



ANDERSON JUNIOR COLLEGE

JC2 H2 Geography Preliminary Examination (2017)

H2 GEOGRAPHY

9751/02

Paper 2 Data Response Questions

INSERT

28 August 2017

3 hours

READ THESE INSTRUCTIONS FIRST

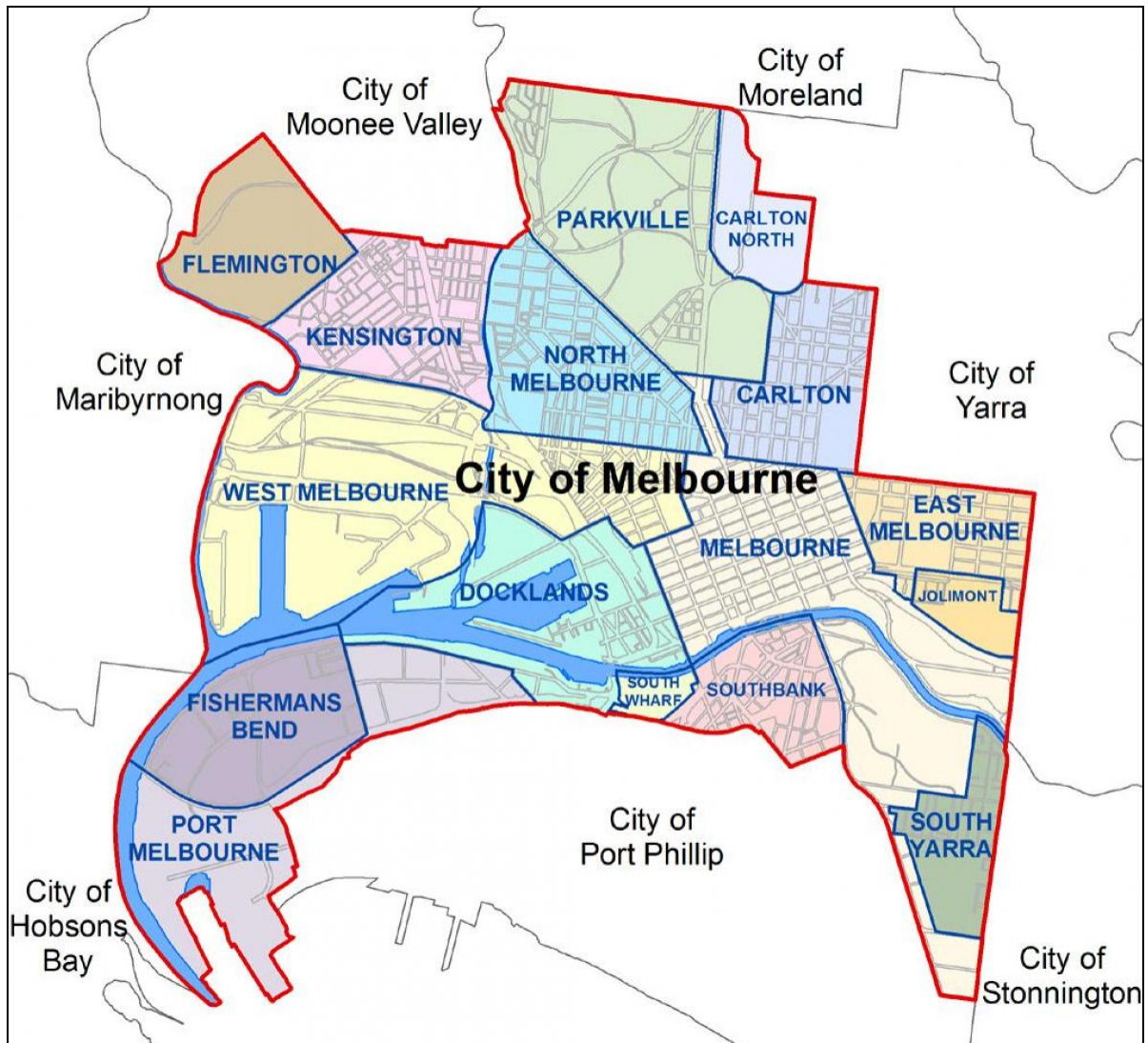
The Insert contains all the Resources referred to in the questions.

This question paper consists of 10 printed pages.

[Turn Over]

Resource 1 for Question 1

Map of Melbourne and Surrounding Suburbs



Source: <http://maps-melbourne.com/img/1200/map-of-melbourne-suburbs.jpg>

Resource 2 for Question 1

Selected Data for Southbank and Kensington

	Southbank	Kensington
Population Number (2015)	18,192	11,002
Population Density (persons / km² in 2015)	5 923.7	5 124.4
Median Age (years in 2015)	29.9	32.3
Education Persons with Post School Qualifications - Percentage of total population aged 15 years and over (%)	76.1	71.7
(a) With Postgraduate Degree (%)	11.6	9.4
(b) With Bachelor Degree (%)	33.5	31.7
Annual Income Median total income (excluding Government pensions and allowance) (AU\$ in 2013)	52, 197	57, 141
Property Prices Houses – median sale price (AU\$ in 2014)	650, 000	709, 000
Overseas Born Population (%)	64.9	37.7
Citizenship of Migrants		
(a) Australian citizen (%)	28.8	56.2
(b) Not an Australian citizen (%)	69.9	42.4
(c) Citizenship not stated (%)	1.3	1.4
English Proficiency of Migrants		
(a) Only English spoken at home (%)	33.6	38.8
(b) Proficient in spoken English (%)	59.3	47.3
(c) Not proficient in spoken English (%)	6.5	13.3
(d) Proficiency not stated (%)	0.6	0.6

Note: Data without the year indicated in the table above are extracted from 2011 Census.

Source: Data extracted from <http://stat.abs.gov.au>

Resource 3 for Question 1

Top 5 Crime Offence Data

Southbank 2011 to 2015

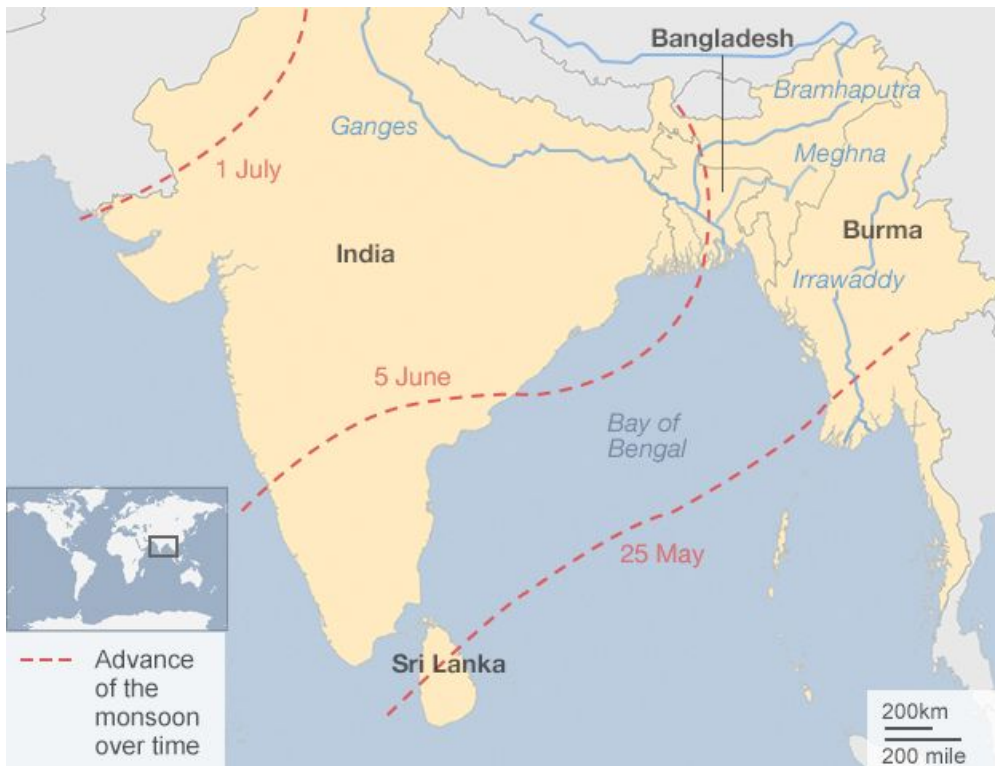
Crime Offence	2011	2012	2013	2014	2015	2016		
						Q1	Q2	Total
Theft	818	630	745	779	1274	239	310	549
Deception	93	112	304	205	284	315	31	346
Crimes against the person	346	288	270	294	363	82	100	182
Disorderly and offensive conduct	503	365	376	438	452	35	83	118
Property damage	160	148	165	183	242	40	51	91

Kensington from 2011 to 2015

Crime Offence	2011	2012	2013	2014	2015	2016		
						Q1	Q2	Total
Theft	426	377	409	334	496	108	133	241
Burglary/Break and enter	111	146	128	118	181	28	39	67
Crimes against the person	120	115	90	86	136	38	28	66
Property damage	106	80	69	68	120	18	22	40
Breaches of orders	14	24	52	256	44	18	9	27

Resource 4 for Question 2

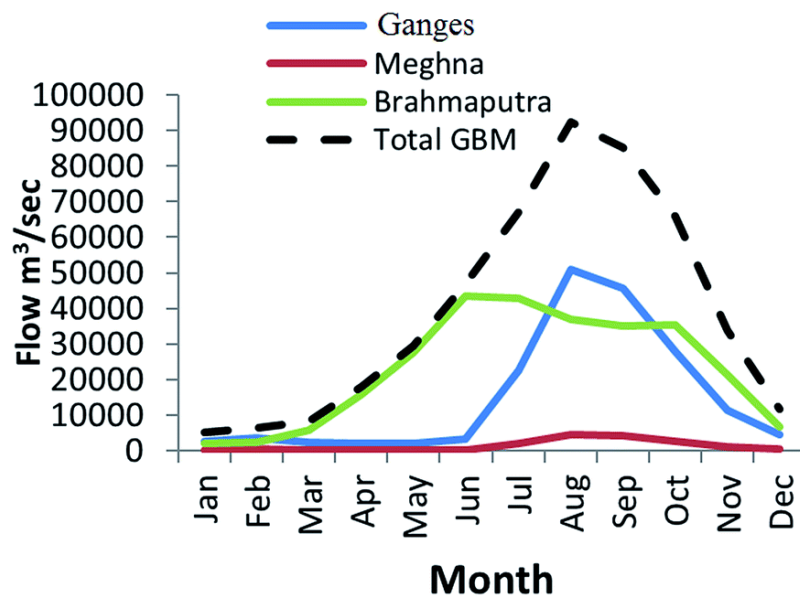
Passage of South Asian monsoon



Source: <http://www.bbc.com/news/science-environment-33479507>

Resource 5 for Question 2

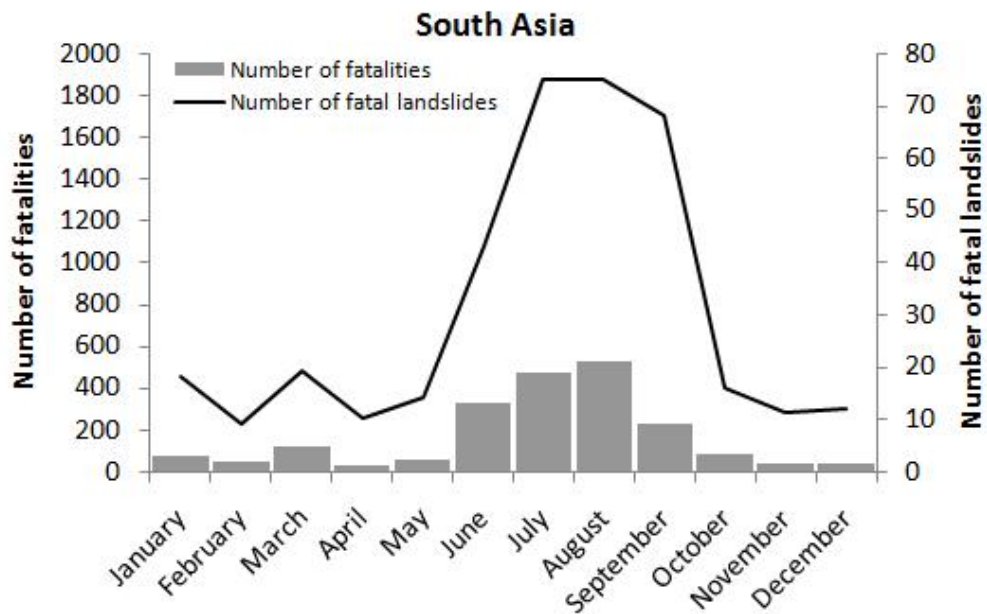
Monthly discharge amounts for rivers Ganges, Meghna, and Brahmaputra in South Asia



Source: <http://pubs.rsc.org/en/content/articlelanding/2015/em/c4em00619d#!divAbstract>

Resource 6 for Question 2

Landslides in South Asia, 2006 to 2008



Source: <http://blogs.agu.org/landslideblog/2010/02/13/an-analysis-of-fatal-landslides-in-the-asia-pacific-region-for-2006-to-2008/>

Resource 7 for Question 2

Mass movement in the Himalayan state of Uttarakhand, India, which was struck by torrential monsoon rain in June 2013

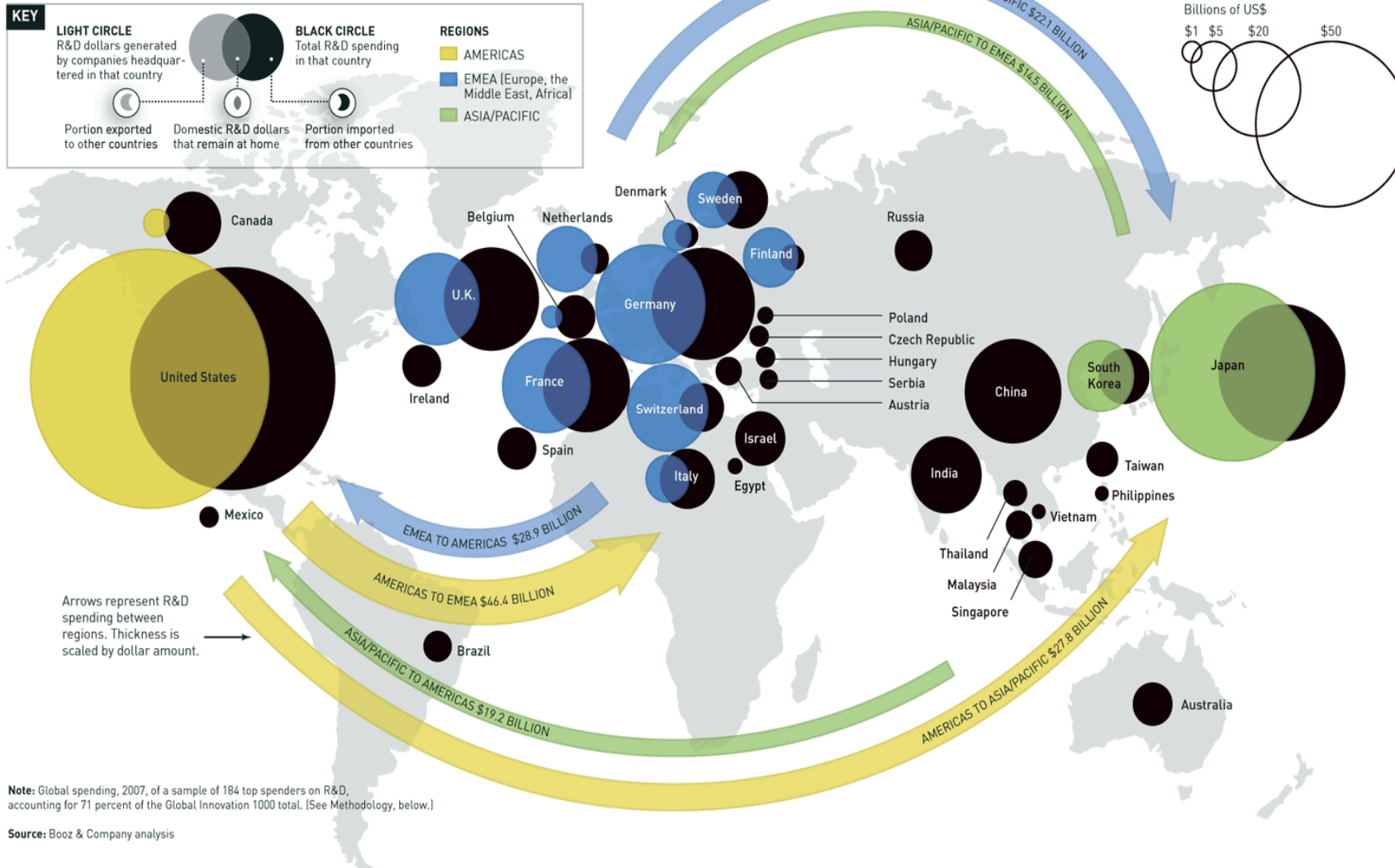


Source: <http://edition.cnn.com/2014/12/30/world/asia/nepal-climate-change-himalayas/>

Resource 8 for Question 3

R&D income and expenditure by TNCs and between regions, 2007

As business has become increasingly global, so too has corporate spending on research and development. Here is a look at the 2007 flows of the top R&D spenders between the Americas, EMEA (Europe, the Middle East, and Africa), and the Asia/Pacific region.

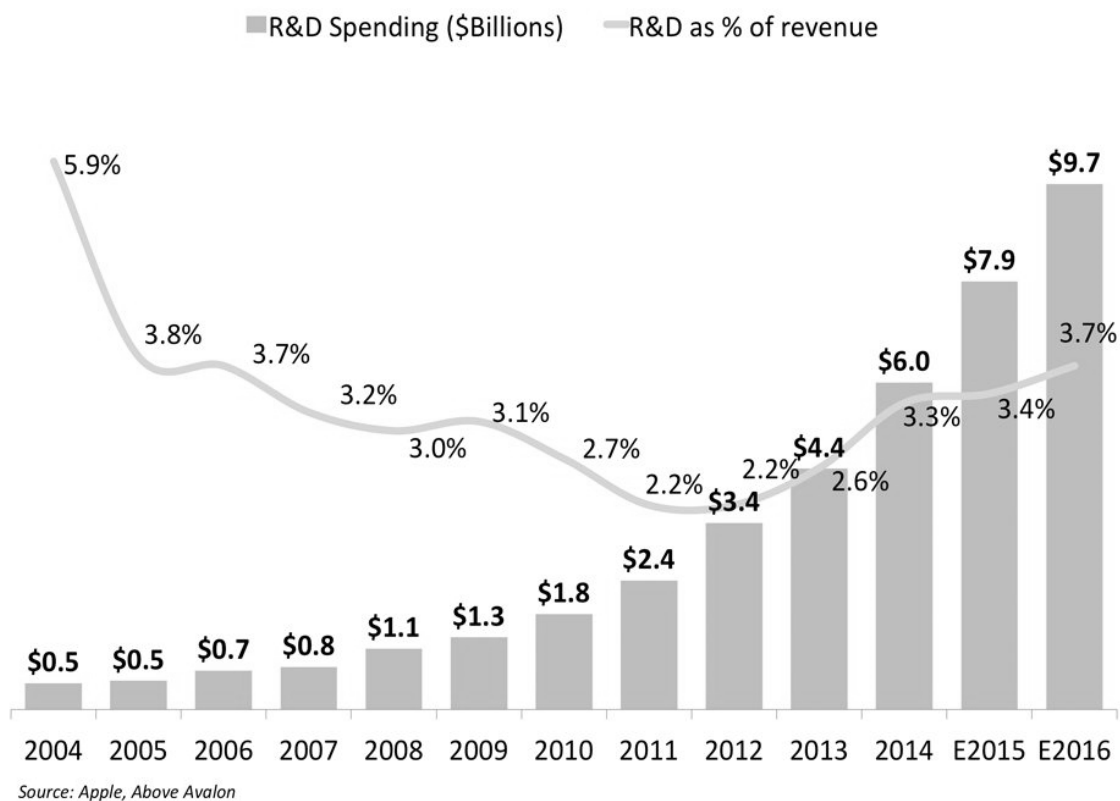


Note: Global spending, 2007, of a sample of 184 top spenders on R&D, accounting for 71 percent of the Global Innovation 1000 total. (See Methodology, below.)

Source: Booz & Company analysis

Resource 9 for Question 3

Apple's actual and expected expenditure on R&D, 2004 to 2016



Resource 10 for Question 3

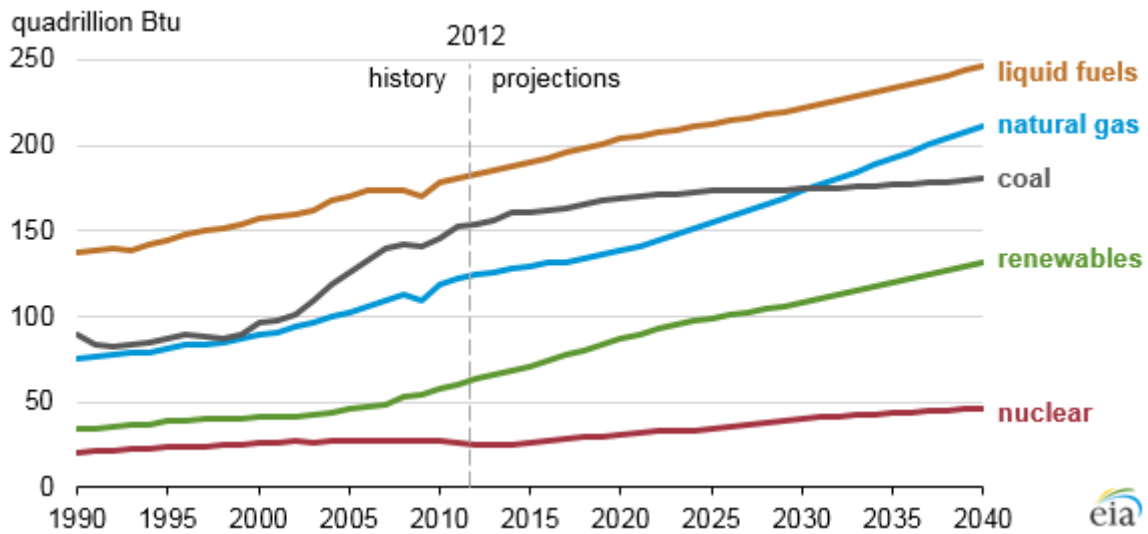
R&D expenditure for some TNCs, 2009

TNC	Location of corporate HQ	Location of main R&D	R&D spending (\$US million) (2009)	Sales (\$US million) (2009)	R&D Intensity (R&D as a % of sales)
Apple	USA	USA	1 333	42 905	3.1%
Google	USA	USA	2 843	23 651	12.0%
3M	USA	USA	1 293	23 123	5.6%
GE	USA	USA	3 300	155 777	2.1%
Toyota	Japan	Japan	7 822	204 363	3.8%
Microsoft	USA	USA	9 010	58 437	15.4%
P&G	USA	USA	2 044	79 029	2.6%
IBM	USA	USA	5 820	95 759	6.1%
Samsung	South Korea	South Korea, USA, Japan	6 002	109 541	5.5%
Intel	USA	USA	5 653	35 127	16.1%

Adapted from Forbes

Resource 11 for Question 4

World energy consumption by source, 1990 to 2040



Source: <https://www.eia.gov/todayinenergy/images/2016.05.12/main.png>

Resource 12 for Question 4

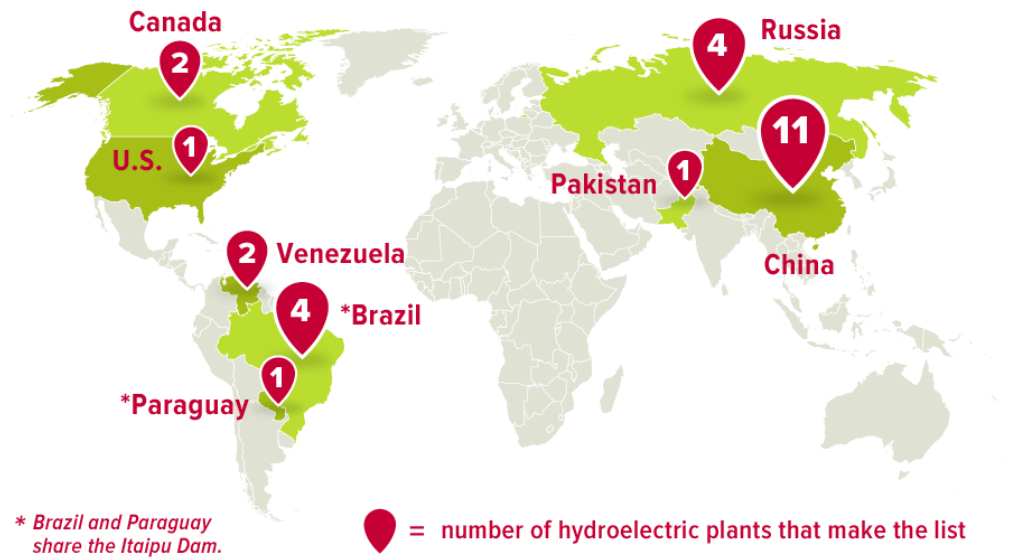
Top 10 Countries with the Highest Carbon Dioxide Emissions

2011 Total Emissions Country Rank	Country	2011 Total Carbon Dioxide Emissions from the Consumption of Energy (Million Metric Tons)	2011 Per Capita Carbon Dioxide Emissions from the Consumption of Energy (Metric Tons of Carbon Dioxide per Person)
1.	China	8715.31	6.52
2.	United States	5490.63	17.62
3.	Russia	1788.14	12.55
4.	India	1725.76	1.45
5.	Japan	1180.62	9.26
6.	Germany	748.49	9.19
7.	Iran	624.86	8.02
8.	South Korea	610.95	12.53
9.	Canada	552.56	16.24
10.	Saudi Arabia	513.53	19.65

Source: http://www.ucsusa.org/global_warming/science_and_impacts/science/each-countrys-share-of-co2.html#.WY7JT-197IU

Resource 13 for Question 4

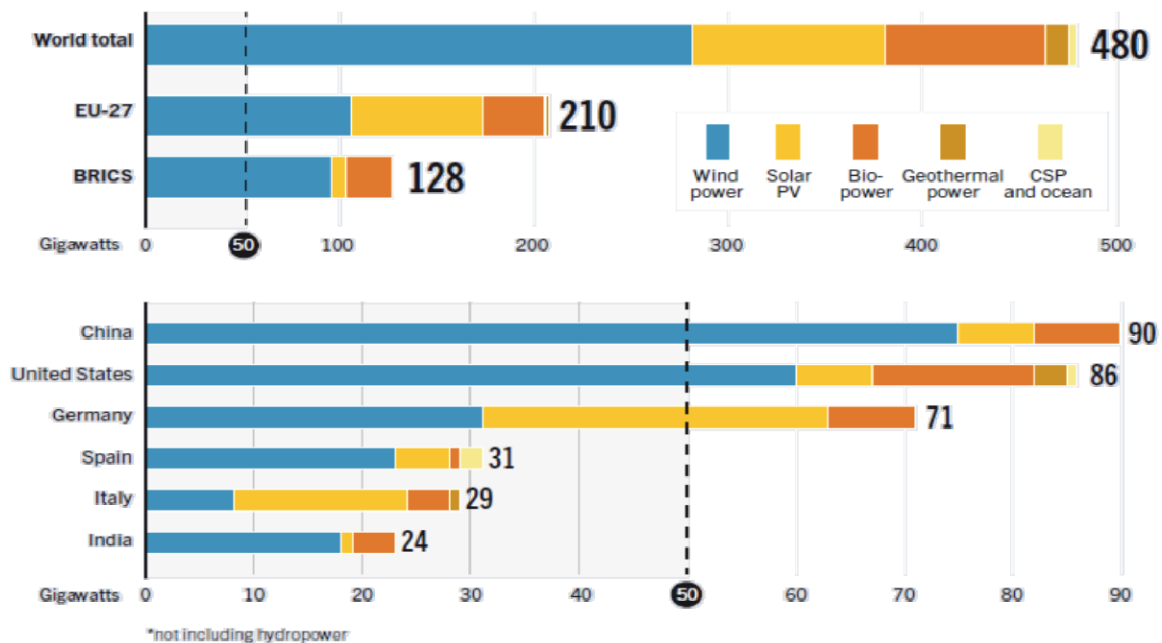
The World's 25 Largest Hydroelectric Plants



Source: http://www.usfunds.com/media/images/frank-talk-images/2014_ft/FT_Jul-Dec/25-Largest-Hydroelectric-Plants-Across-8-Countries-08122014-LG.gif

Resource 14 for Question 4

Renewable Power Capacities* in world, EU-27, BRICS, and top six countries, 2012



Note: Renewable power capacities are based on the energy generated from renewable energy infrastructure.

Source: <https://c1cleantechnicacom-wpengine.netdna-ssl.com/files/2013/11/renewable-energy-capacity-leaders-2012.png>