



The Role of NFC Award in Incentivizing Population Growth in Pakistan

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ABSTRACT

The majority of the population control projects in Pakistan have failed for several reasons. The incentives in the National Finance Commission (NFC) Awards, is a major contributor for it. The NFC awards serve as a mechanism for allocating or distributing federal resources among provinces. With 82% weight in the 7th NFC awards, Pakistan's resource distribution is primarily based on its population. with such massive weightage, provinces apparently want more population to increase its share in national resources. Ostensibly, Pakistan divides its political and economic power according to its provincial population. This has negative implications for Pakistan's deteriorating financial and human development. This study examines the relationship between population growth and the NFC Awards. It argues that the current resource distribution mechanism encourages provinces to increase their population, leading to disparities and poverty among them. This research paper discusses how NFC contributes to population growth and creates political-economic gaps among provinces. The study recommends that Pakistan should restructure the resource distribution formula by prioritizing population control rather than giving incentives that increase it. A mixed-method approach was used for this study. This study also recommends that the population weightage should be reduced giving more weightage to other indicators such as poverty and backwardness, also introducing other indicators such as education and development requirement.

Introduction

The increasing population is an issue that concerns the entire world. It results in major socioeconomic backwardness in a country. The world's limited resources are starting to face a threat from the growing population. It is a challenge for a government to manage its resources and population accordingly. Notably, the population growth is higher in developing countries than in developed countries. States with limited resources prioritize population control initiatives and

resource management. Admittedly, the developed world has implemented its population control policies more accurately, thereby successfully controlling its population. However, developing countries like Pakistan have flawed policies and implementation mechanisms; therefore, there is a rise in population rather than control.

Pakistan's population is growing at a tremendous speed. Today, Pakistan is one of the world's largest countries for population growth, standing as the fifth most populous country.ⁱ Currently, Pakistan has a population of 241,495,112 and 2.55 annual growth rate according to the final results of the 2023 Census,ⁱⁱ a 1.96% increase from 2023.ⁱⁱⁱ This population spike is seriously affecting the social and economic well-being of the public. Despite United Nations Population Fund (UNFPA) advocacy, an overall 82% in family planning expenditure has been seen since 2018, reaching a total of 39.5 Billion PKR,^{iv} yet the population control goal is a dream. The government took several steps and initiatives to control the population. However, the efforts were very limited. Regardless of having one of the oldest family planning programs in the region, the population increase is at a tremendous speed.

A series of family control programs were formulated. The 'First Family Planning Program' started in the 1960s, during the Ayyub Khan era,^v was the first formal attempt to control the population. Later seven more such programs were introduced. However, all these programs had limited to minimal progress. Consequently, Pakistan's population increased rather than control. This study suggests that one of the major reasons for this is the resource distribution mechanism in Pakistan, known as the National Finance Commission Awards (NFC awards).

The NFC award is the financial formula of economic distribution between provinces and the federal government. The NFC series were initiated to regulate and control the financial imbalances between the provinces and the federal. It also aimed to equally manage the financial resources of four provinces to meet their expenditure liabilities. The resource distribution mechanism under the NFC award is constituted under Article 160 of Pakistan's constitution.^{vi} A total of 7 awards took place. The most recent one followed is the 7th NFC award.

After a series of economic programs since 1951, the 7th NFC Award was signed on 30th December 2009.^{vii} It is the mathematical formulation through which revenue is divided between the federal government and provinces. The formula for provincial resource allocation is based on: Provincial population, poverty, GDP growth, and revenue collection.^{viii} The recent NFC formula is based on: a population weightage of 82%. The rest of the 18% is divided among backwardness calculated as poverty incidence given a weightage of 10.3%, inverse population density of 2.7%, and tax revenue/generation of 5%.^{ix} The Award also includes other outstanding issues such as the distribution of hydroelectricity profits and Gas Development Surcharge (GDS).

The population is given massive weightage in the resource distribution criteria. The study suggests that the NFC awards incentivize population growth in Pakistan. Provinces rather want to have more population to get more resources from the federal than to have small population and receive limited resources. This study analyzes that after each NFC award, the population has increased significantly. This study also recommends that the population criteria in the NFC awards should be reduced, adding more indicators to the formula. Notably, there is an urgent need to control the increasing population of Pakistan. The increasing population stresses the socio-economic development of Pakistan.

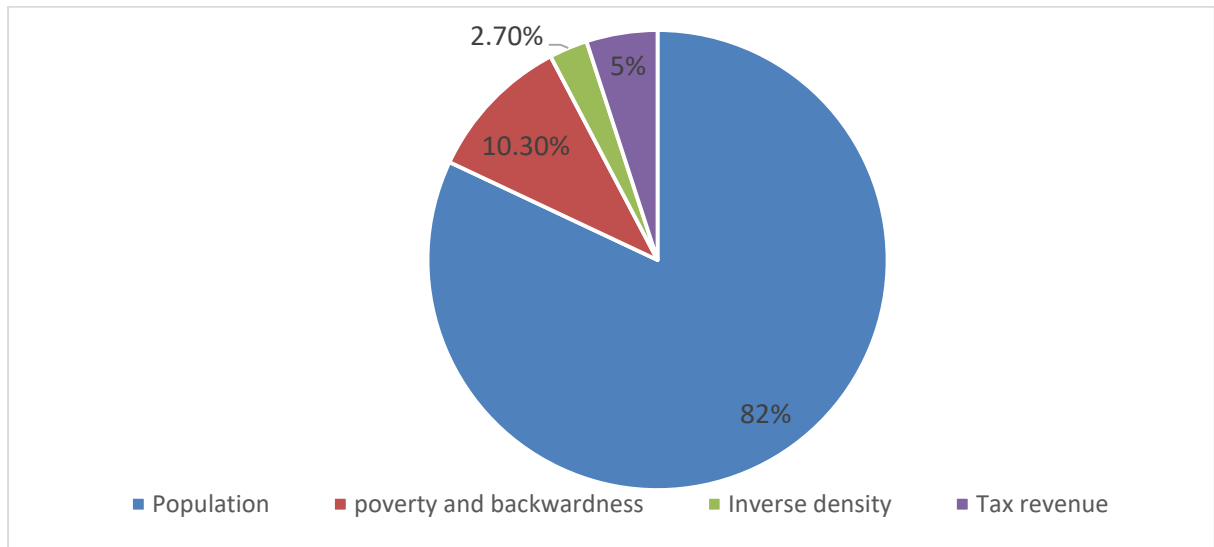


Figure 1: 7th NFC Award formula

Currently, Pakistan’s economy is struggling. The rapid increasing population is one of the key drivers of the socio-economic backwardness of the country. This has massive implications for the development of the country. With the tremendous population growth, Pakistan faces immense pressure on its resources. As a result, provinces want to acquire as many resources as possible. The NFC distribution mechanism also results in unequal distribution between the provinces, causing a inequality and rift among them.^x Thereby, provinces want to increase their population to get more resources.

This study aims to critically evaluate the NFC Award, 7th in particular, and the distribution mechanism in general. It criticizes the formula for resource distribution between provinces through the NFC Award. The study suggests that the distribution incentivizes population growth because of its population weightage. The indicators of resource distribution fall short of capturing the full essence of equity among provinces,^{xi} thereby provinces focus on population growth rather than control - to gain more resources from federal. This paper aims to initiate a constitutionally acceptable debate on the NFC Award. The discussion must intend to establish new benchmarks to determine the resource allocation for federal-provincial shares and each province. This study grapples with redefining the objectives of the NFC and its resource distribution mechanism through population in particular.

Literature Review

Prior to the 7th NFC Award, population was the sole criterion for resource distribution mechanism. After the grievances shown by the provinces, the 7th NFC Award slightly shifted the resource distribution criteria. It introduced ‘Multiple Indicator Criteria’ (MIC), under which certain elements were seen as making the distribution equitable and progressive. Usman Mustafa believes that the “NFC Award is a step forward for fiscal federalism because it will result in equity, accountability, cost-effectiveness, and opportunities for empowering and serving the poorest people”.^{xii} However, it is the opposite of reality.

The 7th NFC has increased inequality among provinces, resulting in rising poverty and population. There should be a systematic method of distributing these resources rather than a population-dominated mechanism. He also argues that “the criteria used for financial distribution vary from region to region and country to country; it is not fixed and also varies over time. Population

remains one of the major indicators for distribution”.^{xiii} However, he ignores that all the countries have a very low proportion of the population while in Pakistan, the proportion is too high. Population is not considered as a good indicator, thereby a larger proportion is only used by a handful of countries.

The 28th edition of the ‘World Population Prospects’ (WPP), published by the UN Department of Economic and Social Affairs (DESA), provides the latest demographic data. The report lists several reasons for a massive increase in population.^{xiv} However, the report fails to emphasize the unintentional promotion of population growth by NFC's incentives. The report highlights that there will be an increased demand for resources as the population grows in South Asia. However, in Pakistan, the resource distribution mechanism is dominated by an increased population. The major cause of population growth is the resource distribution mechanism. Consequently, provinces support more populations to gain more revenue from the federal government.

Sajid Amin Javed and Vaqar Ahmed believe that “the formula offered in the 7th NFC Award was predominantly needs-based, and whatsoever equity indicators it has, by its very structure, fall short of capturing the full essence of equity”.^{xv} However, they fail to identify that to get equity or more resources, provinces try to increase their population, resulting in population growth. They also believe that “even after this formula is applied, the distribution will remain needs-based as the weight assigned to the population of each province shall continue to dominate the resource distribution mechanism”.^{xvi} As it dominates the distribution mechanism, provinces wish to have an increased population in order to get more resources.

Muhammad Hassan comments that “the NFC Award changed not only the vertical distribution of resources in favor of the provinces, but it also restructured the horizontal distribution where sole population criteria of the population were replaced by multiple criteria”.^{xvii} However, he fails to examine that the population still has massive weightage, which has its negative implications, such as contributing to population growth. Weightage has its negative implications such as contributing to population growth

Population growth in Pakistan

Population growth is a daunting challenge for Pakistan. With an estimated population exceeding 240 million, Pakistan has one of the highest population growth rates in South Asia. As of 2024, Pakistan has the fifth largest population globally, fourth largest in Asia and second largest among the Muslim countries^{xviii}. The population of Pakistan is growing at a rate of around 1.96% per year in 2024.^{xix} It is a critical issue with widespread implications for Pakistan’s resources, economy, and social stability. “Multiple resources have been exhausted and Pakistan still adds four million people to its population each year”.^{xx} The rising population threatens the socio-economic well-being of the country. It also stresses the limited resources available for the population to tussle for. Though lower than in the past, population growth is immensely pressurizing the country’s development progress.

“Presently, 41% of the total population in Pakistan is under the age of 15 years. A large number of young people are about to enter their reproductive years, virtually guaranteeing continued rapid population growth for the foreseeable future”.^{xxi} Pakistan's population growth is the highest in the region. “Its population growth rate of 2.40 percent is the highest in South Asia and stands in sharp contrast to the 1.0–1.5 percent growth rate of South Asian countries”.^{xxii} Shockingly, the population has increased by more than six-fold since the census held in 1951.^{xxiii} A calculated study by United Nation Development Programme (UNDP), “Population Growth: Implications for

Human Development”, suggests that “A new person is added in Pakistan every 8 seconds and at the going rate, the total population is projected to exceed 350 million people by 2070”.^{xxiv}

Certainly, high fertility rates and low use of family planning policies are the main drivers of population growth. With a lack of effective policies, the population will skyrocket. However, the resource distribution mechanism also incentivizes the population growth. “Pakistan’s population is currently estimated at 240.5 million and is projected to reach 403 million by 2050”.^{xxv} The report predicts that Pakistan will surpass the United States, Indonesia, Brazil, and Russia, becoming the world’s third-largest country behind India and China. The report further illustrates that Pakistan will be among the eight countries, contributing to half of the projected global population growth by 2050.

With such a high population growth rate, Pakistan expects to experience a massive decline in the per capita availability of resources.^{xxvi} If we analyze the figures below, we realize that within 30 years (1950-1990) the population of the 0-4 age group got more than double. There is a hike of approximately 10 million to around 20 million. With the sample analysis of such a small group, one can only assume that the entire population has grown.

Table 1: Population by age group, selected years.^{xxvii}

Age	1950	1990	2020	2023	2030	2050
0-14	15,262	50,478	84,682	86,921	90,967	100,995
15-64	20,369	60,950	133,032	143,111	169,546	243,127
60+	2,906	6,213	15,013	16,479	20,327	36,572
65+	2,065	3,987	9,484	10,453	13,517	23,687
80+	368	456	1,161	1,282	1,653	3,430
Total	37,696	115,414	227,197	240,486	274,030	367,808

The growing population intensifies the strain on these resources. Many initiatives were taken to control the population but were not progressive, raising the question of ‘what went wrong and why?’. prior to the 18th amendment, the federal regulated the population control policies. However, after the 18th Amendment, the issue took a new turn. Now the federally controlled Population Welfare Programs are transferred to the provinces. It is now provincial governments who hold the responsibility to devise the population policy. Along with the 18th amendment come the NFC awards, according to which the revenue is distributed on the population criteria^{xxviii}. Provinces would now want more population than regulating population control programs.

Socio-economic implication of population growth

Population spike carries substantial socio-economic implications. Population possesses these challenges: affecting economic development^{xxix}, poverty levels, education^{xxx}, healthcare^{xxxi}, employment^{xxxii}, and environmental sustainability^{xxxiii,xxxiv}. One of the most serious socio-economic impacts of population hikes is on economic growth.^{xxxv} In Pakistan’s case, population growth has outpaced economic expansion. The government is struggling to create enough jobs for its massive population. Resultantly, the country faces high unemployment and underemployment rates, particularly among the youth.^{xxxvi} Furthermore, it places immense pressure on Pakistan’s infrastructure and public services. It is escalating, yet the country’s infrastructure remains underdeveloped and overburdened. Resultantly, there is the rising disparity between the growing population and insufficient infrastructure not only hampers economic efficiency but also reduces the quality of living standards.

Population growth in Pakistan is also linked to rising poverty, resulting in growing socio-economic inequality. The poverty rate is high in rural areas, as the population is more in these regions. Also, access to education^{xxxvii}, healthcare^{xxxviii}, and employment opportunities^{xxxix} is limited which further accelerates poverty^{xl}. Additionally, there is a strain on resources due to population growth. It often leads to unequal distribution of wealth. Consequently, inequality has long-term implications for social cohesion and national stability.

Similarly, healthcare services are under considerable strain^{xli}. Pakistan's public health system is not equipped to meet these needs. Resulting, in high maternal and infant mortality rates, as well as the prevalence of communicable diseases. These are indicative of a healthcare system struggling to cope with the demands of a rapidly growing population.

The environmental impact of population growth is also a significant issue, as Pakistan faces numerous environmental challenges. These challenges include deforestation, water scarcity, pollution, and land degradation. The consumption of natural resources increases with population, leading to unsustainable practices in agriculture, water usage, and waste management. "Such a high level of population growth is unsustainable and has already eaten into the modest gains made in terms of socioeconomic development. The growing population has direct negative implications for adverse climate change, environment degradation, deforestation and the decline in water availability"^{xlii}.

Significantly, the socio-economic impacts of population growth in Pakistan are complex multifaceted web. Addressing these challenges requires comprehensive policy interventions focused on sustainable economic development, education, healthcare, poverty reduction, and environmental conservation. Without these measures, the socio-economic divide in Pakistan will likely widen, and the country may struggle to harness the potential of its growing population. A study by the Population Council predicts, "If current trends continue, the pressure on resources such as water, food, and energy will become unsustainable"^{xliii}. This emphasizes the urgent need for a comprehensive approach to population management that includes family planning, education reforms^{xliv}, and sustainable development^{xlvi}. Unfortunately, in Pakistan, NFC incentivizes population growth.

Population control programs and policies

Over the decades, Pakistan has implemented various population control policies and programs. These programs aimed to stabilize the population growth rate. several initiatives have evolved through different phases, mainly focusing on family planning, education, and health services^{xlvii}. One of the most significant achievements of Pakistan's population control programs is the reduction of the total fertility rate (TFR). From a high of around 6.2 children per woman in the early 1990s, the TFR dropped to approximately 3.6 by 2024.^{xlviii} Regardless of having one of the oldest family planning programs, Pakistan has disconnection between population policies and its outcome. Further, the NFC Awards has caused the limited progress. Pakistan started family planning as early as the 1950s.

The first family planning program was launched independently in 1953 through an NGO, the Family Planning Association of Pakistan, and focused on advocating and facilitating small family norms.^{xlix} The second was established in the 1960s by Ayub Khan. It was the first formal attempt by the government to control population.¹ Later in 1972 Ministry of Population Welfare was created which launched the 'population welfare program'. It focused on the distribution of contraceptive pills. In the 1980s General Zia ul Haq, aimed at reducing population thereby, introducing the 'National population policy'.^{li} However, the policy had very limited success. After consistently limited to minimal success, the help of 'Lady Heath

Workers' (LHWs) was integrated into the family planning programs for community outreach in 1994. Notably, it had very moderate success.

After a gap of several years, 'National Population Policy' was introduced in 2002.^{lii} It reduced the sustainable population growth. In 2005, the 'Population and Development Policy' reaffirmed the previous goals of population growth. 'Vision 2025' was given in 2014. It was a comprehensive program that involved both provinces and federal to collaborate to sort out the population growth. Similarly, the 'Council of Common Interest Population Plan' in 2018, was also an attempt to reduce population growth. This program was relatively more successful than the rest of the population control programs.

NFC Award: history and evaluation

Pakistan has come a long way for NFC formulation. After the formation of Pakistan, the Niemeyer Award (under the 1935 Act) was followed by tax till March 30, 1952. In 1955, a one-unit system started dividing Pakistan into units: West Pakistan and East Pakistan. Two awards were announced in 1961 and 1964, distributing resources only amongst these two units. The first award was presented by Mr. Zulfikar Ali Bhutto in 1974. The criteria were solely population. Resources were vertically distributed at a fixed ratio of 20:80 among federal and provincial governments.^{liii}

Since 1973, after the consensus on the Constitution, there have been three NFC awards enforced in 1974, 1991, and 1997. However, the three formulas in 1979, 1984, and 2000 could not be implemented or even agreed upon since they failed to reach a consensus at the national level.^{liv} After almost 16 years of break, the fourth NFC Award with some positive recommendations, was introduced in April 1991. It gave more extending more financial autonomy to the provinces, by slightly increasing the provincial share. The 7th NFC award was introduced in 2009.

Constitutionally, the NFC program is to be held every five years and produce an award. However, the program produced a political realignment and the constitutional stipulation regarded a unanimous political concession between four provinces. Therefore, the program has fewer conclusive results^{lv}. Resultantly, only seven awards have been enacted since its emergence in 1951. Constituted under Article 160 (1) of the 1973 constitution, NFC has evolved over a long period and after several discussion sessions.

Initially, the first 6 awards were a failure. Provinces such as Balochistan, Khyber Pakhtunkhwa (KPK) and Sindh, opposed the distribution formula^{lvi}. Prior to the 7th NFC award, population was the sole criteria. The resources were divided on the basis of population. The population dominated formula was opposed by provinces as Balochistan demanded 'area' to be considered as an indicator in the MIC. It also demanded compensation for its natural resources. Sindh demanded Revenue generation to be included in the formula and KPK preferred Poverty and backwardness to be an indicator. While Punjab opposed the inclusion of multiple criteria.

After a series of debates, the 7th NFC Award was accepted. It gave value to the long-standing demands of the three provinces (Balochistan, Sindh, and KPK) for the introduction of MIC (inclusion of their preferred elements), and reduction of population share. Under the new distribution design, each province is to get more revenue from the federal government than the previous distribution design.

Resource distribution through the NFC Award

The NFC Awards play a crucial role in financial resource distribution among the federal and the federating units, in Pakistan. The provincial governments and federal competes to get a higher

share of the revenues through the NFC awards to stabilize their financial status. The NFC is responsible for devising a formula to distribute resources. This division aimed to ensure the fair division of the resources to achieve balanced allocation. However, Pakistan's fiscal federalism is a challenge to ensure equality among provinces. The division must prioritize equitable economic development in this politically complex country.

Historically, NFC resource distribution formally was unilaterally based on the population indicator. Over the years, Balochistan and KPK have opposed the idea of the population being the sole distribution criterion. This led to discontent among the provinces.^{lvii} The smaller populated provinces, argued for a broader approach with the addition of other factors such as poverty, geography disparities, and revenue generation. Consequently, the 7th NFC Awards presented a formula with multiple indicators. The population indicator was reduced from 100% to 82%. The federal shares the financial resources among provinces, which then share it with the local administration within their jurisdictions.

The 7th NFC award marked a significant shift in Pakistan's financial landscape. Since the first NFC award, the provinces argued upon the distribution formula. The acceptance of the 7th Awards was a symbol of collaboration and greater unity among provinces. For the first time, resource distribution criteria expanded beyond the population. The multiple indicator formula now consists of 4 indicators: population (82%), poverty and backwardness (10%), revenue generation (5%) and inverse population density (3%). This formula addressed the longstanding grievances of Balochistan and KPK. Consequently, the share of the provinces increased from 47.5% to 56%, with this formula.^{lviii}

Truly, the 7th NFC Award increased the province's share but reduced the share of the federal. This shortage in federal revenue results in reduced spending on national services, such as debt servicing and defense. Prior to the 7th NFC Award, provinces used to ask for a greater share, but now the federal demands a greater share or provinces giving a share in the national services. This has faced backlash from the provinces. As provinces get more autonomy, they require a larger share essential for their development.

The 8th NFC Award was to be continued in the footsteps of the 7th NFC Awards, however, the formulization was delayed because of the fragile economic conditions and political disagreements. The main issue remains as the federal demands a greater share. Provinces view it as a step towards centralization. On the other hand, the rising debt crisis in the country intensified the debate as both provinces and federal struggled to balance their budget. Provinces are more concerned about increased autonomy as well as increasing their fiscal share. Balochistan and KPK still emphasize that the population should further be reduced, giving poverty and backwardness more weightage.

The NFC Awards have significant implications for Pakistan as it shapes the economic and political landscape of Pakistan. Politicians believe that it is a well-formulated design that promotes national development and decentralization, which is very effective for the political landscape of Pakistan. It ensures social equality and promotes federalism. However, it is debated that through NFC Balochistan and KPK still gets a smaller share in contrast to the development needed in the provinces. Thereby, they demand the broadening of the formula criteria.

In sum, the NFC formula remains very crucial and debated. Though population weightage is reduced still has a huge portion. This study suggests that the province gets a higher share with an increased population. Consequently, provinces are focused on increasing their population to increase their share in the resource distribution. If the provincial governments are focused on increasing the population, then there can be no effective population control mechanism or policies.

Analysis of the 7th NFC Award

The 7th Award is believed to be a landmark. It broke the deadlock that had constrained the NFC. The deadlock ended with two major changes; a reduction in the share of the federal government by 10%, and the introduction of MIC. Now, the formula consisted of multiple factors: Population, Inverse population and density, Revenue and tax generation, and Poverty and backwardness. Notably, population still carries the largest weight - 82%.

In the new Award, Punjab has given up 1.27 percent, while other provinces received additional share: Sindh 0.39 percent, and Khyber Pakhtunkhwa 0.26 percent and Balochistan 1.82 percent. Federation sacrificed more than 10 percent of its share to provinces.^{ix} Balochistan is believed to be the greatest beneficiary of the 7th NFC Award, with such massive gain. Regardless, the 7th NFC Award facilitated the concerns of all the provinces opposing the first 6 awards. Following are the shares received by the provinces before and after the 7th NFC Award:

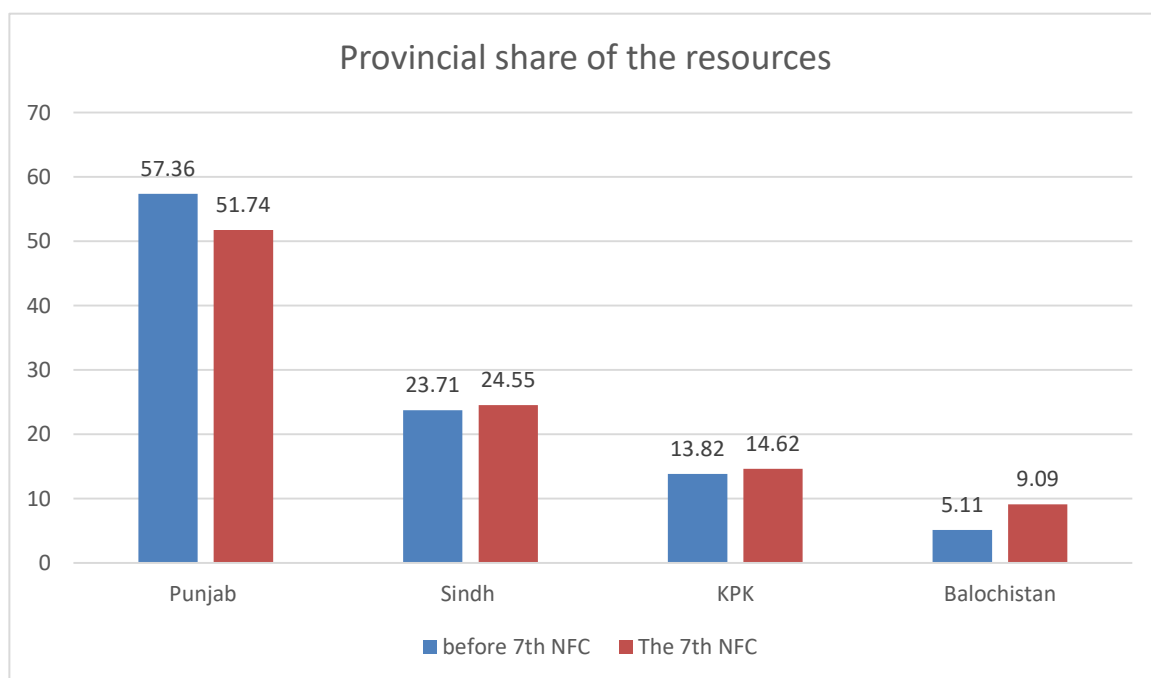


Figure 2: share of provinces before and after the 7th NFC Award

Certainly, one can observe that the weight of other elements of the MIC does not support rigorous exercise and the population percentage is still too large. Except for Balochistan, other provinces have very minimal changes in its share, as population still dominates the formula. It fundamentally remains needs-based. One ignored perspective of the population share is that if we add the inverse population density, the population will have an 87% share. NFC should have been a tool to create economic efficiency and to seed development priorities equally across the country, rather it incentivizes population growth. population is growing at a high pace because of the incentives provinces get through NFC.

The effect of population growth incentives on provincial inequality

Pakistan is at a crossroads, and not for reasons one might think. This study explains how the NFC awards not only incentivize population growth but also increase provincial inequality. The provinces do not stop population growth as they want more resources through population-

dominated NFC resource distribution. Therefore, all the initiatives taken in this accordance are not progressive.

A major problem with the population-derived criteria is that the provinces may question the credibility of the population census. This debate took flight during the latest 2023 census, which is believed to be showing exaggerated figures as provinces want to receive more funds. The findings of the census are questionable.^{lx} The greater population they have, the more funds they receive. Thereby, provinces are uninterested in controlling population.

Resultantly, the census provided by the government does not have any assurance of accuracy. The 2023 census had a heated debate in this regard, as it is believed that provinces exaggerate their figures to gain more funds or they are very non-serious related to population control programs.

Provinces may overstate their population figures to maximize their share of NFC resources. This misreporting or exaggeration creates a situation where the actual population data does not reflect the true dynamics on the ground. In addition, such overemphasis on population is not only inefficient but also detrimental to the development of a sustainable economic policy. Governments may prioritize larger populations over sustainable development therefore neglects population control efforts. provinces such as Punjab and Sindh, with already large populations, have strong incentives to maintain or increase their population figures, while Balochistan and KPK, which have smaller populations, are incentivized to grow theirs in order to secure more federal funds.

On the other hand, provincial autonomy does not guarantee that funds received by the provincial government will provide a minimum level of public service, especially regarding essential needs like healthcare and education. Viewing the demographic structure of the provincial population, it is clear that there is a need to spend more on education in KP and Balochistan.^{lxi} Likewise, there is a need to spend on healthcare is greater in Sindh and Punjab.^{lxii} Pakistan is a federation, therefore in fiscal federalism responsibilities should be assigned to equity and equality principles for the betterment of all the provinces, so they can develop equally.

The population-dominated formula results in inequality among the provinces. Other elements of MIC have such a low proportion that it hardly makes a difference. The backward provinces fall behind in development because they get less funds based on their population. resultantly, the backwardness and poverty in such provinces continue. Though poverty itself is an element in the formula, with such a low proportion it hardly makes a difference in increasing funds. The NFC formula is simple: the larger the population of a province the higher its share. The most populated province, Punjab, continues to enjoy a resource share ranging between 57.88% and 60.27% during 1974-2006. On the other hand, Balochistan, the most deprived province, received the smallest share of resources at a minimum of 3.8% and a maximum of 5.30%.^{lxiii}

As it was mentioned earlier that the first NFC award took population as the sole criterion for the distribution of revenue among provinces and as Balochistan is least populated, it had the least share of total revenues which was 2% to 3% of total revenues. Balochistan has a highly scattered population into far-flung areas. The people remained illiterate, unemployed and deprived of basic needs and decent living environment which has resulted in unrest in Balochistan.

Theoretical Framework- Economic and political Incentives of population growth

This paper will utilize Incentive Theory (**Public Choice Theory**) which posits that individual and political parties responds to incentives embedded within the system. According to the incentive

theory of motivation, which is a behavioral theory, people are driven by rewards or penalties from outside sources. This theory is predicated on the notion that people will either avoid actions that have negative consequences or act in ways that have positive ones.^{lxiv}

Pakistan is concerned about population growth. It causes a nation to become significantly socioeconomically backward and its finite resources are in danger due to the population growth. A government is finding it difficult to appropriately manage its people and resources. Concurrent chained reinforcement schedules are taken into consideration by extending incentive theory. The primary and secondary effects of reinforces contribute additively to the basic model, which guides the behavior that reinforcement activates.^{lxv} The activation interacts multiplicatively with the directive effects and is proportional to the rate of reinforcement.

Pakistan's population has increased by 33 million in the last six years, reaching an astounding 241 million people, up from 208 million in the 2017 census.^{lxvi} Pakistan's population has grown at the fastest rate in the region, 2.4% per year, since 1998, when there were fewer than 131 million people.^{lxvii} The National Finance Commission Award is a national political narrative that focuses on efforts to curb the population explosion. The NFC formula states that the provinces receive the majority of the federation's funds based on population, which is given 82% weight. Income generation and collection (5.0%), poverty and backwardness (10.3%), and inverse population density (2.7%) are additional indicators in the distribution formula. As a result, the national political narrative is to "grow the population and obtain an 82% share in the national coffers." Controlling population growth has been overshadowed by this narrative.

Population served as the only criterion for the resource distribution mechanism prior to the 7th NFC Award. The 7th NFC Award slightly changed the resource distribution criteria in response to the provinces' complaints.

Population is the sole distribution criteria, adopted in first six NFC awards from the divisible pool. This has raised friction among the provinces, necessitating inclusion of other potential variables evolved from international best practices. In addition to that, absence of technical experts and permanency of the NFC is another impediment. The NFC is supposed to provide the framework for amicable distribution of resources between the federal and the provincial governments for the joint goal of development and prosperity.

Methodology of the study

This research uses a Mixed-Method approach. Both primary and secondary data is collected and it analyzes the effects of NFC on the population. Data has been collected from the Pakistan census, Pakistan Bureau of Statistics (PBS), NFC awards documents, Webinar Reports, seminars reports, and meetings held regarding NFC awards. The data was Collected from Population Growth Trends, Socioeconomic Indicators, and other published research journals. The researcher also consulted official documents and conducted semi-structured interviews with experts:

Table 2

S.No	Name	Designation
1.	Brig. Agha Ahmed Gul (Retd)	Chief Executive Officer, BTTN Quetta
2.	Mr. Mahfooz Ali Khan	Ex. Finance secretary
3.	Dr. Saadat Baloch	Pro-VC University of Makran
4.	Dr. Manzoor Baloch	Pro-VC University of Gwadar

Finding and Analyzing

The findings of this study suggest that NFC Awards has given massive weightage to the population indicator. Resultantly, provinces are unserious about population control. Consequently, the population in Pakistan is increasing as more population indicates more resources. The research shows that the population increased with each NFC Award. It also suggests that provinces have overstated the population figures to secure a larger fund from the federal. This approach can inadvertently encourage population growth as governments may prioritize larger populations over sustainable development. A larger population gets larger funds; therefore, provinces want to increase their population to get a larger share.^{lxviii} They neglect investments in family planning.

Similarly, Population share is not considered a good indicator of fiscal distribution and is used only in a handful of countries.^{lxix} Even the countries that use population share as the criterion for revenue distribution typically record a rather low weightage. Nigeria is an exception as its transfer is 100% based on population. Pakistan too follows in the footsteps of Nigeria, with 82% weight, a huge percentage is dedicated to the population. If population was to be a good indicator, it would have been followed by developed states. However, population is not a good indicator for resource distribution as it incentivizes population growth.

Allocations based on a population-dominated formula often lead to economic disparities.^{lxx} Provinces with larger populations receive more funds, enabling better service and infrastructure. Meanwhile, smaller, less developed provinces, such as Balochistan and Khyber Pakhtunkhwa, receive lesser funds and, therefore face underfunding. Additionally, disparities in resource distribution exacerbate regional inequalities as economically disadvantaged provinces struggle to finance infrastructure, health, and education. This uneven resource distribution hinders balanced economic growth, perpetuating poverty and social issues in the underfunded provinces, further widening the gap.^{lxxi}

A debate on revising the NFC formula is essential to ensure equitable resource distribution. The current population-heavy criterion neglects poverty, backwardness, and infrastructure needs, deepening provincial disparities. Introducing broader metrics like development gaps and resource utilization or even population control can promote fairness and also help in sustainable development by controlling the population. NFC must foster balanced growth and reduce socio-economic inequalities among provinces

Recommendations

This study believes that the next NFC award should not only promote efficient provincial expenditure but also incentivize population control through the following means:

- Adjusting the weights of existing indicators,
- Changing the composition of existing indicators is necessary.
- Including new indicators.

This study suggests reducing the population indicator to 20–40%. Alternatively, the study suggests that the population weightage should remain at 82%. However, it should be divided into subparts such as population growth and population control. The NFC Award should incentivize population control too so that provinces get a share for controlling the population. This will keep a check on the provinces to control the population.

Moreover, Pakistan has programs and policies regarding population control. These policies have very limited to moderate success. There is no major change or success of these programs and policies. These policies lack 'cost-and-benefit analysis' for the individuals. Governments should give incentives to discourage the social behavior of an increased number of children. There should be positive reinforcement for fewer births and punishments for more births, a negative reinforcement. Governments follow the 'downstream approach', focusing on the individuals. Instead, they should focus on the environment to discourage population growth in the 'upstream approach'. It would promote an environment that discourages population growth. Resultantly, the birth rate will decline.

In addition, environmental challenges should also be a factor. The country is climate vulnerable and faces massive climate damage. The environment degradation is creating serious problems in the countries and affecting large amounts of losses to the economy. There is no measure and consideration related to environment degradation to halting and reversing the serious issue.^{lxxii} Environmental factors should also be considered as a major factor in the resource distribution formula.

Lastly, development and poverty should be given more weight in the NFC Awards. New indicators, such as area in absolute terms, not population, should be added. Additionally, infrastructure deficiency and development incentives could be indicators to promote development in the province and end disparities. Another could be population control efforts. Population control indicators would incentivize population control rather than increase.

Conclusion

The NFC Award is an outstanding initiative towards federalism and consolidating the fiscal positions of the federating units. It increased the share of the provinces. However, it is largely lopsided, where an unreasonable and disproportionate weight is given to the population. It fails to understand the full essence of the equality and equity. The 7th NFC Award, on the one hand, created a much-desired fiscal space for the provinces; however, it failed to redress the provincial disparities, given its skewed concentration on population as a major indicator. The massive weight given to the population incentivizes the population growth in Pakistan. Provinces want to increase their population to get a greater share of the resource pool.

The study concludes that the NFC award formula is one of the major contributors to the population growth in Pakistan. It is recommended that to reduce population, NFC Awards should incentivize population control by reducing the share of the population and also add population control as an indicator to the distribution formula. Any attempts made to adjust the weights of existing indicators or the inclusion of new indicators in the NFC formula are bound to reduce the population's weight since other indicators have a much lower contribution in the distribution formula than the population does.

References

ⁱWorldometer, "Countries in the World by Population – 2025," accessed November 14, 2024, <https://www.worldometers.info/world-population/population-by-country/>.

ⁱⁱ Pakistan Bureau of Statistics, "Detailed Results," accessed November 29, 2024, <https://www.pbs.gov.pk/digital-census/detailed-results>.

- ⁱⁱⁱ Macrotrends, “Pakistan Population Growth Rate 1950-2025,” accessed October 30, 2024, <https://www.macrotrends.net/global-metrics/countries/PAK/pakistan/population-growth-rate>.
- ^{iv} United Nations Population Fund, *Annual Report 2023*, (UNFPA Pakistan), accessed October 30, 2024 <https://pakistan.unfpa.org/sites/default/files/pub-pdf/2024-08/UNFPA%20Annual%20Report%20FINAL.pdf>.
- ^v Ayesha Khan, “Policy-Making in Pakistan's Population Programme,” *Health Policy and Planning* 11, no. 1 (1996): 30–51
- ^{vi} Government of Pakistan, *The Constitution of the Islamic Republic of Pakistan, National Finance Commission Article 160* (Government of Pakistan, 1973).
- ^{vii} National Finance Commission Secretariat, *Seventh National Finance Commission Award* (Islamabad: Government of Pakistan, 2009), https://www.finance.gov.pk/nfc/reportofthenfc_2009.pdf.
- ^{viii} Pakistan Institute of Development Economics, *The 7th NFC Award: An Evaluation* (PIDE, 2012), <https://file.pide.org.pk/pdfpideresearch/ms-08-the-7th-nfc-award-an-evaluation.pdf>.
- ^{ix} National Finance Commission Secretariat, *Seventh National Finance Commission Award* (Islamabad: Government of Pakistan, 2009).
- ^x Sadia Sohail, Sohail Ahmad, and Noor Jehan, “Distribution of Resource Revenues in Balochistan: A Gap in Pakistan’s Policy Making,” *Global Regional Review* 2, no. 1 (2017): 1–15
- ^{xi} Sajid Amin Javed and Vaqar Ahmed, *NFC Award: Devising Formula for Horizontal Distribution* (Sustainable Development Policy Institute, 2019).
- ^{xii} Usman Mustafa, *Fiscal Federalism in Pakistan: The 7th National Finance Commission Award and Its Implications* (PIDE, 2011)
- ^{xiii} Mustafa, *Fiscal Federalism in Pakistan*.
- ^{xiv} United Nations, *World Population Prospects*, Department of Economic and Social Affairs (2024).
- ^{xv} Sajid Amin Javed and Vaqar Ahmed, *NFC Award: Devising Formula for Horizontal Distribution* (Sustainable Development Policy Institute, 2019).
- ^{xvi} Javed and Ahmed, *NFC Award: Devising Formula for Horizontal Distribution*., 11-14
- ^{xvii} Muhammad Hassan, *Quest for Reconciliation in Balochistan: Policies of the Pakistan People’s Party Government, 2008–2013*. https://qurtuba.edu.pk/thedialogue/The%20Dialogue/15_2/15_2_7.pdf.
- ^{xviii} Ministry of National Health Services, Regulations, and Coordination, *Ministry of National Health Services, Regulations, and Coordination*, Accessed on 19 November 2024
- ^{xix} Macrotrends, “Pakistan Population Growth Rate 1950-2025.” Accessed on 7th November 2024
- ^{xx} Samina Mahsud-Dornan, “Pakistan, Population Programmes and Progress,” *Ulster Medical Journal* 76, no. 3 (September 2007): 122–123.
- ^{xxi} Mahsud-Dornan, “Pakistan, Population Programmes and Progress.”, 122-123
- ^{xxii} United Nations Development Programme (UNDP), *Population Growth: Implications for Human Development*, vol. 6 (2019), <https://www.undp.org/pakistan/publications/population-growth-implications-human-development>.
- ^{xxiii} *Business Recorder*, "Population Rise," accessed October 6, 2024, <https://www.brecorder.com/news/amp/40073536>.
- ^{xxiv} UNDP, *Population Growth: Implications for Human Development*. 2019
- ^{xxv} United Nations Population Fund (UNFPA), *8 Billion Lives, Infinite Possibilities: The Case for Rights and Choices* (2022), <https://www.unfpa.org/swp2023>.

- ^{xxvi} Mohammad Afzal, "Population growth and economic development in Pakistan." *The Open Demography Journal* 2, no. 1 (2009): 1-7. <https://benthamopenarchives.com/contents/pdf/TODEMOJ/TODEMOJ-2-1.pdf>
- ^{xxvii} Economic and Social Commission for Asia and the Pacific, *Demographic Changes in Asia and the Pacific: Pakistan*, accessed October 2024, <https://www.population-trends-asiapacific.org/data/PAK>.
- ^{xxviii} National Finance Commission Secretariat, 7TH NFC Award (2009).
- ^{xxix} Akram, H., (2020). Education Governance in Pakistan: A Critical Analysis of Challenges. *Journal of Social Sciences Advancement*, 1(1), 38-41.
- ^{xxx} Akram, H., & Yang, Y. (2021). A critical analysis of the weak implementation causes on educational policies in Pakistan. *International Journal of Humanities and Innovation (IJHI)*, 4(1), 25-28.
- ^{xxxi} Ramzan, M., Awan, H. J., Ramzan, M., & Maharvi, H. (2020). Comparative Pragmatic Study of Print media discourse in Baluchistan newspapers headlines. *Al-Burz*, 12(1), 30-44.
- ^{xxxii} Ramzan, M., Javaid, Z. K., & Fatima, M. (2023). Empowering ESL students: Harnessing the potential of social media to enhance academic motivation in higher education. *Global Digital & Print Media Review*, VI, 2(15), 224-237..
- ^{xxxiii} Umar, M., Congman, R., & Akram, H. (2024). Perceived entrepreneurial orientation and perceived academic entrepreneurial intention: a mediating role of knowledge creation. *Policy Research Journal*, 2(4), 953-967.
- ^{xxxiv} Umar, M., Congman, R., & Akram, H. (2024). The role of perceived entrepreneurial thinking towards academic entrepreneurial intentions: moderating role of entrepreneurial environment. *EDUCATIONAL RESEARCH AND INNOVATION*, 4(04), 40-54.
- ^{xxxv} Population Media Center, "How Does Overpopulation Affect the Economy?" accessed November 17, 2022, <https://www.populationmedia.org/the-latest/overpopulation-and-the-economy>.
- ^{xxxvi} Nayab Minhaj and Mohammad Imran, "Impact of Population Growth and Unemployment on Pakistan Economy," *RADS Journal of Business Management* 3, no. 2 (2021): 194–200.
- ^{xxxvii} Ramzan, M., Qureshi, A. W., Samad, A., & Sultan, N. (2021). Politics as Rhetoric: A Discourse Analysis of Selected Pakistani Politicians" Press Statements. *Humanities and Social Sciences Review*, 9(3).
- ^{xxxviii} Javaid Z.K., Akram, D., Fatima, S. M., Ahmad, J., & Hafeez, H. (2024). Investigating Emotional Experiences of Music Listener: Impact on Psychological Well-being. *Harf-O-Sukhan*, 8(2), 494-501.
- ^{xxxix} Ramzan, M., & Khan, M. A. (2019). CDA of Balochistan Newspapers Headlines-A Study of Nawabs' Stereotyped Ideological Constructions. *Annual Research Journal 'Hankén'*, XI, 27-41.
- ^{xl} Akram, H., Yang, Y., Ahmad, N., & Aslam, S. (2020). Factors Contributing Low English Language Literacy in Rural Primary Schools of Karachi, Pakistan. *International Journal of English Linguistics*, 10(6), 335-346.
- ^{xli} Javaid, Z. K., & Mahmood, K. (2023). Efficacy of Expressive Writing Therapy in Reducing Embitterment among University Students. *Pakistan Journal of Law, Analysis and Wisdom*, 2(02), 136-145.
- ^{xlii} Ehsan-ul-Haq, "Pakistan: National Security Challenges and the Way Forward," *Pakistan Horizon* 72, no. 4 (2019), <https://www.pakistan-horizon.piiia.org.pk/index.php/pakistan-horizon/article/view/167>.
- ^{xliii} "Pakistan – Population Council, July 12, 2022, <https://popcouncil.org/country/pakistan/>.

- ^{xliv} Akram, H., Yingxiu, Y., Aslam, S., & Umar, M. (2021, June). Analysis of synchronous and asynchronous approaches in students' online learning satisfaction during Covid-19 pandemic. In *2021 IEEE International Conference on Educational Technology (ICET)* (pp. 203-207). IEEE.
- ^{xlv} Akram, H., Yingxiu, Y., Al-Adwan, A. S., & Alkhalifah, A. (2021). Technology Integration in Higher Education During COVID-19: An Assessment of Online Teaching Competencies Through Technological Pedagogical Content Knowledge Model. *Frontiers in Psychology*, *12*, 736522-736522.
- ^{xlvi} Ramzan, M., Akram, H., & kynat Javaid, Z. (2025). Challenges and Psychological Influences in Teaching English as a Medium of Instruction in Pakistani Institutions. *Social Science Review Archives*, *3*(1), 370-379.
- ^{xlvii} Khanam, L., Akram, H., & Kamran, M. (2022). Parental Expectations and Students' Academic Interests: A Case Study of the Islamia University of Bahawalpur, Pakistan. *Pakistan Journal of Social Sciences*, *42*(1), 61-70.
- ^{xlviii} United Nations, *World Fertility Report 2024*, Department of Economic and Social Affairs, accessed January 10, 2025, (2025), https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesa_pd_2025_wfr-2024_advance-unedited.pdf.
- ^{xlix} Government of the Punjab, "population welfare department", Accessed on 30 October 2024 [https://pwd.punjab.gov.pk/history#:~:text=The%20First%20Decade%20\(1950%20%2D%201959\),-Top&text=The%20Programme%20was%20launched%20independently,bearing%20around%206%2D7%20children.](https://pwd.punjab.gov.pk/history#:~:text=The%20First%20Decade%20(1950%20%2D%201959),-Top&text=The%20Programme%20was%20launched%20independently,bearing%20around%206%2D7%20children.)
- ⁱ Enver Adil, J. Gilbert Hardee, and Nafis Sadik, "Pakistan: The Family Planning Program, 1965–1967," *Studies in Family Planning* *1*, no. 26 (1968): 4–11, <https://www.jstor.org/stable/1965195>.
- ⁱⁱ Ayesha Khan, "Policy-Making in Pakistan's Population Programme," *Health Policy and Planning* *11*, no. 1 (1996): 30–51, Oxford University Press.
- ⁱⁱⁱ Farwa Rizvi and Abdul Majid Rajput, "Pakistan's Population Growth, Policy, and Comparison with Countries in SEAR," *Journal of Islamabad Medical & Dental College (JIMDC)* *3*, no. 2 (2014): 79–81.
- ^{liii} Usman Mustafa, *Fiscal Federalism in Pakistan: The 7th National Finance Commission Award and Its Implications* (2011).
- ^{liv} Musarrat Karamat Ali and Amanat Ali Jalbani, "Pakistan NFC Award 2009 and People's Perceptions: A Case Study of Balochistan," *JISR Management and Social Sciences & Economics* *9*, no. 1 (2011): 65–81.
- ^{lv} Muhammad Sabir, "Financial Implications of the 7th NFC Award and the Impact on Social Services," *The Pakistan Development Review* *49*, no. 4 (2010): 387–403, <http://www.jstor.org/stable/41428664>.
- ^{lvi} Usman Mustafa, *Fiscal Federalism in Pakistan: The 7th National Finance Commission Award and Its Implications* (2011).
- ^{lvii} Iftikhar Ahmad, Usman Mustafa, and Mahmood Khalid, *National Finance Commission Awards in Pakistan: A Historical Perspective* (Pakistan Institute of Development Economics, 2007).
- ^{lviii} National Finance Commission Secretariat, *7th NFC Award* (2009).
- ^{lix} Usman Mustafa, *Fiscal Federalism in Pakistan: The 7th National Finance Commission Award and Its Implications* (2011).

^{lx} Dr. Nasra M. Shah, “A Questionable Census,” *Business Recorder*, August 15, 2023, <https://www.brecorder.com/news/40257900>.

^{lxi} Pakistan Education Statistics (PES), *Pakistan Education Statistics 2021–22 - Highlights Report* (Pakistan Institute of Education, 2022), <https://pie.gov.pk/SiteImage/Downloads/PES%20Highlights%202021-22%20New.pdf>.

^{lxii} Government of Pakistan, *National Health Accounts-Pakistan 2021–2022* (Pakistan Bureau of Statistics, 2022), https://www.pbs.gov.pk/sites/default/files/national_accounts/national_health_accounts/NHA-Pakistan%202021-22.pdf.

^{lxiii} Sajid Amin Javed and Vaqar Ahmed, “NFC Award: Devising Formula for Horizontal Distribution,” *Sustainable Development Policy*, October 2019, [https://sdpi.org/assets/lib/uploads/NFC_Award_Devising_formula_for_horizontal_distribution\(W-173\).pdf](https://sdpi.org/assets/lib/uploads/NFC_Award_Devising_formula_for_horizontal_distribution(W-173).pdf).

^{lxiv} Kenneth Silverman, Brantley P. Jarvis, Joshua Jessel, and Alexa A. Lopez, “Incentives and Motivation,” *Translational Issues in Psychological Science* 2, no. 2 (2016): 97.

^{lxv} Peter R. Killeen, “Incentive Theory,” in *Nebraska Symposium on Motivation* (University of Nebraska Press, 1981).

^{lxvi} Government of Pakistan, *The Final Result* (Pakistan Bureau of Statistics, 2023), accessed November 24, 2024, <https://www.pbs.gov.pk/sites/default/files/population/2023/Press%20Release.pdf>

^{lxvii} Shaukat Hayat Durrani and Uzma Mohib, “Dilemma of Rapid Population Growth in Pakistan,” July 2022, <https://mohtasib.gov.pk/SiteImage/Downloads/20-09-2022%20Dilemma%20of%20Rapid%20Population%20Growth%20in%20Pakistan%20edited.pdf>.

^{lxviii} Farhatullah Babar, “Population and the NFC,” *The News*, 2023, <https://iportal.riphah.edu.pk/newspaper/population-and-the-nfc/>.

^{lxix} Pakistan Institute of Development Economics (PIDE), *The 7th NFC Award: An Evaluation* (2012), <https://file.pide.org.pk/pdfpideresearch/ms-08-the-7th-nfc-award-an-evaluation.pdf>.

^{lxx} Angus S. Deaton and Christina H. Paxson, “The Effects of Economic and Population Growth on National Saving and Inequality,” *Demography* 34, no. 1 (1997): 97–114.

^{lxxi} Sikander Brohi, *Resource Distribution and Poverty in Pakistan* (2018), https://www.researchgate.net/publication/328928087_Resource_Distribution_and_Poverty_in_Pakistan.

^{lxxii} Usman Mustafa, *Fiscal Federalism in Pakistan: The 7th National Finance Commission Award and Its Implications* (Pakistan Institute of Development Economics, 2011).