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GENDER IMBALANCE IN VIETNAM: PROBLEMS AND SOLUTIONS

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Abstract

In the modern world gender imbalance occurs on a global scale and it is especially aggravated in Asian countries. This phenomenon is understood as a change in the sexual structure of the population in the unfavourable direction, which depends on many factors. When examining the problem of gender imbalance, demographers consider the unbalanced sex ratio at birth to be the most important factor. In Vietnam over the last ten years, the imbalanced sex ratio at birth has been growing with inevitable consequences and is expanding throughout the country. Although the Vietnam government has taken into account the current situation and its decisions in China, India, pursuing policies aimed to its prevention, but the situation of gender imbalance has not been controlled yet. In recent years, the consequences of the gender imbalance for the country's socio-economic development and safe life of the population have been noted. The purpose of this article is to examine the current state of gender imbalance in Vietnam and to propose comprehensive measures of solving this problem in the future, in the context of implementing the third of the eight Millennium Development Goals in the UN Declaration, that is Promoting Gender Equality and Empowering Women. Data and methods: This article is based on the information from the officially published materials and statistical data of Vietnam, international organizations and other countries. While studying and analysing data and discussing the problems, the statistical, mathematical and sociological methods of research are used.

Keywords: Gender imbalance, sex ratio at birth, crude fertility rate, crude mortality rate, gender equality, gender discrimination.

1. Introduction

1.1. World population and its structure

As a result of the revision of 2017, the world's population in the middle of 2017 was almost 7.55 billion (Table 01), which means that in the last twelve years approximately one billion people have been added to the world.

At the global level, the numbers of men and women are roughly equal, and the male population is slightly larger than the female one. Currently, in 2017, there are 102 men for every 100 women; in a group of 1,000 people randomly selected from the world's population, 504 are men and 496 are women on average. Thus, the number of men (3.809 billion accounting for 50.45 percent) exceeds the number of women (3.741 billion accounting for 49.55 percent) by 68 million. Today, the world's population continues to grow, although more slowly than in the recent past. Ten years ago, the world population grew by 1.24 percent per year and now it grows by 1.10 percent per year, which gives additional 83 million people a year (UN DESA, 2017, p.1-2).

One of the most important point in the population structure is the number of people by age groups. The figures in Table 01 show that the children under age of 15 account for a quarter of the world's inhabitants (26 percent), while older persons aged 60 or over account for just over one eighth (13 percent). More than half (61 percent) are adults between 15 and 59 years of age.

Table 01. Total world's population by sex and percentage by broad age group by region, 2017 (medium variant)

Region	Population (thousands)			Population by broad age group (percentage)			
	Total	Male	Female	0-14	15-24	25-59	60+
World	7 550 262	3 808 932	3 741 330	26	16	46	13
Africa	1 256 268	627 392	628 876	41	19	35	5
Asia	4 504 428	2 304 731	2 199 697	24	16	48	12
Europe	742 074	358 540	383 534	16	11	49	25
Latin America and the Caribbean	645 593	319 085	326 508	25	17	46	12
Northern America	361 208	178 828	182 380	19	13	46	22
Oceania	40 691	20 356	20 335	23	15	45	17

Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision. New York: United Nations.

Sixty percent (nearly 4.5 billion) of the world's people live in Asia, and among 2.2 billion women (UN DESA, 2017, p.17), the number of married or in-union women of reproductive age (15-49 years) is more than 815 million (UN DESA, 2016). Submitting these generations of children, youth and aged people with health care, education, and employment opportunities in the poorest countries and groups of countries with a large population such as China and India, will be critical for the successful implementation of sustainable development in the future.

1.2. Sex ratio at birth as a problem of the world.

As the sex structure of the population, the sex ratio is the ratio of males to females in a population. In demography, the primary, secondary and tertiary sex ratio are distinguished. The primary sex ratio is the ratio of the number of male embryos to the number of female embryos during fertilization. The secondary sex ratio is the ratio of live-born boys and girls (sex ratio at birth - SRB). It is defined as the number of live-born girls for every 100 live-born boys (Coney & Mackey, 1998). This ratio is a more accurate and refined indicator of the extent of prenatal sex selection. Boys outnumber girls at birth everywhere in the world by the same proportion - there are around 105 or 106 boys for every 100 girls. The tertiary sex ratio is the existing proportion of men and women of reproductive age (Medkov, 2002). Thus, it can be noted that the imbalanced sex ratio is primarily due to the sex ratio at birth.

Table 02. Top 8 countries with high sex ratio at birth, 2017

Country	Population (thousands)*	Sex ratio at birth (SRB)males per female	Rank by SRB
China	1 409 517	1.150	1
Armenia	2 930	1.290	2
Azerbaijan	9 828	1.125	3
India	1 339 180	1.106	4
Georgia	3 912	1.101	5
Vietnam	95 541	1.097	6
Pakistan	197 016	1.087	7
Maldives	436	1.084	8

Source: World Population Review. Sex ratio at birth by country, 2017.

* United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, Key Findings and Advance Tables.

It is noteworthy that among the eight countries with a high SRB, except Maldives, Georgia in the Caucasus region and Azerbaijan in Eurasian continent, the rest of five countries as Armenia, China, India, Pakistan and Vietnam are located in Asia.

1.3. Factors, affecting imbalanced sex ratio at birth.

The imbalanced sex ratio at birth is affected by many factors, the main of which are the following:

• Environmental factors. The relationship between natural factors and human sex ratio at birth, remains an active area of scientific research. Catalano and his colleagues studied the effect of temperature on the SRB. During the investigation, they found that a 1 °C increase in annual temperature predicts one more male than expected for every 1,000 females born in a year (Catalano, Bruckner, Kirk, 2008). Higher incidence of Hepatitis B virus in populations is believed to increase the male to female sex ratio, while some unexplained environmental health hazards are thought to have the opposite effect (Davis, Gottlieb, Stampnitzky, 1998) .In addition, the impact of chemical pollution was also defined.

• Social factors. Sex-selective abortion is a well-known problem in China and India, where a cultural preference for sons, coupled with political and economic influences, has severely skewed SRB. Instances of sex discrimination perpetrated via abortion and infanticide are well recorded and have

resulted in millions of "missing" girls in some societies. More than 20 years ago, Amartya Sen (1990) documented that 100 million girls and women were "missing" from the global population as a consequence of neglect, infanticide, and inequalities in care. The figure is now estimated to be in excess of 160 million, with sex-selective abortion playing a major role (Chapman & Benn, 2013). China's male population is currently 708.15 million, and the female population is 674.56 million. This marks China's problem with gender imbalance, as there are 33.5 million men more than women in early 2017 (Koetse, 2017). China's traditional culture is based on Confucianism, which entails that continuity of the family line is an indispensable part of China's traditional childbearing culture, leading to the male preference. This cultural pressure of son preference exerts a more important effect on childbearing decision-making than economic factors (Jiang, Li & Feldman, 2011).

• Economic factor. Relation between economic development and gender imbalance was mentioned by Jane Golley, Rod Tyers. In their work one of the constraints to continued rapid Chinese GDP growth is the slowdown and eventual contraction of China's labor force, which has been accelerated in China's case by its "one-child" policy. A complicating associated factor arises due to the Chinese traditional preference for at least one son, which, via selective abortion, has caused a rise in the SRB. This has eventually reduced the share of women of reproductive age and so further slowed population and labour force growth. Yet gender imbalance has other widely noted undesirable consequences, including excessive saving as families with boys compete to match their sons with scarce girls, trafficking in women and rising disaffection and crime amongst the low-skill male population (Golley&Tyers, 2013). In Asian countries, the economical level is thought as living conditions, the level of social insurance for people, especially for women and elderly people.

• Policy factor. Joseph Svec in his work examined the relationship between national sex ratios at birth (SRB) and economic, gender-inequality, and population policies in 176 countries from 1980 to 2015. He suggests that gender institutions and development contexts parameterize the effect of fertility reduction policies, culminating in higher sex ratio skews when fertility reduction policies are introduced in countries with greater gender disparities. In addition to the independent effects of development, gender context, and population policies, the national context of development and gender equality moderates the effect of fertility reduction policies (Svec, 2017). In China, the strict population policy during the subsequent 30 years, and the low fertility level for the past 30 years, have had broad effects on the nation's economy and social development, as well producing such unforeseen side-effects as the high male-biased sex ratio at birth (SRB) and rapid aging. The high SRB is attributable to China's stringent family planning policy. After 30 years of implementation of this policy, the SRB keeps rising and recently reached around 120. The Chinese government has realized the seriousness of this problem and has taken a variety of measures, aimed at combating gender discrimination against girls, high SRB and excess female child mortality (Jiang, Li, Feldman, 2013).

1.4. The consequences of gender imbalance.

There are many consequences of an imbalanced sex ratio. High ratios of men make it easier for women to marry, but it is more difficult for men, when the number of men is more than the number of women. For example, the sex ratio in China was 1.05 (1049.8 men for every 1000 women) in January

2016 (Koetse, 2017) and in India it was 1.06 (945 females for every 1,000 males) in the beginning of 2017 (India Guide, 2017). These people will remain single and will not be able to have families, in societies where marriage is considered almost universal, and social status and recognition depend on getting married and creating a new family, in the main. A number of cases of crime have been recorded in the form of sexual extortion and rape related to the gender imbalance in many countries and the flow of migration in 2015-2016 in Europe. According to Valerie Hudson, a professor at Texas A&M University who studied the effects of sex ratios on the stability of nations, huge numbers of unaccompanied teenage boys who have fled poverty and war in Africa, the Middle East and Afghanistan are creating imbalances in the numbers of men and women in parts of Europe.

Crimes such as rape and sexual harassment become more common in highly masculinised societies, and women's ability to move about freely and without fear within society is curtailed. In addition, demand for prostitution soars. Places where the sex ratio is most imbalanced, have higher violent crime and property crime rates (Pavia & Savage, 2016).

A subtle connection between the imbalanced gender relations and politics is also being studied. In a large country, the gender structure of the population as a demographic factor influences the country's foreign policy. There is a hypothesis that the excess of the male population creates prerequisites for internal conflicts and aggressively nationalistic sentiments in the foreign policy. The state has many ways to calm down the blasted bachelors. One of them is to send them abroad. This can be both a legitimate export of excess male labour, and various military adventures outside the country (Korolev, 2014).

2. Problem Statement

According to statistics of General Office of Population and Family Planning announced in June 2017 in the newspaper "Nhan Dan", the most prestigious newspaper in Vietnam, the gender imbalance of Vietnam has still been growing during recent years, both in terms of sex ratios and geographic areas. It is worth saying that 50% of provinces and cities in the country have higher sex ratio at birth (SRB) next year than the previous year. In 2014, 15 out of 63 provinces had sex ratio at birth equal to 115 males/100 females; in 2016, it rose to 22 out of 63 provinces. This trend is not the same in all regions of the country. Nowadays, there are 45 provinces and cities where the SRB increases. In particular, in these places, the birth rate of boys is much higher than the girls' one, sometimes reaching 148.4 boys/100 girls (Minh, 2017). Gender imbalance at birth has caused many serious consequences, which directly affect the population and family structure.

The implications of the problem of gender imbalance, such as the increase in the crime of trafficking in women, domestic violence, sexual violence and gender inequality, break traditional family structure. Many men can not marry, the rate of divorce and remarriage in women has been increasing. Drawing on the experience of the Asian countries such as China, South Korea, Taiwan, India and other, it is important to study this problem in Vietnam.

3. Research Questions

In this article, the authors assess the recent gender imbalance of Vietnam, its causes and its consequences and use integrated analysis of the main causes of the problem; summarize lessons learned from some countries in the region such as China, India, etc. that have the same problem and propose some solutions that must be taken into account when making the Policies for socio-economic development

4. Purpose of the Study

The purposes of the study are to assess the current state of Gender imbalance in Vietnam and to propose recommendation as solutions to control this problem in the future, aiming to ensure the quality of the Vietnamese population and the gender structure in order to carry out the basis targets of the National Strategy on Gender Equality for the 2011-2020 period.

5. Research Methods

This study used the information from the officially published materials and statistical data of international organizations, Vietnam and other countries. While studying and analysing data and discussing the problems, the statistical, mathematical and sociological methods of research are used. Conclusions are drawn in comparison with the same data of China and India.

6. Findings

6.1. Sex Ratio at Birth in Vietnam

As it was discussed above, first of all the gender imbalance is caused by the imbalanced SRB.

SRB has increasingly occurred in some Asian countries such as China, India, Azerbaijan, Armenia, and it is shown in Figure 01. Vietnam ranked 6th place among these countries.
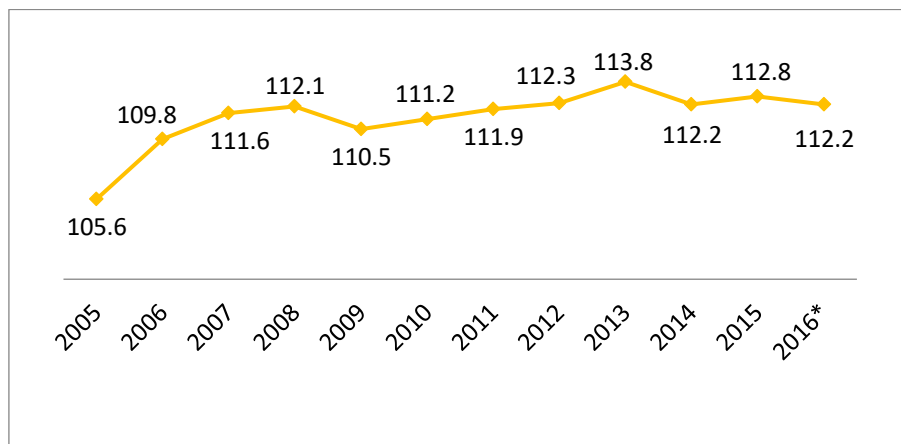

Figure 01. Sex ratio at birth of Vietnam in 2005 and 2010 – 2016 (2016 *estimated data)
Source: data of GSO Vietnam (GSO, 2017, p. 92)

The SRB has several characteristics in Vietnam.

- The imbalanced SRB has occurred quite recently, but it has been growing at faster rate than in other Asian countries. According to General Statistics Office (GSO), the SRB of Vietnam was increased from 105.6 in 2005 to 112.2 in 2016 (figure 1), while in China it was 118.6 in 2005 (UNICEF China, 2015) and 1.150 in 2017 (table 2; estimated.); in India, it was 110.5 in between 2008-2010 (UNFPA, 2012, pp.20, 28) and 1.106 in 2017.

- The SRB was high from the first birth and amounted 110.2 (2009); for the second and for the third births and after it was 109 and 115.5 accordingly, while the last group accounted for 16% of all babies born. Vietnam, however, is a case apart, since SRB estimates are almost similar by birth orders (table 3) (GSO, 2017, p.20). High SRB level is noticed from the Birth order 2 in other countries such as Armenia, China and South Korea.

Table 03. Sex ratio by birth order in South Korea, Armenia, China and Vietnam, 2000-2009

	Birth order 1	**Birth order 2**	**Birth order 3**	**Birth order 4**
Armenia (2001-08)	106.8	110.4	176.9	177.4
China (2010)	113.8	130.3	161.6	145.9
Republic of Korea (2000)	106.2	107.4	141.7	154.9
Vietnam (2009)	110.2	109.0	115.5*	
*: Birth order 3 and above				

Source: (UNFPA, 2012, p. 30).

So, an imbalanced sex ratio usually occurs at the 2nd and the 3rd or the final birth in all the countries surveyed.

The SRB was high in the provinces surrounding major cities. This territory of high SRB includes the five provinces of Bac Giang, Bac Ninh, Hai Duong, Hung Yen and Thai Binh, where the SRB in 2006-2007 was ranging from 112 to 121 (Guilmoto, Hoang, Ngo, 2009), and the same rank of SRB was registered in 2010-2016 in this area (Table 04).

Table 04. Sex ratio at birth by region (male birth per 100 female)

	2010	2013	2014	2015	2016
Whole country	111.2	113.8	112.2	112.8	112.2
Red River Delta	116.2	120.6	118.0	120.7	113.7
Northern midland and mountain areas	109.9	112.4	116.1	114.3	122.6
NorthernCentral and Central coastal areas	114.4	112.3	105.5	112.2	115.2
Central Highland	108.2	114.1	108.0	104.2	117.3
South East	105.9	114.2	108.9	114.2	103.1
Mekong River Delta	108.3	103.8	141.1	103.7	102.9

Source: (GSO, 2017, p.93).

These provinces are located at the center of the Red River Delta: it corresponds to a densely populated agricultural region, which is deeply influenced by Vietnam's economic transformations. A concentration of higher SRB values is also clearly found in few provinces in the Northern Midland and mountain areas and the Central Highland of Vietnam, where the physical work requires man hands

The high SRB was found in groups of well-off families and women with high education and low fertility rates. The lowest SRB (105) was in the poorest group, which amounted 20% of the population, and it gradually increased as their living standards had risen. In the group of three richest regions, the SRB was up to 112. The correlation between SRB and population living standards showed a clearly picture that in the richest group (20% of the population), in the third birth or more, the SRB was up to 133.The lowest SRB (107) was found in the illiterate group of women and gradually increased as their education level raised. The SRB was up to 114 in the group of mothers with education level from junior college or higher (Duong, 2011).

As we all know, well-off families, high-educated women have significantly lower fertility rates than others. Highly educated women are more proactive in using contraception and actively adjust the desired number of children. These women often have better financial conditions to pay for antenatal sex diagnosis services and they have a need for sex selection using medical facilities to achieve both goals: having a small family size and sons.

6.2. The causes of the increasing SRB in Vietnam

As it is known, the environment and social-economic factors are the main causes, affecting SRB; but in Vietnam, the increase in prenatal sex selection is the joint product of the following distinct factors:

• Son preference constitutes the primary factor behind sex selection. Itis linked to cultural factor that causes effects of gender imbalance in Asian countries including Vietnam. It stems directly from the requirements of patrilineal and patrilocal household structures, in which girls and women have a marginal social, economic and symbolic position, and consequently enjoy fewer rights. Old age security is an additional factor as sons, rather than daughters, are expected to provide support to their parents throughout their life. People keep their conception that only boys can be considered as new members in one's family. The son is usually named with his father's last name. When the parent passes away, the son has the decisive role and the right of voice in the family and clan. All of that are ingrained in the minds of individuals, couples, families and clans.
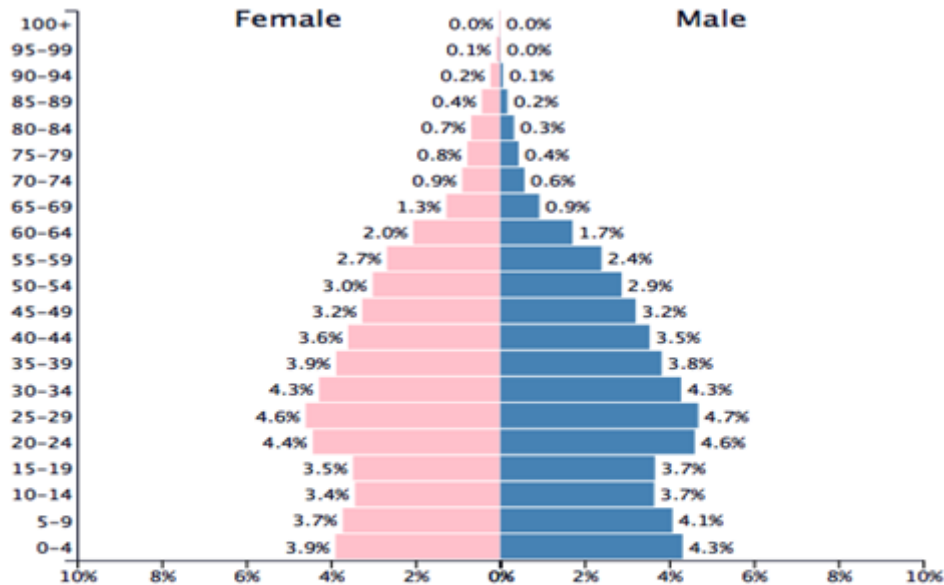
• The second factor is the growth of the technology of prenatal diagnosis, which allows parents to know the sex of their unborn child. In conjunction with an abortion, legal or not, the definition of sex can lead to an abortion. The growth of SRB in Vietnam is often associated with the proliferation of ultrasound technology through a private healthcare system indeed. In the future, new technologies may appear which further simplify the choice of the sex of their descendants. The methods before pregnancy (special diet, selection of the date to conceive) are also used by women to choose a sex of a baby.

• One of the factors is the policy of reducing the size of the population that is declining the fertility rate. The Government's "two-child policy" in Vietnam and Chinese "one- -child policy" in the cities or "one-and-a-half-child policy" in the rural lead to lower fertility rate, but it makes the problem of SRB more seriously. Son preference in this case actually encourages sex selection and the family planning policy can be failed.

• As it was mentioned above, the tertiary sex ratio is the existing proportion of men and women in their reproductive ages4.In 2016,Vietnam average population was 92.70 million person, in which the number of male was 45.71 million (49.3 percent)exceed the number of female was 46.99 million (50.7

percent) by 1.28 million; the total fertility rate reached 2.09 children per woman, which remained the replace fertility level; the SRB was 112.2 male birth per 100 female birth, that is higher than world's rate (104 - 106); the crude birth rate was 15.96 %, and the crude death rate was 6.83%; an average life expectancy at birth was 73.4 years (GSO, 2017, p. 76-77).

At first sight, the situation seemed normal (Figure 02), but when analyzing all the data,it is possible to identify the imbalanced sex ratio, and the reason by the proportions of men and women in reproductive age groups.

Source: PopulationPyramid.net Population Pyramids of the World from 1950 to 2100. Vietnam 2016. URL: https://www.populationpyramid.net/viet-nam/2016/

Figure 02. Population Pyramids of Vietnam 2016

In demography, the reproductive ages are defined from 15 to 49 years. Analysing the data in Figure 2, the following should be noted:

at the age group of 0-14 years, the number of boys (12.1 percent) is much larger than the number of girls (11.0 percent). It is explained by the reason that there was a high sex ratio at birth in recent years;

the number of men and women at the reproductive age (14-49) are 27.8 percent and 27.5 percent respectively which is 0.3 percent of men higher than women. An important dimension of changes in the sex and age distribution pertains to the potential gender imbalance among adults and the consequences of this for the marriage market. Based on the actual marriage traditions observed in Vietnam, a male at the time of marriage is at an average 3.5 years older than a female. Specific results focusing on the 15-44 age group for women and the 20-49 age group for men were explored in this study. Thus, the sex ratio values shown above reflect the imbalance between these two age and sex groups (UNFPA Vietnam, 2009, p.45).

Except four factors mentioned above, there are a number of others, depending on housing conditions in Vietnam. Household variables referring to housing quality or to the assets of a household can also be used for comparing SRB variations after linking each birth with the characteristics of the

mother's household. Figure 3 lists some of the most substantive results, by displaying in blue the variables associated with a low SRB and in red those associated with a high SRB (GSO, 2011, p.29).
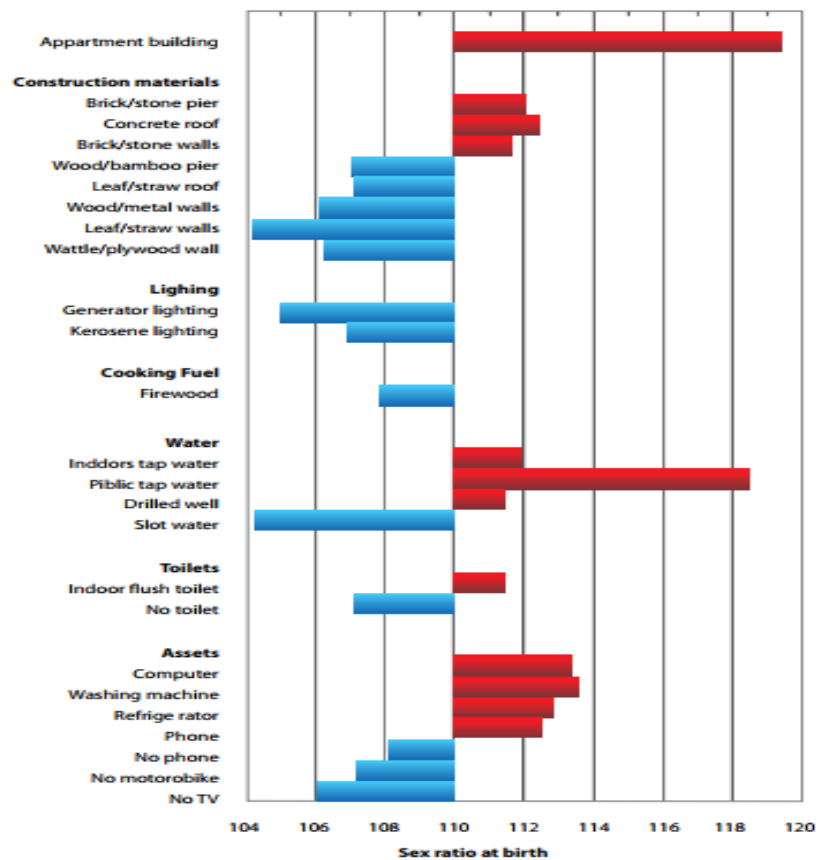

Figure 03. Sex Ratio at Birth by housing and household characteristics
Source: General Statistics Office of Vietnam (GSO, 2011). For illustration only.

In Figure 03 it is easy to see that typical indicators of poor households, such as bad toilets, lack of electricity for lighting or houses made of wood, bamboo or leaves are systematically linked to levels of SRB close to the biological average. The lowest SRB values were measured by the following features: leaf and straw walls, drinking water obtained from slots, and the use of a generator to provide electricity. On the contrary, the highest SRB values were found among households with access to public tap water and living in apartment buildings or houses built from high-quality construction materials. The information on household assets tells a similar story: the lowest SRB for families who do not own a TV or a motorcycle, while the proportion of male delivered is the highest among households that have a computer and other modern appliances in their home (GSO, 2011, pp.29-30).

Migration is also a factor leading to gender imbalance. In recent years, migration has been localized between parts of Vietnam. In The Red River Delta and South East areas many new industrial parks have been developed and attracted hundreds thousands of workers from other regions. For example, in 2010, big cities and provinces had very high rates of immigration such as Hanoi (10.8%), Ha Giang (19.0%), Ho Chi Minh City (26.2%), Da Nang 29.0% and especially Binh Duong (89.6%) (GSO, 2017, pp.111-113).

Table 05. Migration rate in 2010-2016 by region, %

	2010	**2013**	**2014**	**2015**	**2016***
Whole country					
In- migration rate	9.7	8.8	9.2	5.5	4.6
Out-migration rate	9.7	8.8	9.2	5.5	4.6
Net- migration rate					
Red River Delta					
In- migration rate	3.5	3.6	3.1	1.8	1.7
Out-migration rate	3.0	3.9	3.6	1.8	1.2
Net- migration rate	0.5	-0.3	-0.5	0.0	0.5
Northern midland and mountain areas					
In- migration rate	2.3	2.7	2.3	1.1	0.8
Out-migration rate	6.2	5.0	4.3	3.0	3.3
Net- migration rate	-3.9	-2.3	-2.0	-1.9	-2.5
NothernCeltral and Central coastal areas					
In- migration rate	3.1	5.0	5.3	2.6	1.9
Out-migration rate	8.8	6.7	7.1	4.4	3.0
Net- migration rate	-5.7	-1.7	-1.8	-1.8	-1.1
Central Highland					
In- migration rate	5.7	8.3	7.7	2.3	2.0
Out-migration rate	6.1	6.1	6.1	3.4	4.4
Net- migration rate	-0.4	2.2	1.6	-1.1	-2.4
South East					
In- migration rate	24.8	15.7	18.8	12.8	10.8
Out-migration rate	4.9	7.4	7.3	3.1	2.4
Net- migration rate	19.9	8.3	11.2	9.7	8.4
Mekong River Delta					
In- migration rate	1.8	2.7	2.2	1.1	1.1
Out-migration rate	10.2	7.0	8.9	6.5	5.7
Net- migration rate	-8.4	-4.3	-6.7	-5.4	-4.6

Source: collected from (GSO, 2017, pp.111-116).

The young migrants not only put the pressure on infrastructure and education and health care system, but also cause local gender imbalances in certain areas, due to the nature of industries: Textile and E&E Industry prefer female workers, and construction works are more likely to employ male workers.

6.3. The consequences of gender imbalance in Vietnam

One of the important consequences of gender imbalance in Vietnam is the problem of missing women.

In the countries with present-day sex ratios among children, the gender imbalance will leave an indelible mark on population structures in the future. One of the consequences of gender imbalance is trafficking in persons. By the data of 2016 Global Report on Trafficking in Persons (edited by United Nations Office on Drugs and Crime – UNODC), there were 17,752 victims detected in 85 countries in 2014 for which sex and age were reported, a clear majority were females– adult women (50 percent) and girls under 17 years (21 percent). Females are chiefly trafficked for sexual exploitation, but also for sham

or forced marriages, for begging, for domestic servitude, for forced labor in agriculture or catering, in garment factories, and in the cleaning industry and for organ removal (UNODC, 2016, p. 23, 26) . This dangerous phenomenon is called "missing women".

Another data was publicly promulgated. Using a new and improved statistical methodology, the ILO estimates that 20.9 million people are victims of forced labor globally, trapped in jobs into which they were coerced or deceived and which they cannot leave. Women and girls represent the greater share of the total – 11.4 million (55%); and out of these, 4.5 million (22%) are victims of forced sexual exploitation (ILO, 2012).

In Vietnam, data from the National Steering Committee on Crime Prevention showed that in 2011-2015, nearly 2,000 trafficking on person cases have been detected with more than 3,800 victims. Among them, over 85% of the victims are women and children. The situation of human trafficking, especially women and children, is complicated in all 63 provinces. Women at the age of 18 to 35 and teenage children are more likely to be criminally trafficked and seduced. These people illegally live in rural and border areas, where they are economically disadvantaged, unemployed. They have low education level and lack of knowledge (Mai, 2017).

A number of legal marriages of Vietnamese with foreigners were registered. According to statistics, from 2011 to the end of 2014, there were 50,452 Vietnamese citizens marrying foreigners; the Southern area has 38,483 marriages (76 percent) and the majority of which are Vietnamese female citizens (about 95 percent from total marriages) (Hoang, 2017). . Most of the grooms came from China, Taiwan and South Korea, which have been the countries with high SRB for a long time. For example, at November 30, 2016 Vietnamese accounted for 28 percent of all interracial marriages in Korea — about 152,000 couples — ranking second only to the Chinese with 37 percent (Lee, 2017) . In some UN documents it named as "exporting brides". This phenomenon is explained by the consequences of the decades-long war in Vietnam, so in the post war period the number of men have decreased and the number of women of marriage age was increased.

The second consequence of gender imbalance to research is the effect on future population and marriage imbalances.

The intensity and the duration of current birth imbalances will shape the future of these populations and determine the magnitude of the masculinization of their structures for the next 50 years. While using demographic projections and simulations, it is possible to investigate the exact impact of these changes on populations in the future, looking at the adult population in particular and at the growing scarcity of young women, which is going to affect family-building processes.

In future, Vietnam will also fall into this case. The imbalanced SRB will negatively affect Vietnam's population structure in the future, resulting in an excess of males in society. This imbalance can have grave consequences for the country's socio-economic development and for the well-being of women, men, families and communities.

At the age group of 0-19 years, in 2016 the number of boys (15.8 percent) is much larger than the number of girls (14.5 percent), which will cause the problem of increasing gender imbalance in the near future.

The scarcity of young women will make it difficult for a large group of men to find a marriage partner. This so called "marriage squeeze" is likely to have a range of severe demographic and social consequences, including a possible increase in forced marriages, trafficking and all forms of violence against women and girls, and social unrest fuelled by male social and sexual frustrations. According to the UNFPA document, the absolute difference between the numbers of men and women in Vietnam in 2050 will be between 2.3 and 4.3 million (UNFPA Vietnam, 2014), and they will not be able to find the pairs.

The last consequences of gender imbalance to conduct are violence and gender inequality.

Although in the population structure, in the age group of 15 years and older, the number of men is more than the number of women (figure 2), but in society women are not really equal with men and have not been respected. Gender inequality and violence against women tend to spread.

Now let us study some statistics data from the Department of Familial Affairs of Ministry of Culture, Sports and Tourism, after nine years accomplishment of the Law on Domestic Violence Prevention and Control. Practical data shows that domestic violence continues to exist with the number of reported serious family violence cases rising, and the majority of victims are women, children and elderly people.

Among the 157,859 domestic violence cases reported from 2011 to 2015, victims were women (aged 16-59), accounting for 117,206 cases (74.24percent), 17,586 cases (11.14percent) were children, and 14,017 cases (8.91percent) were the elderly people. Within 5 years (2011-2015), there are more than 31,500 domestic violence cases per year. In 2012, there were 50,766 domestic violence cases, more than 1.5 times the annual average. According to the survey, carried out in 2010, 34.4% of domestic violence cases in Vietnam are related to sexual violence, physical violence, or both regarding women by their husbands (Nguyen, 2017) . This situation is mostly concentrated in the South East and the Red River Delta. In addition to these three forms of violence, there is also the form of economic violence. In Vietnam, the definition of economic violence is when a husband appropriates his wife's earnings and savings or refuses to give money to support children and domestic expenses even when he spends on his other purposes. According to the survey, one of every hundred Vietnamese women in the country suffers from economic violence.

So, we can make some conclusions on gender imbalance problems of Vietnam. .

The population pyramid in figure 02 reflects the variation in the age-sex structure showing that Vietnam will have experienced a new demographic transition period.

• The 2016 population pyramid characterizes the population at the final stage of the population transition with low fertility and mortality and is at an early stage of population aging. Thus, the process of population aging begins right at the time of the "Golden Population" beginning.

• As the total fertility rate decreases in the past 12 years from 2.11 in 2005 to 2.09 in 2016 (GSO,2017, p.101), the proportion of the population aged 0-14 reaches 30.3% by 2016. Meanwhile, labour age (15-60 years according to Vietnam Labour Law) is 66.3% of the total population in 2016, creating a potential labour force to develop the national economy.

• The sex ratio of the Vietnamese population was generally increasing over the past decades. The sex ratio was 96.8 and 97.3 males per 100 females in 2005 and 2016 accordingly (GSO, 2017, p.90).

Migration and the difference in life expectancy also are reasons for the difference in the sex ratio between urban and rural areas.

• In the whole country, the SRB in 2010 – 2016 was 112.24 (figure 1) that is still high compared to world standard (104-106). This demographic phenomenon is mainly due to the imbalanced sex ratio at birth during the past and will cause gender imbalances for future generations. The "shortage" of adult women has caused unpredictable consequences for socio-economic development and the safety and sustainability of Vietnam's society and Vietnamese family.

6.4. Government policy to regulate population and prevent gender imbalance

The population policy was first initiated in the Northern region of the country in early 1960s. On December 26, 1961, Government issued the decision on "guided birth". Vietnam became one of the first countries in Asia to implement the family planning program (Nam Ph., Le Ph., 2017). The Party's Resolution № 4 on Population and Family Planning issued in 1993 was the first formalization of the one-to-two child policy, establishing an important principle that the population program was an integral part of national socio-economic development plans. Following this statement, the Government launched the first National Strategy on Population and Family Planning 1993- 2000. The achievement of this Strategy was to reduce the fertility rate from 3.1 in 1993 to 2.25 in 2001 and 1.99 in 2011 (GSO &MOPI, pp 45-47) .

The 2003 Population Ordinance mandates that couples have the rights to decide on the number of children, birth timing and spacing. The law has led many people to misunderstanding that the state encourages the birth of many children, resulting in a sharp increase in fertility and the rate of third births. In 2009 this was revised to "Every couple should have 1-2 children". Then due to the tendency to reduce fertility in some provinces, this mandate has changed to "Every couple should have two children" (Nam, 2017).

In 2011 Vietnam officially entered the stage of aging population. The policy of limiting the number of children in recent years has increased the gender imbalance with the high SRB and created pressures for sex selection. Having studied the failure and potential risks of a one-child policy in China, and in Vietnam after 2011 as well, the demographers suggested that Vietnam should ease, even abandon the 2-child policy before it is too late. At present the Population Law is being drafted, discussed and will be approved by the National Assembly of Vietnam.

At present time, the following main laws regarding the regulation of state policies on reproduction, gender equality and sex-selection in Vietnam remain in force:

• The Constitution of the Socialist Republic of Vietnam 2013.

In the Constitution the rights of every citizen are recognized. Article 20 emphasizes that "Everyone shall enjoy the inviolability of the individual and the legal protection of his or her life, health, honours and dignity and is protected against torture, violence, coercion, corporal punishment or any form of treatment harming his or her body and health and offence against honours and dignity". The Article 26 defines, that: (1) male and female citizens have equal rights in all fields. The State has a policy to guarantee equal gender rights and opportunities; (2) the State, society, and family create conditions for the

comprehensive development of women and promotion of their role in society; (3) sex discrimination is strictly prohibited.

• The Civil Code (Law No. 91/2015/QH13) emphasizes that "Each individual has the right to marry or divorce, the right to equality between husband and wife, the right to acknowledge father, mother or child, the right to adopt children and be adopted in marriage relation, parent-children relation and relations between family's members" (Article 39).

• Law on Marriage and Family (2014) № 52/2014/QH1319. The Law determines the protection of the marriage and family regime; that marriage and family relations established and implemented in accordance with this Law shall be respected and protected by law (article 1, clause 1); and the following acts are prohibited: Sham marriage or sham divorce; underage marriage, forcing a person into marriage, deceiving a person into marriage, obstructing marriage; taking advantage of marriage and family rights for human trafficking, labour exploitation or sexual abuse or committing another act for self-seeking purposes, etc. (Article 1, clause 2).

• Law on Gender Equality (2006) № 73/2006/QH11. Detailed provisions on gender equality, prevention of discrimination against women, and equal rights and responsibilities of sons and daughters are included in the revised Law on Gender Equality 2006. This Law provides for gender equality, based on six principles: men and women are equal in all aspects of social and family life; men and women are not discriminated in terms of gender; the application of measures for promoting gender equality is not considered as gender-based discrimination; policies on motherhood are not considered as gender-based discrimination; gender equality issues are ensured to be integrated in the process of law; exercising gender equality is the duty of agencies, organizations, families and individuals (Article 6).

• The National Population and Reproductive Health Strategy for the period of 2011 – 2020 was approved by Decision №: 2013/QĐ-TTg on November 14, 2011. The main objectives of the Strategy are following: to reduce the under-five mortality rate to 19.3 % by 2015 and 16 % by 2020; significantly to reduce the rate of increase in the sex ratio at birth, with particular focus on provinces and centrally-run cities with serious imbalances in the SRB, and then bring this ratio back; the level of SRB will be below 113 by 2015, below 115 by 2020 and 105 - 106 by 2025; to reduce abortion rates to 27/100 live births by 2015 and below 25/100 by 2020.

• National Strategy on Gender Equality for the 2011-2020 period, approved by Decision 2351/QD-TTg on December 24, 2012. The National Strategy on Gender Equality is an important part of the national socio-economic development strategy and serves as foundation of the human resource development strategy of the country. Gender equality work is one of the basic elements to improve the quality of life of every person, every family and the whole society. The General objective of the Strategy is defined that by 2020, substantive equality between men and women shall be basically ensured in opportunity, participation and benefits in the political, economic, cultural and social domains, contributing to fast and sustainable national development.

• The 2003 Population Ordinance (Article 7) bans sex selection in any form; The State shall adopt necessary policies and measures to prevent the selection of fetus sex to ensure gender balance according to natural reproduction rules and regulate fertility in order to make a reasonable population structure in terms of sex, age (Article 14).

6.5. Recommendations

In order to make reasonable and accurate recommendations to address the problem of gender imbalance and high sex ratio at birth, it is necessary to consider carefully the causes that affect it.

1) As discussed in this paper, social or cultural factor is the important one. Analysing a public policy, eliminating gender discrimination is needed for redefining cultural traditions to strengthen women's position.

- To form new points of view about women in society. Many documents and mass media often refer to the problem of "cultural traditions". The concept of gender discrimination is the underlying potential risk that traditionally would be considered to be encouraging to maintain kinship identifying women as inferior to men. It is therefore necessary for people to understand the cultural traditions in a way that empowers women and girls in families and in kinship groups to value the role and status of women in society. Activities related to traditional Vietnamese culture should include a focus on the role of women in public ritual activities and communication activities related to cultural traditions. As mental pressure by family and community members play an important role in sex selection activities, communication efforts need to solve this problem, emphasizing that mockery, ridicule and offensive comments on persons who have no sons are unacceptable and damaging to society.

Lastly, UNESCO has recognized Vietnam's worship of Mother Goddess in 2017 as an intangible cultural heritage of humanity. This is also an opportunity to promote the role of women in the country.

- Supporting families with daughters can be considered as a measure to reduce high SRB in order to eliminate the main reason for the son's choice for purely economic reasons. This explains why the second most common policy option followed by legislators to address the economic imbalance between parents of girls and boys is to introduce financial and other incentives.

2) Solving the economic factor.

- In Vietnam, especially in rural areas, in traditional families boys are responsible to support their parents throughout their life. In addition, due to the characteristics of some areas specializing in fishing, mining, etc., these occupations need male labour. Therefore, expanding and perfecting the social insurance system, health insurance for the elderly is an urgent and necessary issue;

- To improve female status and life conditions in the rural area. The substantive equality between men and women will be basically ensured in the opportunity, participation and benefits in the political, economic, cultural and social domains, contributing to fast and sustainable national development. Narrowing gender gap in economic, labour and employment domains, increasing access of rural women and ethnic minority women to economic resources and labour market, ensuring equal participation in education and training between men and women and gender equality in family life, gradually eliminating gender-based violence and enhancing the capacity of gender equality state management are noted in The National Strategy on Gender Equality for the 2011-2020 period.

3) Improving the policies. Defining gender ideology in the formulation and implementation of policies is an important step. In our opinion, it is necessary to study deeply the state of gender imbalance in Vietnam, its characters and find out its causes and formulate appropriate policies. The policy must aim to:

- Implementing policies that address illegal provision of sex-selection services; addressing misuse of biomedical technologies;

- Strengthening of legislation and enforcement of policies and further research. Vietnam is in a process of rapid social changes, and people's family-building strategies change too. Therefore, updated and research-based evidence is needed in order to inform SRB related laws and policies, to strengthen efforts to enhance compliance with existing laws and policies, and to ensure proper implementation of interventions. There are particular needs for further research on geographical differences in SRB imbalance, the medicalization of childbearing and results of intervention activities;

- Researching the experiences and ongoing implications of China policies on population reduction, for further setting an appropriate relevant policy to avoid increasing the sex ratio at birth and the consequences.

4) Communication and other mass media always are the facilities to disseminate knowledge about the consequences of gender imbalances and population and family planning. In addition, social workers, local health collaborators, volunteer advocates can be attracted for the purpose of raising people's awareness and knowledge of couples.

All the measures recommended above have a common goal to bring mortality patterns by gender and SRB back to normal.

7. Conclusion

Like in many other countries in the region, the traditional culture of "Son preference and discrimination against daughters" still exists throughout Vietnam in fact. State policies should play a dominant role in eliminating son preference and gender discrimination. In order to do this, problem of gender imbalance must be mainstreamed into public policies and their implementation. The goals must be the following:

- to change the traditional ideology,
- to enhance the social status of women,
- to achieve equality for men and women in social life,
- to optimize the population size, structure and distribution of women,
- to reduce gender imbalances, etc.

All of these measures will help promoting sustainable social development in Vietnam.

Gender imbalance in term of higher SRB rates has resulted in gender discrimination and significant effects, as described above. The impacts of gender imbalance and gender differentiation on population size and other demographic characteristics have begun to be recognized and can cause the crimes of varying forms and levels, including sex crimes, which threaten the social stability. Moreover, in most rural and mountainous areas of Vietnam, where social insurance policies are not available to the paths of population, the elderly are not protected in financial and social aspects. Therefore, it is necessary to develop an effective social security system that helps the elderly people without children in rural areas.

The high sex ratio at birth is also due to Vietnam's strict family planning policy for many years. The Vietnamese government and demographers have realized the seriousness of this problem and have taken many measures to protect gender discrimination against girls. The SRB as a direct expression of

gender imbalance remains at a high level and amounts more than 112. To overcome the problem of gender imbalance with high SRB, Vietnam needs to step up countermeasures that have been made in institutions, cultures and economies, and has to loosen the policy of fertility reduction.

Acknowledgments

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