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93401



Draw a cross through the box (X) if you have NOT written in this booklet

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TOP SCHOLAR



Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Scholarship 2024 Geography

Time allowed: Three hours
Total score: 24

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should answer ALL the questions in this booklet.

Pull out Resource Booklet 93401R from the centre of this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–24 in the correct order and that none of these pages is blank.

Do not write in the margins (XXXX). This area will be cut off when the booklet is marked.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

QUESTION ONE

Critically analyse and justify the most significant factor(s) creating variations in demographics across the globe.

Information to answer any question can be taken from any resource.

Your answers to ALL three questions must include:

- specific information from the resource booklet
- knowledge and insight you have gained from your studies in geography
- relevant original and/or effective visuals, such as maps, graphs, and diagrams.

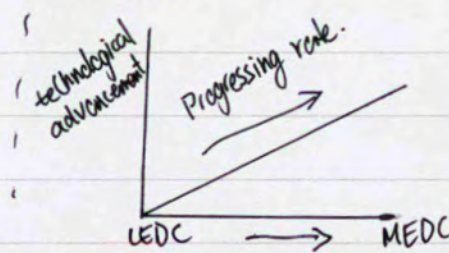
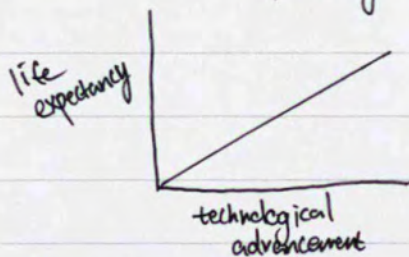
PLANNING

Begin your answer to **Question One** here:

Our global demography has been constantly changing, evolving, and adapting, and through the differences in development as the overarching ^{most significant} factor, we can see how this has resulted in variations and patterns within population distribution, diversity, and composition. These differences in development has been generally caused by technological advancement and advantageous policies, however it is arguable that migration is also a significant factor that contributes to our varying demographics in a global context.

Figure 1:

Relationship between technological advancement and life expectancy. Comparison between MEDCs and LEDCs:



Social and economic advancements, as well as surges in technological inventions due to ~~the~~ beginning with the industrial revolution, we can see various varying rates of change of demographics worldwide. For example, the North America has a life expectancy at 78 years, as opposed to Africa with an average of 55 years. As shown from figure 1, this is because of the ~~the~~ various degrees of development. ~~For~~ Central African Republic has an HDI (human development index) of 0.381, and South Sudan at 0.381, which is contrasted with the higher HDI of North American countries. As a result of this, we can see varying demographics across the globe. Such as because of these differences in development, in the US, the population below 5 has already been outnumbered by the elderly population by 1965. Only 4% of the population ~~was~~ in the USA was above 65 years old in 1900, compared to 12.8% in 1995.

This is contrasted to Nigeria, where the youthful population (below 5) will outnumber the older population (above 64) until 2080. These varying life expectancies as a result of differences in development as shown in Figure 1 has caused various changes across the globe, where some continents show an ageing population, yet however other countries show a growing youthful population.

These differences in development as the result of the industrial revolution allowed for better equality of life and standards of living. For example, advancement in medical technology has caused changes to the population. Advancement in medical technology has caused a decline in Fertility rates.

Figure 2:

Advancement in Fertility rates. As Figure 2 has shown, these medical advancements

↓
Decline in birth rates

↓
Increase in Women
rights

↓
Higher Development.

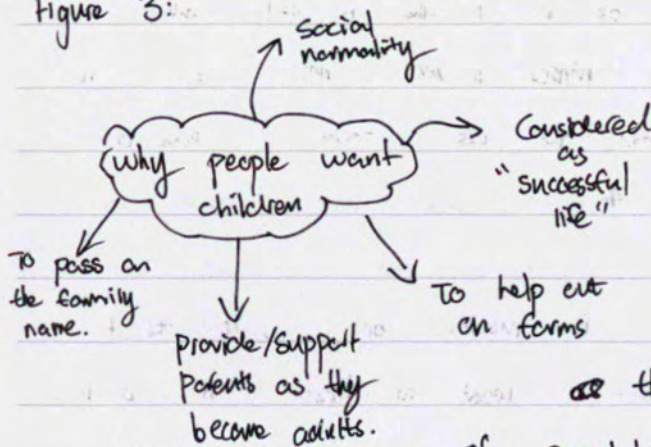
has allowed for a decrease in birth rates. The invention of contraceptive methods in the 1960s has been revolutionary for women from a social perspective, as they finally had control of their bodies. In recent years, these methods still hold risk, with 838 women dying every day, but it can be argued that they have finally found a purpose to live — rather than confined to the social norms of having and raising children. However, because every country has a different level of development, some LEDCs may not have accessibility to these contraceptive methods, resulting in varying rates of fertility across the globe.

For instance, Japan, one of the world's top¹⁰ economies, has a low fertility rate of 1.3, which is well below the replacement rate of 2.1. As a result, this has caused a slightly extreme population composition across the globe, with 30% of the population above the age of 65, and with a median age of 50. However, it

is argued that this is not a global trend, when we look at other countries, we will find disparities, causing variations in demography in regions/countries in a global context. For example, Sub-Saharan Africa has a high fertility rate of 4.6. Niger has a median age of 15. 50 years ago, ~~Kenya~~ on average woman in Kenya gave birth to 8 women, compared to 3 today. This extreme comparison shown between LEDCs and MEDCs is because of this change in development.

Many African Countries have a low level of development, such as Burundi, with an HDI of 0.420. This has caused high rates of birth because socially, ^{poorer} families would want more children so they have higher rates of success, or they are able to provide free labour and help out at farms.

Figure 3:



As shown in Figure 3, many of the reasons that explain why ~~children~~ people want children is sourced from a social perspective. This is arguable the most significant factor of the overarching factor of development, as that results in these varying changes of population composition across the globe, because

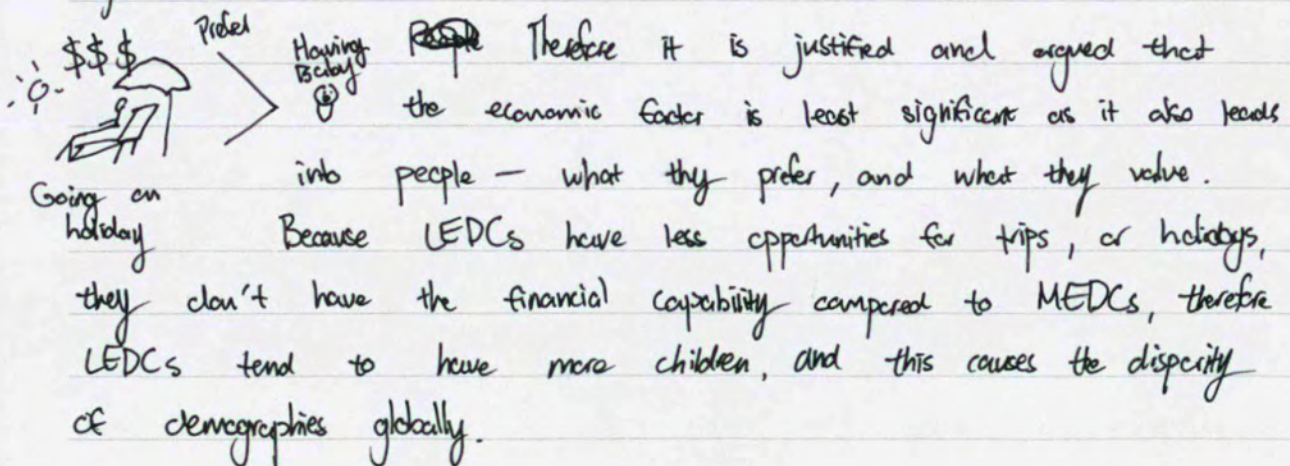
In the end, it is the people that decide whether or not they want children. Although technological advancement plays also a major role, but it does not directly alter the population, but rather simply provide more opportunities or distractions that causes these varying rates of population growth and change.

For instance, technological advancement has caused the uprising of social media platforms today, and it has been estimated that young people averagely ~~spend~~ spend around 4-8 hours on ~~the~~ social media per day in 2023. Technological advancement has caused distractions that limit the interactions

between people, but arguably, it is the people who decide themselves if they want children.

The ~~very~~ variations of demographics around the globe is also caused due to economic reasons, though this is of less extent when contrasted to the previous factors due to social perspectives and technological advancement. It is shown from data that global population growth will be driven by low income countries such as Nigeria, where 46% of Nigerians were poor because of economic mismanagement. This is opposed to South Korea with higher income on average, but they struggle to keep their population afloat. Over the past 16 years, the government has spent \$210 billion to increase fertility rates, yet it is still estimated by 2050, the proportion of the population above 65 years old will reach 44%. With higher income, people prefer a higher standard of living and quality of life as opposed to having children as shown in Figure 4.

Figure 4 :



Migration is another factor that causes this variation, however it is argued that this is not as significant as other factors because of its limited extent. Migration may change population composition, such as with Qatar, with a sex ratio of 3.37 men : 1 woman due to

migrant labour workers, or ~~at~~ an average of 23,000 people move from NZ to Australia each year, causing the "brain drain", as skilled workers are lost. But it is argued that this isn't the most significant factor as it does not relate to the core of population - the people. Therefore social factors/perspectives are not considered. ~~The~~ Migration does result in variations of demography of countries world wide, but it acts upon the social perspectives, technological advancements, economic strength, which influences people's decision to migrate.

These variations that occur across the globe are not based on 1 single factor alone, but rather combinations of multiple factors, though arguably the most significant is due to social reasons as a result from development. Demography is complex, people are complex, and where these variations leave us remains to be seen.

QUESTION TWO

Critically evaluate and justify the most significant implication(s) of predicted future changes in populations across the globe.

Information to answer any question can be taken from any resource.

Your answers to ALL three questions must include:

- specific information from the resource booklet
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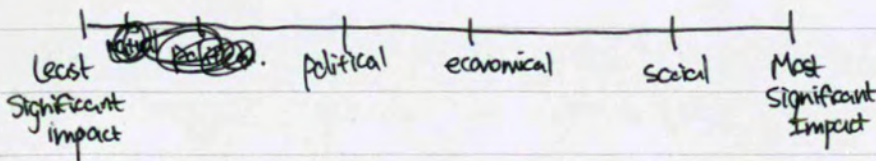
PLANNING

Begin your answer to **Question Two** here:

August Comte said that "Demography is Destiny", where the size and composition of a ~~country~~ country's population determines its future.

The predicted future of global demography is a declining and ageing population, and this will cause ~~to~~ both positive and negative implications on our future. These implications can be classified into social, economic, ~~and~~ political, and natural.

Figure 5:



As shown in Figure 5, the social implications of an ageing and declining population is seen to be the most significant, as demography in the end, strongly relates to people.

Socially, a declining population has been sourced by many studies, with the EU predicting that its population will shrink by 6%, which is 27.3 million people by the end of the century. This ageing and declining population is shown to be predetermined by the malthusian theory shown in Figure 6, though not all may agree. But it is estimated that in 2100, people above 65 will account for 32% of the population, as opposed to 21% in 2022. The current fertility rate at 2.3 is expected to drop to 2.1 in the near future.

Figure 6

Neo-malthusian: VS Optimists:

increasing population

↓
increase in resource demand

↓
Demands not met

↓
Increase mortality

↓
decrease

Population decline

increasing population

↓
increase in resource demand

↓
technological advance

↓
demands met

↓
Population sustained.

Geography 93401, 2024

Thomas Malthus estimated that global population ~~growth~~ decline has been predetermined, though many argue against this, believing that Malthus did not take into account

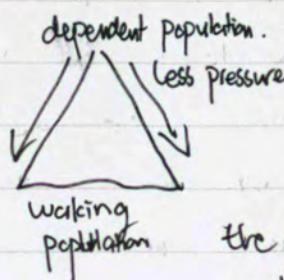
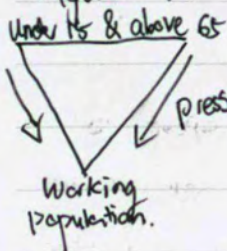
of humanity's ability to adapt in times of crisis. Yet, at the moment, Malthus's theory seems to be correct.

Socially, a positive implication of this ageing and declining population is how it promotes gender equality, and the rights of women. ~~Before~~ In the past, the social perspective and pressure on women was enormous, limiting their rights, ~~but because of~~ as they were commonly perceived to ~~stay~~ "stay-at-home" and do chores, where the men went out to work. However, the ageing and declining population has caused an ~~increase~~ ^{increase} in women rights, as fertility rates increased. They were given more opportunities, as India legalized abortion in 1972, and increased the marriage age to 18. Women were no longer restricted to their homes, as they pursued careers and personal dreams. The UN had estimated that it would cost over \$200 billion to completely reduce the gender gap, and 200 million women globally ~~can still~~ still do not have access to contraceptive methods. But arguably, this ageing and declining population is a new beginning for them, that promotes gender equality, granting women more opportunities.

However, it is argued that not all social implications are positive, as with this ageing/declining population also comes negative social impacts.

A negative social impact is the stress that it puts on the working population with this increase in the dependency ratio.

Figure 7:



As shown in Figure 7,

this ~~age~~ increase in the dependency ratio results in immense pressure put on

the working population. The working population (15-64) make up over

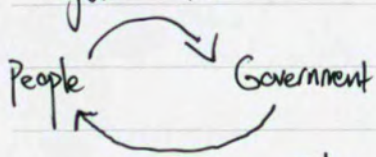
$\frac{1}{3}$ of economic growth in countries such as China, Japan, and Singapore. Japan has ~~an~~ a dependency ratio of 70.1%, which justifies the negative impacts of this ageing population, because of the working class which must support this population. This social pressure may result in stress and mental issues. It is seen that in the US, it requires 6 people to support the retirement of a couple. However, it can be argued that not all of these ageing population will certainly result in an increase in dependency. $\frac{1}{4}$ Indian and Taiwanese adults between their 60s and 70s regularly help out. 47.5% of agricultural workers are above 50 years old. Whether this ageing population is seen as a support or burden remains to be seen. But overall, the positive social implications outweigh the negative social implications.

The economic implications as a result of an ageing/declining population is shown to have less significance (Figure 5) as it doesn't directly ~~result in~~ correct to the people, and people are the core of demography. An ageing population would cause a higher elderly population, and thus more resources must be allocated to support their health, wellbeing, and social security. Australia's budget between 2017 and 2018, allocated 15.3 billion towards health, and 164.1 billion towards social security. Vietnam has allocated many resources towards the training of 30,000 health professionals. South Korea will see around a ~~30%~~ 35% reduction in the working age, compared to 20.6% in China. This would increase the budget spent on pension, and also increased taxation on the working population to account for the lower GDP. Money, which could have been invested into more urgent sectors or instead spent to support the elderly population, thus justifying the negative economic impacts of this ageing population. In addition, an ageing population will cause a decrease in the work force, which does not meet the labour

demands, resulting in inflation, and thus being a negative implication. ~~At~~ Generally all of the economic implications caused by the predicted ageing and declining population is negative, although some may argue that on a personal perspective, these impacts may be positive as businesses may value the workers more, but on a general scale, the impacts are considered to be negative.

Politically, the estimated declining/ageing population will allow governments to reflect on their political decisions, therefore they are broadly positive, however they hold minimal significance to the economic and social implications, as the political impacts hold national significance, but to individuals, they may ~~not be impacted~~ hold minimal significance as they are not targeted. However, it can be argued that there are some political decisions that impact everyone.

Due to the declining and ageing population, in 2023, the French government ~~at~~ introduced a policy where the retirement age will raise from 62 to 64. This held both personal and national significance as it impacts the people, and the people rioted. But, it is also arguable that this does not hold significance as we cannot classify it under the binary division of positive or negative. It may be positive for national perspective as it increases economic strength and social stability, yet it may also be negative from a social or personal perspective as the people are unsatisfied.

Figure 7:  As shown in figure 7, the government is trying to do what it can for the people, yet the people are putting blame on the government. Other political decisions, ~~such as the Chinese 1 child policy in 1979~~, or incentives such as ~~providing~~ 200,000 yuan for every baby you have in china, or providing other benefits to reduce the impacts of this ageing/declining population can also not be classified into positive or negative as it

can be argued from multiple perspectives, therefore it does not hold as much significance compared with the social and economical implications.

Impacts are diverse, perspectives are diverse, people are diverse. The estimated population trend may change, but it will always bring about impacts. By taking into account all factors and possibilities of ~~every~~ every outcome is important for us to come to solutions.

QUESTION THREE

Perspectives are bodies of thought, theories, or world views that shape people's values.

Through perspectives, discuss the most important factor(s) that global leaders need to consider when making strategic decisions to reach sustainable populations.

Information to answer any question can be taken from any resource.

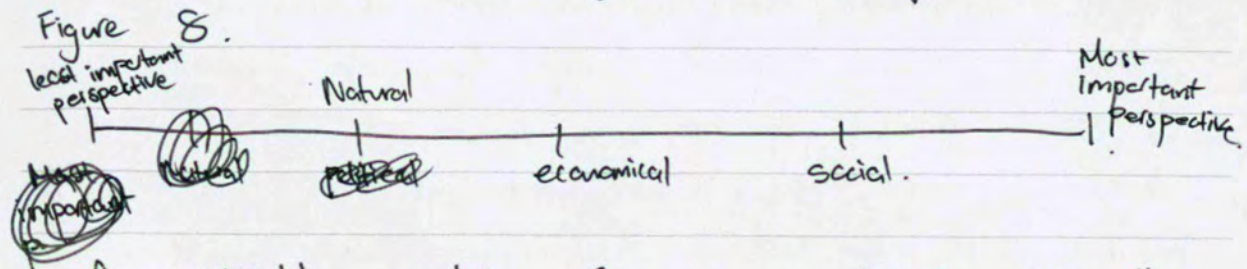
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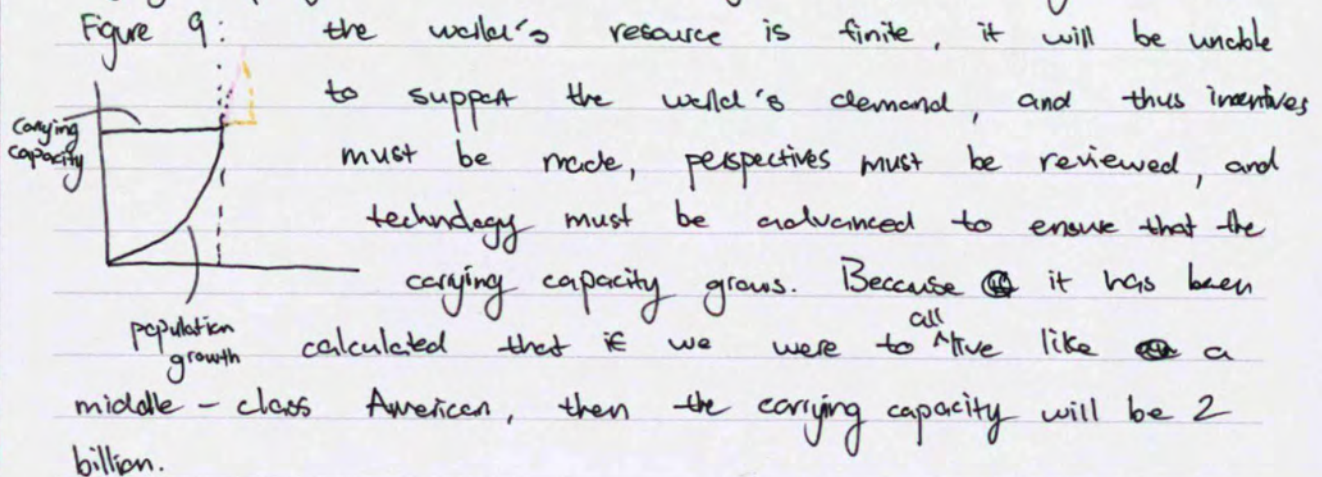
PLANNING

Begin your answer to Question Three here:

To tackle the issue of population management, global leaders must consider a wide range of perspectives — investigating each thought with care and from a welcoming point of view, to understand everyone and to produce the most effective solution to reach a sustainable population. Out of all the factors, human rights is the most significant.

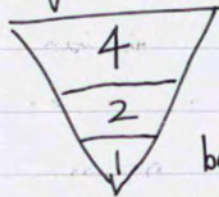


A sustainable population refers to one that is within the carrying capacity. As shown in figure 9, eventually, because



Governments must take into account social perspectives ^{through the most important factor of human rights} ~~and factors~~ when making policies to tackle population instability, as people are at the core of the society as shown in figure 8. In 1979, the Chinese Government implemented the one-child policy, and this policy was controversial because it did not consider the social perspectives. The 1-child policy prevented over 300 million births and had fines of ~~200,000 yuan~~ 200,000 yuan if you were caught to have a second child. This policy aimed to reach

a sustainable population, but it did not consider the factor of people, as many faced immense social pressure. Because of the lower youthful population, it led to the "4, 2, 1 scenario", in which the only child had to support their parents and their grandparents as shown in Figure 10. This caused immense social pressure on the only-child that were constantly



expected high of. Through this method, even if the sustainable population were reached, the people would not be happy, and people are the most important factor that the government shall always consider when making policies. But it can be argued that as long as a sustainable population is reached, social perspectives can be ignored as people tend to think of themselves rather than being a "global citizen." However, this statement can also be argued as we do all have rights to live however we want, and the 1-child policy violates this rule. China is significant in terms of global demography due to its large population size of 1.4175 billion people by the end of 2022.

Romania, similarly, also failed to acknowledge the most important factor of human rights, as they did not consider their actions from a social perspective, and this has caused conflict to occur.

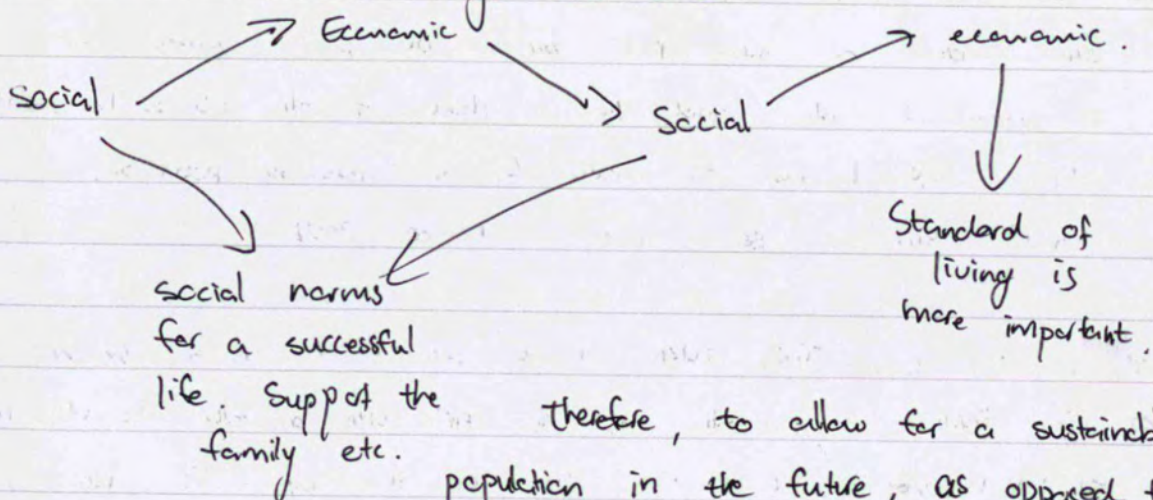
In 1965, Nicolae Ceaușescu implemented demanding methods that aimed to increase the population size (as they were experiencing underpopulation) to reach a sustainable population. Abortion was banned for instance, unless the women already had 5 children, or may not survive from childbirth. However, ^{it is arguable that} this strips away women's rights, as they ~~may~~ do not have control over their own body, and this pregnancy may have been unplanned for. The acknowledging of human rights is something that global leaders must consider from

a social perspective to understand the people.

(from an economic perspective) is a factor that also ^{into} Economically, the costs of children must also be taken ^{into} account, which then allows for a sustainable population. It has been estimated in multiple instances that raising a child costs around 8,000 - 16,000 NZD per year. In many LEDCs, this may be beneficial for families from a social and personal perspective as the children may be able to help out for hard labour. Yet, in MEDCs, from a social and personal perspective is that they are unwilling to spend money and time on raising children when they can rather enjoy life, which displays their shifting perspectives shown in Figure 11.

Figure 11:

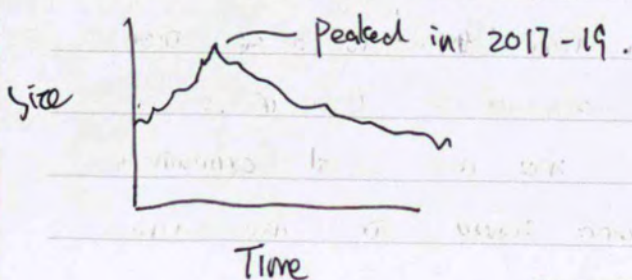
View on children change over time:



a lack of workers (in India shown in Figure 12), the government must make the idea of having children more appealing.

Figure 12:

India work force (15-17).



From an economic perspective, the cost of raising a child can be reduced perhaps through policies. The Czech Republic, for example has offered 70% of one's salary through their maternity leave, making more

appealing to have children. Also, China offers 30,000 yuan (7000 USD) for every child that is born. By taking into account the cost of raising a child through an economic perspective allows for a sustainable population to be reached. However, it can be argued that even though people may be more prone to having children, but there is still a "desired family size" influenced through social, cultural, or religious perspectives. This is not as significant as human rights, as that is the base line of humanity, and should never be crossed on a moral scale.]

From a natural perspective, governments must take into account the abundance of their resources. It is seen that 800 million people do not meet their nutritional needs daily. Some may suggest that this is a result of overpopulation, but others may argue that even within a small population, the same issue may still be present as our standards of living raise because of more resources available on a proportional scale, and this is shown through 650 million people being obese. Therefore, to allow for a sustainable population, global leaders must view the issue from a natural perspective, and ensure resources are not overused or put to waste. In 2019, the global overshoot day was July 29th, where we used up all the resources that the earth can naturally replenish itself with annually. The UN has suggested that we would need 70% more food by 2050. Naturally, global leaders must consider through this perspective, of the availability of resources as a major factor. But this is not as significant compared to the ^{most important factor of human rights} social and economic factors, because it can be argued that we can increase resource availability through technological advancement. For example, India's High-Yield variety seed program (HPV) from 1966-67, has allowed for yields 2 to 4 times as much as normal crops, and also caused maximum land use. But it can be considered and argued, that this solution

When allowing for a sustainable population is also unsustainable[^] as it causes malnutrition, and will increase the income gap between households in these rural areas.

Global leaders have a lot to consider to when referring to maintaining a globally sustainable population. They must be open-minded and open to suggestions, to allow the world to fully grow, prosper, and mature.