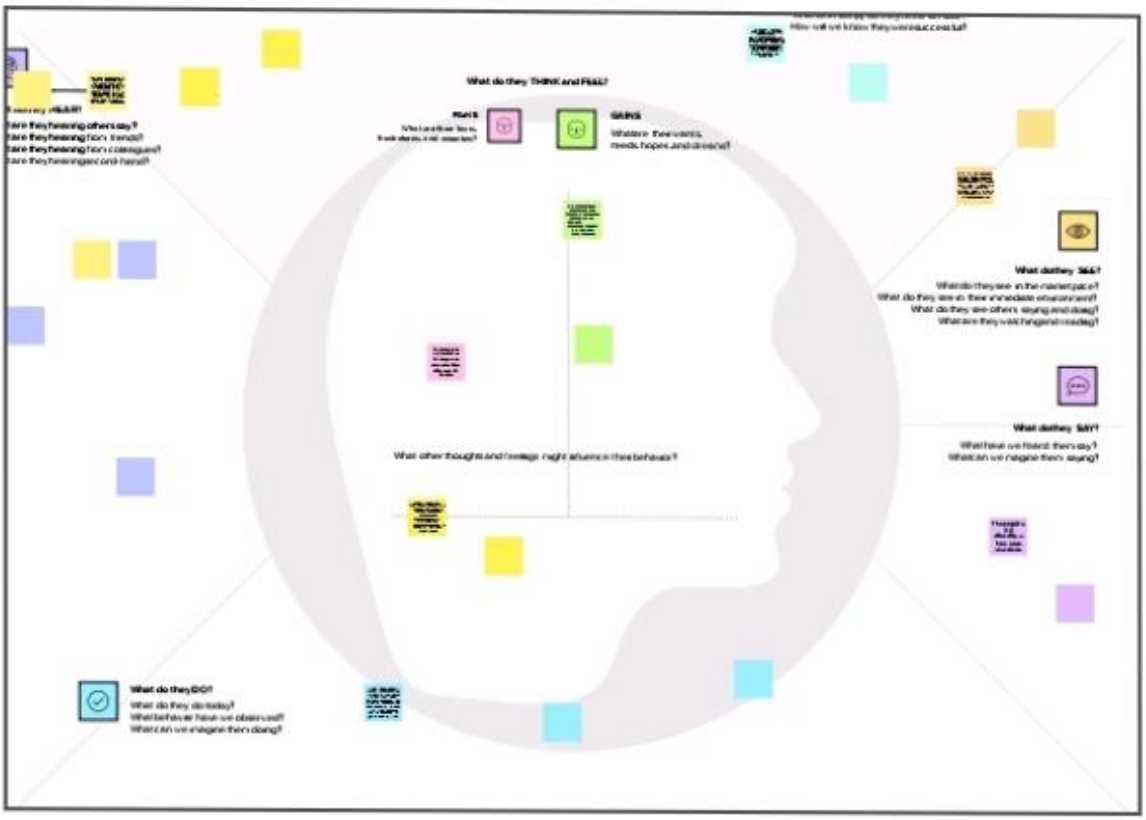
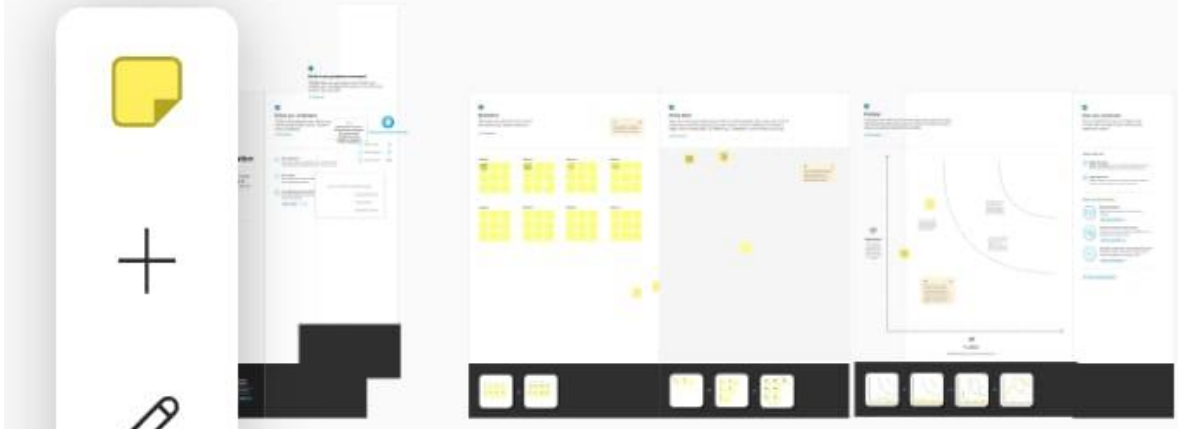
Tracing The Growth of The Global Community: A Population Forecasting Analysis

Introduction:

The world's population is more than three times larger than it was in the mid-twentieth century. The global human population reached 8.0 billion in mid-November 2022 from an estimated 2.5 billion people in 1950, adding 1 billion people since 2010 and 2 billion since 1998. The world's population is expected to increase by nearly 2 billion persons in the next 30 years, from the current 8 billion to 9.7 billion in 2050 and could peak at nearly 10.4 billion in the mid-2080s.

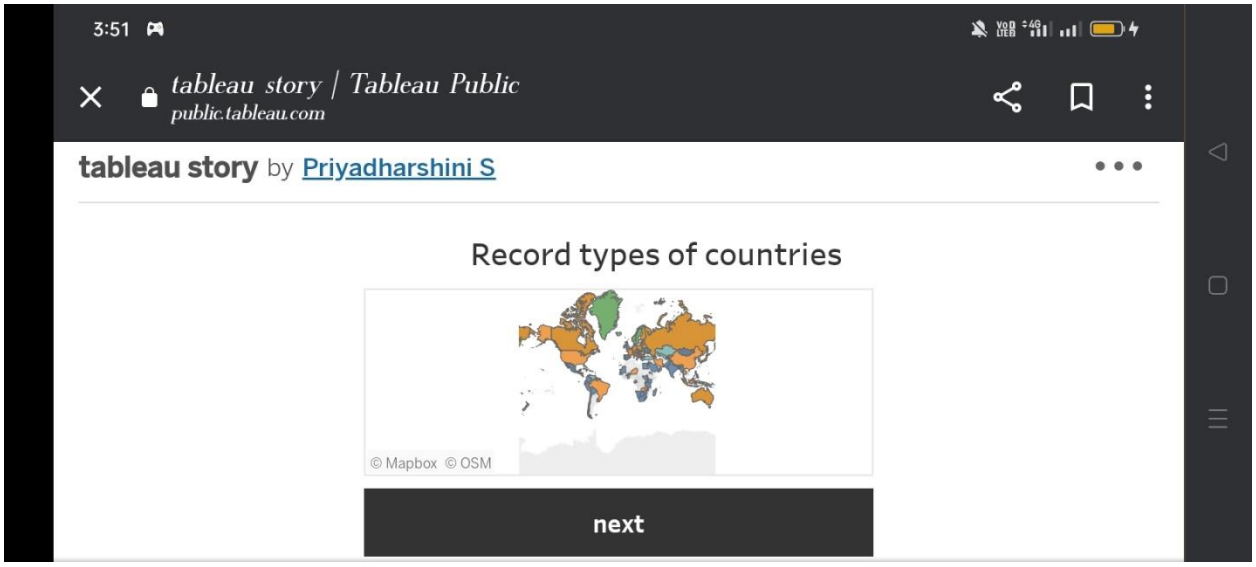
This dramatic growth has been driven largely by increasing numbers of people surviving to reproductive age, the gradual increase in human lifespan, increasing urbanization, and accelerating migration. Major changes in fertility rate have accompanied this growth. These trends will have far-reaching implications for generations to come.

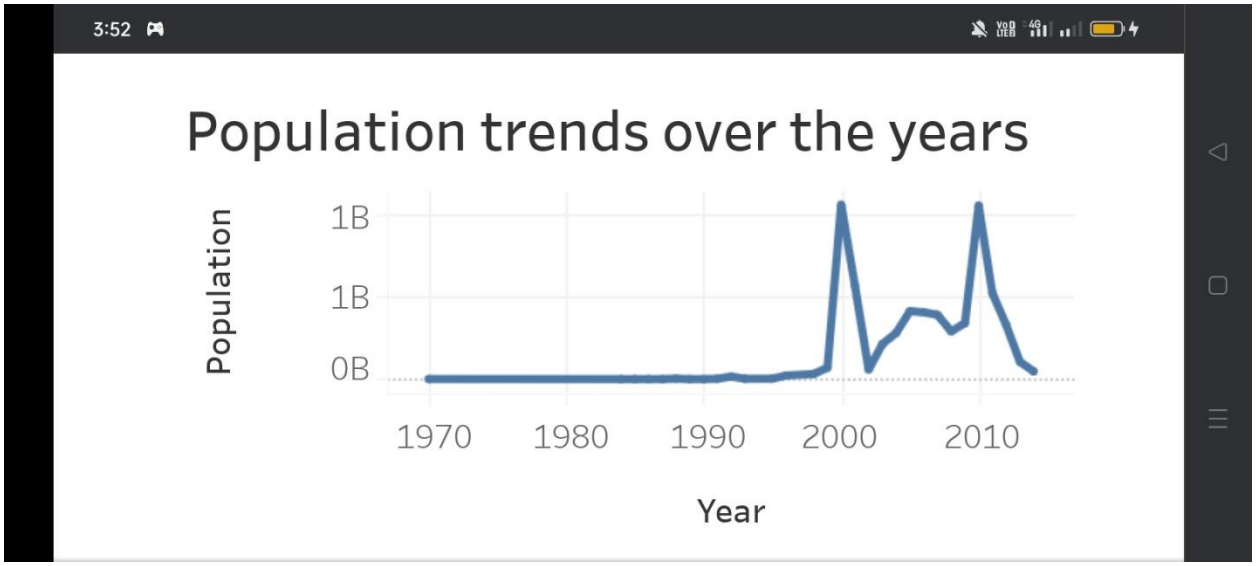

What do they THINK and FEEL?
What other thoughts and feelings might influence their behavior?
What do they SEE?
What do they SAY?
What do they DO?

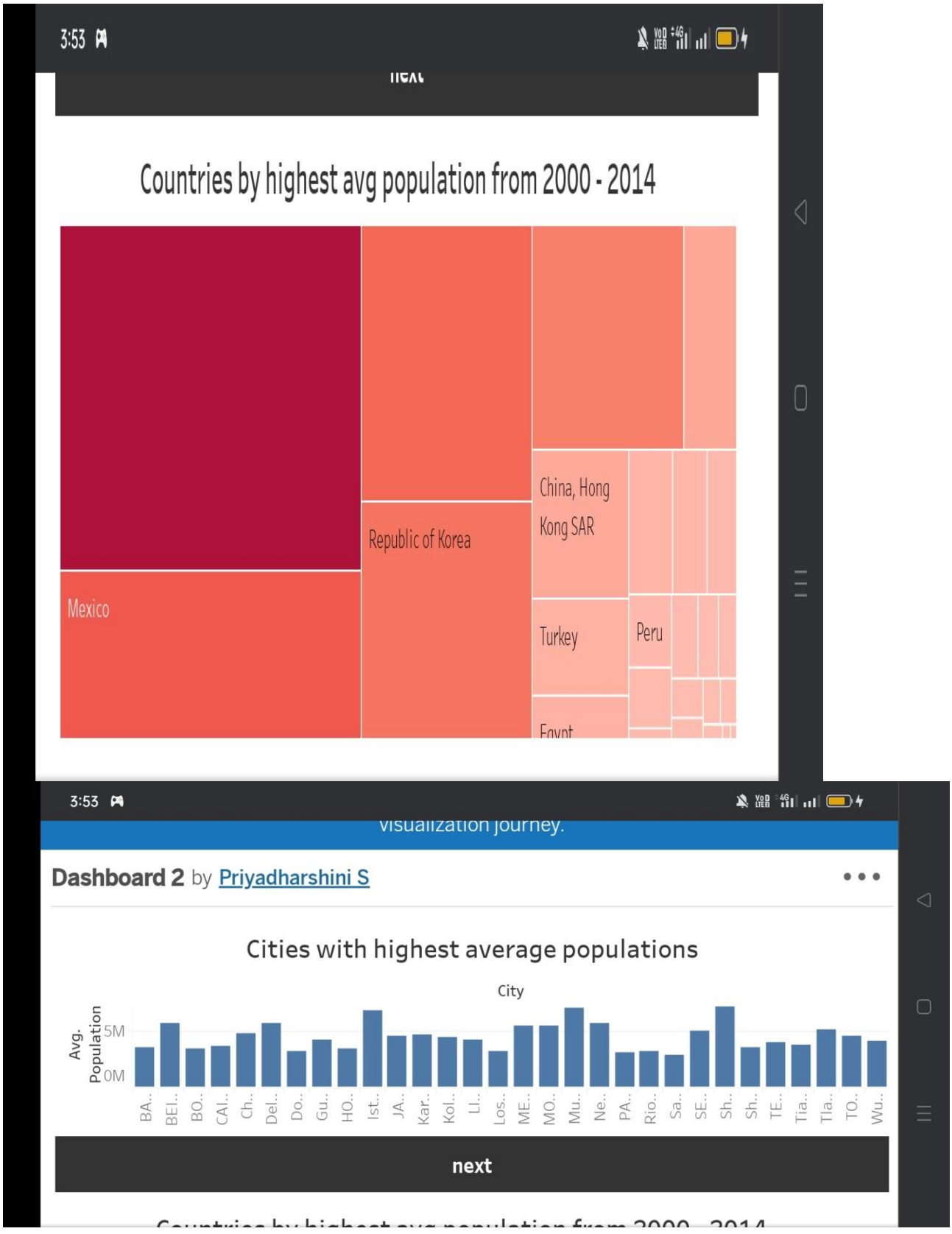


RESULT:

Final findings (Output) of the project along with screenshots.



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Countries by highest avg population from 2000 - 2014
Mexico
Republic of Korea
China, Hong Kong SAR
Turkey
Peru
Egypt
3:53
visualization journey.
Dashboard 2 by Priyadharshini S
Cities with highest average populations
City
Avg. Population
5M
0M
BA..
BEl..
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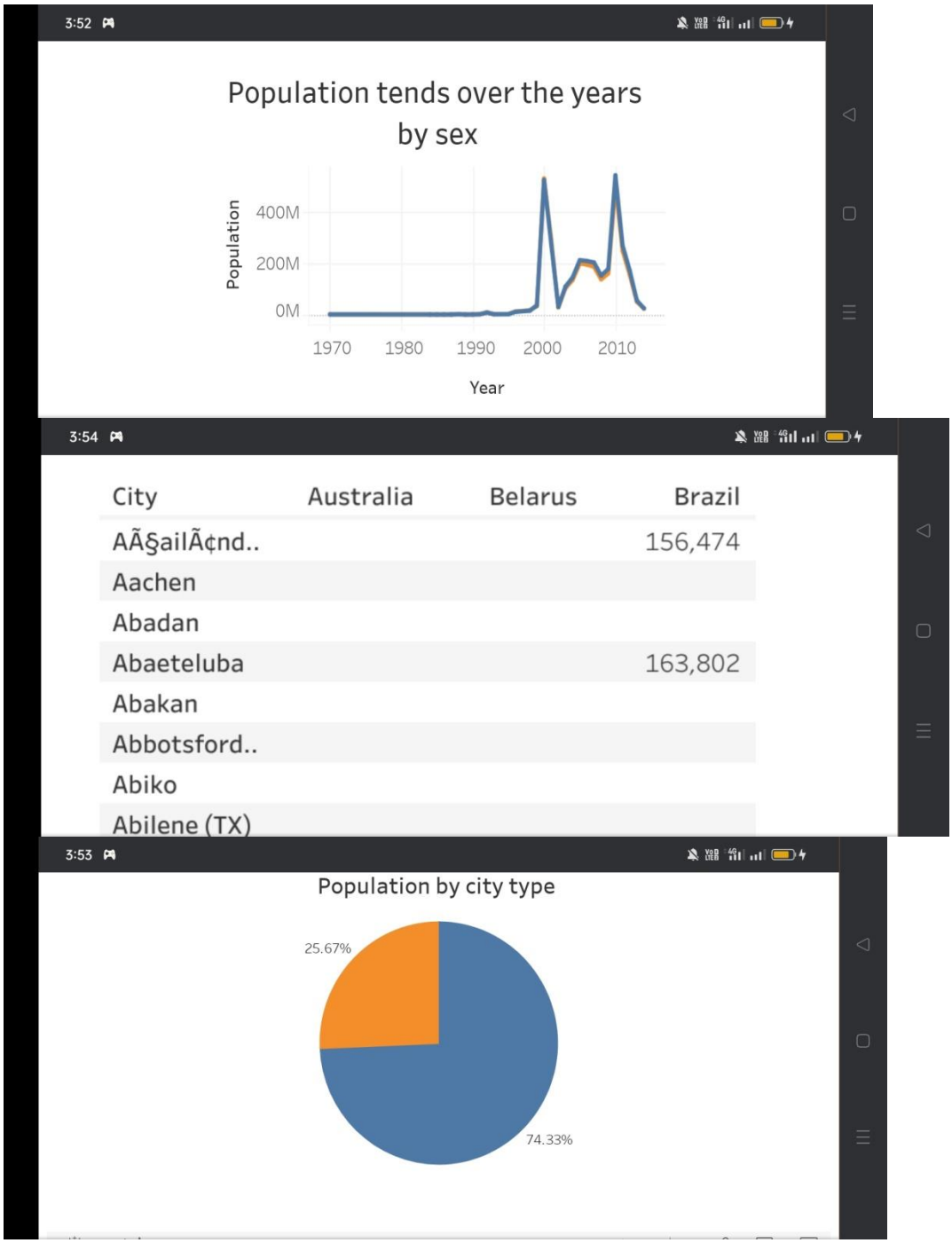


ADVANTAGES OF POPULATION GROWTH:

1. More people leads to greater human capital:

If there are more people, the probability of finding a genius like Einsterin, Marie Curie, Beethoven increase. These exceptional

people can lead to technological and cultural masterpieces which enrich our lives. The past 200 years have shown exponential growth in technical development and innovation. There are many factor behind this, but the world's growing population means we have a bigger pool of human capital and the possibility of these cutting edge discoveries increase.

2. Higher economic growth:

- Population growth will lead to economic growth with more people able to produce more goods. It will lead to higher tax revenues which can be spent on public goods, such as health care and environmental projects.
- The obvious evaluation is to say, the crucial thing is not GDP, but GDP per capita. If economic growth is at the same rate as population growth, average living standards will not increase. However, it is possible population growth can also improve per capita incomes. As the population increases, the economy can benefit from a bigger talent pool, economies of scale and greater specialization. All this can enable higher per capita income, which we have seen in major developed economies.

3. Economies of scale:

Farming and industry have been able to benefit from economies of scale, which means as the population grows, food output and manufacturing output have been able to grow even faster than population growth. For example, at the turn of the nineteenth century, Thomas Malthus predicted population growth would lead to feed the growing population. However, his dire predictions failed to materialize because he failed to understand, that the productivity of land, labour and

capital could all increase more than proportionately. 300 years ago, most of the population worked on the land. Technological innovation and economies of scale, mean productivity of land has vastly increased as farers make use of mechanization and economies of scale for increased food production.

4. The efficiency of higher population density:

In terms of per capita carbon footprint, areas with a high population density are significantly more efficient than rural areas and places with a low population. When people live in densely populated areas, they are more likely to use public transport, live in apartment buildings which are easier to heat. In big cities, transport and the delivery of goods is much more efficient, whereas for low population densities, the average cost and environmental footprint are much higher. Therefore, population growth which leads to growth in city conurbations (which is a feature of global growth in past) is not as environmentally damaging as we may think. In Green Metropolis, by David Owen he argues living in closer proximity in cities is a key aspect of sustainability.

Urban areas account for only 3% of the world's land surface. But, more than 50% of the population. By 2050, the United Nations predict this will rise to 70%. Therefore, population growth doesn't have to lead to an equivalent fall in natural habitats.

5. The improved demographic structure of society:

Many western economies of now experiencing a falling population, with the result that there population demographic is being skewed to old, retired people. This is imposing costs on society as we struggle to pay for health care and pensions. Moderate population

growth helps to rebalance the population with a higher share of young, working people.

Disadvantages of population growth:

1. Cost to the environment:

Population growth exacerbates many of the existing environmental problems

- Trying to reduce carbon and methane emissions to reduce global warming is relatively more difficult as the population.
- There will be greater threat on natural habitats as a greater population has greater demand for housing and farmland. This will be increase pressure to cut down forests to make way for farming and housing.
- Higher population will lead to a greater consumption of non-renewable resources, leading to a faster deletion of natural resources.
- Higher population will lead to greater population leads in air, water and land. Higher population is associated with a range of health issues, such as cancer and asthma. The population also harms animals and plants.
- Soil degradation: to feed a growing planet, we have seen serious degrading of farmland (according to UN estimates) about 12 million hectares of farmland every year. This is due to factors, such as overgrazing, use of chemicals, climate change and use of chemicals.

2. Congestion:

Too many people in a small space will lead to various types of congestion. Road congestion is a major problem across the world. One study congestion cost the EU€111bn(1% of GDP) in 2012. With population growth, the cost of congestion will only increased leading to time lost, more population and lost output.

3. Water shortages:

Already up to 40% of the world's population face water scarcity and the risk of drought. According to the UN water shortages could lead to 700 million people at the risk of displacement. A growing population will put pressure on scarce water supplies and this is a factor behind many minor and major conflicts with countries having to find ways around the shortage of water.

4. Generating unsustainable waste:

We are currently generating non-biodegradable rubbish that we are struggling to process. It tends to end in landfill, causing methane emissions and other toxic problem.

Benefits of Global Communities

The benefits of belonging to a global community are numerous. A community can be a safe place where you can share your thoughts and feelings with people who truly understand what you're going through. Offer you support in difficult times when you need someone to lean on.

Application:

This method involves discovery of the factors that influence present and past population increase and decrease. On the basis of assumptions concerning the future of these factors, and of other factors that are just emerging in the community, projections of fertility, mortality and

Conclusion:

Therefore, the way **technology spreads across countries** is central to how global growth is generated and shared across countries.

Future Scope:

World population growth – This article is focusing on the history of population growth up to the present. We show how the world population grew over the last several thousand years and we explain what has been driving this change.

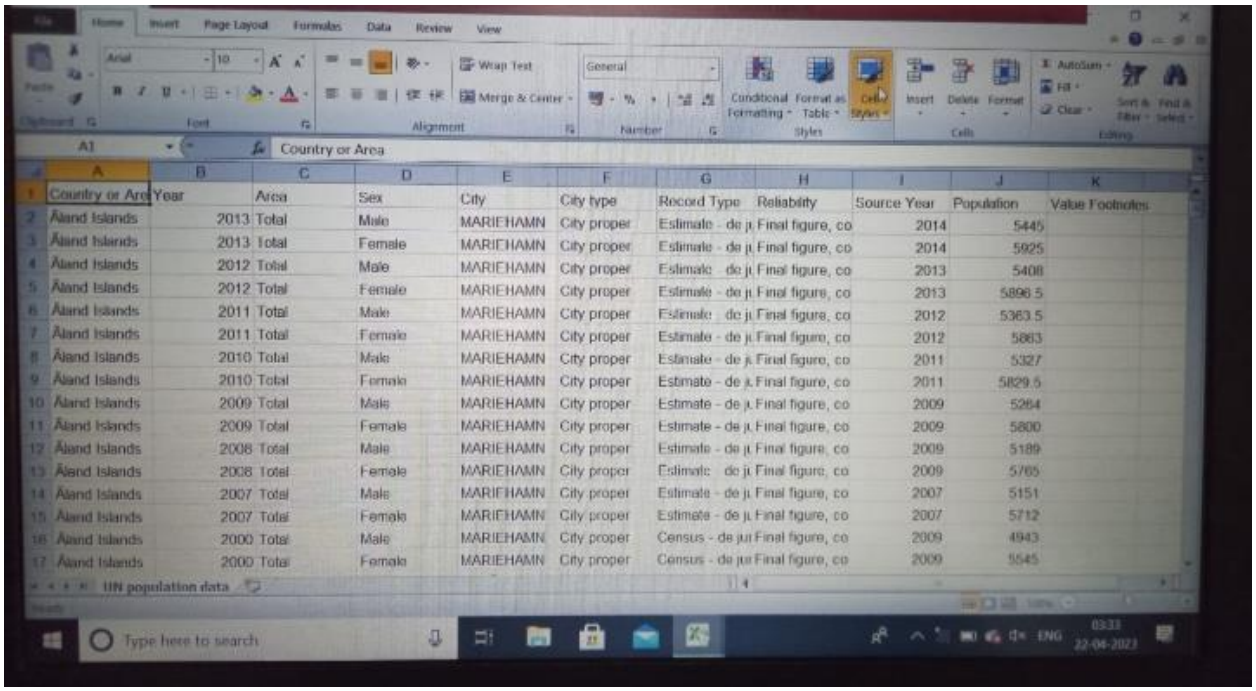
Life expectancy – Improving health leads to falling mortality and is therefore the factor that increases the size of the population. Life expectancy, which measures the age of death, has doubled in every region in the world as we show here.

Fertility rates – Rapid population growth has been a temporary phenomenon in many countries. It comes to an end when the average number of births per woman – the fertility rate – declines. In the article we show the data and explain why fertility rates declined.

Age Structure – What is the age profile of populations around the world? How did it change and what will the age structure of populations look like in the future.

Population forecasting is a method to predict/forecast the future population of an area. Usually, the population at the design period of water supply systems is predicted to find the water demand at that time, as the systems are required to fulfill their purposes till the end of the design period

Appendix



Country or Area	Year	Area	Sex	City	City type	Record Type	Reliability	Source Year	Population	Value Footnotes
Åland Islands	2013	Total	Male	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2014	5445	
Åland Islands	2013	Total	Female	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2014	5925	
Åland Islands	2012	Total	Male	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2013	5408	
Åland Islands	2012	Total	Female	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2013	5896.5	
Åland Islands	2011	Total	Male	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2012	5363.5	
Åland Islands	2011	Total	Female	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2012	5863	
Åland Islands	2010	Total	Male	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2011	5327	
Åland Islands	2010	Total	Female	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2011	5829.5	
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Åland Islands	2009	Total	Female	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2009	5800	
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Åland Islands	2008	Total	Female	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2009	5765	
Åland Islands	2007	Total	Male	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2007	5151	
Åland Islands	2007	Total	Female	MARIEHAMN	City proper	Estimate - de ju	Final figure, co	2007	5712	
Åland Islands	2000	Total	Male	MARIEHAMN	City proper	Census - de jur	Final figure, co	2009	4943	
Åland Islands	2000	Total	Female	MARIEHAMN	City proper	Census - de jur	Final figure, co	2009	5545	