



Lomonosov Moscow State University
Business School

Global Limits of Economic Growth

*Lomonosov Moscow State University,
Inter-Departmental Course, 2023-2024, Spring Fall*

Course Reader:

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Requirements to Pass the Course

- 1) At least 50% of sessions are attended (6 out of 12)
- 2) At least 60% points for the final course test
- 3) Individual Project (Presentation) is done properly and delivered in time

General Scheme for Resource Limitations Analysis



Scheme for the Individual Project (1-2 students per 1 project)

Resources	Steps of Analysis					
	Step 1	Step 2			Step 3	Step 4
	Role/ Importance	Limitations produced for			Ways used to overcome existing limitations	Suggestions how to improve these ways of coping with limitations
		World economy	National economy	Industries/ Business		
Unique Resource or Problem selected by you Scale: world or a country or an industry

“Global Limits of Economic Growth”

2023/2024 academic year, spring semester

Module Teacher: [Evgeniya Anatolyevna Shvets, Ph.D.](#)

Module teacher’s contact details: e.shvets.mgubs@gmail.com, also available for consultations on the day of sessions.

Guidelines for Individual Projects

- ✓ Individual Projects can be made by 1 or 2 students.
- ✓ The electronic final version of the presentation should be sent to the teacher. The last day to do it is the last day of the course when there is a final test. Follow this information from Administration announcements at your personal accounts.

Country or Industry Analysis of Economic Growth Limitations

I. Presentation parameters

- Up to 6-10 slides of Power Point Presentation or up to 2 pages A4 of Word. Better to deliver it in PDF format.
- First slide: title of the project, course title, your name, your department
- Make all necessary references and quotes
- Illustrate your presentations with statistical data, diagrams, schemes or pictures

II. Defining a country and resources for the presentation

- Each student (or 2) selects **one country for the analysis** taking into consideration teacher recommendations. Countries should not be repeated among students.
- For the country selected a group defines **4 types of natural resources representing the greatest interest and priority for the country**. The resources types include the following: Ecology, Climate, Energy, Population, Land Use, Agriculture, Food Production, Water and other types of natural resources that were not covered by the course.
- **Put the list of your resource priorities in terms of business growth limitations in accordance with priorities of UN Development Sustainable Goals (DSG) for the specific country/industry.** (<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>).

III. General Presentation Scheme

#	Resources	Steps of Analysis			
		Step 1	Step 2	Step 3	Step 4
		Importance of the resource for a country/industry	Limitations produced	Ways used to overcome existing limitations	Your suggestions how to improve the situation
Resource	

IV. Steps of Analysis for Each Resource Type

Step 1: An economic role/importance of the resource in the economy of the country (... is a unique type of resource for the country because it provides ... (% GDP, % of industrial output ...). Try to find something peculiar about this kind of resource for your country, compare it with the situation of neighbor countries or international standards whether it's appropriate.

Step 2: Different kind of limitations (problems, risks) that are produced or can be produced by these resources on a national level and on a level of different industries that limit economic growth.

Step 3: Ways how countries are overcoming these limitations (public policy: laws, measures, special instruments, regulation forms, what is reflected in different kind of strategies; adaptation or mitigation schemes, risk management).

Step 4: Your suggestions/recommendations how the current country policy about overcoming resources limitations can be improved (see successful stories of other countries and international experience to formulate your suggestions).

V. Suggestions about resources description

- Ecology** (*suggestions:* find some key-information about the ecological situation of the country, pollution level, main sources of pollution, ecological policy, special ecological standards in this country, any ecological ratings in which the country was participating, ecological footprint of the country, ecological catastrophes/disasters on its territory if any, damage evaluation, what was done by the government and companies to minimize this damage, etc.).

Useful links:

- <http://beta.worldbank.org/climatechange/>
- www.footprintnetwork.org
- www.wri.org/publications/ecosystems
- <http://www.carbonfootprint.com>
- <http://www.un.org/sustainabledevelopment/sustainable-development-goals>

- Climate** (*suggestions:* show country's position towards Paris Agreement, participation in CO₂-trade, what are recent negative and positive impacts of climate change on economy and on certain industries, examples of business climate adaptation/mitigation strategies)

Useful links:

- <http://beta.worldbank.org/climatechange/>
- http://unfccc.int/kvoto_protocol/items/2830.php
- <http://www.un.org/sustainabledevelopment/sustainable-development-goals>

- Energy** (*suggestions:* identify main energy sources for the country; show energy balance for the country using data from the latest *BP Statistical Review of World Energy*; ratios of production to reserves, consumption to imports; energy consumption, energy production, energy dependence, energy crises (if any), energy policy, energy saving and energy efficiency measures adopted in the country).

Useful links:

- www.bp.com (see *Statistical Review of World Energy*)
- www.eia.doe.gov (U.S. Energy Information Administration)
- www.iea.org (International Energy Agency)
- <http://www.un.org/sustainabledevelopment/sustainable-development-goals>

- Population** (*suggestions:* general overview of a population as an economic factor, labor market situation, migration problems, labor mobility, ageing of economically active population, nationality pattern, public health, role of cities in the national economy, etc.).

Useful links:

- www.ilo.org (International Labour Organization)
- www.un.org/popin/ (UN Population Information Network)
- www.gapminder.org (tool similar to WB Data Visualizer)
- <http://www.un.org/sustainabledevelopment/sustainable-development-goals>
- <http://www.postcarbon.org/>

- Land Use, Agriculture, Food Production** (*suggestions:* production and import of agriculture food, food security/insecurity level, problem of GMF (if any), use of fertilizers, soil resources, food crises (if any)).

Useful links:

- www.fao.org
- http://www.fao.org/ag/agn/nutrition/profiles_en.stm
- http://www.fao.org/unfao/govbodies/cfs/country_en.htm
- <http://www.fao.org/hunger/en/>
- <http://www.un.org/sustainabledevelopment/sustainable-development-goals>
- <http://www.postcarbon.org/>

- Water** (*suggestions:* focus on water resources, water use by sectors, water management, water price for different consumers, etc.).

Useful links:

- <http://www.unwater.org/flashindex.html>
- <http://www.fao.org/nr/water/aquastat/main/index.stm> (and other statistics from this website)
- <http://www.un.org/sustainabledevelopment/sustainable-development-goals>

- Other types of natural resources**

Consult relevant links from the general list of recommended web-sites.

For all resources it is recommended to review documents, publications, regional outlooks/overviews and country profiles of the general list of recommended web-sites.

Learning Schedule

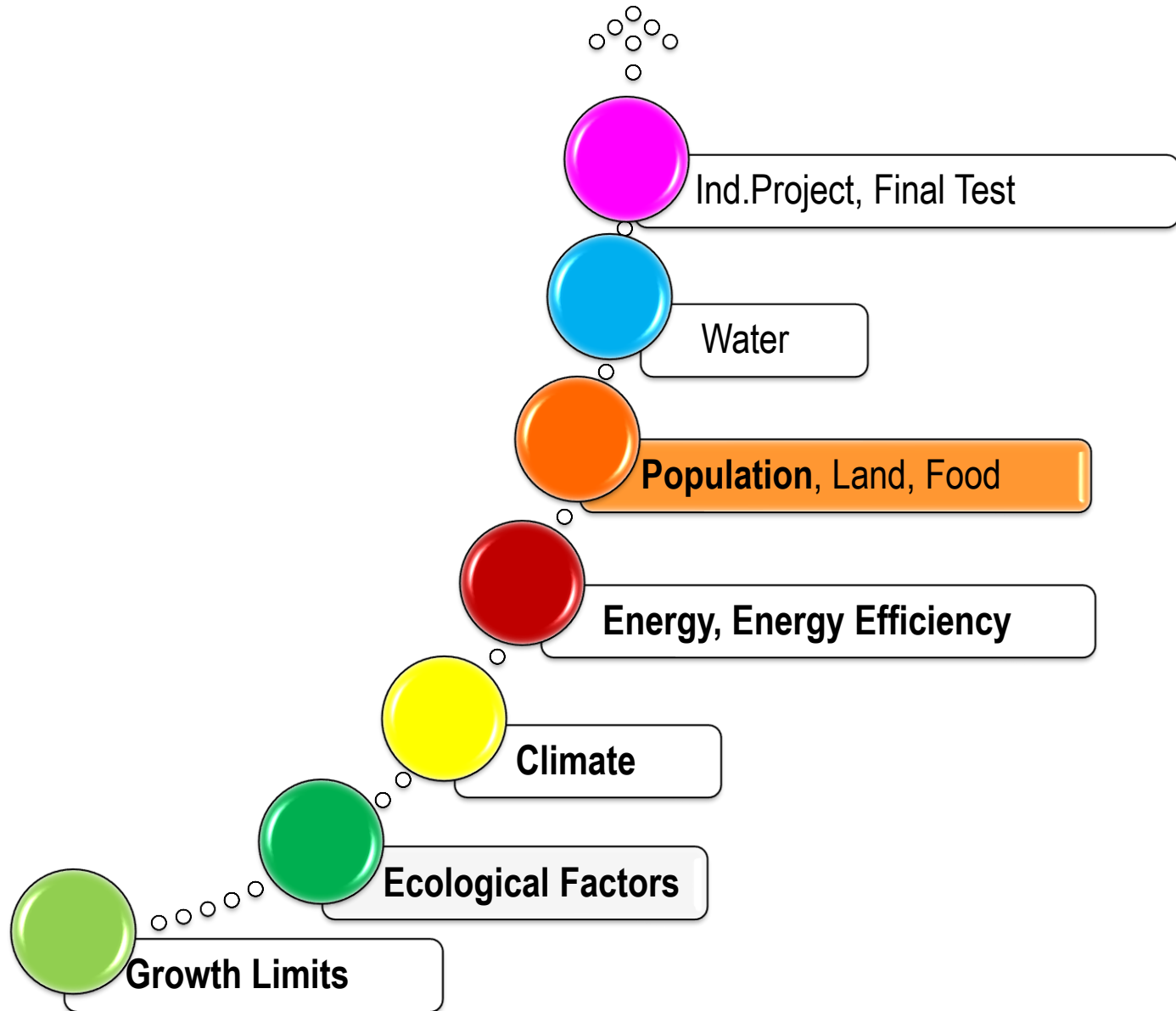
- Our classes will take place on Wednesdays at 15:00 (12 weeks in total)
- Communication with the course reader:
 - During classes
 - Via e-mail
 - All administrative issues should be addressed via **your Personal Account in the MSU Learning Management System**
- Before each session you will receive **Pre-Reading and Food-for-Thought Assignment** through your Personal Account

Follow the QR-code and mark your presence today



- <https://forms.gle/12qDCv9GBypmcxi77>

Course Route



Sessions 8

Population

2024



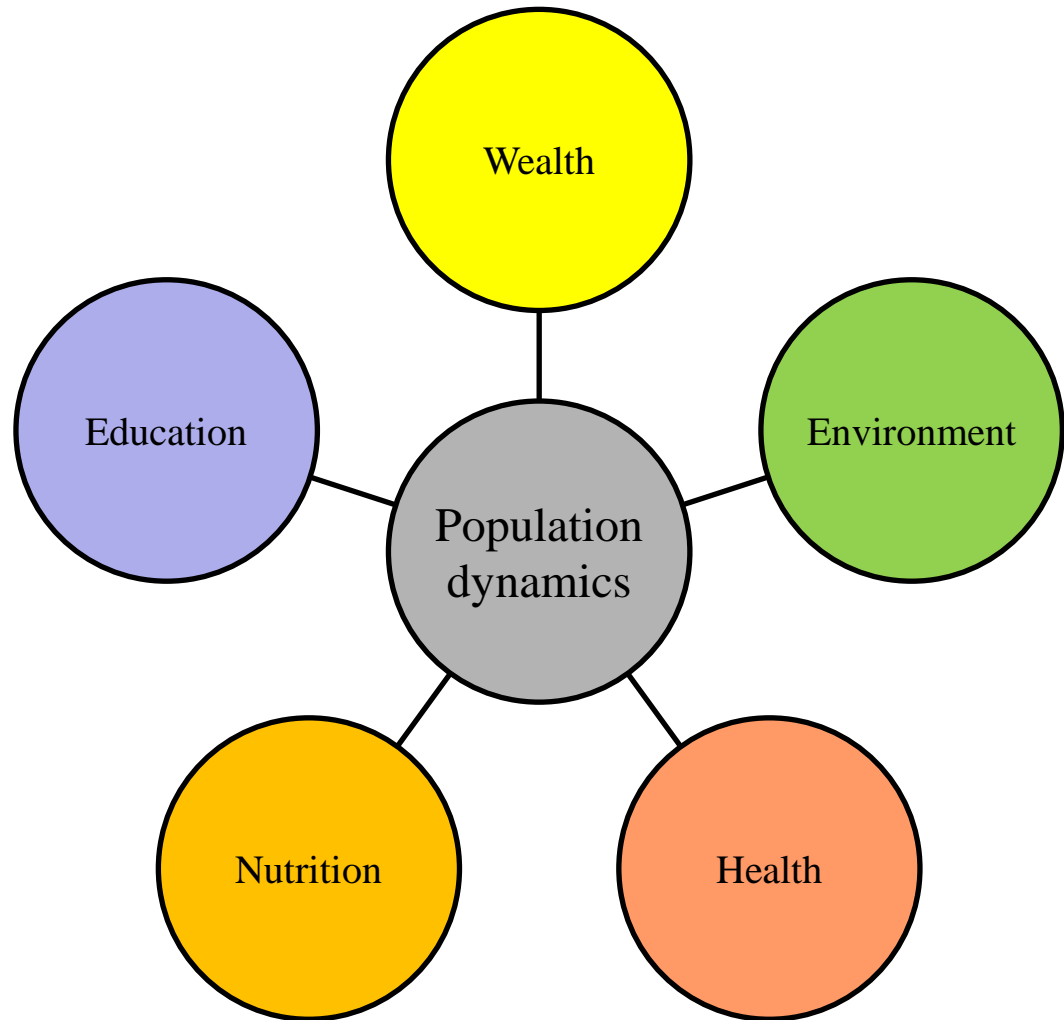
The Aims of Session 8

- To identify main limitations that can be produced by population for business & national economic growth and to work out ways how to overcome these limitations
- To understand the role of social factor in ESG policy of business (*ESG factors: Environmental – Social – Governance*)

1. Population Trends & Risks
2. Ways to overcome these limitations
3. Social factor in ESG policy

Population trends

- Population trends are at the roots of many world trends shaping tomorrow's market



Challenges produced by world population trends:

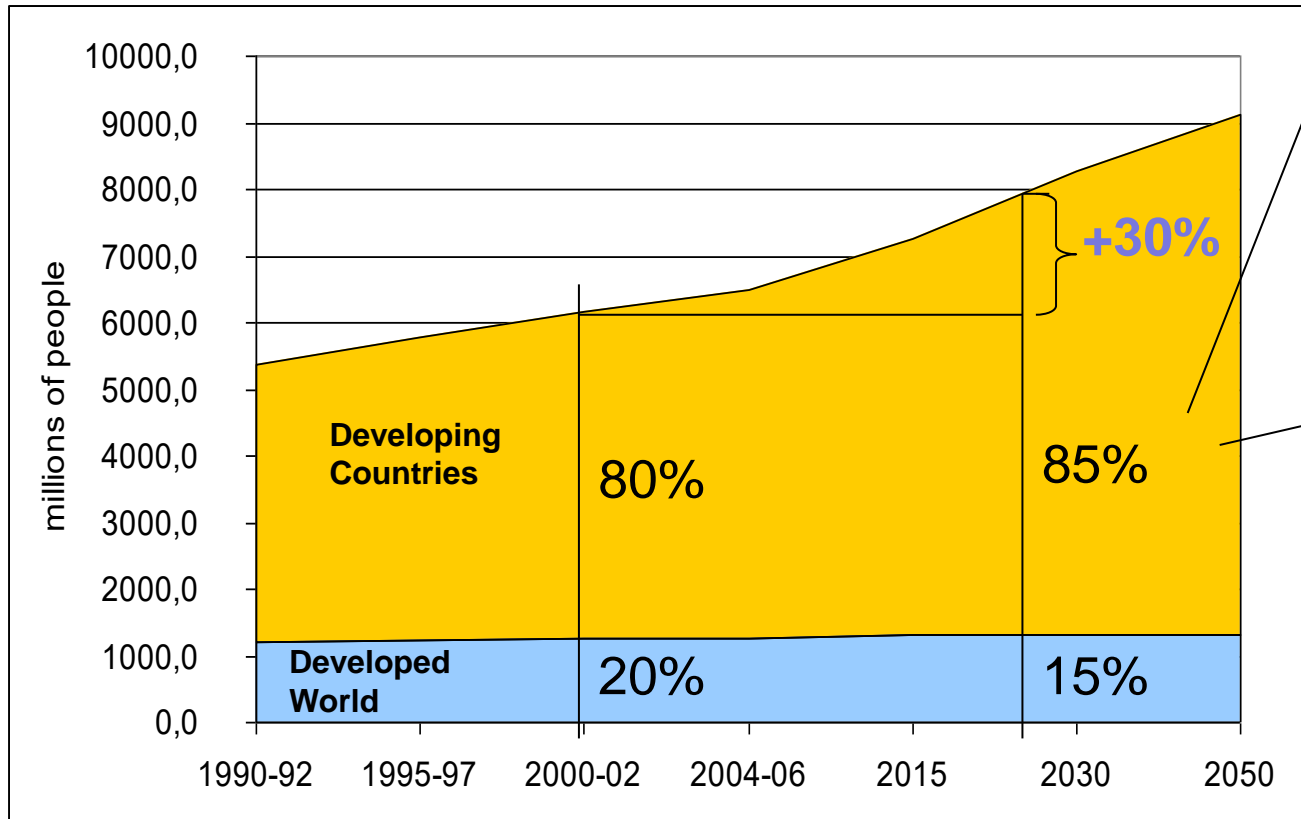
- Overpopulation
- Ageing Population
- Consumers of produced goods & services
- Labor Force
 - Population Labor Mobility
 - Shortage of Qualified Workers
- Population Pauperization
- Business Social Responsibility
- Illegal Immigration
- ...

Population of the Earth



The World's Population is Growing

Global Population, 1990-2050



In the next decades most of the world's citizens will be born in low- and medium-income economies

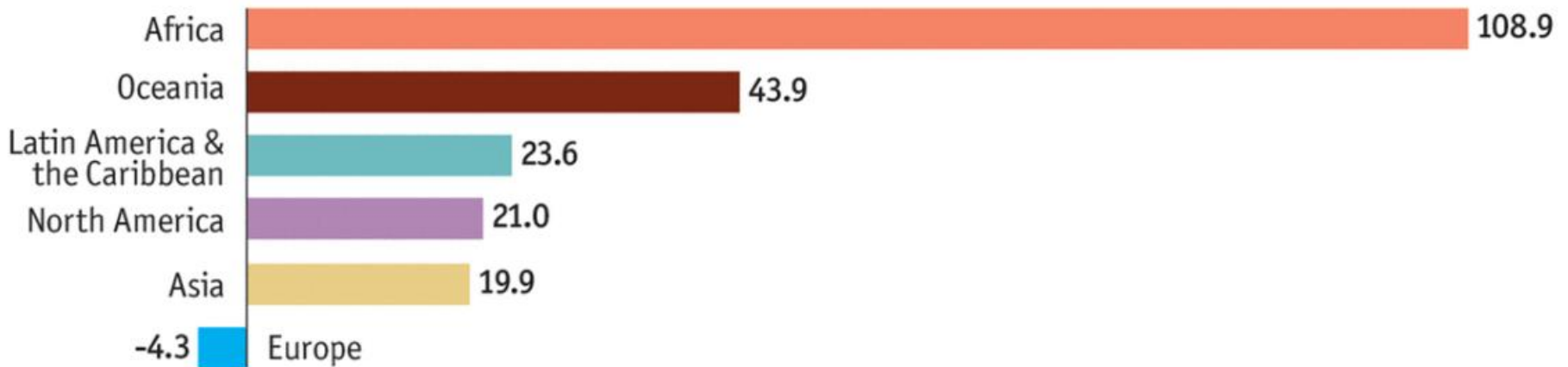
Expanding population in developing regions will create large markets dominated by the young

Data source: FAO UNO

Regional Structure of population and its' growth

The world's population

Regional % change, 2015-50 forecast

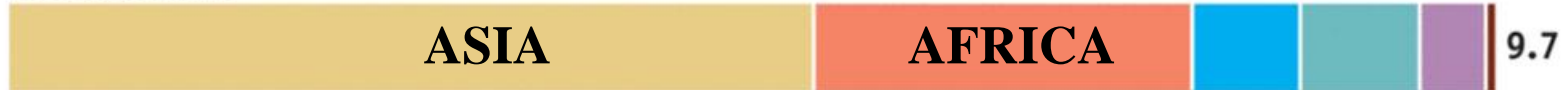


Total population, bn

2015



2050 forecast

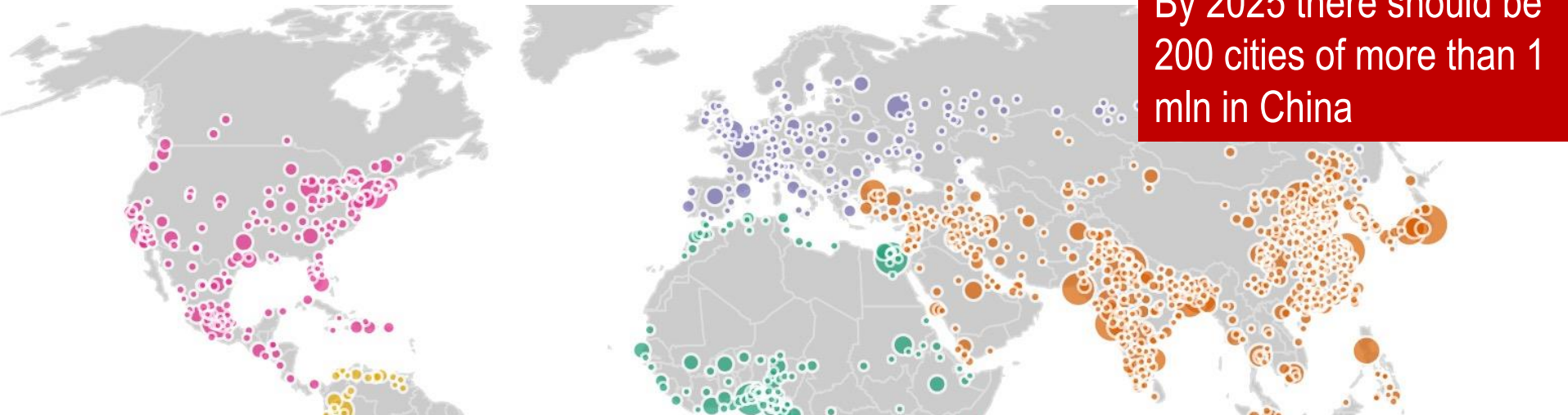


2100 forecast



Population Growth in the Cities (Urbanization)

- More than 50% of all people are living now in cities
- Approx. 50% of population is living within 200 km coastal zone (75% by 2025)



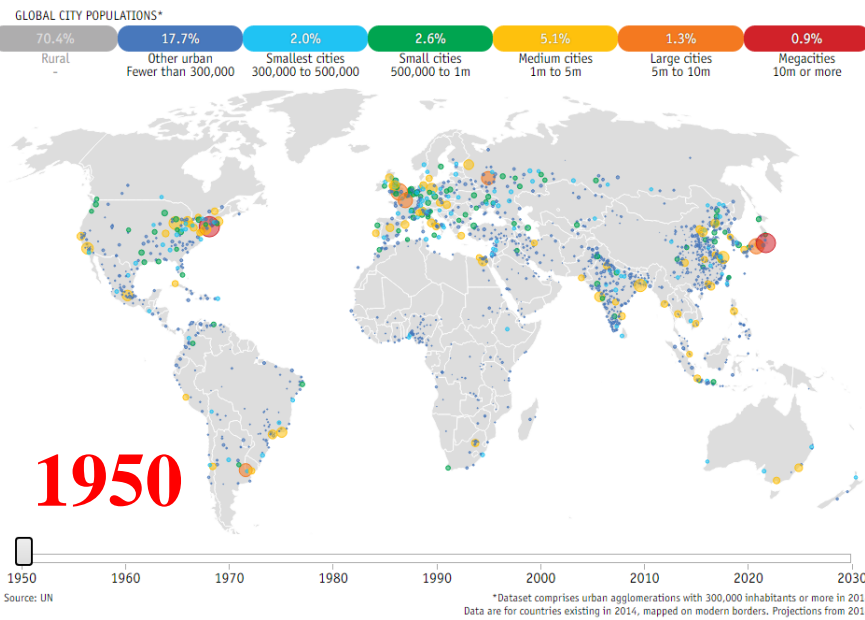
By 2025 there should be 200 cities of more than 1 mln in China

Implications for Business:

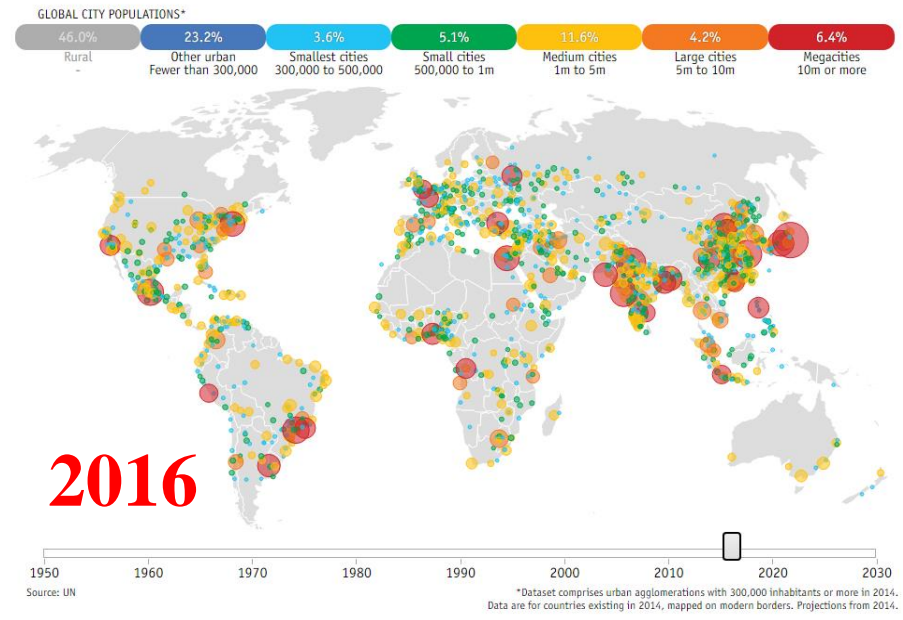
- Benefits from the growth of urban areas with their demand for energy and infrastructure, and their concentrations of labor and consumers.
 - Land-use planning, health services, education, water and sanitation services
- The greatest change in urban population will occur in developing countries



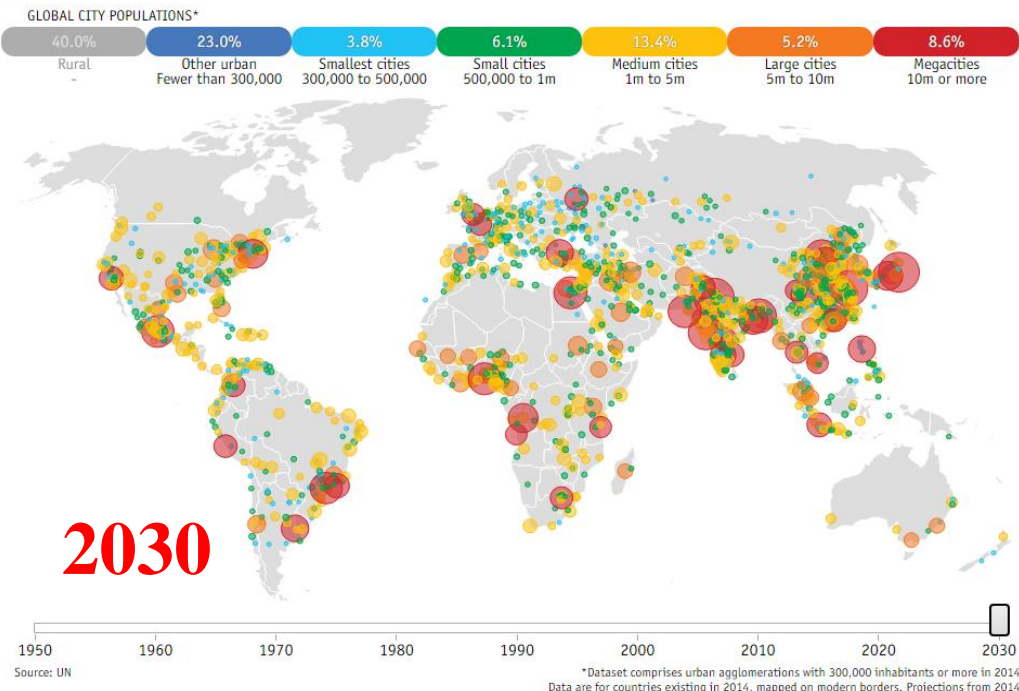
Urbanisation, 1950



Urbanisation, 2016



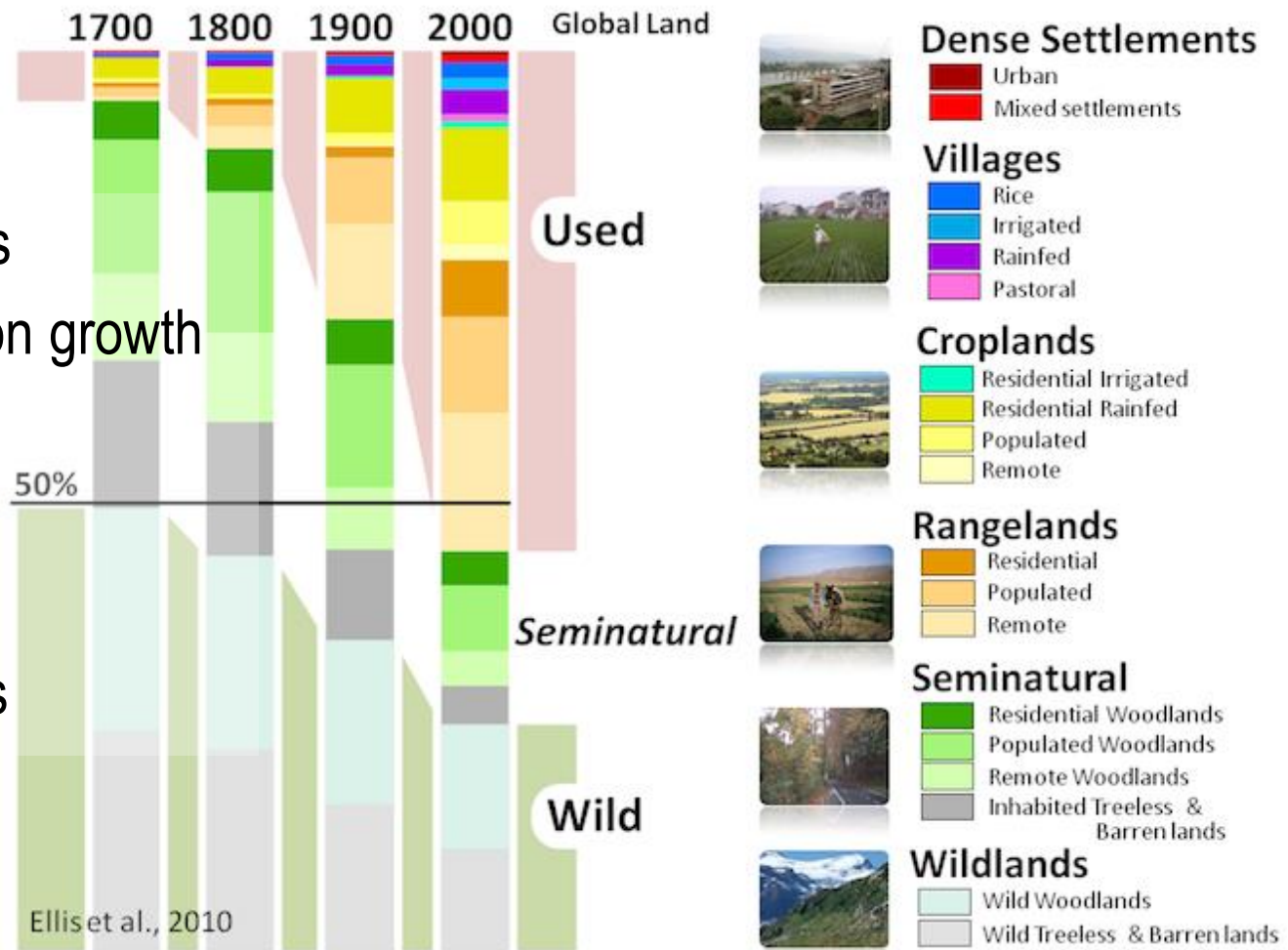
Urbanisation, 2030



- Asia accounted for over half of the world's 29 megacities in 2016.
- But it is in Africa that some of the most rapid urbanisation is taking place.

What are consequences of overpopulation?

- Depleted resources
- Energy consumption growth
- Lack of food
- Social tensions
- Climate changes
- Ecological changes

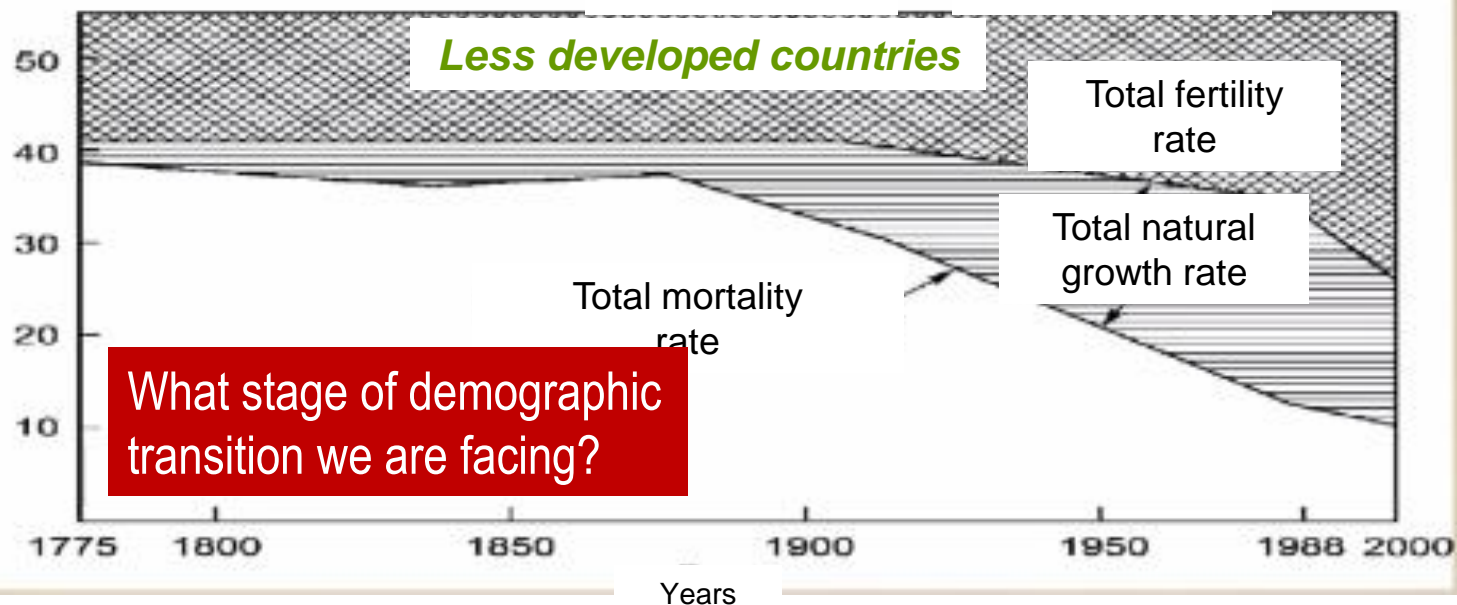
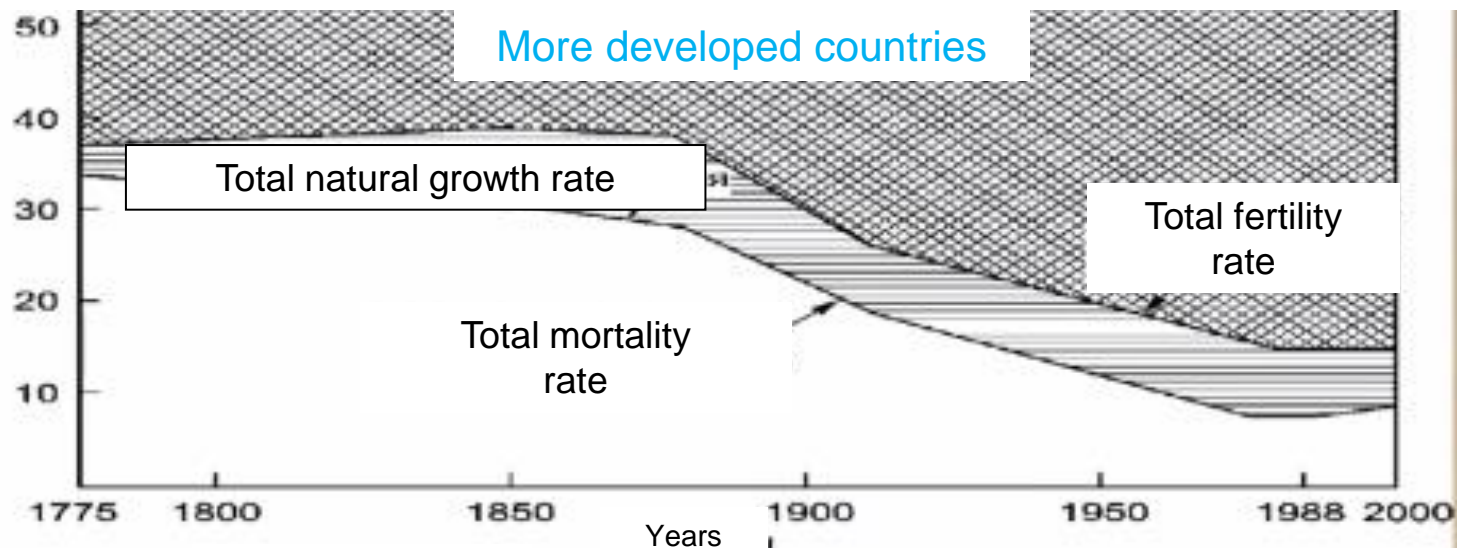


World Population Trends *(video 1)*

1. The number of people on Earth is ...
2. The population was growing since 50-60-s because of the ...
3. The **fertility rate** means ...
4. The **replacement rate** is ... and means ...

Total Mortality and Fertility Rates Dynamics

Indicator for 1000 inhabitants



Demographic Transition Stages

- I**
High M
High B
Stable P
- II**
Lower M
High B
Longer life, Gr.P
- III**
Low M
Lower B
Stable P
- IV**
Low&Stable M
Low&Stable B
Low&Unstable P

Let's Think

- What are the main factors contributing to the decrease of mortality?
- Find correct factors from the list:
 1. Greater wealth
 2. Less wars
 3. Improvement of nutrition
 4. Individual hygiene, water sanitary conditions
 5. Better Medical Care in general
 6. Sterilization
 7. Appearance of maternity hospitals
 8. Vaccination
 9. Introduction of artificial nourishment for infants
 10. Education spread
 11. Less natural disasters

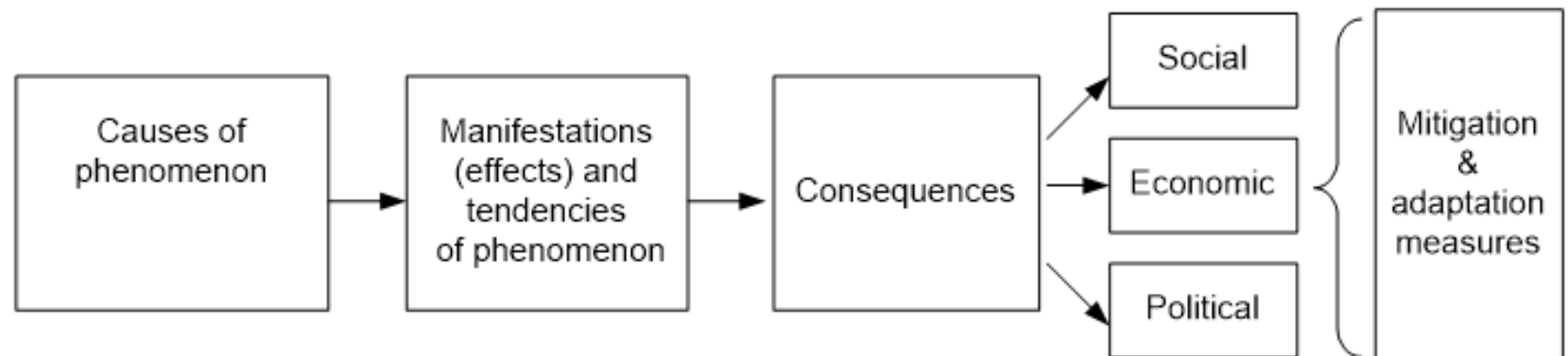
Let's Think

- What are the main factors contributing to the decrease of birthrates?
- Find correct factors from the list:
 1. Poverty
 2. Urbanization
 3. Cost of living
 4. Poor life conditions
 5. Education of Women
 6. Higher age of births
 7. Social Guarantees in old age
 8. Role of children reduced
 9. Contraception
 10. Family planning
 11. Poor medical care

Discussion Topic

POPULATION

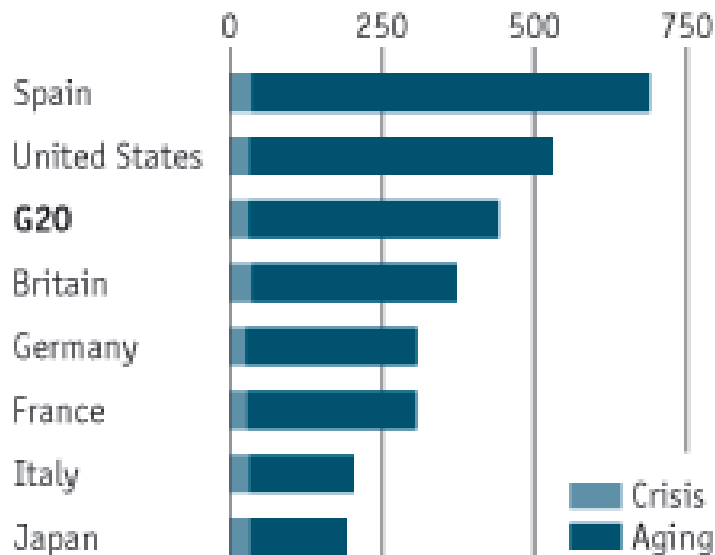
- Check the following short articles:
 - <https://www.economist.com/special-report/2018/08/14/a-slow-burning-fuse>
 - <https://www.economist.com/special-report/2021/12/07/an-ageing-country-shows-others-how-to-manage>
 - <https://www.economist.com/the-economist-explains/2018/11/26/the-challenges-of-japans-demography>
 - <https://www.economist.com/graphic-detail/2019/07/09/japans-pension-problems-are-a-harbinger-of-challenges-elsewhere>
 - <https://www.economist.com/special-report/2020/03/26/africas-population-will-double-by-2050>
 - <https://www.economist.com/special-report/2020/03/26/migration-is-helping-africa-in-many-ways>
- What are the main 2-3 problems described in these articles? Prepare for their analysis and discussion using the scheme below. Be ready to illustrate it with examples from the articles.



Ageing Population

1 What crisis?

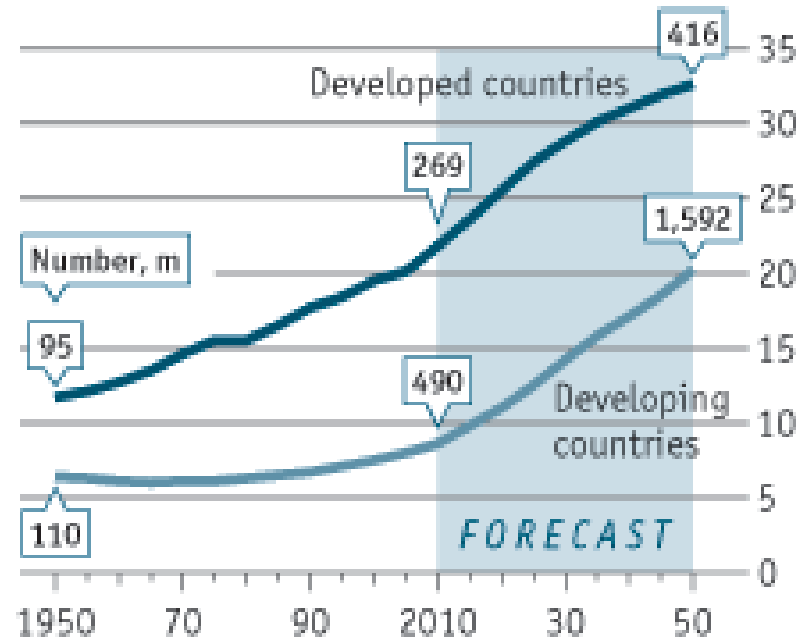
Net present value of impact on fiscal deficit of recent crisis and age-related spending to 2050
% of GDP



Source: IMF

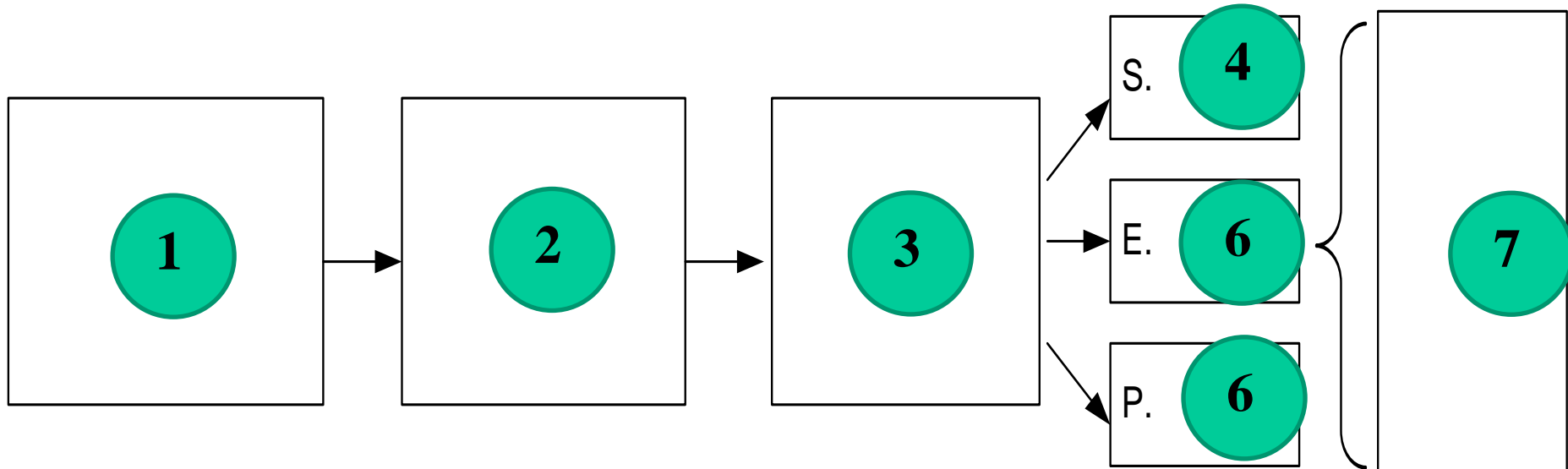
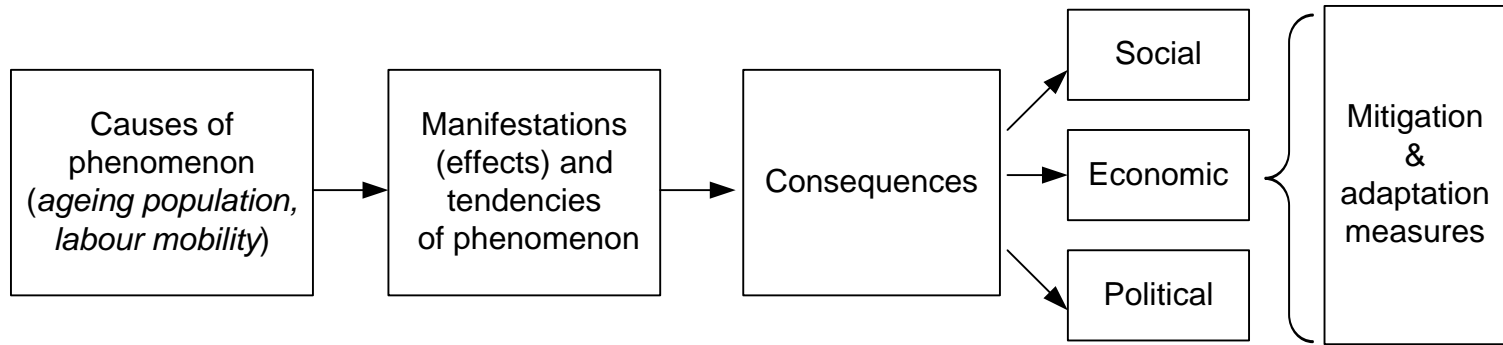
2 A greying world

Population aged 60 and over, % of total

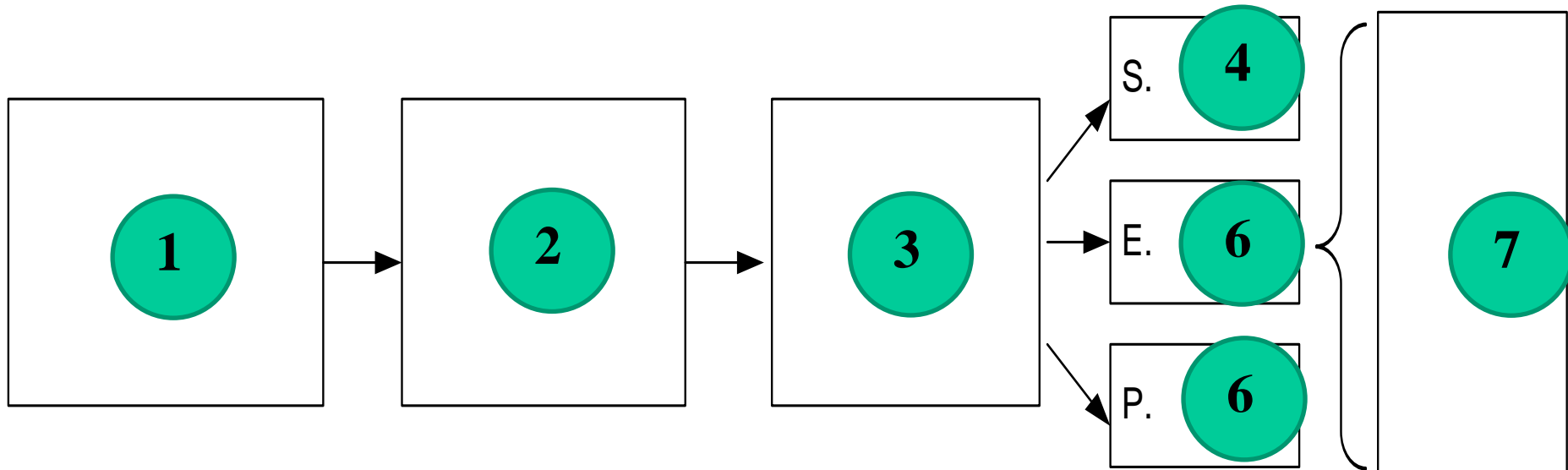
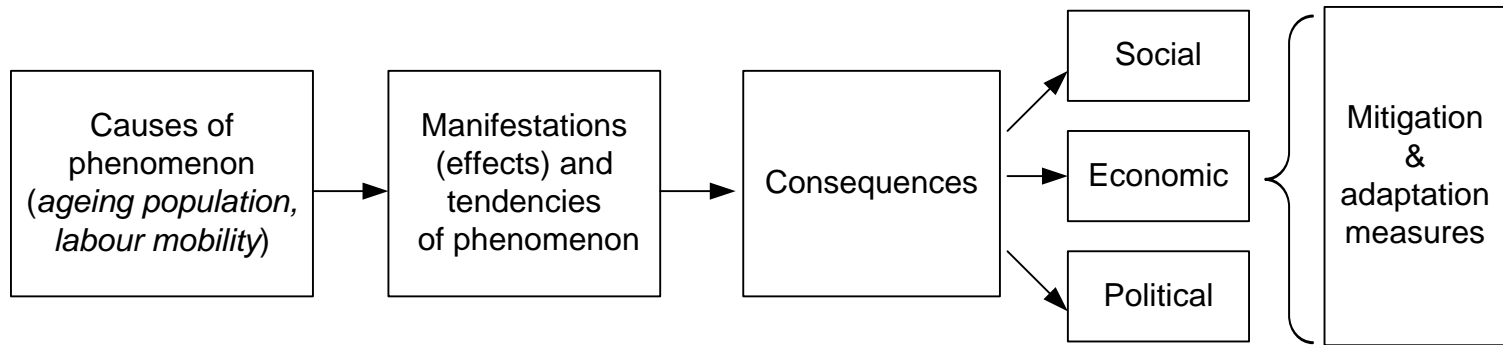


Source: "World Population Prospects", United Nations, 2009

Ageing Population



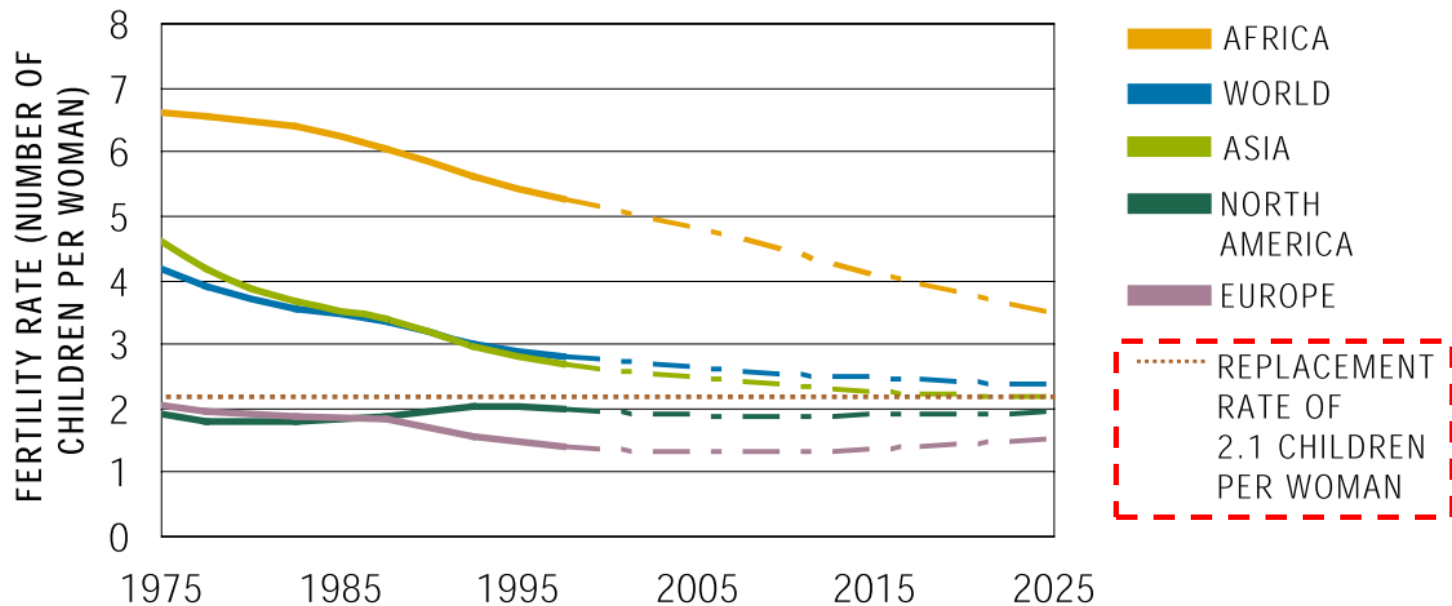
Population Growth in Poor Countries



Fertility Trends

Fertility rates are low in the developed countries and falling rapidly in the developing regions.

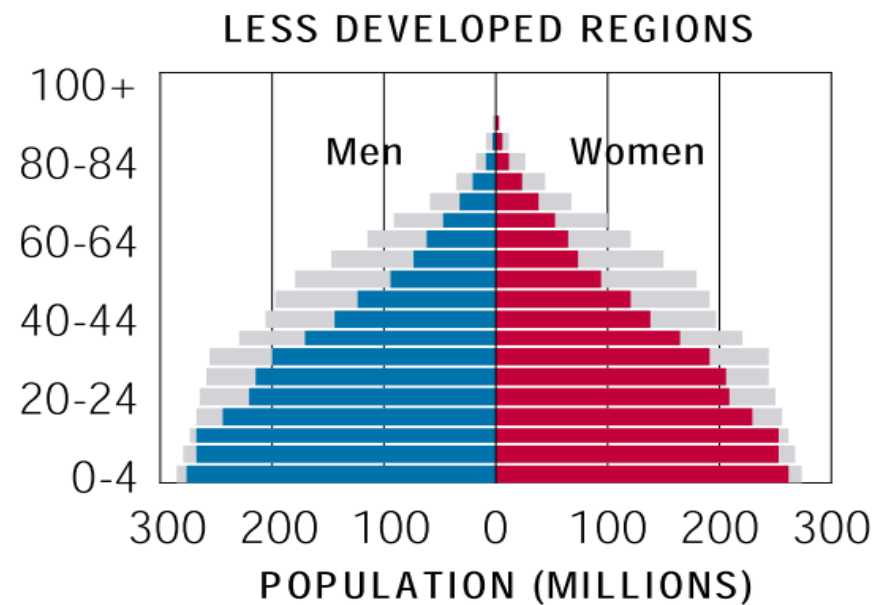
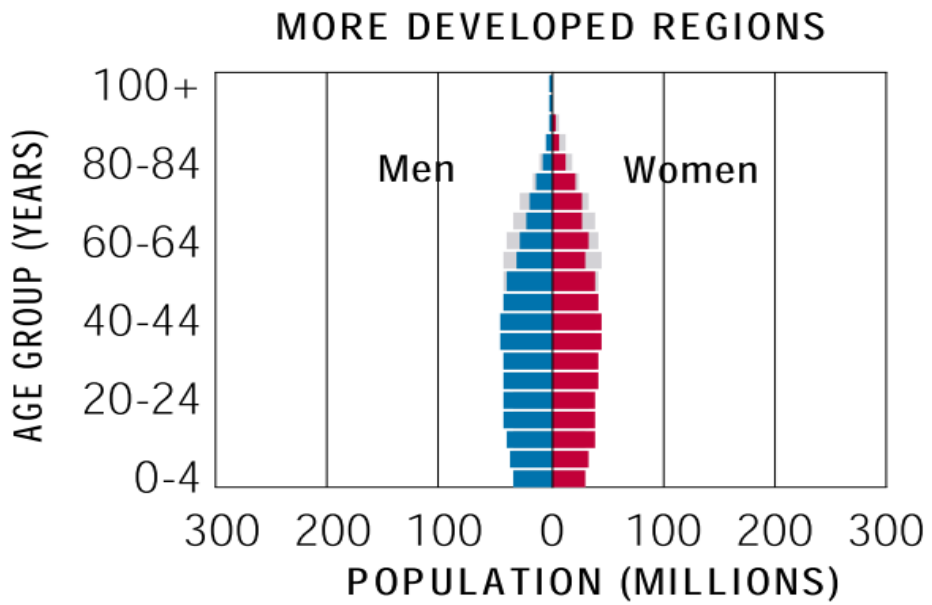
Fertility Rates, Selected Regions, 1975-2025



Data source: UN Population Division

Population Explosion Explanation

Population Distribution by Age, 2000 and Projections to 2020 (in grey)



Data source: UN Population Division

Correct questions to be asked while talking about **overpopulation**

Is there too much population?

OR

Is there too much poor population?

Is there food overconsumption due to the
overpopulation?

OR

Do rich people overconsume food?

Pregnant pause

Fertility rate, births per woman

----- Replacement rate

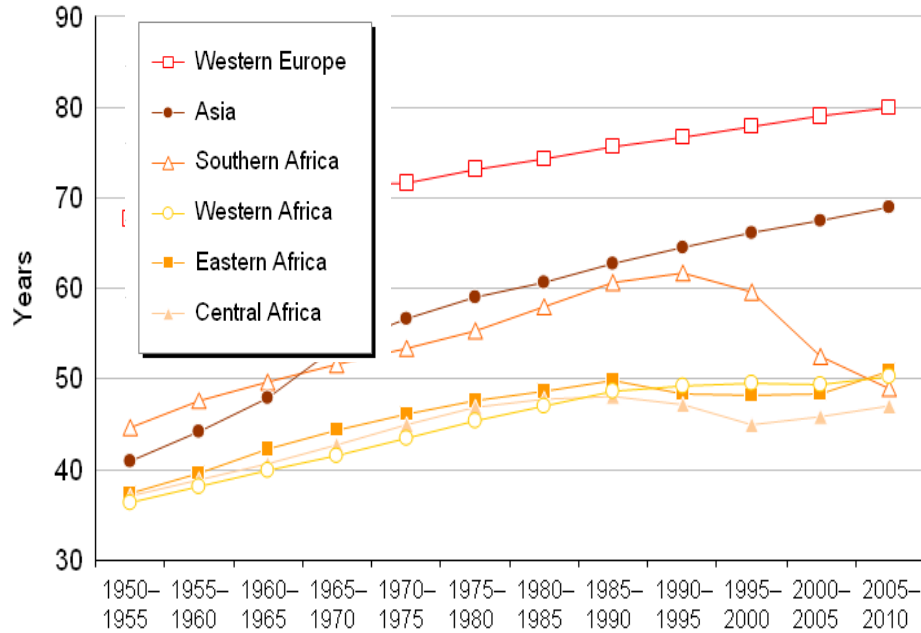


<https://www.economist.com/economics-of-falling-popu>

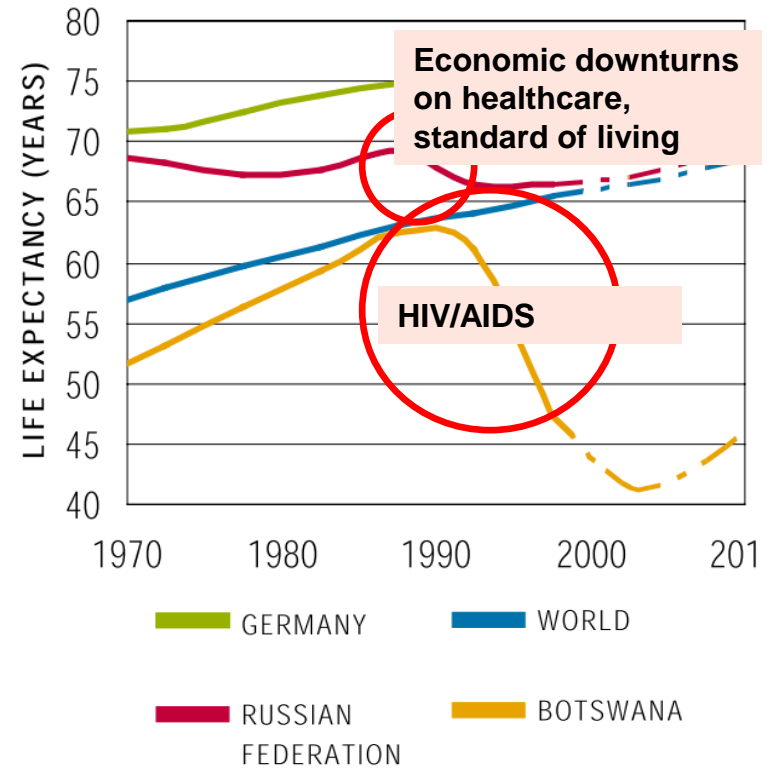
Sources: OECD; UN Population Dynamics

Ageing Population: Life Expectancy is Rising

Life Expectancy at Birth, by Regions



Life Expectancy, World and Selected Countries, 1970-2010



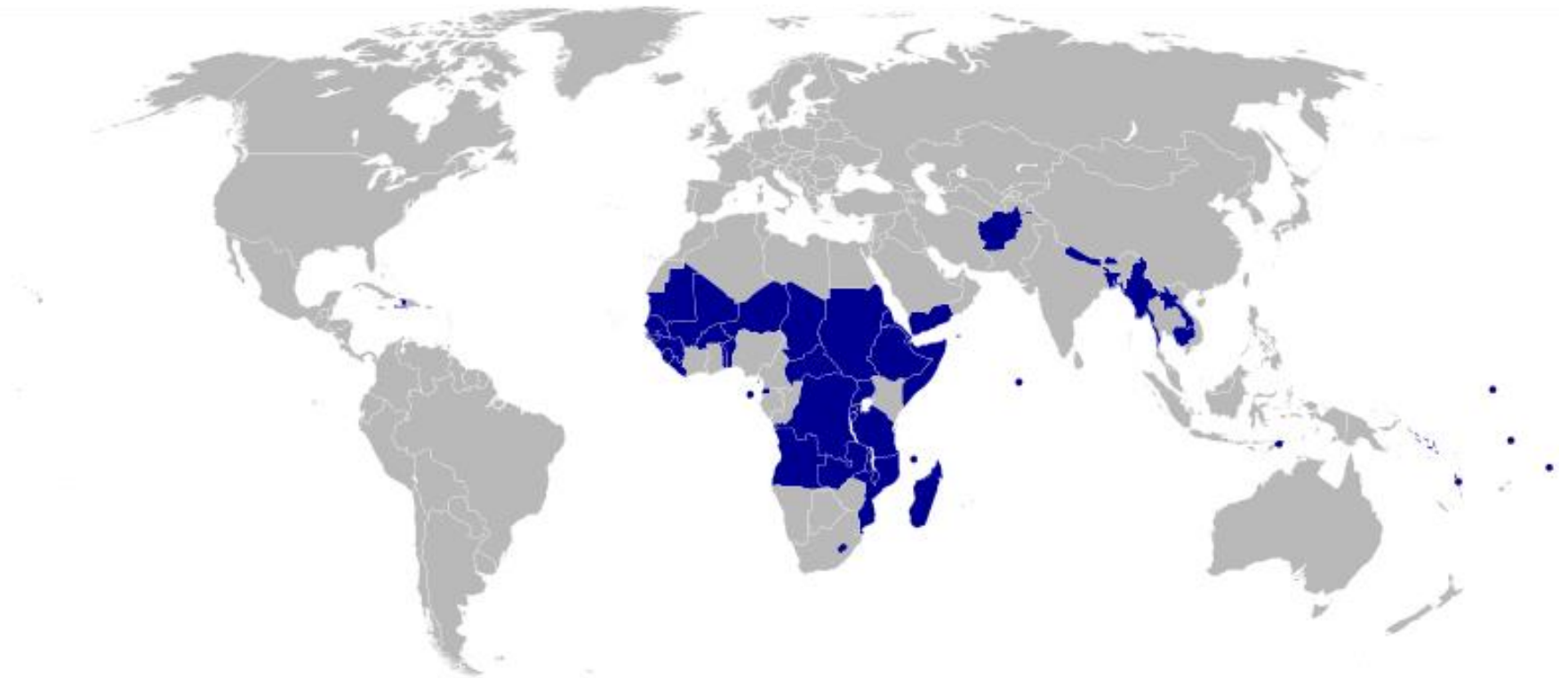
How sharp declines in life expectancy in Botswana and Russian Federation can be explained?

Source: UN Population Division

Population Pauperization Challenge for Business

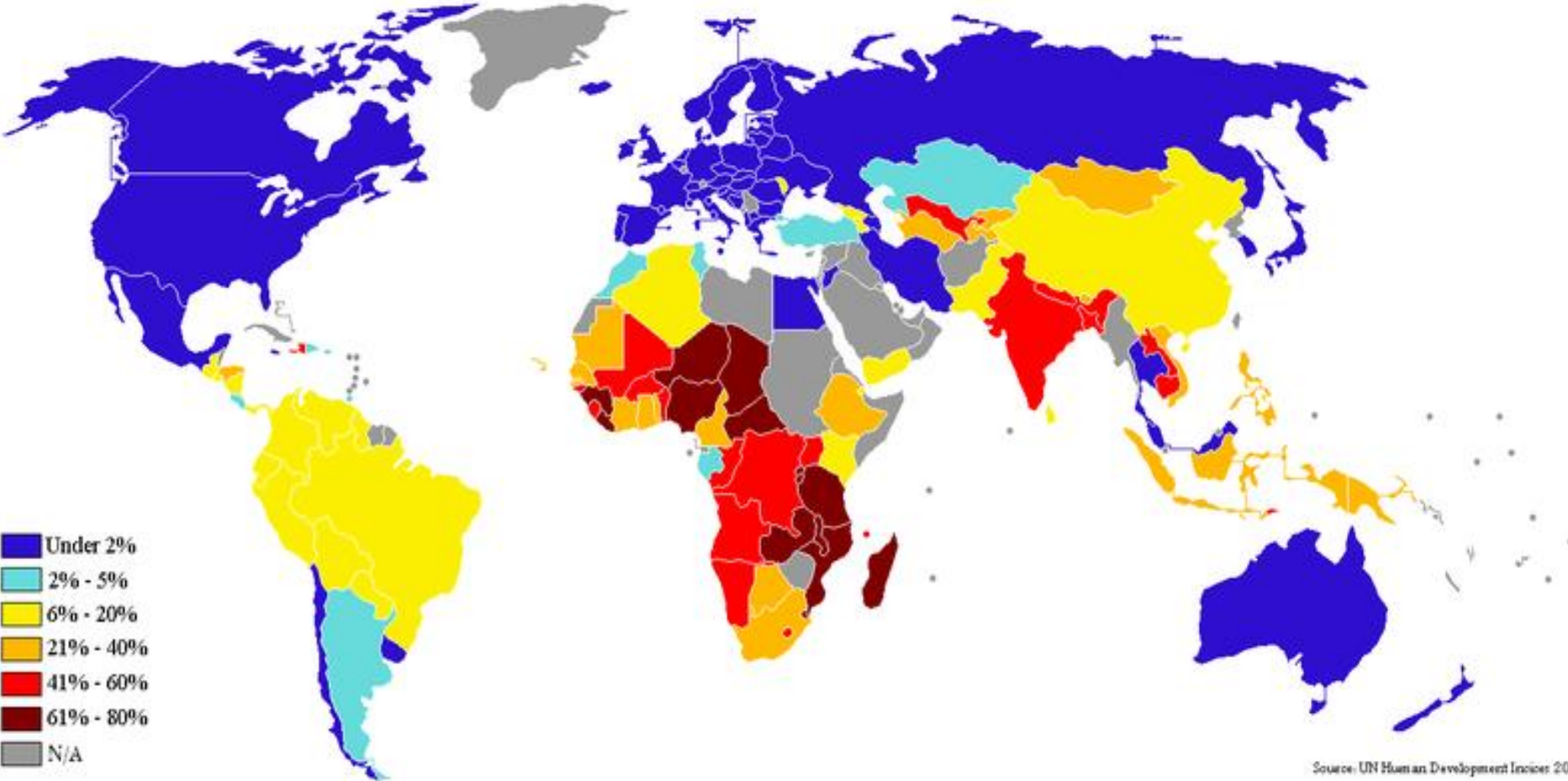
- Pauperization of around 200 mln people is one of the most negative consequences of the world financial crisis (of 2008).
 - The most urgent pauperization is in Sub-Sahara Africa and Asia regions that were shocked by both food price increase and then by financial crisis.
 - The world is 78% poor, **11% middle income**, and **11% rich**
- How business should react to pauperization problems in countries where it is located (if at all)?

Less Developed Countries



- Less Developed Countries according to the UNO: **less than \$750 per year per person**
- **From 48 countries 33 are in Africa** (14 in Asia and Oceania, 1 in Latin America)
- #1 – Burundi, #2 – Congo, #3 – Liberia

Percentage population living on less than 1 dollar per day



Implications for Business

- These people will be involved into the global economy sooner or later
- Potential markets
 - The higher will be their income level the better
- Developing goods and services for these countries drive innovations and business growth
 - Photo-voltaic generators and renewable energy
 - Mobile communications and internet access
 - Water sanitation

Example: Mobiles in Africa

