

# The Phenomenon of the Population Explosion and its Challenge in Indonesia: The Living Environment and the Social Change

Hery Gunawan

Master of Management, Widya Mandala Catholic University Surabaya, Indonesia

## ABSTRACT

The purpose of this research is to analyze and invite all levels of Indonesian people to understand more about the impact of the population growth. How Indonesian people use the available resources and the impact that happens become the focus as the risk of the increasing number of the population. The attitudes and behaviors of Indonesian people become the keys in keeping the balance, whereas the commitment is the way to fix and press the negative impact of the population explosion.

This qualitative research uses the secondary data through observations, journals, books and the article publications in the electronic and printed media. The results of this research prove that there is a close relationship between the population explosion toward the environment destruction and the social change in Indonesia, the aggressive actions toward the environment or fellow humans have proved that humans with their ideas and thoughts can be very dangerous if there is no responsibility and care. To prevent the impact of the population explosion from becoming worse, Indonesian people must be actively involved in behaving maturely and wisely in every choice in their lives.

**KEYWORDS:** *Population Explosion, Living Environment and Social Change*

## INTRODUCTION

The population explosion is usually signalled by the high increase of humans that has the impact to the humans themselves and their environment (Green, 2008, p. 6). For some people, the population density is not a serious problem because, maybe, they do not understand its impact or just behave sceptically and ignore. The serious problems that can happen because of the population growth are starvation, unemployment, the high number of crimes, environment destruction and climate change (Alshalalda, 2020). Those problems will not happen and be felt directly, but slowly until we reach a point where there is nothing left from the entire ecosystem on this earth. Humans will scramble or even kill each other to survive, so that we are not social creatures anymore, but hungry monsters.

Quoted from (Zulfikar, 2021) Indonesia is placed at the fourth rank among the countries with the most populations in the world with the total of

270.20.000.000 lives (BPS, 2020). The data show that although the population growth rate decreased 0.24% from the year 2010, but the total population increased significantly if compared to the first census in the year 1961. That is not good news because if the population growth rate in Indonesia does not go with the stable economic growth, there will be many problems that will happen with it.

The environment problem and the social change in Indonesia will increase together with the addition of 3.2 million of lives per year. Without omitting the feeling of optimism, it is necessary to know that no one can stop the population growth rate although we are well educated. The only chance is to really understand the risk of this population explosion and start planning and limiting the number of births in each family. If it is not done, the world that you live in will not be similar when the population increases.

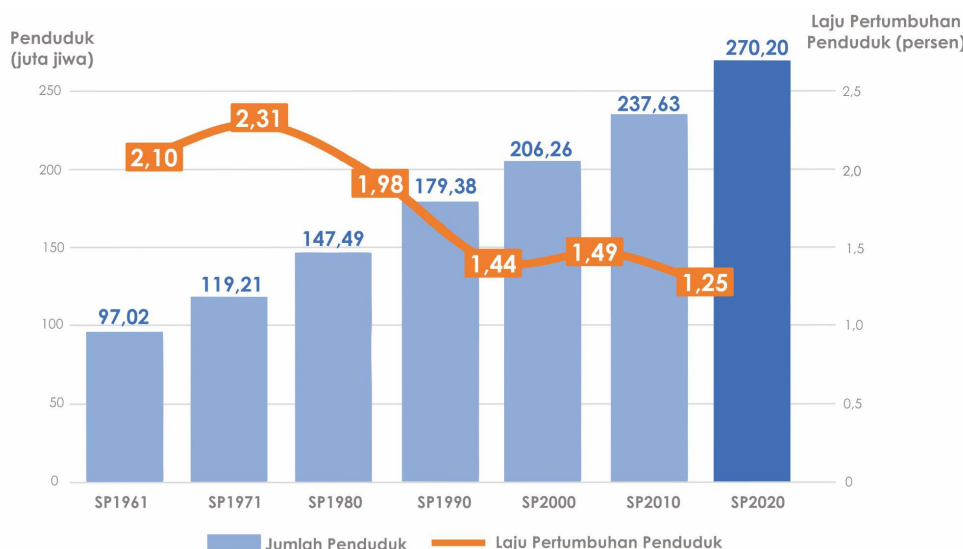
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**Image1: The population of Indonesia 2020**  
Source: Badan Pusat Statistik, 2020

## LITERATURE REVIEW

### 1. The Population Explosion

According to (Suartha, 2016) the population explosion is the high number of births in a country or a place that is fast and uncontrollable in a certain period, because of the increase of the fertility number, the decrease of the mortality number or migration (Marhaeni, 2018, pp. 51-52). The difference between the fertility number toward mortality is called natural increase, while the difference of migration in toward migration out is called net migration (Subri, 2017, p. 16)

### 2. The Living Environment

The living environment is all things that influence and depend on each other in their life time (Wiryono, 2013, p. 1) and that environment consists of all living and non-living creatures that are formed naturally (Hutchison, 2019, p. 400).

### 3. The Social Change

According to (Setiadi, Hakam, & Effendi, 2017, p. 53) the social change is the transition of the relationship or interaction in the society that covers various life aspects, where the good or bad effect of that transition causes a new habit or balance in the society (Soyomukti, 2014, p. 71)

## METHODOLOGY

The research which is entitled the population explosion and its challenge in Indonesia is a qualitative research, where according to (Yusuf, 2017, p. 329) a qualitative research emphasizes on the search of meaning, definition, concept, characteristic and description of a phenomenon. The data collection technique uses the observation method which was done by using *nonparticipant observation* and the literature study which was used to sharpen this research about the impact of the population explosion in Indonesia.

## RESULT

### 1. The Living Environment: *Trash and pollution, Deforestation, Natural disaster and Climate Change*

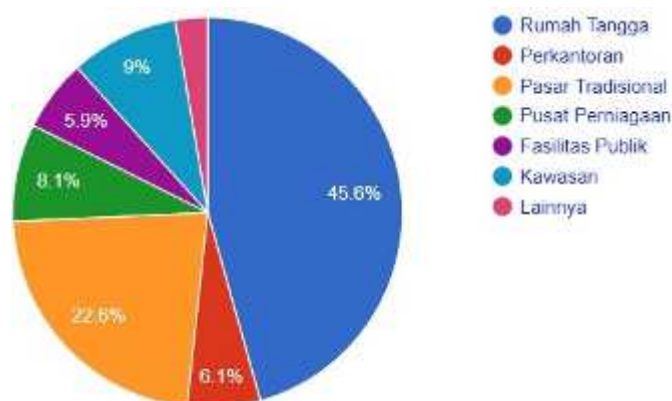
#### Trash and pollution

Trash is everything that is useless, unused, hated and wasted because of the result of human activity so that trash does not appear naturally (Ikhtiar, 2017, p. 17). Quoted from [www.sipsn.menlhk.go.id](http://www.sipsn.menlhk.go.id) every year Indonesia produce 23.072.738 tons of trash, where only 61.93% or 14.289.464 tons of trash is managed well and the rest 38.07% or 8,783,274.02 tons of trash fails to be managed.

Based on the research (Tampuyak, Anwar, & Sangadji, 2016) there is a close relationship between the population growth toward the trash appearance, it is estimated that one Indonesian person produces 0.7 kilogram of trash everyday and keeps increasing based on the needs of every person (Andryanto, 2021). One kind of largest trash in Indonesia is plastic trash, quoted from [www.liputan6.com](http://www.liputan6.com) Indonesia produces 66 million tons of plastic trash per year and is the second largest in the world. It is because Indonesian people like shopping both in traditional markets and malls by using plastic bag though the goods that are bought are small or can be carried without using bags. The life style of the citizens that needs fast and instant things causes the high consumption of fast food or drink and causes the trash of food or drink packages, spoons or forks that are used only once and paper packages to increase sharply.

Based on the sources of trash, the house trash makes 45.6% and the traditional market trash makes 22.6%, it means that the management of the trash circulation must be improved as affectively as possible. In fact, Indonesian people only know that

throwing trash to the wrong place is not allowed, but throwing trash to the right place is not similar to reducing trash! Both things have similar results but the effectiveness is different, throwing trash to the right place only moves the trash at houses or offices or cars or bags or shirt pockets or tables or cupboards to another place but you do not reduce the trash that circulates. Reducing trash means that you are aware and know that it is important to play an active role to stop producing trash, so that the amount of trash can be reduced.



**Image 2: The Composition of Trash Based on the Sources**

**Source: Badan Pusat Statistik, 2018**

As a result of the population explosion, Indonesian people consider rivers as trash cans and the practical solution to throw trash or waste from offices, houses, factories, restaurants and any events secretly so that the condition of the rivers in Indonesia is very poor, about 59% of the Indonesian rivers are polluted by trash or waste from industries, mines, houses (Antara, 2021). Even not only in the rivers, trash is also found at the corners of the streets, sidewalks, and even in the environments of our houses, there are instant noodles packages, cigarettes, cartons, plastic bags, and although we have cleaned them up, they will appear again and again.

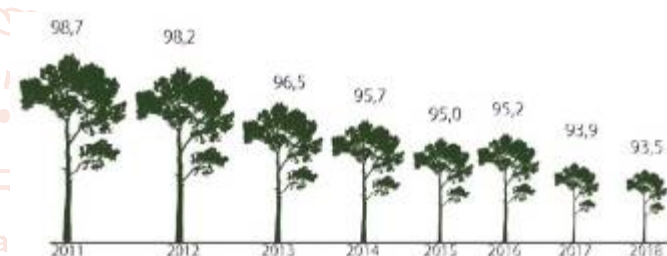
Apart from the river pollution because of trash, the air pollution also happens in Indonesia. The research that was done by (Zuhri, 2014) proves that the population density level causes the high level of air pollution especially in cities, it is because the majority of citizens use motor vehicles as transportation devices and the great number of motor vehicles increase the air pollution.

The population growth also means the increase of human activities to fulfill their needs. From the mining sector, the research that was done by (Astuti, 2018) proves that the coal mines in Indonesia have polluted the soil, the exploration that happens for years causes the soil to be polluted

by heavy metal so that it is not fertile anymore and finally abandoned. In the agriculture sector, many farmers use inorganic fertilizers to fasten the growth of vegetables or fruits so that they can be harvested immediately, and it causes the soil to be contaminated by chemical substances (Muslimah, 2015). Because the soil is polluted, the farmers try to open new lands by burning forests, and it finally causes large deforestation.

### Deforestation

Deforestation or forest foliation is the disappearance of the forest cover with its attribute that has an impact to the ecosystem and the change of function for permanent human interest (Barri, Setiawan, Oktaviani, Prayoga, & Ichsan, 2018, p. 11). According to KLHK during 2011-2018, Indonesian forests have decreased from 98,7 million ha to 93,52 million ha. If compared to the Indonesian land area of 187.75 million ha, the Indonesian forests remain 49% of its total land area.



**Image3: The Forest Area of Indonesia (million) hectare**

**Source: Kementerian Lingkungan Hidup dan Kehutanan, 2019**

The root cause of the disappearance of 5.18 million ha forests in Indonesia is the population explosion. The more people, the more lands that are needed by humans to live, and that triggers the transition of the forest function to industries, residences, farms and mines (Wahyuni & Suranto, 2021).

In August 2019 the President of the Republic of Indonesia decided to change Jakarta with East Kalimantan as the new capital. Jakarta is considered inappropriate to be the capital because it is too crowded, often flooded, has much traffic jam and many other problems. That decision triggers the opening of large lands for human interest and deforestation only for human interest or needs (Salsabila & Nurwati, 2020). The movement of the capital will also trigger large migration for civil servants or the employees of private companies to East Kalimantan because of any reasons like business, economy, and others. Sooner or later the new capital will be crowded and problems like flood, trash, pollution, traffic jam and the land sinking like in Jakarta will repeat and finally the capital will be moved again.



The deforestation threat also happens in the tourism sector in Indonesia. Based on the research that was done by (Limbong & Soetomo, 2014) the high number of tourist visitations trigger deforestation with the developments of various accommodations at the forest lands so that you can have a vacation, play, relax, while the nature is destroyed. The great flood because of the down pour in Batu East Java clearly shows that there is ecosystem disturbance because of human pressure like the developments of tourism objects, cafes, restaurants and others. There is no need to make any reason that the developments of all tourism objects are to increase the economy of the local people, in fact, when a disaster happens, all of you can only regret it and give donations as a form of sympathy! That does not solve the problem, the ecosystem cannot be repaired instantly although you are very rich.

### **Climate Change and Natural Disaster**

Based on the *United Nations Framework Convention on Climate Change (UNFCCC)* climate change refers to the variation of climate condition average of a place or its variability that is real for a long time, where as a natural disaster is a natural event that cannot be planned or manipulated by humans and causes losses, destructions and life victims (Handayaningsih, 2018, pp. 1-2).

The climate change in Indonesia is signalled by extreme warm wave, the decrease of rainfall, floods, landslides and others. According to the research that was done by (Julismin, 2013) the causes of climate change in Indonesia are the population, the constructions and developments of cities, the growths of industries, the traffic density, deforestation. Indonesia is also one of the largest greenhouse gas producers in the world, the big cities in Indonesia with their population densities produce greenhouse gas through the uses of motor vehicles and trash (Suharjono, 2019). Many uses of air conditioners (AC) at offices, house and motor vehicles also cause climate change, the CFC gas that is produced by the air conditioners can destroy the ozone layer. About 98% people believe that the climate change that is happening in Indonesia is the result that they have made (Haryanto & Prahara, 2019).

The high growths of population and economy in Indonesia increase the purchasing power and the needs of living places. According to the research that was done by (Sari, 2020) there is a significant relationship between the population growth and the demands of living places, the high demands of living

places have changed the lands in cities or villages into buildings to be used by humans. The transition of the land function causes the land degradation so that the risk of the natural disaster becomes higher.

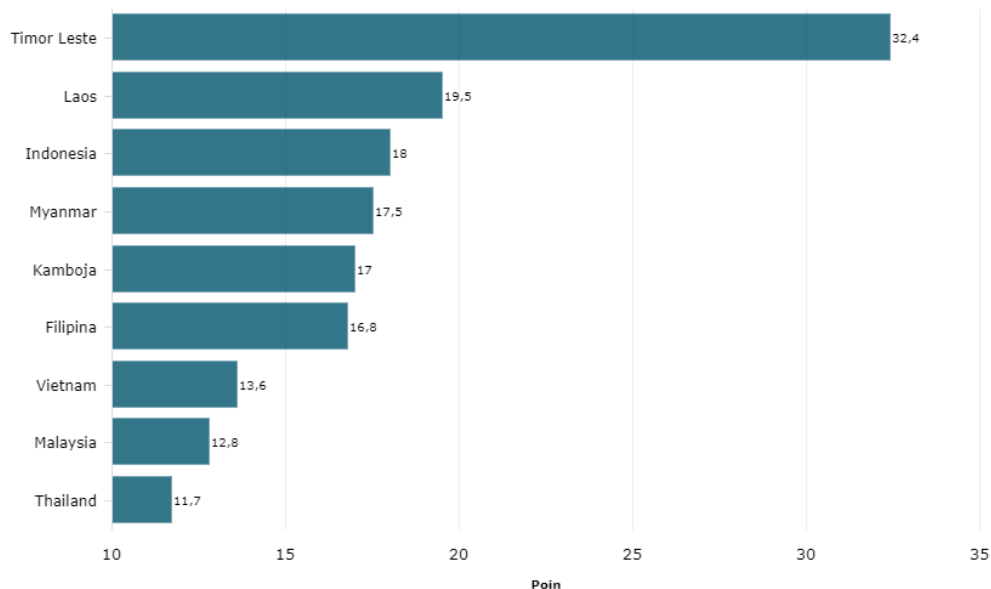
Quoted from [www.nasional.okezone.com](http://www.nasional.okezone.com) during the year 2021 floods and landslides dominated the disasters in Indonesia, those two kinds of disasters made 89.7% or 2.702 of the total 3.058 events. Java is land is the place that is most frequently hit by floods and landslides especially in West Java, Central Java and East Java. The research that was done by (Katherina, 2017) proves that the floods that happen in Indonesia are caused by the disturbed city balance because of the lack of open lands and the piles of trash in rivers. Whereas the landslides that happen in high plains are caused by many transitions of the land function for human needs like residences and farms (Murdiyanto & Gutomo, 2019). Those two researches have proved that there is a close relationship between the population explosion and the natural disasters in Indonesia where the destructions that happen are the results of the changes of human behaviors and habits.

### **2. Social Change: Poverty, Starvation, Unemployment, Crimes**

According to Gillin and Gillin in (Marius, 2006) social change is the variations of the new ways of life that are accepted because of the changes of geographic condition, culture, population composition, ideology and diffusion or new inventions. The unequal development in Indonesia causes population migration to various big cities, that is influenced by the high salaries in big cities so that the cities become crowded because of the immigrants from various backgrounds and social statuses. The population density of a place will cause social frictions like starvation, poverty, unemployment or crimes that are influenced by the differences of natures, characters, ideas, competences and others.

#### **Poverty or Starvation**

The level of starvation in Indonesia according to Global Hunger Index (GHI) sits at the third place in southeast Asia after TimorLeste and Laos, that level is measured from the condition of nutrition lack, thin children, stunting to the deaths of children. That phenomenon is very ironic because Indonesia is known as the country that has fertile soil and a lot of natural resources, but all of them mean nothing based on the data of the year 2019 where about 22 million Indonesian people starved and that number was 90% of the total 25 million poor people (Nababan, 2019).



**Image 4: Global Hunger Index Scores of Southeast Asian Countries 2021**

**Source: Global Hunger Index, 2021**

According to you, what is the cause of poverty or starvation in Indonesia? The economic condition, the lack of jobs, the low salaries, the low education or the lack of skills? If you answer “yes”, you have not understood! In fact, poverty comes from the high growth of population (Damanik & Sidauruk, 2020) and the impact of poverty is starvation. Although the economy grows and jobs are available or salaries are high, those things do not guarantee that the levels of poverty and starvation decrease. The problem is that the population is not balanced with the available resources, so if the population explosion keeps on happening, the fast economic growth or many available jobs will not be enough for us.

The same thing happens when you give some pocket money to your children. If fifty thousand rupiah is divided by two children, each child will get a half of it, and if you have only one child, your child will receive and spend a bigger amount of money so that the life quality will be better. That simple analogy must be understood as a consequence of the population explosion. With the greater population, more people must be fed so if it is not fulfilled, they will fall in to poverty and hope a miracle or some donations from other people.

As an agrarian country, Indonesia always imported rice from the year 2000-2019, and that should not happen. The purpose of buying rice from neighboring countries is to maintain the rice stock and stabilize its price, or the truth is that the rice production in the country decreases or does not increase while the demand is high. It can be because the soil is not fertile as a result of the pollution or the transition of the farming land function as the impact of the population pressure that is not balanced with the farming production so that it causes starvation or poverty.

Poverty is the absolute or relative condition of a person or people who are not able to fulfilled their basic needs according to the arrangement or norm that applies (Nugroho & Dahuri, 2012, pp. 181-184), while the lack of food of a person or people is called starvation (AsiahHamzah, 2012). In simple words, I define poverty or starvation as the condition where a person or people fail to fulfill the basic needs to grow and develop independently. The repeated failures which can be from internal or external factors will cause desperation and trigger unemployment or crimes.

### **Unemployment and Crimes**

Haven't you worked? Are you looking for a job? Are you preparing a business? Or haven't you started working? So you are classified into open unemployment, and it means that you do not have a permanent income to support your life. According to the data from BPS the number of work force until August 2021 is 140.15 million people, where as that number increased by 1.93 million people from the year 2020 and will keep increasing with the growth of population and the development of technology.

The finding of a research (Taime & Djaelani, 2021) proves that the population growth has a positive and significant relationship toward unemployment. It means that, with a bigger population, more people look for jobs, and it causes a tighter competition to fill in only one job vacancy. Only people who are really suitable will be accepted to work while the others will become unemployed again or keep trying again and again. The tight competition makes some people desperate so that they accept any jobs that are unsuitable or give low salaries, and it causes the decrease of life quality, or they live in poverty. In fact, the jobs do not decrease, but the population increases

so that it looks like as if the jobs decreased or disappeared.

Some jobs will disappear because of the development of technology. Unemployment becomes worse with the presence of artificial intelligence to ease humans' work, in other words, the roles of humans in some jobs can be replaced by technology, and it makes people become unemployed. Almost all jobs use technology, and it means that, in every kind of job, there is reduction of human function, and it is clear that many employers prefer machines to humans because machines are more efficient, reduce the cost and do not have many demands. If the application of technology has become larger, it means that you no longer find bank tellers, drivers, cashiers, postmen, teacher parking attendants because all have been replaced by technology. While the remaining jobs that still exist will become competitions for your children and grand children in the future, if your children or grandchildren successfully get jobs, how much are the salaries that they get from the remaining jobs? If the population explosion keeps happening, it is not impossible that they become beggars or criminals!

A crime is an action that breaks the law, norm, or rule that applies in the society and harms other people. The research that was done by (Sabiq & Nurwati, 2021) states that the population density will trigger crimes because of the life needs that are not fulfilled. Based on the data from BPS, Jakarta is placed at the first rank for crimes, the population density triggers competition in various sectors, and because some people cannot win the competitions, they prefer crimes as the solutions. It is certainly not a wise solution, but you will think again when you do not have anything to eat and drink or feel desperate. Maybe, you are not a criminal, but when you try to achieve your dreams as employees or businessmen, sometimes you use wrong ways to tackle your competitors, including destroying the nature and spending its resources.

Reducing the population is the only solution. You cannot hope that the government will provide jobs or eradicate criminals without understanding the source of the social change that happens. The impact of the population explosion has been seen everywhere and keeps happening. Imagine if the area of Indonesia is not enough to be lived in, will you still feel comfortable to do activities normally and properly? How is the life quality of your children when the resources have diminished? Will your position as an employee or a business man still be secure with the social change that happens? I think that you will also try to adapt to the change, you will think and act based on the condition that happens at that time, including

aggressive and brutal actions to survive or only to keep your faith.

If you reject this article, maybe, you are a rich person and have capabilities so that you consider as if the population explosion in Indonesia did not happen, and you are free to have many children and grand children because our wealth is still enough to be divided. It is necessary to be wise in dealing with this phenomenon. Various researches have proved that, in the end, humans will get the disadvantage, and when there are not enough resources to be processed, I wait for your confession.

## DISCUSSIONS

### Early-Age Marriage

Quoted from BPS, the marriage age average of Indonesian people is 19-21 years old. Women make the highest percentage, and there are about 36.73% women who get married at the ages of 19-21 years old. Women in Indonesia tend to become house wives so that their roles are less optimal because people think that women do not need to develop high careers. The same condition also happens to men. The marriage ages of men in Indonesia are 22-24 years old, and it means that they are also very young. Men who are 22-24 years old should still chase careers instead of looking for mates. Marriage is not about being fast or slow, but it is about how far is your preparation to become the head of the family who leads the family to the right direction.

In fact, many needs must be fulfilled when or after you get married and have the first child. Getting married without measuring your capability will have an impact toward the condition of the family that you build. Many Indonesian people live in economic difficulties after getting married so that they still depend on their parents to survive. You cannot say that you are ready to get married if you have a low salary or have just worked for 2-3 years. As the family backbone, a man or woman should prioritize a career because it can improve the life quality and become a part of the plan to get married. If your preparation is better, the condition of your family in the future will be more stable too.

### Religions and Belief

The teachings of religions that develop in Indonesia also have an impact to the population explosion. The dogma like the prohibition of the birth arrangement with a contraceptive device or the prohibition of dating has accelerated the number of birth so increased early-age marriages. That dogma cannot be considered as a prohibition, but an invitation to plan your family well based on your capability. If that dogma is only seen from the religion perception, that dogma looks as if it did not care about the population



explosion problem, but if it is understood deeper, it actually invites all levels of the people to appreciate all kinds of lives on this earth. Therefore, as a religious person, you should understand more about the worth of life by making a better plan to get married and have children.

I think that the belief “many children much fortune” no longer applies. The social change because of the population pressure has destroyed that belief. Who can guarantee that if you have more than two children, their needs will always be fulfilled? Or can you guarantee that all of your children can become successful and independent? In fact, elderly people who have many children live in economic difficulties. The changes of needs and demands in their generation have made your children prioritize their family instead of their parents. That thing happens in every generation so that your parents, your children and you will experience the life degradation from the upper class to the middle class and so on.

### The High Number of Births

The family planning program with the motto “two children are enough” must be changed into “two children are enough, one child is prosperous”. That motto feels more suitable because of the demographic condition that keeps increasing and is uncontrollable. In Indonesia, the average number of births is 2.6 or 3 children, and, based on [www.infopublik.id](http://www.infopublik.id), the number of births increased during the pandemic time. The family planning program does not fail, but Indonesian people do not understand the benefit of the family planning, and it sounds very naive to have more children while the Covid-19 pandemic is happening. In fact, there is no rule that limits the number of children in Indonesia, but it does not mean that you can easily have a great number of children without thinking about the risk or the capability of giving them proper lives.

The lives of your grand children are determined by your children, and the lives of your children are determined by you as their parents, so that the life quality of every generation is determined by the previous generation, or, in other words, if you give your children better lives, the lives of the next generation will be better too. Your capability to prepare is also influenced by how far you, as parents, understand the challenge or the social change that will happen in the future. Your quality as parents must also be complete and qualified so that your children can get proper or quality lives.

### CONCLUSION

The population explosion is happening in Indonesia and causes the social change. The economic difficulty, the lack of jobs, starvation, and poverty become the

proofs of the large impacts that appear because of the population explosion. The impacts of the population explosion change the good point of view of Indonesian people into aggressive people. The dynamic needs of life make them do anything including crimes to survive, and that change causes caution and inconvenience in the social life. The tight competition makes people become closed and selfish so that there is no care about friends or even siblings. Each person is busy in chasing dreams, securing a job, a position and piling up as many assets as possible to have good and prosperous life, and no one really cares about the others.

The population explosion destroys the environment in Indonesia. Water, air and soil have been polluted because of the behaviors of the people who keep taking the natural resources to fulfill the life needs. The problem is that those resources are limited and need time to recover, and the recovery is not always successful. The remainders of the consumptions and activities of humans also cause problems like trash and waste that are endless, and the lack of commitment of the people accelerates and expands the destructions. The destruction or pollution triggers any natural disasters like floods, landslides or air pollution in various locations in Indonesia, and there are always victims that can be the humans or the nature. Various destructions, pollutions or natural disasters prove that Indonesian people have problems of behaviors or habits.

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