

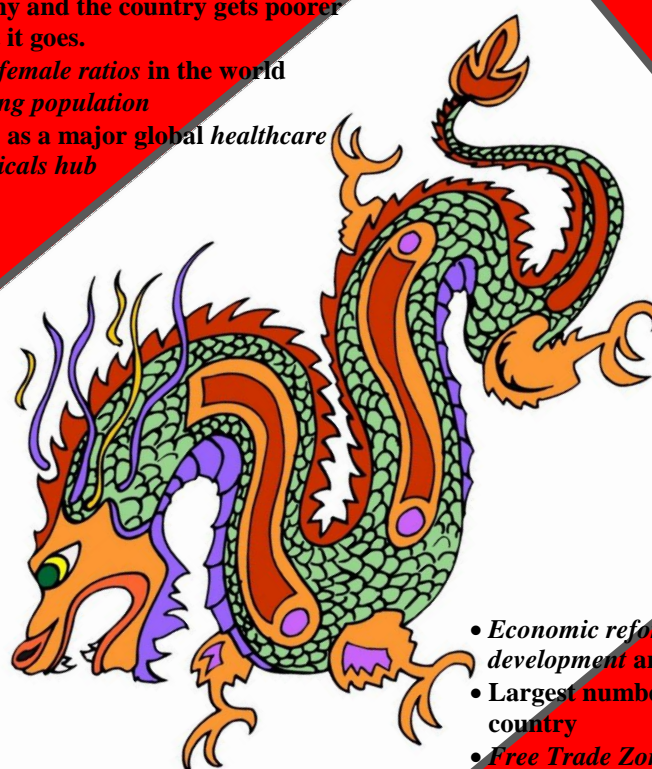
YEAR 10: HUMAN WELLBEING IN CHINA

SPATIAL VARIATIONS WITHIN CHINA

Dr. Susan Bliss

Did you know?

- *Gender Inequality Index (GII)* ranks Hong Kong 15th compared to China 87th
- China's *east-west divide*-coastal provinces are relatively wealthy and the country gets poorer the further west it goes.
- *Highest male to female ratios in the world*
- *Problem of ageing population*
- Possibly emerge as a major *global healthcare and pharmaceuticals hub*



- *Economic reforms and regional development* are underway
- Largest number of *megacities* in any country
- *Free Trade Zones* remain vital for economic expansion
- Growth in *middle class* changes consumption patterns-more international in tastes and habits.
- Aim to reduce the *environmental footprint* with a focus on renewable sources of energy

‘As the Chinese population has become richer, more literate, urban and tech-savvy, their tastes and consumption patterns have changed’.

General Capabilities: numeracy, literacy, difference and diversity, work and enterprise, critical and creative thinking, ethical understanding, intercultural understanding, information and communications technology.



Shanghai Museum, traditional Chinese costumes (J. Bliss)

OVERVIEW

Despite the slowing economy in 2015, China plays a crucial role in the development of the Asia region as it is one of the fastest growing economies. The ‘old’ China of low value energy intensive industries located along the eastern coast has been declining. It is being replaced by the manufacture of higher value goods located in inland western provinces. A rapidly emerging middle class and recent relaxation of the One Child Policy will alter the country socially and reforms towards a market economy will change the country financially. Additionally its recent proactive engagement with other countries aims to strengthen its role as a global superpower.

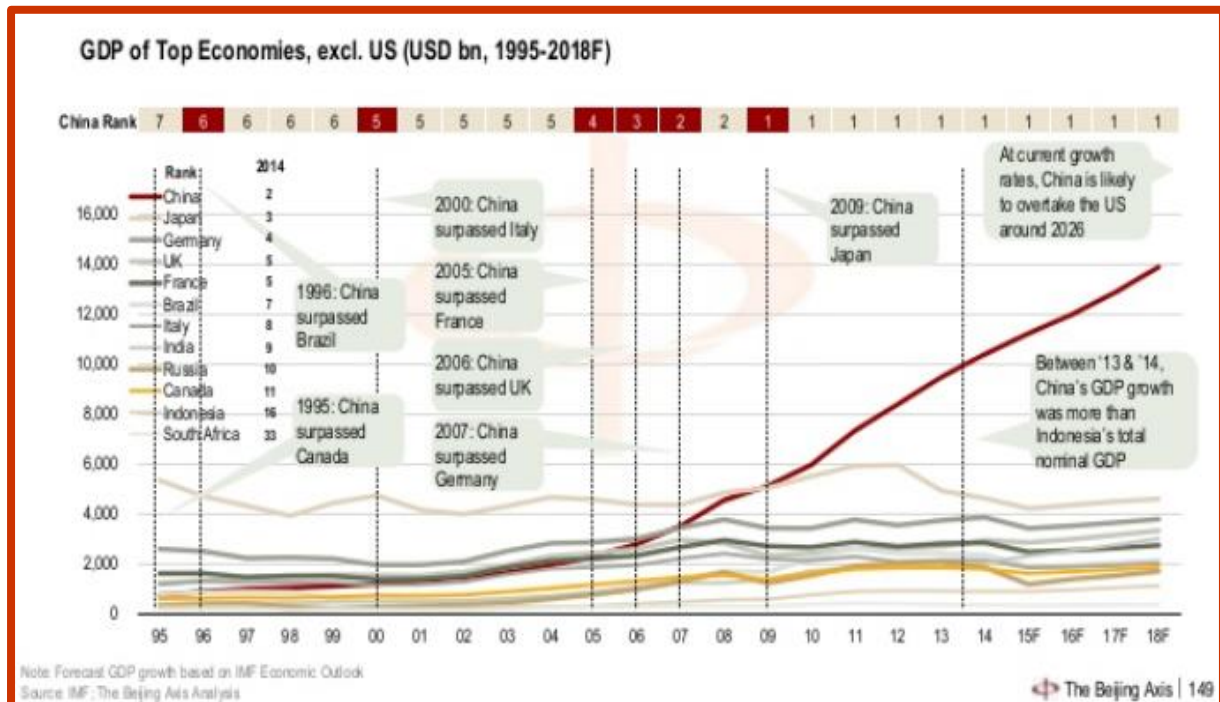
In 2012, China eclipsed USA as the largest trading nation. Gross Domestic Product (GDP) increased about 1600% between 1980 and 2015 and the Human Development Index (HDI) improved from 0.349 (1970) to 0.793 (2015). Despite growth in GDP and improvements in HDI economic and social disparities increased over the last decade between regions, urban and rural areas and between people.

The economic growth of China is attributed to the establishment of special economic zones (SEZ), investment in agriculture and industrial sectors, implementation of quality education and health services, and growth in exports. However, negative global publicity surrounded food scandals, hazardous toys, sweatshops, one-child policy (1978-2015), sweatshop labour, ethnic discrimination in the Xinjiang Uighur region, suppression of Tibetan protests, and restricted human rights such as freedom of expression and association.

PART A: CHINA'S GLOBAL DEVELOPMENT

1. Multiple line graph: China is anticipated to overtake the US in 2026 to become the world's largest economy <http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>

***Indicator (GDP) and variations between countries over time (trends)**



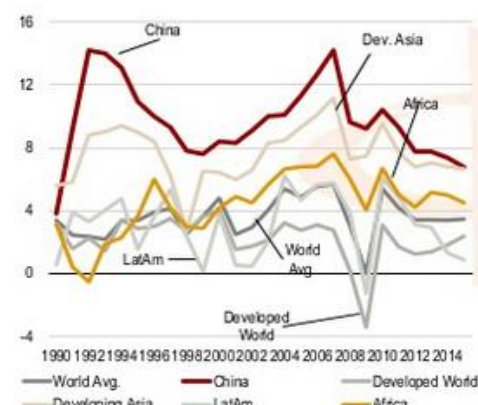
Photograph: Shanghai Central Business District indicating economic growth (J. Bliss)

2. Multiple line graph and table: China's growth rate measured by GDP from 1990 to 2015 <http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>

***Indicator (GDP) and variations between countries over time (trends)**

China's GDP growth rate has exceeded that of many other countries – as a result, China's share of global GDP has increased from 2% in 1990 to 15% in 2015

GDP Growth Rate (Annual Y-o-Y%, 1990-2015)



Global GDP Breakdown (1990-2015)

	1990	1995	2000	2005	2010	2015
World GDP (USD tn)	22.8	30.7	33.2	47	65.2	74.6
World GDP (YoY %)	100%	100%	100%	100%	100%	100%
Developed	80%	81%	80%	76%	66%	60%
US	26%	25%	31%	28%	23%	24%
Euro Area	26%	24%	20%	22%	19%	16%
Japan	14%	17%	14%	10%	8%	6%
Other Developed	14%	15%	15%	16%	15%	15%
Developing	20%	19%	20%	24%	34%	40%
China	2%	2%	4%	5%	9%	15%
LatAm	5%	6%	7%	6%	8%	7%
Africa	1%	1%	1%	2%	2%	2%
Other Developing	12%	9%	9%	12%	15%	16%

3. Table: BRIC-Brazil, Russia, India and China emerging as the growth economies <http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>

***Indicator (GDP) and variations between countries over time (trends)**

Top 15 Economies by GDP (1970-2050F)

#	1970	1980	1990 ²	2000	2010	2050F
1	US	US	US	US	US	China
2	Germany	Japan	Japan	Japan	China	US
3	Japan	Germany	Germany	Germany	Japan	India
4	France	France	France	UK	Germany	Brazil
5	UK	UK	Italy	France	France	Russia
6	Italy	Italy	UK	China	UK	Japan
7	China	Canada	Canada	Italy	Brazil	Mexico
8	Canada	Brazil	Spain	Canada	Italy	Indonesia
9	India	Spain	Russia	Brazil	Canada	UK
10	Brazil	Mexico	Brazil	Mexico	India	France
11	Australia	China	China	Spain	Russia	Germany
12	Spain	India	India	S. Korea	Spain	Nigeria
13	Mexico	Netherlands	Australia	India	Australia	Turkey
14	Sweden	Saudi Arabia	Netherlands	Australia	Mexico	Egypt
15	Netherlands	Australia	S. Korea	Netherlands	Korea	Canada

South Africa's
Position

N/A	44	41	33	29	22
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Activities

The China Compass-Figures, Forecast and Analysis, October 2015 provides current information using geographical tools. Slide Share <http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>

Knowledge, inquiry and skills

1. Refer to Figure 1

- What was China's rank in the global economy in 1995 and 2014?
- When did China surpass the Japanese economy?
- At current growth rates when is China likely to overtake USA?
- Describe the changes to the Chinese economy since the 1970s as an oral report.

2. Refer to Figure 2

- What was China's share of global GDP in 1990 and 2015? Account for improvements in wealth.
- Using the internet investigate the following geographical questions: What is a SEZ? How did the SEZs contribute to the economic growth of China? Present a map showing the location of the main SEZs in China.
https://en.wikipedia.org/wiki/Special_Economic_Zones_of_China

3. Refer to Figure 3

- Using the internet research what is meant by the acronym BRIC and why China is part of the group. <https://en.wikipedia.org/wiki/BRIC>
- What was the top economy measured by GDP in 1970 and predicted 2050?
- Describe the changing rank of Australia from 1970 to predicted 2050.
- What is the anticipated rank of India, Brazil and Russia by 2050?

PART B: SPATIAL VARIATIONS ACROSS CHINA

Despite China's economic growth over the last decade, not every person in the country experienced an increase in wellbeing. In fact the ***Gini Coefficient** that measures inequality, increased between regions, rural-urban locations and people.

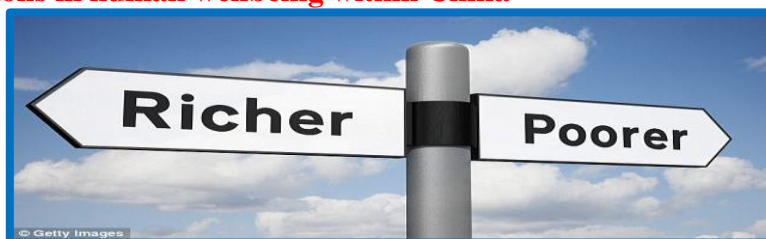
For example:

- *rich versus poor people*: approximately 6% of Chinese still live in multidimensional poverty. This contrasts with corporate tycoons such as Wang Jianlin worth US\$29.5 billion. The poorest people tend to be: ethnic minorities, small scale farmers, rural-urban migrants, and people living in fragile environments experiencing land degradation, floods, droughts and natural disasters.
- *coastal urban versus inland rural areas*: coastal areas have higher per capita income than inland western areas. Urbanisation and expansion of industry along coastal areas promoted economic growth. Over the last 35 years China's urban population quadrupled. Wealth dominates cities such as Shanghai, Beijing, Guangzhou and Shenzhen attracting poor rural migrants in the hope of improved wellbeing.
- *rural versus urban*: Tibetans, especially living in rural areas face deprivation, while urban elites in Shanghai enjoy high levels of consumption.
- *urban inequality*: there is a division between rich and poor people living in cities. Rural migrants without a hukou (residence permit) lack access to free education and health services.

In 2015, China's president Xi Jinping stated he aimed to reduce the inequality gap.

Inequality: rich and poor people live in China

***Spatial variations in human wellbeing within China**



<https://www.quora.com/Does-selling-through-a-Chinese-online-supermarket-tarnish-BOTTEGA-VENETA-reputation>



https://upload.wikimedia.org/wikipedia/commons/4/49/Bettler_pegin_g1.jpg

***Gini Coefficient (Gini index or Gini ratio)** measures the distribution of income or wealth in a country. Gini Coefficient of **zero (0)** is **perfect equality** in the distribution of income or wealth in a country. Gini Coefficient of **one (1)** is **largest inequality** between rich and poor people in a country.

4. **Map: High Net Worth Individuals (HNWIs)**

These are people with an excess of 6 million *renminbi* (approximately US\$950,000). Beijing is home to most HNWIs. A large number of HNWIs live in China's coastal provinces from Jiangsu to Guangdong. <http://thechinaobserver.com/wp-content/uploads/2012/04/Hurun1-1024x764.png>

***Spatial variations within China**



5. **Bar graphs: Ultra high net worth individuals (UHNWI) in China**

'Ultra-high-net-worth-individuals (UHNWI) have at least US\$30 million after accounting for shares in public and private companies, residential and passion investments such as art, planes and real estate'

https://en.wikipedia.org/wiki/Ultra_high-net-worth_individual

<http://europe.chinadaily.com.cn/business/images/attachement/jpg/site1/20150311/00221910dbbd1669cdee32.jpg>

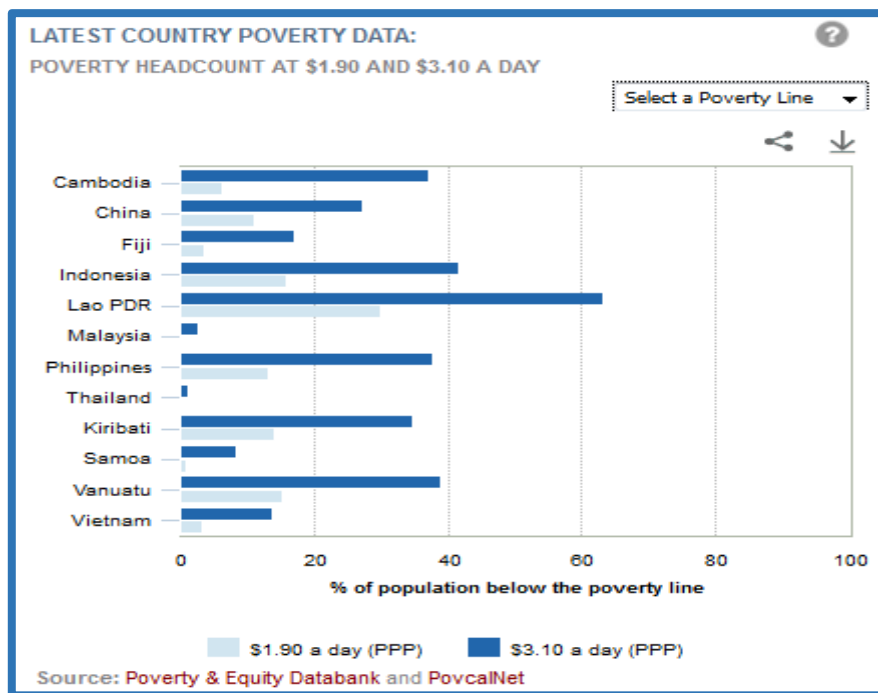
***Variations between countries and within China, over time**



6. **Bar graph: Comparing China's percentage of population living below the poverty line of \$1.90 and \$3.10 a day**

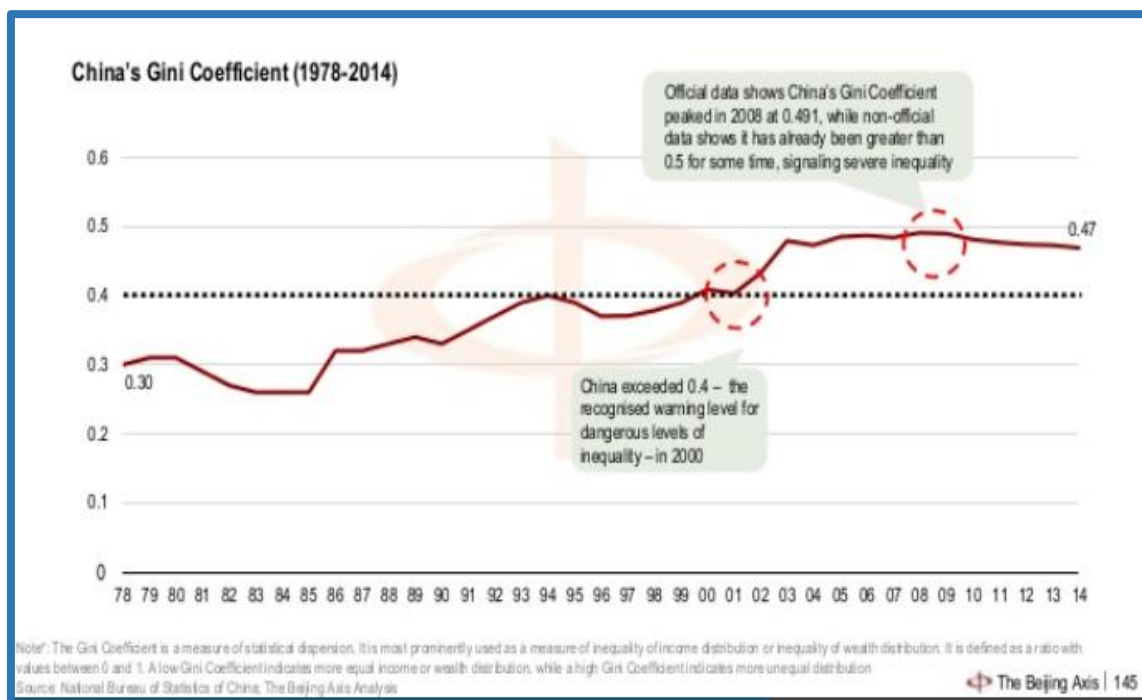
<http://povertydata.worldbank.org/poverty/region/EAP>

***Variations between countries using two indicators. Development issue.**

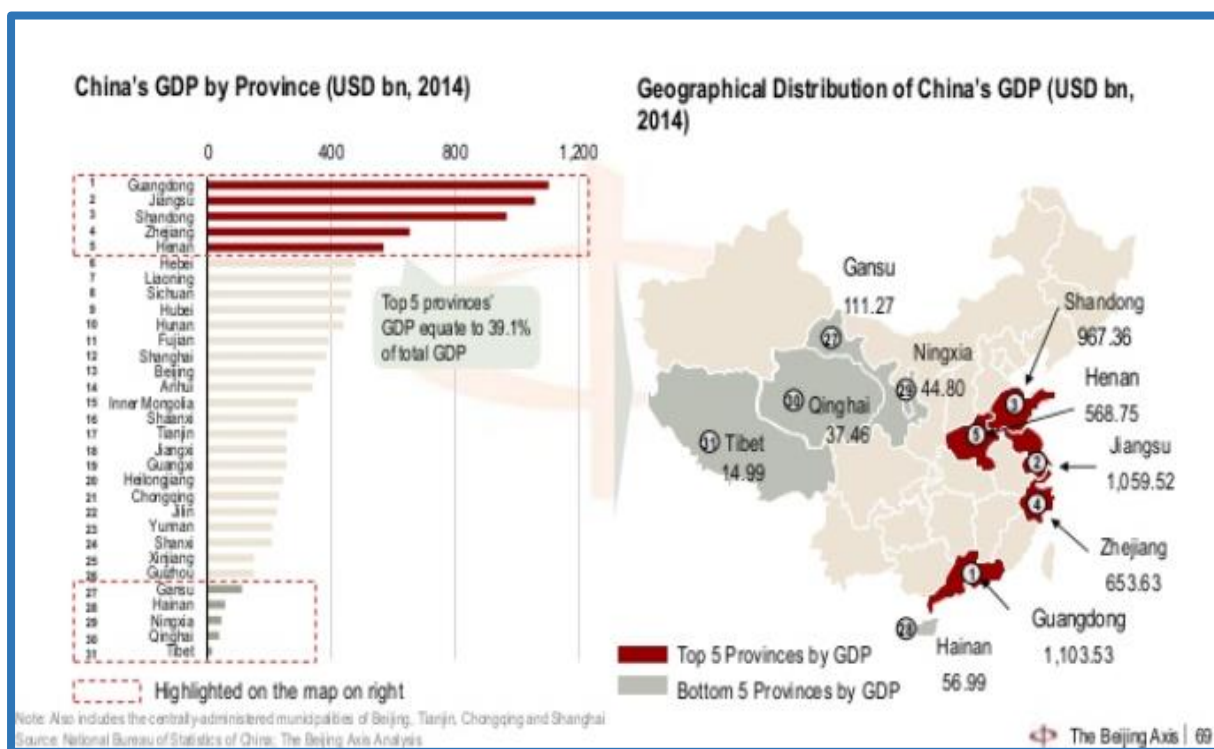


7. **Line graph: Inequality measured by the Gini Coefficient 1978-2014. Inequality increased from 1978 to 2015** <http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>

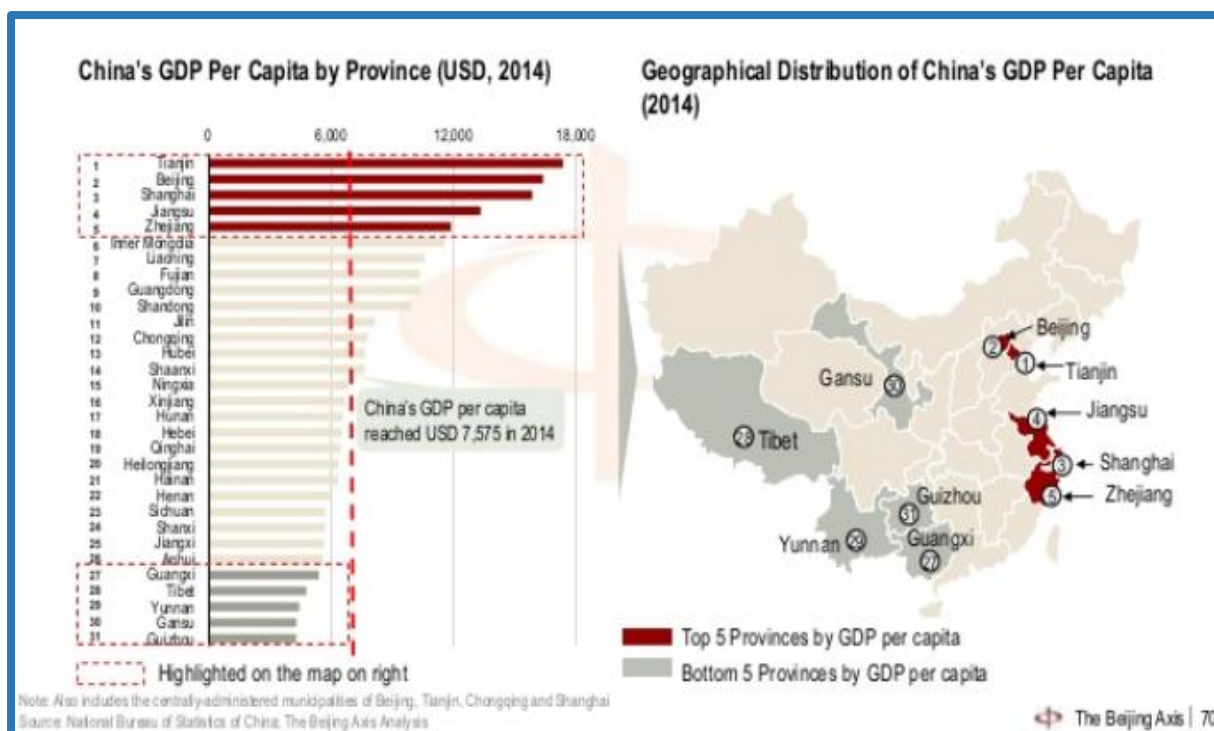
***Inequality in human wellbeing over time**



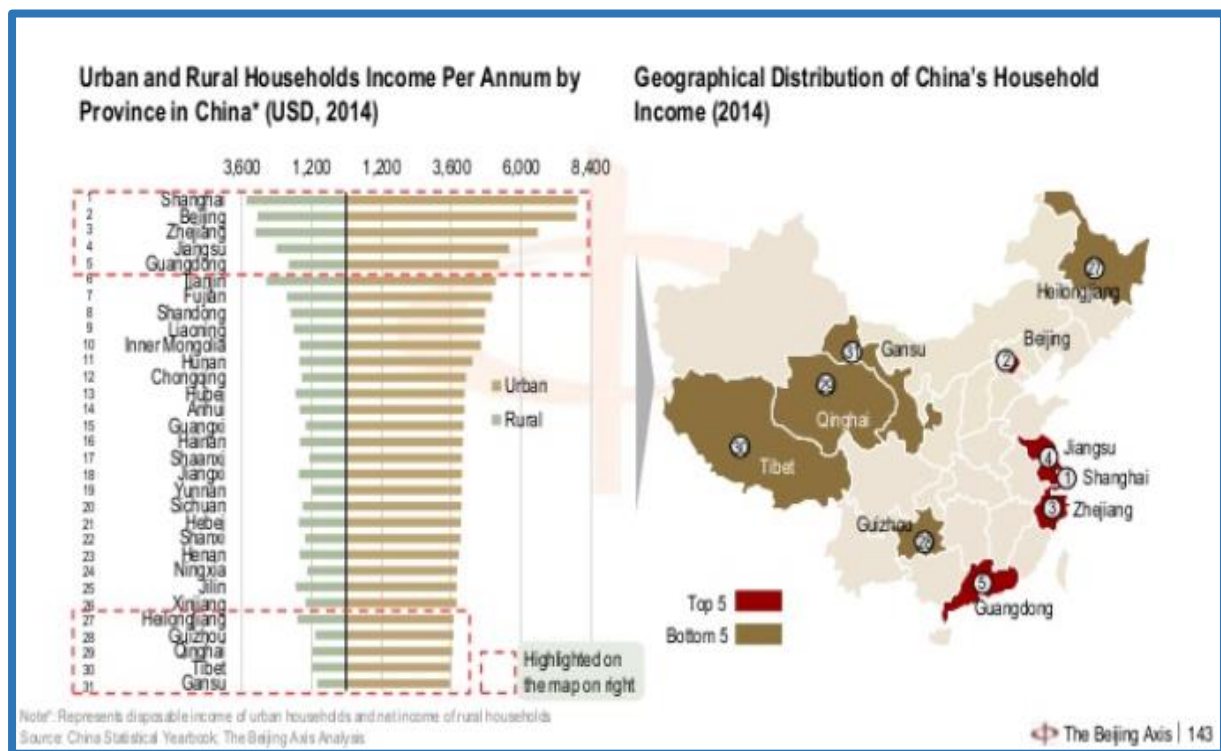
8. **Spatial inequality in GDP across China** <http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>



9. **Spatial inequality GDP per capita across China**
<http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>



10. Income-spatial variations between urban coastal areas and rural inland western areas <http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>



11. Cartoon: Hukou http://news.xinhuanet.com/english2010/indepth/2010-03/22/13220265_31n.jpg

***One cause of inequality and a development issue**





Activities

World Bank poverty and equity data

<http://povertydata.worldbank.org/poverty/country/CHN>

Knowledge, inquiry and skills

4. Refer to Figures 4 and 5

- What is meant by HNWI and UHNWI?
- Describe the spatial distribution of HNWIs across China.
- Compare UHNWI in China in 2014 and forecasted in 2024.

5. Refer to Figure 6

- List the two poverty lines measured on this graph.
- Compare the percentage of Chinese living below both poverty line with Lao PDR, Indonesia, Malaysia and Thailand.

6. Refer to Figure 7

- What is the Gini Coefficient?
- Describe the changes to the Gini Coefficient in China since 1978. Do you think greater equality in the past can be attributed to a socialist government? Explain your answer.
- Debate whether a country's income and wealth should be evenly distributed amongst the population. Present as a two column table. Summarise your conclusion.

7. Refer to Figure 8

- Name two wealthy provinces and two poorer provinces, measured by GDP.
- Where are the wealthiest Chinese provinces located?

8. Refer to Figure 9

- Name the four wealthiest provinces by GDP per capita?
- Where are the poorest people located?

9. Refer to Figures 10 and 11

- Where is household income highest and lowest in China?
- Describe where you prefer to live in China and provide reasons.
- Despite economic growth the Hukou system remains. What is it? Why has it been implemented? What are the impacts on the wellbeing of rural migrants? How does it lead to inequality between Chinese people living in urban centres? https://en.wikipedia.org/wiki/Hukou_system

PART C: SPATIAL VARIATIONS IN HUMAN DEVELOPMENT INDEX

Human wellbeing in China, measured by the Human Development Index (HDI), improved as the country grew economically. In 2015, China was ranked 91 out of 187 countries on the HDI, with life expectancy of 75 years, income/GDP per capita \$11,500 per person and years of schooling 7.5 years. However HDI varies across China with higher HDI in cities and eastern provinces.

As urban centres are engines of growth and employment, more than 500 million people have moved to Chinese cities over the last 35 years. This has placed stress on urban housing, water, electricity, transport, hospital and schools, as well as resulting in air pollution. Rapid economic growth has led to greater affluence but a more unequal society. The gap is between:

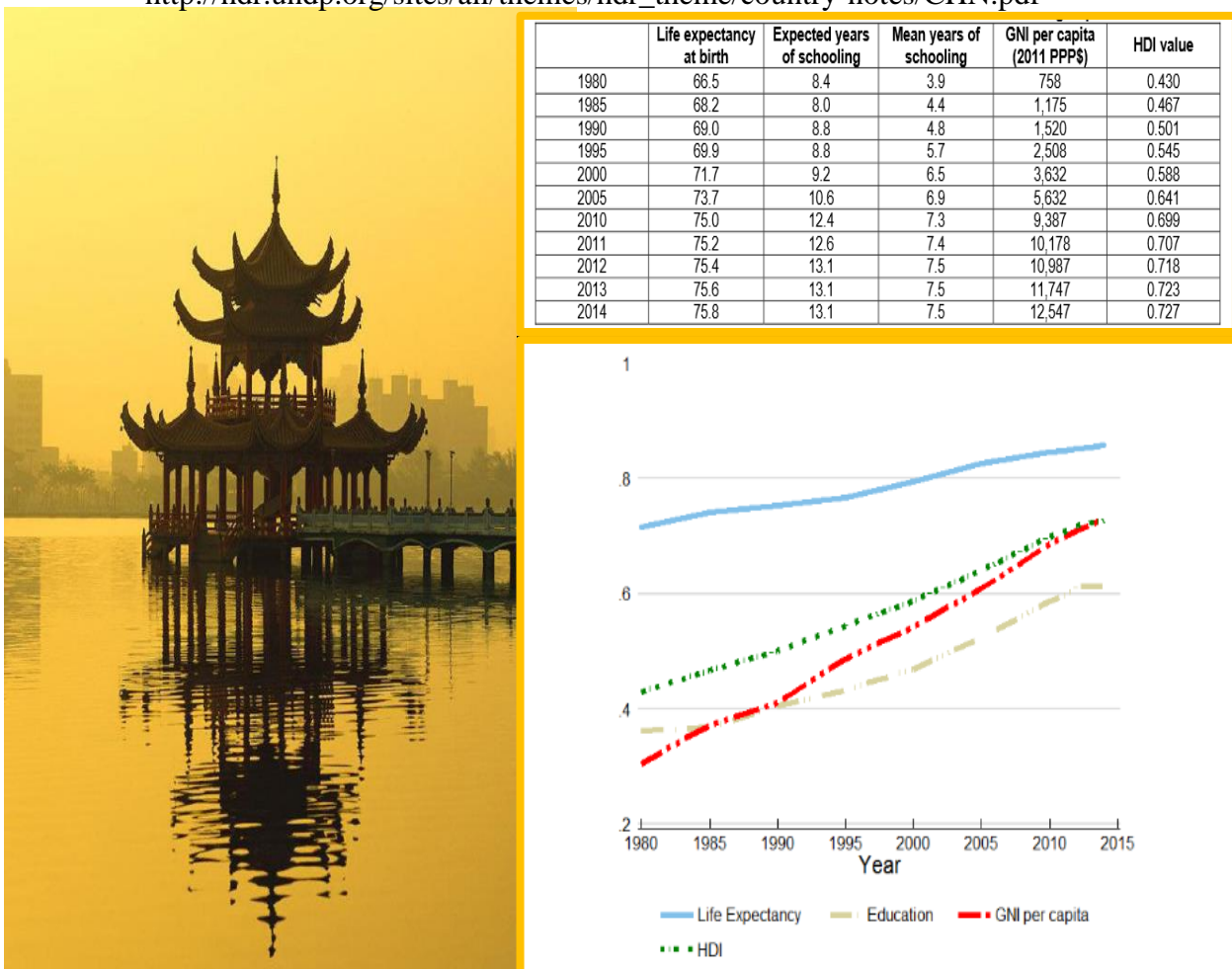
- rural and urban areas
- rich and poor people living in urban areas
- rural areas (e.g. access or lack of access to fertile land, irrigation, transport infrastructure)

12. Table: China's HDI indicators - progress over time

http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/CHN.pdf

13. Line graph: China's HDI indices develop from 1980-2014

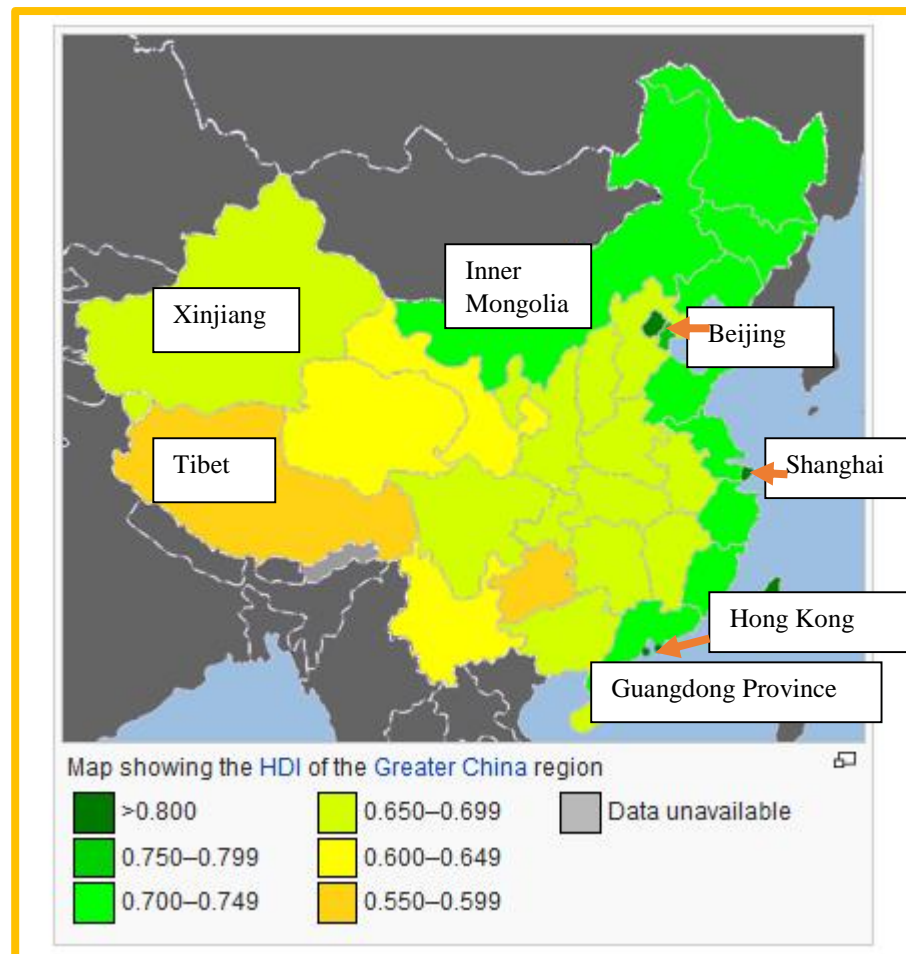
http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/CHN.pdf



Photograph: <http://wide-wallpapers.net/boardwalk-china-wide-wallpaper/>

14. Choropleth map: Human Development Index varies across China

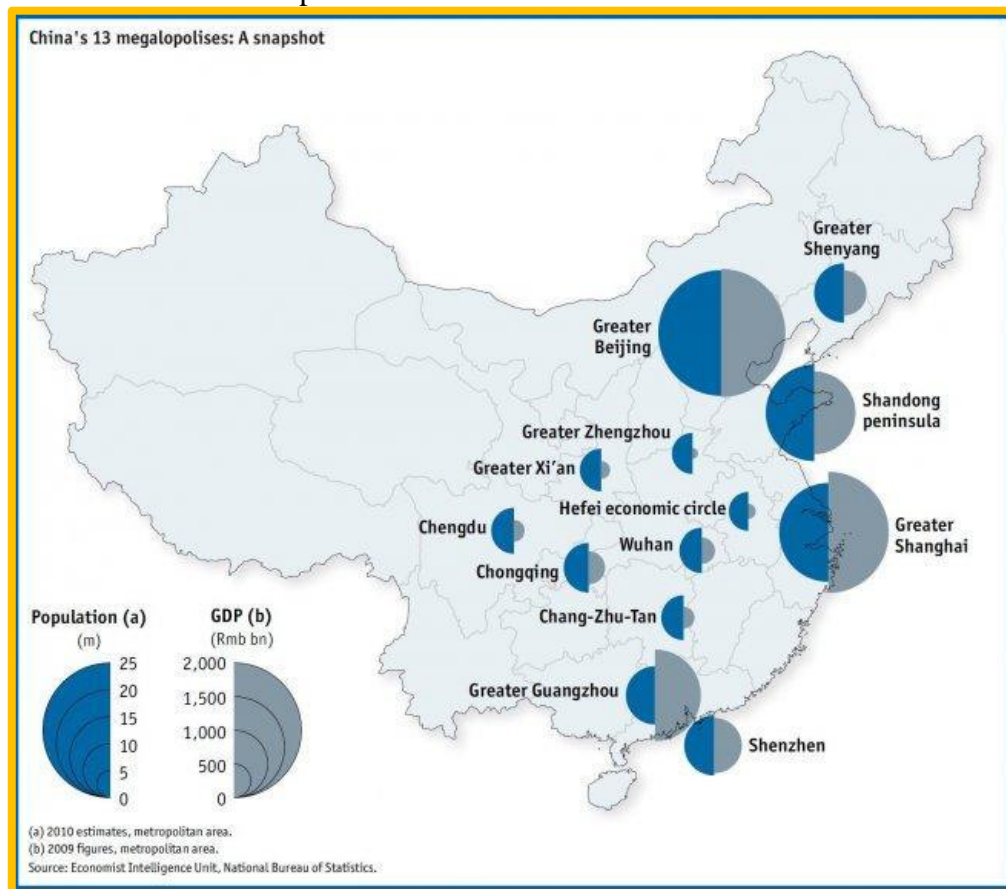
https://en.wikipedia.org/wiki/List_of_administrative_divisions_of_Greater_China_by_Human_Development_Index



15. Classification of Human Development Index across China's provinces: spatial variations

Very high	High	Medium
Hong Kong	Tianjin	Hubei
Taiwan	Jiangsu	Jiangxi
Macau	Guangdong	Gansu
Beijing	Inner Mongolia	Yunnan
Shanghai	Fujian	Tibet

16. Wealthy Chinese cities <http://www.elblogsalmon.com/entorno/las-mega-ciudades-chinas-traen-muchas-oportunidades>



Beijing smog makes it almost inhabitable for human beings-poor human wellbeing

<http://s3-eu-west-1.amazonaws.com/rbi-blogs/wp-content/blogs.dir/383/files/2014/02/Beijing-pollution-Feb14.png>

***Issues affecting the development of megacities**





Activities

GAPMINDER is an excellent website with interactive maps and graphs on China's Human Wellbeing. <http://www.gapminder.org/>

- a. Wealth and Health of nations (e.g. China) from 1980 until today-interactive graph and map
- b. 200 years change the world. View the changes to China over time (life expectancy and GDP per person)
- c. Asia's rise - how and when?

Knowledge, inquiry and skills

10. Refer to Figures 12 and 13:

- a. List three main measurements in the HDI.
- b. Calculate the improvements in China's HDI from 1980-2015.
- c. Explain the reasons for these improvements.

11. Refer to Figure 15

- a. Compare HDI in Beijing, Inner Mongolia and Tibet.
- b. Where is HDI higher-east or west China?
- c. Explain the reasons for spatial variations in HDI.

12. Refer to Figure 16

- a. List three cities with the largest population.
- b. Name three cities with the biggest GDP.
- c. Compare population and GDP of Chongqing, Greater Shanghai, Greater Guangzhou and Wuhan
- d. Research one large city and investigate the wellbeing of the population and why variations in HDI occur. Present research using Web 2.0 tools.

13. Draw a mind map of the causes of spatial inequality in China

14. Research the digital divide between the Chinese IT 'haves and have nots' in rural versus urban areas. Discuss its impact on economic development and human wellbeing. https://en.wikipedia.org/wiki/Digital_divide_in_China

PART D: CHINA'S EAST-WEST DIVIDE

China's plans over the last few decades emphasised economic development and urbanisation. This led to an economic gap between China's east and west provinces. Geographical location contributed to development, as coastal provinces are located closer to world markets by sea-based trade compared to distant western provinces where transport is more challenging. As a result, east coast cities such as Hong Kong, Beijing and Shanghai grew economically and the urbanites experienced a high HDI, compared to inland western cities. However, recent investment in western provinces has seen the growth of inland cities such as Chongqing and Chengdu with GDP growth around 16% a year. Since 2007 inland areas are growing faster than coastal provinces.

Hong Kong: rich and poor

Hong Kong has a high HDI and ranks in top ten cities in GDP per capita. At present population growth is slowing down due to lower fertility rates and aging population. The 'one country, two systems' economic model was designed by Beijing to govern Hong Kong after China regained its sovereignty in 1997. Cultural integration of Hong Kong into China has produced tensions. In 2014, pro-democracy forces, led by a group called 'Occupy Central' organised a campaign that effectively shut down Hong Kong's central business district. Beijing was incensed and the government strengthened controls on entertainment for young people.

Hong Kong residents are also angry over stagnant incomes, high house prices and large income inequality. The Gini coefficient of 0.537 is among the highest in the world.

Hong Kong one of largest gaps between rich and poor people in the world

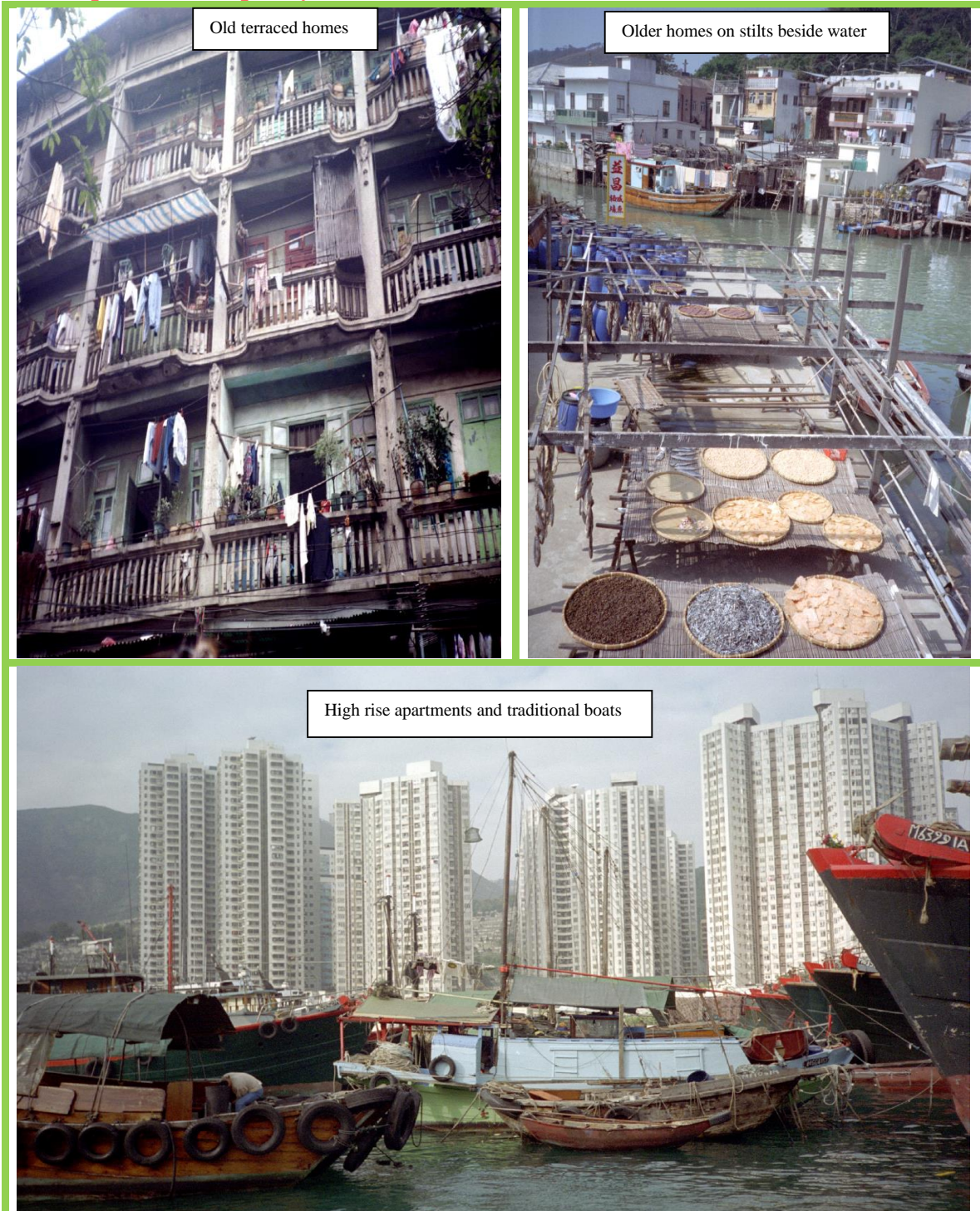
http://www.bloomberg.com/ss/09/10/1013_biggest_rich_poor_gap_globally/28.htm



17. Spatial variations in Hong Kong according to housing

Even though Hong Kong is classified with highest HDI in China there are pockets of poverty.

***Consequence of inequality**



Photographs: S and J Bliss

18. Hong Kong infographic

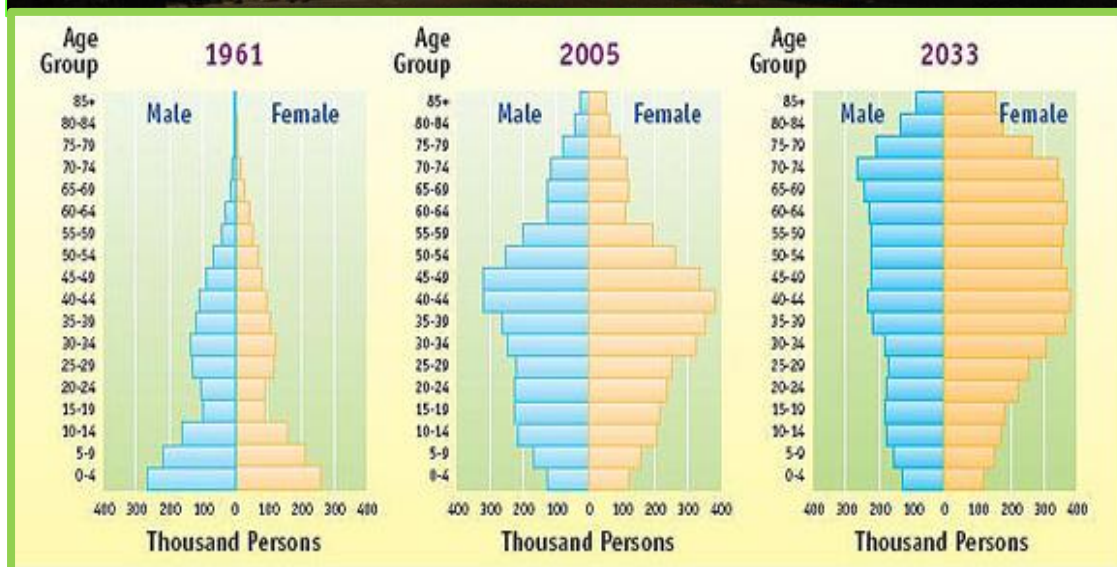
a. Photo: Hong Kong, Nathan Road, Mong Kok (Bliss)

b Table: Human Development Reports (adapted) Hong Kong

c. Population profile of Hong Kong

http://www.susdev.org.hk/susdevorg/archive2006/en/paper/images/figure_1_1.jpg

	Life expectancy	Years of schooling	GNI per capita	HDI
1985	76.3	7.6	\$16,770	0.753
2000	80	8.7	\$30,000	0.815
2015	83	10	\$46,000	0.944



‘Go West’ Policy’

China’s western development plan covers six provinces including Inner Mongolia and Xinjiang. The construction of infrastructure enticed foreign investment with establishment of West-East Gas Pipeline, Qinghai-Tibet Railway and formation of West Triangle Economic Zone. These developments increased GDP with Xinjiang’s GDP growing at 30% annually in early 21st century. Despite growth, the economic gap between richer east and poorer west provinces grew.

Western provinces of Inner Mongolia and Xinjiang vary in their HDI. Both are rich in natural resources but their wealth has not trickled down to all the population. A booming mining industry has polluted Inner Mongolian grasslands and pushed herders from their traditional homes. In Xinjiang human rights abuses against Muslims is common.

19. Migration east to west

<http://www.slideshare.net/BarbieCo/the-china-compass-october-2015>

<http://www.china-briefing.com/news/wp-content/uploads/2010/08/GoWest.jpg>



20. Western regions: rich in resources but inequality between people

Inner Mongolian grasslands showing wild horses drinking at lake (Bliss)

Inner Mongolia	Xinjiang
<p>Inner Mongolia has a high HDI of 0.722 as it contains coal, natural gas and rare earth elements. The mining boom attracted Han Chinese to the region, leading to the development of large industrial cities such as Baotou. Today 50% of Inner Mongolia's population is urban and traditional nomadic Mongols have been forcibly settled in permanent homes, as the government wants to terminate their traditional lifestyle.</p>	<p>Xinjiang has a medium HDI of 0.667. It contains gas, oil and coal. Millions of Han Chinese moved to the region because of employment opportunities. As a consequence the indigenous ethnic Uyghur people became a minority in their homeland. As most Uyghurs are Muslim, the government denounced Muslims that wear a hijab for not being a part of modern, secular China. Uyghur separatists have been subjected to imprisonment and torture.</p>



PART E: CHINA' GROWTH ISSUES

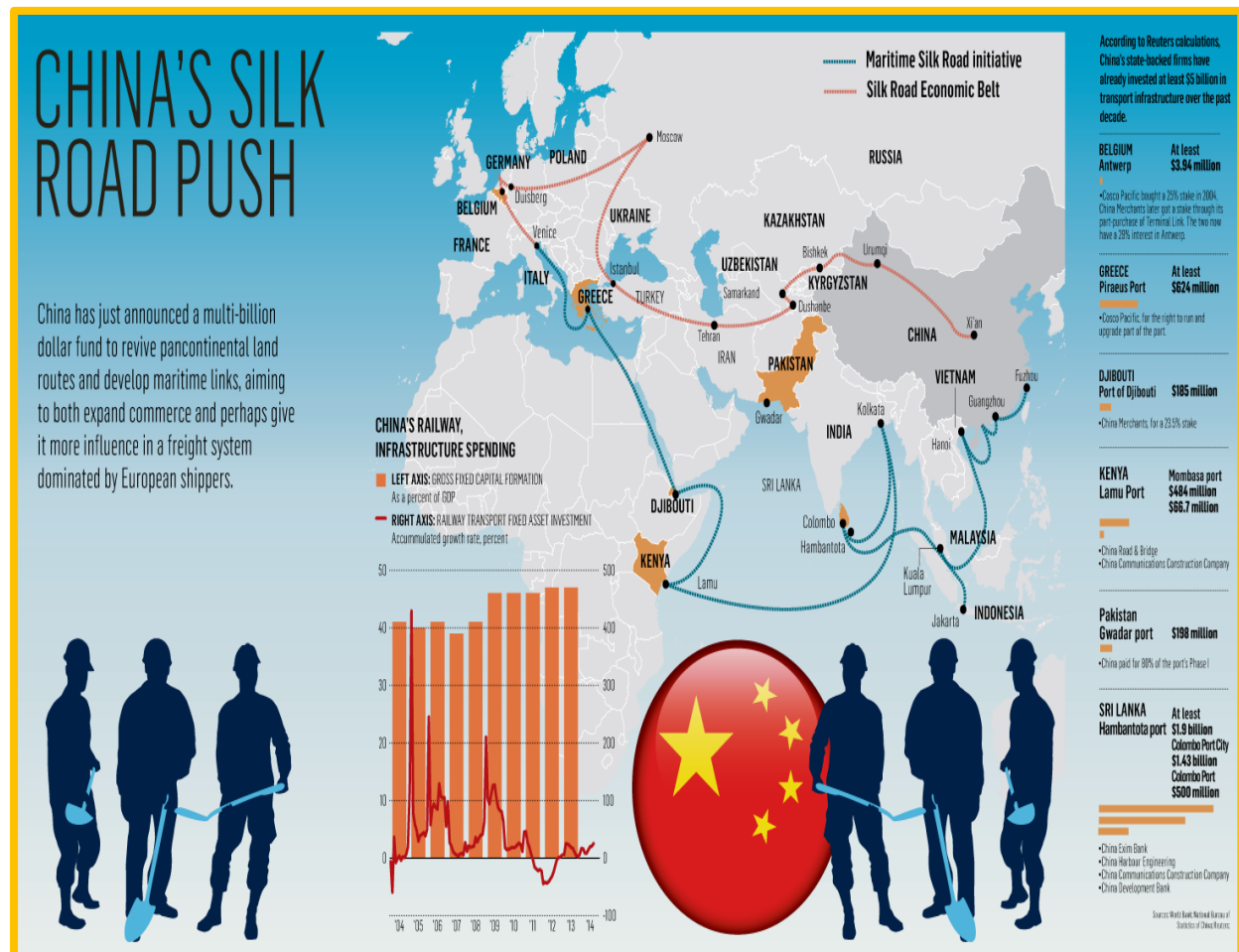
Economic growth has transformed the livelihoods of hundreds of millions of Chinese and propelled the country to global prominence. As China is anticipating a slower rate of economic growth it aims to address the slowdown by increasing tourism, improving infrastructure, and trade such as the 'One Belt, One Road' development strategy. This involves:

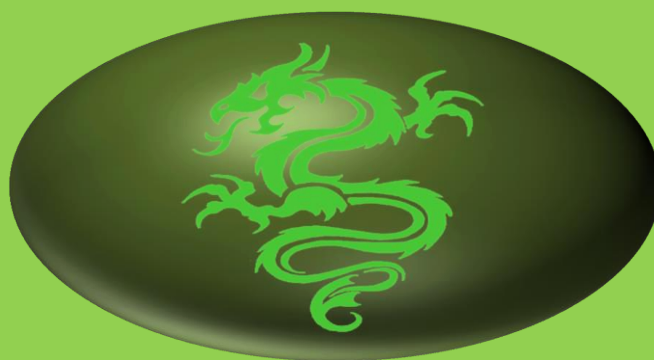
- *New Silk Road*: economic belt running from China to Europe
- *Maritime Silk Road*: connects China to Southeast Asia, Middle East and Europe

The government's concern over the anticipated shrinking working-age group and growing ageing population, introduced the 'two child policy'.

21. China's Silk Road Push

<https://www.google.com.au/search?biw=1332&bih=1047&q=new+silk+road+china&tbm=isch&tbs=simg:CAQSJgkVEABFG9NPbhoSCxCwjKclGgAMCxCOrv4IGgAMIXsmL7t3TecA&sa=X&ved=0ahUKEwib1qn-2oLKAhUC5KYKHRmJDSUQwg4IGSgA&dpr=0.9>





Activities

The 2015 HDI report ranks Australia (2), China (91) and India (35). Refer to the UNDP report and update statistics for the current year. Compare the three HDI indicators, as well as the IHDI, G11 and MPI. Account for the differences.

<http://hdr.undp.org/en/2015-report>

18. **Refer to Figure 17:** Describe spatial variations in Hong Kong.

19. **Refer to Figure 18**

- a. What is the HDI of Hong Kong? How does it compare with the rest of China
- b. Why did HDI improve from 1985-2015?
- c. Explain changes to the population profile in Hong Kong between 1961 and anticipated 2033. Include statistics.

20. **Refer to Figures 19 and 20**

- a. Describe the recent growth of China's western regions.
- b. Explain how some of China's western regions that are rich in resources has not resulted in a more equal society.

21. **Refer to Figure 21**

- a. What locations will the Maritime Silk Road Initiative pass through?
- b. What places are part of the Silk Road Economic Belt?
- c. Research the internet and investigate the main purposes of the 'Belt and Road Initiative'? <http://www.xinhuanet.com/english/special/silkroad/>;
<http://www.ft.com/cms/s/2/6e098274-587a-11e5-a28b-50226830d644.html#axzz3vnC3vI5z>

22. Discuss spatial variations across China and how the 'Go West Policy' aims to reduce inequality

23. Research the growth of the Western Triangle Economic Zone, including the city of Chongqing. https://en.wikipedia.org/wiki/West_Triangle_Economic_Zone

24. In groups, investigate one of the following:

- a. the '*Occupy Central*' protest or '*Umbrella Revolution*', and whether it was effective
- b. the '*one country two systems*' and whether it is working.

25. China referred to as the factory of the world, relies on migrant workers who make up the majority of the workforce. Investigate life in a sweatshop and restrictions on human wellbeing. Present as a photo story.

BUILD A SCAFFOLD



Human wellbeing and development

- What is human wellbeing?
- How is human wellbeing measured?
- Why are a range of indicators on human wellbeing important to reduce bias?
- What organisations collect and analyse human wellbeing indicators?
- How does human wellbeing differ between China and Australia?
- What are the consequences of China's economic growth on human wellbeing?
- How do geographical tools contribute to a better understanding of the topic (e.g. photographs, statistics, maps, graphs)?

Spatial variations

- How can selected indicators and maps identify spatial variations in human wellbeing in China?
- What are the causes of variations in human wellbeing in China?
- What are the consequences of spatial variations in human wellbeing in China?
- What are the contemporary issues concerning unequal human wellbeing in China?

Improving wellbeing

- How can inequality between rich and poor provinces, urban-rural areas and people be reduced in China?
- How can the Chinese government improve human wellbeing?

Follow the geographical process

- Ask geographic questions
- Acquire geographic resources (primary and secondary)
- Explore geographic information and data (determine bias, relevancy and accuracy)
- Analyse geographic information
- Present information using a variety of procedures (oral presentation, Web 2.0 tools and group reports) and geographical tools
- Act on geographic knowledge (civics and citizenship)

Bamboo scaffolding in Hong Kong <http://asianinteriordesign.net/wp-content/uploads/2014/04/Bamboo-scaffolding-Hong-Kong-asian-interior-design.jpg>