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From Crisis to Opportunity: Solutions for Vietnam's Fertility Challenges

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Abstract

Maintaining a replacement fertility rate is essential for sustainable development. Vietnam is facing a decline in fertility rates, posing significant economic, social, and human security challenges. This paper analyzes the current trends in Vietnam's fertility decline, investigates its causes and consequences, and proposes practical solutions. Using an empirical research approach, the study identifies key contributing factors, including economic growth, rising living costs, lifestyle changes, and high infertility rates. The findings highlight the economic and social impacts of a declining fertility rate, such as labor shortages, reduced economic competitiveness, and increased burdens on the welfare system. To address these challenges, the paper advocates for pro-natalist policies, financial incentives, healthcare and education improvements, and lessons drawn from international experiences. Implementing these strategies in collaboration with stakeholders will help Vietnam sustain its fertility rate, ensure long-term development, and provide valuable insights for other nations confronting similar issues.

Keywords: *Replacement Fertility Rate; Population Aging; Population Policy; Sustainable Development; Pro-natalist Policies*

Introduction

The term "Total fertility rate" (TFR) is the mean number of offspring a woman in a given country would give birth to over her lifetime to sustain the population through reproduction. In simple terms, when each woman has two children, it meets the threshold for replacement fertility. Nevertheless, taking into account the rates of child mortality and the percentage of persons who are unmarried or unable to conceive, a TFR of approximately 2.1 children per woman is regarded as the threshold for replacement fertility. Over the past few decades, there has been a notable decline in fertility rates across the globe. In 2021, 89 out of 189 countries and territories exhibited a TFR lower than the replacement level of 2.1 children per woman. It starkly contrasts the eight countries that demonstrated such a trend half a century ago (Trang, 2021). The TFR in the East Asia and Pacific region declined from 5.4 offspring per woman in 1960 to 1.8 offspring per woman in 2020 (Phương, 2023). The TFR in Europe declined from 2.66 from 1955 to 1960 to 1.61 from 2010 to 2020 (Nhân, 2023). As a result, there is an argument that wealthy countries are currently facing a phenomenon known as a "demographic winter." (Hà, 2024) This tendency also occurs in developing and rising countries. Vietnam has also significantly decreased over the last three decades, with the average number of children per woman dropping from 3.80 in 1989 to 2.09 in 2019 (Nhiên, 2021).

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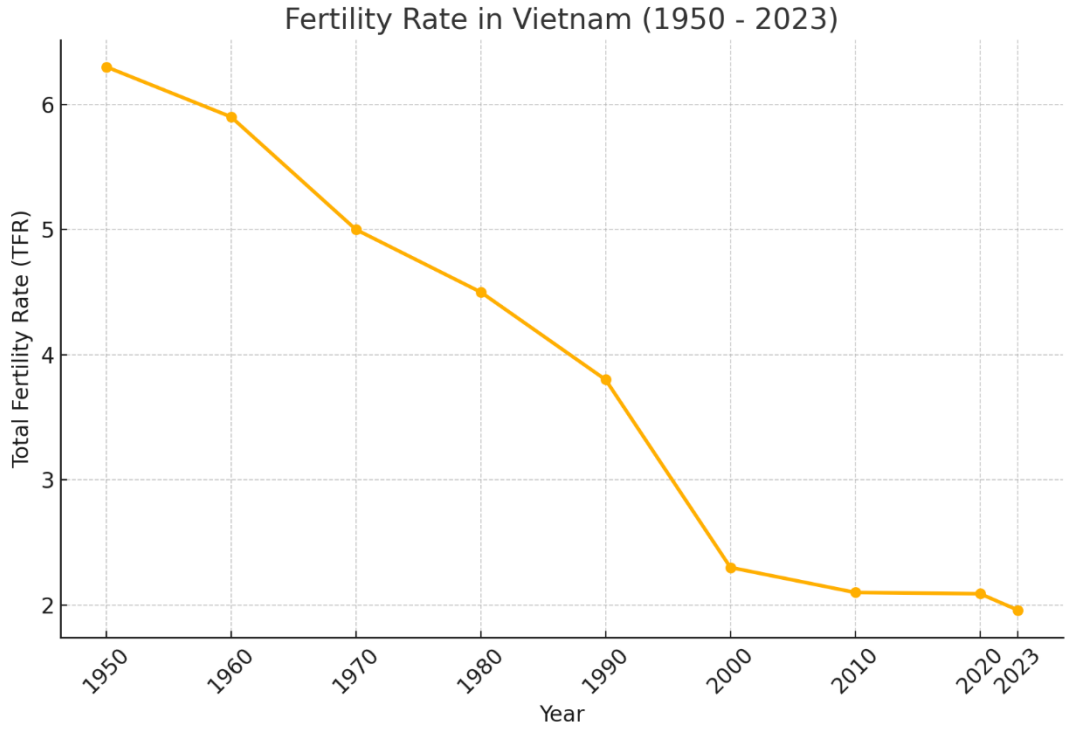
Similarly, the average yearly population growth rate declined, dropping from 2.1% in 1989 to 1.14% in 2019 (ương, 2019). Vietnam encounters challenges in attaining the objective of maintaining a consistent replacement fertility rate of 2.1 children per woman and a population size of around 104 million individuals by 2030, as specified in Resolution No. 21-NQ/TW of the Central Committee's XIIth Congress (October 25, 2017) (Đảng Cộng sản Việt Nam, 2017a). If the TFR continues to decrease below the replacement level of 2.1 and is not corrected, it could have significant consequences for the country's long-term development. These consequences may include a shortage of labor, a rise in the proportion of elderly individuals, economic burdens, social challenges, and, ultimately, the potential demise of the nation.

For Vietnam, the TFR has undergone significant fluctuations from the 1950s to the present. In the 1950s and 1960s, Vietnam's birth rate remained very high, with over six children per woman. However, due to economic and social pressures, the government issued Decision 216/CP in 1961 on "planned childbirth," making Vietnam the first country in Asia to implement such a policy. Since then, Vietnam has made numerous efforts to reduce fertility, including family planning campaigns and welfare policies aimed at encouraging a reasonable number of children, especially after the country's reunification in 1975 and the introduction of the Đổi Mới (Renovation) policy in 1986.

Since the Đổi Mới period, Vietnam has implemented many rapid and sustainable economic development policies, which have significantly transformed the social and demographic structure. It has led to a notable decline in fertility rates. Specifically, the birth rate dropped from 3.8 children per woman in 1991 to 2.09 in 2000, and it remained close to the replacement level (2.1) until 2019. However, since 2019, the fertility rate has fallen below the replacement level, reaching 1.96 in 2023, particularly in major urban areas such as Ho Chi Minh City.



The chart above illustrates the changes in Vietnam's TFR from 1950 to 2023. The TFR has sharply declined from 6.39 in 1950 to 1.96 in 2023, reflecting the impact of population policies and socio-economic development over the decades.

Maintaining a stable replacement fertility rate is essential for every country to ensure sustainable development and human security. A decline in the TFR affects the population structure and has significant economic and social consequences. Therefore, researching this issue's causes, impacts, and solutions is crucial for implementing timely and effective measures. The Vietnamese government must take proactive steps to prevent further fertility decline. Global data shows that while many countries have successfully reduced birth rates, none have been able to raise low fertility rates back to replacement levels, even with extensive pro-natalist policies and investments. If Vietnam fails to maintain its replacement fertility rate, it risks becoming an "ageing nation," contributing to the broader global trend of an "ageing world." A unique aspect of Vietnam's situation is the existence of three distinct categories of TFR across the country: above, equal to, and below the replacement level. This demographic disparity requires a flexible and comprehensive response from the government to ensure the replacement fertility rate is consistently maintained nationwide.

TFR indicators attract considerable attention from policymakers, managers, and researchers across multiple fields, including sociology, economics, cultural studies, statistics, and especially demography, the field focused on analyzing population dynamics. Numerous studies have shown a strong correlation between declining TFR and various economic, social, and cultural factors. Research by the United Nations and the World Bank has underscored that fertility rates tend to decrease as urbanization and economic development increase. The General Statistics Office and the Institute of Population and Social Issues have published research highlighting similar trends in Vietnam. However, few studies have proposed specific solutions to maintain replacement fertility levels in the unique context of Vietnam.

The decline in total fertility rates is a widespread global phenomenon, impacting both developed and developing countries. Numerous international organizations, such as the United Nations Population Fund (UNFPA) and the World Bank, have thoroughly investigated the socio-economic and cultural factors contributing to this trend. Their findings consistently demonstrate a strong correlation between economic development, urbanization, and declining fertility rates, with rapid economic growth frequently leading to a significant reduction in fertility (United Nations, 2020, 2022). In response to this issue, countries like Japan, South Korea, and several European nations have introduced pro-natalist policies in an attempt to reverse the fertility decline. However, despite considerable financial investments and policy reforms, these efforts have largely been unsuccessful in raising fertility rates back to replacement levels, at which a population can naturally sustain itself. For instance, Yamada (Yamada & Park, 2022) observed that Japan's pro-natalist initiatives—including financial incentives, parental leave, and child-rearing subsidies—have had limited success in counteracting the country's declining fertility. Similarly, Kim (Kim et al., 2022) research revealed that in South Korea, despite the introduction of extensive family support policies, fertility rates remain critically low. In the case of Vietnam, while several national studies have explored fertility trends and policy responses (Doan et al., 2022; Pham et al., 2012), there is a notable lack of comparative analysis with international

experiences. This paper seeks to address this gap by situating Vietnam's fertility decline within a broader global context and drawing insights from the pro-natalist strategies of other countries.

This study offers new contributions compared to previous research by analyzing the causes of declining fertility rates and providing practical solutions for Vietnam's current context. Compared to earlier studies such as Kim Korinek et al. (2006), this research examines the impact of household economics on fertility rates in Vietnam and China. It highlights the cultural and policy differences between the two countries.

Additionally, the paper presents an extensive analysis of fertility rate disparities across different regions of Vietnam, an aspect that previous studies have not fully explored. For instance, the TFR in urban areas such as Ho Chi Minh City reached only 1.39 in 2022, in contrast to significantly higher fertility rates in rural areas. It is a unique characteristic of Vietnam that must be considered when developing pro-natalist policies.

This study addresses four key questions: (1) What is the current state of the declining TFR in Vietnam? (2) What are the primary factors contributing to this decline? (3) What are the economic, social, and cultural repercussions of the decreasing TFR? (4) What measures and strategies can be implemented to sustain the replacement fertility rate and ensure Vietnam's sustainable development?

In response to these pressing issues, this paper makes several significant contributions. First, it comprehensively analyses Vietnam's current fertility trends, highlighting national and regional disparities. Second, it identifies the primary drivers behind the declining TFR: socio-economic development, urbanization, changing lifestyles, and rising infertility rates. Third, the paper examines this demographic shift's economic, social, and cultural consequences, including a shrinking labour force and increased pressure on the social welfare system. Fourth, it proposes actionable policy recommendations to address these challenges, drawing on international pro-natalist experiences while emphasizing the need to adapt them to the unique context of Vietnam. Finally, through empirical data and comparative analysis, the paper provides a strategic framework for maintaining a sustainable replacement fertility rate, contributing to Vietnam's long-term socio-economic development. This research fills a critical gap in the existing literature by offering an in-depth diagnosis of the fertility decline and practical solutions for policymakers and stakeholders.

Data and Methods

The authors employ an empirical research approach that combines quantitative and qualitative methods to answer these questions. Data is collected from official sources, research reports, and the Party and State policy documents. Comparative analysis examines successful and unsuccessful attempts to maintain replacement fertility rates in other countries.

The paper is organized into four main sections: the current state of the declining TFR in Vietnam, the factors contributing to this decline, the consequences of the decline, and the actions and solutions implemented by the government to address the issue.

Results

The Total Fertility Rate in Vietnam is decreasing

Over the past few decades, Vietnam has experienced notable fluctuations in its TFR. Starting in the 1960s, Vietnam's TFR stood at over 6.39 children per woman, but it significantly dropped to

2.09 children per woman by 2019. The significant decrease in population can be attributed to the long-term measures implemented by the Vietnamese government to regulate population growth and promote socio-economic progress.

In the 1960s, Vietnam's TFR in 1960 was 6.39 (Đức, 2022). Consequently, there was a substantial increase in population, with a growth rate of 3.8% per year in 1960 (Phương & Phương, 2017). This circumstance compelled the Vietnamese government to acknowledge the significance of population management. The Vietnamese government issued decision 216/CP on December 26, 1961. This decision aimed to implement "guided childbirth" measures to decrease birth rates and achieve economic stability, safeguard women's health, and promote appropriate child-rearing. Vietnam's decision to advocate for planned childbirth has made it the first Asian country to do so. Following the liberation of South Vietnam, the objective of decreasing the population growth rate was adopted nationally. The Fourth Congress of the Communist Party of Vietnam (December 1976) highlighted the need to intensify the planned births movement and significantly decrease the yearly population growth rate. The goal was to reach a population growth rate slightly above 2% by 1980. All sectors and levels must recognize the significance of promoting planned childbirth as a subject of utmost importance, encompassing political, economic, and social dimensions. This movement plays a crucial role in enhancing the well-being of our population (Đảng Cộng sản Việt Nam, 2004, pp. 708-709). Nevertheless, the longstanding practice of having many children proved resistant to immediate change, failing to attain the objective of decreasing the population growth rate to 2% by 1980.

Vietnam experienced a profound socio-economic crisis during the 1980s. The Fifth Congress of the Communist Party of Vietnam, held in March 1982, reiterated the objective of "lowering the average annual population growth rate from 2.4% to 1.7% by 1985." However, this goal was not accomplished. The substantial population, high birth rate, and economic crisis strain individuals and the government significantly. Consequently, from 1980 to 2000, various measures were implemented to regulate population growth. During the Sixth Congress of the Communist Party of Vietnam in December 1986, it was stated by the Party that the socio-economic conditions of the country necessitated a decrease in the population growth rate from 2.2% to 1.7% by 1990 (Đảng Cộng sản Việt Nam, 1997, p. 87). 1984, the National Committee for Population and Family Planning was created to supervise the birth reduction program. According to the Constitution and the Law on People's Health Protection, every citizen must participate in family planning. Decision 162 of the Council of Ministers (1988) (Hội đồng Bộ trưởng, 1988) established explicit measures, such as incentives and disincentives, to implement population and family planning objectives effectively. These measures included provisions related to housing, arable land, social services, praise, and reward. The Seventh Congress of the Party (June 1991) declared that population strategies should be implemented comprehensively, addressing population size, structure, and distribution. The objective was to decrease the annual population growth rate by approximately 0.4 - 0.6 per thousand and to view reducing the population growth rate as a national policy (Đảng Cộng sản Việt Nam, 1991, p. 76). In order to closely monitor population management, the Central Executive Committee of the Seventh Congress issued Resolution 04 on January 14, 1993, regarding population and family planning policies. The resolution emphasizes that population and family planning work is a crucial component of the country's development strategy, a top priority in our socio-economic agenda, and a fundamental element for enhancing the quality of life for individuals, families, and society (Đảng Cộng sản Việt Nam, 2007, p. 440). In order to make this policy more concrete, the government enacted Decision No. 270-TTG on June 3, 1993, which approved the "Population and Family Planning

Policy to 2000" and established specific systems of rewards and penalties. Consequently, Vietnam's TFR experienced a significant decline from 3.8 children in 1991 to 2.3 children in 2000, 0.6 children below the desired objective of 2.9 children. The population grew from 67.2 million in 1991 to 77.6 million in 2000, falling short of the target by 4.4 million (Anh, 2007, p. 223).

In the 21st century, the Vietnamese government persisted in implementing population control measures. In addition to advancements in socio-economic development, Vietnam's population has reached the replacement fertility level, with a TFR of 2.09 in 2019. In the new setting, the Vietnamese government implemented the Population Ordinance in 2003 to enhance population quality and transition from compulsory to voluntary family planning. In response to emerging population concerns, the Prime Minister has issued Decision No. 2013/QĐ-TTg, which endorses the Vietnam Population and Reproductive Health Strategy for the 2011-2020 timeframe. The strategy aims to enhance population quality, improve reproductive health, sustain a low and appropriate fertility rate, and effectively tackle population structure and distribution challenges (Thủ tướng Chính phủ, 2011). Over 60 years, the population control measures implemented by the Party and the State of Vietnam to enhance people's quality of life have effectively decreased Vietnam's population growth rate from a remarkably high 3.9% in 1960 to 1.14% in 2019 and further to 0.95% in 2021 (Nga & Linh, 2023).

The phenomenon of declining birth rates is observed worldwide. However, the pace of decline in Vietnam surpasses the global average (Linh, 2023). As per the General Statistics Office of Vietnam, Vietnam's TFR decreased further by 2023, reaching 1.96 children per woman, below the replacement fertility rate of 2.1 children per woman. It indicates that the index has consistently decreased compared to the figure of 2.01 children per woman in 2022, further deviating from the benchmark of 2.09 children per woman in 2019. Significantly, the TFR in Vietnam is becoming a concern as it is inconsistent throughout the country. According to the 2021 Population Change Survey, Vietnam is categorised into three TFR groups: Group 1 consists of 21 provinces and cities, which make up 39% of the population and have a TFR below the replacement level of 2.1 children per woman. Group 2 comprises nine provinces and cities, constituting 19% of the population. In this group, the replacement fertility rate is below 2.5 children per woman, ranging from 2.1 to below 2.5 children per woman.

On the other hand, Group 3 includes 33 provinces and cities with high fertility rates, accounting for 42% of the population. In this group, the fertility rate is 2.5 children per woman or higher (nhandan.vn, 2023). Ho Chi Minh City has consistently decreased its fertility rate, as reported by the city's Population - Family Planning Department. The fertility rate has declined from 1.76 children per woman of reproductive age in 2000 to just 1.39 in 2022 (Sơn, 2023). In 2021, the TFR in urban areas was 1.64 children per woman, which is lower than the TFR of 2.4 children per woman in rural areas (Tổng cục Thống kê, 2022, p. 55). Currently, provinces with low fertility rates have a population of 37.9 million individuals, around 39% of the country's total population. If the decreasing TFR is not controlled in these provinces, this problematic situation will persist and expand throughout the nation.

Vietnam's current TFR stands at 1.96, which falls short of the replacement fertility rate of 2.1 children per woman. This TFR is also lower than other Southeast Asian countries, which recorded a TFR of 2.1 in 2021. Vietnam's TFR is more significant than Malaysia (1.8), Brunei (1.8), Thailand (1.4), and Singapore (1.1) in Southeast Asia. However, it is much lower than neighboring nations such as Timor-Leste (3.6), Laos (2.7), the Philippines (2.5), Cambodia (2.4),

Myanmar (2.3), and Indonesia (2.1). The difference in population may arise from variations in population strategies and levels of socio-economic development across countries. It is worth mentioning that Ho Chi Minh City's TFR of 1.39 is comparable to the fertility rates seen in South Korea, Singapore, and Japan ten years ago. Since 2011, Vietnam has entered a period of population aging due to the significant decrease in the TFR. This fall resulted in the proportion of persons aged 65 and above surpassing 7% of the population, which happened six years earlier than anticipated (Hiền, 2019).

Vietnam's population has surpassed 100 million people as of 2023, placing it 15th among the world's most populous countries. It confers a competitive edge for the promotion of economic growth. Nevertheless, the swift decrease in the TFR has resulted in Vietnam entering a phase of population aging since 2011 when the percentage of individuals aged 65 and above surpassed 7% of the total population. It occurred six years earlier than first projected (Hiền, 2019). Vietnam is undergoing a demographic shift, moving from a high fertility rate to a low fertility rate, from an early fertility pattern to a late fertility pattern, from a high mortality rate to a low mortality rate, from a population structure characterized by a high proportion of young individuals to a period characterized by an aging population, and transitioning towards having a significant proportion of elderly individuals.

Nevertheless, the persistence of declining fertility rates is not readily halted. According to the General Statistics Office of Vietnam, if the medium fertility scenario continues, Vietnam's average annual population growth rate will reach zero by 2069. However, if the low fertility scenario persists, Vietnam will experience a negative population growth rate within 35 years (Thu, 2023). The population of Vietnam is projected to increase to 107 million people by 2044 and then decline to 72 million by 2100 (infonet.vietnamnet.vn, 2023). According to specific research, if the current Total Fertility pace (TFR) reduction in Vietnam continues, it is projected that by the year 2500, the country's population will be as low as 3.6 million. This population size would be similar to the current population of Nghe An province (Nga & Linh, 2023).

The TFR in Vietnam has significantly decreased, reaching concerning levels, especially in terms of velocity relative to other nations in the region and globally. It presents considerable difficulties in ensuring the sustainability of a youthful workforce and a stable demographic composition in the next years. Gaining a comprehensive comprehension of this issue is a crucial initial measure in formulating efficient strategies to uphold the replacement fertility rate and guarantee the sustained progress of the nation.

Factors Contributing to the Decrease in Total Fertility Rate

Each alteration has its underlying causes. A multitude of variables can be attributed to the decrease in the TFR and the subsequent decrease in the population growth rate in Vietnam.

Firstly, this can be attributed to the economic progress and the ongoing urbanization. The Renovation (Đổi Mới) in Vietnam, initiated in 1986, has yielded significant economic, cultural, and social advancements. The Human Development Index (HDI) of Vietnam has steadily risen, reaching 0.703 in 2020, placing the country in the "high human development" category, a notable increase from 0.561 in 1990 (UNDP, 2020). Vietnam's per capita GDP has consistently grown, rising from $257 in 1990 to $4,284 in 2023 (Sputnik Việt Nam, 2024; World Bank, 2023). Despite the modest income level, the currency's purchasing power remains relatively strong compared to many countries, thanks to the low inflation rate of 3.25% in 2023, with a Gini Coefficient of 0.374 in 2021, indicating moderate inequality (World Bank, 2022). Consequently,

the majority of people have stable lives. Vietnam has effectively implemented the hunger eradication and poverty reduction program. Per the records from the XIII Congress of the Communist Party, the multidimensional poverty rate 2020 was less than 3% (Đảng Cộng sản Việt Nam, 2021, p. 65). A foreign researcher has observed that Vietnam has achieved consistent and enduring economic growth over the past decade and significant advancements in reducing poverty. Due to sustainable economic growth, most people in Vietnam have experienced an enhancement in their overall living standards, particularly in terms of income and health status. This progress has resulted in many Vietnamese individuals transitioning into the middle class (OECD, 2014). As the economy grows, the expenses associated with living, education, and healthcare rise, placing substantial financial strain on families. Urbanization also contributes to the decrease in the TFR. In countries characterized by low-level agricultural and industrial development, children are considered valuable contributors to the labor force; hence, increasing the number of children is seen as advantageous. In advanced urban civilizations, children transition from productive assets to expensive dependents who require sustained assistance until they attain steady employment. Furthermore, the swift rate of urbanization and economic advancement creates significant challenges for young individuals in securing work, housing, stable jobs, and meeting the high cost of living relative to their income[3]. As a result, individuals choose to postpone marriage, postpone having children, and restrict the number of births due to apprehensions over the financial burden of rearing offspring.

Furthermore, this might be attributed to shifts in lifestyle and evolving attitudes toward family dynamics among the younger generation. As economic advancement has occurred, social life has become more egalitarian and transparent. The younger generation, comprised of individuals in their reproductive years who were born during the Renovation period and have benefited from its accomplishments, possess novel perspectives on life, family, and procreation. They prioritize individual autonomy, possess a hedonistic outlook, derive pleasure from exploring other aspects of life through travel, and, as a result, are inclined to postpone marriage and childbirth until later in life. The concept of "opting for a smaller number of children to provide them with better upbringing" has gained popularity, particularly among the middle class and urban regions. Some individuals even decline to get into matrimony or procreate, asserting that women are no longer mere "procreators" and that the act of nurturing a kid demands an excessive amount of time and exertion. Therefore, specific individuals contend that the significant decrease in birth rates signifies advancement for the younger cohort and regression for society (Duyên, 2024).

In addition, this can be attributed to alterations in familial and societal dynamics. As the country undergoes urbanization and industrialization, nuclear families have replaced traditional extended families. In the past, having numerous children was regarded as a valuable asset and a significant workforce for the family. However, in contemporary society, there is a lack of support for having many children. Specifically, while living conditions have improved, the expenses associated with giving birth and raising children have grown proportionally to workers' earnings. Parenting necessitates financial investment in several aspects of a child's upbringing, including essential items such as milk, diapers, medical check-ups, and clothing during infancy, as well as ongoing expenses like education, health insurance, living costs, additional classes, soft skill development, transportation, and electronic equipment for educational and recreational purposes during their maturation. Upon reaching 18 and acquiring citizenship rights, parents are still responsible for

[3] The House Price to Income Ratio (HPR) in Vietnam in 2024 is 24 times, significantly higher than the ideal ratio, which ranges from 5 to 7 times.

financing their child's vocational training, college, university, and even overseas education. In Vietnamese cultural tradition, parents are responsible for "arranging marriage," coordinating weddings, and giving financial resources to their offspring to establish independent lives. According to a 2020 survey, the cost of raising a child in Vietnam from birth until they are financially self-sufficient ranges from several hundred million to billions of VND (Mai, 2024) (equivalent to tens to hundreds of thousands of USD). In 2021, the mean income of individuals living in Ho Chi Minh City was 6 million VND per month. However, the expenditure for the education of a single family member in 2020 amounted to approximately 7 million VND. Since 2020, Vietnamese officials and government servants have only been eligible for a tax deduction of 4.5 million VND for raising children, far lower than the actual expenses incurred. Parents face dual pressures, both financial and time-related, as mothers are compelled to resume work when their kid reaches 6 months of age.

In comparison, daycare facilities generally only admit children at 18 months. Amidst societal changes, nurturing children is a source of apprehension for couples contemplating parenthood. Moreover, the combination of extended working hours, the responsibility of shouldering the majority of domestic tasks despite engaging in social activities similar to males, and an environment that is not conducive to raising children are contributing factors to the decline in reproductive aspirations among Vietnamese women, particularly in metropolitan regions. As a result of these circumstances, several families have opted to limit their number of children to secure a higher standard of living for their descendants.

Further, there are elevated rates of infertility and substantial expenses associated with therapy. Vietnam has a significantly elevated rate of infertility compared to other countries. As per the Ministry of Health, around one million couples experience infertility annually, which corresponds to approximately 7.7% of the population. Approximately half of these individuals are couples who are under the age of 30. Specifically, the rate of secondary infertility (inability to conceive after a previous pregnancy) is experiencing an annual increase of 15-20%. It is responsible for over half of all cases of infertility in couples (Liễu, 2023). Meanwhile, conventional procedures of reproductive assistance such as intrauterine insemination (IUI) and in vitro fertilization (IVF) at hospitals like Tam Anh General Hospital have a price range of 75-90 million VND and do not offer a guaranteed success rate on the initial try (tamanhhospital.vn, 2022). Consequently, not all individuals experiencing infertility have the financial means to undergo treatment in order to conceive. This factor also contributes to the decreasing fertility rate in Vietnam.

Moreover, there has been persistent resistance to change in Vietnam's family planning and birth reduction strategies for almost six decades. From 1961 to 2017, prior to the issuance of Resolution No. 21-NQ/TW on population work in the new scenario, the Vietnamese government enforced birth reduction measures for 56 years. Consequently, the practice of reducing birth rates has been deeply rooted in the mentality of the Vietnamese population, rendering it challenging to alter. Ms. Ritsu Nacken, the interim representative of the United Nations Population Fund in Vietnam, affirmed that statistical data indicates a consistent decrease in Vietnam's fertility rate. Vietnam officially transitioned into the 'aging period' in 2011. Consequently, the noticeable and irreversible trend of decreasing the total fertility rate has emerged with the country's socio-economic progress. Consequently, Ms. Ritsu Nacken advised Vietnam to transition its population control policy to a pro-natalist program (Phương, 2015). Nevertheless, the pro-natalist policies in Vietnam are now in the early stages of development and lack the necessary strength to boost birth rates in regions with low fertility rates effectively.

Overall, Vietnam's decrease in fertility rate can be attributed to the intricate interplay of economic, social, cultural, and health determinants. To design successful pro-natalist policies and assure the country's sustainable development in the future, it is crucial to have a comprehensive understanding of these reasons and make efforts to preserve the replacement fertility rate.

Implications of Decreasing Total Fertility Rate

From an Economic Standpoint

First and foremost, declining birth rates will result in workforce scarcity, particularly among the younger labor demographic. The scarcity of workers compels young individuals to work extra hours to afford the progressively costly food. However, their incomes fail to keep up with inflation, further diminishing their desire to have children. Significantly, in Vietnam, a low TFR is also observed in 13 provinces in the Mekong Delta region, with the lowest TFR recorded in Bạc Liêu province at 1.56 in the year 2021. The Mekong Delta's significance in agricultural production and national food security causes a decrease in fertility rates. Subsequently, the population and labor force result in higher local and worldwide agricultural prices. Decreased fertility rates also result in a reduction in the size of the consumer market.

Vietnam's economic competitiveness and appeal to foreign investment will be diminished due to declining birth rates, resulting in a decreasing labor market with high costs. The scarcity of a youthful and innovative workforce can diminish Vietnam's competitiveness in the global arena. The youthful workforce is pivotal in propelling innovation and fostering economic expansion. The economy's capacity to innovate and adapt to new technology will be impacted when the proportion of elderly individuals rises and young individuals decline.

Specifically, decreased birth rates result in an "aging population," which strains the social welfare system, encompassing pensions and healthcare services for older individuals. The government must deploy national resources to assist its progressively aging population as tax revenue declines due to the diminishing workforce.

From a Sociological Standpoint

A decrease in the TFR has a direct impact on both the size and composition of the population. Diminishing birth rates will decrease population size, which is a crucial aspect in determining a country's sustainable growth. Furthermore, in the era of the information economy, humans are considered the most precious resource. Additionally, it alters the population's demographic composition, transitioning from a youthful population to an elderly population, resulting in a rise in the number of individuals who are reliant on others. It leads to the emergence of an "aging society" where the demand for assistance and care increases while the available workforce diminishes. Consequently, social services, healthcare, and infrastructure will need to adapt in order to cater to the requirements of a growing elderly population.

Disparities in fertility rates among regions will facilitate the migration of individuals from regions with high fertility rates to regions with low fertility rates, particularly metropolitan areas, resulting in demographic shifts.

In each household, a smaller number of children frequently leads to better care and indulgence of the children. As grandparents and parents grow older, the number of children and grandkids available to provide assistance and care for the elderly decreases. Consequently, older individuals may experience feelings of isolation and a dearth of support from their children. Economic and social factors can complicate intergenerational connections within families.

From a Cultural-Scientific Standpoint

The decrease in the TFR and the consequent scarcity of a youthful workforce can diminish a country's ability to generate new ideas and originality. Young workers, possessing a heightened receptiveness to novel concepts, a strong desire to investigate, and a willingness to introduce original solutions, propel the advancement of emerging technology and imaginative concepts. If the size of this workforce decreases, it could lead to a reduction in the rate of innovation and technical advancement, which could negatively impact the nation's ability to compete globally.

Traditional cultural values may decline as family and social systems change. Decreased family size and the movement of young individuals to cities for employment can diminish familial and communal togetherness. It can result in the erosion of significant cultural and traditional aspects of Vietnamese culture.

To summarise, the decrease in TFR in Vietnam has resulted in numerous adverse repercussions for the economy, society, and culture. These repercussions have a dual impact on the country's sustainable growth and provide substantial obstacles to preserving human security and social stability. Ms. Đặng Quỳnh Thư, the leader of the Department of Population Size in Vietnam, highlighted the significant impact of the persistent low fertility rate in developing countries with low labor productivity, such as Vietnam. This situation calls for necessary modifications in economic and social frameworks to align with demographic patterns (giadinh.net.vn, 2020). In order to tackle this scenario, it is imperative to implement efficient policies and procedures that will ensure the replacement fertility rate is maintained and provide support for the holistic growth of the country.

Actions and Solutions by the Party and State of Vietnam

Party's Orientation

As the sole leading force in Vietnam, the Communist Party of Vietnam (CPV) is responsible for addressing all issues arising in the country's life. Population and human resources are the driving force and the goal of social progress. Thus, the CPV places great importance on maintaining a stable population. In 2006, when Vietnam's TFR was 2.09, equivalent to the replacement fertility rate but with regional disparities, the 10th Party Congress of the CPV set the orientation to "maintain birth control and keep the replacement fertility rate, ensure a reasonable population size and structure, and improve population quality." (Đảng Cộng sản Việt Nam, 2006, p. 103) By the 11th Party Congress (2011), the CPV shifted from birth reduction to "maintaining a reasonable fertility rate." (Đảng Cộng sản Việt Nam, 2011, p. 231) In 2016, with the trend of declining fertility becoming more apparent, the 12th Party Congress (January 2016) documents emphasized the orientation of "ensuring the replacement fertility rate." (Đảng Cộng sản Việt Nam, 2016, p. 138) To narrow the gap in TFR between regions, the CPV emphasized reducing births in provinces and cities with high fertility rates, maintaining achievements in provinces and cities with replacement fertility rates, and ensuring each couple has two children in low fertility areas. To direct population work when the TFR fluctuates, on October 25, 2017, the 12th Central Committee of the CPV issued Resolution No. 21-NQ/TW on population work in the new situation. A researcher noted that Vietnam is the only country in the world to have a resolution from the ruling party on population work in the new situation. The resolution shifted the focus of population policy from family planning to addressing the relationship between population and development (Nhân, 2023). Resolution No. 21 also set the first goal of population policy to "firmly maintain the replacement fertility rate (an average of 2.1 children per woman of

reproductive age), with a population size of 104 million by 2030." (Đảng Cộng sản Việt Nam, 2017b)

In the documents of the 13th National Congress, discussing population work, the CPV set forth guiding principles: "Develop and effectively implement population and development policies, capitalize on the advantages of the demographic dividend, and prepare conditions to adapt to an aging population, improve population quality, associated with enhancing the quality of human resources, ensure a reasonable population growth rate and gender balance at birth." (Đảng Cộng sản Việt Nam, 2021, p. 150) Population quality encompasses the physical, intellectual, and mental aspects of the population. Previously, population work primarily focused on "family planning" to stabilize population size, but now it aims to improve population quality to serve the goal of national development.

State Policies

Over the past decade, the State of Vietnam has endeavored to develop policies and a "legal framework" to implement the CPV's guiding principles on population policy.

Given the CPV's changing views on population work, the State of Vietnam needed to reformulate its Population Development Strategy. On November 22, 2019, the Prime Minister of Vietnam signed Decision No. 1679/QD-TTg approving the Vietnam Population Strategy to 2030 (Thủ tướng Chính phủ, 2019), replacing Decision No. 2013/QD-TTg dated November 14, 2011, on the approval of the Vietnam Population and Reproductive Health Strategy for 2011-2020. The new Population Strategy set out the overarching goal of maintaining a firm replacement fertility rate, bringing the sex ratio at birth to a natural balance, effectively utilizing the demographic dividend, adapting to an aging population, rational population distribution, and improving population quality to contribute to rapid and sustainable national development. Based on this overarching goal, the Strategy outlined eight specific objectives to achieve by 2030 and eight implementation tasks and solutions. In the newly issued Population Strategy, population work encompasses not just family planning, maternal and child health, or general health issues as before but also all population-related issues such as size, structure, distribution, gender balance, and quality.

To achieve the first objective of the new Population Strategy, "firmly maintaining the replacement fertility rate and reducing fertility rate disparities between regions and population groups," on April 20, 2020, the Prime Minister of Vietnam signed Decision No. 588/QD-TTg approving the "Program to Adjust Fertility Rates for Regions and Population Groups to 2030." (Bộ Y tế, 2021) This decision set specific goals: increase the TFR by 10% in provinces and cities with low fertility rates, decrease the TFR by 10% in provinces and cities with high fertility rates, and maintain achievements in provinces and cities with replacement fertility rates. Thus, Vietnam's population policy demonstrates flexibility.

To have specific population policies suitable for different regions and population groups, on April 27, 2021, the Ministry of Health of Vietnam issued Decision No. 2019/QD-BYT on announcing the list of provinces and cities in fertility regions for 2020-2025 (Bộ Y tế, 2021). Accordingly, the high fertility region includes 33 provinces: Hà Tĩnh, Lai Châu, Quảng Trị, Yên Bái, Điện Biên, Nghệ An, Tuyên Quang, Ninh Bình, Sơn La, Bắc Ninh, Nam Định, Hà Giang, Bắc Giang, Thanh Hóa, Phú Thọ, Kon Tum, Hòa Bình, Đắk Nông, Cao Bằng, Quảng Bình, Lào Cai, Vĩnh Phúc, Gia Lai, Thái Nguyên, Hưng Yên, Đắk Lắk, Bắc Kạn, Lạng Sơn, Thái Bình, Hải Dương, Thừa Thiên - Huế, Quảng Nam, and Hà Nam. The low fertility region includes 21 provinces and

cities: Hồ Chí Minh City, Đồng Tháp, Hậu Giang, Bà Rịa - Vũng Tàu, Bình Dương, Khánh Hòa, Long An, Bạc Liêu, Tây Ninh, Sóc Trăng, Cà Mau, Đồng Nai, Bình Thuận, Tiền Giang, Cần Thơ, Vĩnh Long, An Giang, Bến Tre, Đà Nẵng, Quảng Ngãi, and Kiên Giang. The replacement fertility region includes nine provinces and cities: Quảng Ninh, Bình Định, Lâm Đồng, Ninh Thuận, Phú Yên, Trà Vinh, Hải Phòng, Hà Nội, and Bình Phước.

Legislation is the framework for implementing policies, so the Ministry of Health of Vietnam is responsible for drafting the Population Law to replace the 2003 Population Ordinance. By January 2022, the draft of the Population Law was completed and is awaiting approval by the National Assembly of Vietnam. A notable point of the 2022 draft Population Law is that instead of the goal of reducing births through the regulation, "each couple has one or two children," it allows "couples and individuals to decide on the timing, number of children, and spacing of births, ensuring they can care for and educate their children well." (L.A, 2021) To avoid a "population explosion" in regions with high TFR, the draft also introduces measures to adjust fertility rates, such as prioritizing children of families with two children for public preschool and elementary school education, free tuition for public secondary school, and social housing support as per housing law regulations. Couples and individuals must also comply with population policies and laws appropriate to each period.

Overall, the CPV's and the State of Vietnam's policies and legislation in recent times have reflected the view of maintaining the replacement fertility rate and the determination to adjust fertility rates, ensuring they do not become too high or too low, to ensure the quantity and quality of the population suitable for national development goals.

Discussion

Advantages and Challenges for Vietnam in Maintaining the Replacement Fertility Rate

Advantages

The most significant advantage is that Vietnamese culture traditionally values family and considers children precious assets. The typical mindset of Vietnamese people is to desire two children of both genders. Vietnamese women are known for their sacrifice and competence in managing the household and caring for their children. They have fewer children, not entirely because they do not want to, but due to economic conditions and limited time. Therefore, if the Vietnamese government implements effective pro-natalist policies, the goal of maintaining the replacement fertility rate can be achieved. The second advantage is that from the experience of other countries, the Vietnamese government has recognized the importance of maintaining a reasonable fertility rate and will strive to implement solutions to prevent the fertility rate from dropping too low. Moreover, the decline in Vietnam's replacement fertility rate is still in its early stages, so it has not yet fallen into an irreparable "deep pit."

Challenges

The Vietnamese government has over half a century of experience in implementing birth reduction policies but lacks experience in promoting births since low fertility is a new phenomenon and not yet widespread across Vietnam. Many countries around the world have succeeded in reducing birth rates. However, no country has succeeded in raising meager fertility rates back to replacement levels despite having many incentives and substantial investments. Therefore, Vietnam does not have an effective pro-natalist model from which to learn and does not have the extensive resources to invest in pro-natalist goals like developed countries.

The disparity in TFR across regions and social groups makes population work complex and diverse. Previously, the primary goal of Vietnam's population policy was to reduce births, so the unified approach nationwide was to promote "each couple having one or two children" along with enhancing contraception services. Now, the diversity in fertility rates across regions requires a more diverse and multidimensional population policy: continuing to reduce births in high-fertility areas while ensuring that fertility rates do not decline in areas at or below replacement levels. Increasing fertility is complex, and reducing fertility in socio-economically underdeveloped areas is also challenging. The 2019 Census results show that the higher the educational level of women, the lower their fertility; women with the lowest education levels (primary school or illiterate) have the highest fertility; women in the "wealthiest" group have the lowest fertility, while women in the "poorest" group have fertility rates much higher than the replacement level (Báo điện tử chính phủ, 2020). Poverty, low education, and high fertility remain prevalent issues. Therefore, the goal of continuing to reduce births by 10% in high-fertility regions and provinces requires the government to effectively address hunger eradication, poverty reduction, and education improvement.

Vietnam currently lacks a dedicated state management agency, and the number of personnel working in population work is limited. In 1984, responding to the urgent need to reduce births to ensure people's livelihood, Vietnam established the National Committee for Population and Family Planning to represent the government in directing population work and coordinating between agencies and mass organizations to implement family planning. In 2007, this agency was dissolved, and population work is now assigned to the General Department of Population and Family Planning under the Ministry of Health. This change in specialized agencies has led to state budgets not being specifically allocated for population work but included in the general health budget. Additionally, the General Department of Population is not a ministerial-level agency, making its position more modest and its influence more limited compared to the former National Committee for Population and Family Planning. The population management apparatus lacks stability, and the staffing and compensation for population and family planning officers at the grassroots level are low. Investment resources for population work are not commensurate with requirements. After achieving the goal of birth reduction, the number of population research experts has tended to decrease (Vinh, 2020). With the decline in the number of researchers, the quantity of research projects, information, and statistical data—crucial for forming population policies and programs—has also decreased. This will lead to difficulties in the future when Vietnam needs scientific and practical bases to develop population policies suitable for the new context.

Vietnam faces significant financial challenges in maintaining the replacement fertility rate. Having moved out of the list of poor countries, the support from the United Nations and developed countries for population work has decreased compared to the period of intense birth reduction efforts. Moreover, developed countries are experiencing a fertility decline and cannot restore replacement fertility levels, so they use immigration to compensate for the labor shortage. Therefore, they will not be enthusiastic about supporting Vietnam in achieving this goal. Meanwhile, Vietnam is still a low-middle-income country with limited economic resources for pro-natalist efforts and cannot implement labor immigration policies when labor wages are not high.

Discussion of International Comparisons in Fertility Decline

Declining fertility rates are a significant issue in both developed and developing countries, and the gravity of this challenge necessitates the implementation of comprehensive policy frameworks. Countries such as Japan, South Korea, and several European nations have implemented pro-natalist policies in response to declining fertility rates, but the outcomes have been mixed (Buchmeier & Vogt, 2024; Kim et al., 2022). Despite decades of efforts in Japan to boost fertility, the TFR remains well below replacement level, mainly due to cultural factors that prioritize career over family, along with high living costs and limited work-life balance (Jeong et al., 2022). South Korea faces a similar situation, with one of the lowest fertility rates globally, despite extensive government interventions. Lim (Lim, 2021) notes that policies such as childbearing subsidies, extended parental leave, and tax incentives have failed to significantly raise the fertility rate to just 1.1 children per woman. The strong emphasis on education and career success and the high cost of living in urban areas continue to discourage young couples from having more children.

Vietnam can learn from the policies of Japan and South Korea, where various measures to boost fertility have been implemented, yet both countries have faced challenges in increasing birth rates. For example, Japan has introduced financial support, extended maternity leave, and childcare subsidies. However, the results show that the birth rate has not returned to the replacement level. South Korea has faced similar challenges, where policies encouraging childbirth have not reversed the low birth rate due to high living costs and intense competition in the education system and labour market.

However, Vietnam can adjust these experiences to suit its socio-cultural context. A notable point is that traditional Vietnamese cultural values still place great importance on family and children. Therefore, with appropriate economic and social support policies, Vietnam can potentially restore its replacement fertility rate.

In contrast, European countries like France and Sweden have experienced more success by combining financial incentives with robust social support systems. Duvander and Andersson (Duvander et al., 2019) attribute Sweden's relatively stable fertility rate to its extensive parental leave policies, affordable childcare, and most importantly, gender equality in the workplace, allowing women to pursue career and family aspirations together. However, no country has fully restored its fertility rate to a replacement level once a significant decline has occurred. The United Nations (United Nations, 2020) reports that despite substantial financial and social policy interventions, most countries with low fertility rates face population ageing and workforce shortages. This global context highlights Vietnam's difficulties in maintaining its replacement fertility rate.

Recommendations for Solutions for the Vietnamese Government

Maintaining a sustainable replacement fertility rate is not just a matter of population stability, but a pressing issue for the long-term development of Vietnam. Learning from the challenges faced by developed nations in reversing low fertility rates, the Vietnamese government must act with urgency. This requires the implementation of a comprehensive and proactive set of measures, which in turn necessitates close coordination, direction, and management from the government as the highest authority.

First, raising awareness about the importance of maintaining replacement fertility is essential. While the decision to have children remains a personal right, the growing trend of childlessness

among young people can have significant socio-economic impacts. In regions with low fertility, efforts should focus on promoting the benefits of having two children, highlighting the happiness of parenthood, and addressing the adverse effects of late marriages and low fertility on socio-economic development and elderly care. Government agencies, media, and socio-political organizations must lead campaigns tailored to the demographic realities of each region. Additionally, campaigns promoting healthy lifestyles, proper nutrition, and regular exercise to support the health of future generations should be emphasized. Educating young people about reproductive health is equally essential, and population communication must shift from simply reducing birth rates to supporting the country's broader population goals.

Second, the draft Population Law proposed by the Ministry of Health is a crucial step towards improving policies, laws, and organizational structures related to fertility. This law, which removes restrictions on the number of children, is a significant move that allows couples to decide based on their ability to provide proper care and education. The National Assembly should prioritize passing this law, as it will form the foundation for Vietnam's new population policy. The importance of this law cannot be overstated, as it will promote sustainable development based on voluntary principles and rights. Once enacted, existing regulations penalizing families with more than two children should be abolished (vietnam.unfpa.org, 2013). Additionally, Vietnam's long-term population strategy should extend beyond 2030 (Thủ tướng Chính phủ, 2019), aligning with the country's goal of becoming a "developed, high-income country" by 2045 (Đảng Cộng sản Việt Nam, 2021, p. 112). Given the long-term effects of population policies, a strategic vision until at least 2045 is critical.

Third, practical pro-natalist policies must be implemented. Financial support, such as childbirth allowances, tuition waivers, and healthcare subsidies, can reduce the financial burden on families and encourage higher fertility rates. Labour policies providing flexible working hours, extended maternity leave, and workplace childcare facilities can help women balance work and family life, promoting childbearing. These measures are not just beneficial, but crucial in improving living standards through investments in healthcare, education, and social infrastructure, and encouraging families to have more children.

Fourth, to ensure effective coordination and management of population goals, the government should establish a national steering committee on population and development. This committee would coordinate across ministries and sectors, ensuring that population and development issues are addressed in a comprehensive and strategic manner. Additionally, fertility and population size targets should be integrated into Vietnam's socio-economic indicators for 2025-2045. The government should regularly provide population data to decision-makers at all levels to inform policies and strategies. Motivating the workforce involved in population work is also crucial for achieving long-term goals.

Finally, Vietnam should learn from the pro-natalist policies of other countries and creatively apply these experiences. Developed countries such as France, Japan, and South Korea offer valuable lessons in fertility promotion, including financial subsidies, expanding childcare services, and improving workplace environments. However, due to Vietnam's unique socio-economic conditions, these international experiences must be carefully adapted to ensure effectiveness and sustainability. Vietnam should also engage with bilateral and multilateral forums to mobilize financial and technical resources from international partners for its population programs.

In conclusion, addressing the decline in TFR requires comprehensive and practical solutions from the Vietnamese government. It includes adjusting population policies, providing financial and educational incentives, improving healthcare and living standards, and learning from international experiences. By implementing these measures coordinated and sustainably, Vietnam can maintain its replacement fertility rate and secure the nation's future development.

Conclusions

The population is an essential element of the national development strategy, and ensuring a consistent replacement fertility rate is a critical requirement for sustainable development. Over ten years (2009-2019), Vietnam successfully raised its TFR from 2.03 to 2.09, reaching the replacement fertility rate, thanks to the government's initiatives and regulations. As of 2023, the fertility rate of Vietnamese women has dropped to 1.96 children, which is now lower than the replacement level. In many regions, the TFR has experienced a substantial decrease, similar to that observed in affluent nations. The decreasing TFR in Vietnam is a pressing matter that demands prompt attention and action from authorities and society at all levels. This study has thoroughly analyzed the present State, underlying factors, and resulting outcomes of this problem. It has provided precise answers and policies that the State can adopt to tackle the problem.

The research indicates that the decrease in TFR in Vietnam is attributed to economic, social, cultural, and health issues. The primary factors contributing to this phenomenon are economic development and urbanization, shifts in lifestyle and beliefs, financial constraints, and elevated levels of infertility. The repercussions encompass a dearth of youthful workforce, diminished economic prowess, fiscal strains on the social assistance system, alterations in population composition, and the disintegration of long-standing cultural norms.

The Communist Party of Vietnam and the State of Vietnam have acknowledged the significance of maintaining the replacement fertility rate. As a result, they have altered their population strategy from birth reduction to prioritizing population and development. Nevertheless, achieving and addressing the replacement fertility rate and resolving the pro-natalist problem is not a simple task. In order to uphold the replacement fertility rate and guarantee sustainable development, the Party and the State must carry out a range of comprehensive measures and solutions. Implementing financial assistance policies, providing educational and healthcare benefits, offering flexible work schedules, and building on-site childcare facilities are effective strategies to promote births. Learning from worldwide experiences and adjusting them to fit Vietnam's specific circumstances is essential to guarantee the policies' efficacy.

Ensuring Vietnam's sustained development and prosperity relies not only on achieving the replacement fertility rate but also on meeting demographic objectives. Effective collaboration among population, economic, social, and healthcare policies is essential to tackle this challenge and construct a more promising future for subsequent generations. Restoring the replacement fertility rate in Vietnam will offer significant insights for other nations and assist Vietnam in attaining an appropriate population size, therefore aiding in the mitigation of world population aging and decline.

Appendices

Key Policy Developments in Vietnam's Population Policies:

1. **1961: Decision 216/CP on Family Planning**
   Vietnam launched one of Asia's first family planning policies, marking the beginning of efforts to reduce birth rates.
2. **1975: Post-Unification Population Policies**
   After the reunification, Vietnam expanded its birth reduction policies nationwide, aiming to decrease the annual population growth rate.
3. **1986: Economic Reform (Đổi Mới) and Impact on Fertility**
   The Đổi Mới economic reforms significantly influenced demographic structures, leading to a notable decline in fertility rates.
4. **1993: 7th Party Central Committee Resolution on Family Planning**
   Strengthened family planning efforts to further reduce birth rates, aiming to lower the population growth rate to 1.7%.
5. **2003: Population Ordinance**
   A shift from compulsory to voluntary family planning, emphasizing population quality and reproductive health.
6. **2011: National Population and Reproductive Health Strategy 2011-2020**
   Focused on sustaining a low fertility rate, improving population quality, and addressing structural and distributional challenges.
7. **2017: Resolution 21-NQ/TW on Maintaining Replacement Fertility**
   Introduced policies to maintain a stable replacement fertility rate of 2.1 children per woman, with a population goal of 104 million by 2030.
8. **2020: Fertility Adjustment Program for Regions**
   Aimed at increasing fertility rates in low-fertility areas and reducing them in high-fertility areas to balance regional disparities.
9. **2021: Decision 2019/QD-BYT on Fertility Region Classification**
   Classified provinces into high, low, and replacement fertility regions, enabling tailored population policies for each area.

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