



Lomonosov Moscow State University
Business School

Global Limits of Economic Growth

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

Course Reader:

Evgeniya Anatolyevna Shvets, PhD.

e.shvec@edu.mgubs.ru

Requirements to Pass the Course

- 1) No less than 50% of sessions are attended (6 out of 12)
- 2) There are no less than 60% of points for the final course test
- 3) Individual Project is done properly and delivered in time, i.e. before the end of the course

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**

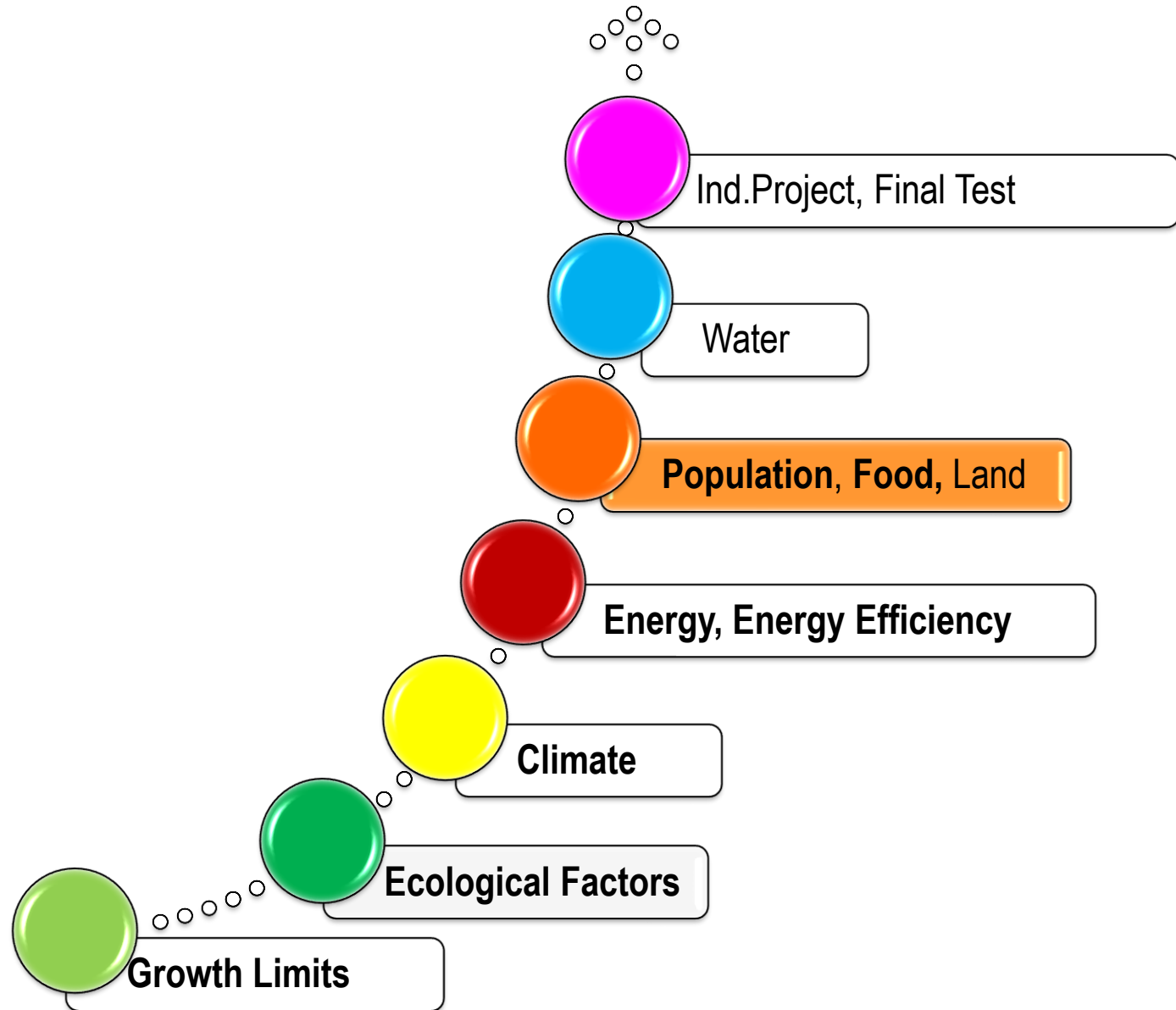
Consult relevant links from the general list of recommended web-sites.

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: e.shvec@edu.mgubs.ru
- 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

Course Route



Sessions 9

Population (continuation)

2024



The Aims of Session 9 “Population”

- 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

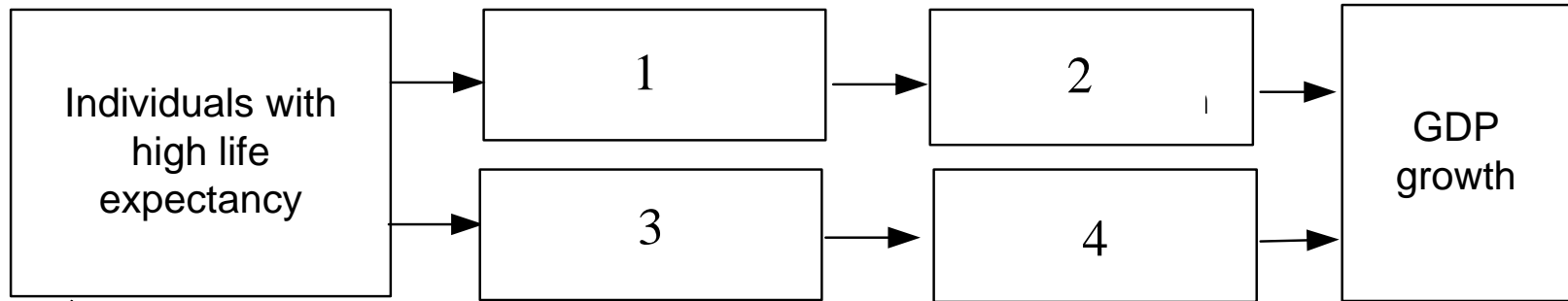


- What is the relationship between the state of health and economic growth of a country?

Health and economic growth relationship



Improving health is another way to increase country's growth potential.



Source: <http://www.nber.org/papers/w15813>

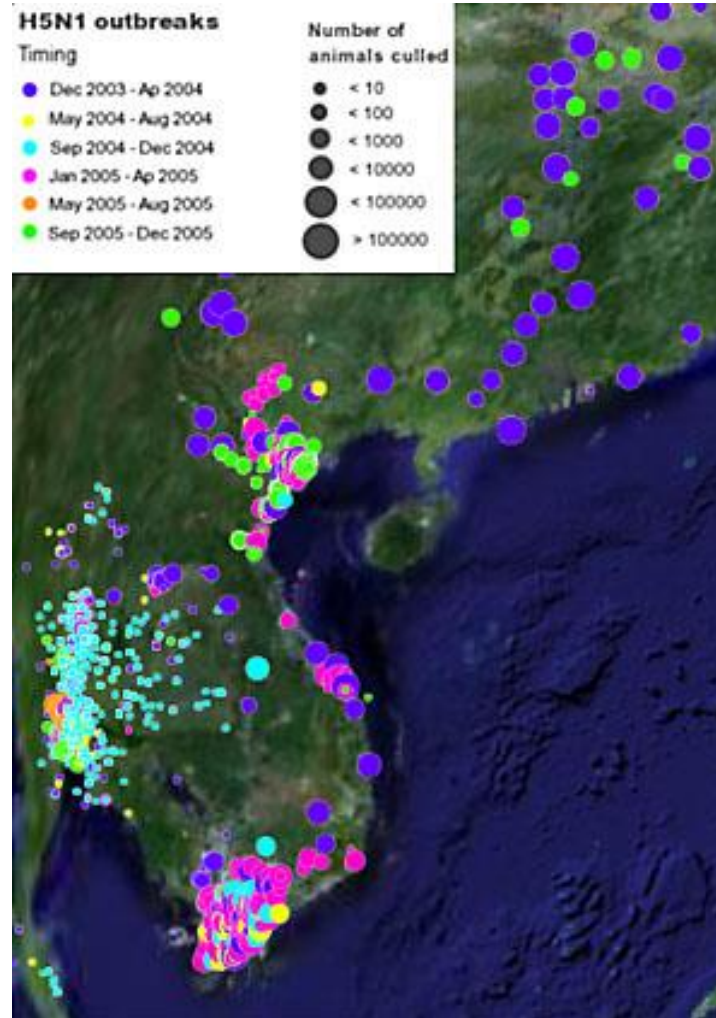


1. The health of employees, customers and stakeholders directly affects productivity (example with HIV/AIDS regions)



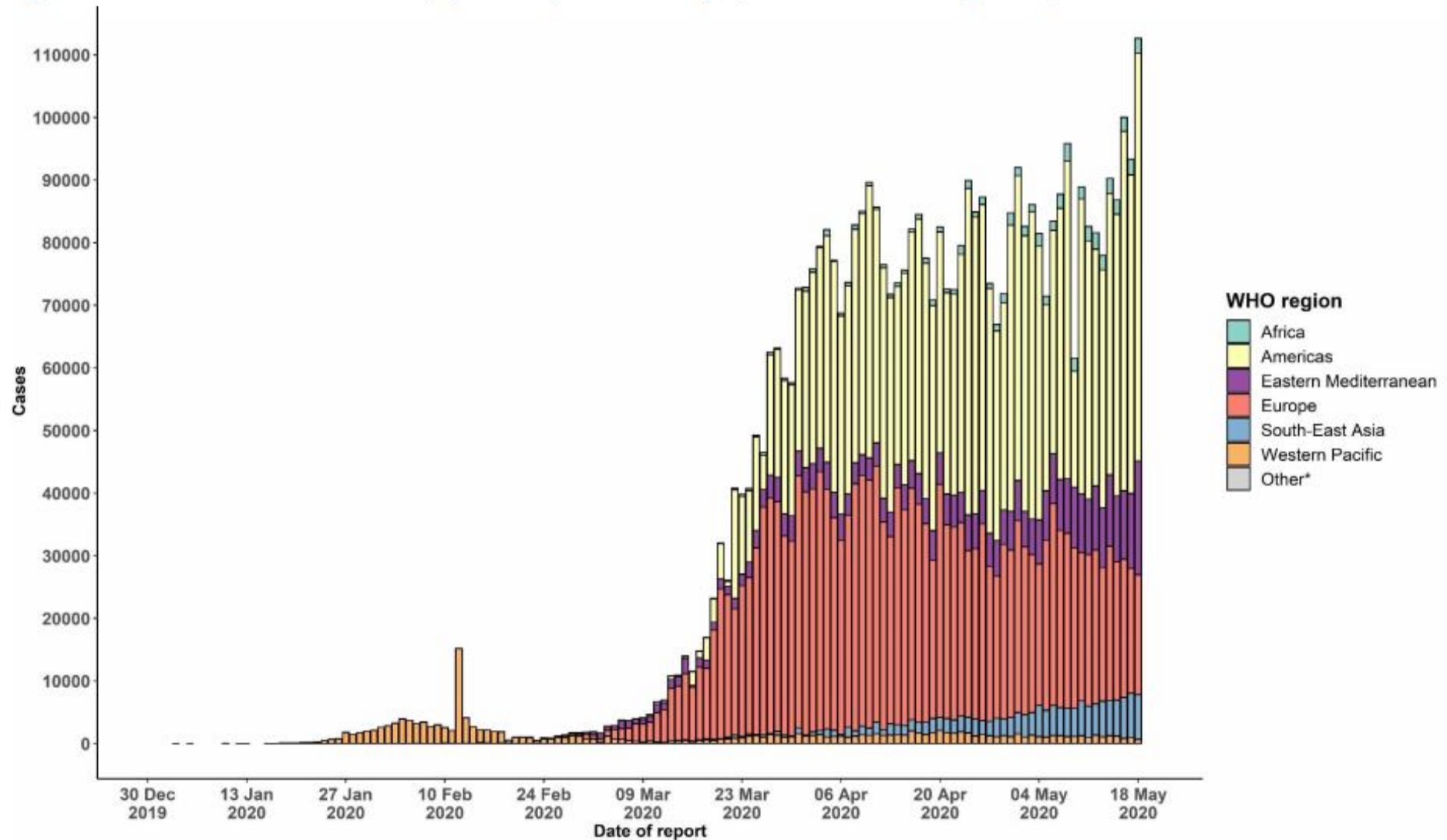


2. Apparently national and regional health crises can be turned into global ones due to the expansion of trade and travel.



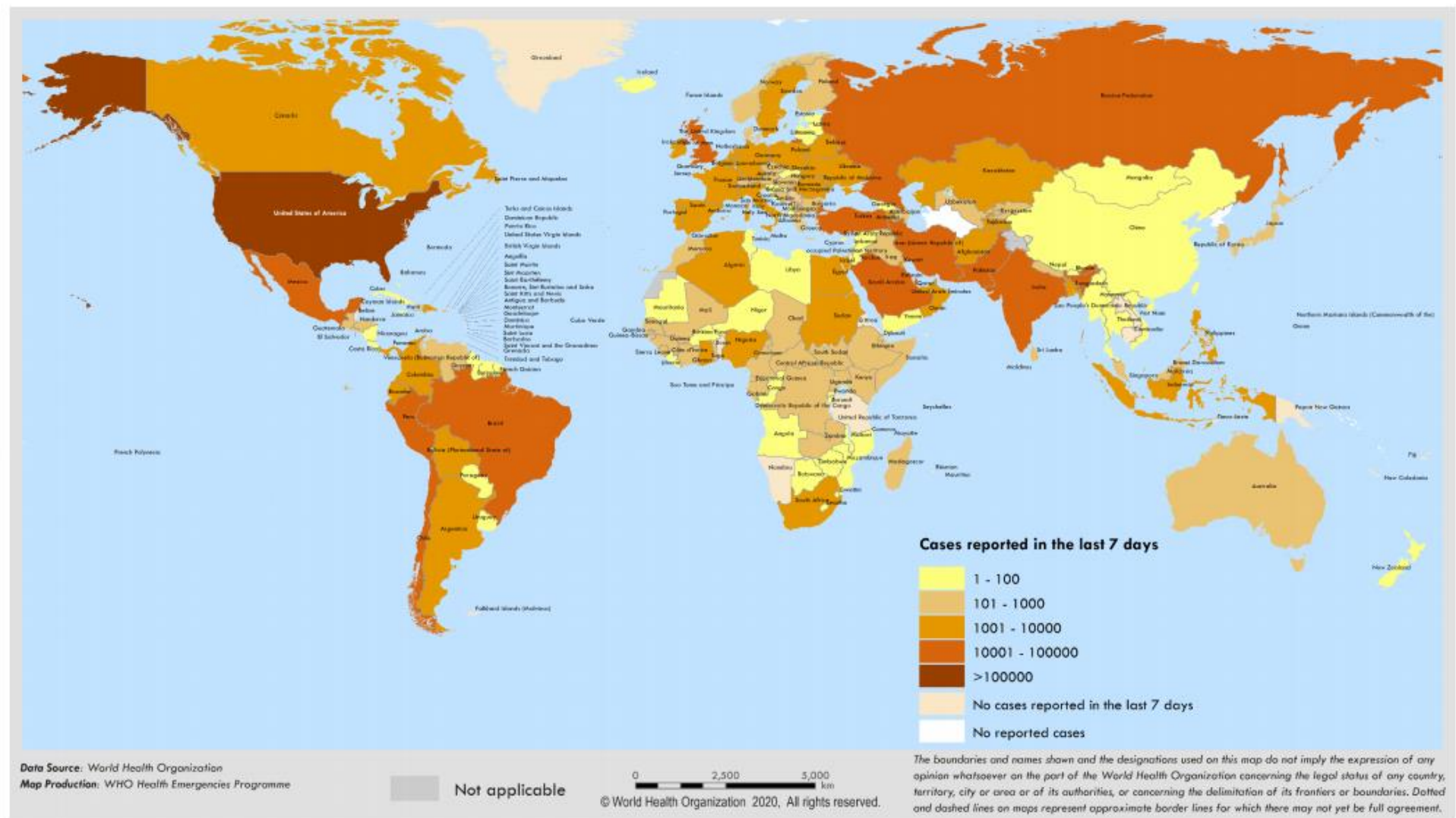
Number of Confirmed COVID-19 cases. 30.12.2019 – 19.05.2020

Figure 2. Number of confirmed COVID-19 cases, by date of report and WHO region, 30 December 2019 through 19 May 2020**



Number of Confirmed COVID-19 cases, 13-19.05.20

Figure 1. Number of confirmed COVID-19 cases reported in the last seven days by country, territory or area, 13 May to 19 May**



Health Implications for Business

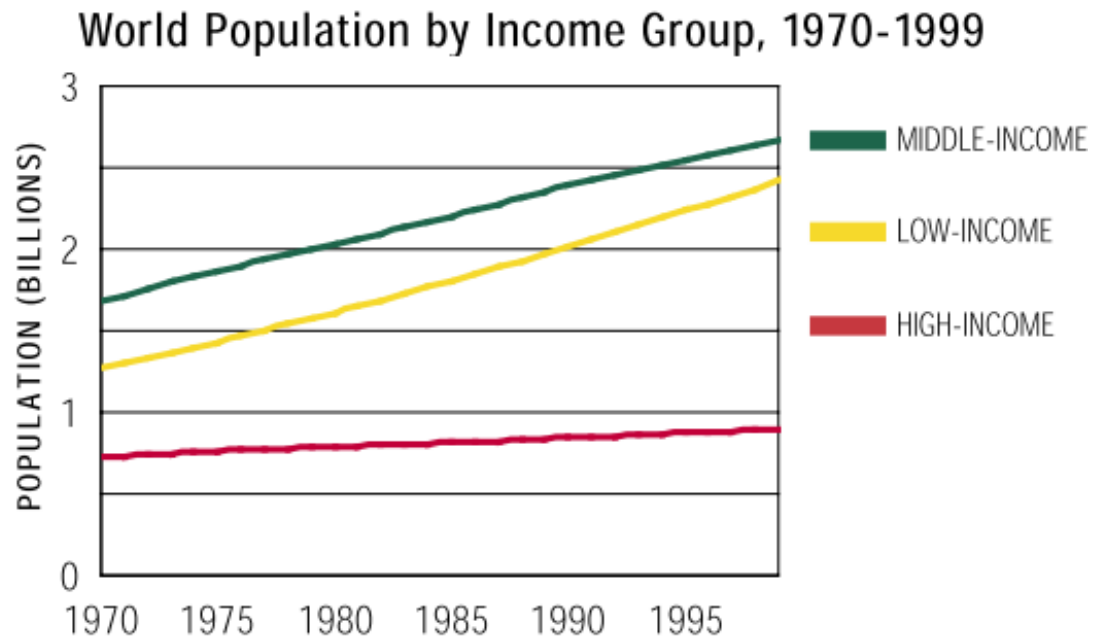
3. This is a strategic opportunity for the private corporations in sectors such as pharmaceuticals, health services, water infrastructure, and water sanitation.



Population Growth Creates New Markets

1. Rapid population expansion in low-income and medium-income countries is contributing large numbers of potential workers and consumers to the world's economy.

2. The steady population growth in high-income countries means that few additional workers and consumers are being added in these countries.



Source: World Bank

Business/Corporate Social Responsibility



Source: <http://newlearningplaybook.com/blog/2008/07/09/corporate-social-responsibility-and-global-talent-development/>

- **Corporate social responsibility (CSR)**
 - Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable—to itself, its stakeholders, and the public.
- **ESG (Environmental, Social, and Corporate Governance)**
 - Three parameters according to which companies ensure the management of sustainable development by solving environmental, social and managerial problems



ENVIRONMENTAL

Impact on the planet

- Greenhouse gas emissions
- Air and water pollution
- Biodiversity
- Deforestation
- Recycling and waste management
- Natural resource use
- Renewable energy
- Water scarcity
- Energy efficiency
- Sustainability initiatives
- Relationships with regulators



SOCIAL

Relationships with employees, customers and community

- Diversity and inclusion
- Company culture
- Data protection and privacy
- Customer satisfaction
- Relations with local communities
- Human rights
- Labor standards
- Product safety
- Employee training
- Ethical supply chain sourcing



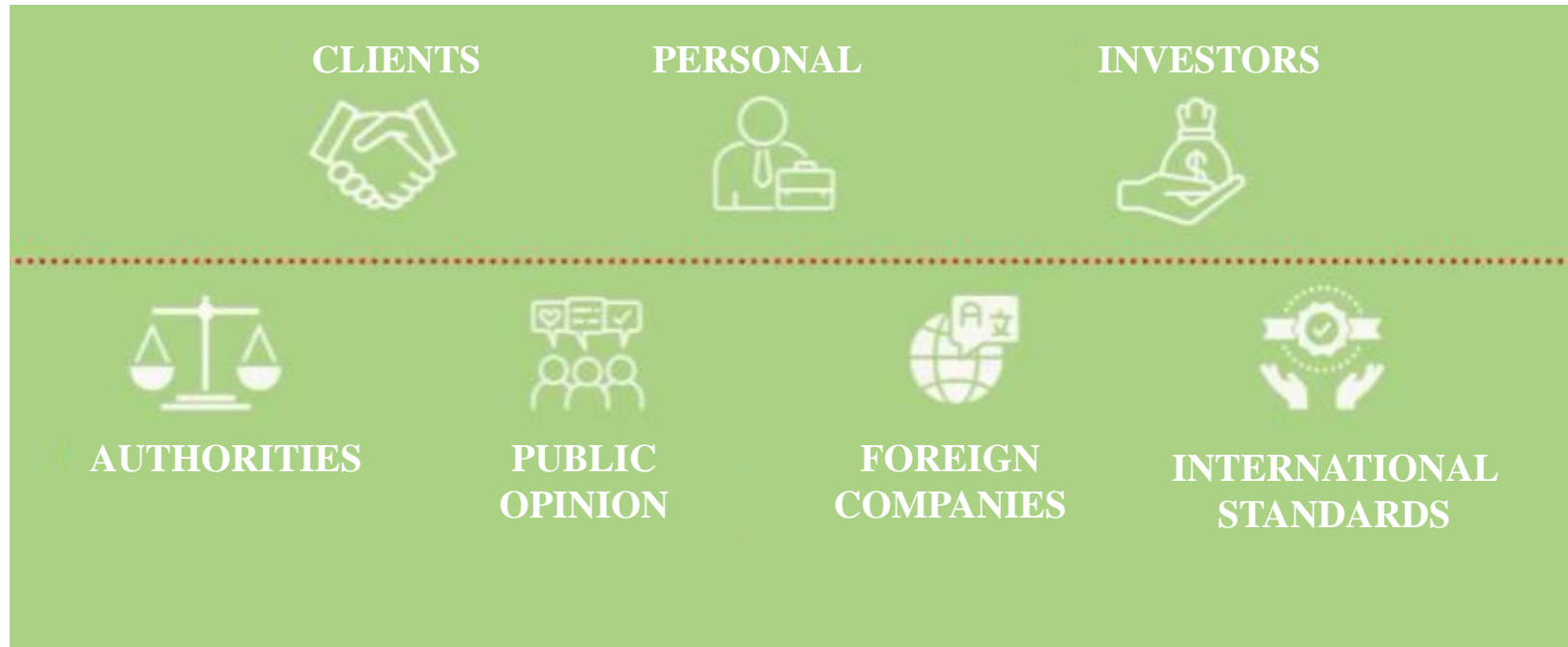
GOVERNANCE

Corporate leadership standards

- Board composition
- Management diversity
- Shareholder rights
- Lobbying
- Executive compensation
- Accounting transparency
- Separation of CEO and Chairman roles
- History of shareholder lawsuits
- Relationships with regulators

<https://sustainfi.com/articles/esg-investing/>

Driving ESG forces



Case of ESG transformation of CEMROS (ex-Eurocement Group company)

ESG Transformation



Case of CEMROS (ex. - Eurocement Group) company

- **Eurocement Group** is a diversified industrial holding, one of the leaders of the cement industry in Russia. Eurocement unites 16 cement plants in Russia, as well as quarries for the extraction of non-metallic materials. The share of Euro cement in the cement market of Russia is about 30%.
- The company's enterprises are located in **13 regions**: the Republic of Mordovia, the Karachay-Cherkess Republic, the Arkhangelsk, Belgorod, Bryansk, Voronezh, Leningrad, Lipetsk, Ryazan, Samara, Sverdlovsk, Ulyanovsk and Chelyabinsk regions.
- Eurocement participates in the implementation of national projects, including in the areas of "Housing and urban environment" and "Safe and high-quality highways", providing the needs for construction materials of domestic production.
- Eurocement is changing the face of modern cities. Residential buildings, industrial and road infrastructure, sports, social and cultural facilities, including Sheremetyevo, Domodedovo, Pulkovo, Kazan and others international airports, metro stations in Moscow, St. Petersburg and Samara, Olympic facilities in Sochi, stadiums of the 2018 FIFA World Cup, high-rise buildings "Moscow-City", the Cathedral of Christ the Savior in Moscow and many other buildings.

Our company



- Mordovcement Мордовия респ
- Voronezh Branch of EUROCEMENT Group Воронеж region
- Serebryansky Cement Plant Рязан region
- Petersburg cement Ленинград region
- Sengileysky cement Ульяновск region
- Maltsovsky Portland cement Брянск region
- Oskoltsement Белгород region
- Mikhailovcement Рязан region
- Nevyansky cementnik Свердловск region
- Katav cement Челябинск region
- Pikalevsky cement Ленинград region
- Belgorod cement Белгород region
- Lipetsk cement Липецк region
- Caucasian cement Карачай-Черкессия, Rep
- Achinsk Cement Красноярский region
- Ulyanovsk Cement Ульяновск region
- Savinsky Cement Plant Архангельск region
- Building materials:
- Glavstroy-Ust-Labinsk (aerated concrete) Краснодар region
- Zhiguli building materials (crushed stone) Самара region
- Uglovsky lime plant (lime) Новгород region
- MPSM-Vyatka (woodworking) Киров region
- Gypsum concrete (dry building mixes, gypsum) Москва region

What should be the focus of **social policy** of the company and why?

Consider the location of CEMROS plants and social & economic level of development of these regions

1. Identify stakeholders of the company.
2. Suggest problems or risks the company can have in social sphere
3. Think what actions should be taken by the company.

Our company



2

industrial groups



22

manufacturing
enterprises



9000

employees
of our team



No 1

the leader of cement
production in Russia



40

million tons
per year



60

regions of product
sales

What is ESG?

ESG principles are already widespread in the corporate sector. It can be about aspects, as well as risks and opportunities that affect the company's ability **to create long-term value**.



The growing interest in ESG is an element of a more general trend in the development of Stakeholder capitalism

Environmental

Natural resources
Climate change
Pollution

Social

Human capital
Development of the territories of our operation

Governance

Corporate structure
Corporate behaviour

Sustainable development is important for EUROCEMENT Group

The values of sustainable development are an integral part of EUROCEMENT Group's business strategy. We are confident that our commitment to the principles of sustainable development, along with the growth of financial indicators and production capacities, ensures **the qualitative and long-term success of the Company**, creating values for all stakeholders.

Key factors



Our goals

- 1 To be a reliable partner and conduct an open dialogue with all stakeholders – customers, employees and local communities
- 2 To create conditions for the development of a team of professionals aimed at achieving high results

Our approach

Employees are one of the key stakeholders for EUROCEMENT Group.

The company focuses its efforts on the continuous development of the motivation system, improving working conditions and ensuring professional development and career growth.

At the same time, we promote environmental, social and economic progress not only within the framework of our core activities, but also by supporting initiatives aimed at improving the quality of life in the regions of our presence, coordinating our actions with universal values and national development goals.

Human capital

WHAT WE DO



WE IMPLEMENT MEASURES AIMED AT ELIMINATING PRE-EMERGENCY, EMERGENCY AND OTHER DANGEROUS SITUATIONS



WE ATTRACT THE BEST SPECIALISTS, IMPROVE THEIR PROFESSIONAL SKILLS AND QUALIFICATIONS



WE HAVE DEVELOPED AND ARE IMPLEMENTING A COMPREHENSIVE MOTIVATION PROGRAM AND AN EMPLOYEE CARE PROGRAM



WE ARE LAUNCHING PARTNER EDUCATIONAL PROGRAMS WITH UNIVERSITIES AND COLLEGES TO TRAIN SPECIALISTS IN THE CEMENT INDUSTRY

Development of the territories of operation

WHAT WE DO



WE HAVE DEVELOPED A QUESTIONNAIRE FOR EMPLOYEES AND THEIR FAMILY MEMBERS



WE CONDUCT AN INITIAL ASSESSMENT OF THE STATE OF SOCIAL, ENGINEERING AND TRANSPORT INFRASTRUCTURE IN 10 TERRITORIES OF OUR OPERATION



WE WILL FIND OUT THE OPINION OF EMPLOYEES OF 10 FACTORIES OF THE COMPANY ABOUT SATISFACTION WITH THE QUALITY OF LIFE IN CITIES AND TOWNS OF RESIDENCE



WE ARE DEVELOPING MASTER PLANS FOR THE LONG-TERM SOCIO-ECONOMIC DEVELOPMENT OF THE TERRITORIES OF OUR OPERATION



Development of the territories of our operation

CONCEPT OF DEVELOPMENT OF THE TERRITORIES OF OUR OPERATION



Urban environment



Transport infrastructure



Sport



Culture
Leisure



Educational environment



Career guidance

Labour Mobility

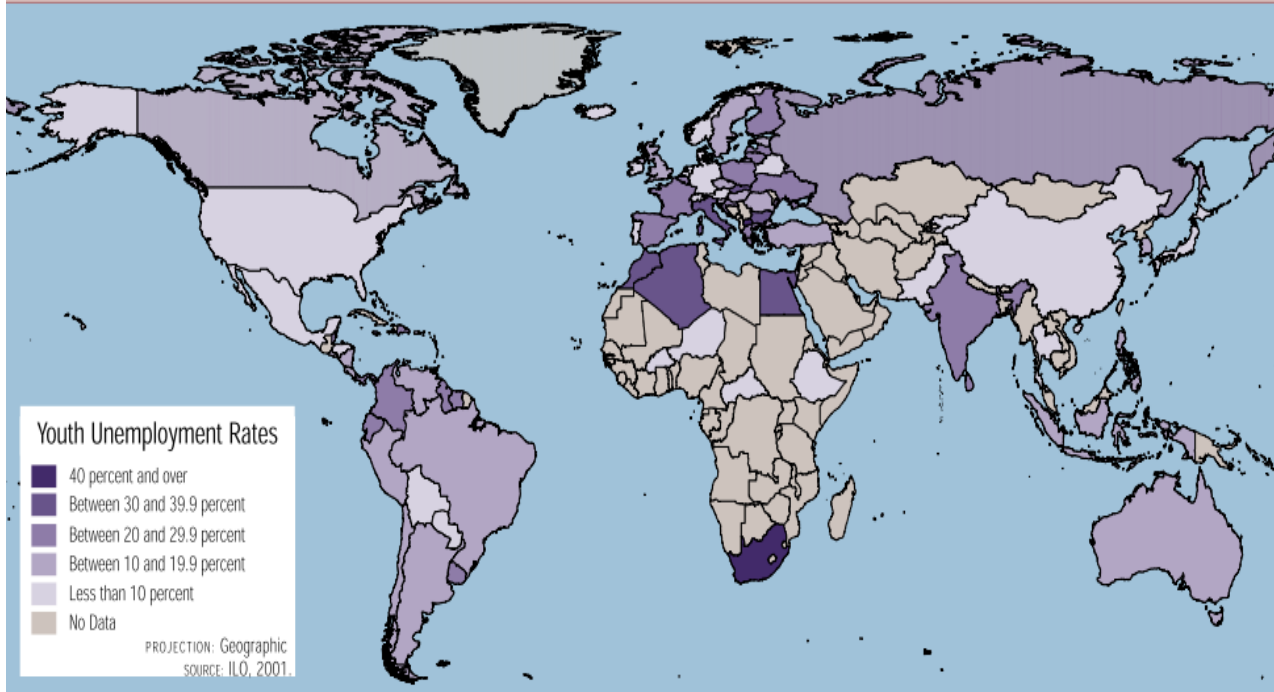
- Labour mobility consists of changes in the location of workers both across physical space (geographic mobility) and across a set of jobs (occupational mobility).
- Humans labour mobility is growing
- It creates a large demand for energy and infrastructure
 - Access to less polluting and more efficient mobility is both a challenge and an opportunity for business
 - Transport of people and goods is responsible for about 1/5 of worldwide energy consumption
- Between 1990-1995, 40% of population growth in high-income countries was due to migration, while in low-income countries, migration reduced population growth by about 3%. (WB)
- Big cities population would be reduced in 2 times after 2 generations changes of there is no migration flow into it.



Job Crisis



Employing Young People Promotes Long-Term Growth And Stability



What a job crisis is?

Unemployment is **only one** dimension of the jobs crisis

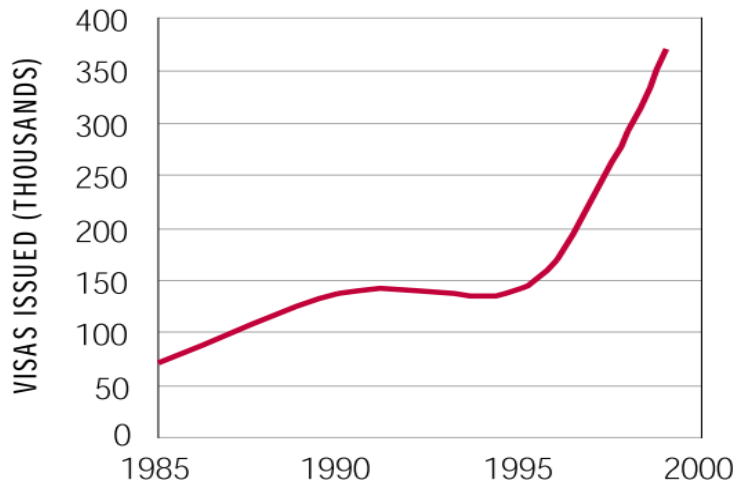
- Youth unemployment in most countries is about twice that of adult's and usually is higher for women than men.

Ways to resolve

- Stimulus packages, subsidies
 - Encourage employers to hire, and train, people who have been out of work for more than 6 months (UK)
 - Stimulate unemployed people to look for a new job (RF)
- Unemployment insurance
 - USA practice
- Part-time work (public works)
 - temporary and part-time workers in agriculture in Japan
- Professional Retraining
- **“Green projects”**
 - How many jobs can be created in **GREEN PROJECTS** in the short and medium term? Money invested in clean energy is estimated to create **twice as many jobs per dollar** invested compared with traditional fossil fuel-based energy.

Shortage of Qualified Workers

Non-Resident U.S. Visas Granted to Specialty Workers, 1985-1999



SOURCE: US Department of Justice, 1998; OECD, 2001.

- Demand for skilled labour is increasing.
- Especially in the high growth areas of business that are technology intensive.
- Most countries have adapted policies to allow immigration of skilled foreign workers (special quotas).
 - USA
 - Australia

Implications for business:

- Labor capacity = traditional education + adult education + worker training → career-long learning
- It increases productivity, boosts the living standard and creates a consumer base

Illegal Immigration

- Role of illegal immigrants in the economy of countries recipients and countries of their origin
- Challenges, difficulties, obstacles
- How the problem can be addressed?
 - What factors are contributing to the problem? (*pauperization, unemployment, wars, hunger, ...*)
 - Any Implications for Business?



Illegal Immigrants

15
Million
2008

83
Million*?
2030

* Based on the current estimated rate of growth in illegal immigration to the U.S.

Source: Congressional Research Services (JL33874)

Ways to overcome Population Limitations

CHALLENGES

- Business Social Responsibility
- Population as a Determinant of Consumption Factor & Labor Force for Companies
- Population Labor Mobility
- Shortage of Qualified Workers
- Ageing Population
-



WAYS TO OVERCOME

- Creating green jobs
- Improving health-care and pension system...
- ...
- ...

Session 9
Food & Food Supply

2024



The Aims of Session 9 “Food”

1. To know main limitations that can be produced by food production as for business and national economic growth
2. To work out ways how to overcome these limitations

Session Plan

Food Supply

1. Food Security VS Food Self-Sufficiency
2. Public Policy on Food Security
 - Discussion “pro” & ”con”, [basing on FAO article](#)
3. Genetically Modified Food
4. Key Challenges for Food Production Companies

Food Security

- **Food security** exists when all people, at all times, have **physical, social and economic access** to **sufficient safe and nutritious food** that meets their dietary needs and food preferences for an active and healthy life.
 - It is estimated that more than 1 billion people may be suffering from under-nourishment.
 - The Committee for World Food Security (UN CFS) was established *as a result of the food crisis of the 1970s*, upon recommendation from the 1974 World Food Conference.

Food Security VS Food Self-Sufficiency

Food Security

- **WHO** defines 3 aspects of food security:
 - **Food availability** is having available sufficient quantities of food on a consistent basis.
 - **Food access** is having sufficient resources, both economic and physical, to obtain appropriate foods for a nutritious diet.
 - **Food use** is the appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.
- **FAO** adds a fourth aspect:

The stability of the first three dimensions of food security over time.

Food Self-Sufficiency

- It is the state of not requiring any aid, support, or interaction in food supplies, for survival; it is a type of **food autonomy** or even autarky on a national scale.

Food Security



- How it can be measured?
 - General understanding:
 - The ratio of national products in total products consumption should be about 70-75%
 - Russian Food Security Doctrine:
 - 85% of consumed products should be produced inside the country by 2020
 - Now: cereals - 100% (+/-), meat – 78%, milk – 81%.
 - Food import in Russia (2016) is about 28-30%
 - In February 2010 the obligatory certification system for all food products was abolished. *What are consequences of this step?*

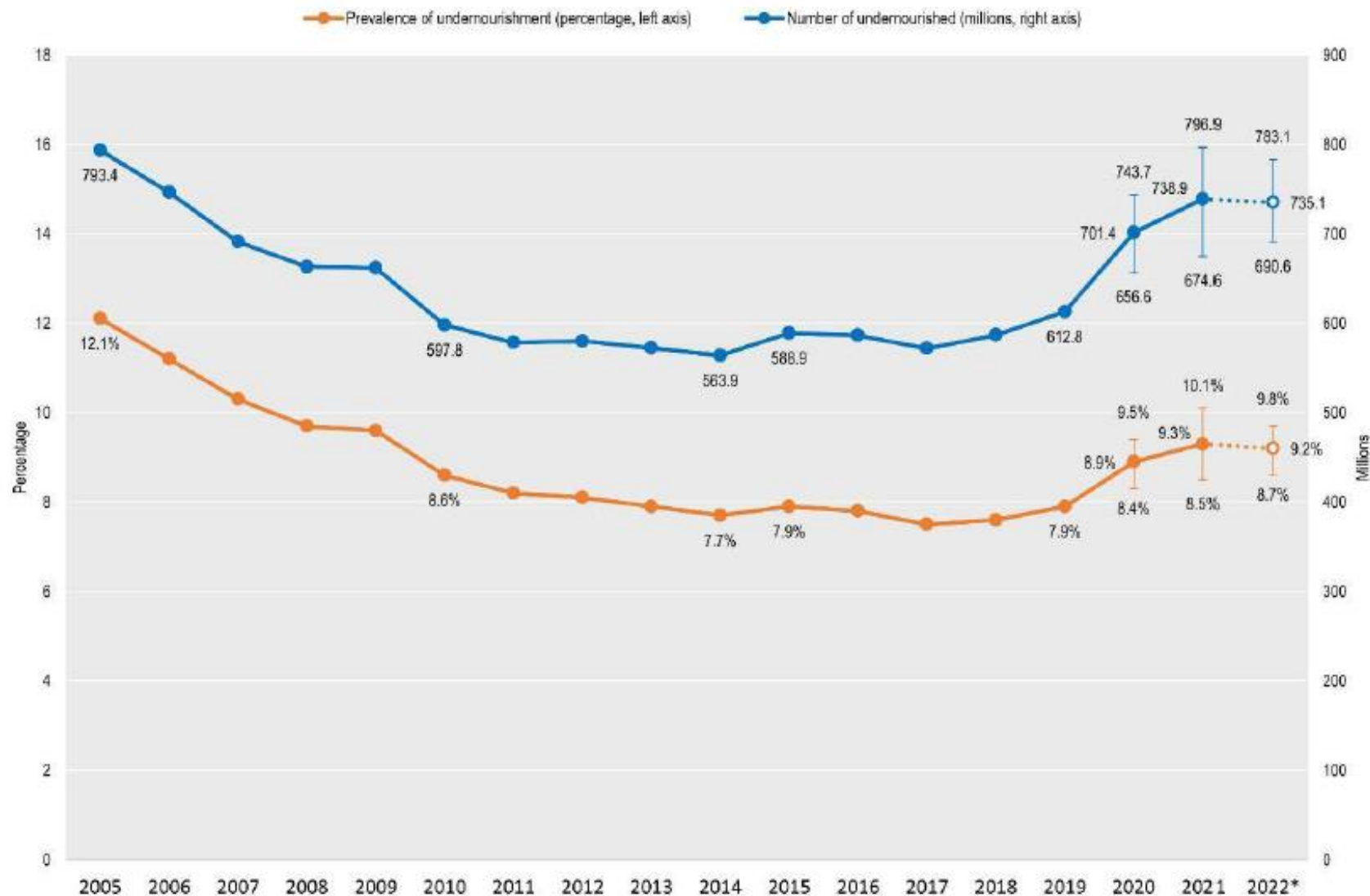
Food Security Dynamics in Russia by Main Product Types (%)

Год	Cereals (>95%)	Potatoes (>95%)	Milk and milk products (>90%)	Meat and meat products (>85%)
1990	89,9	105,4	88,2	88,2
1995	99,8	104,0	86,8	73,4
2000	95,9	101,2	88,6	69,1
2005	117,5	102,0	82,3	62,0
2010	122,4	101,0	80,6	72,4
2012	134,8	103,7	80,2	75,9
2013	123,7	н.д.	80,5	77,5

Источник: Рассчитано по данным Росстата «Балансы продовольственных ресурсов». http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/enterprise/economy/#

ПН=(ОП:ОЛ):100, где ОП – объем производства, Минсельхоз: вместо ОП – объем потребления

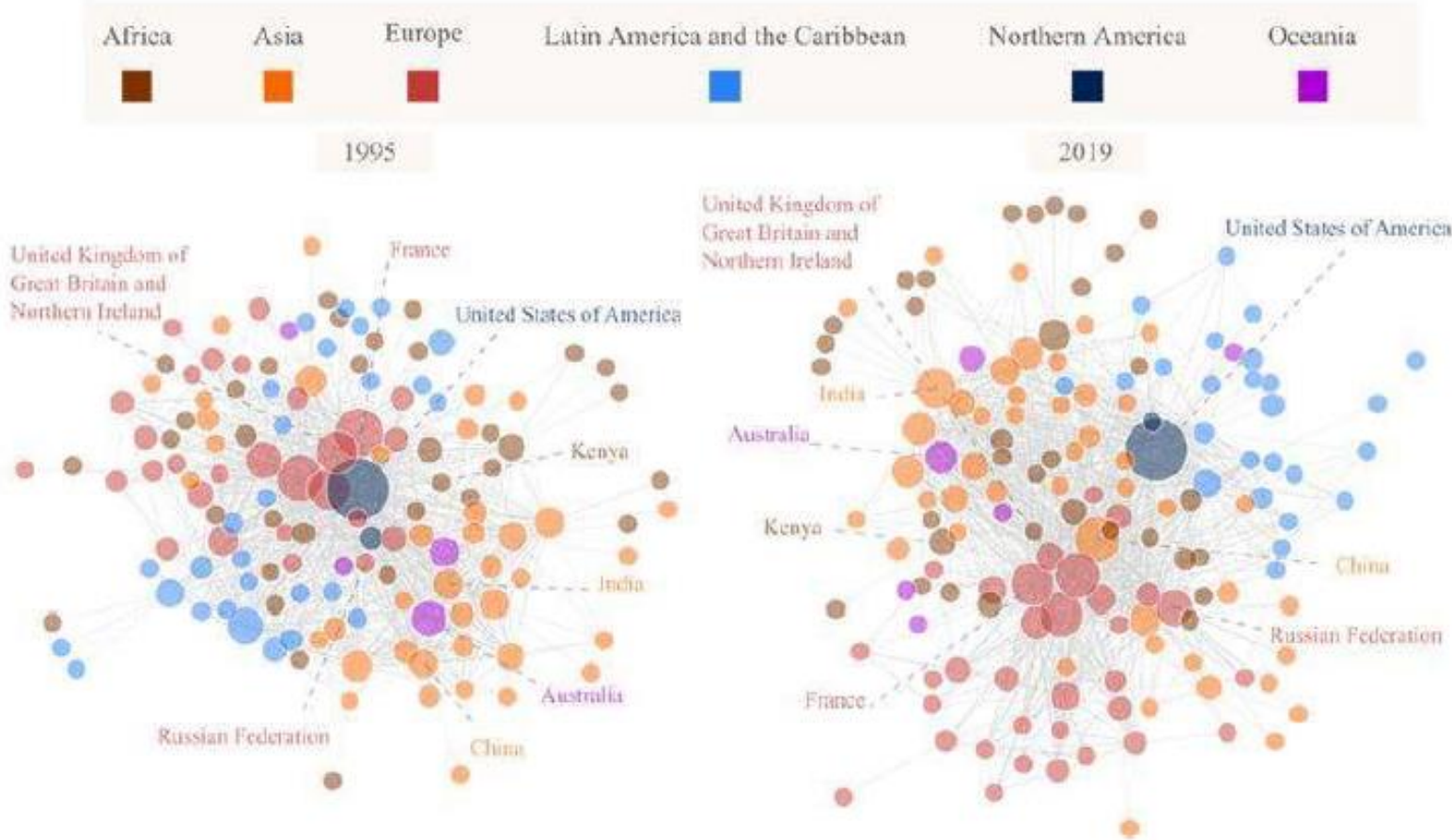
Figure 1. Prevalence of undernourishment and number of undernourished, 2005-2021



Note: Projected values for 2021 are illustrated by dotted lines. Shaded areas show lower and upper bounds of the estimated range.

Source: FAO, IFAD, UNICEF, WFP and WHO (2023₍₁₎).

Figure 4. The food and agricultural trade network and trade hubs in 1995 and 2019



Note: The circles denote countries. Large circles can be trade hubs. When trade hubs are located in (outside) the core of the network, the network is more centralized (decentralized). Countries with trade values lower than 0,01 percent of the overall trade are excluded, Measured on the basis of trade intensity.
 Source: FAO (2022[7]).

Figure 5. Regional trade agreements between countries by regions (%), 2022



Source: FAO (2022^[7]).

World Food Market

- **The food market** covers all edible products that are bought and consumed for nutrient-based purposes. The market includes both fresh and processed foods.
- The market is further differentiated into Dairy Products & Eggs, Meat, Fish & Seafood, Fruits & Nuts, Vegetables, Bread & Cereal Products, Oils & Fats, Sauces & Spices, Convenience Food, Spreads & Sweeteners, Confectionery & Snacks, Baby Food and Pet Food.
- Food market is expected to grow at a CAGR of 6% between 2023 and 2028. The highest growth

World Food Market

2011: 1) China (\$ 963 bln), 2) USA (\$ 907 bln)

2015: 1) China, 2) USA, 3) India, 4) **Russia**, 5) Brazil

2024: 1) China (\$ 1,630 bln)

Russia: 2008-2011 – growth by 2 times (\$ 314 bln in 2011)

China: 2006-2015 – growth by 3 times

Growth contributing factors - ?