



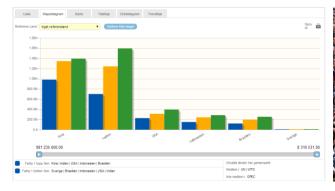
TO THE CURRICULUM ACCORDING TO THE SWEDISH NATIONAL AGENCY FOR EDUCATION



Picture: Lusi

THE POPULATION EXPLOSION – What is its cause?

Version: 1.00





Picture: James Cridland

THE POPULATION EXPLOSION

- What is its cause?

Target Audience: Primary, Secondary and Upper Secondary School in Sweden

Scope: 2-3 lessons

Form: A review by the teacher after which the students work with the questions and

responding using factlab in combination with other sources.

Presentation: A discussion with the entire class.

Materials and tools: Access to computers, the Internet and a projector. **Educator:** Carl-Henrik Larsson, Karlskrona. Secondary school teacher.

Description and purpose

In this exercise, students will be working with tasks related to the causes and consequences of overpopulation. The aim is to clarify the population situation in the world, why it looks the way it does, how it will look in the future and its consequences. Urbanization and its implications are highlighted.

The goal is to show the students that the population explosion is a consequence of the improvement of the condition of the world's poor and that this improvement will continue while the population increase will slow down.

THE CURRICULUM ACCORDING TO THE SWEDISH NATIONAL AGENCY FOR EDUCATION

Lgr 11

Central content for Geography in grades 7 to 9

- The distribution of the world's population across the globe, the causes and consequences of the uneven population dispersion as well as the migration and urbanization and its causes and consequences.
- Conflicts of interest over natural resources, such as access to water and soil. Incidence and causes of poverty and ill health in different parts of the world.
- Links between poverty, ill health and factors such as population density, climate and natural resources.

- continuation - Lgr 11

English in grades 7 to 9

- Interests, everyday situations, activities, events, and relationships, and ethical issues.
- Living conditions, traditions, social relations and cultural phenomena in different contexts and areas where English is used.
- Oral and written instructions and descriptions.
- Oral and written information and discussions and arguments with different purposes, such as news, reports and newspaper articles.
- Different ways to process their own petitions to vary, clarify, refine and customize them to suit their purposes.

Lgy 11

Content for Geography 1

• Population growth, population distribution and spatial change. Urbanisation and the urban evolution, function, structure, and environmental impact. The importance of migration, education, environmental change, livelihood strategies, reproductive health and family planning from various perspectives, such as gender, sexuality, ethnicity, and socioeconomic conditions.

Content for Geography 2

• Urban Planning in a spatial perspective linked to population growth and population projections, land use issues and sustainable development.

Content for Social Studies 1B

- Economics. Use and allocation of resources based on different conditions. Social concepts, theories, models and methods in the context of studies of the society and social relations.
- Examples of methods to process information are statistical methods. Presentation of different shapes and with different techniques with emphasis on the written and oral, including debates, opinion articles and reports.

Content for English 5 and 6

- Disciplines related to the students' education, and social and working life; topical areas; events and sequences of events; thoughts, opinions, ideas, experiences and emotions; relationships and ethical issues.
- Living conditions, attitudes, values and traditions as well as social, political and cultural conditions in different contexts and areas of the world where English is used.

Remember that statistics generally and factlab especially do not present theories or conclusions, **just facts**. It's up to you to search, experiment and draw your own conclusions and get new perspectives on your own set of truths.

DO LIKE THIS:

- 1. The teacher goes through the demographic situation in the world from contemporary as well as future perspectives. During the briefing the teacher shows and explains the prepared bookmarked factlab websites (see Examination below). Have the students participate in the review by asking relevant questions linked to the factlab statistics.
- **2.** The teacher distributes the tasks to the students (see assignments below) and helps them to get started. Students can work individually or in groups.
- **3.** Conclude by discussing the issues with the whole class. It can also be combined with written submission of the answers to the questions if the teacher deems it appropriate.

EXAMINATION

1. Before the lesson it is advisable if you as a teacher read through the bookmark links available under comments, see below. The first three bookmark links are texts whose content you can relate to in the briefing. The fourth bookmark link is a text that students shall work with during the tasks. It is helpful if the teacher has read this text to be well prepared and able to answer questions from the students.

Comments:

Link Hans Rosling - developments over the past 200 years (Swedish)

Link The world passes 7 billion (Swedish)

Link Poverty and over population (Swedish) (Select show all text).

Link About Land grabbing (Swedish)

2. Begin the lesson by pointing out that the global population has increased in recent decades and that this growth will continue, but that it in some places will subside gradually and eventually level off. Here you as a teacher can also point out that the early nineteenth century was a milestone for the population growth of the world. It was then we reached one billion inhabitants.

Have the students consider what factors they believe contributed to the population growth that started to increase in the nineteenth century and then increased almost exponentially into the twentieth century.

It is advisable to mention the facts contained in the bookmark links above.

Before you as a teacher show the first bookmark link from factlab, (§ 3 below), let the students discuss and reflect on the world's currently most populous countries.

3. Show bookmark link Population

Comment: It shows all the countries and their population size at the last official survey in 2011. During TOTAL you can see the total population of the world according to the measurement in 2011. It amounts to nearly 7 billion people. Browse through statistics and have students comment on what they see.

4. Show bookmark link Population 2050

Comment: Here we see a projection of population size of the world's nations in 2050. Note that the total population now amounts to 9 billion people.

5. Show bookmark link Population top 5 + Sweden

Comment: It shows how the population has developed between the years 1980-2050 in the five most populous countries in the measurement 2012. Sweden is also chosen as a reference country, so students can see how the population has developed in Sweden by comparison.

Select the bookmark link <u>Bar chart</u> to clarify the change. You can also select bookmark link <u>Timeline</u> to clearly show students how the population changed over time historically and <u>Timeline</u> with estimate for the future.

These are interesting statistics that show that India will have overtaken China in 2050 as the world's most populous country. China's population growth, as in many other countries, will level off in the mid- 2000s. Let the students consider what could be the reason for this. Are they aware of China's one-child policy? Is it the one child policy that has reached full impact and made India overtake China in terms of population?

In this context the teacher takes up the fact that all over the world countries are working on family planning in various ways to limit the population explosion. UN actively works with family planning at various levels and the right to family planning is also one of the Millennium Goals. For more information on this, see the following link UN's work with family planning - one of the millennium goals (Swedish)

- **6.** The largest population growth 2012-2050 will occur in Asia and Africa. The teachers should now use factlab to show students the various factors behind this increase in population. Start by asking students why most of the population growth is occurring in Asia and Africa. What factors do they mean contribute to this increase?
 - Display the bookmark link <u>Life expectancy in Africa and Asia 2000 and 2050</u>.

Comment: Statistics show that life expectancy in the countries of Africa and Asia will increase significantly during the period 2000 to 2050.

- Display the bookmark link <u>Bar chart 2000-2050</u> to clarify this even better.

Comment: One reason that life expectancy increases is that infant mortality goes down.

 Display the bookmark link <u>Infant mortality timeline</u> and you will see that the infant mortality rate is decreasing even in the world's poorest and most vulnerable countries.

Comment: One reason for the decline in infant mortality is that health care has improved in countries that previously had high infant mortality.

- Display the bookmark link <u>Presences of trained health personnel at birth in 2000 and 2010</u>.

Comment: Here you can clearly see how much the presence of skilled health workers at births has increased between 2000 and 2010. The presence of trained staff is a major cause of declining infant mortality.

- Display the bookmark link Number of births per 1,000 people in Asia and Africa in 2012 and 2050

Comment: These statistics are very interesting. Statistics show the number of births per 1,000 people in Africa and Asia 2012 and forecast for 2050. We see that the birth rate will drop sharply, while the population is growing. Thus, we can conclude that the population increase is due, not to more children born, which is an assumption that many people in the West make, but on the fact that people in Africa and Asia live longer.

- **7.** The teacher presents urbanization in his review and that this process goes hand in hand with the population explosion in the world. Many people, mostly poor farmers, leave the countryside and move to the cities where they settle in urban slums. The urban growth is large in countries where the population growth is high.
 - Show the Bookmarks link Urban annual growth in %

Comment: The statistics show that urbanization is highest in Asia and in Africa. Browse through statistics and have students comment. The European countries have a low urban growth. Pleasantly enough, statistics show that urbanization growth has levelled off in Asia and Africa and in several countries even declined. The first column in the Bookmark link above shows the urban annual growth in % in 1999. The second column shows the urban annual growth in % in 2011.

TASKS

- **1.** Discuss what the short- and long-term consequences are in the countries and areas where the population explosion is greatest. Write down the answers.
- **2.** What are the global implications of the population explosion? Discuss and write down the answers.
- **3.** Why do many people in countries with high population growth leave the countryside to move to the cities? What opportunities do these people have to create a good life in an overpopulated urban environment?
- **4.** Read the following text explaining the concept of land grabbing and answer the questions. Link <u>About Land grabbing (Swedish)</u>.
 - a) What is meant by land grabbing?
 - b) Do you think that land grabbing affects people's decision to leave the countryside for the benefit of cities? How is land grabbing linked to urbanization? Discuss and write down the answers.
 - c) Can we, living in Sweden and other Western countries, do anything to stop land grabbing? What can we as individuals do? Discuss and write down the answers.
 - **5.** Open link Africa's population growth from 1980 to 2050. Statistics show the population of African countries in 1980, 2011 and 2050. Browse through statistics and answer the following questions.
 - a) What five countries will have the largest population increase between 1980 and 2050?
 - b) What five countries will have the smallest population increase between 1980 and 2050?
 - c) What could the reasons be that the increase in population varies between African countries? Make use of UN web pages and try to find reasons why the population increases in the five countries with the highest rise and why the increase is not as high in the five countries with lower rise.

Link Globalization - United Nations (Swedish)

Remember that statistics generally and factlab especially do not present theories or conclusions, **just facts**. It's up to you to search, experiment and draw your own conclusions and get new perspectives on your own set of truths.

If you have comments or questions regarding factlab lessons so please feel free to contact us at the address: factlab@so-rummet.se