124	170	DPR Korea	0.69
5	Canada	121	171	Sao Tome and Principe	0.52
6	Greenland	109	172	Liberia	0.46
7	United Arab Emirates	108	173	Pakistan	0.43
8	Portugal	103	174	Indonesia	0.38
9	Czech Republic	100	175	Bhutan	0.27
10	Lebanon	94	176	Tajikistan	0.09

US\$ worth of annual medicine imports per person living in that territory\*

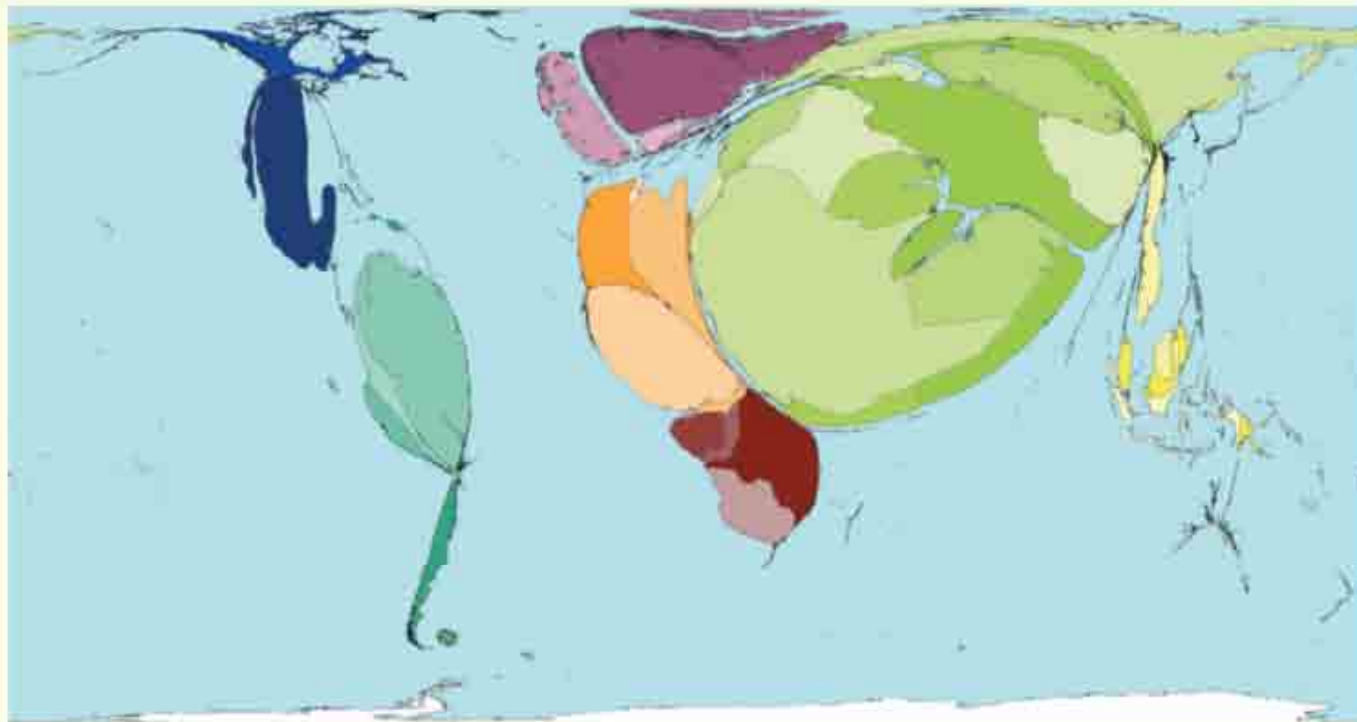
## REGIONAL NET MEDICINE IMPORTS



*“The World Trade Organisation’s rules on patents restricts the supply of medicines and drives up the prices”*

Phil Bloomer, 2005

# Crude Petroleum Exports



Territories in the Middle East export 58% of all crude petroleum. Saudi Arabia exports over twice the US dollar value of any other territory, measured in net terms. The United Arab Emirates has the highest per person export earnings from crude petroleum.

Other important exporters of crude petroleum are Norway, Venezuela, Nigeria and Mexico. Some regions have no territories with net crude petroleum exports: these are Southeastern Africa, Southern Asia and Japan.

Exports of crude petroleum account for 5.3% of spending on all exports.

Territory size shows the proportion of worldwide net exports of crude petroleum (in US\$) that come from there. Net exports are exports minus imports. When imports are larger than exports the territory is not shown.



Land area

#### Technical notes

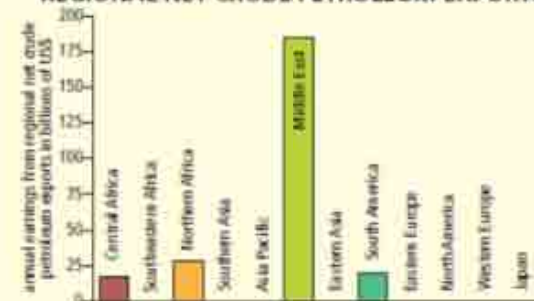
- Data source: United Nations Conference on Trade and Development, 2002.
- \*These were no net crude petroleum exports recorded for 144 territories. 34 territories have neither net imports, nor net exports, of crude petroleum.
- See website for further information.

## MOST AND LEAST US\$ OF NET CRUDE PETROLEUM EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	United Arab Emirates	5964	47	Egypt	4.49
2	Norway	5706	48	Sudan	3.90
3	Qatar	4802	49	Guatemala	3.56
4	Brunei Darussalam	4370	50	Mongolia	1.01
5	Kuwait	3634	51	Georgia	0.91
6	Oman	2690	52	Latvia	0.65
7	Saudi Arabia	2267	53	Slovenia	0.09
8	Gabon	1705	54	Tajikistan	0.03
9	Libyan Arab Jamahiriya	1550	55	Chad	0.01
10	Venezuela	727	56	Uganda	<0.01

US\$ worth of annual crude petroleum exports per person living in that territory\*

## REGIONAL NET CRUDE PETROLEUM EXPORTS

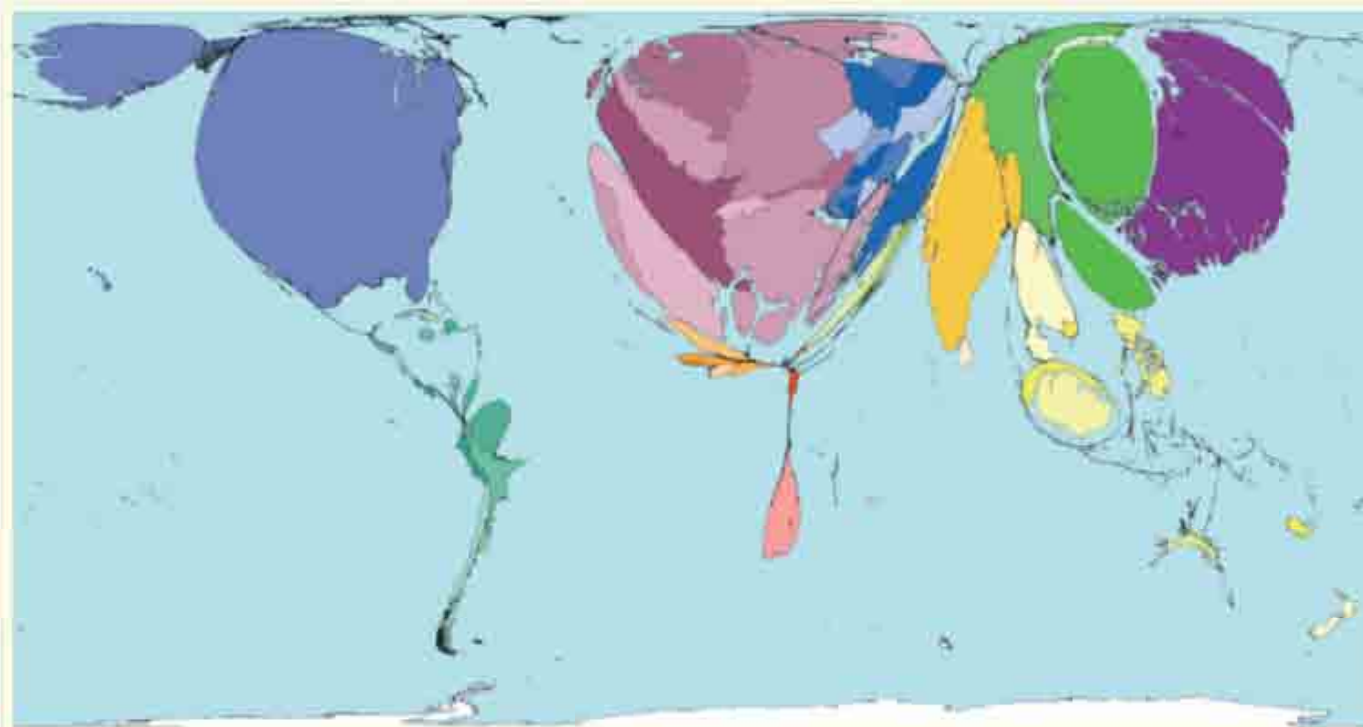


*“The cost of getting oil out of the ground is going up, the amount of water in it is increasing, and there’s less and less of the really good oil down there. All of this is forcing the prices up.”*

James Brock, 2006



# Crude Petroleum Imports



Singapore imports (net) more crude petroleum than anywhere else, when this is measured per person. The value of imports per person is US\$ 1808 per year. Burundi has the lowest value of net imports of crude petroleum per person: 0.02 US cents worth is imported per hundred people that live there.

One explanation for this difference between Singapore and Burundi is as follows. Singapore is a rich island well positioned on trade routes, so can afford to receive large amounts of oil per person. Burundi is a poor landlocked central African territory, so there are many barriers to imports.

Territory size shows the proportion of worldwide net imports of crude petroleum (in US\$) that are received there. Net imports are imports minus exports. When exports are larger than imports the territory is not shown.



Land area

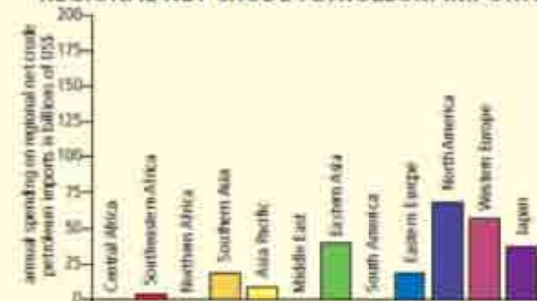
## MOST AND LEAST US\$ OF NET CRUDE PETROLEUM IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Singapore	1808	100	Djibouti	14.70
2	Netherlands	733	102	Mauritania	7.35
3	Belgium	618	103	Togo	3.72
4	Finland	430	104	Samoa	2.31
5	Republic of Korea	417	105	Albania	1.95
6	Sweden	392	106	Malawi	1.05
7	Lithuania	340	107	Ethiopia	0.44
8	Taiwan	331	108	United Republic Tanzania	0.09
9	Greece	316	109	Burkina Faso	0.07
10	Japan	294	110	Burundi	0.02

US\$ worth of annual crude petroleum imports per person living in that territory\*

US cents worth of annual crude petroleum imports per 100 people living in that territory\*

## REGIONAL NET CRUDE PETROLEUM IMPORTS



*“Aside from the effects of high oil prices, growth in imports in general can be interpreted as a sign that domestic demand is robust, another reason to say that the Japanese economy is on the right track ...”* Koji Kobayashi, 2006

# Goods Summary

- All these heavy items in terms \$\$\$ wise are all indispensable in our modern society except toy
- How long are we going to live with crude oil with such heavy price tag?
- When replacement energy can prevail in our societies?



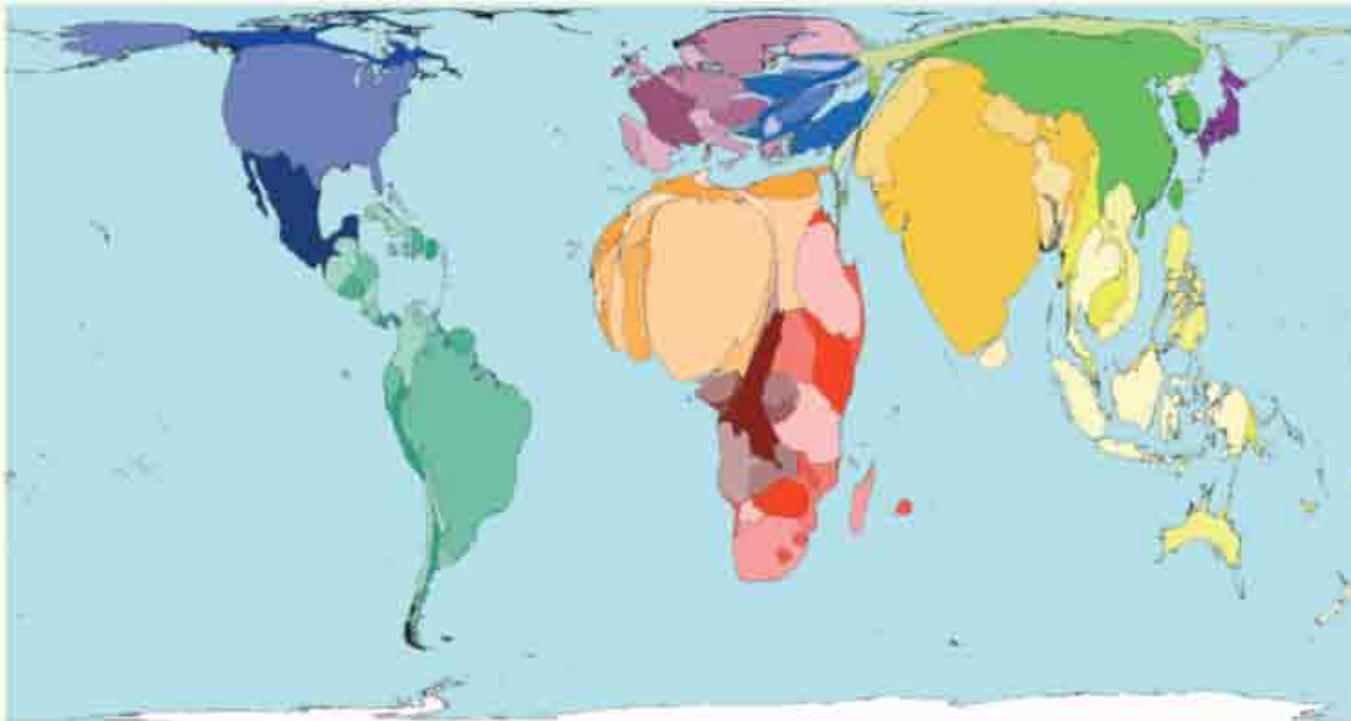
Fuel

# Traditional Fuel

Traditional fuel includes wood, charcoal, bagasse (sugar cane waste), and animal and vegetable wastes. This fuel can be waste material from another process. It is usually sourced locally and sometimes can be free. Thus it is not surprising that people living in Central Africa have the highest per person traditional fuel usage, given the poor infrastructures there and relatively weak economic position.

Ironically Equatorial Guinea, where the most traditional fuel (per person) is used, exports considerable quantities of oil. The Middle East, source of most of the earth's oil, uses the traditional fuel equivalent of only 77 kilograms of oil per person.

Territory size shows the proportion of all traditional fuel used there.



Land area

#### Technical notes

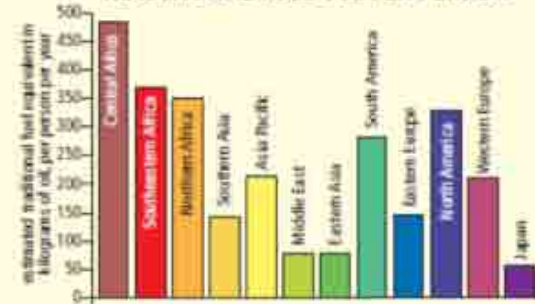
- Data are sourced from the United Nations Development Programme.
- \*There was no traditional fuel use in 14 territories.
- See website for further information.

## HIGHEST AND LOWEST USE OF TRADITIONAL FUEL

Rank	Territory	Value	Rank	Territory	Value
1	Equatorial Guinea	9068	177	Lebanon	16
2	Seychelles	2532	178	Tajikistan	13
3	Sweden	2130	179	Mongolia	13
4	Finland	1761	180	Armenia	10
5	Saint Kitts & Nevis	1166	181	Morocco	10
6	Lithvia	1116	182	Hong Kong (China)	10
7	Botswana	1059	183	Singapore	8
8	Montius	1053	184	Yemen	7
9	Eichonia	868	185	Saudi Arabia	3
10	Angola	775	186	Islamic Republic of Iran	2

traditional fuel equivalent of one kilogram of oil, per person per year\*

## TRADITIONAL FUEL USE PER PERSON



*“The dried dung has no strong odour and burns very hot ... those who enjoy the warmth of a hot stove on cold nights really treasure it regardless of the origin.”*

Sherpa Trek, 2006



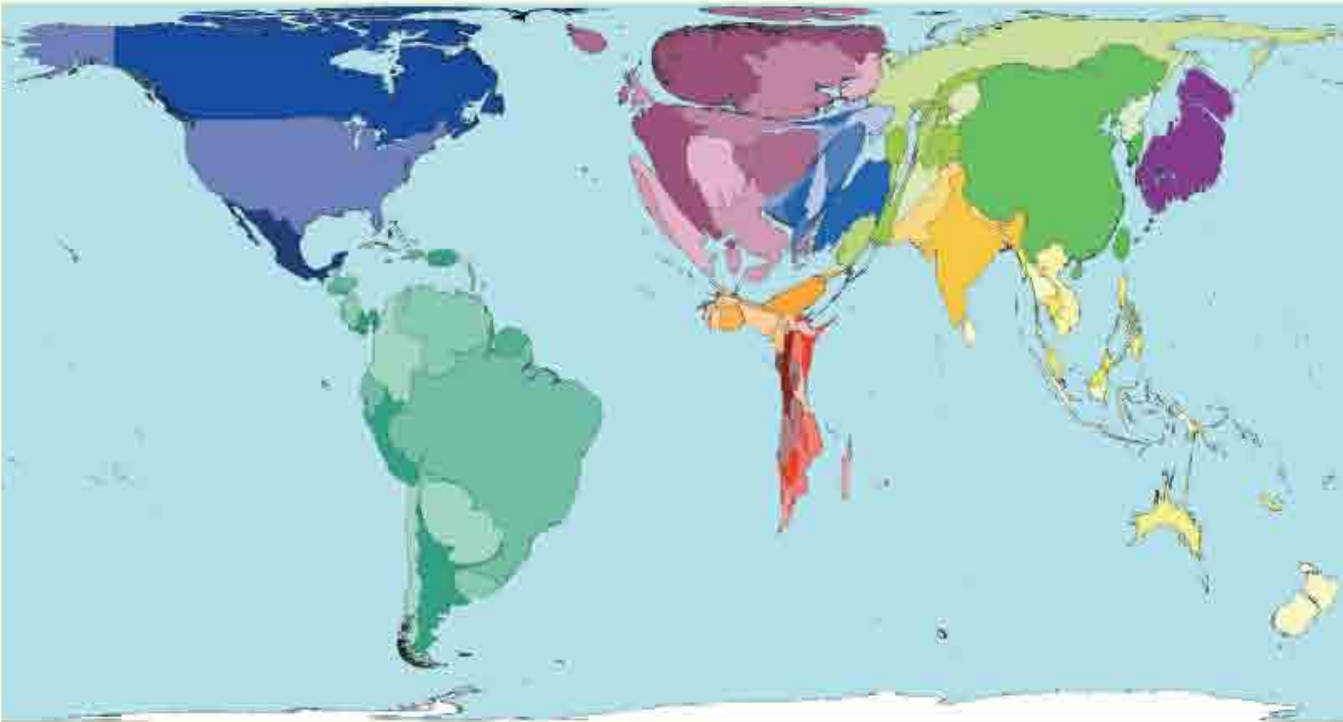
# Hydroelectric Power

Hydroelectric power is generated by transforming the energy from moving water into electricity. Large dams and steep rivers facilitate the generation of hydroelectric power. Sometimes other sources of electricity are used to pump water back up into dams which store this energy, acting as batteries.

The most hydroelectric power is generated in Canada, China, Brazil and the United States. Together these territories generate 44% of all hydroelectric power.

Fifteen territories do not use hydroelectric power. These territories are generally either relatively small islands or Middle Eastern oil producers with low rainfall.

Territory size shows the proportion of all hydroelectric power generated there.



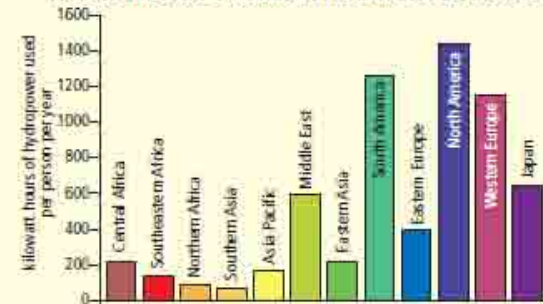
Land area

## HIGHEST AND LOWEST HYDROELECTRIC POWER GENERATION

Rank	Territory	Value	Rank	Territory	Value
1	Norway	28722	176	Bangladesh	7.7
2	Iceland	23257	177	Tunisia	6.9
3	Canada	11191	178	Denmark	5.9
4	Paraguay	8458	179	Estonia	4.6
5	Sweden	7475	180	Israel	3.3
6	New Zealand	6436	181	Belarus	2.8
7	Austria	4930	182	Algeria	1.8
8	Switzerland	4891	183	Togo	0.6
9	Uruguay	2805	184	Turkmenistan	0.6
10	Tajikistan	2400	185	Benin	0.3

hydroelectric power in kilowatt hours per person per year\*

## HYDROELECTRIC POWER GENERATION PER PERSON

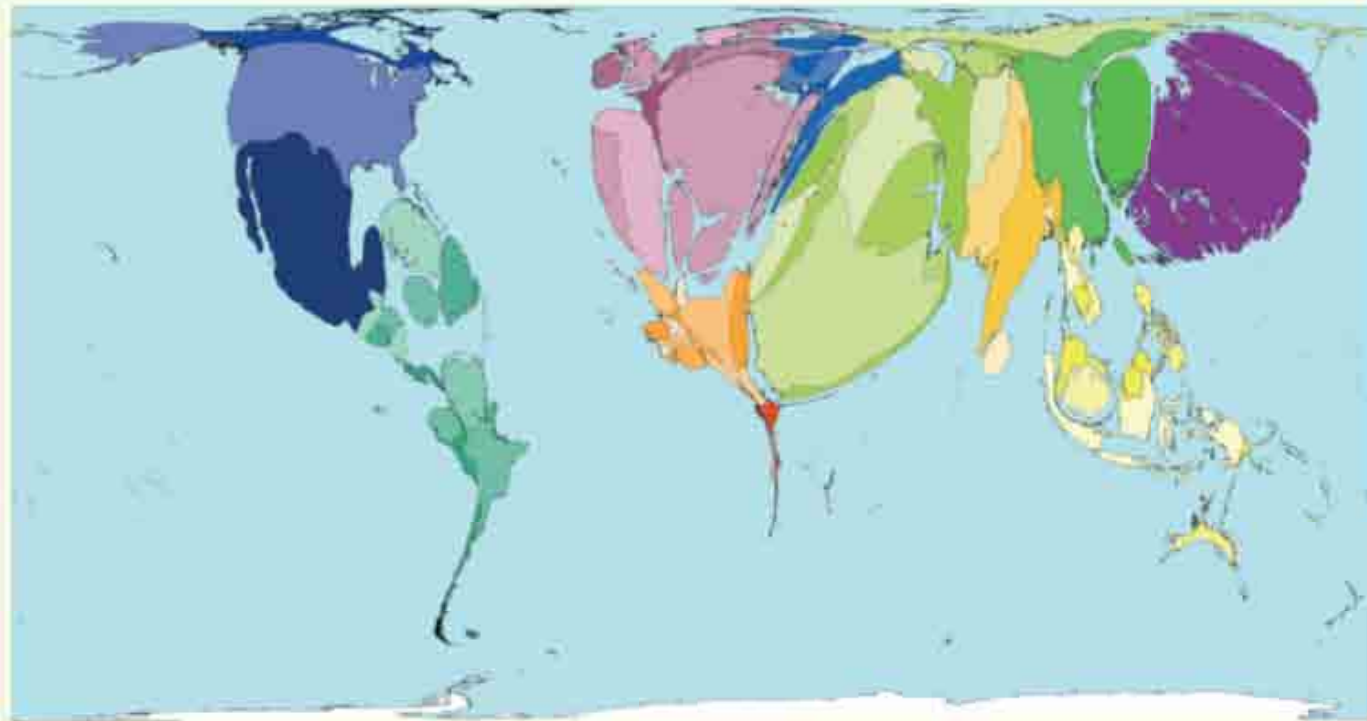


*“Water was first diverted from the Canadian side of the Niagara River for generating electricity in 1893. A small 2,200 kilowatt plant was built just above the Horseshoe Falls ...”*

Info Niagara, 2006

Courtesy of [www.worldmapper.org](http://www.worldmapper.org), 2006 SASI Group (U. of Sheffield) and Mark Newman (U. of Michigan)

# Oil Power



Each year 183 kilowatt hours of electricity are generated from oil for each person living in the world. The kilowatt hour is a measure of electricity - it measures power over a period of time. A kilowatt hour is 1000 watts multiplied by 3600 seconds. A watt is a joule per second. A joule is the minimum energy needed to lift a kilogram 10 centimetres from the earth's surface.

Japan, the United States and Saudi Arabia generate the most electricity from oil. Of the ten territories that do not generate any electricity from oil, six are in the Middle East. Only one of these ten, South Africa, is located in Africa. Despite this the Southeastern and Central African regions generate the lowest amounts of electricity from oil.

Territory size shows the proportion of worldwide electricity generated from oil that occurs there.



Land area

#### Technical notes

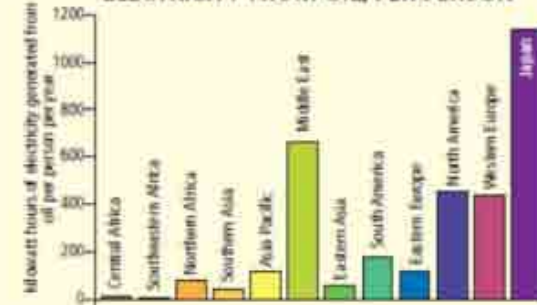
- Data are from the World Bank's World Development Indicators.
- \*No oil-generated electricity is used in 10 territories.
- 1 kilowatt hour is 3,600,000 joules (enough to lift 3.6 tonnes 10 cm high).
- See website for further information.

### HIGHEST AND LOWEST OIL POWER USERS

Rank	Territory	Value	Rank	Territory	Value
1	Kuwait	12133	181	Zambia	0.3
2	Malta	5130	182	Zimbabwe	2.3
3	Cyprus	4731	183	Trinidad & Tobago	2.3
4	Saudi Arabia	4082	184	Colombia	2.2
5	Singapore	3337	185	Mozambique	1.8
6	Jamaica	2592	186	Cote d'Ivoire	0.8
7	Lebanon	2495	187	Dem Republic Congo	0.4
8	Libyan Arab Jamahiriya	2210	188	Ethiopia	0.3
9	Israel	1621	189	Congo	0.3
10	Italy	1526	190	Nepal	0.2

oil power in kilowatt hours per person per year\*

### ELECTRICITY FROM OIL, PER PERSON

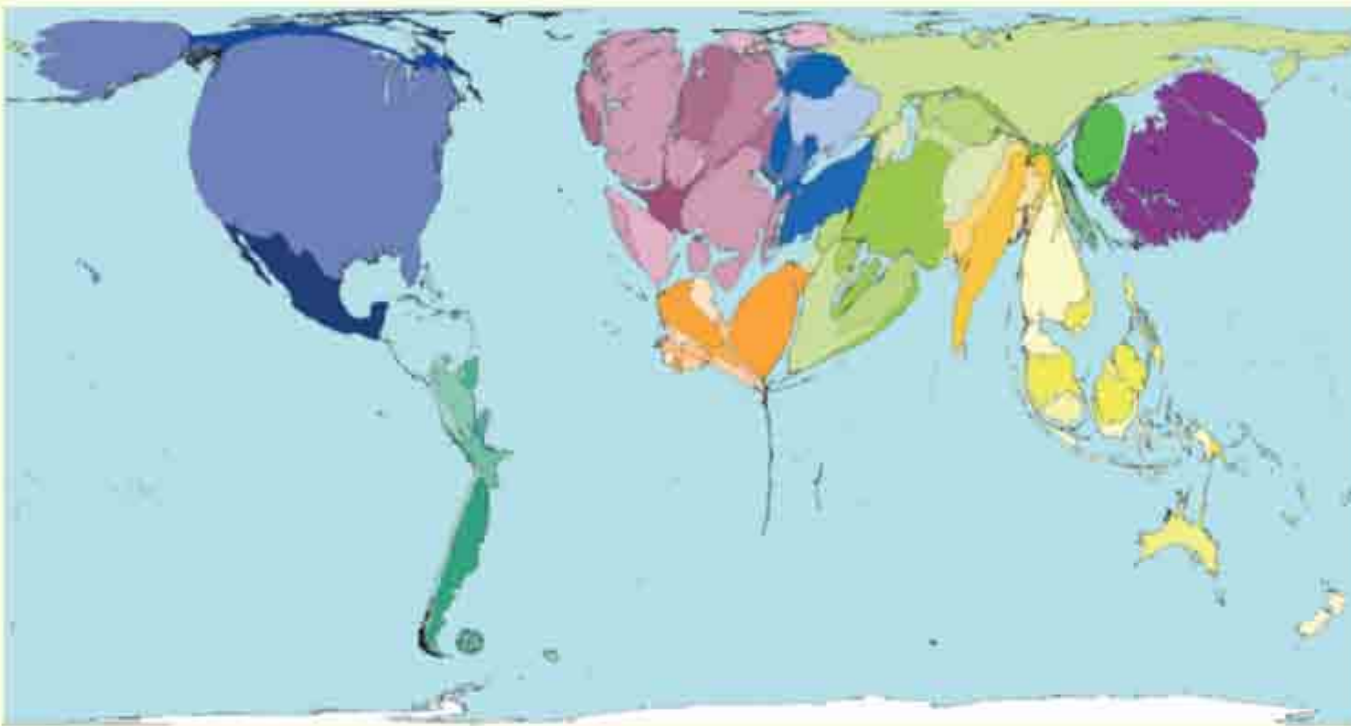


*"Jamaica relies almost entirely on imports of fuel oil to power its generation plants."*

International Finance Corporation, 2005



# Gas Power



Japan and North America, followed by the Middle East, are the regions where the most electricity per person is generated from gas. At the other extreme, Central and Southeastern Africa barely generate any electricity from gas. Many territories in Central America also generate no electricity from gas.

In absolute terms, the United States generates almost twice as much electricity from gas as the second biggest generator: the Russian Federation. The Russian Federation is a net exporter of gas and coal, whereas the United States is a net importer of these goods.

Territory size shows the proportion of all electricity from gas that is generated there.



Land area

#### Technical notes

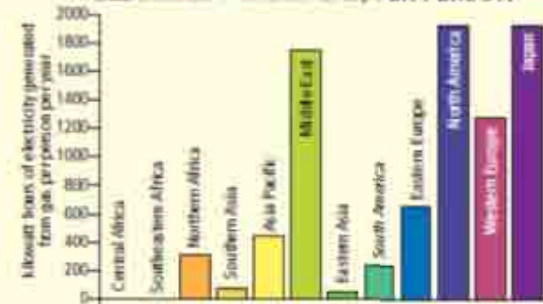
- The data are from the World Bank's World Development Indicators.
- \*There was almost no electricity from gas recorded for 58 territories.
- Taiwan and Mongolia had missing data on the regional average for Eastern Asia was used.
- See website for further information.

### MOST AND LEAST ENERGY GENERATED FROM GAS

Rank	Territory	Value	Rank	Territory	Value
1	Qatar	16838	133	Poland	58.9
2	United Arab Emirates	13388	134	Nigeria	55.7
3	Bahrain	10397	135	Serbia & Montenegro	51.3
4	Brunei Darussalam	8920	136	Norway	44.0
5	Luxembourg	6485	137	Taiwan	42.8
6	Singapore	4917	137	Mongolia	42.8
7	Trinidad & Tobago	4679	139	Peru	36.9
8	Netherlands	3542	140	Ecuador	29.2
9	Kuwait	3239	141	Israel	4.4
10	Oman	3025	142	China	3.6

kilowatt hours of electricity generated from gas, per person per year\*

### ELECTRICITY FROM GAS, PER PERSON



*“Gazprom, Russia’s state-run natural gas monopoly, holds more than one-fourth of the world’s natural gas reserves ...”*

Bernard A. Gelb, 2006

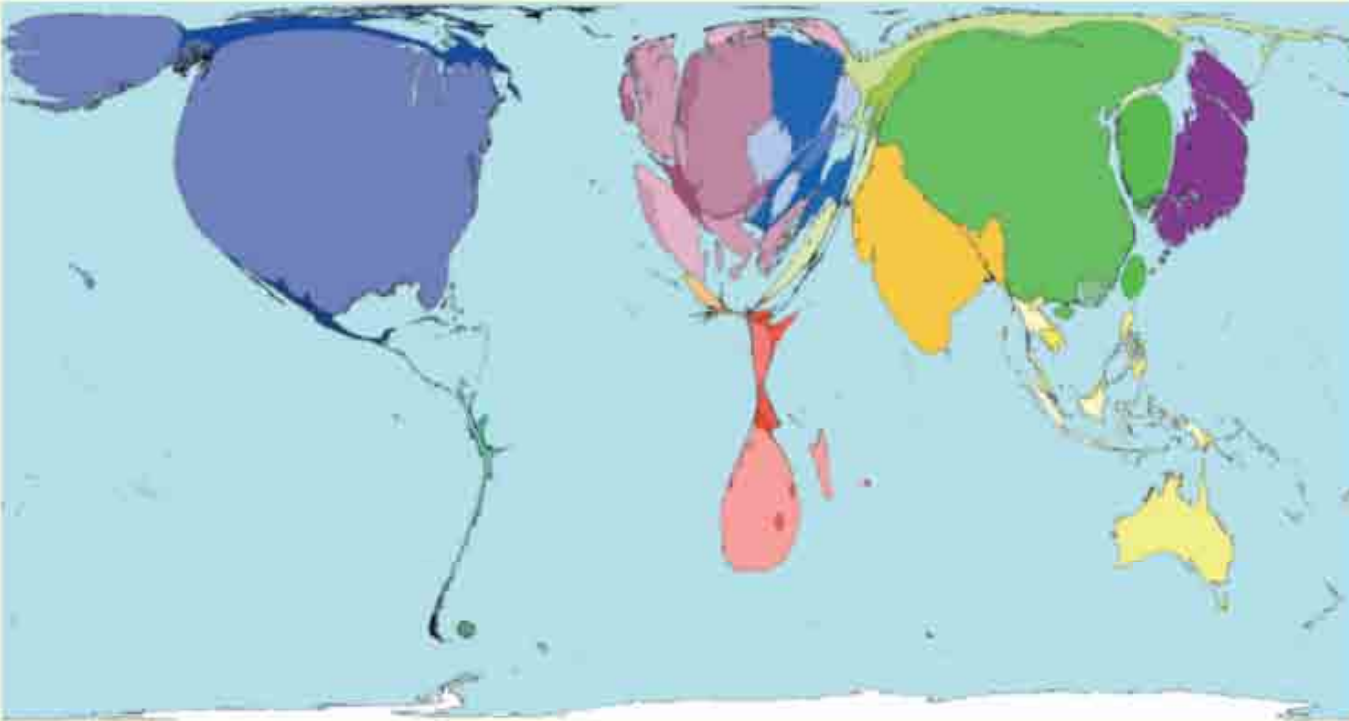
# Coal Power

Of all sources, the most electricity is generated from coal. The United States, China and India generate the most coal electricity. In total, North American territories generate three times more electricity from coal than the total for territories in any other region. The United States makes up 93% of the North American total.

The most coal generated electricity per person is in Australia - a large territory with a low population density. Electricity generation in Australia is 3000 times more per person than in the territory with the lowest coal electricity generation: the United Republic of Tanzania.

Of the 200 territories, there is no electricity generation from coal in 71.

Territory size shows the proportion of the worldwide electricity generated from coal generated there.



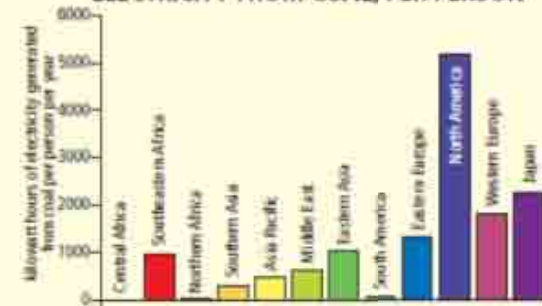
Land area

## HIGHEST AND LOWEST COAL POWER USERS

Rank	Territory	Value	Rank	Territory	Value
1	Australia	8918	112	Mauritania	32.2
2	United States	7035	112	Cape Verde	32.2
3	Estonia	5960	124	Argentina	30.9
4	Israel	5570	125	Republic of Moldova	28.4
5	Greenland	5163	126	Peru	18.5
5	Bahamas	5163	127	Latvia	16.3
7	Czech Republic	4976	128	Namibia	11.0
8	South Africa	4537	129	United Republic of Tanzania	2.9
9	Finland	3794	130	Pakistan	1.5
10	Canada	3751	131	Zambia	1.4

kilowatt hours per person per year\*

## ELECTRICITY FROM COAL, PER PERSON



- Technical notes**
- \*The data are from the World Bank's World Development Indicators.
  - \*\*There was practically no electricity recorded from the worse for 71 territories.
  - \*\*The Northern Africa regional average was used for territories ranked 112. The North American regional average was used for those ranked 5.
  - \*See website for further information.

*"This island is made mainly of coal and surrounded by fish. Only an organising genius could produce a shortage of coal and fish at the same time."*

Aneurin Bevan, 1945 [referring to the United Kingdom]



# Nuclear Power



European territories dominate the list of the top ten producers of nuclear electricity. In 2005, Sweden was in top place, and France second position, in terms of power generated per person living there. Of the thirty territories that do generate nuclear electricity, seventeen are located in Europe. Major non-European nuclear electricity producers include the United States, Japan, the Russian Federation, and the Republic of Korea.

Only 15% of all territories produce nuclear power. No nuclear power is generated in any territories in Central Africa, Northern Africa and Asia Pacific. The yellow island that is visible in the Pacific is New Caledonia, which is part of France.

Territory size shows the proportion of worldwide nuclear electricity production that occurs there.



Land area

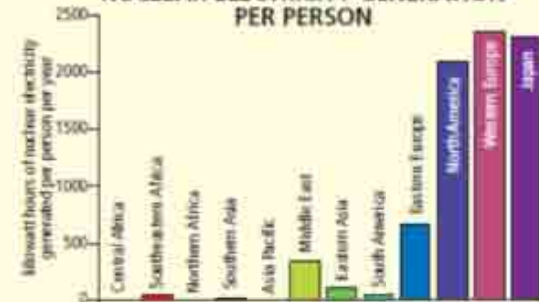
**Technical notes**  
 • The data are from the World Bank's World Development Indicators.  
 • \*No nuclear power generation was recorded for 179 territories.  
 • See website for further information.

## MOST AND LEAST NUCLEAR POWER GENERATED

Rank	Territory	Value	Rank	Territory	Value
1	Sweden	7593	21	Armenia	736.1
2	France	7304	22	South Africa	267.7
3	Belgium	4598	23	Romania	246.1
4	Finland	4288	24	Netherlands	243.2
5	Lithuania	4041	25	Argentina	153.2
6	Switzerland	3783	26	Mexico	95.6
7	Slovakia	3325	27	Brazil	78.5
8	United States	2765	28	Chiria	19.4
9	Slovenia	2764	29	India	18.5
10	Bulgaria	2528	30	Pakistan	11.6

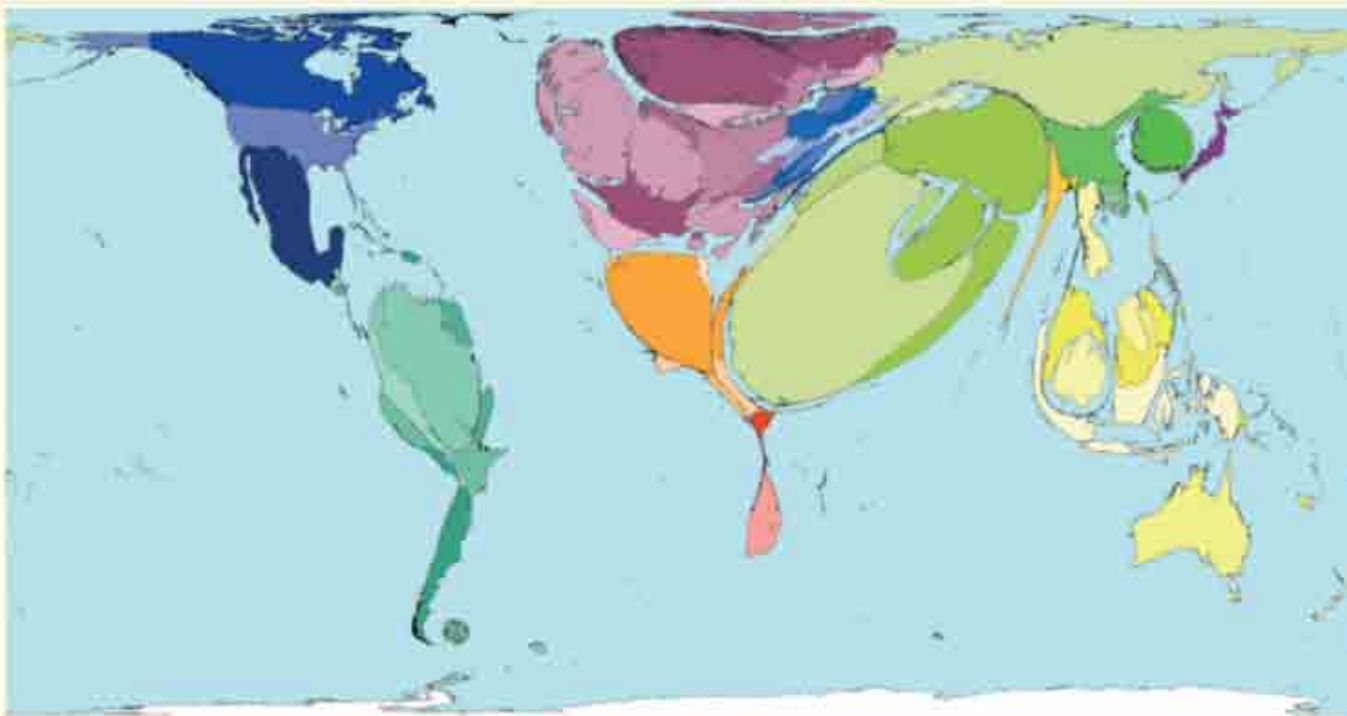
kilowatt hours of nuclear electricity generated per person per year\*

## NUCLEAR ELECTRICITY GENERATION PER PERSON



*“And Lord, we are especially thankful for nuclear power, the cleanest, safest energy source there is. Except for solar, which is just a pipe dream.”*  
 Homer Simpson, date unknown

# Fuel Exports



Fuel includes oil, gas, coal, nuclear and traditional fuels. The Middle East is the region that exports the most fuel. The two biggest fuel exporters are Saudi Arabia and the Russian Federation, both are included in the Middle East region. The third biggest exporter is Norway, in Western Europe. These major exporters are known for their reserves of oil and gas, rather than coal and traditional fuels.

Of the 200 territories mapped, only 123 are fuel exporters. Often territories import and export fuel. Many of the territories that appear not to export fuel also do not record fuel imports. This is partly because of poor data recording in some places.

Territory size shows the proportion of worldwide gross fuel exports from there.



Land area

#### Technical notes

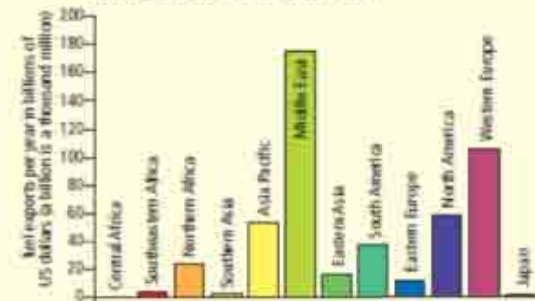
- These data are from the World Bank's World Development Indicators.
- \*There were practically no fuel exports recorded for 77 territories.
- See website for further information.

## MOST AND LEAST US\$ OF GROSS FUEL EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Qatar	16420	114	Albania	0.81
2	Brunei Darussalam	11861	115	Mauritius	0.65
3	Norway	8041	116	Madagascar	0.60
4	Bahrain	5734	117	Paraguay	0.52
5	Oman	3083	118	Samoa	0.51
6	Saudi Arabia	2735	119	Togo	0.48
7	Singapore	2296	120	Honduras	0.46
8	Trinidad & Tobago	1793	121	Niger	0.34
9	Canada	1023	122	Benin	0.17
10	Belgium	952	123	Cambodia	0.11

US\$ worth of gross fuel exports per person per year living in that territory\*

## GROSS FUEL EXPORTS IN US DOLLARS

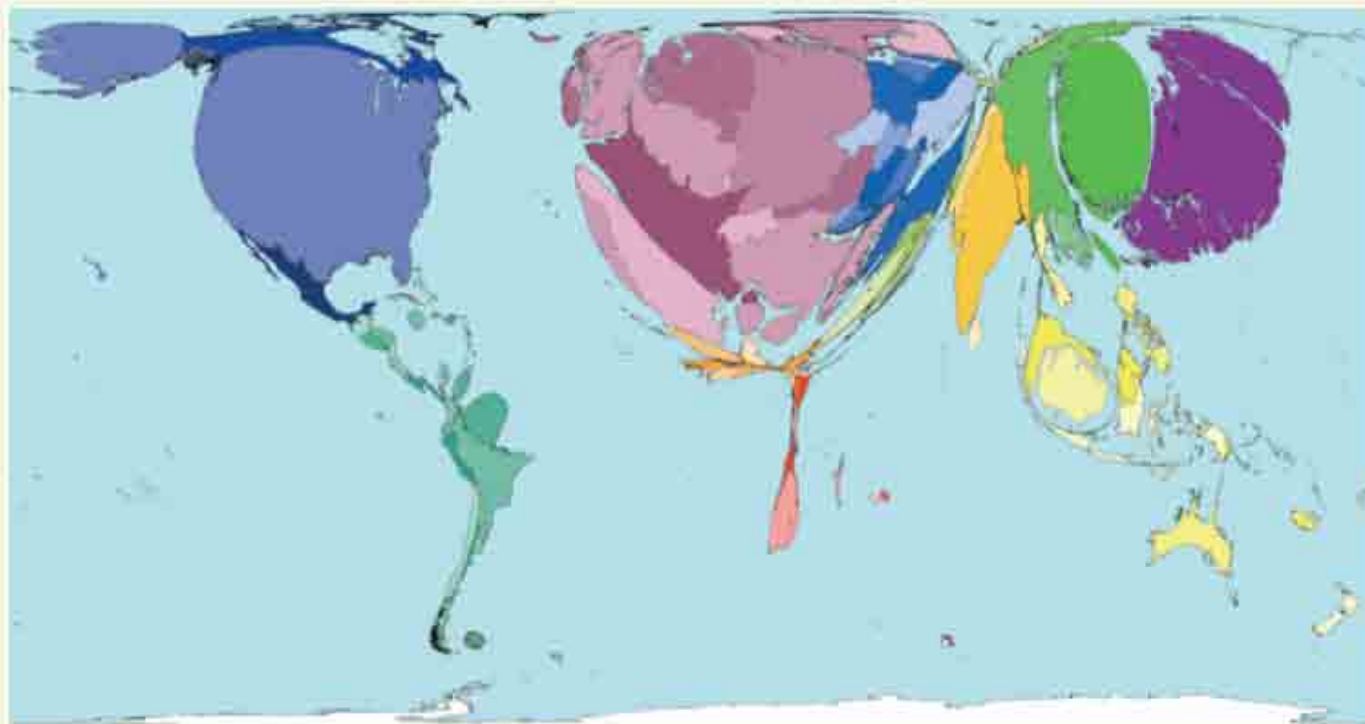


*“... the achievement of high human development indicators in some countries, such as Norway, has been enabled by services funded in part through natural resource exploitation.”*

Melissa Dell, 2004



# Fuel Imports



North America and Western Europe import (US\$ gross) the highest values of fuel. The region that imports the least fuel is Central Africa - where six of the ten territories reported no fuel imports.

Imports per person are highest in Singapore and Bahrain. These are small island territories, where enough of the people living there are relatively rich. Singapore is a long established trading port. Bahrain is a group of islands in the Arabian Gulf. Due to declining oil reserves Bahrain's industry now imports crude oil, refines it, the exports it.

The Western European region records the highest total fuel imports partly due to trade within this region.

Territory size shows the proportion of worldwide fuel imports arriving there.



Land area

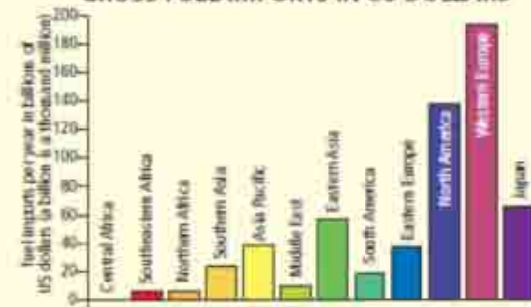
- Technical notes**
- These data are from the World Bank's World Development Indicators.
  - There were practically no fuel imports recorded for 56 territories.
  - See website for further information.

## MOST AND LEAST US\$ OF GROSS FUEL IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Singapore	3640	135	United Republic of Tanzania	5.4
2	Bahrain	2455	136	Niger	4.8
3	Belgium	1619	137	Algeria	4.6
4	Netherlands	1214	138	Colombia	4.5
5	Trinidad & Tobago	776	139	Rwanda	4.0
6	Finland	763	140	Sudan	3.7
7	Greenland	696	141	Central African Republic	3.5
8	Republic of Korea	686	142	Saudi Arabia	3.2
9	Sweden	653	143	Ethiopia	3.0
10	Iceland	651	144	Burundi	2.5

US\$ worth of gross fuel imports per person per year\*

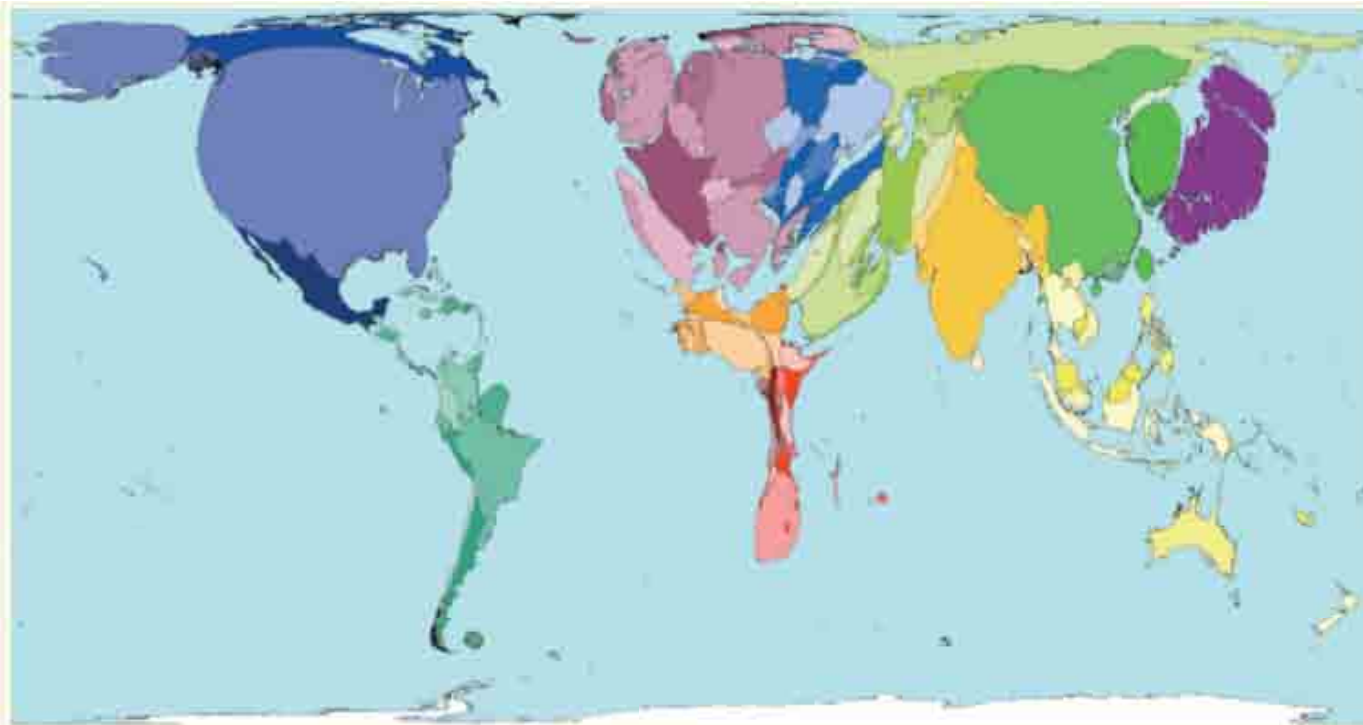
## GROSS FUEL IMPORTS IN US DOLLARS



*"Japan's city gas companies import natural gas ... from seven countries including Alaska, Malaysia, Indonesia, Australia, Brunei, Qatar, and Oman."*

Kunio Anzai, 2004

# Fuel Use



Each year the fuel equivalent of 11 567 000 000 000 kilograms of oil is used around the world. Fuel includes gas, coal, oil, nuclear, wood, and other materials. As one kilogram of these materials produces a different amount of energy, more useful comparisons can be drawn by comparing power. This is done by measuring power as what one kilogram of oil could produce, which is 4 kilowatt hours.

Worldwide fuel consumption averages 1853 kilograms of oil equivalent per person per year. The highest per person fuel users (in Luxembourg) use almost a hundred times more fuel per person than the lowest fuel users (in Bangladesh).

Territory size is proportional to the percentage of world fuel usage that occurs there.



Land area

#### Technical notes

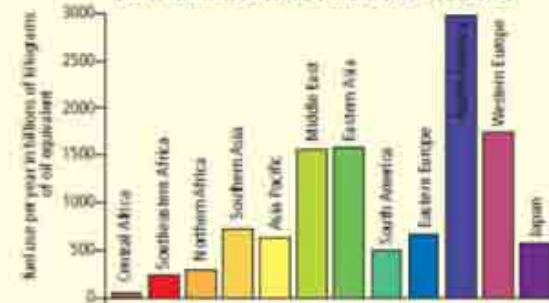
- Data are from the United Nations Development Programme's Human Development Report.
- Data refer to 2001.
- See website for further information.

## MOST AND LEAST FUEL USE

Rank	Territory	Value	Rank	Territory	Value
1	Luxembourg	13077	191	Haiti	286
2	United Arab Emirates	12441	192	Mali	245
3	Equatorial Guinea	12091	193	Madagascar	244
4	Iceland	11970	194	Myanmar	239
5	Bahrain	11304	195	Niger	236
6	Qatar	10845	196	Yemen	224
7	Israel	10760	197	Guinea-Bissau	210
8	Canada	9096	198	Malawi	173
9	United States	8682	199	Sierra Leone	171
10	Singapore	7827	200	Bangladesh	162

kilogram of oil equivalent used per person per year

## TOTAL REGIONAL FUEL USE IN 2001



*“Currently, vehicles account for about two-thirds of annual fuel use in the United States - twice the consumption rate in Europe.”*

Terry Costlow, 2003



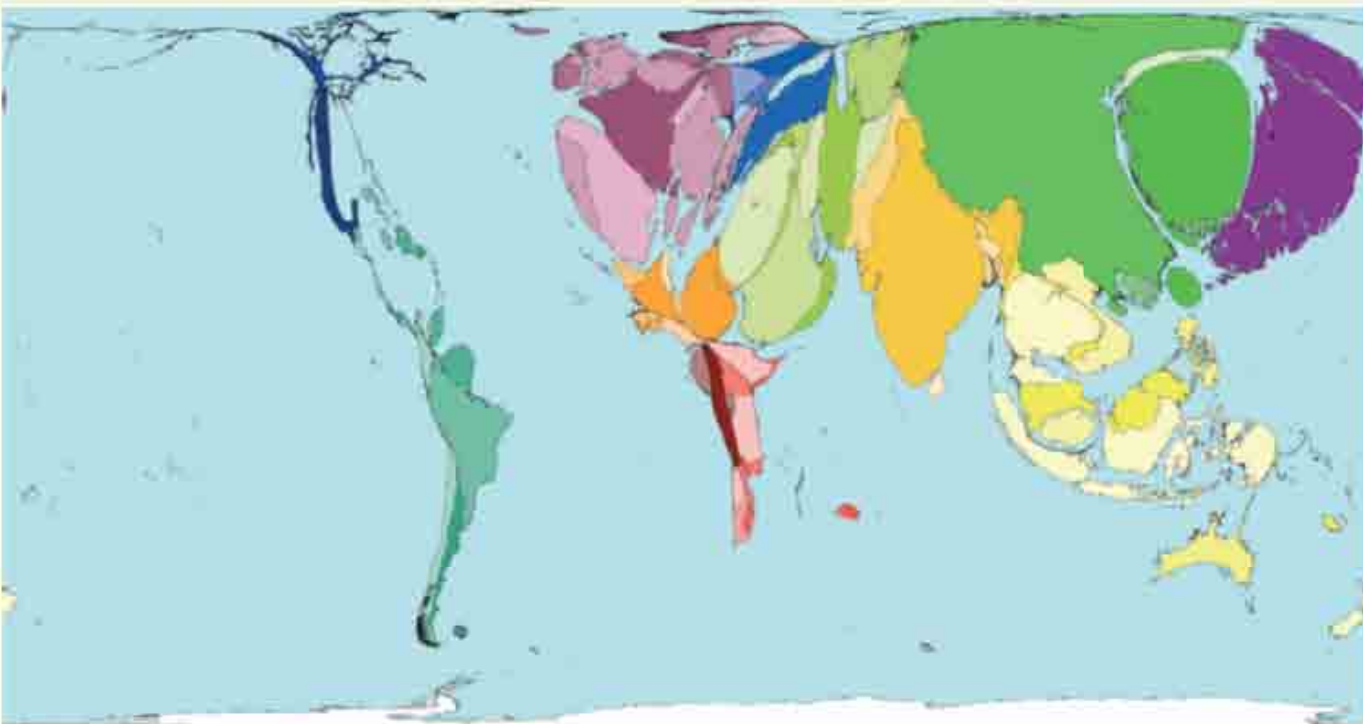
# Fuel Increase

The increase in fuel use per year between 1980 and 2001 has been greatest in China, Japan, India and the Republic of Korea. The region with the largest increase was Eastern Asia. The region with the smallest increase was Central Africa.

The world trend has been one of increased fuel use, the world average increase was an extra 338 kilograms of oil equivalent per person per year. However 58 territories reported no increase in fuel use over this period.

Equatorial Guinea had the largest per person increase in fuel use. A more than tenfold increase in oil production following the 1995 discovery of the Zafiro oil field allowed for this increase in fuel use.

Territory size shows the proportion of worldwide increases in fuel use (1980-2001) that occurred there.



Land area

#### Technical notes

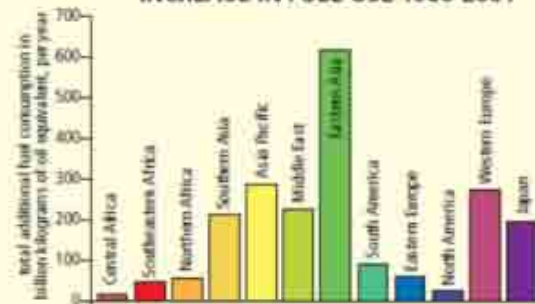
- Data are derived from the United Nations Development Programme's Human Development Report.
- \* there was no additional fuel use recorded for 58 territories.
- The period of change used here is 1980 to 2001.
- See website for further information.

## LARGEST AND SMALLEST INCREASE IN FUEL USE

Rank	Territory	Value	Rank	Territory	Value
1	Equatorial Guinea	11394	133	Burundi	48
2	Israel	8410	134	Chad	47
3	Singapore	5431	135	Malawi	41
4	Iceland	5069	136	Ghana	40
5	Republic of Korea	3368	137	Nigeria	34
6	Seychelles	3363	138	Nepal	22
7	Trinidad & Tobago	3250	139	Uruguay	21
8	Oman	2940	140	Central African Republic	15
9	Mauritius	2393	141	Comoros	8
10	Saudi Arabia	2370	142	Germany	7

equivalent of an additional kilogram oil per person per year\*

## INCREASE IN FUEL USE 1980-2001



*“Higher oil prices ... are badly needed to encourage efficient usage. But if that means a heavier burden for the poor in terms of proportion of their income, it will create more problems than it answers ...”* China Daily, 2006

# Fuel Summary

- Look how much fuel power we need to make a global business/activity turn @ this stage, and how much more needed in the future is more outrageous.
- Innovation and revolution on fuel technology is absolutely needed, and sustainable eco innovation development (EID) of emerging eco-industries is unavoidable for our planet of earth.
- GG's opportunities in EID !

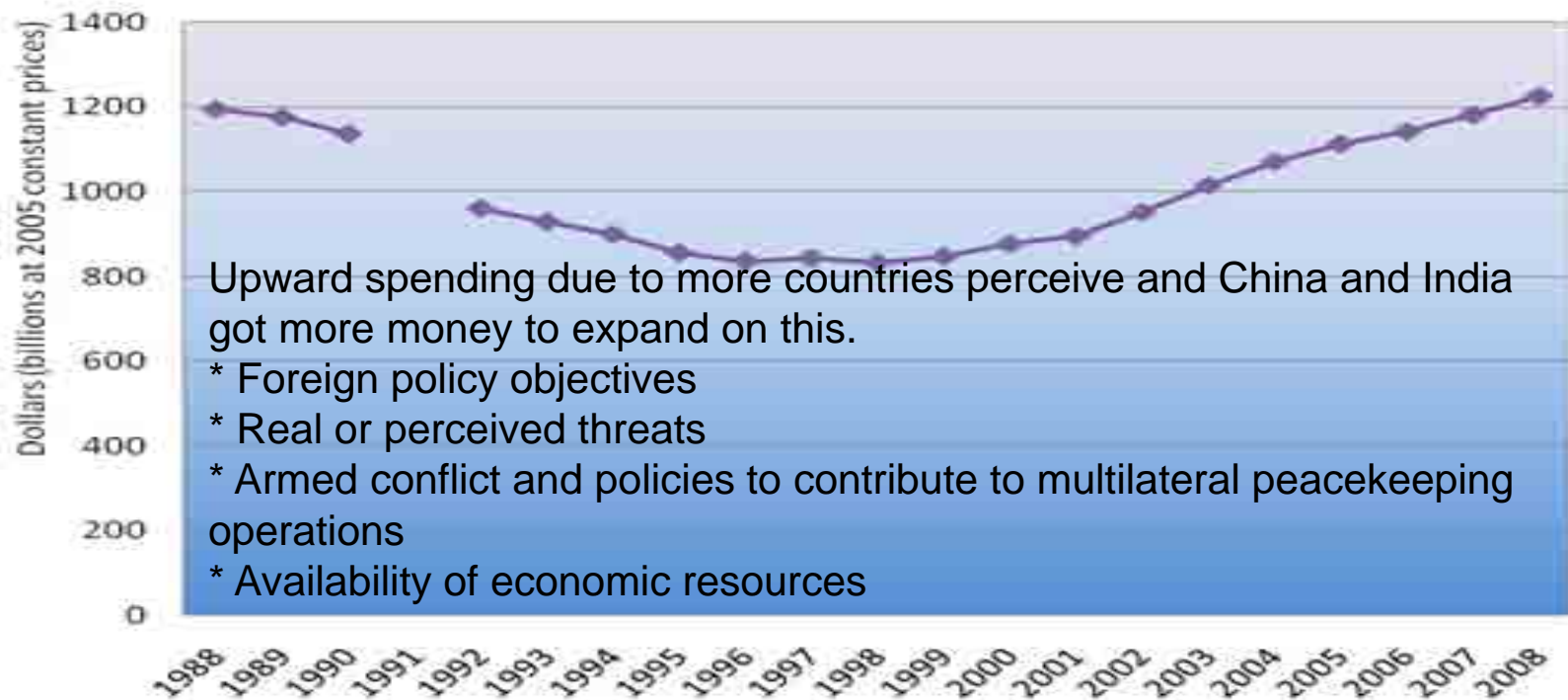


**Violence**

# Military Expenditure

www.globalissues.org

## World Military Expenditure 1988-2008



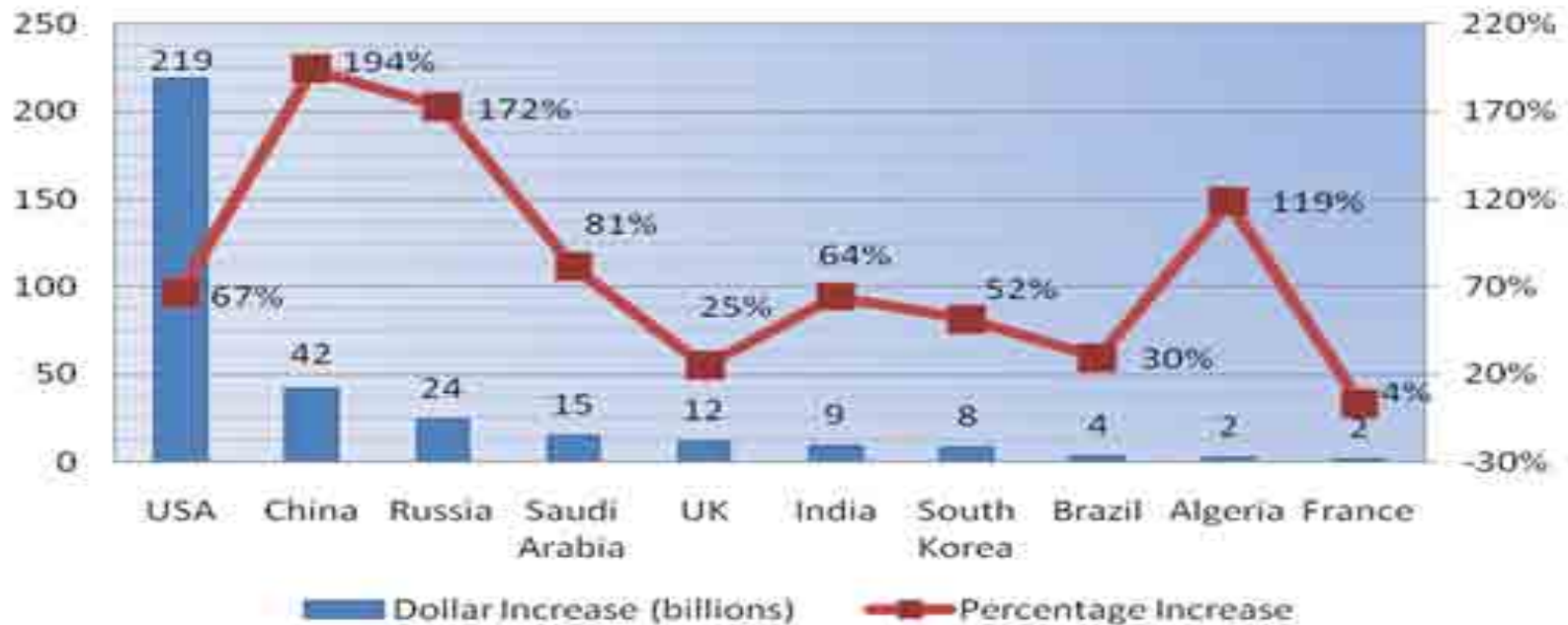
Source: Stockholm International Peace Research Institute Yearbook 2009



# Country Base

www.globalissues.org

## Military Expenditure Increase, 1999-2008, selected countries



Source: SIPRI Military Expenditure Database, Accessed February 2009

# Military Spending: regional base

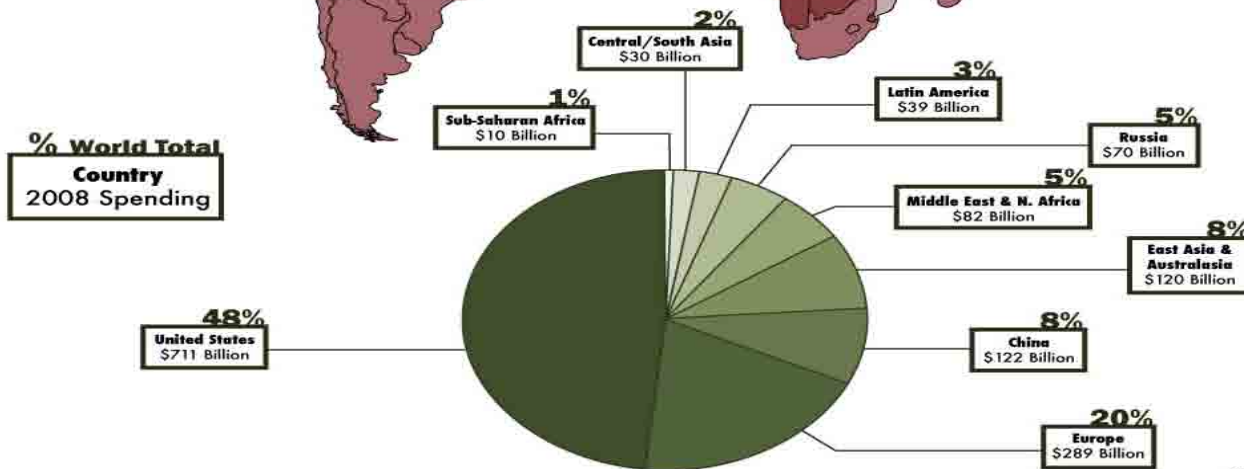
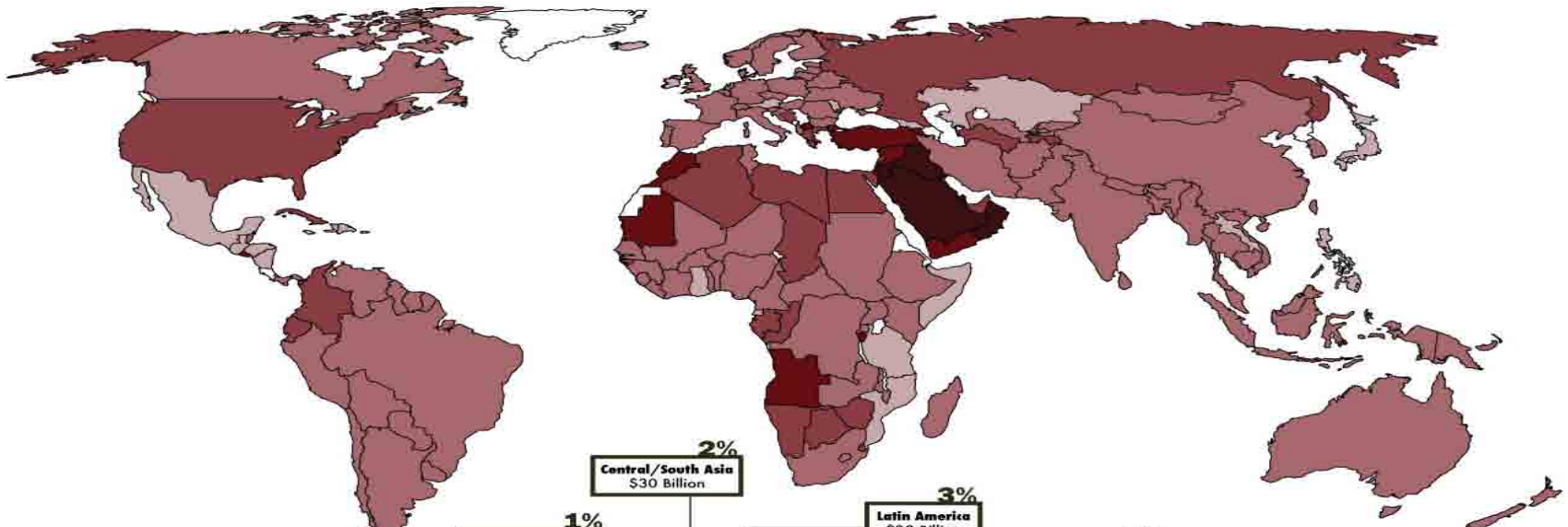




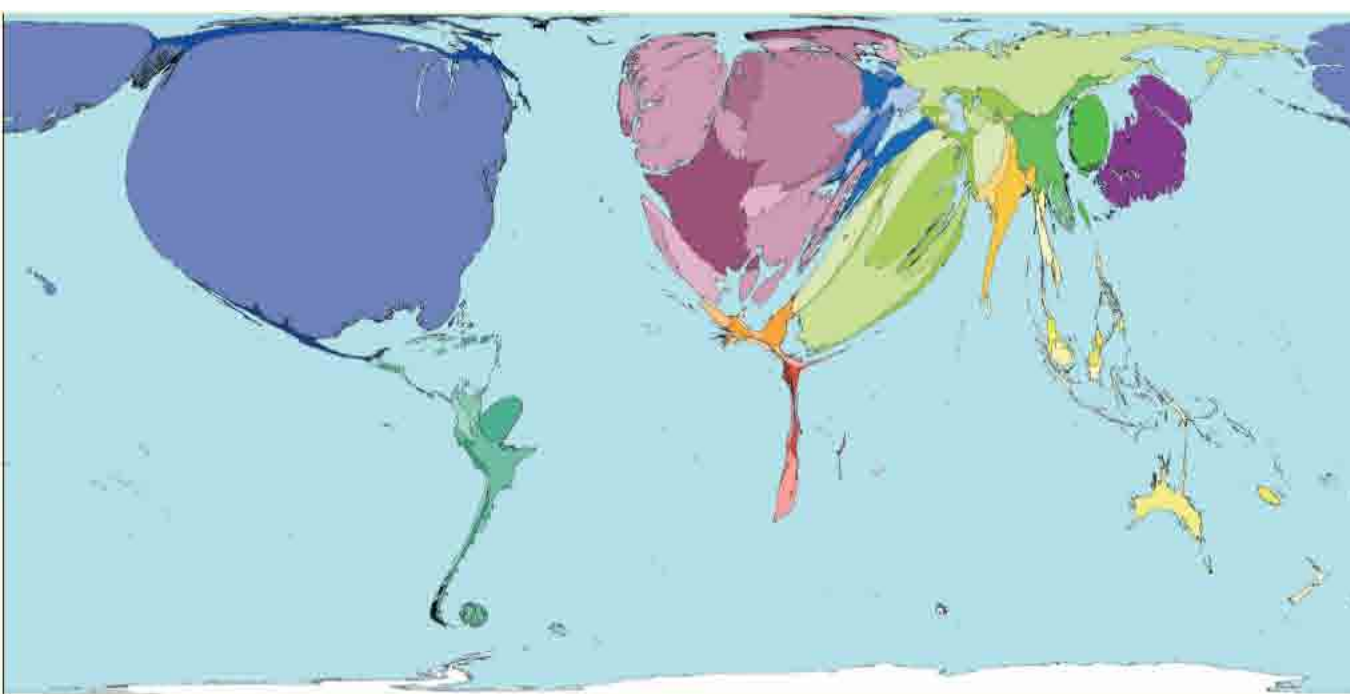
# Military Spending @2008



## MILITARY SPENDING WORLDWIDE



# Military Spending 1990



In 1990, state military spending was estimated at US\$954 billion worldwide. Of this total, 45% was spent by the United States, followed by the Russian Federation at 6%, then Germany and the United Kingdom at 5% each. These territories individually spent more than any of the following regions: Central Africa, Southeastern Africa, Northern Africa, Southern Asia, Asia Pacific, Eastern Asia, South America, Eastern Europe and Japan.

The highest military spending per person living in a territory was in Middle Eastern territories such as Kuwait and Qatar. In Kuwait 10,000 times more was spent per person living there than in Ghana.

Territory size shows the proportion of worldwide state military spending in 1990 that was spent by that territory.



Land area

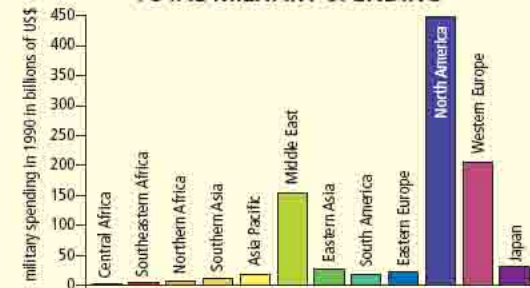
- Technical notes**
- Data are from the United Nations Development Programme's 2004 Human Development Report.
  - \*Military spending was recorded as 0 in Costa Rica and Iceland. Estimated data for Greenland and the Bahamas are not shown here.
  - See website for further information.

## BIGGEST AND SMALLEST MILITARY SPENDERS

Rank	Territory	Value	Rank	Territory	Value
1	Kuwait	12968	189	Central African Republic	5.6
2	Qatar	6763	190	Guyana	5.2
3	United Arab Emirates	3768	191	Madagascar	4.9
4	Israel	2132	192	Nigeria	4.8
5	Saudi Arabia	1856	193	Myanmar	4.0
6	Oman	1779	194	Gambia	4.0
7	United States	1688	195	Bangladesh	3.1
10	Norway	907	196	Malawi	2.6
11	Singapore	848	197	Nepal	2.0
12	United Kingdom	821	198	Ghana	1.3

US\$ of state military spending in 1990 per person living there\*

## TOTAL MILITARY SPENDING

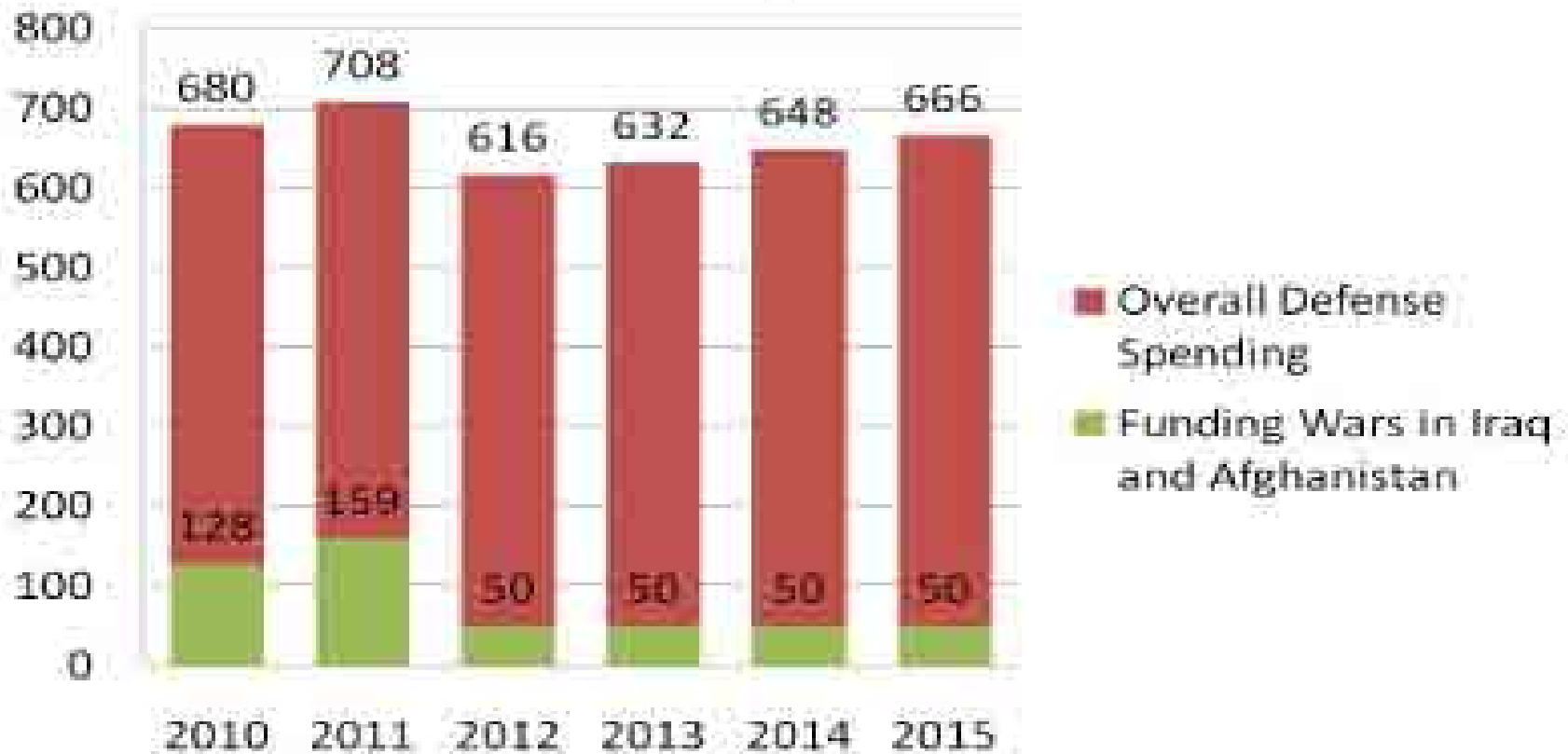


*“When the rich wage war it is the poor who die.”* Jean-Paul Sartre, 1951

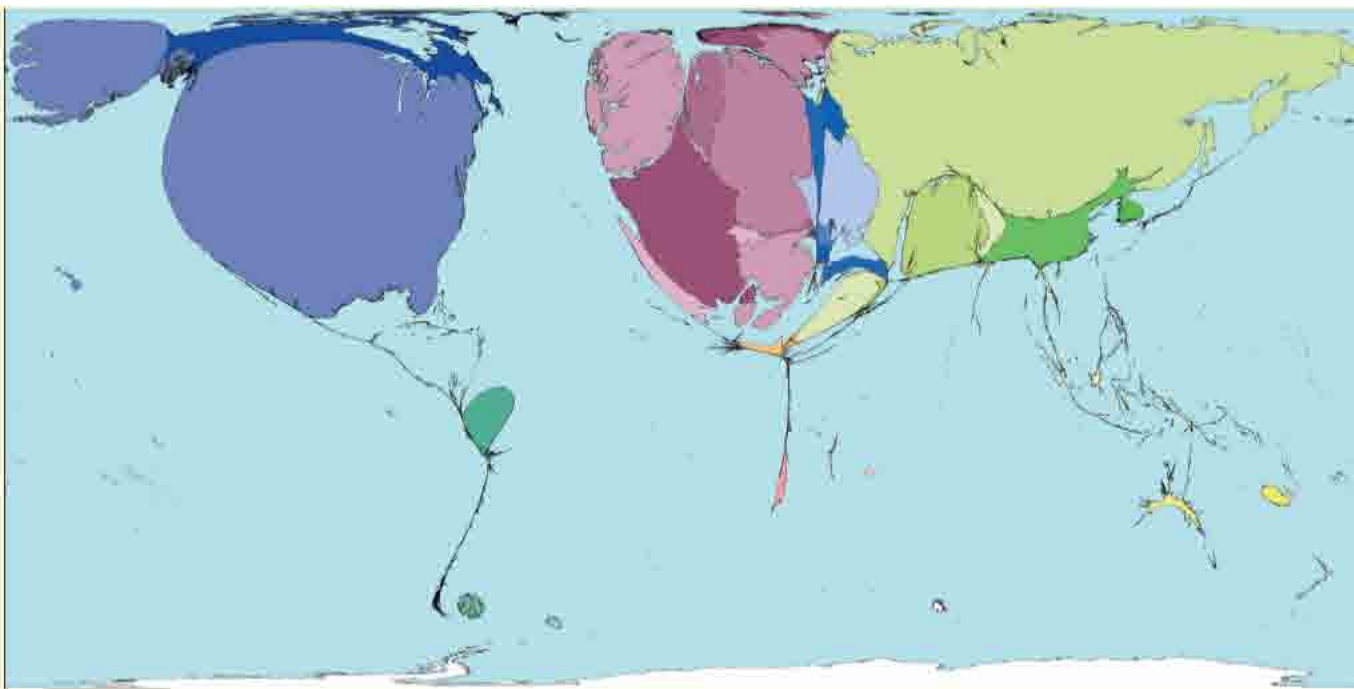


# U.S. Defense Spending Projection

U.S. Overall Defense Spending Projections 2010-2015, \$Bln



# Arm Exports



Most territories export few major weapons. In 2003, 5 territories made over US\$15 billion from arms exports. They were the United States, the Russian Federation, France, Germany, and the United Kingdom, with 80% of this trade worldwide. 22 territories accounted for over 99% of arms export sales.

In 2003, a total of US\$19 billion was earned from arms exports worldwide. The weapons shown in this map are major conventional weapons and systems including ships, aircraft, missiles, artillery, armoured vehicles, and guidance and radar systems. Small arms and ammunition are not included here.

Territory size shows the proportion of worldwide earnings from arms exports received there.



Land area

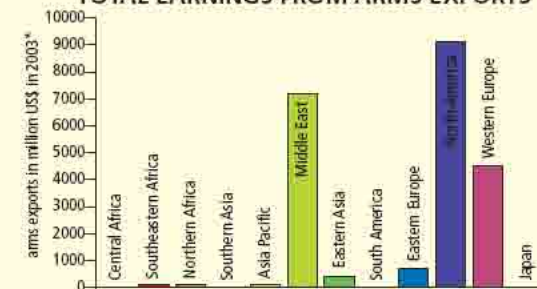
**Technical notes**  
 • Data are from the United Nations Development Programme's 2004 Human Development Report  
 • \*Earnings from arms exports are given in 1990 value US\$  
 • See website for further information.

## HIGH EARNINGS FROM ARMS EXPORTS

Rank	Territory	Value	Rank	Territory	Value
1	Russian Federation	39	11	Kyrgyzstan	15
2	Israel	34	12	Germany	14
3	Norway	33	13	Ukraine	8
4	France	22	14	Italy	6
5	United States	22	15	Belarus	6
6	Sweden	21	16	Switzerland	5
7	Uzbekistan	20	17	Czech Republic	5
8	Canada	18	18	Libyan Arab Jamahiriya	4
9	Netherlands	17	19	Spain	3
10	United Kingdom	16	20	Poland	2

US\$ value of arms exports per person living there in 2003\*

## TOTAL EARNINGS FROM ARMS EXPORTS

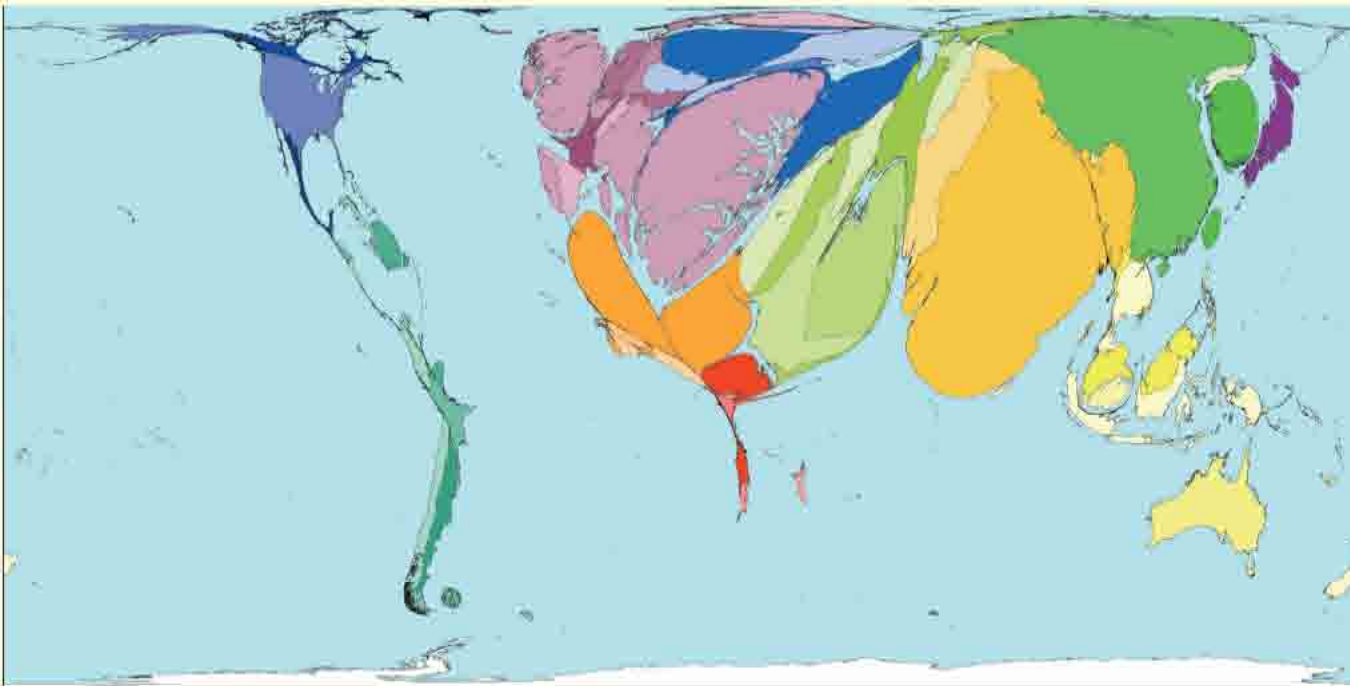


*“Guns were everywhere – automatic and semi-automatic rifles, machine guns, pistols – and so were hand grenades, rocket-propelled grenades, and other life-destroying tools of warfare.”*

Isaac Lappia, undated



# Arm Imports



India, China and Greece were the three biggest spenders on arms imports in 2003. Together these three territories imported 42% of all arms imports in that year. Over US\$19 billion was spent on the international arms trade in 2003.

Included here are major conventional weapons and systems, but not small arms and ammunition. Also excluded are weaponry that is manufactured in that territory.

Central African territories record very little spending on arms imports, so are barely visible on the map. Similarly, Southeastern Africa and Japan record relatively low arms import values. Import values vary between years.

Territory size shows the proportion of worldwide spending on arms imports spent by that territory.



Land area

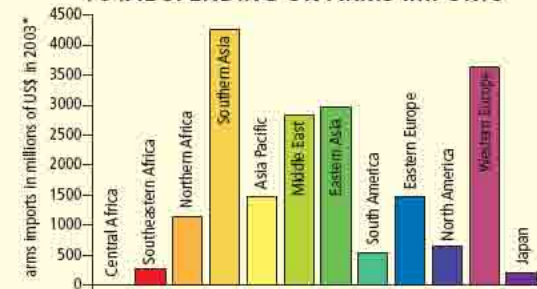
**Technical notes**  
 • Data are from the United Nations Development Programme's 2004 Human Development Report.  
 • \*Spending on arms imports are given in 1990 value US\$. Estimates from regional averages are not included.  
 • See website for further information.

## HIGH SPENDERS ON ARMS IMPORTS

Rank	Territory	Value	Rank	Territory	Value
1	United Arab Emirates	318	11	Qatar	16.7
2	Greece	178	12	Algeria	16.4
3	Israel	50	13	Latvia	12.6
4	Jordan	49	14	Estonia	12.3
5	Eritrea	45	15	Czech Republic	10.9
6	Singapore	29	16	Poland	10.9
7	Australia	25	17	Malaysia	10.1
8	Finland	24	18	Chile	10.0
9	Saudi Arabia	21	19	United Kingdom	9.4
10	New Zealand	19	26	Dominican Republic	8.8

US\$ value of arms imports per person living there in 2003\*

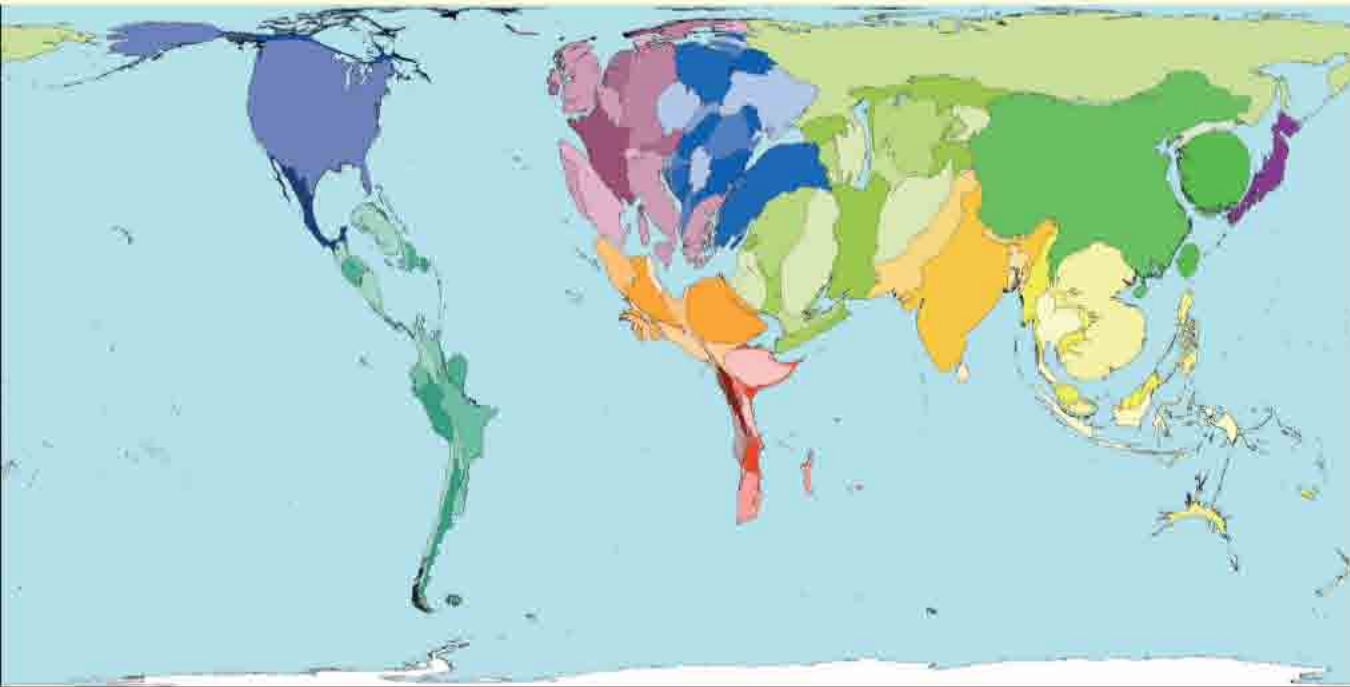
## TOTAL SPENDING ON ARMS IMPORTS



*“Waving our red weapons o’er our heads Let’s all cry ‘Peace, freedom, and liberty!’”*

William Shakespeare, 1599

# Arm Forces 1985



In 1985 there were over 29 million people working in armed forces worldwide. This includes the army, navy, airforce, and military administration. 33% of these people lived in Middle Eastern territories, including the Russian Federation.

In 1985 the three territories with the fewest military personnel per person living there were the Northern African territories of Niger, Burkina Faso and Mali. In these territories there was less than 1 person in the armed forces for every 1000 people living there. At the other extreme there were 37 armed forces personnel for every 1000 people in the Russian Federation.

Territory size shows the proportion of armed forces personnel worldwide, serving that territory in 1985.



Land area

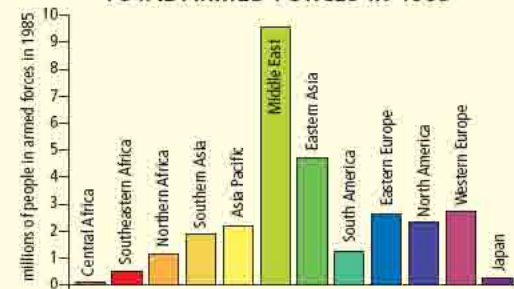
- Technical notes**
- Data are from the United Nations Development Programme's 2004 Human Development Report.
  - The population in 2002 is used as a denominator.
  - \*The total population in 2002 is used to calculate the rate. Estimates from regional averages are not included in the tables.
  - See website for further information.

## LARGE AND SMALL ARMED FORCES, 1985

Rank	Territory	Value	Rank	Territory	Value
1	Russian Federation	37	191	Bangladesh	0.64
2	Seychelles	24	192	Rwanda	0.63
3	Syrian Arab Republic	23	193	Papua New Guinea	0.55
15	Israel	23	194	Cameroon	0.46
16	Czech Republic	20	195	Gambia	0.45
17	Bulgaria	18	196	Kenya	0.43
18	Greece	18	197	Malawi	0.42
19	United Arab Emirates	15	198	Mali	0.37
20	Cuba	15	199	Burkina Faso	0.31
21	Brunei Darussalam	14	200	Niger	0.18

members of the armed forces in 1985 per 1000 people\*

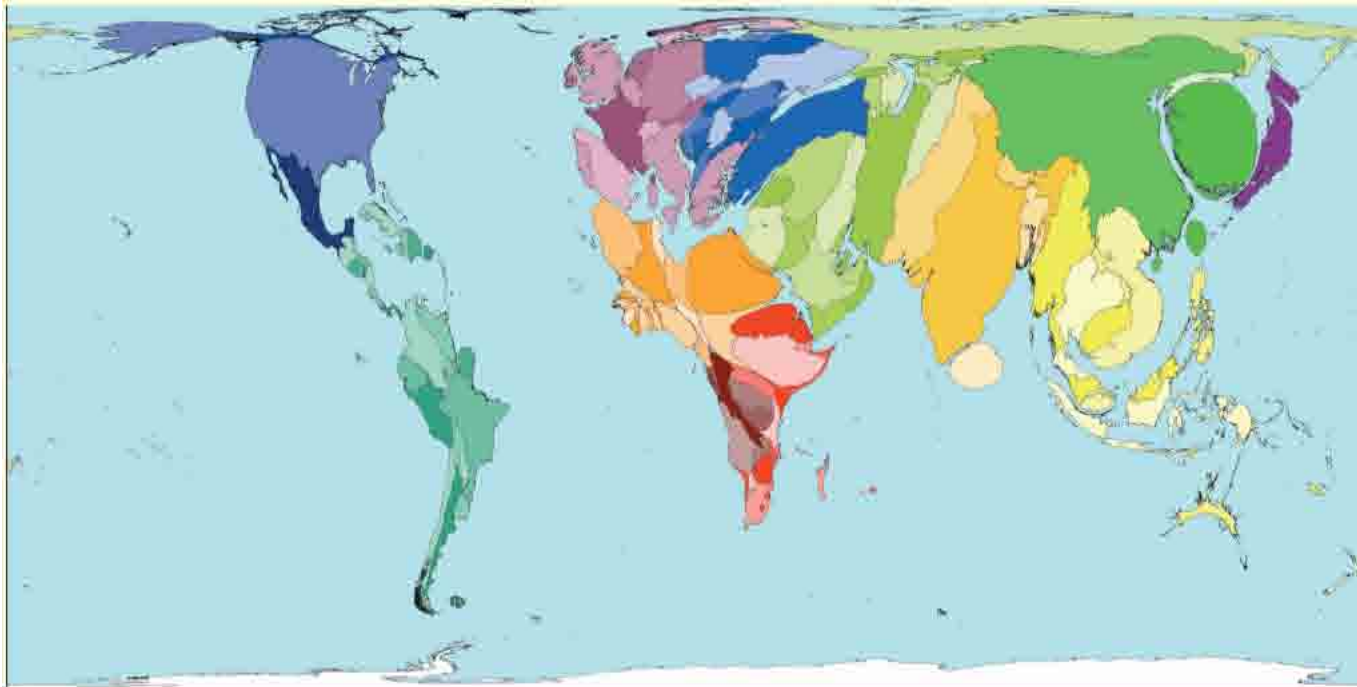
## TOTAL ARMED FORCES IN 1985



*"Before the terrifying prospects now available to humanity, we see even more clearly that peace is the only goal worth struggling for. This is no longer a prayer but a demand to be made by all peoples ..."* Albert Camus, 1945



# Arm Forces 2002



The number of people in armed forces worldwide in 2002 was two thirds of those in the armed forces in 1985. By 2002, there was an average of 3 armed forces personnel for every 1000 people living in the world. The highest proportion of the population in armed forces were in Eritrea: 43 in every 1000. The lowest proportion were in Ghana at 0.34 in every 1000. Both these proportions are higher than their equivalents in 1985. Two fifths of the 1985-2002 reduction in armed forces was in the Russian Federation.

The largest armed forces in 2002 were in China, followed by the United States and then India. Worldwide there were a total of 19 million people in armed forces.

Territory size shows the proportion of armed forces personnel worldwide, serving that territory.



Land area

#### Technical notes

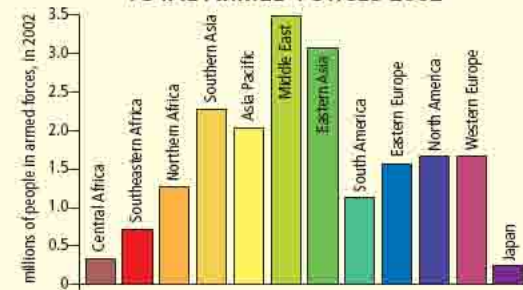
- Data are from the United Nations Development Programme's 2004 Human Development Report.
- See website for further information.

## LARGE AND SMALL ARMED FORCES

Rank	Territory	Value	Rank	Territory	Value
1	Eritrea	43	191	Benin	0.76
2	Israel	26	192	United Republic Tanzania	0.74
3	Brunei Darussalam	23	193	Gambia	0.71
4	Lebanon	20	194	Nigeria	0.65
4	Qatar	20	195	Mozambique	0.59
6	Jordan	19	196	Mali	0.56
7	Syrian Arab Republic	18	197	Papua New Guinea	0.54
8	Greece	16	198	Niger	0.43
9	Bahrain	16	199	Malawi	0.42
10	Oman	15	200	Ghana	0.34

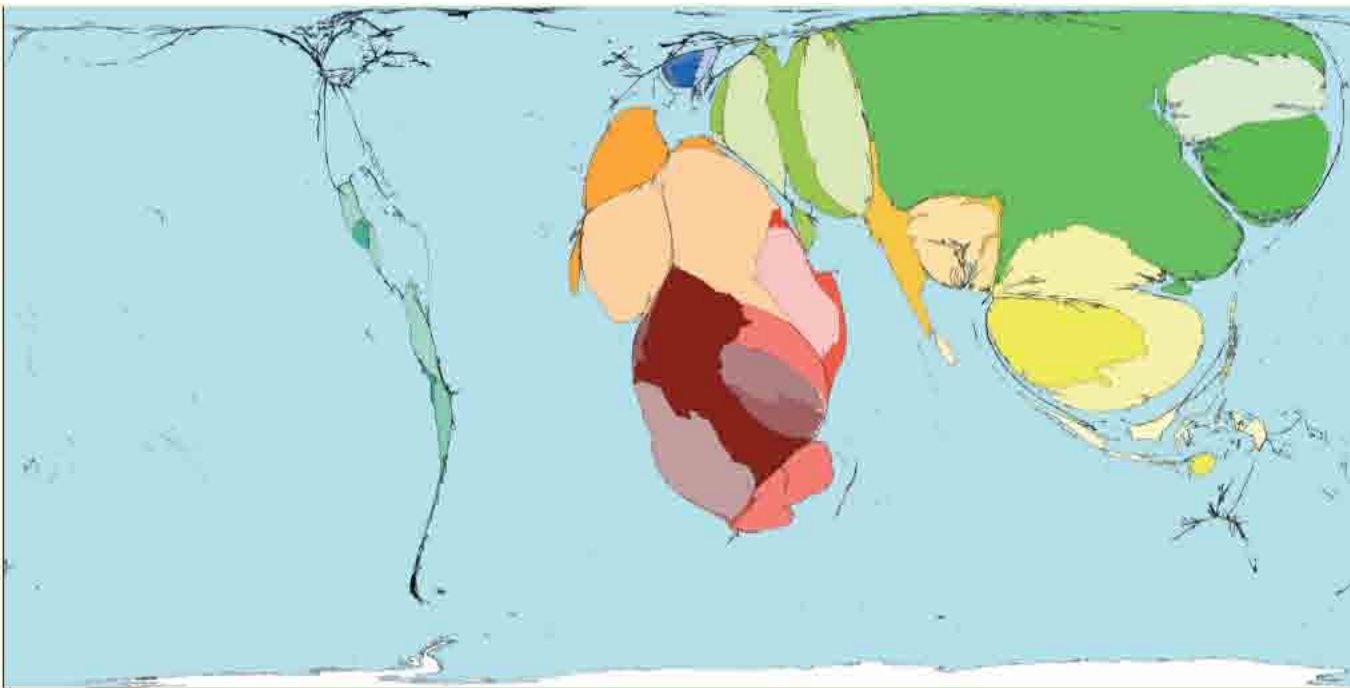
members of the armed forces per 1000 people, in 2002

## TOTAL ARMED FORCES 2002



*“Older men declare war. But it is the youth who must fight and die.”* Herbert Hoover , 1944

# War Death 1945-2000



An estimated 51 million people have been killed in wars between 1945 and 2000. Almost a third of these deaths were amongst the population of China. China, Vietnam, the Democratic Republic of Congo and Sudan suffered the highest number of war deaths during this period.

Very few war deaths have occurred in Japan, Western Europe and North America between 1945 and 2000. Eastern Europe and South America also counted relatively few war deaths in total. Within these regions certain territories had high death counts, these territories include: Serbia and Montenegro, Croatia, Bosnia Herzegovina, Colombia, Bolivia and Guatemala.

Territory size shows the proportion of deaths worldwide directly attributed to war or conflict that occurred there between 1945 and 2002.



Land area

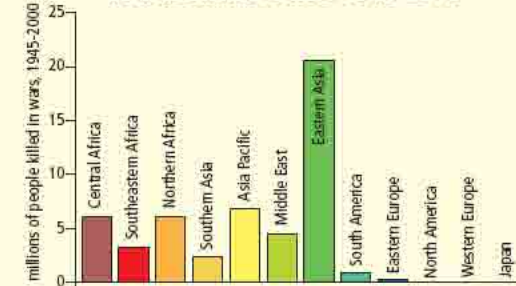
- Technical notes**
- Data are from Milton Leitenberg, of the Centre for International and Security Studies, 2001
  - \*In 150 territories under 0.1% of the population died directly due to war or conflict.
  - See website for further information.

## MOST WAR DEATHS 1945-2000

Rank	Territory	Value	Rank	Territory	Value
1	Cambodia	16	11	Republic of Korea	4.7
2	Timor-Leste	14	12	Viet Nam	4.7
3	Angola	13	13	Iraq	4.6
4	Rwanda	10	14	Western Sahara	4.4
5	Dem People's Republic of Korea	10	15	Lebanon	3.7
6	Afghanistan	9	16	Algeria	3.5
7	Sudan	8	17	Liberia	3.1
8	Burundi	8	18	Uganda	2.8
9	Democratic Republic Congo	6	19	Congo	2.8
10	Mozambique	5	20	Somalia	2.7

deaths in wars from 1945 to 2000 as percentage of 2002 population\*

## TOTAL WAR DEATHS 1945-2000

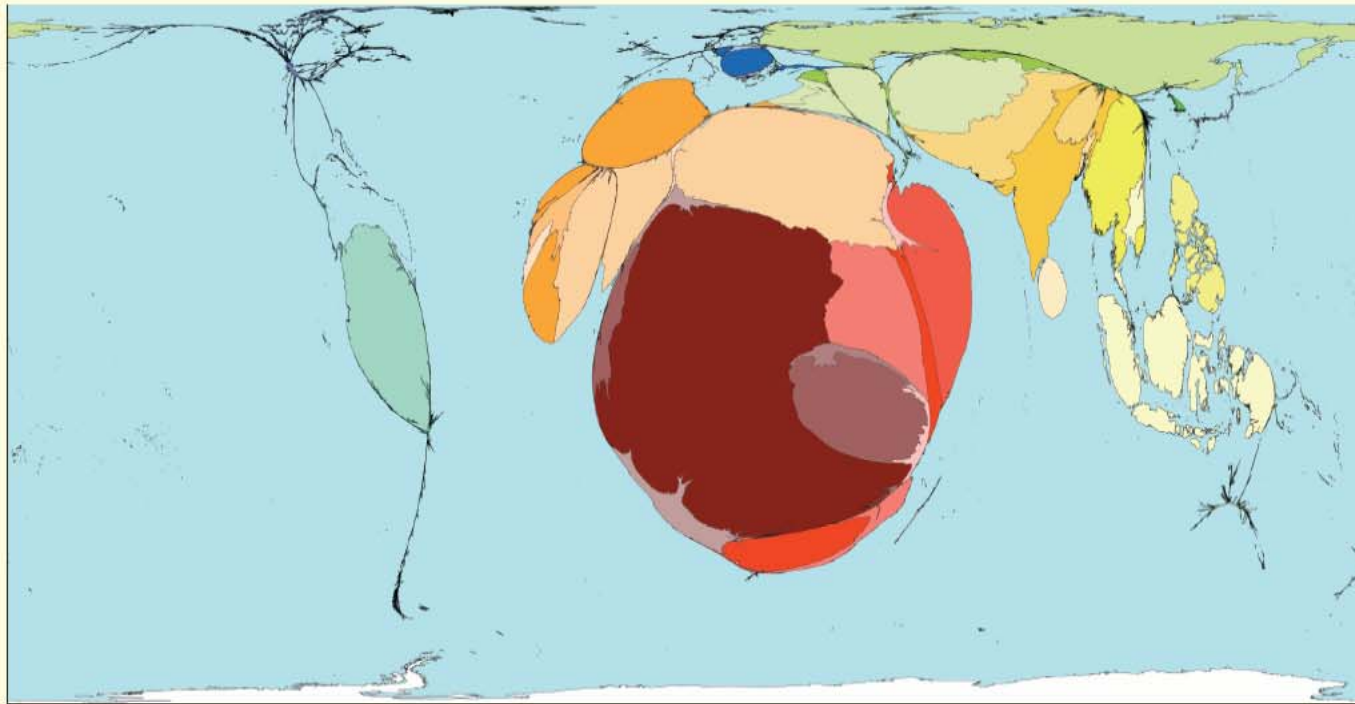


*“It is possible I’ll never see Nina again? Nina, an innocent eleven-year-old little girl - the victim of a stupid war. I feel sad. I cry and wonder why?”*

Zlata Filipovic, 1992



# War Death 2002



In 2002 there were an estimated 172 thousand war deaths worldwide. The majority of territories recorded no war deaths, all deaths shown here occurred in 80 territories. People in the Democratic Republic of the Congo suffered 26% of all war deaths in 2002. Nine territories accounted for 70% of all deaths. Burundi had the highest death rate due to war: 1.2 people per thousand people died due to war there that year.

The following territories counted the most war deaths in their region, in 2002: Somalia in Southeastern Africa; Indonesia in Asia Pacific; Colombia in South America; Sudan in Northern Africa; India in Southern Asia; the Russian Federation in the Middle East.

Territory size shows the proportion of deaths worldwide directly attributed to war or conflict that happened there.



Land area

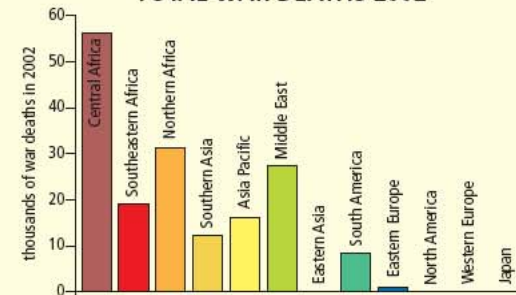
**Technical notes**  
 • Data are from the World Health Organisation's 2004 World Health Report.  
 • \*There were less than 1 death per million in 142 territories.  
 • See website for further information.

## MOST DEATHS IN WARS IN 2002

Rank	Territory	Value	Rank	Territory	Value
1	Burundi	1246	11	Cote d'Ivoire	235
2	Democratic Republic Congo	860	12	Zimbabwe	232
3	Somalia	722	13	Colombia	190
4	Liberia	596	14	Algeria	161
5	Sudan	464	15	Angola	125
6	TFYR Macedonia	401	16	Central African Republic	122
7	Congo	359	17	Russian Federation	119
8	Gaza Strip & West Bank	314	18	Guinea	117
9	Uganda	265	19	Tajikistan	94
10	Afghanistan	257	20	Myanmar	88

deaths due to war or conflict per million in wars, in 2002\*

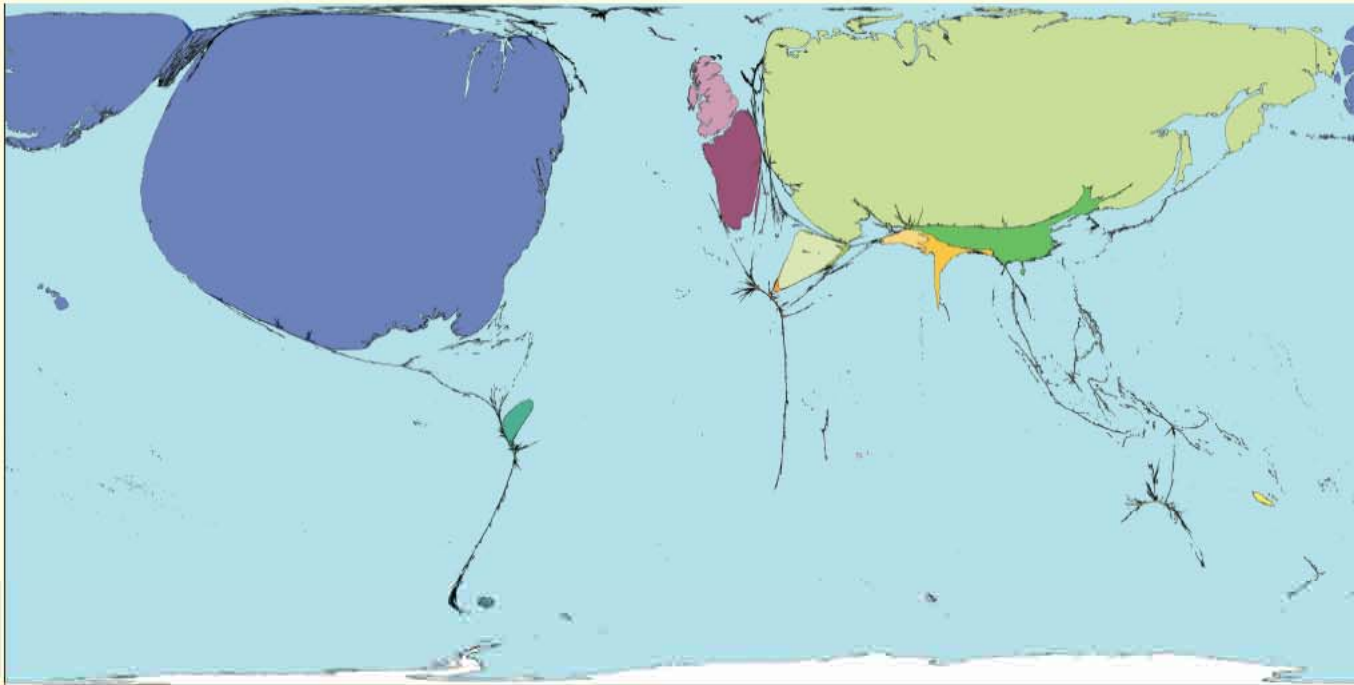
## TOTAL WAR DEATHS 2002



*“Because they tried to change this state of things ... men and women have died throughout the continent ...”*

Gabriel García Márquez, 1982

# Nuclear Weapon



In 2002, 8 territories were known to have or suspected of having strategic nuclear weapons. These territories were: the United States, the Russian Federation, France, China, the United Kingdom, Israel, India and Pakistan. If other territories do have strategic nuclear weapons, they probably have fewer than those listed above, so would not much alter this map. The United States, estimated to have the most nuclear weapons, has 240 times more than Pakistan, with the fewest.

An international 'Treaty on the Non-Proliferation of Nuclear Weapons' has been designed to stop the spread of nuclear weapons. This treaty was adopted in 1968. By March 2002, 187 parties had signed this treaty.

Territory size shows the proportion of worldwide strategic nuclear weapons that territory is suspected of having.



Land area

- Technical notes**
- Data are from the Centre for Defence Information, United States, 2006
  - \*This map shows 8 territories known to have or suspected of having strategic nuclear weapons. Strategic weapons have larger ranges than tactical nuclear weapons.
  - See website for further information.

## MOST NUCLEAR WEAPONS

Rank	Territory	Value
1	United States	8646
2	Russian Federation	6000
3	France	350
4	China	250
5	United Kingdom	180
6	Israel	150
7	India	60
8	Pakistan	36

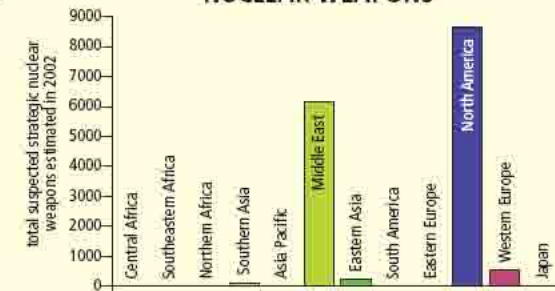
total nuclear weapons estimated in 2002\*

## NUCLEAR WEAPONS PER MILLION PEOPLE

Rank	Territory	Value
1	Russian Federation	41.64
2	United States	29.71
3	Israel	23.81
4	France	5.85
5	United Kingdom	3.05
6	Pakistan	0.24
7	China	0.19
8	India	0.06

nuclear weapons estimated per million people in 2002\*

## NUCLEAR WEAPONS

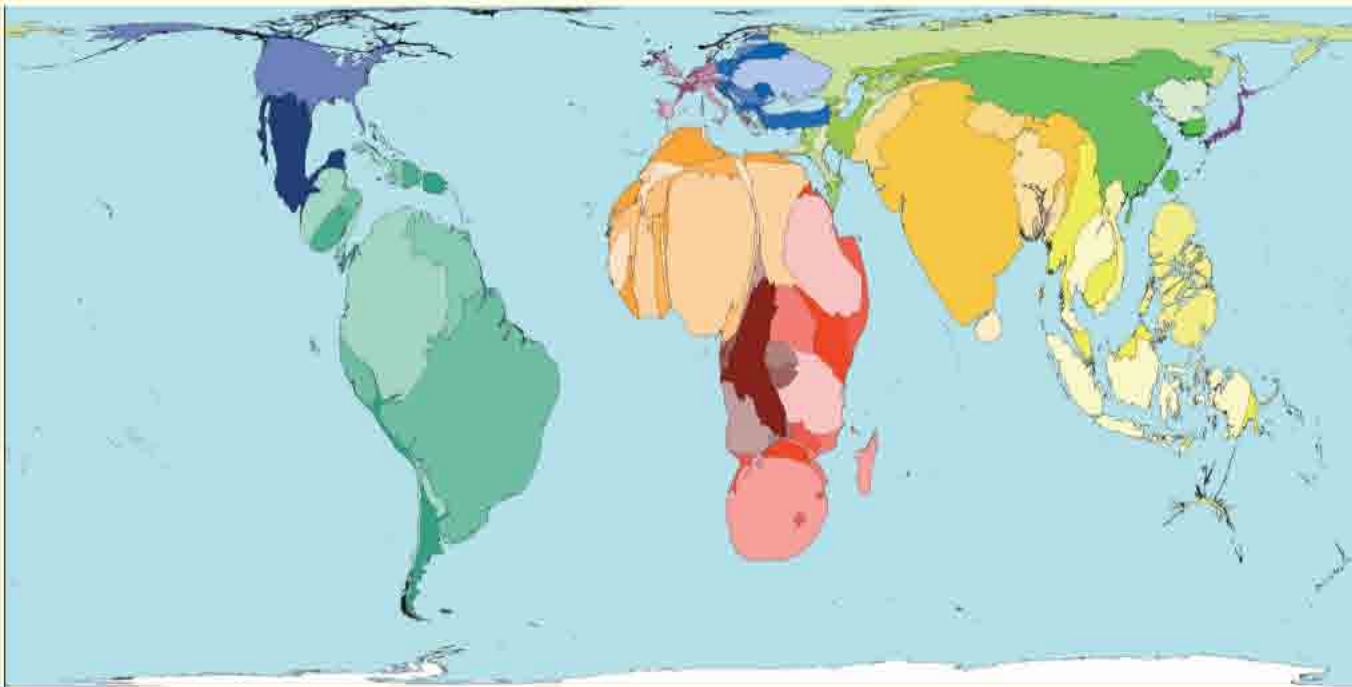


*“Nuclear weapons are clearly inhumane ... it is inevitable that the horror of Hiroshima and Nagasaki will be repeated - somewhere, sometime - in an unforgivable affront to humanity itself.”*

Takashi Hiraoka, 1995



# Violent Death



The violent deaths shown here are homicide (murder and manslaughter), but exclude deaths due to war. In 2002 over half a million people died violent deaths. The territories where the most violent deaths occurred were Brazil and India, each with over 57,000 that year.

The territories where the highest proportion of people were murdered or killed in 2002 were Colombia, Sierra Leone and South Africa. The region with the most violent deaths was South America, followed by Southeastern Africa and Northern Africa. There were relatively few violent deaths resulting from murder or manslaughter in Japan and Western Europe.

Territory size shows the proportion of violent deaths worldwide that occurred there in 2002. War deaths are not shown here.



Land area

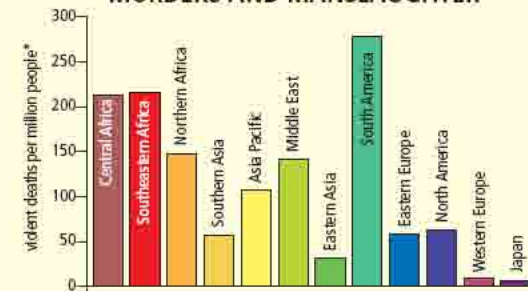
- Technical notes
- Data are from the World Health Organisation's 2004 World Health Report.
  - \*Here violent deaths exclude war deaths, accidental deaths and suicides.
  - See website for further information.

## MOST AND FEWEST VIOLENT DEATHS

Rank	Territory	Value	Rank	Territory	Value
1	Colombia	724	191	Slovenia	7.7
2	Sierra Leone	500	192	Tonga	7.6
3	South Africa	431	193	Germany	7.2
4	Angola	395	194	Israel	7.1
5	El Salvador	385	195	France	6.8
6	Guatemala	372	196	Japan	6.2
7	Venezuela	353	197	Iceland	6.0
8	Somalia	331	198	Jamaica	4.8
9	Russian Federation	329	199	Cyprus	2.3
10	Liberia	329	200	San Marino	0.0

violent deaths per million people in 2002\*

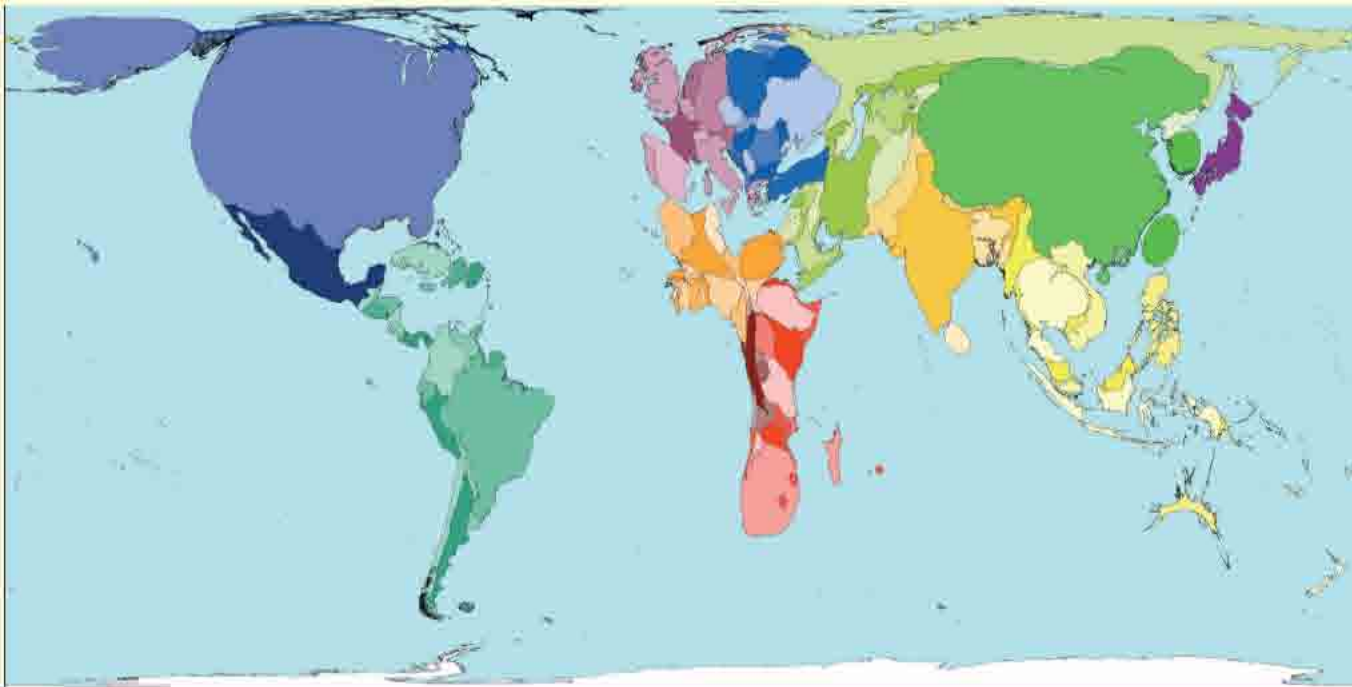
## MURDERS AND MANSLAUGHTER



*"We were returning home when four men with machetes called us. They told my uncle that he knew why they had to kill him. He pleaded with the militia not to kill me ..."*

Alice Musabende, undated

# Prisoners



In 2006 there were an estimated 9.3 million people in prison worldwide at any one time. Half of them were held in just 3 territories: the United States 24%, China 17% and the Russian Federation 9%. Worldwide 0.15% of the population are in prison, that is one person in every 670.

The highest percentages of population that are imprisoned are in the United States, at 0.75%, and the Russian Federation, at 0.60%. The lowest rates of imprisonment are in Burkina Faso and Nauru. In both territories only 0.02% of the population is imprisoned.

The rate at which people are imprisoned varies widely and reflects different customs.

Territory size shows the proportion of people living in prison worldwide that live there.



Land area

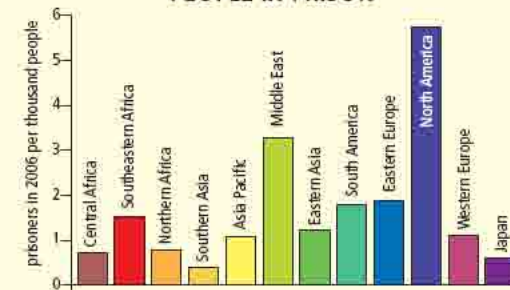
**Technical notes**  
 • Data are from the World Prison Brief Online, 2006.  
 • \*Data collected since 2000, with most recent available data used. Data available for 187 of territories mapped. Others take regional averages.  
 • \*Population data for 2002 is used to calculate rates.  
 • See website for further information.

## MOST AND FEWEST PEOPLE IN PRISON

Rank	Territory	Value	Rank	Territory	Value
1	United States	7513	191	F States of Micronesia	361
2	Russian Federation	5985	192	Nigeria	335
3	Saint Kitts & Nevis	5095	193	Gambia	321
4	Saint Lucia	5030	194	Mali	321
5	Bahamas	5000	195	India	320
6	Cuba	4867	196	Nepal	290
7	Palau	4850	197	Comoros	286
8	Suriname	4833	198	Congo	255
9	Turkmenistan	4583	199	Nauru	231
10	Belize	4530	200	Burkina Faso	222

prisoners per million people in 2002\*

## PEOPLE IN PRISON



*“The thoughts of a prisoner - they’re not free either. They keep returning to the same things.”*

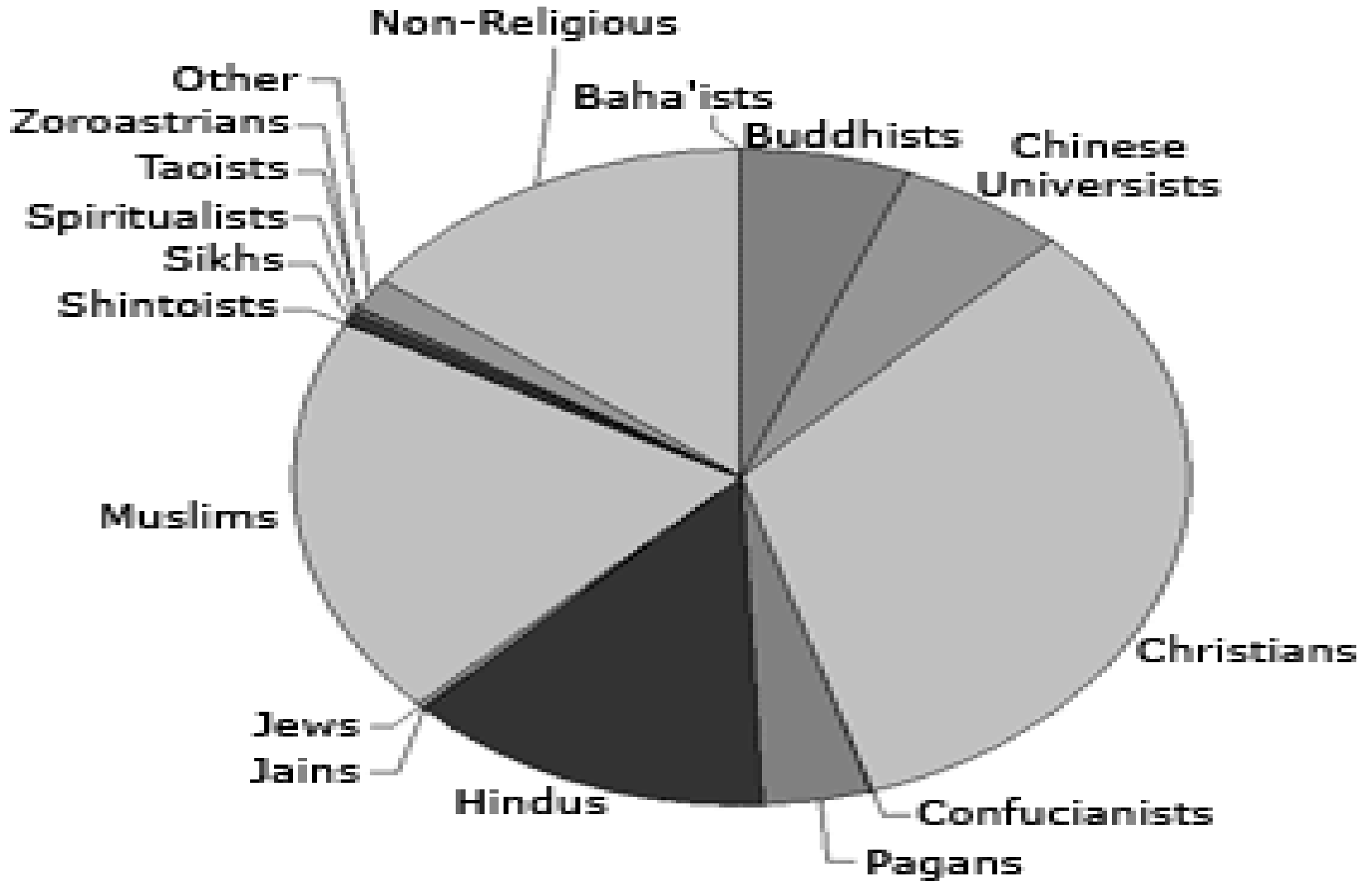
Alexander Solzhenitsyn, 1962



# Violence Summary

- Military expenditure is the most expensive single item in the business of worldmap; Might we believe this is most important one with no sweat!

# Religious





# Religious

Title	World Total
Religious	5,323,900,580
Abrahamic Religions	3,348,801,029
Baha'i	7,233,348
Christians	2,069,884,420
Catholics	988,505,051
Orthodox Christians	228,430,514
Protestants	430,172,609
Anglicans	77,031,867
Jehovah's Witnesses	16,556,324
Lutherans	48,407,746
Mormons	13,061,674
Quakers	367,741
Jews	14,064,440
Muslims	1,254,742,407
Shias	200,936,287
Sunnis	1,052,886,836
Dharmic Religions	1,227,710,333
Buddhists	368,955,415
Hindus	820,216,280
Jains	5,511,863
Sikhs	24,317,802
Taoic Religions	392,489,729
Chinese Universists	380,353,490
Confucianists	6,329,909
Shintoists	2,764,511
Taoists	2,562,969
Pagans	244,671,153
Spiritualists	12,614,075
Zoroastrians	173,721
Not Religious	918,173,420
Agnostics	766,670,039
Atheists	151,503,381