

SUSTAINING SOCIAL PROTECTION

Demographic Shifts, Fiscal Capacity, and the Old Age Allowance in Nepal

JUNE 2025

SIDDHARTHA RAYAMAJHI AND EMMA SYRING

PUBLISHER'S NOTE

Nepal Institute for Policy Research (NIPoRe), GPO Box 8975 EPC 2273, Lalitpur, Nepal

For further information, please contact

Siddhartha Rayamajhi

Email: info@nipore.org

Publisher's note Note: This publication may be reproduced in whole or in part and in any form for educational or nonprofit purposes with special permission from the copyright holders, provided the source is acknowledged. NIPoRe would appreciate receiving a copy of any publication that uses this publication as a source. No use of this publication may be made for resale or any other commercial purpose without the copyright holders' prior written permission. The views expressed in the report are of the contributors and do not reflect the opinion of NIPoRe.

This publication is available in electronic form at: www.nipore.org

Copyright © 2025 Nepal Institute for Policy Research (NIPoRe)

Table of Content

1.	Background	1
1.1.	Study's Objectives	3
1.2.	Analysis of Demographic Trends and Implications for Social Security	3
1.3.	Fiscal Capacity Assessment	5
2.	Methodology	6
3.	Old Age Allowance in Nepal	9
4.	Quantitative Assessment of the OAA's Sustainability	10
5.	Discussion	12
6.	Conclusion	16
7.	Reference	17

Background

Globally, 79.6% of individuals above the respective retirement age receive old-age pensions. In contrast, South Asia lags behind significantly, with only 47.1% coverage, well below the Asia and Pacific regional average of 76.6% (International Labor Organization, 2024). Nepal, committed to democratic socialism through its 2015 constitution, faces structural tensions between the ambition to provide universal social security and its constrained fiscal capacity. This challenge is exacerbated by Nepal's shifting demographic structure, which intensifies fiscal pressures on its welfare commitments.

Since 1980, Nepal's total fertility rate has fallen by 64% (from 5.6 to 2.0 births per woman), while life expectancy has increased by 22 years (from 48 to 70 years) (World Bank, 2022). Consequently, the ratio of working-age adults supporting each elderly citizen has dropped dramatically, from 16.8 in 1980 to 10.3 in 2017, with projections of 5.6 by 2050 (National Planning Commission, 2017). This changing age structure signals a transition from a rural agrarian society to an urban industrial one (Shrestha, 2022). Simultaneously, recent trends indicate a growing share of the population facing poverty, with the proportion of vulnerable populations rising from 17.8% to 20% between 2019 and 2022, while those in severe poverty increased from 4.9% to 5.5% nationwide (UNDP Multidimensional Poverty Index, 2023 & 2024).

Beyond ageing, Nepal's economic landscape is further shaped by its migration dynamics, introducing new fiscal constraints. Census data indicates that the absentee population increased from 3.3% to 7.5% between 2001 and 2021, while only 0.9% of absentees were aged 55 or above (National Population and Housing Census, 2021). Despite remittances comprising 25.4% of Nepal's GDP (World Bank, 2023), their contribution to domestic tax revenues remains marginal, as receiving personal remittances is tax-free, exacerbating fiscal imbalances. This creates a structural dilemma: while remittances sustain household economies, the long-term viability of the social security system could be undermined by the limited fiscal contributions of the working-age diaspora. Many returnees eventually access Nepal's pioneering non-contributory pension scheme – established in 1995 as South Asia's first universal program – without having contributed to the system during their productive years. Article 22 of the Universal Declaration of Human Rights (1948) recognizes social security as a fundamental right, a principle that Nepal upholds in its own constitution, “being

committed to socialism based on democratic norms and values” (The Constitution of Nepal, 2015, Preamble, p. 6). Nepal’s constitutional commitment to democratic socialism inherently prioritizes social security as a mechanism for ensuring state-mandated support for vulnerable populations. Social security plays a crucial role in protecting individual rights, fostering socio-economic participation, and enhancing overall societal well-being (Măgureanu Poptean, 2011). Research has consistently linked the absence of social security schemes with reduced well-being, heightened poverty exposure, diminished access to health and education, restricted income-generating opportunities, and increased child labor prevalence (Beegle et al., 2006; Fafchamps & Minten, 2009). Nepal operationalizes social security through progressive legislation such as the Social Security Act (2017). While social security extends beyond pension schemes (here: Old Age Allowance), the present study focuses exclusively on this aspect.

Hence, Nepal’s government has committed itself to providing social security for its population, aligning with its constitutional mandate as a socialist democracy. However, this commitment may be increasingly precarious taking into account the pressing socio-economic shifts the country is undergoing, paired with the questionable state’s fiscal capacity.

On one hand, a strict monotonic increase of tax revenues has been evident since Nepal’s adaptation of federalism, with revenues steadily rising from 659 billion NPR in 2017/18 to 865 billion NPR in 2022/23, an increase of 31% over the course of just five years. On the other hand, while Nepal’s government thereby has more money at their disposal, the expenditure on social security has also increased. During the same period of time, the budget allocated to social security expenses has increased from 36 billion NPR to 134 billion NPR, corresponding to an increase of 275%; thereby constituting a significantly more pronounced change and raising the issue of social security’s sustainability. This tension between constitutional idealism and economic realism forms the core issue of our investigation: quantifying how long Nepal can sustain its welfare programs given the interplay of demographic momentum and static revenue policies. Thus, in the present paper we seek to investigate the following research question: How do demographic factors such as dependency ratios and outmigration impact Nepal’s economic activity and fiscal capacity, and what policy measures can sustainably manage government revenues and expenditures to maintain social welfare programs?

The subsequent chapters proceed as follows: We will first analyze Nepal's demographic trends before turning an assessment of the country's fiscal capacity. Chapter 2 outlines the study's methodology, detailing all relevant variables for the quantitative analysis as well as the theoretical framework employed. Chapter 3 presents an in-depth examination of Nepal's Old Age Allowance (OAA) program, including its historical development, current legal framework, and administrative efficiency. Building on these foundations, a quantitative analysis of the sustainability of Nepal's OAA will be conducted, integrating population projections for the relevant target groups as well as projections of tax revenues and annual GDP development. We will then discuss our findings in chapter 5 and compare them to other nations, before concluding and providing policy recommendations.

1.1. Study's Objectives

This study aims to:

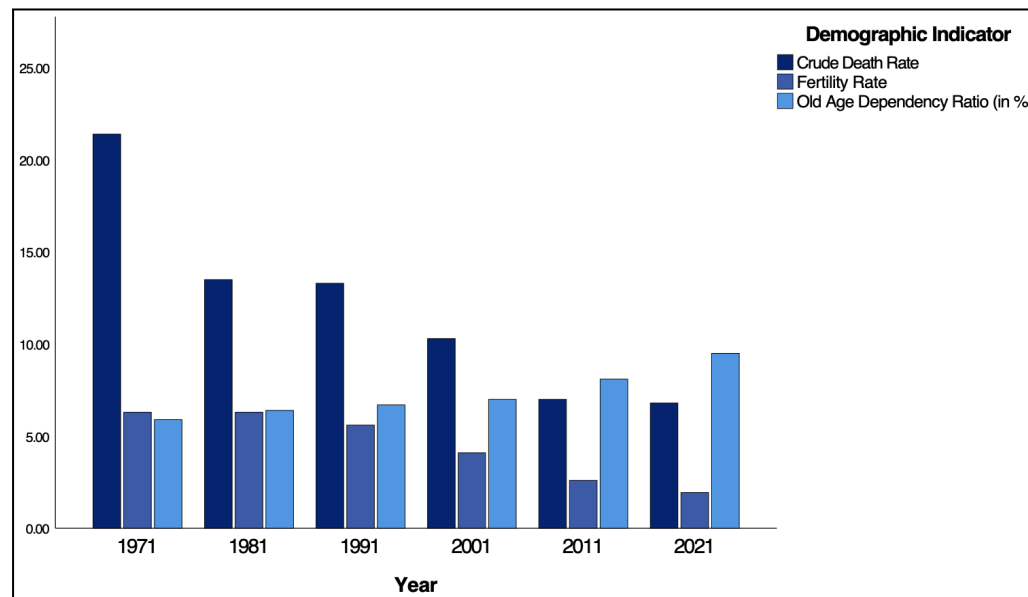
1. Develop a comprehensive understanding of the fiscal impact of current socio-economic trends in Nepal on OAA.
2. Address knowledge gaps in Nepal's fiscal capacity and welfare program sustainability.

1.2. Analysis of Demographic Trends and Implications for Social Security

Nepal's demographic profile has changed dramatically over the past decades. Between 2011 and 2021, the population growth rate declined from 1.35% to 0.92% (NSO, 2024). Fertility fell from 2.6 to 1.94 births per woman, and the crude death rate dropped slightly from 7.0 to 6.8. Together, these trends explain the shrinking growth rate: fewer children are born, but fewer people die young, leading to an aging population. Migration patterns also heavily influence demographics. Labor out-migration, especially to Malaysia, the Gulf Cooperation Council (GCC) countries, and India, has become a hallmark of Nepal's economic structure (MIDEQ, 2024). The remittances help sustain households but contribute little to the domestic tax base.

Figure 1

Trends in Crude Death Rate, Fertility Rate, and Old Age Dependency Ratio per Decade



Source: Bhandari, K. (2021), NSO (2024), and World Bank (2024)

As shown in Figure 1, Nepal's total fertility rate fell from 6.3 in 1971 to 1.94 in 2021, nearing sub-replacement levels. The crude death rate decreased over the same period from 21.4 to 6.8. This sharp fertility decline as well as sustained low mortality will accelerate aging, straining social security systems. Consequently, the old-age dependency ratio is rising monotonically, straining social security systems as fewer working-age individuals support an increasing number of retirees. With fewer young workers supporting more retirees, Nepal faces future challenges like pension shortfalls, higher healthcare costs, and labor shortages. The outflow of labor migrants exacerbates the shrinking working-age population already pressured by declining TFR, leaving fewer contributors to social security systems domestically. However, remittances from these migrants play a critical role, contributing 25.4% of Nepal's GDP, which directly supports households and reduces immediate poverty risks (World Bank, 2025). While remittances temporarily alleviate poverty, they conceal deeper vulnerabilities linked to a shrinking domestic workforce and an increasing elderly population.

1.3. Fiscal Capacity Assessment

Fiscal capacity plays a crucial role in social protection expenditure and welfare outcomes in developing countries. Nepal's tax revenue has shown gradual growth over the years (2014/15–2022/23) (c.f. Table 1) alongside rising GDP, indicating improved fiscal capacity over time. While tax revenue nearly tripled (from 356 to 984 billion NPR), expenditures also increased, with recurrent costs – which include social spending like pensions – consuming a significant share (72% of total expenditure in 2021/22). The steady GDP growth over the years (2.42 to 4.85 trillion NPR) further suggests broader economic expansion, potentially supporting higher pension allocations. Despite these increases, persistent fiscal deficits underscore the need for careful revenue mobilization and expenditure prioritization to maintain welfare commitments.

Table 1

Historical Tax Revenue and Expenditure Patterns (in billion NPR)

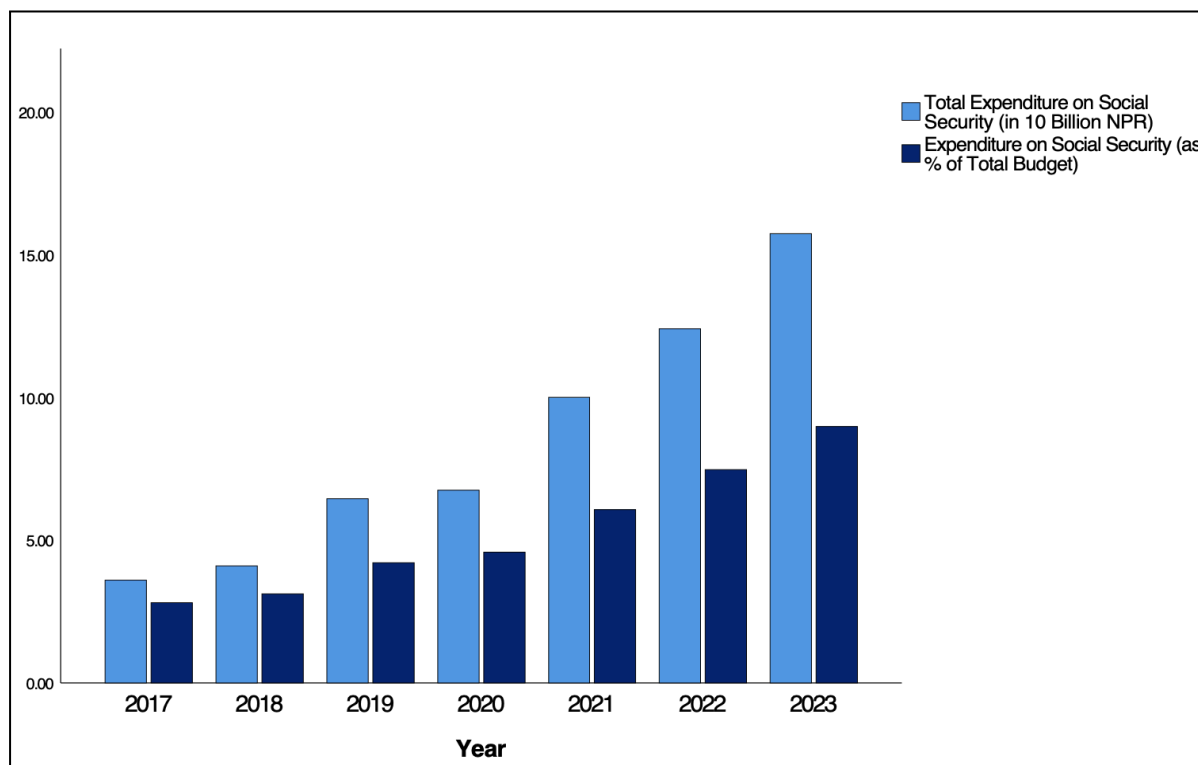
Year	Tax Revenue	Total Expenditure	Recurrent Expenditure	Nominal GDP
2014/15	356	532	339	2,423.63
2015/16	421	601	371	2,608.18
2016/17	554	837	519	3,077.14
2017/18	659	1,087	697	3,455.95
2018/19	739	1,110	716	3,858.93
2019/20	700	10,91	784	3,888.70
2020/21	870	1,197	846	4,277.30
2021/22	984	1,310	954	4,851.62

Source: Economic Survey of Nepal, Financial Comptroller General Office of Auditor General, and NSO

Nepal's social security expenditure has shown a marked upward trajectory as a share of the total national budget between (c.f. Figure 2). Starting from a modest baseline of around 2.8% in 2017/18, allocations grew steadily each year, reaching approximately 8.9% by 2023/24. This growth accelerated particularly during the COVID-19 pandemic years (2020/21-2021/22) as additional social protection was needed.

Figure 2

Expenditure on Social Security and its Share of Total Budget



Source: Ministry of Finance, Government of Nepal

In summary, Nepal's demographic transitions – characterized by declining fertility rates and lower crude death rates – have substantially reshaped its dependency ratios. The aging population and the contraction of the working-age cohort, further intensified by large-scale labor outmigration, exert growing pressure on economic activity and fiscal capacity. Although the remittance-driven economy provides short-term support, it conceals deeper vulnerabilities: the outflow of productive labor erodes the domestic tax base, even as demands on social security systems continue to rise. These fiscal challenges are further exacerbated by structural imbalances, as tax revenues consistently fall short of expenditures, with recurrent costs consuming an increasingly large share of the national budget (Adhikari & Karn, 2020).

2. Methodology

This study uses a quantitative approach combining demographic and fiscal data to model OAA sustainability until 2050. To assess the sustainability of Nepal's OAA scheme, we first examined the current legal framework governing the program to identify the target populations eligible for non-contributory pensions. Under this framework, individuals aged

68 and above qualify for OAA, as well as Dalits and Karnali residents aged 60 and above. Understanding the demographic composition of these groups is essential for estimating future pension expenditures. Therefore, we employed a medium-case scenario of population projections to model their demographic evolution annually until 2050. The study synthesizes demographic data from the National Statistics Office (NSO), fiscal records from the Ministry of Finance, and disbursement patterns from the National Social Security Fund. Using projections of populations, GDP, and tax revenues, this study evaluates the feasibility of OAA scheme in 2030, 2040, and 2050. This multifaceted approach enables reliable macro-level fiscal sustainability calculations while employing locally collected data for analysis.

As part of the 2021 National Population and Housing Census, the NSO published population projections for the general population per year and year of age, which we adopted for our analysis. Regarding the Karnali residents, the NSO only published population projections for five-year intervals from the year of the census. To circumvent missing data, a linear regression was fitted, and the population of Karnali residents was calculated for each year using the six data points published by the NSO. However, similar projections for the national Dalit population were entirely unavailable. To address this gap, we calculated Dalit population projections using a cohort-component model. Specifically, starting with the absolute number of Dalit individuals from the 2021 census, age-specific mortality rates were applied to estimate the number of individuals progressing to the next age group each year. Since the census reported age cohort data rather than single-year age distributions, a uniform distribution within each cohort was assumed to estimate the number of Dalit individuals per year of age. To model yearly demographic changes for each eligible population, the following recurrence relation was used:

$$P_{x,y} = P_{x-1,y-1} * (1 - M_{x-1,y-1})$$

Where:

$P_{x,y}$ = population of individuals aged x in year y (with $y \in [2022, 2050]$), and

$M_{x-1,y-1}$ = mortality rate for individuals aged $x-1$ in year $y-1$

In the case of Dalits and residents of Karnali province, we further adjusted the number of individuals in the target group to account for potential overlap between the two categories (i.e., Dalit citizens residing in Karnali). We obtained the proportion of Dalits living in Karnali overall, which equals to 29%, and deducted this proportion from the target group of Karnali residents for each year. Using these projections, the total number of eligible beneficiaries

each year was estimated. We then multiplied this by the annual pension amount allocated to their respective target groups:

- 48,000 NPR per year for the general population.
- 31,920 NPR per year for Dalits and Karnali residents.

Thus, expenditure was calculated using the following formula:

$$\text{Annual OAA Expenditure} = P_{GP} * 48000 + (P_D + P_K * 0.71) * 31920$$

Where:

P_{GP} = number of individuals of the general population aged 68 and above,

P_D = number of Dalits aged 60 and above, and

P_K = number of Karnali residents aged 60 and above

This calculation provided a forecast of projected government expenditure on OAA until 2050. Although the government has significantly increased pension payments in recent years (see Chapter 3), we adopted the current pension levels to produce a conservative expenditure estimate. This approach minimizes potential overestimations of financial strain; thus, if sustainability concerns arise even under these conditions, urgent policy interventions would be warranted.

To evaluate fiscal capacity, we firstly focused on tax revenues, as they represent the primary nationally generated – and thus externally independent – source of income. We analyzed tax revenue trends from 2010 to 2022 and fitted a linear regression model to project future revenues until 2050. A linear model was chosen for its simplicity and interpretability, given the relatively stable historical growth in tax revenues. More complex forecasting models (e.g., ARIMA) were considered but deemed unnecessary due to the absence of significant fluctuations in revenue trends. For each year from 2022 to 2050, we then compared total OAA expenditure against projected tax revenues to assess the program's long-term financial sustainability.

For a more comprehensive understanding of the program's sustainability, we further compared projected annual expenditure on the OAA to GDP projections until 2050. Previous research on the sustainability and fiscal strain of social security programs has primarily focused on the proportion of social security expenditure to GDP, so Nepal's ratio is compared to that of other countries to provide a more detailed understanding of Nepal's social security landscape. To ensure a conservative estimation, we project GDP development with an annual

increase of 4% based on the World Bank projections for Nepal's economic growth (World Bank, 2025). While the National Planning Commission (2024) targets an annual growth of about 7%, this figure has been deemed virtually unattainable without significant structural reforms. Thus, this study adopts the more cautious World Bank forecast for GDP growth.

This study is subject to several limitations. As our goal was to assess the long-term sustainability of the current OAA scheme, we had to rely on projections for all key variables, including the population of the three target groups, GDP, and tax revenue. These projections are based on specific assumptions, which are open to debate. For population estimates, we used a cohort-component model grounded in national census data. However, our projections differ from those of other institutions, such as the World Bank – highlighting how the choice of projection method can significantly influence results. Likewise, both nominal GDP and tax revenue were projected using linear regression models. Although past trends do suggest a linear trajectory, alternative modelling approaches may produce more accurate forecasts.

Hence, future research should replicate this analysis using a broader range of projection models to enhance the robustness and reliability of the findings. Doing so would contribute to a more comprehensive understanding of the OAA scheme's long-term sustainability.

3. Old Age Allowance in Nepal

Nepal's OAA is a critical social security program aimed at providing financial support to elderly citizens. When Nepal presented its non-contributory pension scheme in 1995 as the first country in South Asia, it was welcomed by the population as a testament to the importance of elderly people in Nepali society (Limbu Lawati, 2023). While this is still accurate to this day, the pension scheme itself has traced several changes since its inauguration 30 years ago. Initially, individuals aged 75 and above and poor widows aged 60 and above received a monthly contribution of 100 NPR administered by what is today known as the Ministry of Women, Children, and Senior Citizens. In 2004/05, the pension was increased to 175 NPR and four years later to 500 NPR while reducing the minimum age to 70. Another increase to a pension amount of 1000 NPR took place in 2015/16 and three years later this was succeeded by 2000 NPR, while the minimum age was further reduced to 65. However, this was not actually practiced, as a consequence of which a long halt of dispersing the OAA took place, before the amount was increased again in 2020/21. Likewise, household social assistance programs participation increased from 2016 to 2018 in Nepal. The OAA

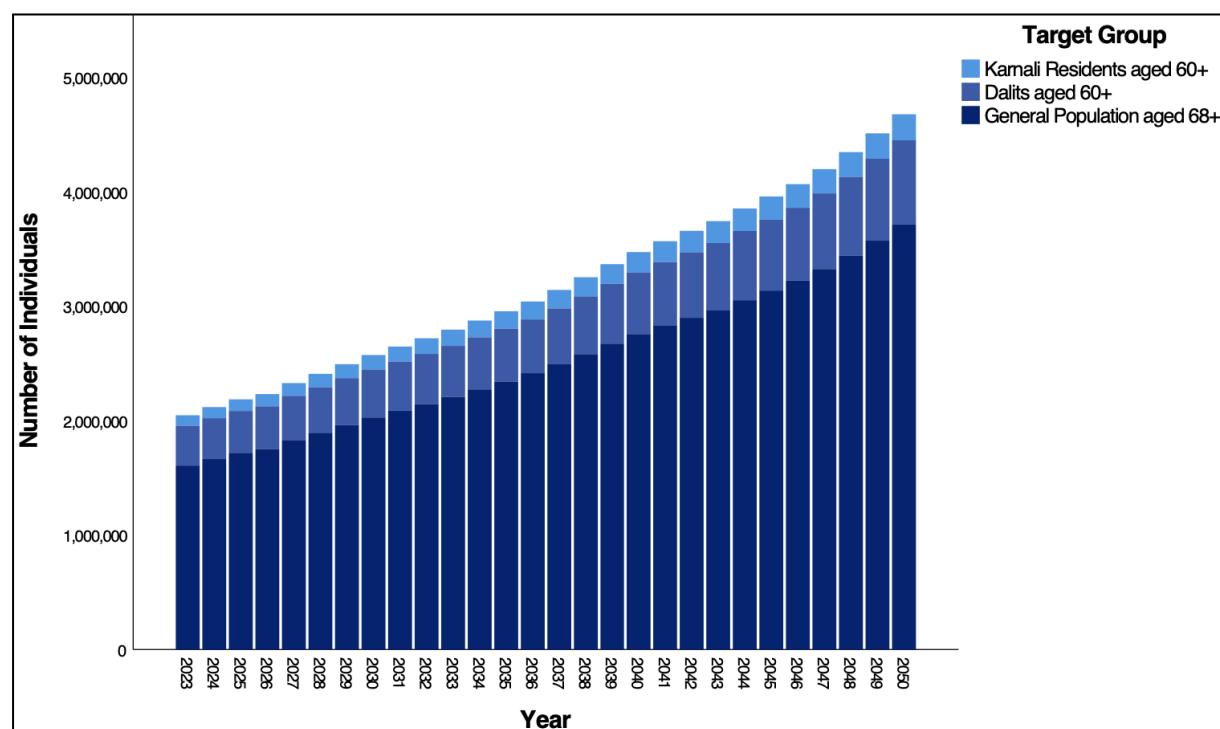
household grew from 11.5% to 16.2% in 2018, reflecting expanding coverage for the elderly (HRVS, 2019).

The current eligibility age of 68 years and the amount of 4000 NPR has been officially implemented since 2022/23 (Limbu Lawati, 2023). As briefly discussed in the introduction, one has to differentiate between Nepal's general social security scheme and the OAA program, the latter of which is analyzed in the present study. While the Social Security Act (2018) recognizes six other groups of citizens eligible to receive social security allowance, beneficiaries of OAA comprise more than 43% of the general beneficiaries, while taking up 65% of the overall budget allocated to Nepal's social security scheme (European Union & UNICEF, 2023). Three different target groups fall under the OAA program. Firstly, any Nepali citizen aged 68 and above is eligible to receive a monthly amount of 4000 NPR, which is accumulated and dispersed every four months. Beyond that, inhabitants of the sixth province, Karnali, are eligible to receive 2660 NPR monthly from age 60 and above, as the province has a particularly low development index in national comparison. Similarly, citizens of the Dalit ethnic minority are eligible to the same amount when aged 60 and above.

Another important factor to discuss is the administrative efficiency of the OAA. While almost 80% of all citizens older than 70 receive their pension, only 50% of all eligible Dalit individuals aged 60-69 received their OAA in the last fiscal year (European Union & UNICEF, 2023). Despite this discrepancy between eligible individuals and those actually accessing their money, true sustainability cannot be built on the assumption that a share of eligible beneficiaries does not obtain their pension. Thus, in the following analysis, we will assess the program's sustainability based on the full share of eligible individuals, irrespective of current coverage gaps, in order to provide a more accurate and equitable understanding of its long-term viability.

4. Quantitative Assessment of the OAA's Sustainability

After analyzing the population projections for each of the three target groups, a clear shift in the age structure of Nepal's society became evident. In line with that, the number of individuals eligible for the OAA is expected to monotonically increase until 2050 (cf. Figure 3).

Figure 3*Target Population Projections by Year*

Source : Authors' Calculation

The population aged 68 and above is projected to rise to 2.03 million in 2030, to 2.8 million in 2040, and reach 3.7 million by 2050. Similarly, the number of individuals eligible for OAA based on residency in Karnali province is expected to increase from 126 thousand individuals in 2030 to 177 thousand in 2040 and 227 thousand in 2050. Among Dalit citizens, a comparable trend is evident, with projected increases to 420 thousand in 2030, 540 thousand in 2040, and 736 thousand in 2050. Compared to the 2023 baseline, these projections represent a 26% increase by 2030, a 70% increase by 2040, and a 128% increase by 2050 of the total eligible population (cf. Table 2).

Table 2*Projections of Eligible Populations for 2030, 2040, and 2050*

Year	General Population 68+	Karnali 60+	Dalit 60+	Total Eligible Population Increase Compared to 2023 Baseline
2030	2,027,757	126,873	419,790	25.7%
2040	2,757,221	177,139	539,861	69.7%

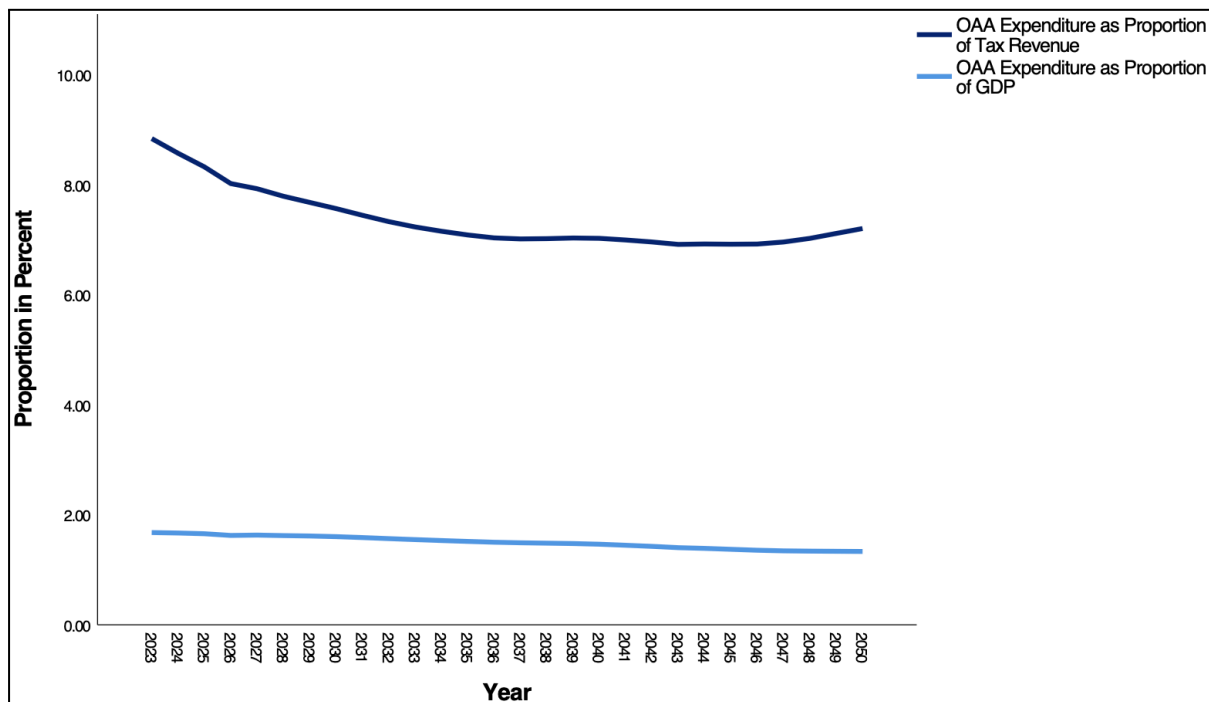
2050	3,715,579	227,405	735,639	128.5%
------	-----------	---------	---------	--------

Source : Authors' Calculation

As allowance amounts were held constant, the annual expenditure on OAA increased simultaneously with increasing numbers of eligible individuals. Hence, while government expenditure was 91.2 billion NPR in 2023, based on our calculations it is projected to reach 114.8 billion in 2030, and 155.2 and 209.1 billion in 2040 and 2050 respectively. Weighing those against tax revenues and GDP, it became apparent that the proportion of tax revenues spent on OAA decreases until 2046 from the current 9% to 7%. However, after that year, an increase to 7.3% is projected until 2050. Regarding the proportion of GDP that is spent on OAA, a monotonic decrease is evident from 1.7% in 2023 to 1.3% in 2050 (cf. Figure 4).

Figure 4

OAA Expenditure Relative to GDP and Tax Revenue



Source : Authors' Calculation

5. Discussion

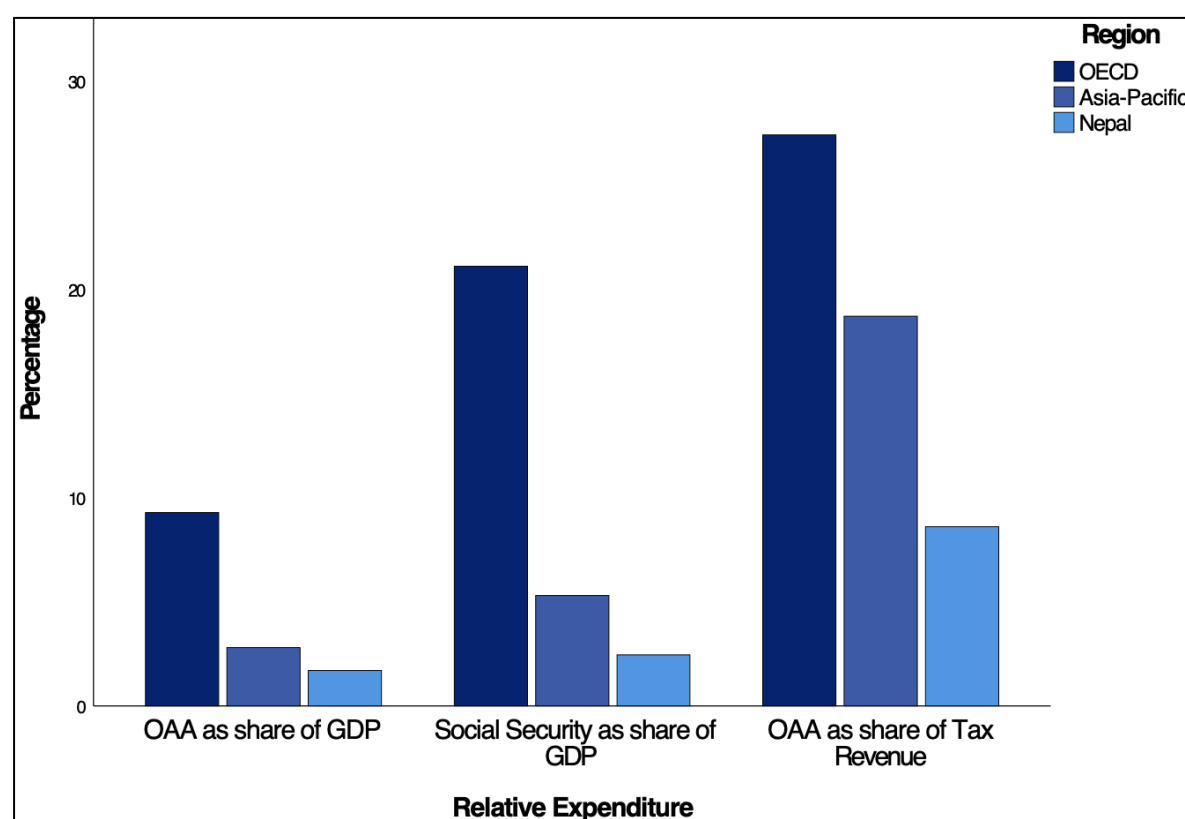
As we have seen above, the coverage rates of OAA in Nepal differ significantly depending on the target group, ranging from 50% for Dalits to almost 80% for the general population or elderly individuals (European Union & UNICEF, 2023). However, in both cases Nepal is positioned well above the regional average of coverage rates. This is

particularly the case considering that in the same region, 61.9% of the labor force actively contribute financially to the pension system, which is not the case in Nepal due to OAA being non-contributory in nature.

Looking at broader fiscal trends, pension expenditure in 23 emerging Asian economies is projected to reach 3.6% of GDP by 2030 (Adams et al., 2010). Currently, the regional average stands at 2.8%, with Nepal allocating significantly less - i.e., only 1.7% - of its GDP to pensions (Asian Development Bank, 2019). In contrast, OECD countries allocate an average of 21.1% of GDP to social security, with 44% of that spent on pensions – thus, amounting to roughly 9.28% of GDP (OECD, 2023). Regarding general social protection, the expenditure in Asia was 5.3% of GDP in 2015. A decade later, Nepal spends only 2.45%; significantly below the regional benchmark. This discrepancy becomes even more pronounced when comparing the share of tax revenue allocated to pensions. OECD countries spend 27.4% of tax revenues on pensions, while the Asia-Pacific average is 18.7% (International Institute for Sustainable Development, 2022). In Nepal, this figure currently stands at 8.6% and is projected to fall to 7.1% by 2050 (cf. Figure 5).

Figure 5

Regional Comparison of OAA/ Social Security Expenditure as share of GDP and Tax Revenue



Source: OECD (2024)

Regarding our research question, it can thus be concluded that the OAA scheme in Nepal seems fiscally feasible, at least until 2050. That is, given the projected growth of Nepal's economy (translating to both increasing GDP and tax revenues) paired with comparatively low expenditure on OAA in both absolute as well as relative numbers, the current scheme proves sustainable.

However, the observed and projected trends give rise to two new concerns. Firstly, the overall level of public investment in the OAA – or even broader on general social security – may be considered insufficient. Secondly, given the modest size of OAA (and social security) allocation, this can be reliably ruled out as a strong fiscal burden for Nepal. However, given that tax revenues and recurrent expenditures are nearly equivalent, this prompts a critical question: where is the rest of the government's budget being directed? The following section will explore both those issues in more detail.

The concern about the general insufficiency of money spent on OAA is particularly relevant as underinvestment in social security, particularly pensions, has been found to have far-reaching societal and economic implications. It increases income insecurity among elderly and disabled populations, exacerbating poverty and inequality (SOCIEUX+, 2019). Global assessments indicate that a majority of the world's population still lacks adequate income protection during vulnerable life stages. In developing countries like Nepal, this creates substantial challenges in ensuring financial security for older adults and people with disabilities, particularly in the absence of widespread contributory schemes (Engelhardt & Gruber, 2011).

Inadequate investment also correlates with negative health outcomes. Older adults without sufficient financial support often delay seeking medical care, resulting in worsened conditions and increased healthcare costs. Underfunding social security creates a false economy – initial cost savings in welfare spending have been found to lead to greater expenditure on health and emergency services over time (Ayyagari, 2015).

Additionally, insufficient social protection can negatively affect labor markets. Workers with insecure futures are more likely to remain in suboptimal employment or leave the workforce prematurely. Family members may also withdraw from economic activity to care for elderly relatives, compounding economic loss (International Labour Office, 2005). Conversely, robust social security systems enhance labor market participation, especially among disadvantaged groups, and contribute to greater equity and economic resilience (Papanicolas et al., 2019).

Social security spending also functions as an automatic stabilizer during economic downturns. By maintaining household consumption, especially among vulnerable groups, it helps preserve aggregate demand and accelerates recovery (Quinby et al., 2021). Reliable income support enables individuals to invest in education, entrepreneurship, and other growth-enhancing activities, thereby contributing to the creation of human capital and long-term economic development (International Trade Union Confederation, 2021).

Regional examples offer valuable insights for Nepal's future. Japan provides a notable long-term model, having introduced basic poverty relief as early as 1874 and health insurance in 1922. By 1961, it had achieved universal coverage for public pension and health insurance. As of 2021, Japan's social expenditure amounted to 24.9% of its GDP – 43 trillion yen – while experiencing a 100-fold increase in nominal GDP over six decades (World Bank, 2024; ISSA, 2020). Japan's experience thus illustrates that substantial investment in social protection is compatible with, and possibly conducive to, economic growth.

Beyond empirical findings, there are strong normative arguments for enhanced social security investment. Nepal's constitutional vision of a socialist democracy implies a moral and legal obligation to uphold intergenerational equity through comprehensive welfare policies. Pension systems, in particular, represent a formal social contract between working-age citizens and retirees, enabling predictable and dignified life-course planning. The global expansion of pension systems in the latter half of the 20th century reflects their critical role in fostering social cohesion. From a rights-based perspective, access to adequate social security is a fundamental human right (SOCIEUX+, 2019).

To reiterate, given that tax revenues and recurrent expenditures are nearly equivalent, and that the OAA constitutes only a modest portion of the overall budget, a deeper investigation into how the remainder of the government's expenditure is allocated becomes essential. Future research should explore this issue in order to identify potential fiscal space and assess whether current spending patterns support or constrain the development of a more comprehensive social protection system. In particular, the expenditure category of "Grants" calls for further analysis, as it has consistently accounted for approximately one-third of Nepal's recurrent expenditures over several fiscal years (Financial Comptroller General Office, 2019/20-2022/23). Understanding the structure and effectiveness of such allocations could yield valuable insights for designing complementary strategies to enhance social security in general and OAA in particular in Nepal, thereby addressing the first concern that was discussed previously.

6. Conclusion

Overall, this study examined the sustainability of Nepal's Old Age Allowance program against the backdrop of demographic shifts, fiscal trends, and outmigration patterns. Our findings indicate that, under current parameters and conservative economic growth projections, Nepal's OAA remains fiscally sustainable until at least 2050. Despite an increasing elderly population, projected economic growth and tax revenue expansions are sufficient to meet rising pension obligations without imposing disproportionate fiscal burdens.

However, Nepal's overall investment in social security remains significantly below regional and global averages. While sustainability concerns for the OAA are limited, underinvestment raises broader questions about the adequacy of social protection and the capacity of the welfare system to shield vulnerable populations effectively. To uphold Nepal's constitutional commitment to socialist democracy and to foster inclusive, resilient economic development, policymakers must prioritize expanding social protection coverage and investment.

Future research should further examine the allocation of government spending beyond the OAA to identify additional fiscal space and explore strategies for strengthening Nepal's social protection framework.

References

- Acharya, K., Adhikari, S., & Mishra, S. R. (2022). Barriers to healthcare access among older adults in Nepal: A cross-sectional study. *Journal of Ageing and Health*, 34(4), 523–540.
- Adams, C., Ferrarini, B., & Park, D. (2010). Fiscal sustainability in developing Asia. *Asian Development Bank Economics Working Paper Series*, (205).
- Asian Development Bank. (2019). The Social Protection Indicator: Assessing Results for Asia. <https://www.adb.org/sites/default/files/publication/516586/spi-asia-2019.pdf>
- Ayyagari, P. (2015). *Evaluating the impact of Social Security benefits on health outcomes among the elderly* (Center for Retirement Research Working Paper). Center for Retirement Research at Boston College. <https://crr.bc.edu/working-papers/evaluating-the-impact-of-social-security-benefits-on-health-outcomes-among-the-elderly/>
- Beegle, K., Dehejia, R., & Gatti, R. (2006). Child labour and agricultural shocks. *Journal of Development Economics*, 81, 80–96. <https://doi.org/10.1016/j.jdeveco.2005.05.003>
- Engelhardt, G. V., & Gruber, J. (2004). *Social Security and the evolution of elderly poverty* (NBER Working Paper No. 10466). National Bureau of Economic Research. <https://www.nber.org/papers/w10466>
- European Union & UNICEF. (2023). *Coverage of social security allowance in Nepal: Policy brief*. UNICEF Nepal. <https://www.unicef.org/nepal/reports/coverage-social-security-allowance-nepal-policy-brief>
- European Union & UNICEF. (2023). *Social protection budget brief update: FY 2022/23*. UNICEF Nepal. <https://www.unicef.org/nepal/media/18096/file/Social%20Protection%20Budget%20Brief%20Update:%20FY%202022-23.pdf>
- Eurostat. (2025). *Government expenditure on social protection*. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Government_expenditure_on_social_protection#Government_.27social_protection.27_expenditure_as_a_ratio_to_GDP_varied_across_EU_countries_from_8.1.25_to_25.7.25

- Fafchamps, M., & Minten, B. (2012). Impact of SMS-based agricultural information on Indian farmers. *The World Bank Economic Review*, 26, 383–414.
<https://doi.org/10.2307/41679567>
- Gautam, K. P. (2022). Dalit and women leaders in Karnali feel cheated. *The Kathmandu Post*.
<https://kathmandupost.com/karnali-province/2022/12/01/dalit-and-women-leaders-in-karnali-feel-cheated>
- Ghimire, D. K. (2024). Challenges of contribution-based social security in Nepal. *Contemporary Social Sciences*, 33(3). <https://doi.org/10.62047/CSS.2024.09.30.1>
- Government of Nepal. (2018). Social Security Act. 2075.
<https://p4h.world/app/uploads/2024/06/The-Social-Security-Act-2075-2018.x23411.pdf>
- International Institute for Sustainable Development. (2019). *Spending uneven on social protection in Asia and Pacific: Reports Asian Development Bank*.
<https://sdg.iisd.org/news/spending-uneven-on-social-protection-in-asia-and-pacific-reports-asian-development-bank/>
- International Labour Office. (2005). *Social protection as a productive factor* (GB.294/ESP/4, 294th Session, Governing Body, Committee on Employment and Social Policy). International Labour Organization.
<https://www.ilo.org/public/english/standards/relm/gb/docs/gb294/pdf/esp-4.pdf>
- International Labour Organization (ILO). (2010). *Extending social security to all: A guide through challenges and options*.
https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40dgreports/%40dcomm/%40publ/documents/publication/wcms_146616.pdf
- International Labour Organization (ILO). (2021). *Child labour: Global estimates 2020, trends and the road forward*. ILO.
<https://www.ilo.org/publications/major-publications/child-labour-global-estimates-2020-trends-and-road-forward>
- International Labour Organization. (2024). *World Social Protection Report 2024–26: Asia and the Pacific*.
https://www.ilo.org/sites/default/files/2024-09/WSPR_2024_Asia_and_Pacific_EN_WEB.pdf

International Trade Union Confederation. (2011). *Investments in social protection and their impacts on economic growth: Financing social protection as an economic and social necessity*.

https://www.ituc-csi.org/IMG/pdf/investments_in_social_protection_and_their_impacts_on_economic_growth.pdf

Magureanu Popolean, G. (2011). Aspects concerning social security within the economic social context. *Curentul Juridic, The Juridical Current, Le Courant Juridique*, 46, 47–59. <https://ideas.repec.org/a/pmu/cjurid/v46y2011p47-59.html>

National Planning Commission. (2017). *Demographic projections for Nepal: 2011-2050*. Government of Nepal. https://www.npc.gov.np/images/category/Demographic_Dividend_Report_May_2017_final_for_circulation1.pdf

National Population and Housing Census. (2021). National Population and Housing Census 2021: Results. <https://censusnepal.cbs.gov.np/results>

National Planning Commission. (2024). The Sixteenth Plan (Fiscal Year 2024). *Government of Nepal*. <https://npc.gov.np/images/category/25012706265316TH%20PLAN%20English%20translation%202081%20final%20for%20web.pdf>

Organization for Economic Co-operation and Development. (2024). *Pensions at a Glance: Asia/Pacific 2024*. https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/12/pensions-at-a-glance-asia-pacific-2024_fcc7bc58/d4146d12-en.pdf

Organization for Economic Co-operation and Development. (2025). *Social Expenditure Database (SOCX)*. [https://data-explorer.oecd.org/vis?lc=en&df\[ds\]=dsDisseminateFinalDMZ&df\[id\]=DSD_SOCX_AGG%40DF_PUB_OLD&df\[ag\]=OECD.ELS.SPD&df\[vs\]=1.0&dq=A..P.T_B1GO....&pd=2010%2C&to\[TIME_PERIOD\]=false&vw=tb](https://data-explorer.oecd.org/vis?lc=en&df[ds]=dsDisseminateFinalDMZ&df[id]=DSD_SOCX_AGG%40DF_PUB_OLD&df[ag]=OECD.ELS.SPD&df[vs]=1.0&dq=A..P.T_B1GO....&pd=2010%2C&to[TIME_PERIOD]=false&vw=tb)

Organization for Economic Co-operation and Development. (2017). *A Decade of Social Protection Development in Selected Asian Countries*. <https://www.oecd.org/content/dam/oecd/en/publications/reports/2017/05/a-decade-of->

[social-protection-development-in-selected-asian-countries_g1g77191/9789264272262-en.pdf](#)

Organization for Economic Co-operation and Development. (2024). *Revenue statistics 2024*.

[https://www.oecd.org/en/publications/revenue-statistics-2024_c87a3da5-en.html](#)

Papanicolas, I., Woskie, L. R., Orlander, D., Orav, E. J., & Jha, A. K. (2019). The relationship between health spending and social spending in high-income countries: How does the US compare? *Health Affairs*, 38(9), 1557–1565.
[https://doi.org/10.1377/hlthaff.2018.05187](#)

Quinby, L. D., Siliciano, R. L., & Wettstein, G. (2020, October). Does Social Security serve as an economic stabilizer? *Center for Retirement Research at Boston College*.
[https://crr.bc.edu/briefs/does-social-security-serve-as-an-economic-stabilizer/](#)

Shrestha, S. B. (2022). Urban development and housing in Nepal: Challenges and opportunities. *United Nations Department of Economic and Social Affairs (DESA)*.
[https://social.desa.un.org/sites/default/files/Paper%20Sunil%20Babu%20Shrestha.pdf](#)

SOCIEUX+. (2020). *Social security investments for the future of pensions* [Report]. European Union.
[https://socieux.eu/wp-content/uploads/2020/06/Social-Security-Investments-for-the-Future-of-Pensions_EN.pdf](#)

The Constitution of Nepal. (2015). *Preamble*.
[https://ag.gov.np/files/Constitution-of-Nepal_2072_Eng_www.moljpa.gov_npDate-7_2_11_16.pdf](#)

United Nations Development Programme (UNDP). (2023). *Multidimensional poverty index: Nepal country analysis*. UNDP.
[https://hdr.undp.org/sites/default/files/Country-Profiles/MPI/NPL.pdf](#)

United Nations Development Programme (UNDP). (2024). *Multidimensional poverty index: Nepal country analysis*. UNDP.
[https://hdr.undp.org/sites/default/files/Country-Profiles/MPI2024/NPL.pdf](#)

Universal Declaration of Human Rights. (1948). United Nations General Assembly.
[https://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf](#)

World Bank. (2022). *Nepal: Demographic and economic trends report*. World Bank.
<https://www.worldbank.org/en/country/nepal/overview>

World Bank. (2025). *Unlocking Nepal's Growth Potential: Nepal Country Economic Memorandum*.
<https://www.worldbank.org/en/country/nepal/publication/unlocking-nepal-s-growth-potential>

SUSTAINING SOCIAL PROTECTION

Demographic Shifts, Fiscal Capacity, and the Old Age Allowance in Nepal

AUTHORS

Siddhartha Rayamajhi is a researcher in public policy and economics, currently a Research Assistant at the Center for New Economy and Inequality (CNEI) at NIPoRe. He contributes to projects like assessing Nepal's mayoral performance from a gender perspective, the Nepal Competitiveness Index, and optimizing remittance utilization in Nepal. His research interests include development economics, economic growth, big data, and public policy. Siddhartha holds a Bachelor's degree in Economics from Kathmandu University.

Emma Syring is an incoming MPhil in Development Studies student at Oxford University. Currently, she is a Research Assistant at NIPoRe. She holds undergraduate degrees in psychology and philosophy from Groningen University (Netherlands) and has a strong interest in development issues, particularly in culturally and psychologically sensitive approaches to gender equality, child protection, and poverty reduction. She has experience in development organisations across Germany, the Netherlands, Chile, and Ethiopia.

Please send your comments and feedback on this paper to [research\[at\]nipore\[dot\]org](mailto:research[at]nipore[dot]org)

***Disclaimer:** NIPoRe Working Paper Series publications are work-in-progress papers authored by the NIPoRe researchers focused on the institute's thematic focus areas. Neither peer-reviewed nor reviewed by the NIPoRe editorial board, these papers are shared for wider circulation and discussions among the concerned stakeholders in Nepal and beyond. All the views expressed in these papers are those of the authors and do not necessarily represent the official views of NIPoRe and the institution's editorial and advisory boards.*