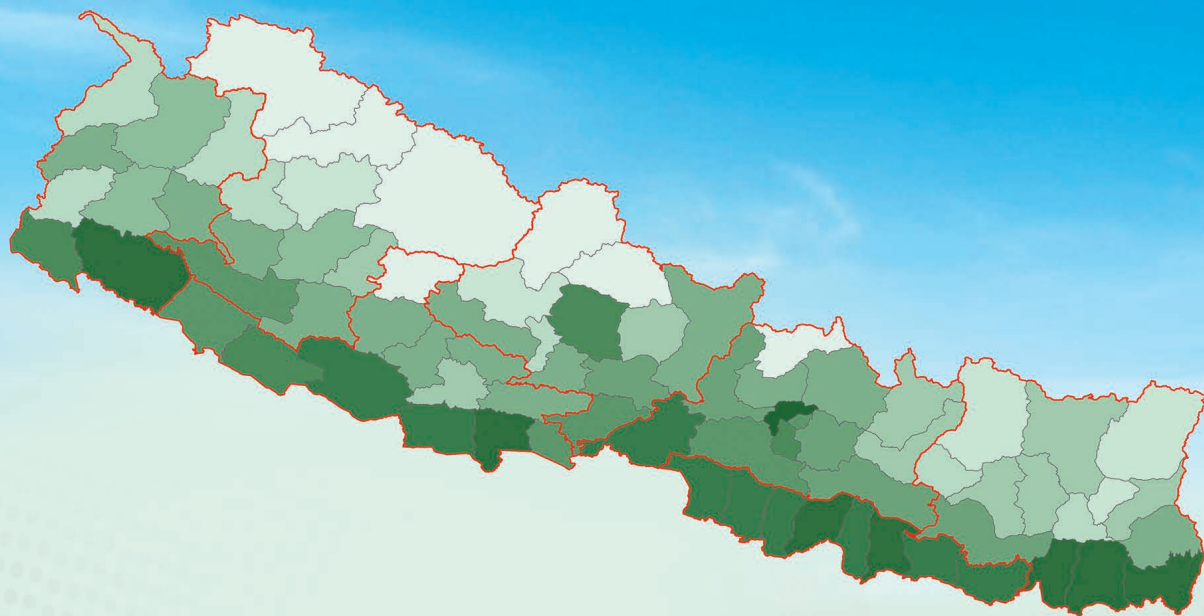
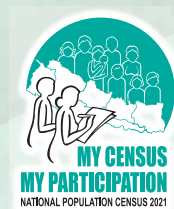


National Population and Housing Census 2021

Ageing Situation in Nepal



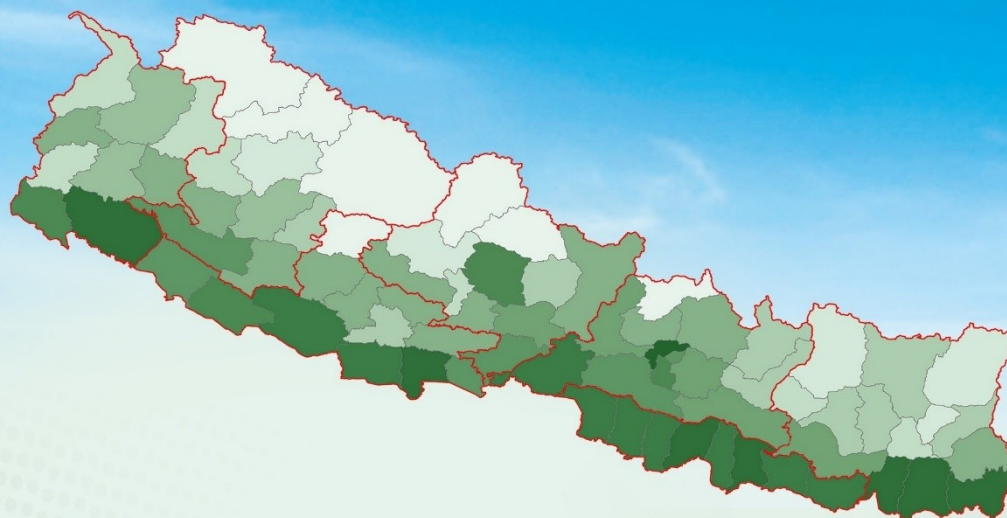
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Thapathali, Kathmandu



Thematic Report-X

National Population and Housing Census 2021

Ageing Situation in Nepal



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Office of the Prime Minister and Council of Ministers
National Statistics Office
Thapathali, Kathmandu



National Population and Housing Census 2021

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Published by:

National Statistics Office

Thapathali, Kathmandu

Tel: 5365323, 5341801, 5328406, 5345946 (47, 48) Fax No.: 977-1-5327720

E-mail: info@nsonepal.gov.np, Website: www.nsonepal.gov.np

E-mail: popcen@nsonepal.gov.np, Website: www.censusnepal.cbs.gov.np

Published Year: 2025

First Edition: 500 copies

ISBN: 978-9937-9844-4-7

Cover Map : Population distribution by district, NPHC 2021



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Foreword

The National Population and Housing Census (NPHC) is the only source that consistently provides demographic and housing data down to the lowest administrative unit, i.e., the Ward. To meet the needs of a broad range of users, we have included brief explanations of the data in our reports. Over the years, the National Statistics Office (NSO) has focused not just on statistical reports but also on valuable analytical ones that cater to a wide audience, both within and outside the country. The production and dissemination of quality statistics are not merely public goods but national resources in the data and information age.

The NSO is committed to serving as the central provider of high-quality official statistics to support informed decision-making. In the past, the former Central Bureau of Statistics (CBS) published population monographs following the release of all statistical results. This time, however, 21 thematic reports will be published, each focusing on key sectors of the national development plan.


I am pleased to present the long-awaited report *Ageing Situation in Nepal*. Aging patterns are influenced by genetic, environmental, lifestyle, and healthcare-related factors. These patterns significantly impact demographic trends, including the size and composition of the elderly population, dependency ratios, and pension systems. Understanding aging trends is crucial for policymakers to develop effective social security, healthcare, and retirement policies, ensuring a balanced and sustainable society.

I extend my appreciation to all contributors for their dedication in bringing this important analysis to light. I am confident that these findings will guide policymakers and planners in shaping development strategies for a more prosperous and sustainable future.

I would like to specifically commend the Population Section staff for their tireless efforts in generating data, providing support, and reviewing the report. The Head of the Social Statistics Division at NSO played a crucial role in coordinating all activities, and I greatly appreciate his contributions. Special thanks to ageing experts Prof. Dr. Mahendra Prasad Sharma and Dr. Hom Nath Chalise for analyzing crucial data and presenting important findings, and to Mr. Uttam Narayan Malla, former Director General of the Central Bureau of Statistics, for reviewing the report from a government perspective. I also acknowledge the technical support provided by the United Nations Population Fund (UNFPA). Additionally, I extend my gratitude to the British Embassy Kathmandu and the Swiss Agency for Development and Cooperation (SDC) for their financial support at various stages of this report's development.

Lastly, I encourage constructive feedback from our users to improve future editions of this report.

March 2025


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ABBREVIATIONS

CAPI	Computer Assisted Personal Interviews
CBS	Central Bureau of Statistics
NCDs	Non-communicable diseases
NGOs	Non-governmental Organizations
NPHC	Nepal Population and Housing Census
NSO	National Statistics Office of Nepal (formerly CBS)
OADR	Old Age Dependency Ratio
PPS	Probability proportion to Size
PRB	Population Reference Bureau
RCC	Reinforced Cement Concrete
QOL	Quality of Life
SAARC	South Asian Association for Regional Cooperation
SDGs	Sustainable Development Goals
TDR	Total Dependency Ratio
TFR	Total fertility rate
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNFPA	United Nations Population Fund
WHO	World Health Organization

GLOSSARY

<i>Ageing index:</i>	The ageing index is the ratio of the population aged 60 years and over to the population aged under 15. It takes into account the size and changes at both ends of the age distribution, or the shift in the balance between the populations of children and older persons.
<i>Child dependency ratio:</i>	The child dependency ratio is the number of persons aged 0-14 per 100 persons aged 15-59.
<i>Life expectancy:</i>	The average number of additional years that a person could expect to live if current mortality levels were to continue for the rest of that person's life.
<i>Literacy:</i>	The ability to both read and write in any one language with reasonable understanding. A literate person is one who can read and write a short simple statement on everyday life in any one language. An illiterate person cannot.
<i>Marital status:</i>	The status of the enumerated person in relation to the institution of marriage. The marital status was classified as: single/never married, married, widowed, divorced/ separated and renounced.
<i>Median age:</i>	The age at which exactly half the population is younger and half is older than that age.
<i>Multimorbidity:</i>	Living with two or more chronic illnesses. For example, a person could have diabetes, heart disease and depression at the same time.
<i>Natural increase:</i>	The difference between the number of births and the number of deaths in a year divided by the midyear population and conventionally expressed per 1,000 people.
<i>Net omission rate:</i>	$\text{Net Omission Rate} = (\text{PES Population} - \text{Census Population}) / \text{PES Population} \times 100$ <ul style="list-style-type: none">• If the result is positive, it indicates a net undercount (i.e., some people were missed in the census).

- If the result is negative, it indicates a net overcount (i.e., some people were counted more than once or erroneously included).

Older age dependency ratio: The older age dependency ratio is the number of persons aged 60 and over to the population aged 15-59.

Population ageing: The increasing share of older person in the population.

Remaining life expectancy: The number of years someone is expected to live from their current age.

Annual growth rate: A growth rate (r) can be calculated either arithmetically or exponentially. This report uses the exponential method. The exponential method is as follows:

$$r = [\ln (P_n / P_o)] / n$$

Where,

P_n = the older population in the current census

P_o = the older population in the previous census

n = the number of years between the censuses

r = exponential growth rate

Survival rate: Statistical measure that quantifies the probability of survival for a group of individuals over a certain period.

कार्यकारी सारांश

जनसङ्ख्या संरचनामा बालबालिका, युवा र ज्येष्ठ नागरिकसमेत समाविष्ट हुन्छन्। राष्ट्रिय जनगणना २०७८ को तथ्याङ्कमा आधारित रहेर तयार गरिएको यस प्रतिवेदनमा सन्दर्भअनुसार अधिल्ला केही राष्ट्रिय जनगणनाहरूको तथ्याङ्कसमेत उपयोग गरिएको छ। प्रतिवेदनले मूलतः कुल जनसङ्ख्यामा बुढ्यौलीभित्र पर्ने र बुढ्यौलीउन्मुख जनसङ्ख्याको आर्थिक तथा सामाजिक आयामहरूको गहन विश्लेषण प्रस्तुत गरेको छ। वास्तवमा बुढ्यौली जनसङ्ख्याले निश्चित उमेर समूह (सामान्यतया ६० वर्ष र सोभन्दा माथि) को सामूहिकतालाई प्रतिनिधित्व गर्दछ। साथसाथै, यसले विगतदेखि भविष्यसम्म रहने अपेक्षा गरिएको बुढ्यौलीतर्फको जनसाङ्ख्यिक संरचना र प्रवृत्तिलाई उजागर गरेको छ। नेपालमा वि.सं. २०४८ यता बुढ्यौली जनसङ्ख्यामा करिब तीनगुणाले वृद्धि भएको देखिन्छ जसले जनसङ्ख्या पिरामिडको शीर्ष भागलाई फराकिलो पाउँदै लगेको छ। यस प्रवृत्तिले जनसङ्ख्याविद् र नीतिनिर्माताहरूका लागि आगामी योजना, नीति तथा कार्यक्रम तदनुरूप निर्देशित गर्नका लागि पनि अभिप्रेरित गरेको छ। विश्लेषणबाट प्राप्त निचोड र ती निचोडका आधारमा तयार गरिएका केही नीतिगत सवाललाई यहाँ बुँदागत रूपमा प्रस्तुत गरिएको छ।

बुढ्यौली जनसङ्ख्याको विश्वव्यापी अवस्था

विश्वका मानिसहरूको औसत आयुमा सन् १९९० को ६४.२ वर्षबाट सन् २०१९ मा ७२.६ वर्ष पुगेर उल्लेखनीय वृद्धि भएको छ। यसमा अभूत वृद्धि भई सन् २०५० मा ७७.१ वर्षसम्म पुग्ने पूर्वानुमान गरिएको छ। यस अवधिमा सामान्यभन्दा अत्यधिक प्रगति भएको देखिएको भए तापनि असमानताहरू अभूत पनि कायम छन् र यस्ता असमानताहरू अल्पविकसित देशहरूमा बढी देखिएका छन्। यस्तो अवस्था उच्च मृत्युदर र स्वास्थ्य चुनौती भएका देशहरूमा देखिएको छ। सन् २०५० सम्म, विश्वभरि प्रत्येक छ जनामा एक जना बुढ्यौली जनसङ्ख्या अर्थात् ६५ वर्ष र सोभन्दा माथिका हुने अनुमान गरिएको छ। यस्तो अवस्था उत्तर अफ्रिका, पश्चिमी एसिया र ल्याटिन अमेरिकामा बुढ्यौली जनसङ्ख्याको वृद्धिको गति तीव्र हुनुको साथै सय वर्षसम्म बाँच्ने व्यक्तिहरूको सङ्ख्या तीनगुणाले बढ्ने अनुमान गरिएको छ, जसले एक लचिलो नीति कार्यान्वयनको आवश्यकतालाई जोड दिन्छ।

जन्मदर र मृत्युदर घटिरहेको अवस्था सँगसँगै नेपालको जनसङ्ख्या पनि संक्रमणकालतर्फ तीव्र गतिले प्रवेश गरिरहेको छ। साठी वर्ष र सोभन्दा माथिको उमेर समूहको जनसङ्ख्या वि.सं. २०६८ को ८.१ प्रतिशतबाट २०७८ मा १०.२ प्रतिशतमा बढेको छ जसले वि.सं. २१११ सम्ममा नेपाल एक बुढ्यौली समाजमा रूपान्तरण हुने अपेक्षा गरिएको छ। यसले स्वभावतः आवास व्यवस्था, स्वास्थ्य हेरचाह, सामाजिक सुरक्षा र आर्थिक भरणपोषणमा विशेष चुनौतीको सिर्जना गर्नेछ।

तथ्याङ्कको गुणस्तर

राष्ट्रिय जनगणना २०७८ मा तथ्याङ्क सङ्कलनका लागि प्रश्नावली, प्रविधि, तालिम, अनुगमन लगायतका पक्षहरूमा विशेष ध्यान दिइएको थियो र कुनै पनि व्यक्तिको उमेर गलत तरिकाले उल्लेख नहोस् भनेर पर्याप्त

सावधानी अपनाइएको थियो । व्हिप्पल इन्डेक्स (Whipple Index) र संयुक्त राष्ट्रसंघको आयु-लिङ्ग सूचकाङ्क जस्ता साङ्ख्यिकीय विधिहरूको प्रयोगले विगतका गणनाको तुलनामा उमेरको टिपोटमा सुधारको सङ्केत देखिएको छ । तथापि, यसमा थप सुधारको आवश्यकता रहेको देखाएको छ ।

नेपालमा जनसाङ्ख्यिक परिवर्तन

नेपालमा वृद्ध व्यक्तिहरूको जनसङ्ख्या वि.सं. २०४८ देखि लगभग तीनगुणा बढेको छ । जनसङ्ख्या पिरामिडले युवाबहुल अवस्थाबाट वृद्धावस्थामा परिवर्तन हुँदै गएको देखाएको छ । यसका पछाडि मुख्यतया जन्मदरमा आएको कमी र समुद्रपारतर्फको प्रवासनमा भएको वृद्धि कारक रहेको छ । बालबालिकाको जनसङ्ख्या घट्दै गएको छ । त्यसैगरी काम गर्ने उमेर समूहको जनसङ्ख्या पनि घट्दै गएको छ जसले आश्रित जनसङ्ख्याको अनुपातलाई अझै वृद्धि गरेको छ । भौगोलिक क्षेत्र र प्रदेश तहमा पनि वृद्ध जनसङ्ख्याको वितरणमा वि.सं. २०६८ र २०७८ को जनगणनाले केही भिन्नताहरू देखाएका छन् । यी दुई गणना अवधिका बिचमा पहाडी क्षेत्रको बुढ्यौली जनसङ्ख्या उल्लेखनीय वृद्धि भएको देखिन्छ । वि.सं. २०६८ मा बुढ्यौली जनसङ्ख्या पहाडमा २५.७ प्रतिशत रहेकोमा १० वर्षपछि अर्थात् वि.सं. २०७८ मा ४३.६ प्रतिशत पुगेको छ । यो प्रवृत्तिलाई हिमाली र तराई क्षेत्रले पनि निकटतम दरका साथ पछ्याएको देखिन्छ । तथापि, तराईको तुलनामा पहाड र हिमाली क्षेत्रले बुढ्यौली जनसङ्ख्याको तीव्रतर वृद्धि दरलाई प्रस्तुत गरेका छन् ।

प्रदेश तहमा तुलना गर्दा पनि भिन्नता विद्यमान रहेको देखिन्छ । बागमती प्रदेशमा बुढ्यौली जनसङ्ख्या सर्वाधिक रहेको छ । सहरी क्षेत्रले विशेषतः युवा पिढीका जनसङ्ख्यालाई बसाइँसराइको लागि आकर्षित गर्दछ जसले गर्दा ग्रामीण क्षेत्रको तुलनामा बुढ्यौली जनसङ्ख्या सहरमा कम अनुपातमा रहेको देखिन्छ । यति हुँदाहुँदै पनि बुढ्यौली सूचकाङ्क वि.सं. २०६८ देखि २०७८ मा करिब १३ प्रतिशत विन्दुले ग्रामीण र सहरी क्षेत्र दुवैतर्फ वृद्धि भएको देखिन्छ ।

साठी वर्ष र सोभन्दा माथिको उमेर समूहमा पर्ने समग्र बुढ्यौली सूचकाङ्क वि.सं. २०६८ मा २३.३ रहेकोमा वि.सं. २०७८ को जनगणनाले ३६.७ पुगेको देखाएको छ । गण्डकी प्रदेशका जिल्लाहरूले उच्चतम बुढ्यौली सूचकाङ्क प्राप्त गरेको देखिन्छ । यसबिच मनाङ जिल्लामा यो मान ५२.८ (वि.सं. २०६८) बाट ९०.३ (वि.सं. २०७८) पुगेको देखिन्छ । जाजरकोट जिल्लामा वि.सं. २०६८ (११.४) र २०७८ (१८.७) दुवैमा यो मान सबैभन्दा न्यून रहेको छ । जुम्ला र बाजुरामा वि.सं. २०६८ मा बुढ्यौली सूचकाङ्क क्रमशः १३.३ र १७.२ रहेकोमा वि.सं. २०७८ मा क्रमशः २१.४ र २५.१ पुगेको देखिन्छ जसले कर्णाली र सुदूरपश्चिमको प्रादेशिक प्रवृत्तिलाई नै पछ्याएको अवस्था छ । पूर्वी क्षेत्रका भापा र मोरङ जिल्लाले पनि वृद्धिउन्मुख बुढ्यौली सूचकाङ्क प्रस्तुत गरेका छन् । मोरङमा यो मान वि.सं. २०६८ मा २६.२ थियो भने २०७८ मा ४१.९ पुगेको देखिन्छ । सहरी प्रकृतिका काठमाडौँ (वि.सं. २०६८: २५.४, वि.सं. २०७८: ४३.३) र ललितपुर (वि.सं. २०६८: ३२.५, वि.सं. २०७८: ६२.८) जिल्लामा पनि यस प्रवृत्तिमा मध्यम गतिले वृद्धि भएको देखिन्छ । तराईका जिल्लाहरूमा पनि मध्यम गतिकै वृद्धि प्रवृत्ति देख्न सकिन्छ ।

राष्ट्रियस्तरमा ६० वर्ष र सोभन्दा माथिको जनसङ्ख्याको समग्र (पुरुष तथा महिला) आश्रित अनुपात ६१.४ रहेको छ । प्रदेश तहमा यस सूचकको मान सर्वाधिक (७३.४) मधेश प्रदेशमा रहेको छ र दोस्रो र तेस्रो

स्थानमा क्रमशः कर्णाली (६९.७) र सुदूरपश्चिम (६७.९) प्रदेश रहेको छन् । यस उमेर समूहको समग्र आश्रित अनुपात सबैभन्दा कम (४८.८) बागमती प्रदेशमा रहेको छ । यहाँ विचारणीय यो छ कि तीव्रतर गतिले वृद्धि भइरहेको बुढ्यौली जनसङ्ख्या हुँदाहुँदै पनि बागमती प्रदेशका अधिकांश जिल्लाहरूमा आर्थिक काम गर्न सक्षम जनसङ्ख्या अधिक रहेको छ । यस सूचकका सवालमा गण्डकी, कोशी र लुम्बिनी प्रदेशको मध्यम स्थान रहेको छ । कोशीमा बुढ्यौली जनसङ्ख्याको आश्रित अनुपात ५९.२ छ जुन राष्ट्रिय औसतको निकट देखिन्छ । जिल्लास्तरमा हेर्दा बुढ्यौली जनसङ्ख्याको समग्र आश्रित अनुपात उच्चतम अर्थात् ९१.० रहेको छ जसलाई डोटी (८४.७), बझाङ (८४.४) र कालिकोट (८१.४) ले पछ्याएका छन् । मनाङ (३९.८) र काठमाडौँ (३९.३) यस सूचकका लागि अन्तिम दुईमा रहेको देखिन्छ ।

राष्ट्रियस्तरमा महिला र पुरुष दुवैतर्फ ६० वर्षसम्म बाँच्न सक्ने मानिसहरूको हिस्सा ८० प्रतिशत छ । यसमा महिलाहरूको बाँच्नसक्ने दर ८४.७ प्रतिशत छ भने पुरुषहरूको ७५.१ प्रतिशत रहेको छ । हिमाली प्रदेशका मानिसहरूको अधिकतम बाँच्न सक्ने दर राष्ट्रिय औसतभन्दा अलिकति माथि अर्थात् ८०.६ प्रतिशत छ जसमा पुरुषहरूको मान ७७.० प्रतिशत र महिलाहरूको मान ८४.३ प्रतिशत रहेको देखिन्छ । तीनओटै भौगोलिक क्षेत्रलाई तुलना गर्दा पहाडमा ६० वर्षभन्दा बढी बाँच्न सक्ने दर ८१.२ प्रतिशत (महिलाको ८६.४% र पुरुषको ७५.९%) रहेको छ । तराईमा यो दर सबैभन्दा न्यून अर्थात् ७९.० प्रतिशत छ (महिलाको ८३.५% र पुरुषको ७४.४%) । प्रदेशस्तरमा हेर्दा बागमतीमा बढी बाँच्ने दर सर्वाधिक (८२.६%) छ जसले काठमाडौँ जिल्लाको आँकडालाई पनि समेटेको छ जहाँ सुधारका सङ्केतहरू देखिएका छन् । यस्तो दर न्यून रहेको प्रदेश लुम्बिनी (७६.८%) हो ।

जिल्लास्तरमा हेर्दा बढी बाँच्ने दर अधिकतम (८९.१%) मुस्ताङ जिल्लामा छ भने त्यसपछिका दुईओटा स्थान क्रमशः हुम्ला (८६.१%) र काठमाडौँ (८४.९%) ले लिएको देखिन्छ । यो मान कम हुने तीनओटा जिल्लाहरूमा क्रमशः कपिलवस्तु (७४.८%), बाँके (७४.४%) र पाँचथर (७३.१%) रहेका छन् ।

दक्षिण एसियाली देशहरूको तुलना गर्दा जन्मदाको समयको औसत जीवनप्रत्याशा ७० वर्ष रहेको देखिन्छ जहाँ महिलाको अवस्था पुरुषको भन्दा एकैनासले अगाडि देखिन्छ । जीवनप्रत्याशा अफगानिस्तानको केवल ६६ वर्ष छ भने माल्दिभ्स र श्रीलङ्काको क्रमशः ८० र ७७ वर्ष रहेको छ । भारतको हकमा यो मान ७० वर्ष, नेपालको ७१ वर्ष र इरानको ७५ वर्ष रहेको देखिन्छ ।

साठी वर्ष पुगेपछिको नेपालीको समग्र (पुरुष तथा महिला) जीवनप्रत्याशा १९.४ वर्ष रहेको छ जुन पुरुषको हकमा १८.२ वर्ष र महिलाको हकमा २०.७ वर्ष छ । हिमालमा समग्र यसप्रकारको जीवनप्रत्याशा २०.७ वर्ष रहेको छ भने (पुरुषतर्फ १९.२ वर्ष र महिलातर्फ २२.३ वर्ष) पहाडको जीवनप्रत्याशा १९.७ वर्ष छ (महिलातर्फ २१.२ वर्ष र पुरुषतर्फ १८.३ वर्ष) । यसैगरी तराईको यस्तो जीवनप्रत्याशा सबैभन्दा न्यून अर्थात् १९ वर्ष मात्र रहेको छ (महिलातर्फ १८ वर्ष र पुरुषतर्फ २० वर्ष) ।

वि.सं. २०७८ को जनगणनाअनुसार शेष जीवनप्रत्याशा (Remaining life expectancy) सबैभन्दा कम जुम्ला (१६.३ वर्ष) र ओखलढुंगामा सबैभन्दा बढी (२३.८ वर्ष) रहेको देखिन्छ । यसले स्पष्टतः ७.५ वर्षको अन्तर विद्यमान रहेको देखाएको छ । ओखलढुङ्गा, रामेछाप, गोरखा, दार्चुला, रसुवा, खोटाङ, धादिङलगायतका केही जिल्लाहरूको अधिकतम शेष जीवनप्रत्याशा देखिएको छ । यी सबै जिल्लाहरूको शेष जीवनप्रत्याशा २१

वर्षभन्दा बढी नै रहेको छ । त्यसैगरी पाँचथर, मोरङ, बाँके, ललितपुर, भक्तपुर, रूपन्देही, सुनसरी, काठमाडौँ र जुम्लाजस्ता जिल्लाहरूको न्यूनतम शेष जीवनप्रत्याशा रहेको देखिन्छ । यी जिल्लाहरूको शेष जीवनप्रत्याशा १७.६ वर्षभन्दा कम रहेको छ ।

वृद्ध व्यक्तिहरूका सामाजिक विशेषता

धेरैजसो वृद्ध व्यक्तिहरू परिवारका सदस्यहरूसँग बस्ने प्रवृत्ति भए तापनि एकलै वा केवल आफ्ना श्रीमान्/श्रीमतीसँग बस्ने वृद्ध व्यक्तिहरूको सङ्ख्या बढ्दो क्रममा रहेको देखिन्छ । यी वृद्ध महिला मुख्यतः आर्थिक आवश्यकताहरूका कारण आफ्नो रोजगारीमा देखिएको भए तापनि ती मूलतः कृषिक्षेत्रमै संलग्न छन् । राष्ट्रियस्तरमा ५२.२ प्रतिशत पुरुष ज्येष्ठ व्यक्तिहरू निरक्षर छन् भने महिलातर्फ निरक्षर व्यक्तिहरू (६० वर्ष र सोभन्दा माथिका) ८४.९ प्रतिशत रहेका छन् । यसबाट पुरुषको तुलनामा बढी उमेरका (६० वर्ष र सोभन्दा माथि) महिलाहरूमा निरक्षरतादर निकै माथि रहेको देखिएको छ । यस्तो कमजोर खालको निरक्षरतादर विशेषतः महिलामा हुनुका पछाडि आर्थिक आवश्यकताका कारण महिलाहरूले कामलाई नै निरन्तरता दिइराख्नु हो र उनीहरूले गर्ने काम पनि अक्सर कृषिसँग सम्बन्धित क्षेत्रमै केन्द्रित हुने गरेको छ ।

वृद्ध व्यक्तिहरूको आर्थिक संलग्नता

लगभग ५१ प्रतिशत वृद्ध जनसङ्ख्या अझै पनि आर्थिक रूपले सक्रिय रहेको छ र तीमध्ये अधिकांश कृषिक्षेत्रमा संलग्न छन् । वृद्ध व्यक्तिहरूको श्रम मुख्यतः पूर्वाधारको न्यून पहुँच भएका ग्रामीण क्षेत्रहरू र विपन्न वर्गहरूकै माझमा उपयोग भएको पाइन्छ । यो समूह न त परम्परागत रोजगारीको क्षेत्रमा न नेतृत्वकारी भूमिकामा नै । बरु उनीहरूले स्वरोजगार हुनुलाई प्राथमिकतामा राख्ने गरेका छन् । अवकाशपश्चात्को सेवासुविधाको रिक्तता र सामाजिक सुरक्षाका अवसरहरूको अभावका कारण यो समूहको ठुलो हिस्सा प्रायः आफ्नो जीविका चलाउन काम गर्नुपर्ने बाध्यतामा रहेका छन् ।

वृद्ध व्यक्तिहरूको स्वास्थ्य स्थिति

वि.सं. २०७८ को जनगणनाअनुसार वृद्ध जनसङ्ख्यामा अपाङ्गता विद्यमानतादर ६.९ प्रतिशत छ जसमा सबैभन्दा बढी शारीरिक अपाङ्गता रहेको देखिन्छ । प्रदेशगत अपाङ्गताको विद्यमानतादरमा भिन्नता देखिएको छ तथापि कर्णाली प्रदेशमा सबैभन्दा उच्च अपाङ्गता विद्यमानतादर सर्वाधिक भेटिएको छ । देशमा आधाभन्दा बढी वृद्धहरूको मृत्यु नसर्ने रोगहरूका कारण भएको देखिन्छ ।

सर्ने रोगहरू युवावस्थाका समूहमा बढी भएको पाइन्छ । दुर्घटना, हिंसा र आत्महत्या युवावस्थामा बढी हुनु सामान्य जस्तो देखिन्छ । विशेष गरी उमेर बढ्दै जाँदा प्राकृतिक प्रकोपहरूले वृद्ध व्यक्तिहरूको जनसङ्ख्यालाई ठुलो प्रभाव पार्दछ । पुरुषहरूतर्फ सर्ने खालका रोग, यातायात दुर्घटना, र अन्य दुर्घटनाबाट हुने मृत्युदर उच्च छ, जबकि महिलाहरूमा प्राकृतिक प्रकोप र अन्य अनिर्दिष्ट कारणहरूले हुने मृत्युदर बढी छ ।

प्रमुख विशेषता

- नेपालको जनसङ्ख्या बुढ्यौलीउन्मुख हुँदै गएको छ, जसले आश्रित जनसङ्ख्याको लागि अतिरिक्त भार सिर्जन गर्नेछ ।
- महिलाहरूको जीवनप्रत्याशा पुरुषहरूको तुलनामा बढी भएकोले विधवा जनसङ्ख्याको अनुपात निरन्तर बढिरहेको छ ।
- वृद्ध जनसङ्ख्याको तीव्रतर वृद्धिका कारण स्वास्थ्य हेरचाह प्रणालीमा दबाव सिर्जना हुनेछ ।
- प्रदेश, भौगोलिक क्षेत्र र जिल्लास्तरमा बुढ्यौलीको दरमा उल्लेखनीय रूपले भिन्नता रहेको छ जसले तत् तत् क्षेत्रकेन्द्रित वृद्धलक्षित नीतिको आवश्यकता दर्शाएको छ ।

नीतिजन्य सवाल र व्यवस्था

उल्लिखित तथ्यहरूको आधारमा, नेपालले आफ्नो बुढ्यौलीउन्मुख जनसङ्ख्या व्यवस्थापनका लागि एकीकृत रणनीति विकास गर्नुका साथसाथै भविष्यका आपतकालीन (भैपरी आउने) अवस्थाहरूको लागि दिगो आर्थिक र सामाजिक सहयोग प्रणाली तयार गर्नुपर्ने देखिन्छ । प्रस्तुत तथ्य र तथ्याङ्क विश्लेषणको आधारमा यहाँ देहायका क्षेत्रमा नीति सिफारिस गरिएको छ :

- **सामाजिक सुरक्षा विस्तार** : वित्तीय कठिनाइलाई कम गर्न निवृत्तभरण योजनालाई सुदृढ गर्ने ।
- **स्वास्थ्यसेवा सुदृढीकरण** : ग्रामीण र अर्धसहरी क्षेत्रमा बुढ्यौलीलक्षित स्वास्थ्यसेवामा सुधार गर्ने ।
- **आर्थिक अवसरको विस्तार** : वृद्ध जनसङ्ख्याको लागि गैरशारीरिक श्रमबाट आर्थिक उपार्जन हुने विकल्पहरूको सिर्जना गर्ने ।
- **आवास र पूर्वाधार सुधार** : वृद्धवृद्धाका लागि सुरक्षित र सुविधायुक्त आवासीय बन्दोबस्त र आधारभूत सेवाहरूमा पहुँच सुनिश्चित गर्ने ।
- **ज्येष्ठ नागरिक सहयोग प्रणाली स्थापना** : ज्येष्ठ नागरिकहरूले अनुभूत गर्नसक्ने एक्लोपनलाई सामुदायिक सहभागितात्मक अभियान वृद्धहरूको सामाजिक एक्लोपन समस्यालाई सम्बोधन गर्न सामुदायिक संलग्नता बढाउने अभियान सञ्चालन गर्ने ।

EXECUTIV SUMMARY

The global situation of ageing

There has been a significant global increase in the average human life expectancy, from 64.2 years in 1990 to 72.6 years in 2019. Despite exceptional progress, disparities persist and are largely pronounced in the least developed countries which often experience high mortality rates and health challenges. By 2050, it is estimated that one in six persons globally will be aged 65 years and over, with Northern Africa, Western Asia, and Latin America witnessing rapid ageing. The number of centenarians will triple, stressing a need for flexible policy implementation.

Nepal's demography is following this global trend, transitioning rapidly as birth and death rates decrease. The older aged group (60 years and over) has increased from 8.1 percent in 2011 to 10.2 percent in 2021 and Nepal is expected to become an aged society by 2054. This signifies great challenges in living arrangement, healthcare, social security, and economic support.

Data quality

The 2021 census was equipped with refined data collection techniques, enhancing precision with obstacles including but not limited to age misreporting. The validity of statistical measures such as the Whipple Index and the United Nations Age-Sex Index suggests improvements in the accuracy of age recording, yet further demonstrates the need for additional refinements.

Demographic changes in Nepal

The population of older persons in Nepal has nearly tripled since 1991. The population pyramid shows a transition from being youth-dominated to increasingly ageing, largely driven by low birth rates and overseas migration. The child population is decreasing, working-age population is diminishing, placing an additional burden of dependency. Classification by ecological regions has been crucial for the study of ageing in Nepal.

The index of ageing differs by ecological regions in two recent censuses, namely 2011 and 2021. Across this period, a pronounced increase can be seen in the Hill zone, from 25.7 in 2011 to 43.6 in 2021. This is followed closely by Mountain and Tarai. Hill and Mountain zones show rapid rates of population ageing compared to Tarai.

There also remains variation across the provinces, with Bagmati Province accounting for the highest population of older persons. Urban areas attract younger migrants, momentarily lowering the ageing index relative to rural areas. However, the ageing index has increased in both urban and rural areas between 2011 and 2021, increasing by nearly 13 points in each census.

The overall index of ageing for the 60 years and over age group increased from 23.3 in 2011 census to 36.7 in 2021 census. Districts from Gandaki Province saw the highest ageing index, with Manang at 90.3 in 2021 and Mustang at 52.8 in 2011. Jajarkot district remained the lowest across both census years (11.4 in 2011 and 18.7 in 2021). Jumla and Bajura showed lower indices at 13.3 and 17.2 in 2011 and at 21.4 and 25.1 in 2021 respectively, indicating a consistent trend in provinces such as Karnali and Sudurpashchim. Eastern districts such as Jhapa and Morang also saw an increase in their ageing index, with Morang increasing from 26.2 to 41.9. Urban area represented by districts like Kathmandu (increasing from 25.4 to 43.3) and Lalitpur (increasing from 32.5 to 52.8) have seen moderate increases and districts in Tarai have additionally seen a moderate ageing trend.

The total dependency ratio (TDR) at the national level is 61.4 for 60 years and over. At province level, Madhesh has the highest TDR (73.4), followed closely by Karnali (69.7) and Sudurpashchim (67.9). Bagmati has the lowest TDR of 48.8, adding to the fact that most of the districts in Bagmati contain a larger working age population despite rapid ageing. Gandaki, Koshi and Lumbini provinces sit in the moderate region for this indicator. Koshi Province's dependency ratio of 59.2 is the closest to national averages. At district level, Achham (Sudurpashchim Province) records the highest TDR, at 91.0 (for 60 years and over). Doti (84.7), Bajhang (84.4), and Kalikot (81.4) follow closely. Both Manang (39.8) and Kathmandu (39.3) can be seen at the lowest end of the TDR.

At the national level, 80 percent of people of both sexes live to be 60 years of age, with women having a higher survival rate (84.7%) than men (75.1%). At 80.6 percent, the survival rate in the Mountain zone is marginally higher than the national average, with men at 77.0 percent and women at 84.3 percent.

Among all zones, the Hill region has the highest survival rate of 81.2 percent overall (86.4% for women and 75.9% for men). Compared to other zones, the Tarai region has lowest survival rates at 79.0 percent overall (83.5% for women and 74.4% for men). The high survival rates in provinces like Bagmati (82.6%), which encompasses Kathmandu, indicates improved conditions. Lower survival rates in provinces such as Lumbini (76.8%) suggest worse conditions.

The highest survival percentage for both sexes is found in the districts of Mustang (89.1%), Humla (86.1%), and Kathmandu (84.9%). The underperforming districts, such as Kapilbastu (74.8%), Banke (74.4%), and Panchthar (73.1%) are shown to fall behind.

The average life expectancy at birth in South Asian nations, which is 70 years, with a consistent trend of women outliving men. Afghanistan has the lowest life expectancy (66 years), In contrast, countries such as the Maldives (80 years) and Sri Lanka (77 years) have better expectation of life. India (70 years) and Iran (75 years) show moderate life expectancy while Nepal (71 years) reflect average figures.

The remaining life expectancy of all sexes (at 60 years) in Nepal is at an average of 19.4 years, whereas for men the rate is 18.2 years and for women the figure increases to 20.7 years. The highest life expectancy by ecological zone is found in the Mountain zone, where the total life expectancy is 20.7 years (22.3 years for women and 19.2 years for men). The Hill region follows with an average life expectancy of 19.7 years (21.2 years for women and 18.3 years for men). Of these zones, the Tarai region shows the lowest post-aged 60 life expectancy with an average of 19 years (18 years for women and 20 years for men).

Based on the 2021 census, the remaining life expectancy after age 60 years is lowest in Jumla (16.3 years) and highest in Okhaldhunga (23.8 years). This amounts to a 7.5-year gap. Districts like Okhaldhunga, Ramechhap, Gorkha, Darchula, Rasuwa, Khotang, Dhading, and others have the longest remaining life expectancy. The remaining life expectancy in these districts is typically more than 21 years. The districts such as Morang, Panchthar, Banke, Lalitpur, Bhaktapur, Rupandehi, Sunsari, Kathmandu, and Jumla have the lowest remaining life expectancy. The remaining life expectancy in these districts is less than 17.6 years.

Social characteristics of older persons

Despite the trend of most older persons living with family members, the number of older persons who live alone and with spouse only is shown to be increasing. At the national level, 52.2 percent of older men are illiterate, compared to 84.9 percent of older women, indicating that a significantly higher proportion of older women are illiterate compared to their men counterparts. This low levels of literacy rate exist, especially for older women who continue their employment mostly due to economic imperatives, especially those which are agriculture-based.

Economic engagement among older persons

More than half of the senior population, approximately 51 percent, is still part of the workforce, predominantly in agriculture. Elderly individuals are more inclined to work in rural settings and within less prosperous communities. They frequently decide for self-employment rather than traditional jobs or managerial positions. Numerous seniors feel compelled to continue working due to the absence of retirement benefits and restricted access to social security.

Health status among older persons

According to the 2021 census, the disability prevalence rate in the older population is 6.9 percent, with the most commonly recorded impairment being physical disabilities. However, provinces record different rates for disability, with Karnali Province showing the highest on record. More than half of older deaths in the country are due to non-communicable diseases.

Communicable diseases are more prevalent in younger age groups. Accidents, violence, and suicide are more common in younger age groups. Natural disasters have a significant impact on

the older person population, especially with increased age. Men have higher rates of death from communicable diseases, traffic accidents, and other accidents compared to women, whereas women have higher rates of death from natural disasters and other unspecified causes.

Salient features

- Nepal has an increasingly aged population, which is burdened with dependency.
- The proportion of widowhood is continuously increasing due to higher life expectancy of women compared to men.
- A rapidly increasing older population causes pressure on health care systems.
- The variations in the ageing rates of older populations across provinces, ecological zones, and districts are found significantly different.

Policy implications

In light of these findings, Nepal should develop integrated strategies that can take care of its growing ageing population and create sustainable economic and social support systems for future contingencies. The following policy recommendations are provided:

- Expand social security: Support different types of pension schemes to reduce financial hardship.
- Improve healthcare services: Recover geriatric healthcare, especially in rural and peri-urban areas.
- Increase economic opportunities: Develop non-physical labor options for older persons.
- Improve housing and infrastructure: Enhance living conditions and access to basic services.
- Strengthen older person support systems: Address social isolation through community engagement initiatives.
- The variations in the ageing rates of older populations across provinces, ecological zones, and districts asserts the need for area-specific targeted ageing policies.

CHAPTER 1

INTRODUCTION

Population ageing is a natural, ongoing process that encompasses the gradual physical, psychological, and social changes of an individual's life. It is a continuous, universal, progressive, essential, and deleterious process which represents the inevitable termination of life and the most significant demographic change in modern times. According to this perspective, ageing is a natural, unavoidable, genetic, painful, and ultimately fatal process for all living beings. Ageing brings about physical, psychological, and social changes such as reduced strength and impacted mobility and sensory capabilities (e.g., vision and hearing impairments). Cognitive decline, changes in memory, and increased susceptibility to mental health issues like depression and anxiety are common in old age. Social roles and relationships often change, with older adults sometimes experiencing isolation or reduced social interaction. Understanding the concept of ageing is crucial for developing policies and programs that cater to the needs of population of older persons. Recognizing the challenges that older adults face with their diverse individual experiences helps create a supportive environment which promotes their well-being, dignity and quality of life.

Human life expectancy at birth in the world grew from 64.2 years in 1990 to 72.6 years in 2019, and it is expected to rise even higher to 77.1 years in 2050. While significant progress has been achieved in decreasing the lifespan gap between countries, substantial discrepancies persist. In 2019, life expectancy at birth in the least developed countries is 7.4 years lower than the world average, owing mostly to persistently high rates of infant and maternal mortality, as well as violence, conflict, and the ongoing impact of the HIV epidemic. By 2050, one in six people in the world will be over age 65 (16%), increasing from one in 11 in 2019 (9%). The regions where the share of the population aged 65 years or over is projected to double between 2019 and 2050 include Northern Africa and Western Asia, Central and Southern Asia, Eastern and South-Eastern Asia, and Latin America and the Caribbean. By 2050, one in four persons living in Europe and Northern America (as defined by United Nations' geographical scheme) could be aged 65 or over. For the first time in history in 2018, persons aged 65 years and over outnumbered children under five years of age globally. The number of persons aged 80 years and over is projected to triple from 143 million in 2019 to 426 million in 2050 (UNDESA, 2019).

Global populations are observed to be ageing more rapidly than in the past. Between 2000 and 2050, the share of the world's population aged 60 years and over is projected to double from

around 11 percent to 22 percent. The number of people aged 60 years or over is estimated to rise from 0.9 billion in 2015 to 1.4 billion by 2030 and 2.1 billion by 2050, with this rate expected to increase to a figure of 3.2 billion in 2100 (WHO, 2016).

UNFPA has estimated that, globally, two persons reach the age of 60 every second, at an annual figure of 58 million. Currently, the ratio of one in nine persons in the world being aged 60 years or over is likely to increase to a ratio of one in five by 2050, implicating that population ageing can no longer be disregarded (UNFPA 2012).

As life expectancy rises, a large proportion of the global population will continue to live beyond the age of 60, providing opportunities to contribute in a variety of roles, such as caretakers, mentors, innovators, and experienced members of society.

The United Nations 'World Population Prospects 2024' report includes extensive forecasts regarding the global population and age distribution. According to this report, the world's population is expected to reach 8.2 billion by 2024. Approximately 1.08 billion people are over the age of 60, accounting for 13.7 percent of the world's population. Additionally, approximately 761 million individuals are 65 years and over, accounting for 9.6 percent of the global population. According to the estimate, the number of people over the age of 65 will double by 2050.

These data emphasise the ongoing demographic transition towards an ageing global population, which has far-reaching ramifications for economic development, healthcare systems, and social support structures around the world.

In 2015, there were 901 million people aged 60 or over, comprising 12.3 percent of the global population. Between 2015 and 2030, the number of people aged 60 years or over is projected to grow by 56 percent, reaching 1.4 billion in 2030, or nearly 16.5 percent of the global population. By 2030, older persons are expected to account for over 25 percent of the population in Europe and North America, 17 percent in Asia and Latin America and the Caribbean, and 6 percent in Africa (UNDESA, 2015).

According to available data, Nepal is transitioning from Stage II to Stage III of the demographic transition model, characterized by low birth and death rates, with birth rates still slightly higher than death rates. Nepal's demographic dividend period is predicted to last around 50 years, beginning from 1992 and expected to last until about 2042. During this time, the country's age structure has been favourable, with a higher proportion of the population in the working-age group (15-64 years) than in the dependent group (children and older persons). This demographic window offers prospects for increased economic growth if adequate investments in education,

health, and job creation are made to capitalize on the working-age population's potential (Sarker, T., S. Tandukar, and S. R. Dey. 2021).

The speed of population ageing is often measured by the time it takes for a society to transition from an 'ageing' to an 'aged' status. This is typically defined by the proportion of the population aged 65 years or older, moving from 7 percent (ageing society) to 14 percent (aged society). Nepal is on the threshold of this transformation, with 6.9 percent of its population aged 65 or older in 2021. According to estimates, Nepal will become an 'aged society' by 2054, emphasizing the importance of strategic planning to handle these upcoming demographic changes (National Planning Commission 2017).

The dynamics of ageing shift are crucial for planning and policy-making. Ageing populations impact the labor force. Like many other countries, Nepal is experiencing significant demographic changes due to declining fertility rates and increasing life expectancy. These changes result in a growing proportion of the population of older persons, presenting numerous social, economic, and health-related challenges and opportunities. Evaluating these economic implications is useful in formulating strategies to mitigate potential negative effects. Older persons have unique healthcare requirements and planning for healthcare infrastructure, services, and funding to satisfy an ageing population is essential. Changes in family structures and social support systems are significant as traditional family care models evolve. Addressing issues related to social inclusion, mental and physical health, and quality of life for older adults is critical. Policymakers need detailed demographic data to design effective social protection, healthcare, and economic policies.

Recent changes in societal and economic environments have produced mixed outcomes in Nepal. Traditional family norms and values have transformed and family structures have also experienced changes over time. The classic family system, once guided and protected by elders, is now largely absent. Instead of honouring their contributions, society often views older persons as a burden. Scholars argue that the value placed on old age is shaped by culture and religion.

The ageing population in Nepal is increasing at an unprecedented rate. The proportion of the older population (60 years and over) in the 2021 census stands at 10.2 percent of the total population, whereas the figure was at a rate of 8.1 percent in the 2011 census. According to the 2021 census, there are 2.97 million older persons (60 years and over) in Nepal, a 38.2 percent increase compared to the 2011 census. This demographic shift necessitates comprehensive and integrated policy responses to address the unique challenges which older persons face. These challenges include cognitive decline, limited mobility, and malnutrition (NPHC 2021).

Nepal, like many other countries, is facing issues which are associated with an ageing population. Lessons from global experiences with ageing populations provide significant insights into

effective methods and new solutions. This thematic research report seeks to identify gaps in Nepal's current policies and propose targeted adjustments to promote the well-being of older persons through a comparative analysis.

1.1 Background

A population census is defined as "the total process of collecting, compiling, evaluating, analyzing, and publishing or otherwise disseminating demographic, economic, and social data pertaining, at a specified time, to all persons in a country or a well-delimited part of a country" (United Nations, 2017). The census provides essential benchmark data on various population characteristics, including age, sex, marital status, education, occupation, disability status, and household composition. These data are crucial for effective national development planning and policymaking.

The data collected through these censuses have been extensively utilized for various purposes, particularly in development planning and policymaking. The census serves as the most comprehensive and reliable source of data on the size, demographic, and socioeconomic characteristics of the population, including older persons. It provides a unique opportunity to examine the situation of the older persons not only at the national level but also at provincial, regional, and district levels. This information is invaluable for informing socioeconomic development, health service planning, and advocacy efforts.

1.2 Definition of older persons

Ageing is an inherent part of life, beginning from birth and continuing throughout the human lifespan. Old age refers to the latter part of the life cycle, typically characterized by retirement and increased reliance on others for support. The definition of the threshold for the ageing population is slightly arbitrary when considering the very different environments of ageing people across the world. The age at which one is considered older person varies from 60, 65, 70, or older depending on the country, life expectancy, level of economic development, and nature of job. Nepal is no exception of the above circumstances. However, the United Nations has consistently defined older persons as those aged 60 years and over (UNDESA, 2015). In Nepal, age 60 is also considered the threshold for identifying older persons. Almost all analyses are conducted by age, sex, nationality, ecological zone, province, district, urban or rural residence, and particularly for individuals in the prime working ages of 15-59. However, in some contexts, the population aged 65 years and over is also considered for comparative studies, particularly concerning developed countries.

1.3 Previous research on older persons in Nepal

Nepal has proactively undertaken extensive research and policy initiatives focused on its population of older persons. There are several studies focusing on the ageing situation in Nepal.

The National Workshop on the Ageing Population in Nepal, organized by the Ministry of Women, Children, and Social Welfare and United Nations Population Fund (March 21, 2011) yielded several important recommendations. The workshop underscored the 2010 UN report on policy and programs and its critical importance for older persons, drawing attention to the significant gaps in socio-economic data related to older persons in Nepal. Significant socioeconomic issues are brought on by Nepal's aging population, which makes thorough data gathering and policy development necessary to assist this group. Although a specific monitoring center for demographic aging has not yet been formed, a national workshop in 2011 emphasized the necessity of focused surveys (National Workshop on the Ageing Population in Nepal, 2011).

Using data from the Nepal Ageing Survey 2015, conducted by social science study, under the Ministry of Health and population, government of Nepal, a study investigated the determinants of self-reported health among older persons in Nepal. The study analyzes seven composite variables – demographic, socio-cultural, economic, support and care, modernization, living arrangements, and health-related factors. Significant 11 predictors were identified using binary logistic regression (Sharma, 2023a).

Self-reported health is a widely used measure of health status, providing insight through individual perceptions. This study aims to identify the major demographic factors influencing self-reported health among senior citizens in Nepal. The demographic variables considered include age, sex, marital status, migration status, residence status (rural-urban), and ecological region. The study utilizes data from the Nepal Ageing Survey (2015). Binary logistic regression is employed to determine the association between demographic factors and the self-reported health of older persons, with the odds ratio (OR) used as a measure of effect (Sharma, 2023b). The findings suggest that an increase in age correlates to a lower likelihood for good health conditions. Older men are more likely to be in good health condition than older women. Low educational attainment increases the chances of reporting poor health. People of Kirat religion have comparatively better health than others. The rate of older persons with working wage jobs have a much higher likelihood to be in good health condition compared to others. The major predictor variables to support the good health of older persons are sufficient food and property, receiving medical treatment facilities, and proper care.

The Government of Nepal provides old age allowances of Rs. 4,000 for individuals aged 68 years and over. Allowances are additionally provided for widows, disadvantaged people and minority groups, and persons with disabilities.

Additional studies have investigated the quality of life (QOL) of older persons in Kailali District, focusing on the socio-economic and demographic factors that influence their well-being (Joshi, 2019).

Bisht's study, conducted with a representative sample of 500 households in Kathmandu, examined the well-being of elderly individuals, identifying important elements such as family relationships, health issues, economic roles, and social support networks. The research emphasizes the necessity for better government policies and community initiatives to improve the quality of life, dignity, and autonomy of senior citizens in Kathmandu (Bisht, 2006).

According to data from a population-based survey on non-communicable diseases (NCDs), multimorbidity is more common among 60 years of age and older, (Dhungana et al., 2021). The higher frequency of multimorbidity among those over the age of 60 emphasises the importance of focused health interventions, comprehensive care plans, and resource allocation to meet the complex healthcare demands of this demographic. This evidence can help to shape age-specific programs that manage the burden of various chronic illnesses, improve quality of life, and reduce healthcare expenditures in an ageing population.

A study conducted among 847 adults aged 60 years and over in eastern Nepal found that one in five older individuals suffers from multimorbidity. The adjusted model revealed that age, marital status, place of residence, distance to the nearest health facility, and knowledge of senior citizen services were significantly associated with multimorbidity (Balakrishnan et al., 2022).

Chalise and Rosenberg (2019) examined the social and health status of older adults in Nepal using secondary data, analyzing three dimensions of self-reported health status: physical health, physical disability, and mental health. Their study analysed three critical dimensions of self-reported health status: physical health, which highlighted the extent to which physical health impacts daily life and overall-being; physical disability, which focused on the ability of older adults to perform crucial daily activities without assistance, exploring difficulties due to physical deficiencies; and mental health, which evaluated the psychological well-being of older adults and identified factors such as stress. Chalise and Rosenberg's investigation revealed how these three variables interact with and are influenced by broader social determinants such as living arrangements, family support, and economic conditions.

Karmacharya et al. (2021), conducted a community-based cross-sectional survey in Pokhara Metropolitan City to assess the utilization and correlates of health services and other welfare

schemes among older adults. The study employed the Andersen Behavioral Model of Health Services Utilization to identify factors influencing health service use. Predisposing factors included age, sex, ethnicity, marital status, and awareness of health services. These findings highlighted the need for focused initiatives to remove negative factors and improve older individuals' access to health services.

Yadav et al. (2021), conducted a community-based cross-sectional survey of 794 older adults aged 60 years and over, revealing that osteoarthritis, chronic obstructive pulmonary disease, diabetes, and cardiovascular diseases were the most common chronic conditions among this population. Findings from these studies will be used to verify findings based on the 2021 census of Nepal.

1.4 Objectives

The major objectives of this thematic report is to use data from the 2021 Population and Housing Census to demonstrate the existing and expected size, growth, and characteristics of Nepal's elderly population. This will enable policymakers to create evidence-based policies and programmes to protect and improve the well-being of older persons. The specific objectives of the report are as follows:

- To describe the trends of population ageing in Nepal, both historically and in the context of the current 2021 Census;
- To identify the demographic, social, and economic characteristics of the older population in Nepal;
- To analyze the living arrangements of older persons and assess the implications for their well-being.

1.5 Report structure

The structure of the report is arranged as follows. Chapter 2 is dedicated to the discussion of methodology and data quality evaluation used in the analysis of Nepal's older population. An assessment of the quality of age reporting and the completeness of the coverage of the older population in the 2021 and 1911 censuses is made. Chapter 3 presents existing policies and programs for older persons in Nepal which are discussed within the context of the probable size and composition and the social, health and economic characteristics of the older person in the future. Chapter 4 presents an overview of demographic change and population ageing trends in Nepal and other countries, in relation to the older population in Nepal. It explores the current size, age and composition of the older population, outlining how it has changed since 1911 and how it is expected to change up to 2050.

Chapter 5 explores the social characteristics of older persons, including place of residence and residential mobility, marital status and number of living children, and education. It also describes the living arrangements of older persons in institutions and conventional households, with particular attention to household composition and how this differs by sex, marital status, number of children and age. Chapter 6 considers the economic conditions of older persons. Globally, economic security and health are primary concerns for older persons (UNFPA and Help Age International 2012). Three in ten of the older population are economically active, however they eventually transition out of the labor force. This chapter also looks at other indicators of economic well-being, including housing conditions, amenities, assets and a wealth index, by age, sex and household composition. Chapter 7 presents disability status of older persons in Nepal. Chapter 8 offers a report summary, conclusions and policy recommendations concerning future research and for the following national census.

CHAPTER 2

METHODOLOGY AND DATA QUALITY ASSESSMENT

The quality of a census is determined by the completeness of its coverage and the accuracy of responses, particularly in age reporting. Higher data quality ensures more consistent findings. Hence, this chapter examines the data sources used within this report and critically evaluates the quality of ageing data reporting. The reliability of census data, especially concerning age reporting, is vital for grasping demographic patterns, particularly in populations experiencing ageing. This analysis emphasises the 2021 National Population and Housing Census of Nepal and underscores the significance of accurate age data in the wider context of older persons' living conditions.

Given this report's focus on ageing populations, prioritizing age accuracy strengthens the research findings. By extensively assessing age data quality, it is possible to potentially identify mistakes and provide more reliable insights into the demographic elements of ageing.

2.1 Sources of data and their limitations

Reliable census data is a critical source of socio-demographic information at both local and national levels. For the 2021 census, the National Statistics Office (NSO), previously known as the Central Bureau of Statistics (CBS), made extensive efforts to ensure data accuracy throughout all phases of the process, including the design, collection, and processing of the data. The 2021 census, Nepal's twelfth housing and population census, was conducted by the NSO in November 2021 under the theme "My Census, My Participation".

Due to a shorter follow-up period, the population counts from the 2021 census may have been influenced by the COVID-19 pandemic. However, the NSO took significant measures to ensure data accuracy and to encourage participation. These efforts included creating an enumeration map, launching both local and national awareness programs, broadcasting public service announcements on data collection, and releasing pre-census advertisements in the country's main languages in order to promote participation.

Post-enumeration surveys have been conducted following each census since the 2001 census. The post-enumeration survey for the 2021 census, reported a 2.6 percent omission rate (NSO, 2023). This rate represents a significant improvement given that the figure is one percentage point lower than the 2011 census and half of the 5.3 percent omission rate reported for the 2001 census (NSO, 2024a). Despite ongoing challenges, the reduced omission rate likely contributed to the enhanced accuracy of the 2021 census compared to previous censuses.

Fieldwork progress was monitored via mobile applications, with a helpline available for quality monitoring. Technical assistance was provided to enumerators and monitoring and supervision were centrally coordinated. Each operator was required to correct errors after data entry using various consistency-checking tools during post-census activities (NSO, 2023).

Post-enumeration surveys and demographic analysis are utilized to evaluate the quality of census data. According to the NSO (2023), net omission rates varied by residential status, with a higher omission rate in urban areas 3 percent compared to rural areas 1.9 percent. The omission rate in the Kathmandu Valley was very high at 4.4 percent, with rural municipalities reporting a rate of less than 1 percent (0.9%) and urban municipalities reporting a rate of 4.5 percent. Additionally, omission rates differed by province, with Koshi and Madhesh having omission rates around 2 percent and Sudurpashchim and Lumbini having omission rates of about 3 percent.

Demographic analysis offers an alternative approach for identifying net coverage errors, particularly concerning age, whether analyzed by single years, age groups, or sex. The accuracy of age-related census data is critical, as inaccuracies in age reporting can significantly affect the validity of demographic analyses. Age misreporting is a well-known challenge in demography, as highlighted by Ewbank and Douglas (1981), who identified it as one of the field's most persistent issues. Shryock and Siegel (1976) further emphasized that the absence of accurate age data can invalidate census results.

In the 2021 census, respondents were asked to provide both their date of birth and their completed age. Often, the head of the household provided age information for all family members, assuming familiarity with each member's age. Reviewing age data before analyzing other census variables is crucial to identifying potential age-reporting issues, as inaccuracies in age data can compromise the reliability of other demographic estimates, such as marriage, mortality, and fertility rates.

Age data is typically recorded in one-year increments, five-year age groups, and special subdivisions for ages 0 and 1–4, as this granularity is essential for various demographic and policy analyses (Johnson et al., 2022). The division of early childhood into 0 and 1–4 years is a reflection of the substantial developmental, health, and demographic significance of these early life periods, where growth and mortality rates range significantly. The adaptability and utility of age data across a range of analytical requirements are guaranteed by this methodical classification.

Common and persisting problems with age reporting accuracy include respondents rounding their ages or birth years to end in digits 0 or 5, underreporting age (e.g., to avoid military service), overstating age (e.g., to gain prestige), and misreporting women's ages based on societal norms regarding childbearing. The distribution of single ages in the 2021 census reveals noticeable age heaping, particularly for ages ending in 0 and 5. Errors in age reporting were detected at a rate of approximately 27 percent, with the age group of 40–44 years exhibiting the highest error rate

at 33.9 percent (NSO, 2023c). Men within the same age group were particularly prone to age misreporting (NSO, 2024a).

2.2 Assessment of data quality for the older population

The method of age heaping indices is used to assess the reliability of age data by identifying the level of 'preference' or 'avoidance' for specific ages in age reporting. Depending on the availability of age-disaggregated data, this report has employed the following methods to address age reporting issues: the Whipple Index, the United Nations Age-Sex Accuracy Index, and the Meyer's Index.

The Whipple Index involves analyzing the age data from the censuses to measure the extent of age heaping on digits ending in 0 and 5 (Shryock and Siegel, 1976). This method has been used in Nepal across six census periods (1971–2021).

The results of the application of the Whipple Index on the six censuses (1971-2021) show a 98-point drop from 1971 to 2021 (253 to 149 for women, 240 to 149 for men) and indicates a significant increase in the accuracy of data collecting and reporting over time. The 2021 score of 149 indicates that, despite advancements, the quality of age data still classifies as "rough", suggesting that more work is required to improve accuracy. The higher score for women (253 over 240 for men) in 1971 may indicate that women found more difficulty reporting their actual ages, or were more likely to engage in age heaping. The fact that there is no points difference by sex by 2021 (149 for both men and women) shows that gender differences in age reporting accuracy have decreased (NSO, 2024a).

The United Nations Age-Sex Accuracy Index, which extends the analysis of age-sex ratios by comparing observed ratios with expected values across five-year age groups, combines these deviations into a comprehensive score. Like the United Nations Age-Sex Accuracy Index, Meyer's index quantifies disparities in demographic data. Both indices seek to offer a numerical evaluation of the precision of population data, although there may be differences in the weights assigned to different age groups or in their precise procedures.

During the enumeration phase of a census, two types of errors can occur. The first type is coverage errors, which arise from the omission or duplication of individuals or households. The second type is content or response errors, which result from inaccurate information provided by respondents or mistakes made by enumerators in reporting or recording the data. Both types of errors are particularly concerning for the older population as they can compromise the accuracy and reliability of the data. The most effective way to assess data quality is by verifying the accuracy of information through multiple collection methods. For censuses, this is typically executed through a post-enumeration survey, such as that conducted in 2022 for the 2021 census in Nepal, where an independent team interviewed a randomly selected sample of respondents (NSO, 2024a). The outcome of these evaluations offers a thorough understanding

of the quality of census data, pointing out areas that require improvement and guaranteeing the accuracy and dependability of demographic data. In addition to improving current census procedures, ongoing evaluation using these approaches helps guide future planning to successfully reduce errors.

The systematic omission of older persons in population census would be a major concern, resulting in data that underestimated the size of the older population. This is especially troubling as the most vulnerable older persons would most likely be omitted (Zimmer and Das 2014). Census omissions of Nepal's most vulnerable older persons worsen their exclusion from essential programs like allowances and healthcare, making accurate data crucial for addressing their needs. Research on older persons in Africa has hypothesized that older women are most likely to be omitted in censuses and surveys; due to the fact that mortality of men is higher and the practice of marrying men older than themselves, older women are more likely to be living alone or semi-independently with their adult children. An examination of the sex ratios – the number of men per 100 women – in the older population from 29 African censuses and surveys found that in most data sets, sex ratios were unreasonably high, indicating that older women had been omitted (Randall and Coast, 2016).

The coverage error and content error are a major part of the analysis in the 2022 post-enumeration survey (PES). This survey helps to quantify omissions and duplications by comparing census data to follow-up interviews. For example, in the 2021 census in Nepal, a PES was conducted to assess coverage errors. Those counted in the PES but not in the census were found to be at a rate of 2.1 percent, which shows the continuous improvement in different censuses and reveals discrepancies that informed adjustments for future surveys.

The 2022 post-enumeration survey found clear differences in the overall rates of content error in age reporting across the population by age and sex. The specific error rate across sexes is 33.5 percent for men and 32.7 percent for women. In terms of age, the raw data indicates the age groups of 40-44 and 30-34 respectively.

The Myers' blended index for censuses from 1971 to 2021 shows that age reporting improves in censuses following the 1991 census and the Myers' index is reported at 15.6 in 2011, which decreases to 11.61 in 2021 with minimal differentiation between men and women (NSO, 2022).

Census data collected across different census years shows that there is a sharp decline in the United Nations Age-Sex Accuracy Index in 2001. However, the figure was slightly higher in 2011 compared to 2001. In the census of 2011, the United Nations Age-Sex Accuracy Index was recorded at the higher rate of 23.2 compared to 21.2 in the 2001 census, indicating that there is an emerging trend toward greater accuracy and reliability. The 2021 census has shown even higher results with both the PES value of 32.5 and the UN Age-Sex Accuracy Index value of 29.4. (NSO, 2022).

CHAPTER 3

AGEING POLICY REVIEWS AND NEPAL

Asia is experiencing a rapid demographic shift, with its population ageing at an unprecedented rate (ADB, 2023). In 2022, 55 percent of the world's population resided in Asia, including 649 million people aged 60 years and over, representing 58.5 percent of the global ageing population. By 2050, this number is projected to double to 1.3 billion, meaning that one in every four individuals in Asia and the Pacific will be over 60 years old (ADB, 2024). This rapid ageing trend poses significant social, economic, and political challenges for the region. Nepal's population has been rapidly ageing in recent decades. In the last decade, the population of 60 years and over older persons increased by more than 38 percent (Chalise, 2024). The government of Nepal has initiated several steps to address the challenges of ageing.

3.1 Ageing situation in selected countries of Asia and South Asia

The countries with the highest proportion of older persons (65 years and over) in Asia are Japan (29 percent), China, Hong Kong (21 percent), Taiwan (18 percent), Singapore (17 percent), China (15 percent), Thailand (14 percent), and Sri Lanka (12 percent). The countries with the highest life expectancy in Asia are Japan (84 years), China-Hong Kong (84 years), South Korea (84 years), Singapore (84 years), Taiwan (81 years), and Maldives (80 years). Women enjoy the highest life expectancy in Japan (87 years), followed by China-Hong Kong (87 years), and South Korea (87 years).

Table 3.1: Ageing situation in selected countries of Asia

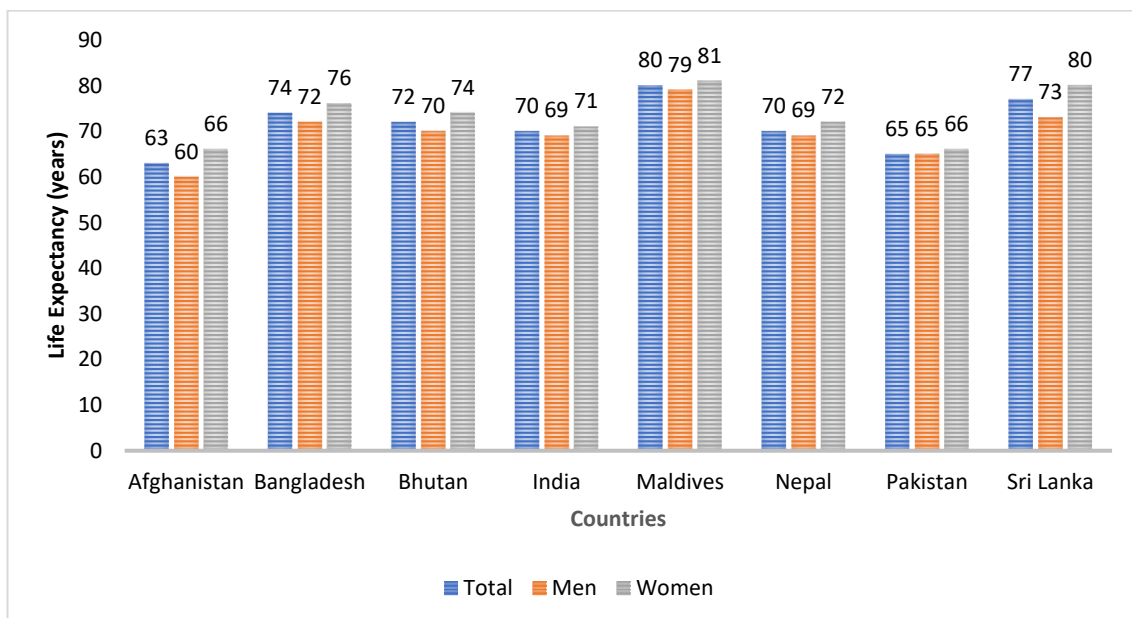
Countries	Proportion of total population 65 and over (%)	Life expectancy		
		Total	Men	Women
Japan	29	84	81	87
China, Hong Kong	21	84	81	87
China	15	79	76	81
South Korea	12	84	81	87
Taiwan	18	81	78	85
Singapore	17	83	81	85
Thailand	14	76	72	80
Malaysia	7	73	71	76

Countries	Proportion of total population 65 and over (%)	Life expectancy		
		Total	Men	Women
Afghanistan	3	63	60	66
Bangladesh	6	74	72	76
Bhutan	7	72	70	74
India	7	70	69	71
Maldives	4	80	79	81
Nepal	6	70	69	72
Pakistan	4	65	65	66
Sri Lanka	12	77	73	80

Source: Population Reference Bureau 2023

Life expectancy is comparatively lower in South Asian countries yet it is rising rapidly. The highest life expectancy is in Maldives (80 years), followed by Sri Lanka (77 years), Bangladesh (74 years), Bhutan (72 years), India (70 years), Nepal (70 years) and Pakistan (65 years). The figure is lowest in Afghanistan (63 years).

Figure 3.1: Life expectancy of South Asian countries, 2023



Source: Population Reference Bureau 2023

3.2 Brief overview of UN policy reviews

According to the United Nations, the global population will increase by two billion by the year 2050, with the number of people aged 65 and over surpassing the number of young people aged 15 to 24 (UNDESA, 2024). This demographic shift has significant implications for societies worldwide. The UN's engagement with ageing issues began in the 1980s, recognizing the growing global significance of an ageing population. The following table briefly explains the global policy on ageing.

Table 3.2: International initiatives regarding UN policies on ageing

International initiatives	Brief description
Vienna International Plan of Action on Ageing, 1982	The first assembly on ageing, outlining a comprehensive framework for addressing the challenges and opportunities presented by ageing populations. The plan covered a wide range of issues, including health, social security, employment, housing, and education.
International Year of Older Persons, 1999	The goal was to raise awareness about the challenges and opportunities of an ageing population and promote positive attitudes towards older persons, initiated by the UN. The theme for the year, "Towards a Society for All Ages", emphasized the need for inclusive policies and practices that consider the needs of people of all ages.
The Madrid International Plan of Action on Ageing (MIPAA), 2002	The Madrid International Plan of Action on Ageing (MIPAA) is the global agreement adopted in 2002 that recognizes older persons as contributors to society and commits governments to including ageing in all social and economic development policies. It focuses on three priority areas: Older persons and development; Advancing health and well-being into old age; and Ensuring enabling and supportive environments. Since the World Assembly on Ageing, many countries have developed national ageing policies and strategies.
The United Nations Sustainable Development Goals (SDGs)	Several Sustainable Development Goals (SDGs) – such as those related to poverty eradication, good health, gender equality, economic growth, and reduced inequalities – are relevant to ageing populations. Some countries have introduced initiatives that address population ageing whilst building on synergies between these SDGs.
UN Decade of Healthy Ageing (2021-2030)	This initiative aims to improve the lives of older persons through collective action in four areas: changing how we think, feel, and act towards age and ageism; developing communities

International initiatives	Brief description
	that foster the abilities of older persons; delivering person-centered integrated care and primary health services responsive to older persons; and providing older persons who need it with access to quality long-term care.

3.3 Brief overview of national policies on ageing in Nepal

Nepal lacked a specific policy regarding older persons until 2002. The government's main plan for Nepal's older person population is outlined in the Senior Citizen Policy 2058 (2001). The work schedule established by the Vienna Conference and the United Nations Principles for Older Persons is largely followed in this policy which aims to enhance the respect and dignity of older persons in their family, society, and country. It also determines to improve the potential of older persons so that they can continue to be active and productive in national development and create opportunities to assist their continued self-reliance.

Table 3.3: National policies on ageing in Nepal

National policies	Brief description
Senior Citizen Policy 2058 B.S. (2001 A.D.)	The first policy for older persons in Nepal, which is considered a landmark and a step forward in providing comprehensive support and protection for senior citizens.
Senior Citizen Act, 2063 B.S. (2006 A.D.) and Regulations, 2065 B.S. (2007 A.D.)	This act and its subsequent regulations aim to protect and provide social security to senior citizens in Nepal. The act defines a senior citizen as a Nepali citizen who has completed the age of 60 years.
The National Plan of Action for Senior Citizens, 2062 B.S. (2005 A.D.)	The plan aims to ensure social and economic justice for senior citizens by preserving their rights and benefits in accordance with the special provisions for women, children, senior citizens, and people with disabilities in the Constitution of Nepal.
The Constitution of Nepal, 2072 B.S. (2015 A.D.)	The 2015 constitution of Nepal, under the heading on the right of senior citizens (part 3, article 41), has made a provision that senior citizens shall have the right to special protection and social security from the state.
National Health Policy, 2076 B.S. (2019 A.D.)	This policy recognizes the specific healthcare needs of older adults and emphasizes the importance of integrating geriatric care into the overall health system. It calls for the development of age-friendly health

National policies	Brief description
	services and the training of healthcare providers in geriatrics.
Old-Age Allowances	The old-age allowance system was introduced in 1994 and was implemented in 1995 as a monthly cash transfer to citizens of 75 years and over. The current minimum age is 68 years and the monthly allowance is at the figure of Rs. 4,000.
Social Security Regulations, 2075 B.S. (2018 A.D.)	The registration of employers and employees with the Social Security Fund (SSF). The regulations also outline the contribution rates for employers and employees, which are currently set at 20 percent and 11 percent of the employee's basic salary, respectively.
Mid-Term Three-Year Plan (2007/08—2009/10 A.D.)	This plan mentions older persons in a separate chapter for the first time, focusing on legislation to ensure the rights of older persons, including their participation in relevant institutions, and the establishment of a fund to implement programs for older persons.
15 th Periodic Plan (2019/20-2023/24 A.D.)	This plan prioritizes the implementation of the Senior Citizen Security Act and focuses on the social security and health-related needs of older persons.
16 th Periodic Plan (2024/25-2028/29 A.D.)	This plan focuses on economic growth, social fairness, and good governance, with a particular emphasis on improving social security for 2.9 million people aged 60 years and over and expanding healthcare access to 90 percent of families, promoting social inclusion, and improving living conditions to raise life expectancy to 73. The plan emphasizes a focus on healthy ageing, quality of life, and social security.

Sources: ADB (2023, 2024), United Nations (1982, 1992, 2002, 2015), WHO (2021)

CHAPTER 4

DEMOGRAPHIC CHANGE AND OLDER POPULATIONS IN NEPAL

This chapter describes the size, growth, and composition of the older population, focusing on those aged 60 years and over. It explores the demographic factors driving population ageing in Nepal and projects the future trends of the older population up to 2051. Additionally, population ageing in Nepal is compared with trends in developed and developing countries, and Asian and South Asian countries, which are discussed further in other chapters.

4.1 Size and growth trend of the older population

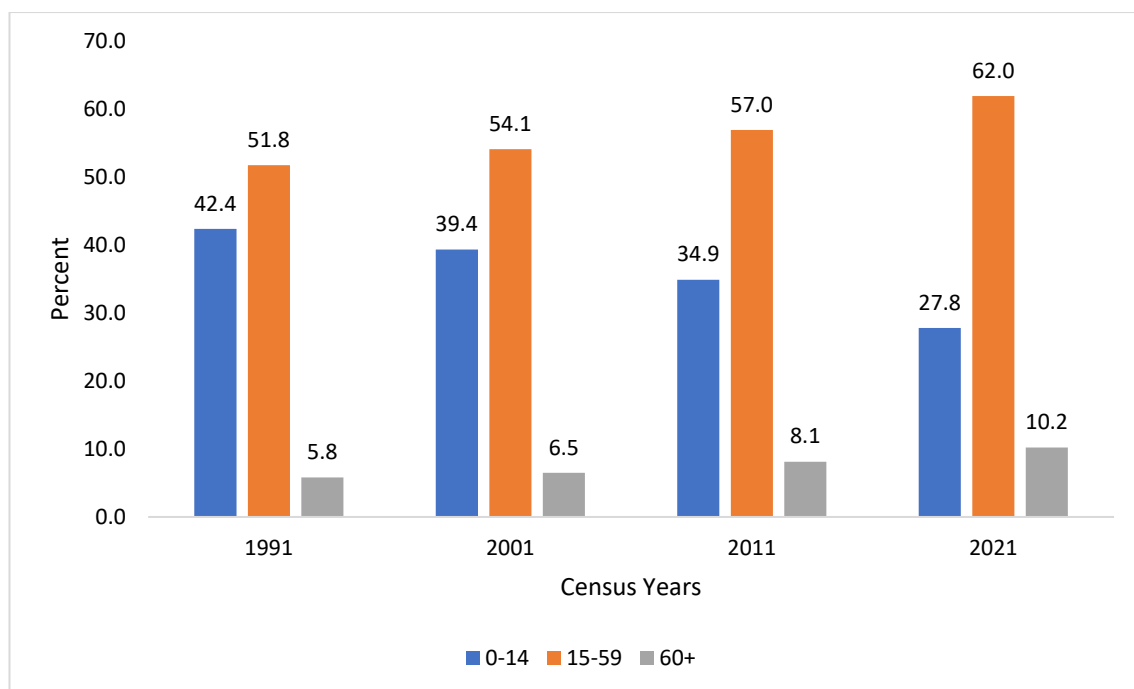
The census of 2021 is the first census conducted under Nepal's federal system established by the Constitution, with new administrative divisions and governance structures. Subsequent censuses showed that from 1991 to 2021, while fewer children were born, people were living for longer.

The data in Table 4.1 helps trace the older population's growth in absolute numbers and percentages through Nepal's censuses of 1991, 2001, 2011 and 2021. The 1991 census enumerated 1.07 million people aged 60 years and over, comprising 5.8 percent of the total population. By 2021, the enumerated older population was 2.97 million, 10.2 percent of the total population. In the past 40 years, the older population has been almost tripled and is growing faster than the populations of children aged 0-14 and persons who are in prime working ages (aged 15-59). As there is slow declining trend of 0-14 age group, Nepal's population is becoming older; the figure of individuals in the 0-14 age group fell from 42.4 percent in 1991 to 27.8 percent in 2021.

Table 4.1: Composition of population by size and growth of broad age groups in Nepal – 1991, 2001, 2011, 2021

Years	1991		2001		2011		2021	
Age group	Total population	%	Total population	%	Total population	%	Total population	%
0-14	7,840,771	42.4	8,948,587	39.4	9,248,246	34.9	8,115,575	27.8
15-59	9,579,092	51.8	12,310,968	54.1	15,091,848	57.0	18,071,685	62.0
60+	1,071,234	5.8	1,477,379	6.5	2,154,410	8.1	2,977,318	10.2
Total	18,491,097	100	22,736,934*	100	26,494,504	100	29,164,578	100

Source: NPHC 1991, 2001, 2011 and 2021

Figure 4.1: Percentage of Nepal's ageing population by size and growth of broad age groups by census year

Source: NPHC 1991, 2001, 2011 and 2021

* This figure of 22,736,934 is the real enumerated population in 2001. Due to internal conflicts between 1996 and 2006, the 2001 census was unable to capture the entire population. To account for this undercount, an estimated population of 23,151,423 was used as the total population for 2001.

The total population figures reflect the overall growth in population size over the decades. This table effectively summarizes the changes in age demographics over the specified years, highlighting trends in population ageing. Overall, while the population aged 60 years and over is growing, it still represents a smaller segment compared to those aged 0-14 and 15-59. The trends indicate a demographic shift towards an older population; however, younger age groups still dominate in terms of percentage share.

The growth rate of the older population aged 60 years and over in Nepal from the census recording in 1952/54 to 2021 is traced in Table 4.2. The trends observed across these seven decades carries vital implications as all children aged 0-14 from the first census of 1952/54 have since become older persons (60 years and over) by the period of the 2011 census. This indicates an important cyclic phenomenon as it is complete transition through ages – children, prime working age, and older person.

The 1952/54 census enumerated a total of 8.2 million people in Nepal, out of which the older population comprised 5.0 percent. By 2021, this percentage has already increased to 10.2 percent, showing a double in the percentile of the older person population. The absolute numbers, as well as the percentage of older persons (60 years and over), has also been continually increasing across every census through these 70 years.

The highest observed population growth rate is 2.62 percent in 1981 and the lowest 0.92 percent in 2021, indicating a slowdown in terms of overall population growth in recent decades. However this trend does not correlate for the older population growth rate; the older population growth rate has been consistently higher than the overall population growth rate in each decade.

The period 2001-2011 witnessed the highest figure of the yearly rate of increase of older population, reaching a rate of 3.5 percent per annum. The following period of 2011-2021 witnessed a decline in the rate to 3.3 percent, however the rate remains significantly higher than the total population increase rate of 0.92 percent. This trend is a strong indication of increasing dependency ratio.

Table 4.2: Ageing trend and growth rate of older person in Nepal

Census year	Total population	60+ older person	60+ older person (%)	National population growth rate	Older population growth rates	Doubling time of older population (Years)
1952/54	8,256,625	409,761	5.0	-	-	-
1961	9,412,996	489,343	5.2	1.64	1.7	41
1971	11,555,983	621,529	5.4	2.05	2.4	29
1981	15,022,839	857,061	5.7	2.62	3.2	22
1991	18,491,097	1,071,234	5.8	2.08	2.2	32
2001	22,736,934	1,477,379	6.5	2.25	3.4	21
2011	26,494,504	2,154,408	8.1	1.35	3.5	20
2021	29,164,578	2,977,318	10.2	0.92	3.3	21

Source: CBS, Nepal 2003, 2014, and NPHC 2021

According to recent census data, the doubling period of the national population has increased from roughly every 44 years in the 1961 census figures to around 76 years as of 2021 census data. Meanwhile, the doubling period for older populations in terms of raw numbers was initially observed to be around 41 years in the 1961 census, but has recently increased to about 21 years in the 2021 census. This surprising acceleration reveals distinct demographic dynamics affecting this age group differently than general population growth trends.

4.2 Size and growth trend of older population (68 years and over) by census years

The age of 68 is important in the context of Nepal, as the eligibility age for the old age allowance has been lowered to 68 years from the previous age of 70 years. This change was implemented in the fiscal year 2022/23 as part of the government's social security program. With this change, eligible older persons are entitled to receive Rs. 4,000 per month (approximately US Dollar \$30).

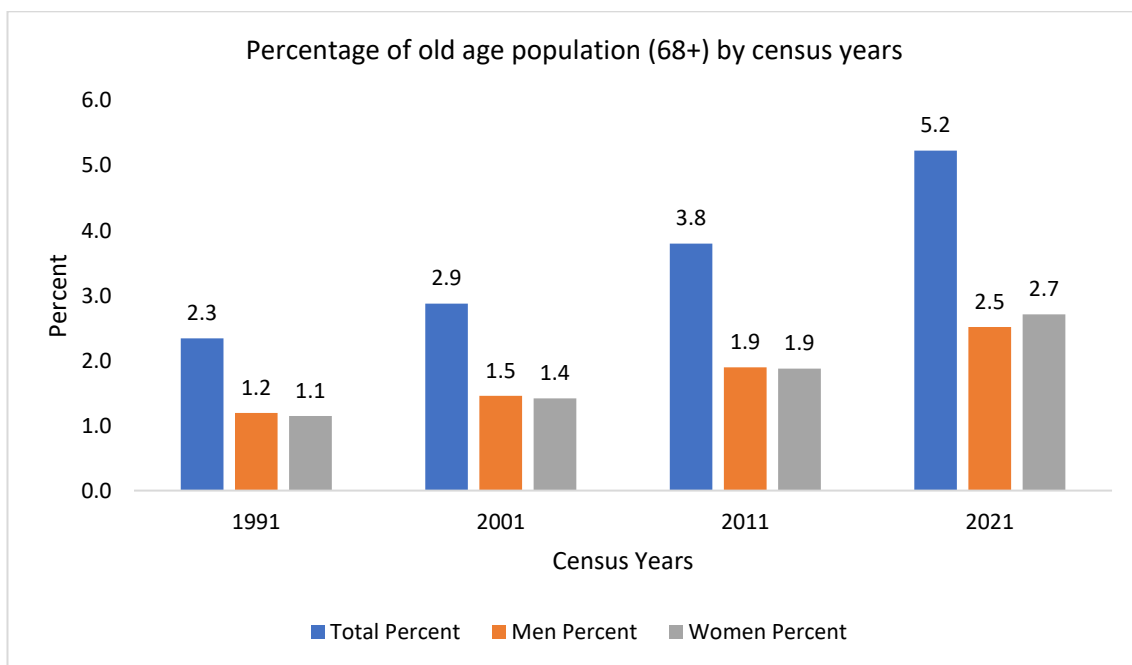
The data in Table 4.3 and Figure 4.2 shows that the total number of enumerated populations aged 68 years and over was 0.43 million in 1991; 2.2 percent of total population. By 2021, this percentage figure had more than doubled to 5.2 percent and this rate had more than tripled in terms of absolute population to 1.52 million. Men and women populations, in terms of both percentage and absolute numbers, have also demonstrated a similar pattern. During the period between 2011-2021, the total population of 68 and over increased significantly, with an increase of more than half a million; 0.99 million in 2011 to 1.52 million in 2021. However, as is most notable here, the population of women outnumbered the population of men in the 68 years and over age group for the first time in 2021, at a rate of 5.2 percent of women compared to 5.0

percent of men. This reflects the longer life expectancy of women against men, showing a trend which is consistent globally.

Table 4.3: Distribution of old age population (68 years and over) by census years

Census Year	Total		Men		Women	
	Population (68+)	Percentage of total population	Population (68+)	Percentage of total population	Population (68+)	Percentage of total population
1991	433,112	2.3	220,933	1.2	212,179	1.1
2001	665,728	2.9	337,320	1.5	328,408	1.4
2011	991,417	3.7	502,395	1.9	497,022	1.9
2021	1,524,763	5.2	734,158	2.5	790,605	2.7

Figure 4.2: Distribution of old age population (68 years and over) by census years



Source: NPHC 1991, 2001, 2011, and 2021

4.3 Changing population pyramid of Nepal

Table 4.4 specifies a declining trend in the proportion of the population of Nepal under 15 years of age. The 2001 census shows the combined population of men and women in the age 0-4 groups to be around 7.0 percent for men and 6.6 percent for women. This rate decreased to 4.4 percent for men and 3.9 percent for women in the 2021 census. There is a consistent trend in

the younger age groups of 5-9 and 10-14 which reflects the falling birth rate. The working-age population (15-59) shows a more stable but slightly increasing percentage over time.

Table 4.4: Age-sex population composition of Nepal by census years, 2001-2021

Year	2001		2011		2021	
Age groups (years)	Men %	Women %	Men %	Women %	Men %	Women %
0-4	7.0	6.6	5.0	4.7	4.4	3.9
5-9	6.7	6.4	6.2	5.9	5.0	4.5
10-14	6.3	6.2	6.7	6.5	5.1	4.9
15-19	5.3	5.5	5.5	5.6	5.1	5.1
20-24	4.4	4.8	3.9	5.0	4.5	5.1
25-29	3.7	4.1	3.5	4.4	3.9	4.6
30-34	3.2	3.4	2.9	3.6	3.4	4.0
35-39	2.8	2.9	2.8	3.3	3.2	3.8
40-44	2.4	2.4	2.5	2.7	2.8	3.2
45-49	2.0	1.9	2.2	2.3	2.4	2.6
50-54	1.7	1.6	1.9	1.9	2.4	2.5
55-59	1.4	1.3	1.6	1.5	1.8	1.9
60-64	1.1	1.0	1.4	1.5	1.6	1.7
65-69	0.8	0.8	1.1	1.0	1.3	1.3
70-74	0.6	0.5	0.8	0.7	1.0	1.1
75-79	0.4	0.3	0.4	0.4	0.6	0.6
80+	0.3	0.3	0.4	0.4	0.5	0.5
All ages	49.9	50.1	48.5	51.5	48.9	51.1
Total Population	11,563,921	11,587,502	12,849,041	13,645,463	14,253,551	14,911,027

Source: NPHC 2021 Annex 13 and 14, NPHC 2001 Population Monograph (2003) Annex II

There is a noticeable increase in the proportion of the older population (60 years and over) between the 2001-2021 censuses. The rate of the 60-64 year old population is seen at 1.1 percent for men and 1.0 percent for women in 2001 census data, whereas the 2021 census figures increase to a rate of 1.6 percent and 1.7 percent respectively.

Similarly, other older age groups are gradually increasing. Among the older populations, the percentage of women tends to surpass that of men in the latter census years. This indicates that women live longer than men in Nepal.

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Despite slight variance, women account for a substantially larger percentage of the population in Nepal, particularly in 2021 where they are observed to have higher-quality survival rates and longer lifespans. Nepal is expected to be experiencing a demographic shift towards an ageing society as the country's senior population increases while the number of younger age groups decreases.

The biggest shift is the increase in the population of older persons, which indicates Nepal's trajectory towards becoming an ageing society. Despite these internal changes, the population has grown consistently overall, however some indications of decreasing fertility are limiting this increase. The pyramids of the following populations from the past three census recordings further emphasize these trends.

Figure 4.3: Population pyramid of Nepal, 2001 census

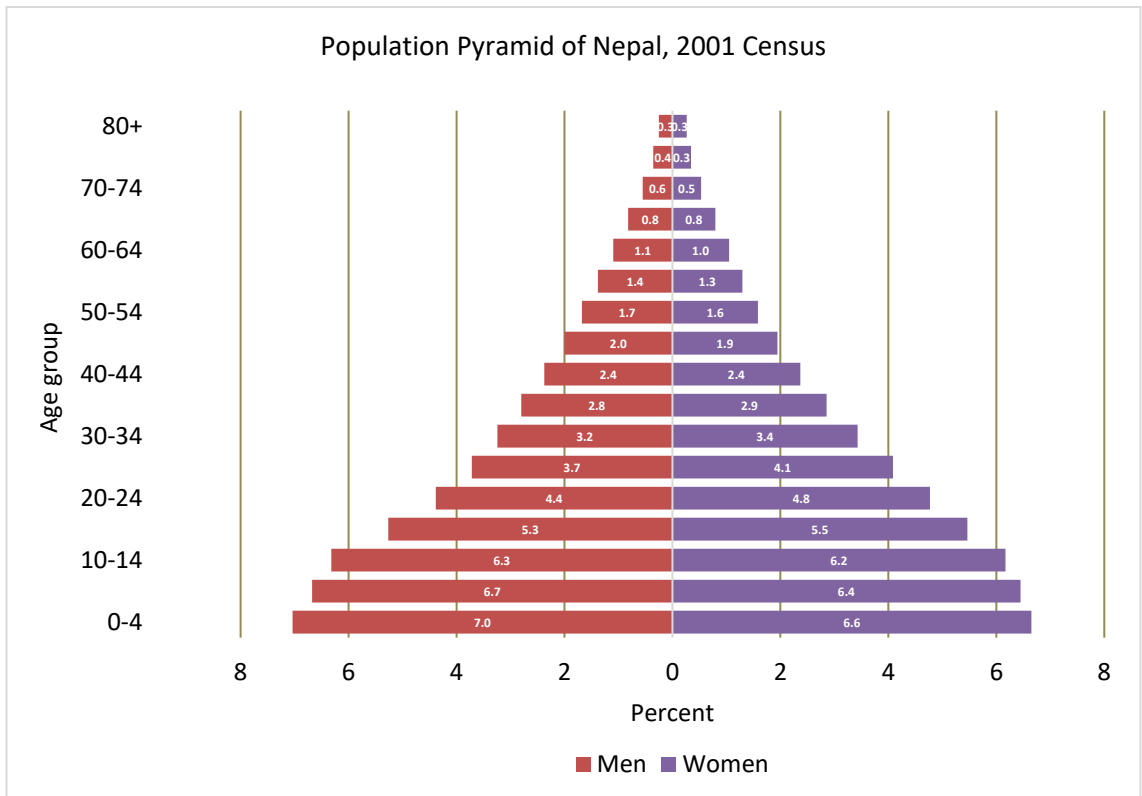
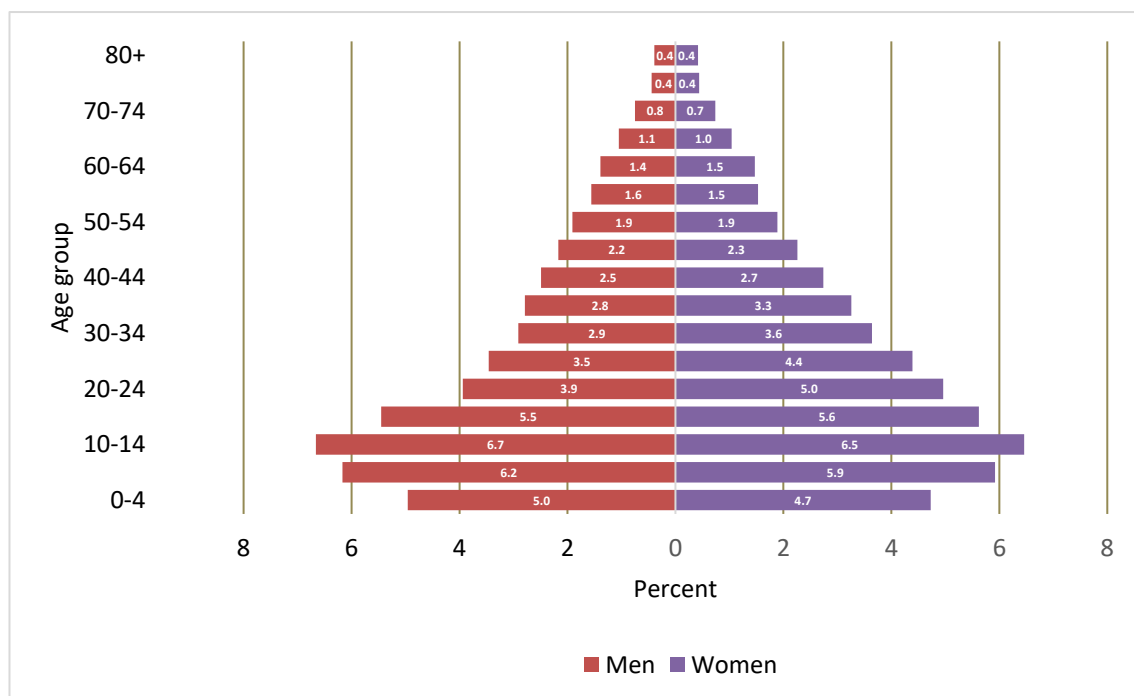
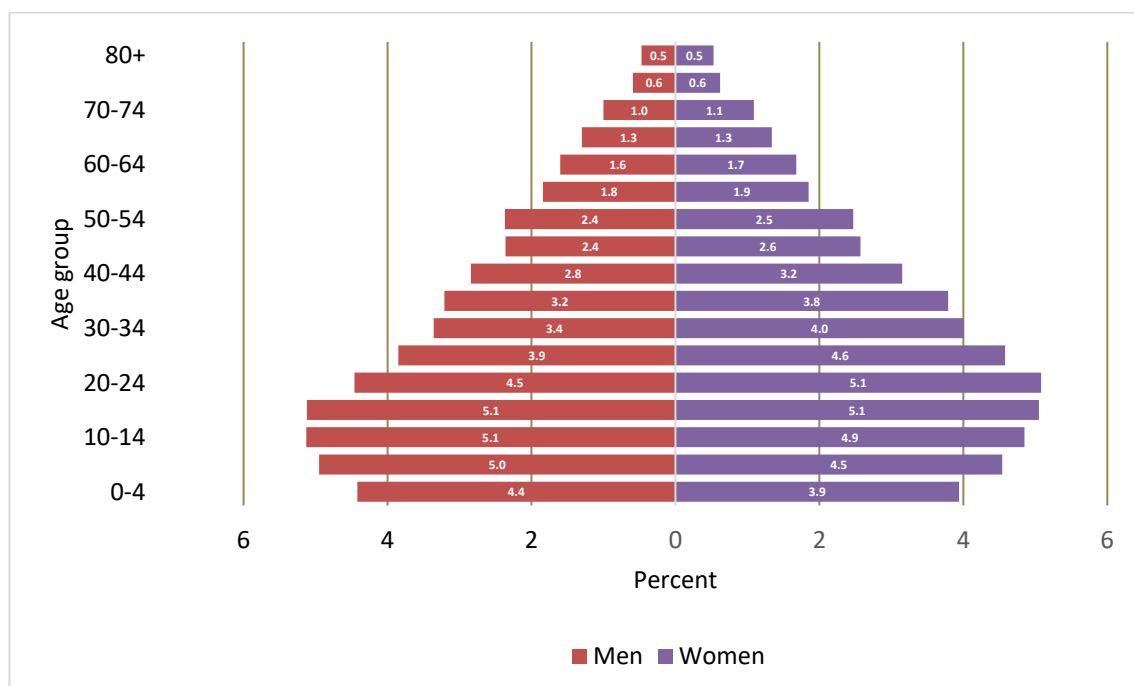


Figure 4.4: Population pyramid of Nepal, 2011 census**Figure 4.5: Population pyramid of Nepal, 2021 census**

The pyramids illustrate general demographic trends in Nepal and indicate that the country will undergo a future shift in which the rate of older persons will incline and the number of young people will decline, requiring changes to infrastructure and policy to address these emerging issues.

4.4 Changing age composition of Nepal within the older population

The percentage distribution of Nepal's various senior age groups between 1991 and 2021 is displayed in Table 4.5. The information shows how the older population's age distribution has changed over time. From 1991 to 2021, the percentages for every age group has increased steadily. This suggests that the population is ageing and that a greater percentage of people are entering older age groups. In 1991, those aged 60 to 64 comprised 2.3 percent of the population. This increased to a rate of 3.3 percent by 2021. Over the past 30 years, this group has gradually increased in size.

Likewise, within the 65–69 age range, the rate increased from 1.5 percent in 1991 to 2.6 percent in 2021. In terms of figures, the 60 years and over population nearly tripled from 1.07 million in 1991 to 2.9 million in 2021. The percentage rate among those aged 70–74 increased from 1.1 percent in 1991 to 2.1 percent in 2021. The percentage rate has almost doubled, indicating a notable ageing trend. Over time, the rate increased from 0.5 percent to 1.2 percent in the 75–79 age range, with the highest increase seen from 0.09 million in 1991 to 0.35 million in 2021.

Table 4.5: Changing pattern of age composition of Nepal within the older population by census years

Age group	Census year							
	1991		2001		2011		2021	
	Total population	% of total population	Total population	% of total population	Total population	% of total population	Total population	% of total population
60-64	431,645	2.3	496,652	2.1	756,827	2.9	955,604	3.3
65-69	270,472	1.5	374,473	1.6	554,449	2.1	771,618	2.6
70-74	183,952	1.0	250,738	1.1	395,153	1.5	609,370	2.1
75-79	89,966	0.5	161,578	0.7	235,135	0.9	353,203	1.2
80+	95,199	0.5	119,070	0.5	212,846	0.8	287,523	1.0
Total (60+)	1,071,234	5.8	1,477,379	6.0	2,154,410	8.2	2,977,318	10.2

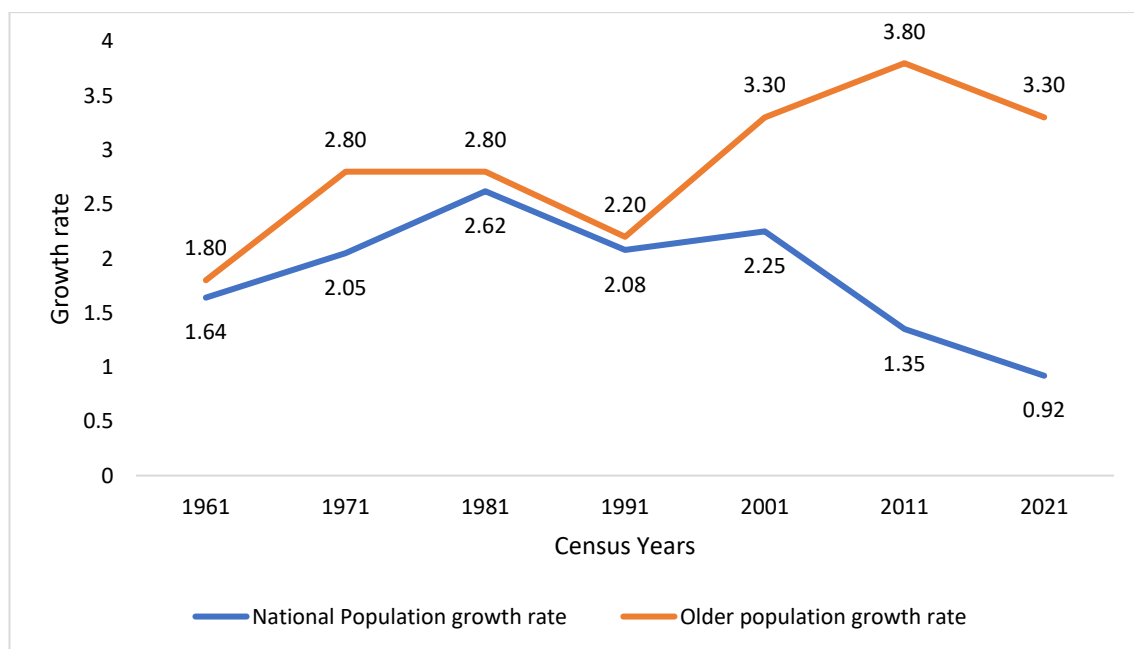
Source: NPHC: 1991, 2001, 2011, and 2021

The population of those who are 80 years and over tripled from 95,199 in 1991 to 287,523 in 2021. This age group's share in the total population percentage doubled from 0.5 percent (1991) to 1.0 percent (2021). The largest growth in the population of this group was seen between 2001

and 2011, with an increase of 79 percent. According to Table 4.5, the older population as a whole increased from 1,071,234 in 1991 to 2,977,318 in 2021. The increased proportion of older age groups are explained by this significant growth in the overall population which is further demonstrated by data in Figure 4.6. The rising proportions in all older age groups point to a growing senior population, which calls for improved social security, healthcare, and support networks.

Figure 4.6 further illustrates that the national population growth rate in Nepal has rapidly decreased from 1961 to 2021, while the yearly census recording growth rate of the older population has fluctuated yet demonstrates a rapidly increasing trend, surpassing the national growth rate in recent decades.

Figure 4.6: Growth rate of the national population and old age population by census years in Nepal



4.5 Population ageing by ecological zones

Table 4.6 indicates that Nepal's total ageing population increase from 2,154,110 to 2,977,318 between 2011 and 2021. All of Nepal's three ecological zones – Mountain, Hill, and Tarai – demonstrated population growth across this period. In 2011 data concerning the total older population, women slightly outnumbered men, at a higher rate of 50.6 percent compared to 49.4 percent of men. This trend continued in 2021, with women accounting for 51.5 percent, whereas men accounted for 48.5 percent. Sex ratio is the total number of men per 100 of the

women population. In both years, sex ratio is lower in Mountain and Hill zones. However, the ratio in Tarai appeared higher in 2011 and lower in 2021.

Table 4.6: Distribution of ageing population by sex and ecological zone

Area	Census Year	Total		Men		Women	
		Population	%	Population	%	Population	%
Nepal	2011	2,154,410	100.0	1,064,939	49.4	1,089,471	50.6
	2021	2,977,318	100.0	1,443,907	48.5	1,533,411	51.5
Ecological Zone							
Mountain	2011	156,839	100.0	75,497	48.1	81,342	51.9
	2021	196,055	100.0	94,304	48.1	101,751	51.9
Hill	2011	981,365	100.0	471,023	48.0	510,342	52.0
	2021	1,302,965	100.0	615,891	47.3	687,074	52.7
Tarai	2011	1,016,206	100.0	518,419	51.0	497,787	49.0
	2021	1,478,298	100.0	733,712	49.6	744,586	50.4

Source: NPHC 2011, 2021

The Tarai zone data shows the highest proportion of the older person population, followed by the Hill zone and the Mountain zone in both census years.

4.6 Population ageing by provinces

Among the total older population, the sex ratio presents as lower for every province with the exception of Madhesh Province (Table 4.7). In the 60 years and over category, the largest concentration of senior citizens is found in Bagmati Province. At a rate of 55 percent, Sudurpashchim Province has the largest proportion of women. Comparatively, the proportion of men is higher in Madhesh Province (51.4%).

Table 4.7: Distribution of older population (60 years and over) by sex and provinces, Nepal 2021 census

Area	2021 (60+)						
	Total		Men		Women		Sex ratio
	Population	%	Population	%	Population	%	
Nepal	2,977,318	100.0	1,443,907	48.5	1,533,411	51.5	94.2
Province							
Koshi	556,464	100.0	272,795	49.0	283,669	51.0	96.2
Madhesh	559,107	100.0	287,284	51.4	271,823	48.6	105.7
Bagmati	653,849	100.0	312,857	47.8	340,992	52.2	91.7
Gandaki	329,107	100.0	153,361	46.6	175,746	53.4	87.3

Area	2021 (60+)						
	Total		Men		Women		Sex ratio
	Population	%	Population	%	Population	%	
Lumbini	489,759	100.0	238,114	48.6	251,645	51.4	94.6
Karnali	134,482	100.0	64,823	48.2	69,659	51.8	93.1
Sudurpashchim	254,550	100.0	114,673	45.0	139,877	55.0	82.0

Source: NPHC, 2021

4.7 Measures of key indicators of ageing in Nepal

Several indicators of population ageing are applied across three functional age groups: children (0-14 years), prime working age people (15-59 years), and older persons (60 years and over). This report uses 60 and over primarily to define the older population as it is the preferred age range for less developed countries. To distinguish the definition of the middle-age group from the definition of working-age adults (aged 15-64) as used in other thematic census reports, the 15-59 years age group will be referred to as the 'prime' working-age group throughout this report. The demographic indicators of ageing presented here are the old-age dependency ratio, median age and index of ageing.

The index of ageing is defined as the number of people aged 60 years and over per 100 individuals younger than 15 years old. A higher index reflects a larger share of older adults in comparison to children, signifying an ageing demographic. In Nepal, the ageing index assesses the ratio of the population of older persons (aged 60 years and over) to the younger population (under 14 years). The old-age dependency ratio considers the number of individuals aged 60 years and over per 100 people of working age, defined as those aged between 15 to 59 years old. The median age is the age which splits the population into two equal groups, that is to say the age with as many people who are older as those who are younger.

4.7.1 Measures of ageing

Developing and developed countries have different ways of viewing and comparing the measures of ageing. Whilst many developing countries recognize older persons as aged 60 and over, many developed countries consider older populations to be 65 years and over, with a prime working-age group between 15-59 years and the working-age population between 15-64 years respectively. In this context, the data in Table 4.8 demonstrates how, with regard to sex, the various demographic indicators have transitioned across different censuses based on 60 years and over age group.

Nepal's index of ageing (60 years and over) was 13.8 in 1981; 13.9 for men and 13.6 for women. In 1981, the ageing index of Nepal stood at 13.8. By 2021, this figure had risen to 36.7, with men

at 34.1 and women at 39.5. This notable increase demonstrates that the population of older persons is expanding at a more rapid rate than that of the younger demographic. The data indicates that, from 1991 onward, the ageing index for women has consistently surpassed that of men, suggesting a larger population of older women in Nepal. This observation is in line with worldwide trends associated with variations in life expectancy between genders. Similarly, the increase of the median age from 19.9 years in 1981 to 26.0 years in 2021 indicates that both the younger and older segments of the population are growing, despite their varying paces. This pattern of median age growth indicates that, with the current younger population's transition into older age groups, the percentage of senior individuals will continue to grow, thereby raising the ageing index in upcoming decades.

Nepal's old age dependency ratio (OADR) increased significantly over several censuses, notably from 1981 to 2021. When comparing the population aged 60 and over to the working-age population (aged 15–59), this ratio is computed. Understanding the demographic changes and societal consequence of Nepal's ageing population is possible through the analysis of this data. The OADR increased from 10.8 percent in 1981 to roughly 14.2 percent in 2021. Thus, an increasing proportion of older persons are depending on a comparatively smaller working-age population, which may put financial strain on healthcare and social security systems.

Table 4.8: Measures of ageing

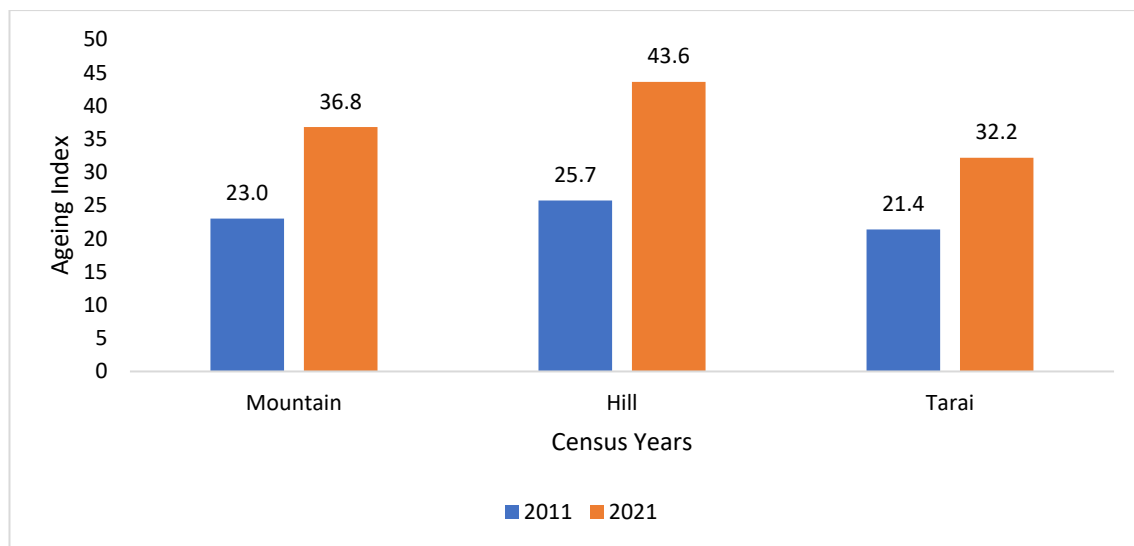
Census Year		60+ Population (%)	Old age dependency ratio	Index of ageing	Median age (total population)
1981	Both	5.7	10.8	13.8	19.9
	Men	5.9	11.2	13.9	19.5
	Women	5.5	10.3	13.6	20.3
1991	Both	5.8	11.2	13.7	18.9
	Men	5.7	11.6	13.5	18.4
	Women	5.4	10.8	13.8	19.4
2001	Both	6.5	12.0	16.5	20.0
	Men	6.6	12.3	16.3	19.0
	Women	6.4	11.7	16.7	20.0
2011	Both	8.1	14.3	23.3	22.3
	Men	8.3	15.1	22.6	21.3
	Women	8.0	13.6	24.0	23.1
2021	Both	10.2	14.2	36.7	26.0
	Men	10.1	14.3	34.1	25.0
	Women	10.3	14.1	39.5	27.0

Source: NPHC 2021, *Population composition of Nepal, volume I, Table 4.1, National Statistics Office, Kathmandu. Chalise (2023)*

4.7.2 Index of ageing based on 60 years and over by ecological regions

Classification by ecological regions has been crucial for the study of ageing in Nepal. Figure 4.7 shows how the index of ageing differs by ecological regions in two recent censuses, namely 2011 and 2021. Across this period, a pronounced increase can be seen in the Hill zone, from 25.7 in 2011 to 43.6 in 2021. This is followed closely by Mountain and Tarai. Hill and Mountain zones show rapid rates of population ageing compared to Tarai.

Figure 4.7: Ageing index based on 60 years and over by ecological zones of Nepal

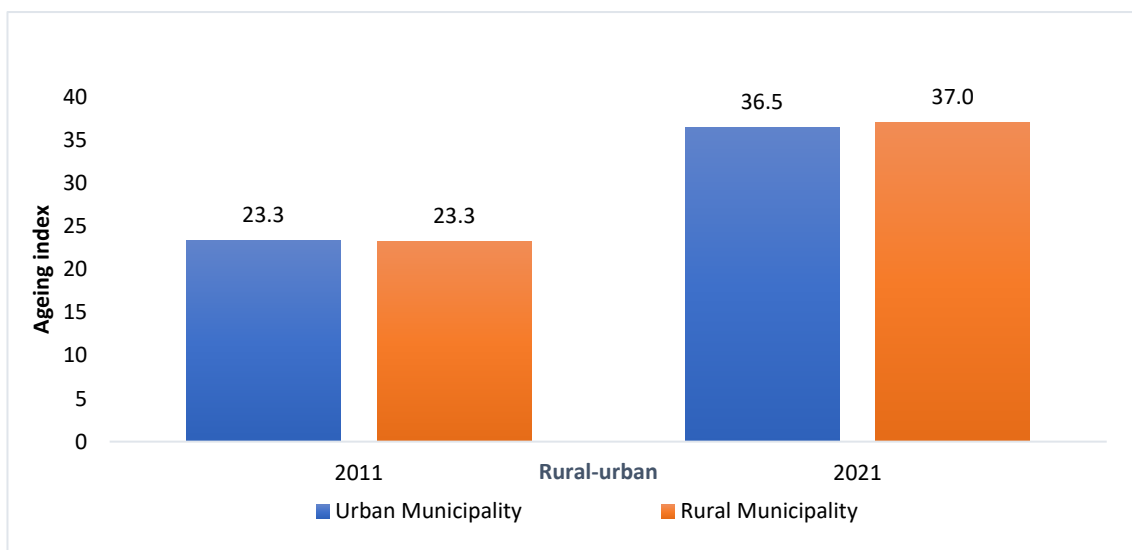


Source: NPHC 2011-2021

4.7.3 Index of ageing based on 60 years and over by urban-rural municipality

Despite the popular notion that rural areas have younger populations due to greater birth rates, migration patterns have a substantial impact on the age demographics of both urban and rural communities. Young individuals frequently move from rural to urban regions for education and employment opportunities, leaving a larger number of older persons in rural communities. Meanwhile, urban regions attract younger migrants, momentarily lowering the ageing index relative to rural areas. However, as seen in Figure 4.8, the ageing index has increased in both urban and rural areas between 2011 and 2021, increasing by nearly 13 points in each census.

Figure 4.8: Ageing index based on 60 years and over by urban-rural municipality

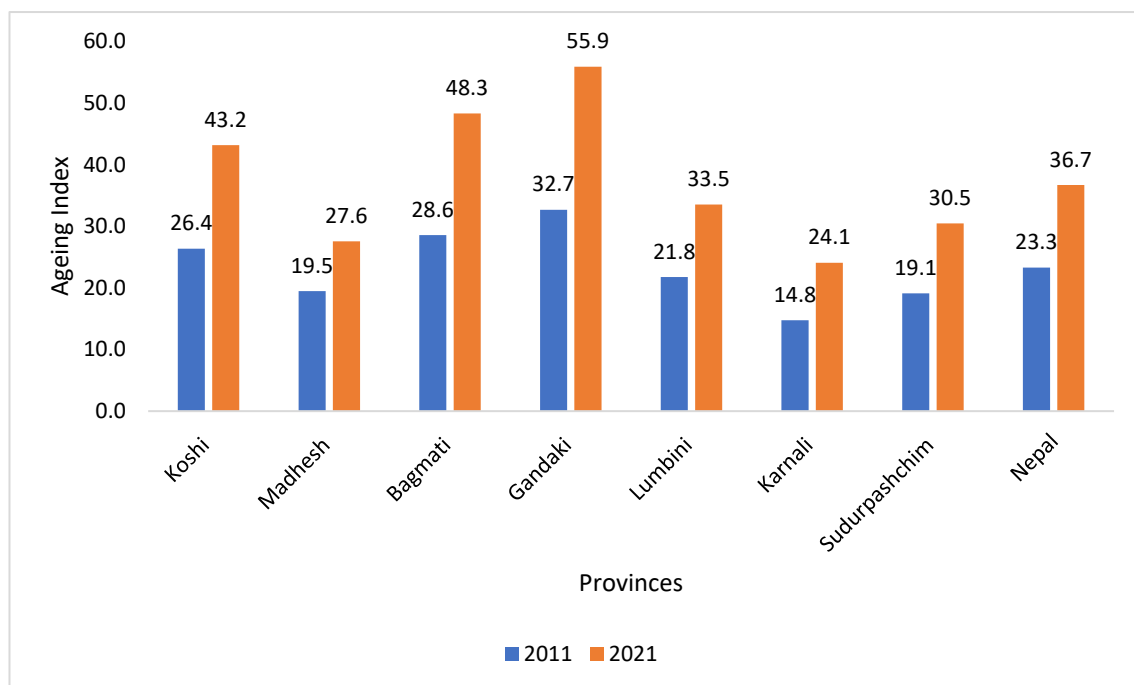


Source: NPHC 2011-2021

4.7.4 Index of ageing based on 60 years and over by provinces

Provinces of Nepal were formed officially at national level on 20 September 2015 in accordance with Schedule 4 of the Constitution of Nepal. The new provincial system comprises of seven provinces, replacing the earlier system where Nepal was divided into 14 administrative zones which were grouped into 5 development regions. The newly established provinces of Nepal are Koshi, Madhesh, Bagmati, Gandaki, Lumbini, Karnali and Sudurpashchim.

Figure 4.9 shows the index of ageing per provinces and the index of ageing rate change over a decade. In 2021, Gandaki Province showed the highest index of ageing at 55.9; a notable rise from 32.7 in 2011. Bagmati follows closely with an increase 48.3 in 2021 from 28.6 in the previous decade. In contrast, Madhesh and Karnali show lower index of ageing values in 2021, at 27.6 and 24.1 respectively. Notably, Sudurpashchim Province showed an index of ageing increase from 19.1 in 2011 to 30.4 in 2021, despite being often seen as more rural and less developed province. Koshi has seen its ageing index increase from 26.4 to 43.2 over the same period. This data indicates a nationwide trend of population ageing, with each region showing increases over the decade.

Figure 4.9: Ageing index based on 60 years and over by provinces

Source: NPHC 2011-2021

4.7.5 Index of ageing based on 60 years and over by districts

Map 4.1, Map 4.2 and Annex 1 show the index of ageing by district for the census years 2011 and 2021, based on 60 years and over as the older population. The overall index of ageing for the 60 years and over age group increased from 23.3 in 2011 to 36.7 in 2021. Districts from Gandaki Province saw the highest ageing index, with Manang at 90.3 in 2021 and Mustang at 52.8 in 2011. Jajarkot district remained the lowest across both census years (11.4 in 2011 and 18.7 in 2021). Jumla and Bajura showed lower indices at 13.3 and 17.2 in 2011 and at 21.4 and 25.1 in 2021 respectively, indicating a consistent trend in provinces such as Karnali and Sudurpashchim. Eastern districts such as Jhapa and Morang also saw an increase in their ageing index, with Morang increasing from 26.2 to 41.9. Urban area represented by districts like Kathmandu (increasing from 25.4 to 43.3) and Lalitpur (increasing from 32.5 to 52.8) have seen moderate increases and districts in Tarai have additionally seen a moderate ageing trend.

The districts with the highest growing ageing index are as follows:

- i) Manang: 48.5 (2011) to 90.3 (2021), increase by 41.8;
- ii) Ramechhap: 34.0 (2011) to 72.2 (2021), increase by 38.2;

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iii) Lamjung: 39.8 (2011) to 75.9 (2021), increase by 36.1;

iv) Syangja: 37.5 (2011) to 72.3 (2021), increase by 34.8.

The districts with the lowest growing ageing index are as follows:

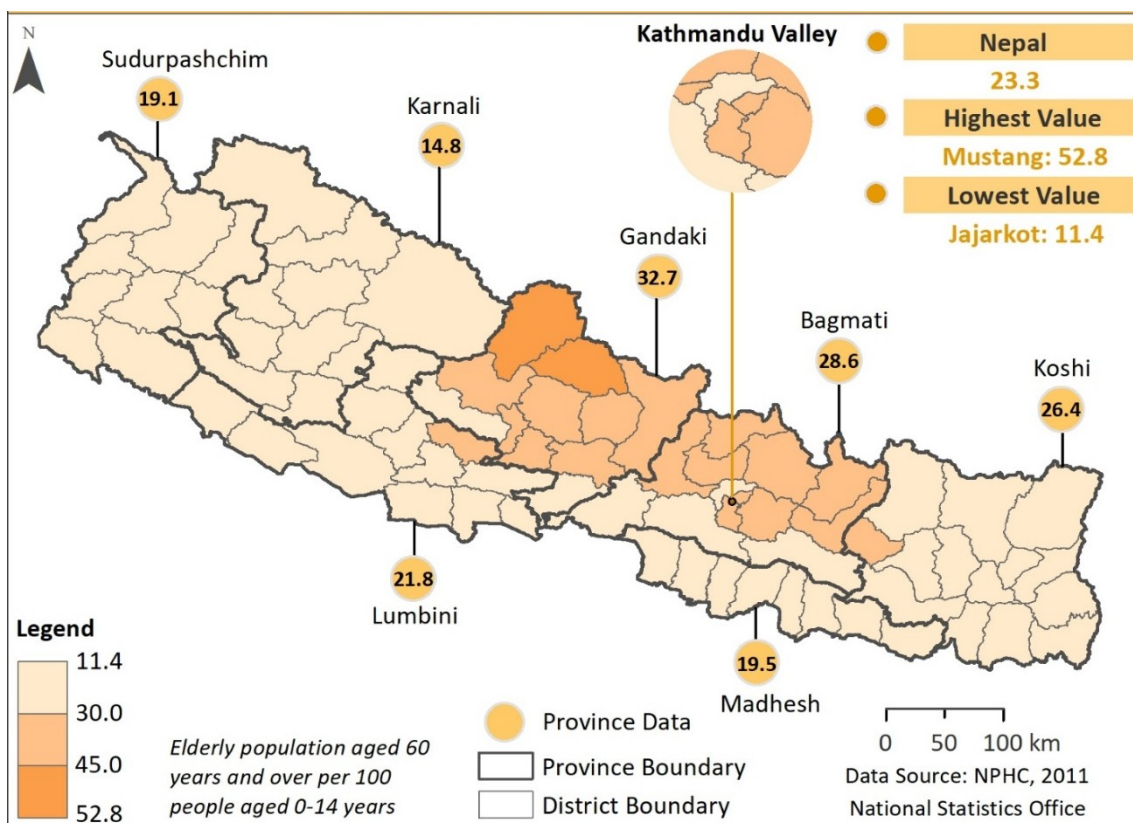
i) Mugu: 16.6 (2011) to 20.2 (2021), decrease by 3.6;

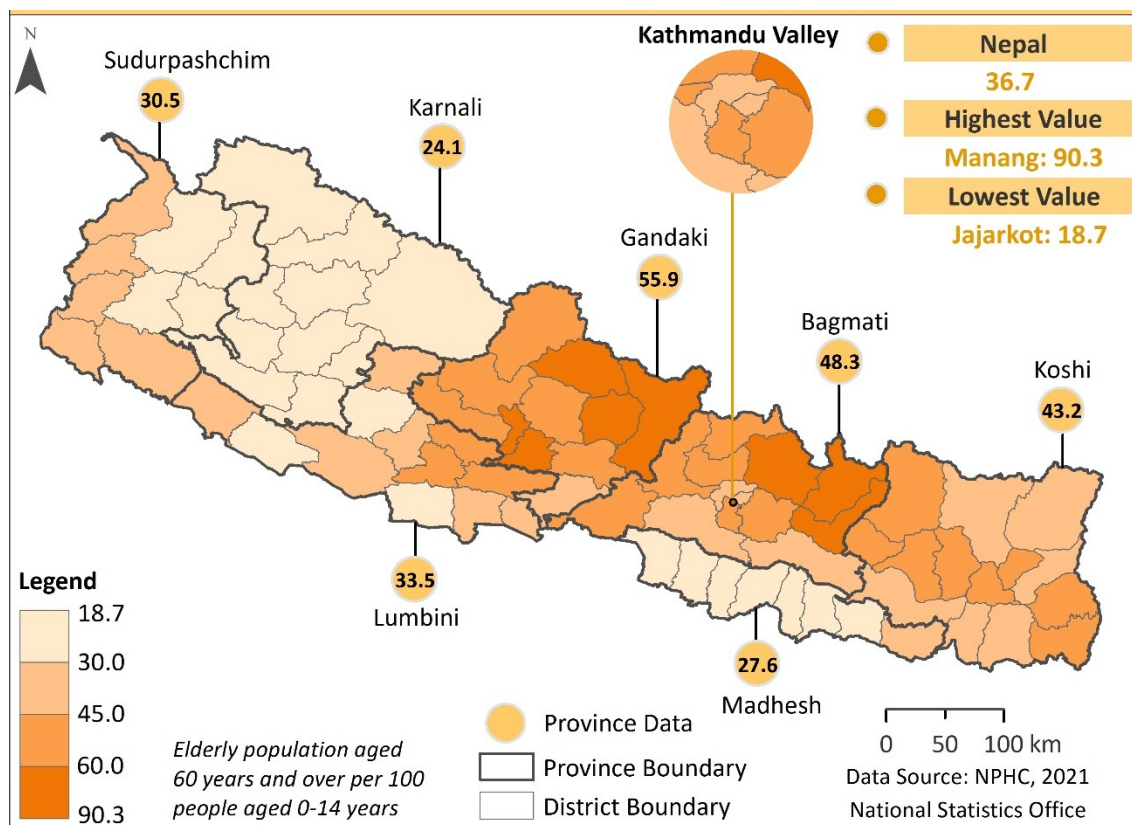
ii) Rautahat: 18.5 (2011) to 22.2 (2021), increase by 3.7;

iii) Mustang: 52.8 (2011) to 56.6 (2021), increase by 3.9;

iv) Dolpa: 14.4 (2011) to 19.6 (2021), increase by 5.1.

Map 4.1: Ageing index based on 60 years and over by province and district, Nepal 2011 census

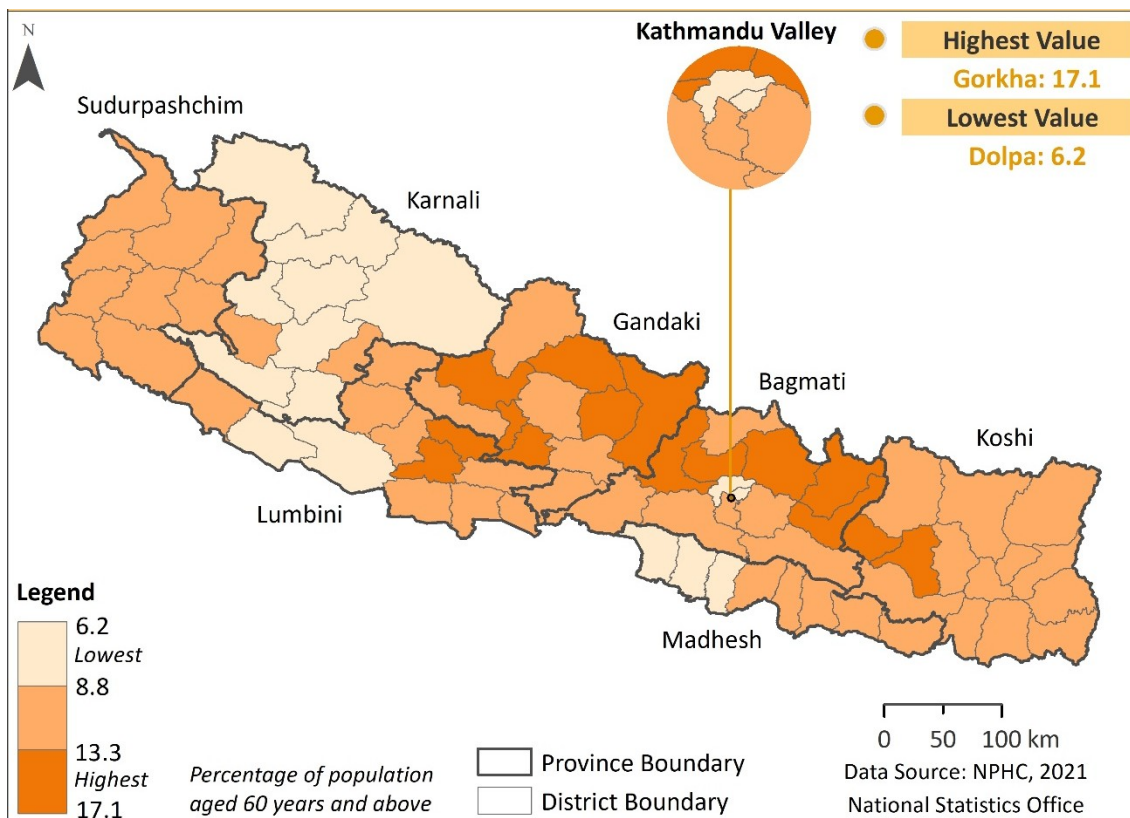


Map 4.2: Ageing index based on 60 years and over by province and district, Nepal 2021 census

4.7.6 Lowest and highest 15 districts of population aged 60 and over (2021 census data)

The proportion of the older population in the group aged 60 years and over, with respect to the total population of the individual districts, are analyzed in this section using Map 4.3 and Annex 5. A set of 30 districts are highlighted, consisting of 15 districts ranking in the 'higher high' value range and 15 districts ranking in the 'lower low' range, based on the proportion of older persons.

Map 4.3: Districts with lowest and highest population aged 60 years and over, Nepal 2021 census

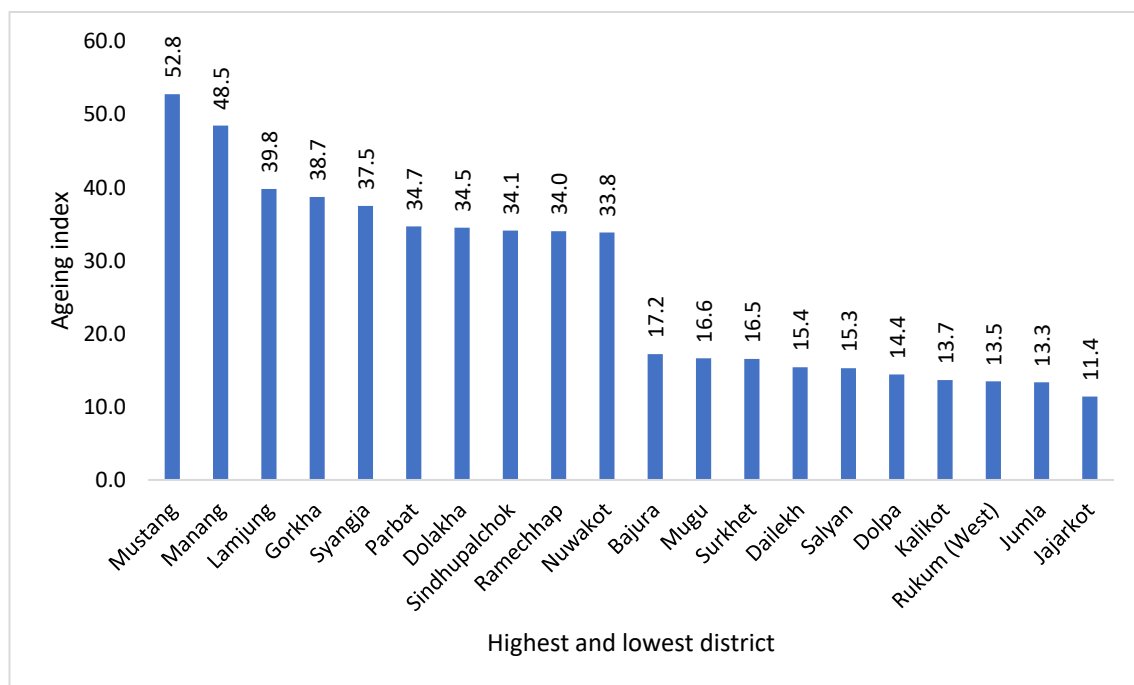


Gorkha (17.1%), Ramechhap (16.9%), Lamjung (16.7%), Syangja (16.3%) and Dolakha (15.9%) lead in their percentage proportion rates of older populations, with the top fifteen ranging within 13.3 to 17.1 percent, mostly from Bagmati and Gandaki provinces and a few each from Lumbini and Koshi provinces. Similar to what has been identified earlier in this report with regard to index of ageing, the concentration of older persons is seen within these regions and marked in Map 4.3 which represents the 15 districts in the darkest shade. Furthermore, in the same map, districts with a lower proportion of older persons can be distinctly identified by the lightest shades and the remaining areas with a different shade in-between. The districts with the lowest proportions include Dolpa (6.2%), Jumla (6.8%), Jajarkot (6.9%), Mugu (7.5%) and Kalikot (7.8%). These districts cover Karnali Province and include a few Bagmati and Madhesh provinces districts.

4.7.7 Index of ageing based on age 60 and over per highest and lowest 10 districts (2011 census data)

The below figure shows the index of ageing in 2011 for the ten highest and the ten lowest districts in Nepal. Mustang and Manang lead with the highest indices, suggesting a significantly larger proportion of older person population. Lamjung, Gorkha and Syangja also show relatively high indices, reflecting mature demographic profiles whom might require focused healthcare and senior services in these areas. Kalikot, Rukum (West), Jumla and Jajarkot register the lowest indices, indicating a younger demographic structure with potentially different socio-economic needs such as education, employment opportunities, and maternal health services (see Annex 4).

Figure 4.10: Ageing index (60 years and over) by highest and lowest 10 districts, Nepal 2011 census

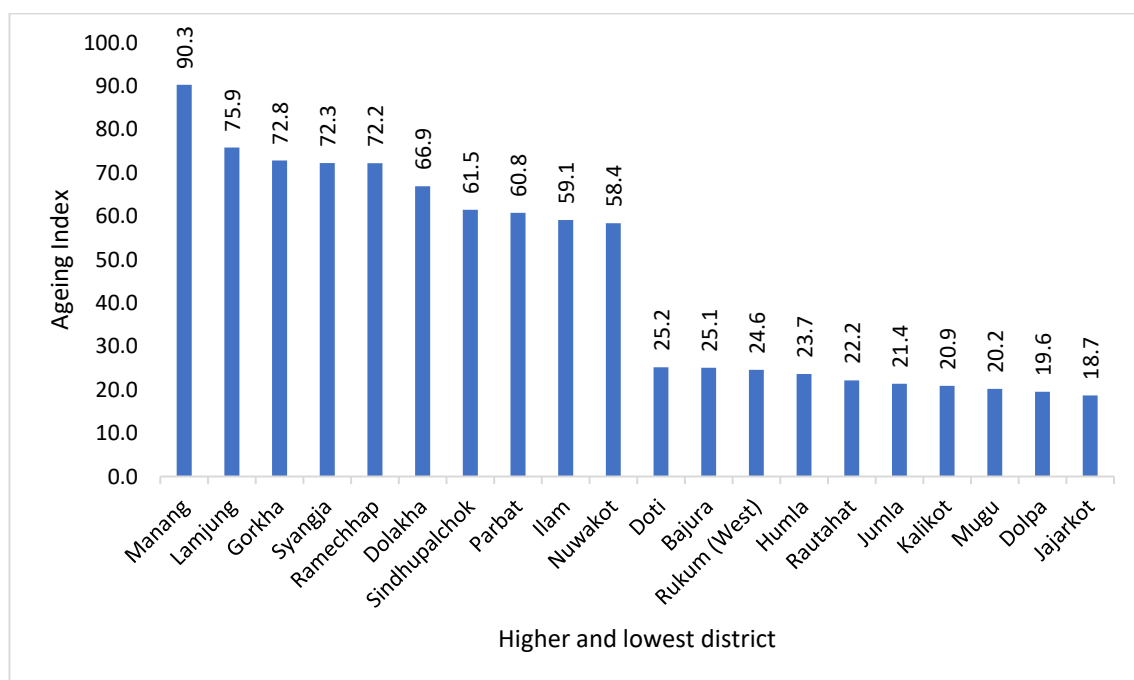


4.7.8 Index of ageing based on age 60 and over per highest and lowest 10 districts (2021 census data)

Figure 4.11 shows the index of ageing for Nepal's districts in 2021, highlighting the ten districts with the highest and lowest ageing indices. Manang has the highest index at 90.3, followed by Lamjung (75.9), Gorkha (72.8), and Syangja (72.3). Similarly, Jajarkot (18.7) has the lowest index,

followed by Dolpa (19.6), Mugu (20.2), and Kalikot (20.9). These districts, largely located in remote mountainous areas, have a younger population structure, likely due to higher fertility rates and lower outmigration compared to high-ageing districts. Manang, Gorkha, Ramechhap and Dolakha retain the top 10 index of ageing districts from 2011. Similarly, Dolpa, Jumla, Jajarkot, Rukum (West), Kalikot and Humla are in the lowest 10 districts since 2011, as found with comparisons previously (see Annex 5).

Figure 4.11: Ageing index of 60 years and over (highest and lowest 10 districts), Nepal 2021 census

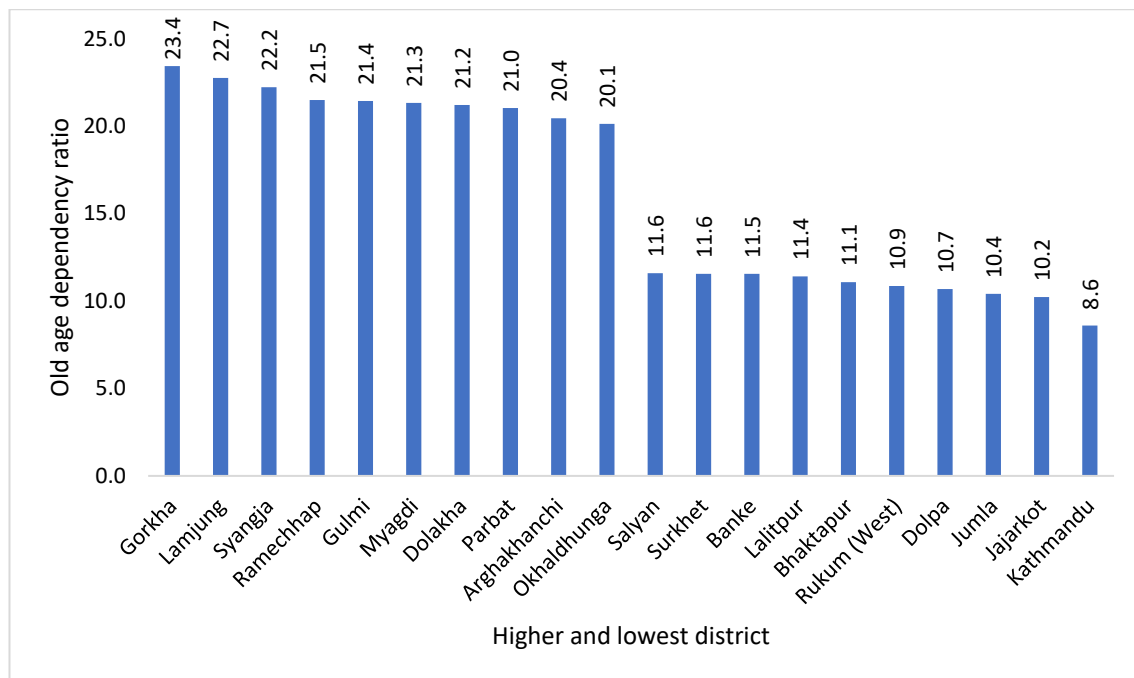


Source: NPHC 2021

4.7.9 Old age dependency ratio based on age 60 and over per highest and lowest 10 districts (2011 census data)

In 2011, rural and mountainous districts, led by Gorkha (23.4) and followed by Lamjung (22.7), Syangja (22.2), and Ramechhap (21.5) showed higher old age dependency ratio (OADR). Other districts including Gulmi, Myagdi, Dolakha, Parbat, Arghakhanchi and Okhaldhunga also follow closely within the value of this measure range (20.1 to 21.4). The concentration of working-age individuals from all over Nepal are seen in the ageing index for Kathmandu, with old age dependency at 8.6, being lowest in the country. Similarly, Jajarkot and Jumla are among the lower districts for OADR, potentially due to lower life expectancy or higher birth rates, showing a relatively younger population in 2011 (see Annex 8).

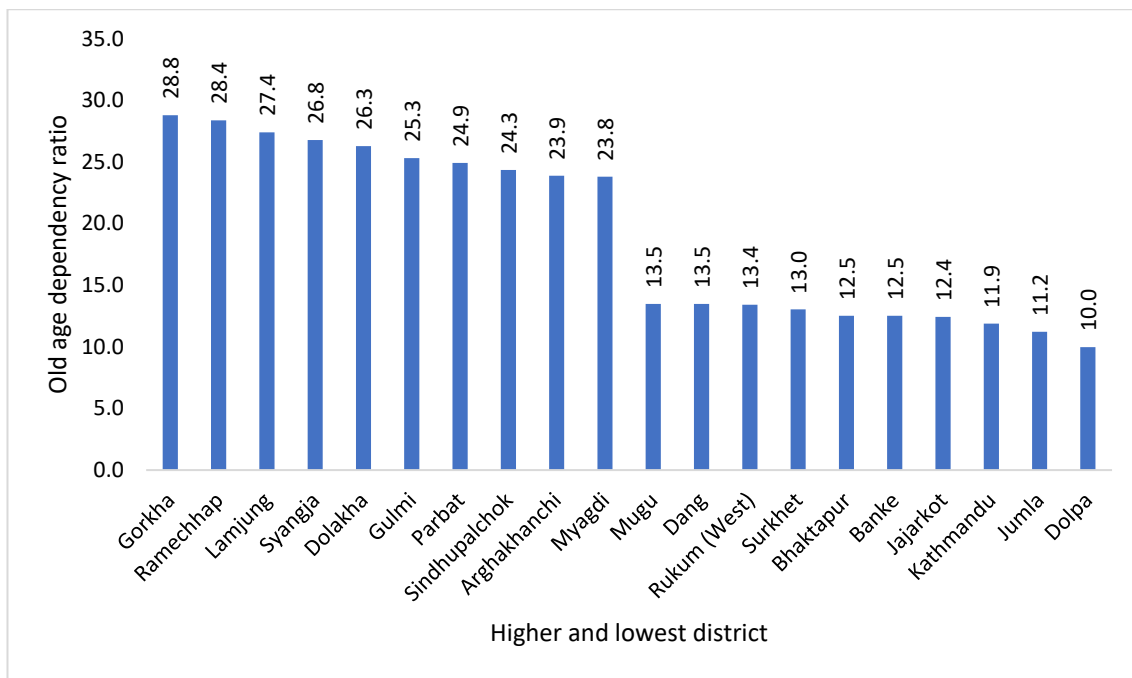
Figure 4.12 : Old age dependency ratio based on 60 years and over (highest and lowest 10 districts), Nepal 2011 census



4.7.10 Old age dependency ratio based on age 60 and over per highest and lowest 10 districts (2021 census data)

By 2021, OADR had increased across most districts, with Gorkha again showing the highest ratio at 28.79. The highest ten OADR districts remained constant with those in 2011, although some districts had significant increases in their ratios, such as Ramechhap (28.4), Lamjung (27.4), Syangja (26.8), Dolakha (26.3) and Gulmi (25.3). Urban centers including Kathmandu (11.9) and Bhaktapur (12.5) show low OADR in both years, with Dolpa (10.0) most notably replacing Kathmandu as the lowest OADR district in 2021. At the lower end of OADR, Jajarkot (12.4) and Rukum (West) (13.4) represent the status of Karnali and Lumbini provinces. There is not a single Karnali Province district in this list, indicating that these districts lie within the median range of this ratio (see Annex 9).

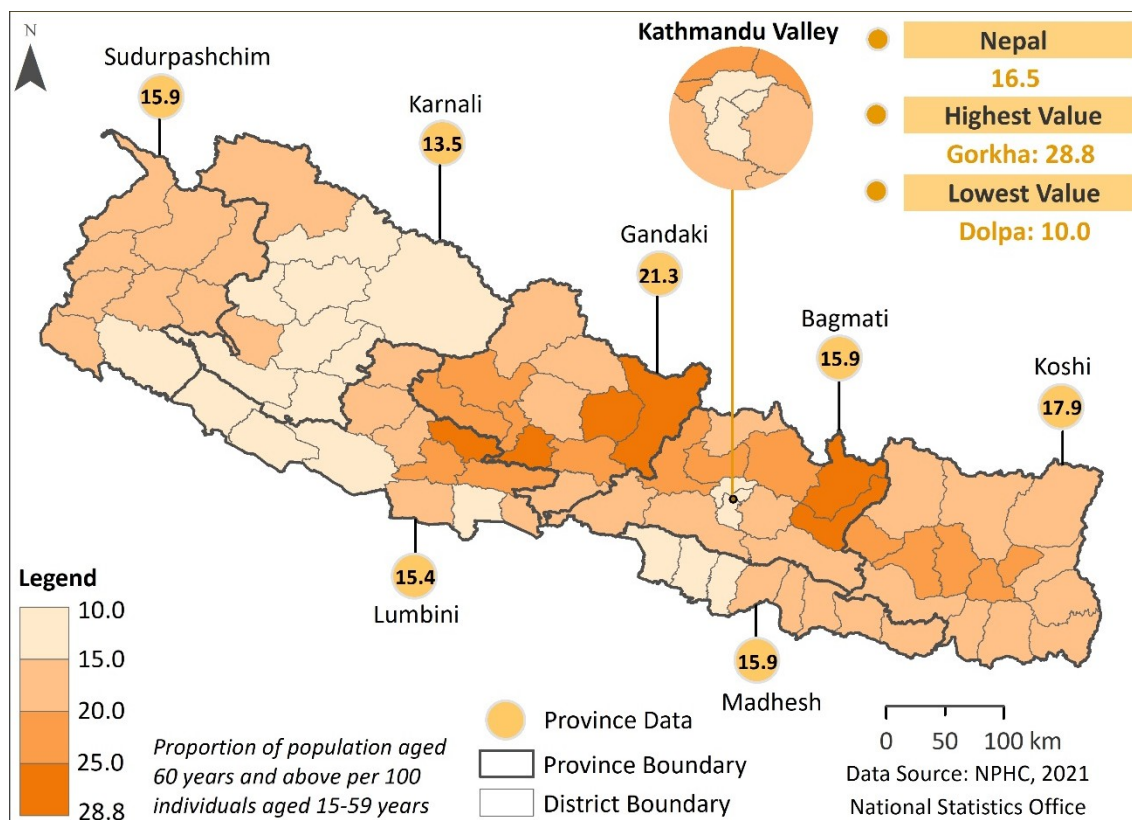
Figure 4.13: Old age dependency ratio of 60 years and over (highest & lowest 10 districts), Nepal 2021 census



4.7.11 Old age dependency ratio based on age 60 years and over by province and district (2021 census data)

The old age dependency ratio is a vital metric in demographic analysis which highlights the relationship between old age population and the working-age population. The OADR for the whole country of Nepal is at 16.5 for the 60 years and over age group.

Map 4.4: Old age dependency ratio (60 years and over), by province and district, Nepal 2021 census

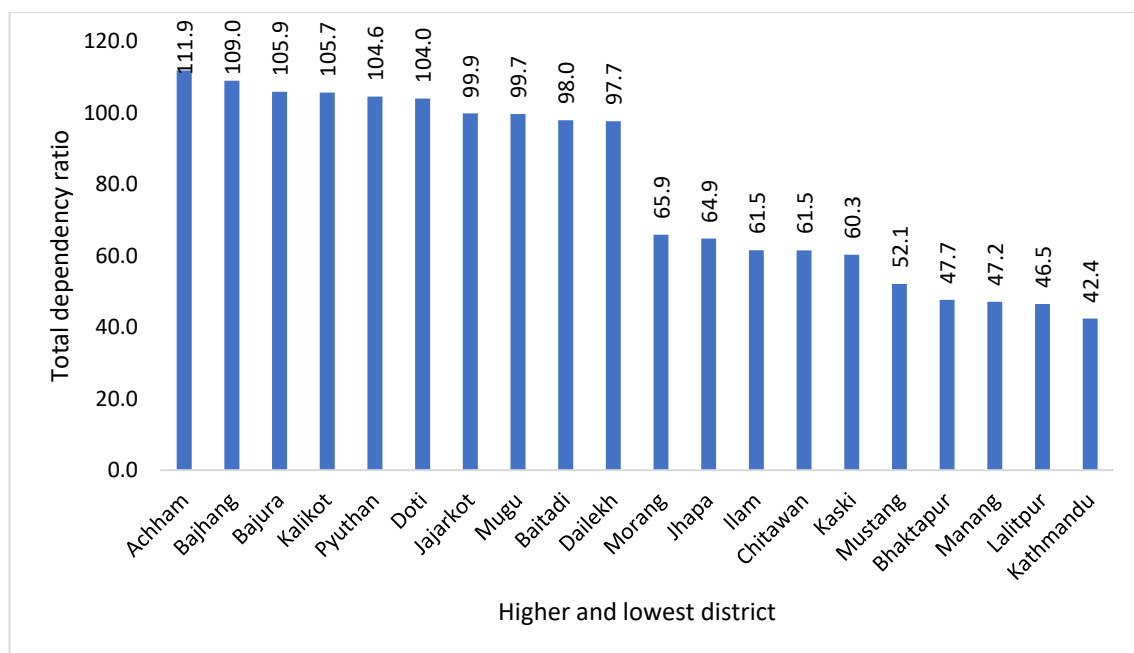


Gandaki has the highest dependency ratio for 60 years and over at a figure of 21.3 (marked by the darkest shade in Map 4.4), whilst Karnali Province has the lowest dependency ratio of 13.5 for 60 years and over (marked by lightest shade in Map 4.4). Among the districts, Ramechhap (28.4) and Gorkha (28.8) hold some of the highest dependency ratios for 60 years and over. Other notable districts with high ratios are Dolkha, Syangja, Lamjung and Parbat. Urban areas, including Kathmandu (11.9) and Bhaktapur (12.5) have a much lower dependency ratio, followed by Dolpa (10.0) and Jumla (11.2) of Karnali Province. All districts of Madhesh Province have an OADR very close to the provincial average of 15.9. Sudurpashchim tends to have a moderate OADR, with slightly higher numbers in mountainous districts like Achham (18.7) and Darchula (18.1). Gulmi (25.3) and Banke (12.5) show mixed data in the Lumbini Province.

4.7.12 Total dependency ratio based on age 60 and over per highest and lowest 10 districts (2011 census data)

Figure 4.14 shows the dependency ratio for Nepal's districts in 2011, highlighting the ten districts with the highest and lowest ratios. Achham (111.9) has the highest dependency ratio, followed by Bajhang (109.0), Bajura (105.9), Kalikot (104.6) and Pyuthan (104.0). Most of these districts are in lesser developed areas, particularly in the Hill and Mountain zones. Urban centers like Kathmandu (42.4), Lalitpur (46.5), Bhaktapur (47.7), along with some districts from Gandaki Province – Manang (47.1), Mustang (52.1) and Kaski (60.3) – show lower TDRs. Ilam (64.8) and Morang (65.9) from Koshi Province presenting the lower TDRs can be associated with the economic activities and opportunities at the border districts with India, attracting many workers in the active age groups. (see Annex 6)

Figure 4.14: Total dependency ratio (highest and lowest 10 districts) 60 years and over, Nepal 2011 census

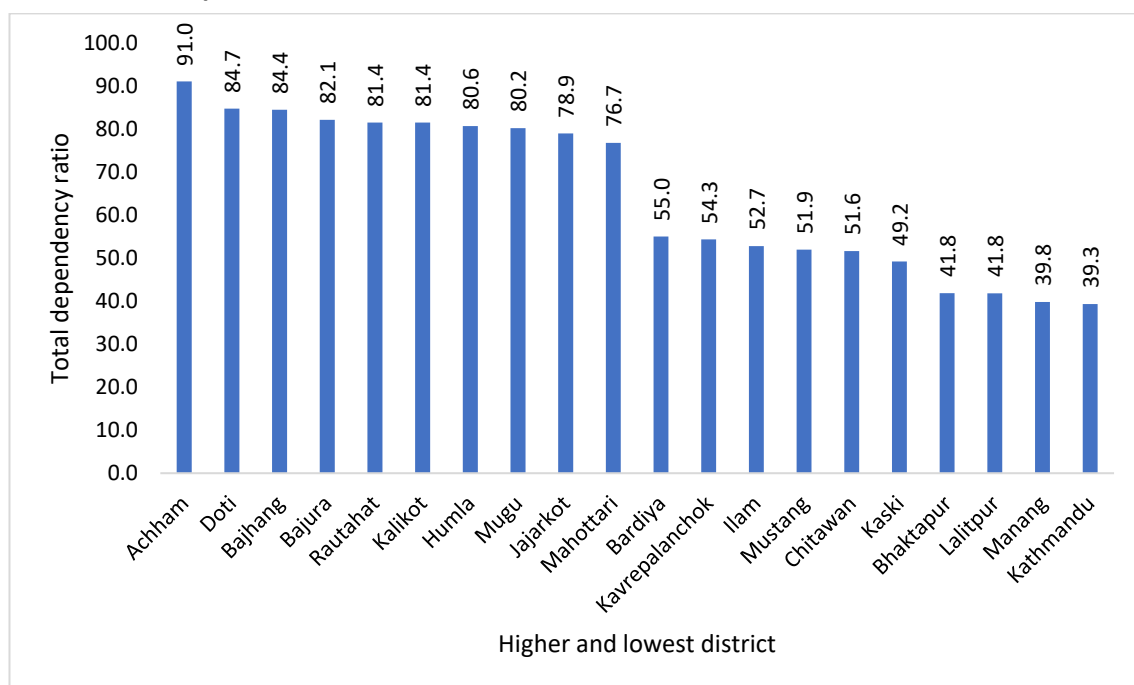


4.7.13 Total dependency ratio based on age 60 and over per highest and lowest 10 districts (2021 census data)

Many districts with high dependency ratios in 2011 showed a lower figure in 2021. For instance, Achham decreased from 111.9 to 91.0, and Bajhang decreased from 109.0 to 84.4 in 2021. Other high-dependency districts, such as Doti, Bajura and Kalikot, also decreased slightly within this period. Since 2011, only three districts have changed in the highest 10 TDR in 2021; Pyuthan,

Baitadi and Dailekh moved out of the highest 10, while Rautahat (81.4), Humla (80.6) and Mahottari (76.7) joined the highest ten TDR districts. Urban districts in Bagmati Province, including Kathmandu (39.3), Lalitpur (41.8), Bhaktapur (41.8) and Manang (39.8) showed lower TDRs in 2021, similarly to 2011. This trend in urban areas aligns with trends in other countries where the economic opportunities and urbanization have reduced the dependency (see Annex 7).

Figure 4.15: Total dependency ratio of 60 years and over (highest and lowest 10 districts), Nepal 2021 census



4.7.14 Total dependency ratio based on age 60 years and over by province and district (2021 census data)

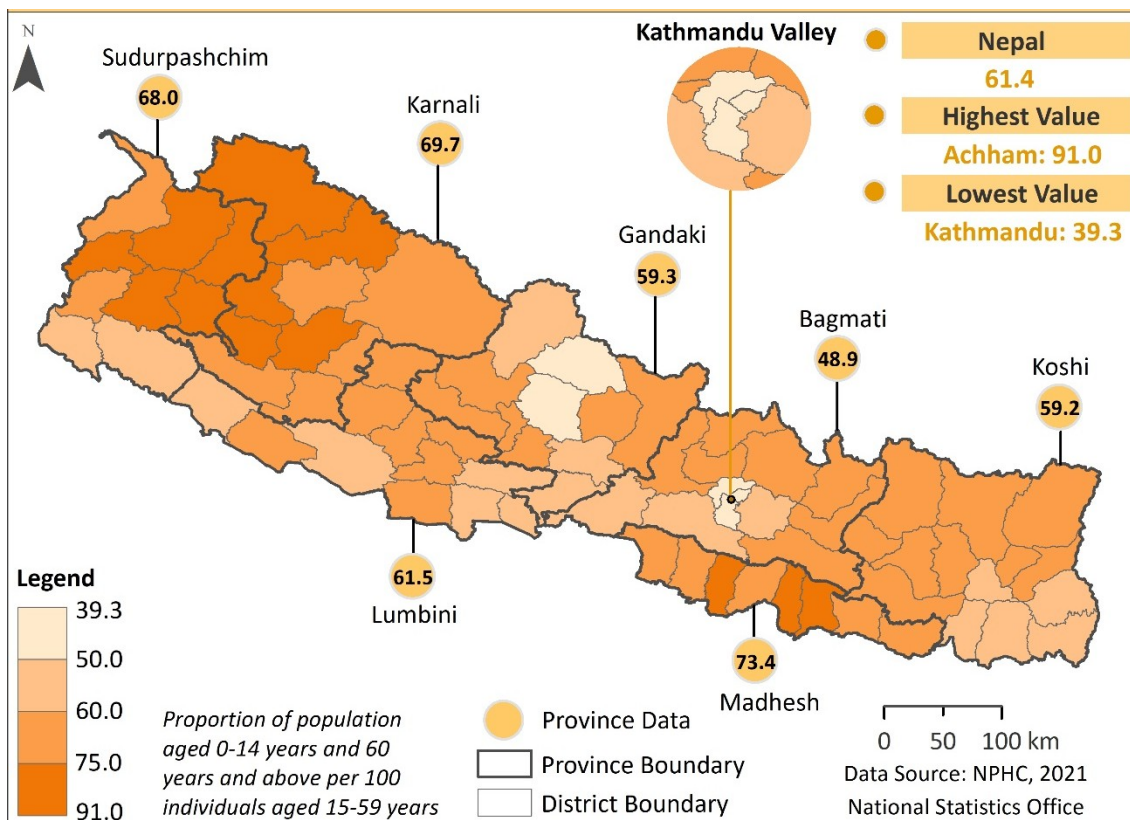
The total dependency ratio expresses dependency upon the working age population and does so by measuring how much dependents exist for every 100 working-age people in Nepal. Map 4.5 demonstrates the distribution of this key ageing indicator across Nepal, based on 2021 census data for the 60 year and over age group (see Annex 10).

TDR at the national level is 61.4 for 60 years and over. At province level, Madhesh has the highest TDR (73.4), followed closely by Karnali (69.7) and Sudurpashchim (67.9). Bagmati has the lowest TDR of 48.8, adding to the fact that most of the districts in Bagmati contain a larger working age population despite rapid ageing. Gandaki, Koshi and Lumbini provinces sit in the moderate

region for this indicator. Koshi Province's dependency ratio of 59.2 is the closest to national averages.

At district level, Achham (Sudurpashchim Province) records the highest TDR, at 91.0 (for 60 years and over). Doti (84.7), Bajhang (84.4), and Kalikot (81.4) follow closely. Both Manang (39.8) and Kathmandu (39.3) can be seen at the lowest end of the TDR. Bhaktapur (41.8) and Lalitpur (41.8) also show low TDRs, with other districts in Bagmati showing higher TDRs. Rautahat's TDR at 81.4 is the highest. At 67.3, the TDR of Saptari is higher than the national average, yet this figure still reflects the dependency extremity of Madhesh Province. In Gandaki Province, dependency is overall moderate, yet the Mountain zone areas such as Manang and Mustang show a very low TDR. Kailali, Jajarkot, Accham and Doti are the districts in Karnali and Sudurpashchim with higher TDRs, showing a high number of dependents in those rural areas (see Annex 11).

Map 4.5: Total dependency ratio (60 years and over), by province and district, Nepal 2021 census



4.8 Determinants of population ageing: fertility, mortality, migration and life expectancy

A brief historical overview of Nepal's major demographic indicators from 1952 to 2021 is given in Table 4.9, which highlights significant patterns in life expectancy, fertility, infant mortality, migration and the ageing population aged 60 and over. The Total Fertility Rate (TFR) has drastically decreased, from 5.7 in 1961 to 1.94 in 2021, suggesting a change in reproductive behavior. As healthcare has improved, the Crude Death Rate (CDR) has also steadily decreased, from 22.0 per 1,000 in 1961 to 6.81 in 2021.

The infant mortality rate (IMR) has drastically decreased, from 193 per 1,000 live births in 1961 to 17.1 in 2021, indicating advancements in maternal and child health care. Life expectancy of men climbed from 37.0 years in 1961 to 68.8 years in 2021, while life expectancy of women increased from 39.9 years to 74.3 years. These increases represent significant increases in life expectancy at birth. The population is ageing, evidenced by the steadily increasing percentage of those 60 years and over, which reached 10.2 percent in 2021. The absentees' population living abroad in 1952/54 was 2.4 percent and it has continually increased up to 7.5 percent in 2021, with the exception of the 1981 census. Absentees' population growth trend is similar to the ageing population growth. As the absentee population increases, the older person population that is left behind experiences isolation. As a result, they may become psychologically weaker and physically unhealthy.

Table 4.9: Trends in fertility, mortality, migration and life expectancy in Nepal (per census year)

Census Year	CBR	TFR	CDR	IMR	Life expectancy (M/F)		Absentees % (living abroad)	60+ Population %
1952/54	45-50	-	36.7	-	27.1	28.5	2.4	5.0
1961	47.0	5.74	22.0	193	37.0	39.9	3.5	5.2
1971	43.0	5.83	21.4	172.0	42.1	40.0	-	5.4
1981	45.0	6.39	13.5	117.0	50.9	48.1	2.7	5.7
1991	39.0	5.16	13.3	97.0	55.0	53.5	3.6	5.8
2001	33.0	3.25	10.3	64.0	60.8	61.0	3.3	6.5
2011	22.4	2.52	7.3	40.5	66.6	67.9	7.3	8.1
2021	14.21	1.94	6.81	17.1	68.8	74.3	7.5	10.2

Source: CBS, 2003, 2014, *Population Monograph of Nepal*, volume. I

NPHC, 2021 | Chalise, 2023 | NSO, 2023^a | NSO, 2025a | NSO, 2025b

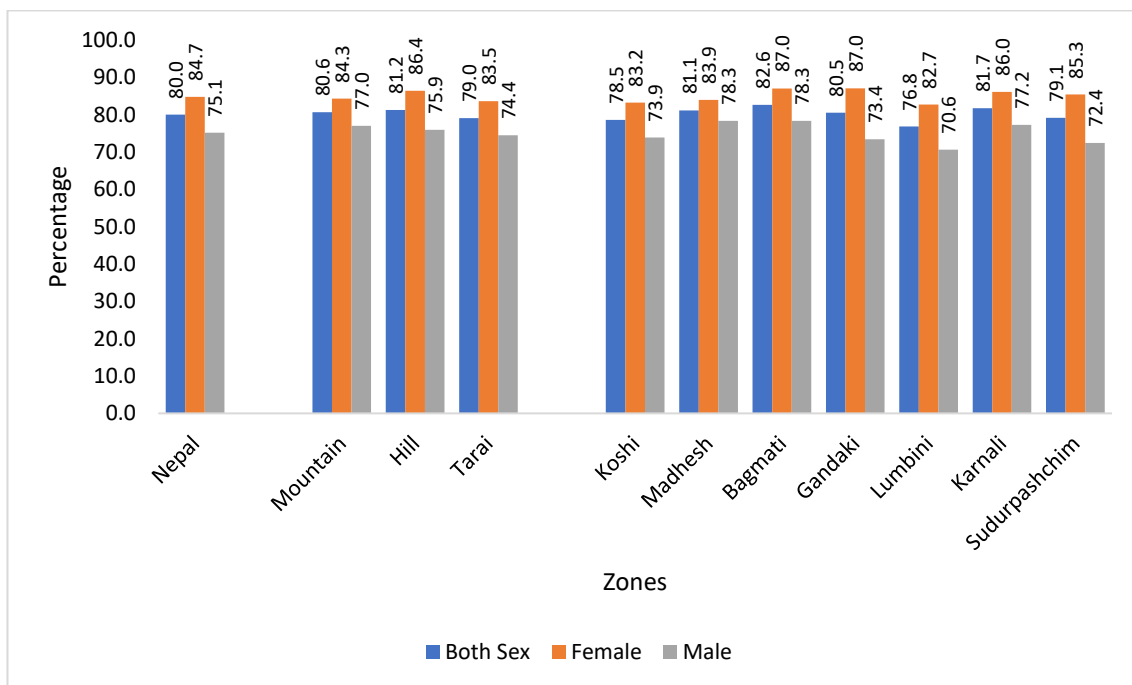
Nepal is therefore experiencing a notable demographic shift marked by longer life spans, an increasing older person population, and reduced fertility and mortality rates. This change is reflected in the demographic trends seen throughout the nation.

4.9 Percentage surviving to age 60 by ecological zone and provinces, 2021

Based on the 2021 census, Figure 4.16 shows the proportion of Nepalese people who live to be 60 years of age, broken down by ecological zones and provinces. At the national level, 80 percent of people of both sexes live to be 60 years of age, with women having a higher survival rate (84.7%) than men (75.1%). At 80.6 percent, the survival rate in the Mountain zone is marginally higher than the national average, with men at 77.0 percent and women at 84.3 percent.

Among all zones, the Hill region has the highest survival rate of 81.2 percent overall (86.4% for women and 75.9% for men). Compared to other zones, the Tarai region has lowest survival rates at 79.0 percent overall (83.5% for women and 74.4% for men). The high survival rates in provinces like Bagmati (82.6%), which encompasses Kathmandu, indicates improved conditions. Lower survival rates in provinces such as Lumbini (76.8%) suggest worse conditions (see Annex 12).

Figure 4.16: Percentage surviving to age 60 by ecological zone and provinces, Nepal 2021 census

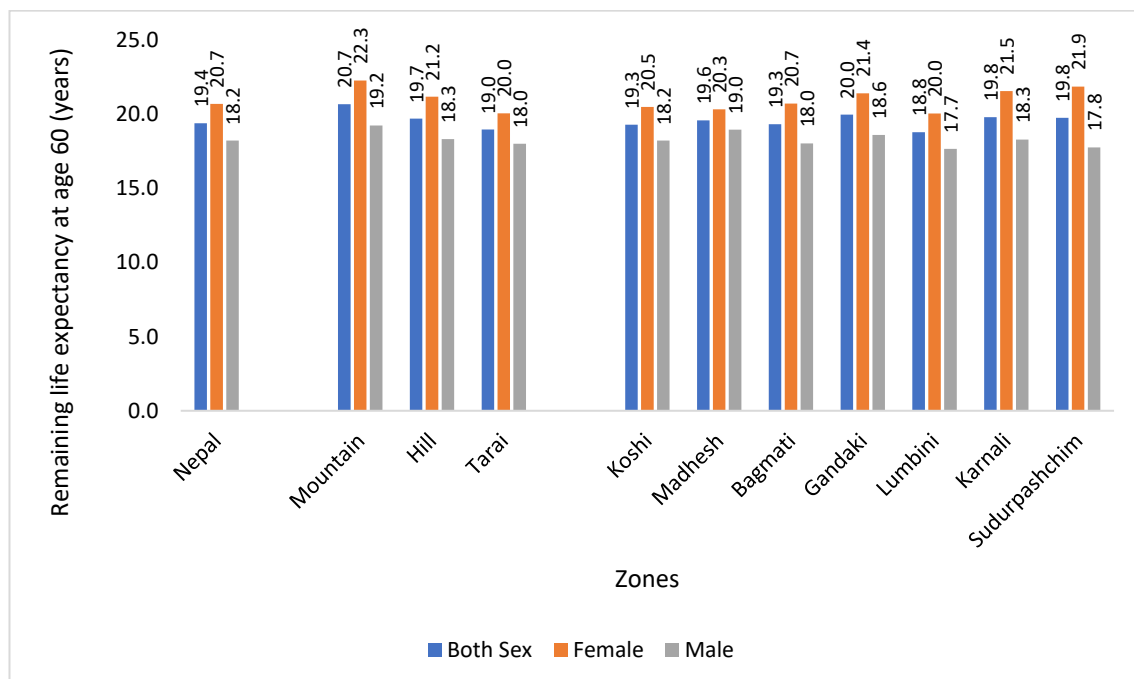


Source: NPHC, 2021

4.10 Remaining life expectancy at age 60 by ecological zones, provinces, and Nepal

Based on data from the 2021 census, Figure 4.17 shows life expectancy statistics for people in Nepal who are 60 years and over. At the national level, both sexes have an average life expectancy of 19.4 years after turning 60, with women projected to outlive men by 20.7 years as opposed to 18.2 years.

Figure 4.17: Remaining life expectancy at age 60 by ecological zones, provinces, and Nepal



Source: NPHC 2021

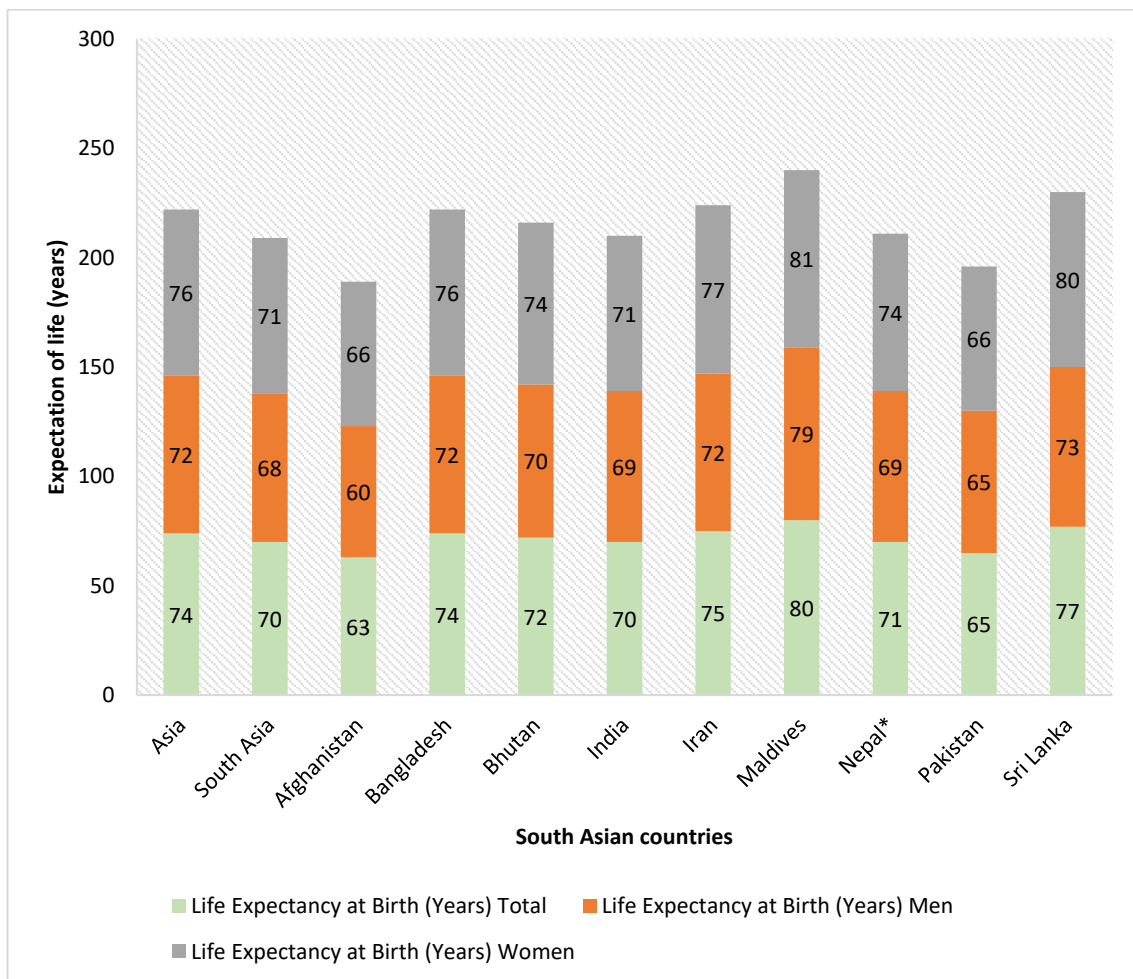
The life expectancy of all sexes in Nepal is at an average of 19.4 years, whereas for men the rate is 18.2 years and for women the figure increases to 20.7 years. The highest life expectancy by ecological zone is found in the Mountain zone, where the total life expectancy is 20.7 years (22.3 years for women and 19.2 years for men). The Hill region follows with an average life expectancy of 19.7 years (21.2 years for women and 18.3 years for men). Of these zones, the Tarai region shows the lowest post-aged 60 life expectancy with an average of 19 years (18 years for women and 20 years for men).

Provinces such as Sudurpaschim show higher post-aged 60 life expectancies, especially for women (21.9 years). Lower overall figures in provinces such as Lumbini (18.8 years) show regional differences in lifestyle characteristics.

4.11 Life expectancy at birth across the South Asian Association for Regional Cooperation (SAARC) region by sex (2023)

The average life expectancy at birth in South Asian nations, which is 70 years, with a consistent trend of women outliving men. Afghanistan has the lowest life expectancy (66 years), In contrast, countries such as the Maldives (80 years) and Sri Lanka (77 years) have better expectation of life. India (70 years) and Iran (75 years) show moderate life expectancy while Nepal (71 years) reflect average figures.

Figure 4.18 : Life expectancy at birth in SAARC region by sex, 2023



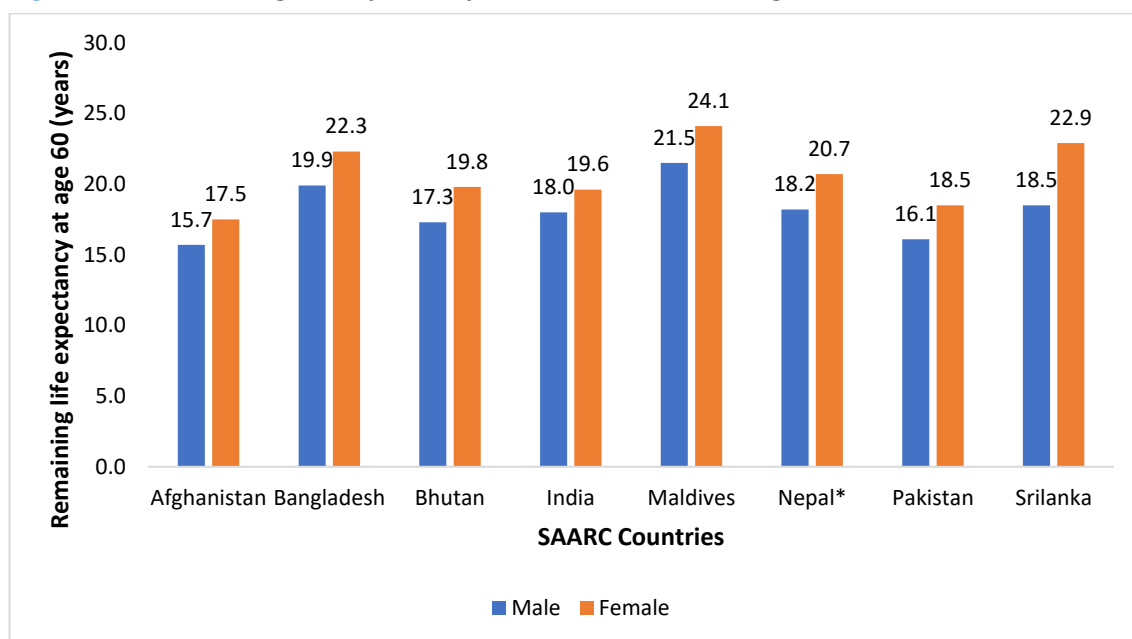
Note: Each segment represents the life expectancy (in years) for a specific group (Total, Men, Women); y-axis (years) values are not cumulative and should be interpreted independently.

Source: PRB, 2023, *NPHC 2021

4.12 Remaining life expectancy of SAARC countries at age 60

Figure 4.18 shows the average life expectancy at birth in South Asian nations, which is 70 years, with a consistent trend of women outliving men. Afghanistan has the lowest life expectancy (66 years), which can be attributed to healthcare instability, ongoing conflict, and poor living conditions. In contrast, countries such as the Maldives (80 years) and Sri Lanka (77 years) benefit from stronger healthcare systems, higher socioeconomic development, and better public health initiatives. India (70 years) and Iran (75 years) show moderate life expectancy figures due to relatively developed healthcare systems and economic growth. Meanwhile, Nepal (71 years), Bhutan (72 years), Bangladesh (74 years), and Pakistan (65 years) reflect average figures influenced by limited healthcare access and varying levels of poverty and education. Pakistan has the smallest gender gap (women at 66, men at 65), possibly due to cultural factors affecting health behaviors across genders, while Sri Lanka has the largest gender gap (women at 80, men at 73). Given that the regional average is 70 years, this placement is especially significant because it shows that Nepal is at the same level as the South Asian average.

Figure 4.19: Remaining life expectancy of SAARC countries at age 60



Source: UNDESA, 2022, *NPHC 2021

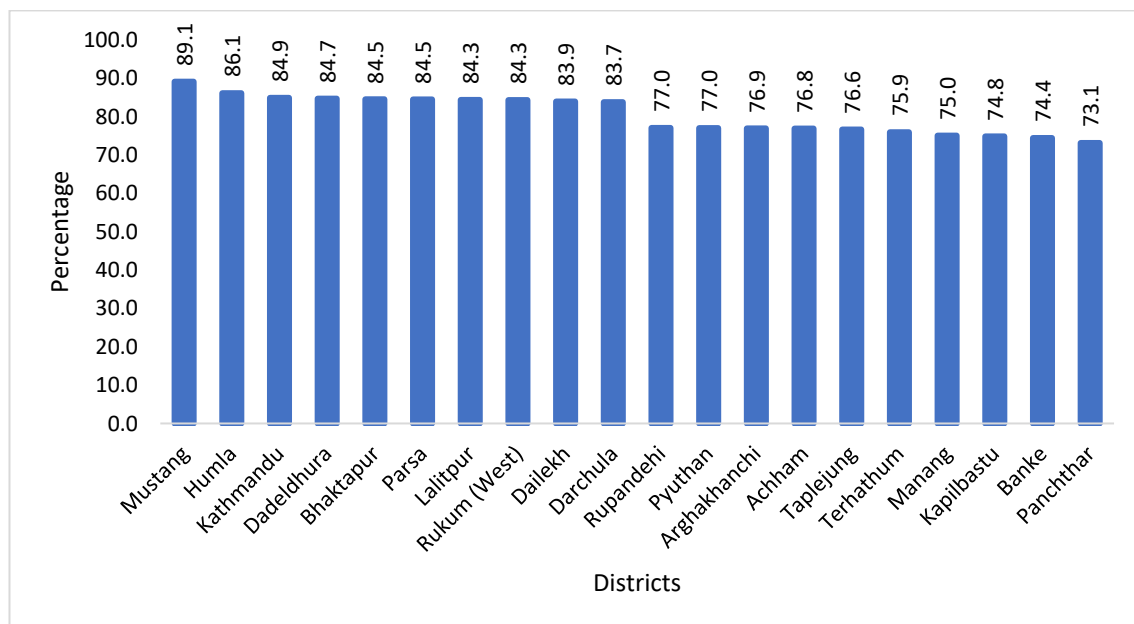
Figure 4.19 compares the number of years which men and women from different countries are anticipated to live beyond the age of 60. The data shows that the Maldives leads in life expectancy at age 60, at a duration of 21.5 years for men and 24.1 years for women. Sri Lanka

follows (18.5 years for men and 22.9 years for women), suggesting strong health and living conditions. Afghanistan has the lowest average life expectancy at a figure of 15 years for men and 17.5 years for women due to several ongoing public health and security challenges. Women consistently live longer than men across all countries, with the Maldives and Sri Lanka showing the largest age difference. The gender discrepancy in Nepal's life expectancy at age 60 is evident in the provided figure. After age 60, men can expect to live 18.2 years, whereas women can expect to live 20.7 years. Nepal has a mid-range life expectancy at the age of 60 when compared to other SAARC nations. Although Nepal's longevity at age 60 is moderate, it is still below that of nations like Bangladesh and Sri Lanka, indicating that healthcare and senior well-being can be improved.

4.13 Percentage of both sexes surviving to age 60 per highest and lowest ten district (2021 census data)

Figure 4.20 shows the notable differences between districts, which are indicative of underlying inequalities in healthcare access, geography, and socioeconomic status. The highest survival percentage for both sexes is found in the districts of Mustang (89.1%), Humla (86.1%), and Kathmandu (84.9%). The underperforming districts, such as Kapilbastu (74.8%), Banke (74.4%), and Panchthar (73.1%) are shown to fall behind.

Figure 4.20: Percentage of both sexes surviving to age 60 per highest and lowest ten districts, Nepal 2021 census

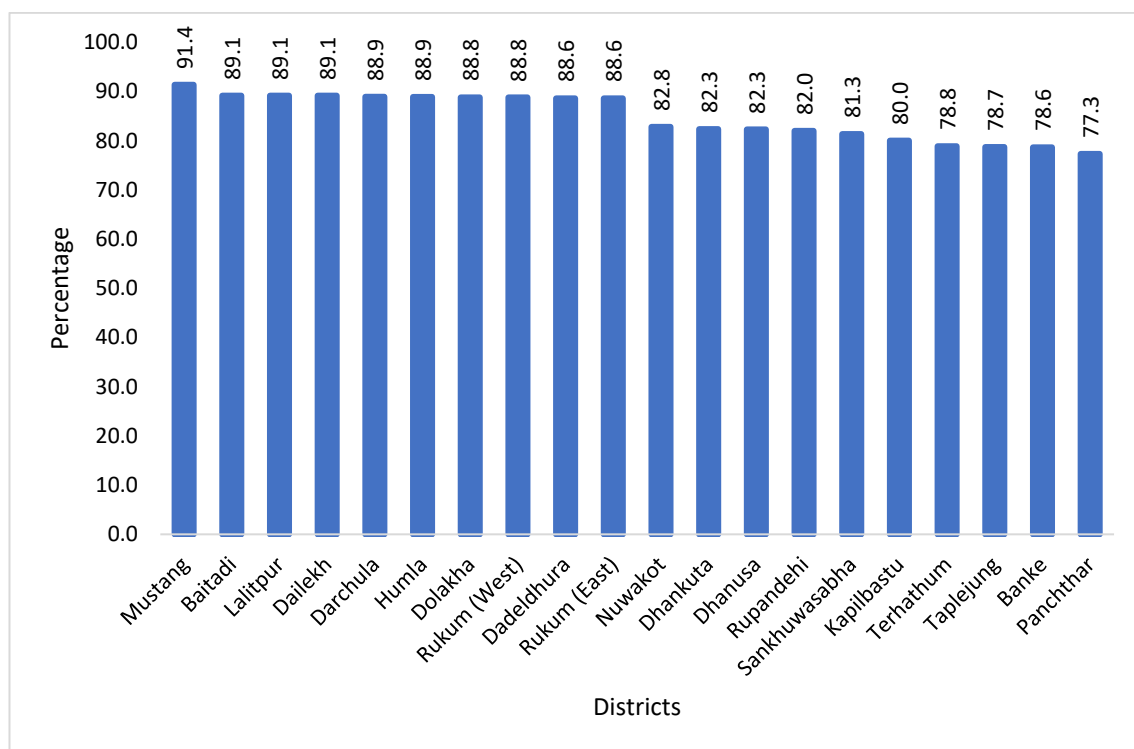


Source: Annex 14

4.14 Percentage of women surviving to age 60 per highest and lowest ten district (2021 census data)

As seen in Figure 4.21, Mustang shows the highest percentage of women who survive to age 60 (91.4%). The ten districts with the lowest survival rates are further highlighted, with Panchthar recording the lowest percentage rate (77.3%). Reflecting geographical disparities, the particular percentage number of women who reach the age of 60 in each district highlights the difference between districts with high and low survival rates.

Figure 4.21: Percentage of women surviving to age 60 per highest and lowest ten districts, Nepal 2021 census

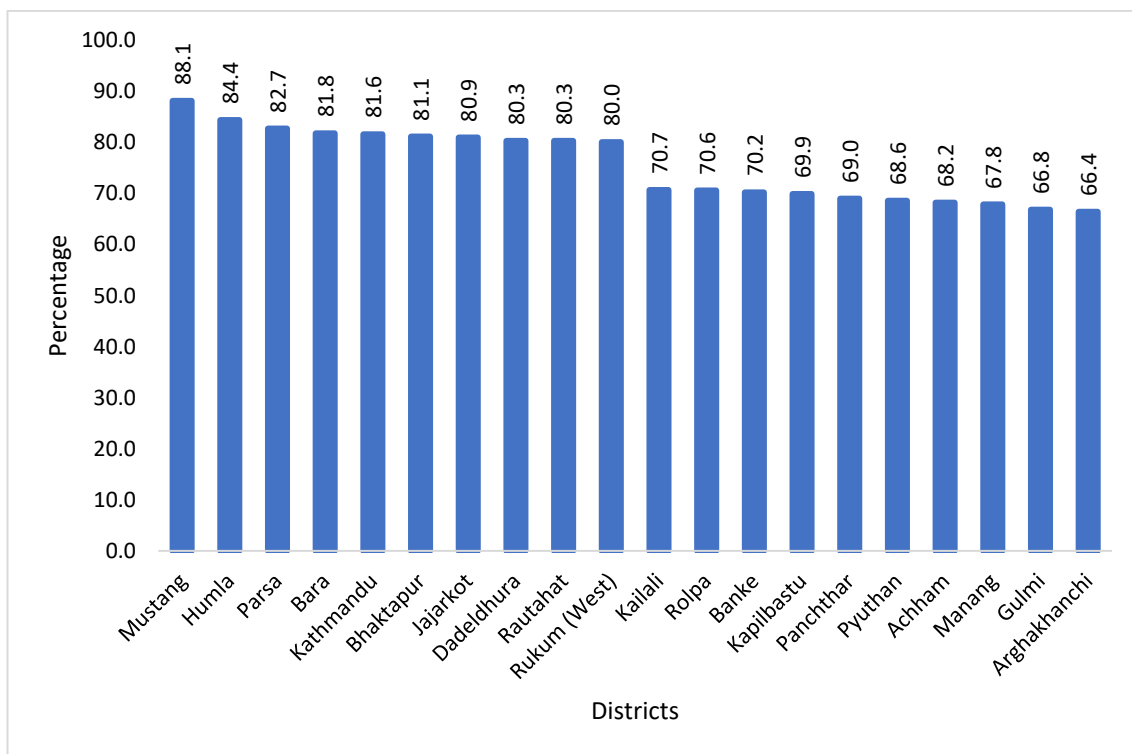


Source: Annex 14

4.15 Percentage of men surviving to age 60 per highest and lowest ten district (2021 census data)

Based on data from the 2021 census, Figure 4.22 shows the percentage of men who live to be 60 years old in each of Nepal's districts. Mustang (88.1%), Humla (84.4%), and Parsa (82.7%) show the highest survival rates. Manang (67.8%), Gulmi (66.8%), and Arghakhanchi (66.4%) have the lowest survival rates. Regional differences in life expectancy are highlighted by the notable difference (more than 20%) between the highest and lowest districts.

Figure 4.22: Percentage of men surviving to age 60 per highest and lowest ten districts, Nepal 2021 census

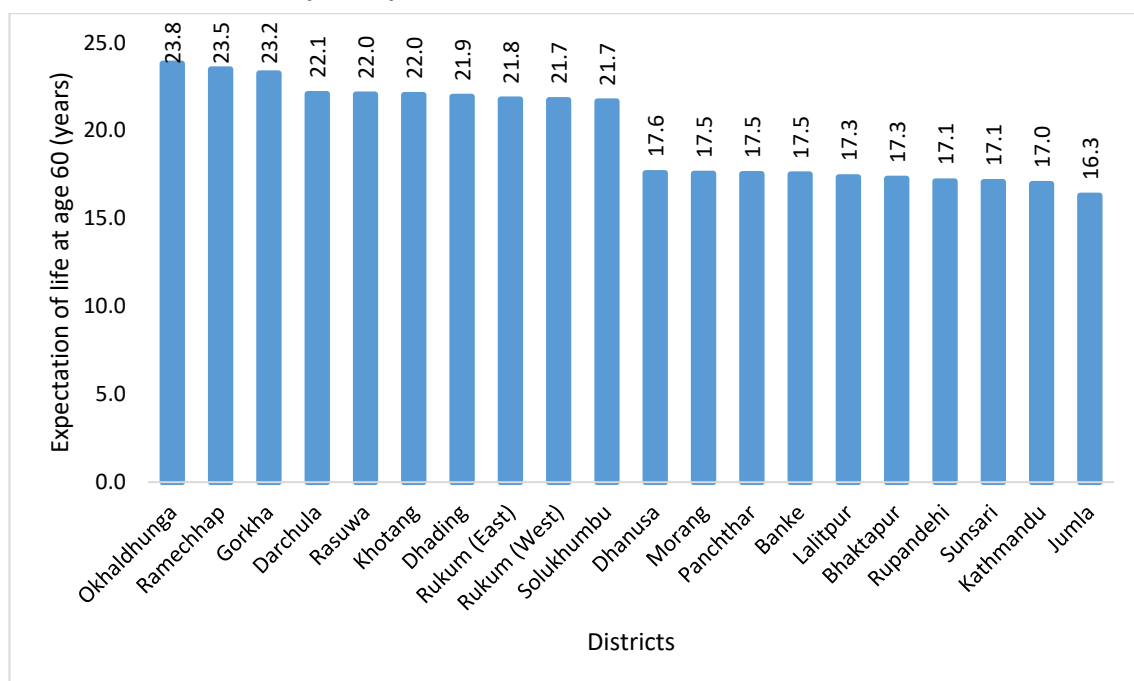


Source: Annex 14

4.16 Remaining life expectancy at age 60 for both sexes per highest and lowest ten districts

Based on the results of the 2021 census, Figure 4.23 shows the remaining life expectancy for the ten districts in Nepal with the highest and lowest life expectancies of both sexes at the age 60. The remaining life expectancy varies significantly throughout the districts. The remaining life expectancy is lowest in Jumla (16.3 years) and highest in Okhaldhunga (23.8 years). This amounts to a 7.5-year gap. Districts like Okhaldhunga, Ramechhap, Gorkha, Darchula, Rasuwa, Khotang, Dhading, and others have the longest remaining life expectancy. The remaining life expectancy in these districts is typically more than 21 years.

Figure 4.23: Remaining life expectancy at age 60 for both sexes by the ten highest and lowest districts, as per Nepal 2021 census data



Source: Annex 14

The districts of Morang, Panchthar, Banke, Lalitpur, Bhaktapur, Rupandehi, Sunsari, Kathmandu, and Jumla have the lowest remaining life expectancy. The remaining life expectancy in these districts is less than 17.6 years.

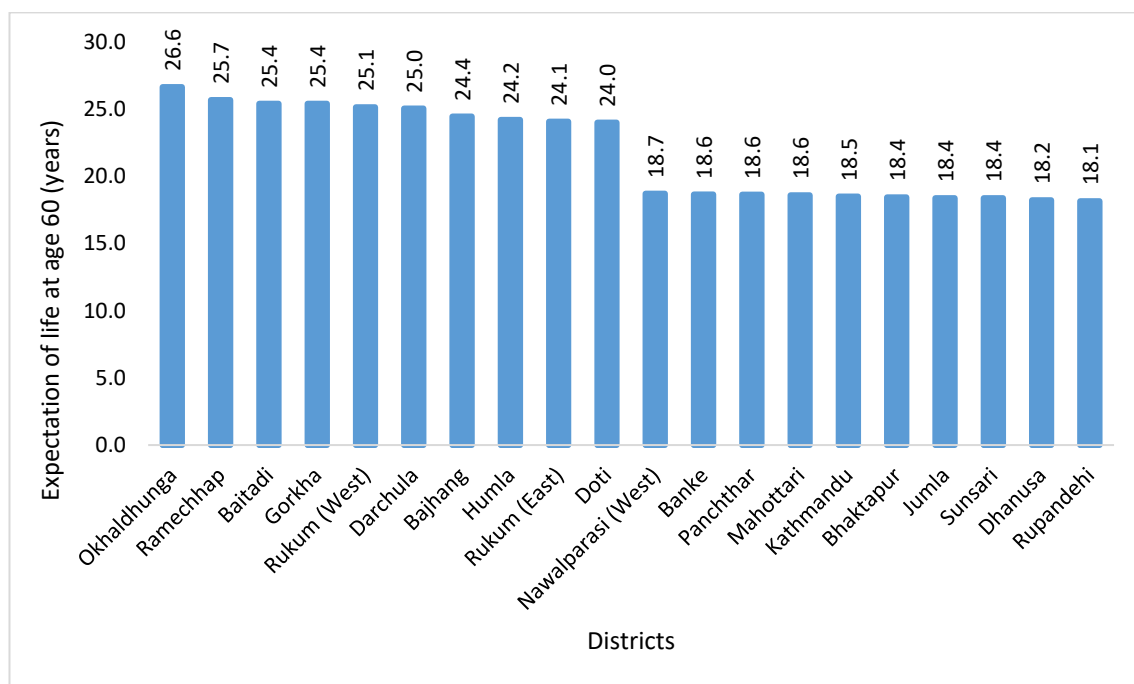
With little variance, the remaining life expectancy appears to gradually plateau among the bottom ten districts following an initial decline from the greatest to lowest districts.

4.17 Remaining life expectancy at age 60 for women per highest and lowest ten districts

Figure 4.24 shows the remaining life expectancy for women, which is based on data from the 2021 census, and offers important information about the longevity and general health of Nepali women.

Due to notable advancements in living conditions and healthcare over the past few decades, Nepal's average life expectancy for women has increased to about 73.8 years. The remaining life expectancy varies significantly between districts. For example, Rupandehi has the lowest remaining life expectancy for women at 18.1 years, suggesting an 8.5-year disparity, while Okhaldhunga has the highest at 26.6 years at the age 60.

Figure 4.24: Remaining life expectancy at age 60 for women by the ten highest and lowest districts, as per Nepal 2021 census data



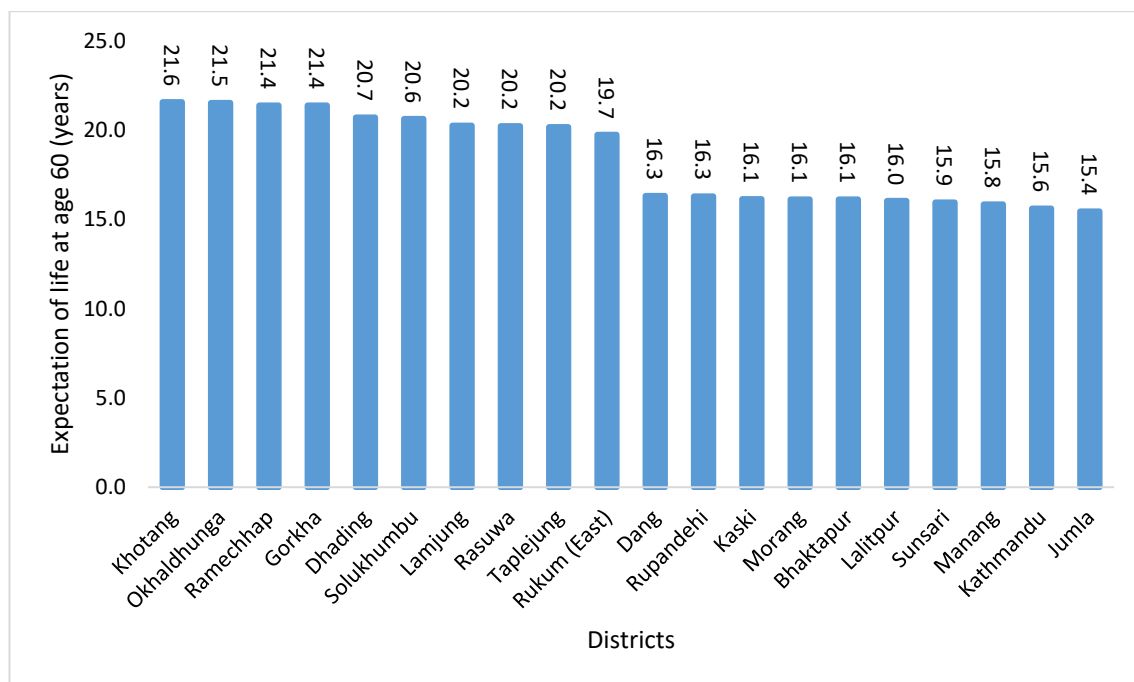
Source: Annex 14

4.18 Remaining life expectancy at age 60 for men per highest and lowest ten districts

A comparison of the remaining life expectancy for men over the age of 60 in several Nepali districts is shown in Figure 4.25. In particular, it compares the ten districts with the lowest life expectancy with the ten districts with the greatest. Khotang shows the longest life expectancy. The remaining life expectancies in Okhaldhunga, Ramechhap, Gorkha, and Dhading are likewise comparatively high.

Jumla has the lowest life expectancy after the age of 60. In this comparison, other districts with lower remaining life expectancies include Kathmandu, Manang, Sunsari, and Lalitpur.

Figure 4.25: Remaining life expectancy at age 60 for men by the ten highest and lowest districts, as per Nepal 2021 census data



Source: Annex 14

CHAPTER 5

SOCIAL CHARACTERISTICS OF OLDER PERSONS

5.1 Living arrangement of older persons (60 years and over)

Cohabitation is one of the only measures to guarantee that older persons will receive support from their adult children. However, several studies indicate that cohabitation may not adequately meet all needs (Chalise & Brightman, 2006). 2011 and 2021 census data shows that most of Nepal's older persons (60 years and over) live with children or family members. The 2021 census data shows that a significant of older persons (41.8%) live with a spouse and children, followed by 24.1 percent living with with children, and 14.3 percent who live with a spouse only. Additionally, 7.6 percent live with a spouse and others, 5.8 percent live with other family members, and 4.4 percent live alone. When comparing 2011 and 2021 census data, the proportion of older persons living with spouse only has increased from 10.2 percent in 2011 to 14.3 percent in 2021. A slight increase is noticed in older persons who live alone, increasing at a rate of 0.3 percentage points from 2011 (4.1%) to 2021 (4.4%). Conversely, the number of older persons living with non-relatives decreased from 3.2 percent in 2011 to 0.3 percent in 2021.

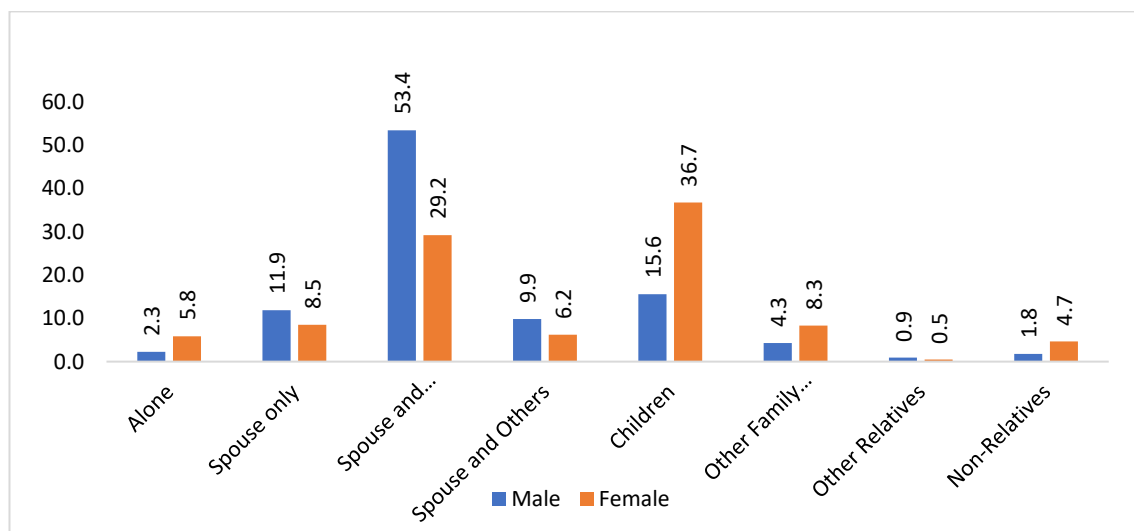
Table 5.1: Living arrangement of older persons (60 years and over), 2011 and 2021 censuses in Nepal

Living Arrangements	2011		2021	
	Number	%	Number	%
Alone	87,662	4.1	132,181	4.4
Spouse only	219,164	10.2	426,271	14.3
Spouse and children	886,653	41.2	1,244,771	41.8
Spouse and others	172,614	8.0	225,101	7.6
Children	565,988	26.3	718,306	24.1
Other family member	136,539	6.3	173,028	5.8
Other relatives	15,413	0.7	49,467	1.7
Non-relatives	69,644	3.2	7,840	0.3
HH worker	733	0.0	347	0.0
Not stated	-	-	6	0.0
Total	2,154,410	100.0	2,977,318	100.0

Source: NPHC, 2011 and NPHC, 2021

Details of the breakdown of the living arrangement among older persons among males and female is shown in Figure 5.1. The highest percentage of older males were living with a spouse and children (53.4%) followed by children (15.6%) and spouse only (11.9%). On the other hand, the highest percentage of older females were living with children (36.7%), followed by spouse and children (29.2%), and spouse only (8.5%). The percentage of older females living with other family members, not relatives, and alone is higher than older males.

Figure 5.1: Living arrangements of older persons (60 years and over) in 2021 by men and women



5.2 Provincial distribution of older persons (60 years and over) by type of living arrangements

Provincial data shows variations in the living arrangements of older persons. The majority of older persons live either with their children or family members in all seven provinces, with the highest percentage in Madhesh Province and the lowest percentage in Gandaki Province. Another important point of analysis concerns the proportion of older persons living alone, and living with a spouse only. The proportion of older persons living alone is highest in Gandaki Province (6.8%), followed by Bagmati Province (5.3%), Karnali and Sudurpashchim Province (4.8%), Koshi Province (4.1%) and the lowest in Madhesh Province (2.6%). Similarly, older persons living with a spouse are highest in Gandaki Province (20.6%), followed by Bagmati (17.3%), Karnali (14.3%), Lumbini (13.1%), Koshi (13%), and Madhesh (11.4%) provinces, with the lowest rate being seen in Sudurpashchim Province (10.1%).

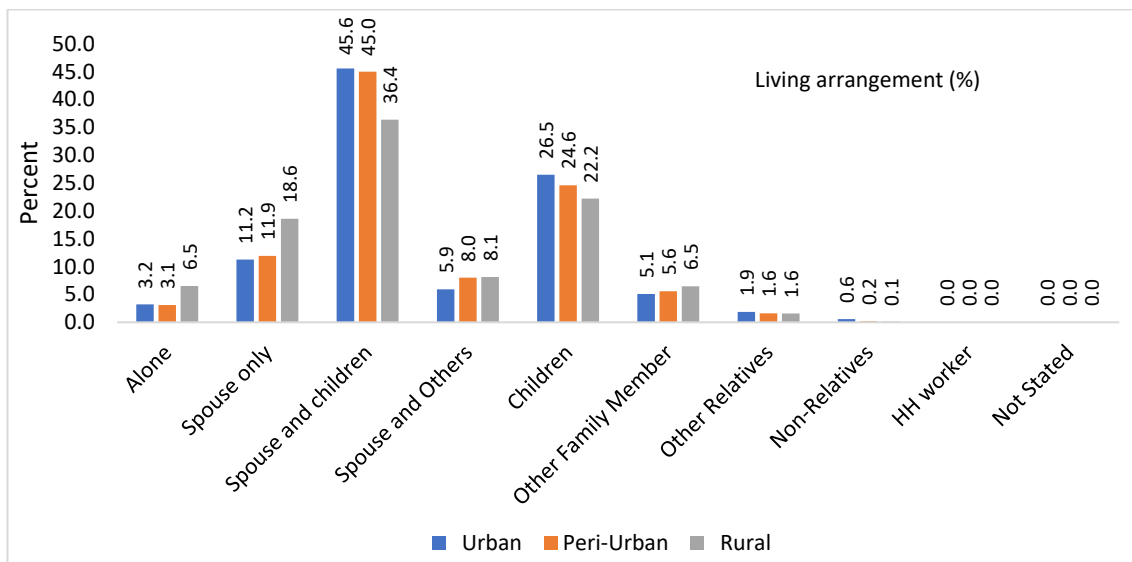
Table 5.2: Provincial distribution of older persons (60 years and over) in percentage by type of living arrangements

Living with	Provinces							Total
	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	
Alone	4.1	2.6	5.3	6.8	4.0	4.8	4.8	4.4
Spouse only	13.0	11.4	17.3	20.6	13.1	14.3	10.1	14.3
Spouse and children	43.3	48.6	40.5	32.8	41.6	40.6	39.7	41.8
Spouse and others	7.5	6.7	5.8	9.8	8.5	7.2	9.4	7.6
Children	24.6	24.5	24.1	20.9	24.2	25.6	25.5	24.1
Other family member	5.5	4.6	4.7	7.4	6.7	5.6	8.2	5.8
Other relatives	1.8	1.5	1.8	1.4	1.6	1.7	2.1	1.7
Non-relatives	0.3	0.1	0.4	0.3	0.2	0.1	0.1	0.3
Total	556,464	559,107	653,849	329,107	489,759	134,482	254,550	2,977,318

Source: NPHC, 2011 and NPHC, 2021

The figure shows the variations in the living arrangements of older persons in urban, semi-urban, and rural locations. It shows that the largest proportion of older persons are living with their children in urban areas (45.6%) compared to rural areas (36.4%). Similarly, the number of older persons living alone and with spouses only is somewhat high in rural areas compared to urban and peri-urban areas.

Figure 5.2: Rural-urban living arrangement of older persons (60 years and over)

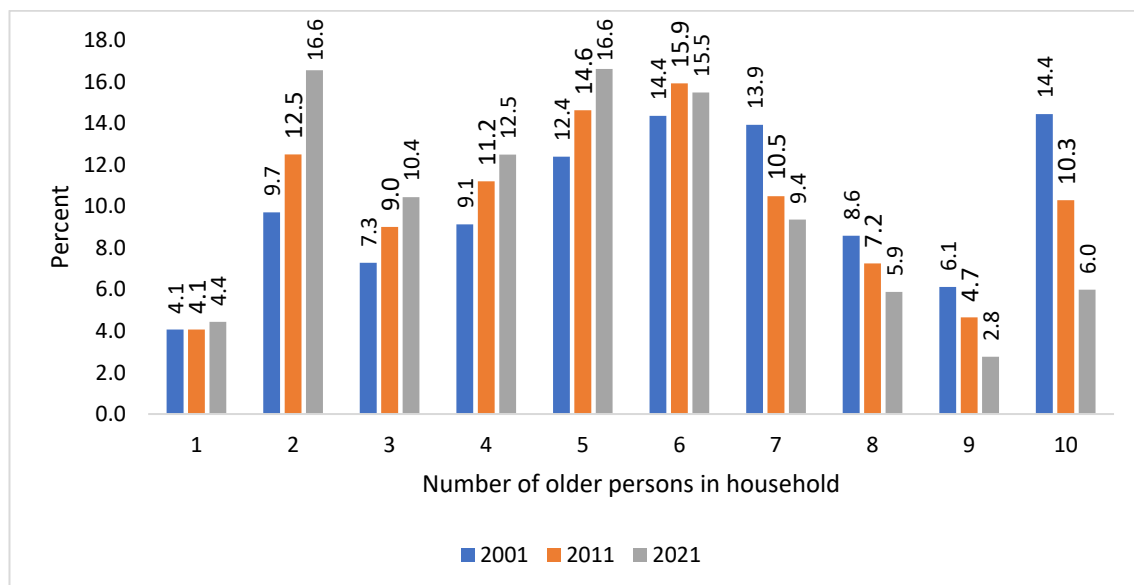


Source: NPHC, 2021.

5.3 Household size with at least one older person (60 years and over)

Additionally, household size is another important factor that may affect the services that older persons may receive in developing countries where formal social security systems are not well-developed (Chalise et al., 2022). Census data shows that the average household size decreased from 5.3 people to 4.3 people in the last two decades, or by a figure of one person less per household. Large family households are still prevalent in Nepal, yet they are in a decreasing trend. On the other hand, the number of older persons living in smaller family households is increasing. The proportion of single households is 4.4 percent, two people households is 16.5 percent, and older persons living in 10 or more family member households is 6.0 percent in the 2021 census. The below figure clearly shows that the rate of older persons living in larger household sizes is decreasing in the latest census.

Figure 5.3: Distribution of older persons (60 years and over) with size of household



5.4 House ownership of older persons living household (60 years and over)

The table provides information on the types of house ownership among the older population living in households, disaggregated by total percentage, as well as by sex (men and women). It was categorized as own (including family), rented, institution, and others.

Table 5.3: House ownership of older persons living households (60 years and over)

Ownership of house	Total (%)	Men (%)	Women (%)
Own	96.3	96.4	96.2
Rented	3.0	2.9	3.1
Institution	0.2	0.3	0.2
Others	0.5	0.4	0.5
Total	100.0	100.0	100.0
Total older population	2,973,516	1,441,370	1,532,146

Source: NPHC, 2021

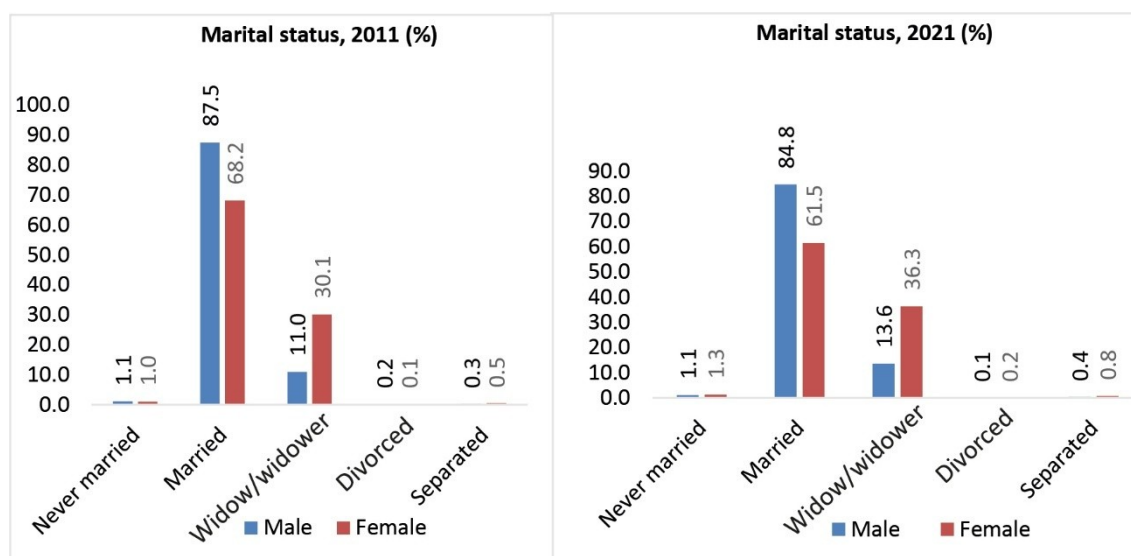
The vast majority of older persons were living in their own houses (96.3%), with similar rates for both men (96.4%) and women (96.2%). A small percentage of older persons were living in the rented houses (3%), with slightly higher rates for women (3.1%) than compared to men (2.9%). A smaller proportion of older persons reside in institutions (0.2%), with slightly higher rates for men (0.3%) compared to women (0.2%). A negligible portion of older persons live in other types of arrangements (0.5%), with similar rates for both men and women. The percentage of women (0.5%) in other forms of ownership (of house) is slightly higher than that of men (0.4%).

5.5 Marital status of older persons (60 years and over)

Table 5.4: Marital status of older persons by sex

Marital status	Census 2011		Census 2021	
	Number	%	Number	%
Married	1,674,367	77.7	2,166,703	72.8
Never married	22,970	1.1	35,882	1.2
Widow/widower	445,570	20.7	753,031	25.3
Divorced	3,257	0.1	4,003	0.1
Separated	8,246	0.4	17,699	0.6

Source: NPHC 2011, and NPHC 2021

Figure 5.4: Distribution of marital status by sex 2011 and 2021 in percent

Source: NPHC 2011, NPHC 2021

The above table and figure collectively show that the percentage rate of married older persons decreased from 77.7 percent in 2011 to 72.8 percent in the 2021 census. The percentage of married men is high compared to women in both censuses. On the other hand, the percentage of widows/widowers increased from 20.7 percent to 25.3 percent in the 2021 census. The percentage of women widows is high compared with men widowers, likely due to men marrying younger women and widow remarriage generally being considered as not culturally acceptable. Divorce and separation account for less than 1 percent of the data in both censuses.

5.6 Literacy status of older persons (60 years and over)

Across Nepal, 31 percent of older persons are literate, whilst 69 percent are illiterate. The gender disparity within these averages are particularly significant. At the national level, 52.2 percent of older men are illiterate, compared to 84.9 percent of older women, indicating that a significantly higher proportion of older women are illiterate compared to their men counterparts. This gender gap is pronounced more greatly in certain provinces. For example, in Karnali Province, 67.0 percent of older men are illiterate, whilst the rate increases drastically to 93.0 percent of older women in the same province. In contrast, the gap is seen to narrow in provinces like Madhesh, implying higher illiteracy rates for both genders.

Table 5.5: Distribution of literacy status of older persons, 2021

Area		Literacy status of older people, 60+		
		Illiterate (%)	Literate (%)	Total
Nepal	Men	52.2	47.8	1,443,907
	Women	84.9	15.1	1,533,411
	Total	69.0	31.0	2,977,318
Province				
Koshi	Men	46.8	53.2	272,795
	Women	82.3	17.7	283,669
	Total	64.9	35.1	556,464
Madhesh	Men	65.1	34.9	287,284
	Women	91.0	9.0	271,823
	Total	77.7	22.3	559,107
Bagmati	Men	45.6	54.4	312,857
	Women	78.1	21.9	340,992
	Total	62.6	37.4	653,849
Gandaki	Men	42.9	57.1	153,361
	Women	83.1	16.9	175,746
	Total	64.4	35.6	329,107
Lumbini	Men	50.9	49.1	238,114
	Women	85.2	14.8	251,645
	Total	68.6	31.4	489,759
Karnali	Men	67.0	33.0	64,823
	Women	93.0	7.0	69,659
	Total	80.5	19.5	134,482
Sudurpashchim	Men	57.1	42.9	114,673
	Women	92.2	7.8	139,877
	Total	76.4	23.6	254,550

Source: NPHC 2011, and NPHC 2021

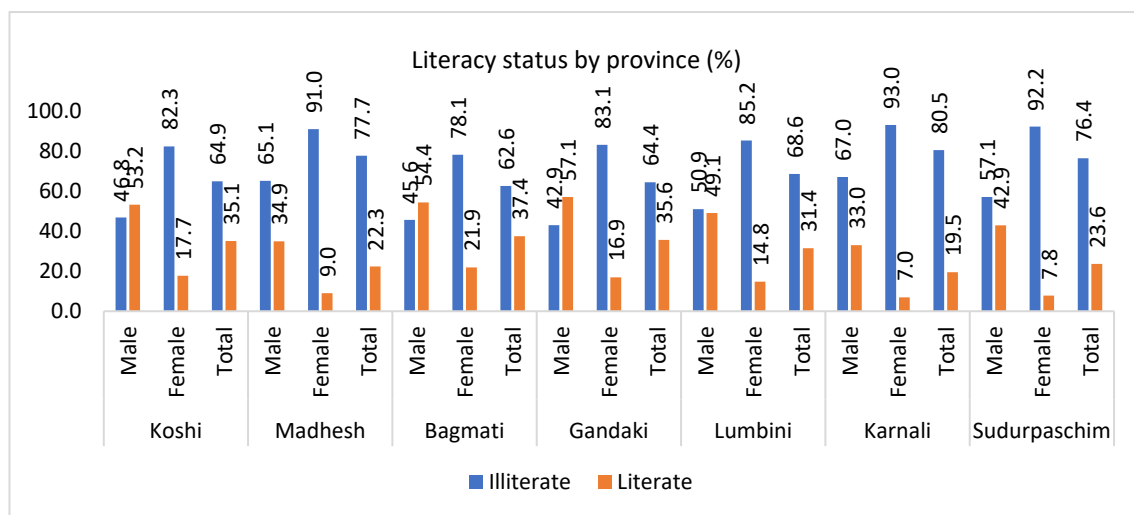
Figure 5.5: Provincial literacy status of older persons, 60+

Table 5.5 and Figure 5.5 clearly represent the regional variations in literacy. Karnali Province shows the lowest literacy rate of older persons (19.5%), whereas the highest literacy rate is found in Bagmati Province (37.4%). Further, male dominance in literacy status is found in all the provinces of Nepal.

5.7 Migration status of older persons (60 years and over) by place of birth and sex

According to the 2021 census, 38.8 percent of older persons migrated from their birthplace (born in other local level/District), and 3.8 percent were foreign-born. Compared to the percentage rates of men, the highest proportion of migrants were women (48.6%) and foreign-born women (6.1%).

Table 5.6: Place of birth of population aged 60 years and over

Place of birth	Male		Female		Total	
	Number	%	Number	%	Number	%
Born in same local level (non-migrant)	1,012,015	70.1	693,336	45.2	1,705,351	57.3
Born in other local level/district	411,667	28.5	745,660	48.6	1,157,327	38.8
Born in foreign country	19,451	1.3	93,320	6.1	112,771	3.8
Birth place not stated	774	0.1	1,095	0.1	1,869	0.1
Total	1,443,907	100.0	1,533,411	100.0	2,977,318	100.0

Source: NPHC, 2021

5.8 Place of stay just before census enumeration of older persons 60 years and over

Table 5.7 shows 56.4 percent of older persons were staying in the same local level just before the enumeration, whereas 39.1 percent stayed in other local level/Districts and only 3.8 percent stayed in foreign countries. There is a significant variation among these figures among males and females as nearly half (48.6%) of the older females are born in other local level/districts.

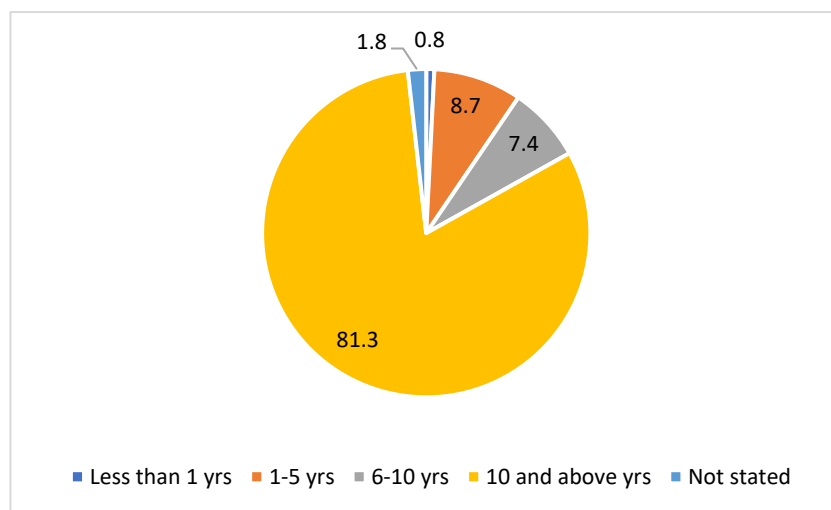
Table 5.7: Place of stay of population aged 60 years and over just before the enumeration

Place of stay just before census enumeration	Male		Female		Total	
	Number	%	Number	%	Number	%
Staying in same local level	994,077	68.9	684,431	44.63	1,678,508	56.38
Staying in other local level/district	410,354	28.4	753,630	49.15	1,163,984	39.10
Staying in foreign country	39,476	2.7	95,350	6.22	134,826	4.53
Total	1,443,907	100.0	1,533,411	100.0	2,977,318	100.0

Source: NPHC, 2021

5.9 Distribution of older persons (60 years and over) by duration of migration

The highest represented migration duration of older persons was 10 years and over, accounting for 81.3 percent of the age group. The migration duration of older persons for 1-5 years was 8.7 percent. Similarly, the migration duration for older persons for 6-10 years was 7.4 percent and the data shows a lower rate for less than one year (0.8%). These figures show that many older persons are not current migrants – for example, they may have migrated 10 years prior and continue to reside in the same location. The total number of migrants in the 2021 census, irrespective of duration of migration, was 1,296,026.

Figure 5.6: Distribution of older persons by duration of migration, 2021

Source: NPHC 2021

5.10 Causes of migration of older persons (60 years and over)

Table 5.8 shows a significant difference in the causes of migration among older persons in Nepal. The data shows that the most common causes of migration are marriage (37%) followed by migration as a dependent (18.2%), agriculture (11.3%), work/employment (12.2%), returning home to other places of residence (4.1%), trade/business (2.2%), and due to natural calamities (1.3%). A smaller percentage is found for the not reported (1.3%) and others (11.4%) categories.

Table 5.8: Distribution of older persons by causes of migration

Causes of migration	Men		Women		Total	
	Number	%	Number	%	Number	%
Work/employment	117,769	26.3	40,018	4.7	157,787	12.2
Trade/business	20,722	4.6	8,331	1.0	29,053	2.2
Study/training	8,468	1.9	3,856	0.5	12,324	1.0
Marriage	7,509	1.7	471,664	55.6	479,173	37.0
Dependent	73,626	16.4	162,239	19.1	235,865	18.2
Natural calamities	9,382	2.1	7,321	0.9	16,703	1.3
Agriculture	88,891	19.8	57,821	6.8	146,712	11.3
Returning home	35,922	8.0	16,928	2.0	52,850	4.1
Others	78,245	17.5	69,722	8.2	147,967	11.4
Dont' know	367	0.1	372	0.0	739	0.1
Not reported	7,001	1.6	9,882	1.2	16,883	1.3
Total	447,902	100.0	848,154	100.0	1,296,056	100.0

Source: NPHC, 2021

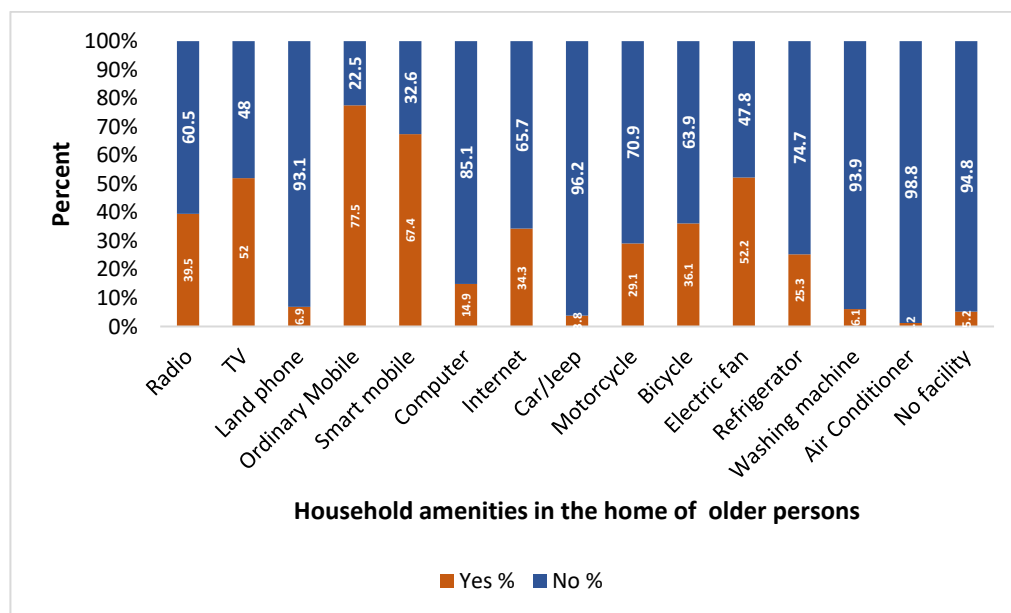
The main causes of migration amongst men are work/employment (26.3%), followed by agriculture (19.8%), dependency (16.4%), returning home (8.0%), trade/business (4.6%), natural calamities (2.1%), study/training (1.9%), marriage (1.7%), not reported (1.6%) and others (17.5%). The other categories (17.5%) need to be further categorized in the coming census.

Amongst women, the main causes of migration are marriage (55.6%), dependency (19.1%), agriculture (6.8%), work/employment (4.7%), returning home (2%), not reported (1.2%), trade/business (1.0%) and others (8.2%).

5.11 Amenities in the household of older persons (60 years and over)

The figure 5.7 shows that, of the 2,977,318 total older persons enumerated in the 2021 census, only 5.2 percent recorded having none of the listed facilities utilized in their households. The majority of older persons (77.5%) have amenities to utilize ordinary mobile phones, followed by a slightly decreased percentage who use smartphones (67.4%). Electric fans (52.2%) and television use are recorded at a similar percentage rate (52%). Other amenities utilized are radios (39.5%), bicycles (36.1%), internet (34.3%), motorcycles (29.1%), refrigerators (25.3%) and computers (14.9%). The data shows that Nepali older persons have amenities in their homes to utilise modern electric facilities as well as traditional ones. Having access to smartphones (67.4%) and the internet (34.3%) can be considered an important means for the modern area of communication, as well as for social support.

Figure 5.7: Amenities in the household of older persons, 2021 census, Nepal



Source: NPHC, 2021

5.12 Households situation of older persons (60 years and over)

According to the 2021 census, 2,149,933 households contain at least one older person aged 60 years and over. Table 5.9 shows more than half (56.3%) of households had septic tank flush toilets, followed by ordinary toilets (31.2%), and public sewage flush toilets (8.1%). Four percent of households do not have a toilet.

The sources of cooking fuel for slightly more than half (57.4%) of households is wood/firewood, followed by LP gas (37.3%), cow dung (3.1%), bio gas (1.5%), electricity (0.5%), kerosene (0.1%) and others (0.1%).

The source of drinking water for the highest number of households is from tap/piped sources (within compound) at 34.4 percent, followed by tube well/hand pump (30.4%), tap/piped (outside compound) (23.9%), spout water (4.1%), uncovered well (2.1%), jar/bottle (2.7%), uncovered well (2.1%), covered well (1.4 percent), and from river/stream (0.4%).

Household floor type shows that nearly half of the households (50.3%) were made from mud floor type, followed by cemented (43.4%), ceramic tile (2.5%), wooden plank/bamboo (2.1%), brick stone (1.3%) and others at a rate of 0.4 percent.

The roof type of households of older persons shows that 43.8 percent of households are galvanized, followed by 34 percent which is cemented (RCC), 9.7 percent are tile, 7.2 percent are stone/slate, and 4.2 percent are thatch/straw. The remaining roof types were reported as wood, planks, mud, and others.

Furthermore, the housing quality of households shows that 23.1 percent of households were classified as most adequate, 26.5 percent as adequate, 38.3 percent as moderate, 11.5 percent as inadequate, and 0.5 percent were reported as least adequate.

Table 5.9: Situation of households having at least one older person (60 years and over), 2021

Household situation	Number	%
Type of toilets		
Flush toilet (public sewage)	173,780	8.1
Flush toilet (septic tank)	1,209,828	56.3
Ordinary	670,836	31.2
Public	9,222	0.4
No toilet	86,267	4.0
Sources of cooking fuel		
Wood/firewood	1,234,385	57.4
LP gas	800,935	37.3
Electricity	10,755	0.5

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Household situation	Number	%
Cow dung	67,541	3.1
Bio gas	33,147	1.5
Kerosene	1,178	0.1
Others	1,992	0.1
Sources of drinking water		
Tap/piped (within compound)	738,641	34.4
Tap/piped (outside compound)	514,834	23.9
Tubewell/hand pump	654,205	30.4
Covered well	30,767	1.4
Uncovered well	45,496	2.1
Spout water	87,078	4.1
River/stream	7,926	0.4
Jar/bottle	57,497	2.7
Others	13,489	0.6
Floor type of household		
Mud	1,080,651	50.3
Wooden plank/bamboo	44,122	2.1
Brick/stone	28,846	1.3
Ceramic tile	54,564	2.5
Cemented	933,072	43.4
Others	8,678	0.4
Roof type of household		
Galvanized sheet	942,487	43.8
Cemented (RCC)	731,907	34.0
Thatch/straw	89,859	4.2
Tile	208,861	9.7
Stone/slate	154,282	7.2
Wood/planks	6,100	0.3
Mud	14,279	0.7
Others	2,158	0.1
Housing quality		
Most adequate	497,370	23.1
Adequate	570,183	26.5
Moderate	823,954	38.3
Inadequate	247,096	11.5
Least adequate	11,330	0.5

Source: NPHC, 2021

CHAPTER 6

ECONOMIC ENGAGEMENT OF OLDER PERSONS

6.1 Economic engagement of older persons in Nepal

Older persons currently make substantial economic and social contributions to society through the productive activities of working, caregiving, and volunteering. Yet this contribution may be increased, to the benefit of communities, families, and older adults themselves. Table 6.1 shows that, in 2021, 29.4 percent of older persons had reported to have been working at least 6 months, 11.4 percent between 3-6 months, and 10.8 percent for less than 3 months. A significant variation is found in the figures between men and women. The proportion of older women who are not working (56.1%) is higher than men (40.1%). On the other hand, the proportion of those working more than 6 months is considerably higher amongst men (39.6%) than women (19.8%). The increased proportion of working older persons may be due to the out-migration of their young children, as well as individuals who work as not covered by any type of pension system (Chalise et al., 2022).

In the provinces, the proportion of older persons working for at least 6 months in a year is highest in Koshi (35.9%), followed by Karnali (29.4%), Madhesh (29.2%), Gandaki (28.7%), Bagmati (27.7%), Lumbini (27.1%) and lowest in Sudurpashchim (25.8%).

Table 6.1: Percent distribution of economic engagement of older persons (60 years and over) in the last 12 months

Regions	≥6 months (%)	≥3 to <6 months (%)	<3 months (%)	Not working (%)	Nepal (total number)
Nepal					
Men	39.6	10.9	9.3	40.1	1,443,907
Women	19.8	11.9	12.2	56.1	1,533,411
Total	29.4	11.4	10.8	48.3	2,977,318
Province					
Koshi	35.9	11.5	10.4	42.2	556,464
Madhesh	29.2	10.1	9.16	51.6	559,107
Bagmati	27.7	10.2	10	52.1	653,849
Gandaki	28.7	12	11.4	47.9	329,107

Regions	≥6 months (%)	≥3 to <6 months (%)	<3 months (%)	Not working (%)	Nepal (total number)
Lumbini	27.1	12.4	11.7	48.8	489,759
Karnali	29.4	13.4	12.7	44.5	134,482
Sudurpashchim	25.8	13.7	13.7	46.8	254,550
Ecological Zone					
Mountain	36.6	14	12.3	37.0	196,055
Hill	29.9	12	11.3	46.8	1,302,965
Tarai	28.1	10.5	10.2	51.2	1,478,298
Urban/ Rural					
Urban	19.8	8.29	9.77	62.2	703,667
Peri Urban	29.2	10.9	10.3	49.6	1,128,151
Rural	35.6	13.9	11.9	38.6	1,145,500
Wealth Quintile					
Lowest	32.8	13.82	11.9	41.5	680,110
Lower	34.0	13.1	11.3	41.6	621,440
Middle	32.0	11.6	10.7	45.7	615,704
Higher	27.8	9.9	10.1	52.2	453,738
Highest	19.5	8.1	9.7	62.7	606,326

Source: NPHC, 2021

When assessing the data by ecological zones, the percentage of older persons working for at least 6 months is found highest in Mountain zone (36.6%), followed by Hill zone (29.9%), and is lowest in Tarai zone (28.1%). Similarly, the population of non-working older persons (60 years and over) is found highest in Tarai zone (51.2%), followed by the Hill zone (46.8%), and is lowest in the Mountain zone (37.0%). Furthermore, the proportion of non-working older persons is highest in urban areas (62.2%), followed by peri-urban (49.6%), and lowest in rural areas (38.6%). Conversely, the proportion of working older persons is high in rural areas compared to urban areas.

6.2 Economic engagement by type of work of older persons

Over the past twelve months, 51.8 percent of Nepal's older persons have been engaged in different types of work. A significant majority (72.6%) of older individuals were actively engaged in agricultural activities, whilst a smaller proportion (27.3%) were involved in various non-agricultural endeavors. A similar trend is seen across both sexes of older individuals (Table 6.2).

In the provinces, engagement in the agricultural sector ranges from 66.1 percent in Bagmati Province to the highest (79.7%) in Karnali Province. On the other hand, non-agricultural engagement was highest in Bagmati (33.9%) and lowest in Karnali (20.2%) provinces. Similarly, engagement in agriculture is highest in the Mountain zone (84.8%) and lowest in the Tarai (68.6%) zone.

The figure of engagement in the agricultural sector was 84.2 percent among rural older persons and lowest among urban (42.8%) older persons. Conversely, the older persons living in urban areas were engaged more in non-agricultural activities.

Table 6.2: Percentage distribution of economic engagement of older persons by the type of work during the last 12 months

Area		Agriculture (%)	Non-agriculture (%)	Don't know/ Not stated (%)	Total number
Nepal	Men	72.5	27.5	0.1	864,283
	Women	72.8	27.1	0.1	673,738
	Total	72.6	27.3	0.1	1,538,021
Province	Koshi	76.3	23.7	0.0	321,503
	Madhesh	69.1	30.9	0.0	270,694
	Bagmati	66.1	33.9	0.0	313,372
	Gandaki	75.5	24.3	0.2	171,478
	Lumbini	73.3	26.6	0.1	250,852
	Karnali	79.7	20.2	0.1	74,652
	Sudurpashchim	77.1	22.8	0.0	135,470
Ecological Zone	Mountain	84.8	15.2	0.0	123,438
	Hill	74.7	25.2	0.1	693,593
	Tarai	68.6	31.4	0.0	720,990
Urban/ Rural	Urban	42.8	57.2	0.1	266,267
	Peri Urban	72.3	27.7	0.0	568,416
	Rural	84.2	15.7	0.1	703,338

Source: NPHC, 2021

6.3 Sex-wise distribution of occupation of older persons

Table 6.3 shows that a majority (64.1%) of older persons are working in professions skilled in agriculture, forestry, or fishery work, and 25.1 percent are engaged in elementary occupations. Similarly, 3.1 percent work in managerial roles, 2.9 percent in service and sales, and 1.2 percent in professional roles. A slight variation is found amongst men and women, especially as men are highly represented in managerial, professional, service and sales, and craft-related trader roles. Women dominate in elementary occupations (32.4%).

Table 6.3: Percentage distribution of occupation of older persons who work by sex

Types of work	Total		Men		Women	
	Number	%	Number	%	Number	%
Managers	46,969	3.1	37,496	4.3	9,473	1.4
Professionals	18,048	1.2	15,811	1.8	2,237	0.3
Technicians and associate professionals	7,901	0.5	6,387	0.7	1,514	0.2
Clerical support workers	5,303	0.3	4,018	0.5	1,285	0.2
Service and sales workers	45,325	2.9	33,617	3.9	11,708	1.7
Skilled agri., forestry and fishery work	986,389	64.1	561,822	65.0	424,567	63.0
Craft and related trades workers	33,394	2.2	29,680	3.4	3,714	0.6
Plant and machine operators and assembly	7,446	0.5	6,872	0.8	574	0.1
Elementary occupations	386,301	25.1	168,070	19.4	218,231	32.4
Not stated	945	0.0	510	0.0	435	0.0
Total	1,538,021	100.0	864,283	100.0	673,738	100.0

Source: NPHC, 2021

6.4 Economic engagement by employment status

Table 6.4 shows the status of economic activities of older persons in detail. Slightly more than two-thirds (68.8%) of older persons were working as own account workers, 17 percent on family support, 13.4 percent as an employee, and 0.8 percent as an employer. A significant variation is found between men and women, with women dominating in family support work and men dominating as own-account workers, employees, and employers. A similar trend is also seen in the provinces (Table 6.2).

Table 6.4: Percent distribution of economic engagement with the status in employment

Economic activity		Employee	Employer	Own account worker	Family support	Not reported	Total
Nepal	Men	14.8	1.1	72.2	11.8	0.1	100.0
	Women	11.6	0.3	64.3	23.7	0.1	100.0
	Total	13.4	0.8	68.8	17.0	0.1	100.0
Ecological Zone							
Mountain	Men	7.0	0.5	81.9	10.6	0.0	100.0
	Women	4.6	0.3	78.1	17.0	0.0	100.0
	Total	5.8	0.4	80.0	13.7	0.0	100.0
Hill	Men	11.0	1.2	75.2	12.5	0.1	100.0
	Women	8.7	0.3	68.4	22.5	0.1	100.0
	Total	9.9	0.8	72.0	17.2	0.1	100.0
Tarai	Men	19.1	1.2	68.3	11.3	0.0	100.0
	Women	16.3	0.3	57.0	26.3	0.0	100.0
	Total	18.0	0.8	63.8	17.3	0.0	100.0
Urban/Rural							
Urban	Men	25.0	3.3	56.1	15.5	0.1	100.0
	Women	21.4	0.6	46.9	31.0	0.1	100.0
	Total	23.5	2.2	52.3	21.9	0.1	100.0
Peri-urban	Men	18.2	0.8	70.1	10.8	0.0	100.0
	Women	15.7	0.3	58.8	25.2	0.0	100.0
	Total	17.2	0.6	65.5	16.7	0.0	100.0
Rural	Men	7.4	0.5	81.0	11.1	0.1	100.0
	Women	5.5	0.2	73.9	20.2	0.1	100.0
	Total	6.5	0.4	77.6	15.4	0.1	100.0

Source: NPHC, 2021

The percent of older persons who are own account workers is highest in the Mountain zone (80.0%) and lowest in Tarai zone (63.8%). On the other hand, employee worker rates are highest in Tarai zone (18.0%) and lowest in Mountain zone (5.8%).

Similarly, older persons who are recorded as own-account workers are seen largely in rural areas (77.6%) followed by peri-urban (65.5%), and lowest in urban areas (52.3%). On the other hand, older persons working as family support are higher in urban areas (21.9%), followed by 16.7 percent in peri-urban areas and 15.4 percent in the rural areas. This shows that a higher proportion of women are working as a family support.

CHAPTER 7

DISABILITY STATUS OF OLDER PERSONS

The 2021 census report of Nepal did not collect detailed data focusing on the health status of Nepali people. The census collected data only on disability and deaths. This chapter discusses the details of the disability status of older persons in Nepal and the causes of death. According to the 2021 Nepal Census, 2.2 percent of the Nepali population report some form of disability. The rate is 2.5 percent among the population of men and 2.0 percent of the population of women report some form of disability. The list of percentages which represent the prevalence of different types of disability are: Physical (36.7%); Low vision (16.9%); Blind (5.4%); Deaf (7.8%); Hard of hearing (7.9%); Deaf and blind (1.6%); Speech impairment (6.4%); Psycho-social disability (4.2%); Intellectual disabilities (1.7%); Hemophilia (0.7%); Autism (0.7%); Multiple disability (8.8%); and Not stated (1.1%).

7.1 Disability status of people 60 years and over

The 2021 census shows that 6.9 percent of older persons live with some form of disability. Amongst men, the figure is 7.2 percent, and amongst women, 6.6 percent report some form of disability. Among all older persons, the list of percentages which represent the prevalence of different types of disability are as follows: Physical (2.0%); Low vision (1.9%); Hard of hearing (0.9%); Deaf (0.8%); Multiple disabilities (0.5%); Speech problem (0.3%); Blind (0.2%); Deaf-blind (0.1%); Mental (0.1%); Intellectual (0.1%); Deaf-blind (0.1%); and others account for less than 0.1 percentage point (see Annex 14).

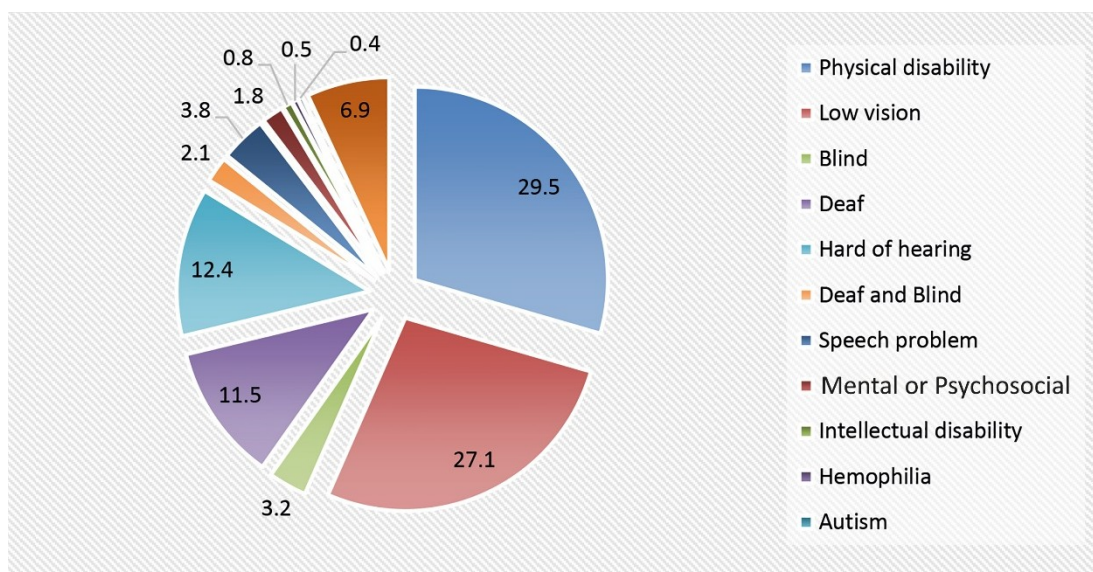
Table 7.1: Disability and type of disability in persons aged 60 years and over

Disability	Total		Men		Women	
	Number	%	Number	%	Number	%
Nepal						
Not disabled	2,770,100	93.0	1,339,108	92.7	1,430,992	93.3
Disabled	206,036	6.9	104,238	7.2	101,798	6.6
Not reported	1182	0.1	561	0.1	621	0.1
Total	2,977,318	100.0	1,443,907	100.0	1,533,411	100.0
Types of disability						
Physical	60,739	2.0	34,242	2.4	26,497	1.7
Low vision	55,786	1.9	25,729	1.8	30,057	2.0
Blind	6,646	0.2	3,023	0.2	3,623	0.2
Deaf	23,616	0.8	12,167	0.8	11,449	0.7
Hard of hearing	25,636	0.9	12,875	0.9	12,761	0.8
Deaf-Blind	4,413	0.1	2,078	0.1	2,335	0.2
Speech problem	7,886	0.3	4,174	0.3	3,712	0.2
Mental or psychosocial	3,666	0.1	1,368	0.1	2,298	0.1
Intellectual disability	1,610	0.1	590	0.0	1,020	0.1
Hemophilia	1,013	0.0	520	0.0	493	0.0
Autism	780	0.0	207	0.0	573	0.0
Multiple disability	14,245	0.5	7,265	0.5	6,980	0.5
No disability	2,770,100	93.0	1,339,108	92.7	1,430,992	93.3
Not reported	1,182	0.0	561	0.0	621	0.0
Total	206,036	6.9	104,238	7.2	101,798	6.6

Source: NPHC, 2021

Among the different types of disabilities, physical disabilities are the largest represented type of disabilities (29.5%), followed by low vision (27.1%), hard of hearing (12.4%), deaf (11.5%), multiple disabilities (6.9%), speech problem (3.8%), blind (3.2%), deaf-blind (2.1%), mental (1.8%), intellectual (0.8%), hemophilia (0.5%), and autism (0.4%).

Figure 7.1: Types of disability of older persons 60 years and over, by percent

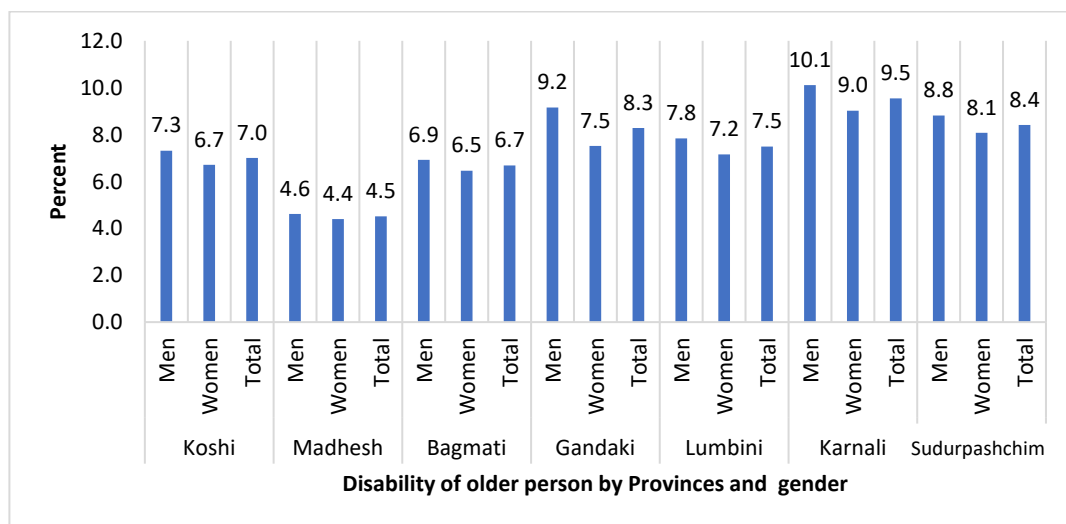


Source: NPHC 2021

7.2 Disability among older persons by province

The disability rates of older persons per province is presented in the chart below. The proportion of older persons with a disability is highest in Karnali (9.5%) and lowest in Madhesh (4.5%) provinces. In almost all provinces, men report disabilities at a higher rate. The details of provincial disability rates are presented in annexes 14, 15, 16, 17 and 18.

Figure 7.2: Disability among older persons by province



Source: NPHC 2021

7.3 Causes of death of older persons

Globally, the leading causes of death among older persons are primarily non-communicable diseases (NCDs). Cardiovascular diseases, including heart disease and stroke, are the most significant contributors. Other major causes include cancer, chronic respiratory diseases, and diabetes. These conditions are often exacerbated by ageing, leading to increased mortality rates in older populations worldwide (WHO, 2023).

Table 7.2: Causes of death among older persons 60 years and older, by sex

Cause of death	Total		Men		Women	
	Number	%	Number	%	Number	%
Communicable disease	13,030	10.5	8,020	11.7	5,010	9.0
Non-communicable disease	66,405	53.4	36,697	53.4	29,708	53.5
Traffic accident	730	0.6	447	0.6	283	0.5
Other accident	2,755	2.2	1,696	2.5	1,059	1.9
Crime/murder	213	0.2	144	0.2	69	0.1
Suicide	610	0.5	444	0.6	166	0.3
Natural disaster	6,741	5.4	3,643	5.3	3,098	5.6
Others	33,118	26.7	17,328	25.2	15,790	28.5
Don't know	639	0.5	344	0.5	294	0.5
Total	124,240	100	68,762	100	55,478	100

Source: NPHC 2021

Table 7.2 shows a total of 124,240 recorded deaths from 2021 data. Among this figure, 68,762 (55.3%) were deaths among men and 55,478 (44.7%) deaths were among women. A greater number of deaths among men are recorded compared to women.

Data shows that non-communicable diseases are the leading cause of death for both men and women older persons. Examples of non-communicable diseases include heart disease, stroke, and cancer and these diseases account for over 50 percent of total deaths across both sexes.

While less prevalent than non-communicable diseases, transferable diseases still contribute to a significant number of deaths among older persons in Nepal. Men have a slightly higher (11.7%) rate of death from transferable diseases compared to women (9.0%). These diseases, such as influenza or pneumonia, can be transmitted from person to person.

Traffic accidents are a relatively small (0.6%) but significant cause of death among older persons. Men are more likely to be involved in transportation accidents compared to women. This

difference may result from gender differences in transportation habits, workplace risks, or cultural factors.

Accidents other than transportation, such as falls or accidental poisoning, are also a contributing factor to deaths among the older persons. Men have a slightly higher rate of death from other accidents (2.5%) compared to women (1.5%).

Crime and murder (0.2%) are relatively rare causes of death among older persons. Men (0.2%) are more likely to be victims of crime and murder compared to women (0.1%).

Suicide is a serious public health issue among older persons, particularly among men. Men (0.6%) have a significantly higher suicide rate compared to women (0.3%). Mental health support, social services, and economic assistance can help to prevent suicides.

While less common, natural disasters such as floods, earthquakes, or extreme weather events can contribute to deaths among older persons. There is no significant difference in death rates due to natural calamities between men and women.

7.4 Age-specific causes of death of older persons

The leading causes of death among older persons vary with age. The below table 7.3 shows the cause of death in each age group. In almost all age groups the leading cause of death are Non-communicable diseases and communicable diseases. Interestingly, the cause of death by Non-communicable disease is highest in the age group 60-64 (60.1%) and lowest in the age 80+ (44.2%). But other categories (cause) is lowest in the 60-64 years (14.4%) and highest in the age 80+ (38.3%).

Transportation accidents are a significant cause of death in younger age groups. Natural calamities-related deaths as a cause of death is found increasing in the higher age groups. The impact of the fatality of natural disasters increases significantly with age. While not a primary cause, natural calamities contribute significantly to mortality, particularly in the 70-74 and 80 years and over age groups. This underscores the importance of disaster preparedness and mitigation strategies, especially for vulnerable populations, such as older persons.

Table 7.3: Age-specific causes of death of older persons

Cause of death	Age groups					Total
	60-64	65-69	70-74	75-79	80+	
Communicable diseases	15.7	12.9	11.1	10.1	7.7	10.5
Non-communicable diseases	60.1	61.7	58.9	56.9	44.2	53.5
Transportation accident	1.1	0.8	0.7	0.4	0.4	0.6
Other accident	3.2	2.8	2.4	1.9	1.7	2.2
Crime/murder	0.3	0.2	0.2	0.1	0.2	0.2
Suicide	1.2	0.9	0.4	0.3	0.2	0.5
Natural calamities	3.8	3.8	5.3	5.1	6.8	5.4
Others	14.4	16.5	20.7	24.6	38.3	26.7
Not stated	0.3	0.3	0.4	0.4	0.6	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total death	12.7	14.2	18.3	16.0	38.3	100.0

Source: NPHC 2021

The above table further shows that the percentage of death among the older persons increases as the age group increases. The proportion of death was highest in the age group 80 years and over (38.3%) and lowest in the 60-64 age group (12.7%).

CHAPTER 8

CONCLUSIONS AND POLICY RECOMMENDATIONS

8.1 Major conclusions

The population of Nepal is rapidly ageing as a result of its rising life expectancy, decreased fertility and death rates, and socioeconomic shifts. The proportion of the older population is increasing in every census of Nepal. The number of people aged 60 years and over increased by 38 percent in the last decade, reaching 10.2 percent of the total population, and is predicted to rise further in the coming days. Current census data indicates an increasing old-age dependency ratio, highlighting a movement toward an ageing population.

This study shows older persons living with children is in decreasing trend and living with a spouse and alone is in increasing trend. As more elderly people live alone or exclusively with their spouse, the likelihood of social isolation is rising.

Life expectancy and aging rates differ greatly between provinces and natural zones. In comparison to the Tarai zone, the Hill and Mountain zones have higher life expectancy and aging indices.

Madhesh, Karnali, and Sudurpashchim provinces have the heaviest burdens, with the country's overall dependency ratio for those aged 60 and over standing at 61.

The higher life expectancy of women compared to men (74.3 years vs 68.7 years) indicates increasing feminization of ageing in Nepal in the coming days. Although women have longer life expectancies and higher survival rates than men, they also tolerate more economic hardships and illiteracy (84.9% vs. 52.2%), frequently working in agriculture out of need.

The number of older persons 68 years and older was 9,91,417 in 2011 and it increased to 15,24,763 in the 2021 census. The population receiving old age allowances is increasing rapidly, and this will create an increasing burden on the old age allowances every year. There should be some policies to make it sustainable.

Nearly one-third (29.4%) of older persons are working at least 6 months, 11.4 percent between 3-6 months, and 10.8 percent for less than 3 months. Many older persons are still working largely in agricultural areas. It may be due to inadequate pension and social security systems. They face increased vulnerability due to health challenges, encompassing impairments and a range of

diseases. There is a need to address this through reliable social health insurance and social participation of community people.

The 2021 census shows that 6.9 percent of older persons live with some form of disability. Physical disabilities, low vision, hearing problems, deafness, mental, etc are some major disabilities. It is expected to increase in the coming days with the increase of older persons.

The main cause of death of older persons is non-communicable diseases (53.4%), communicable diseases (10.5%), and others (26.7%). Data shows, that as the age increases, the proportion of deaths also increases with age.

8.2 Policy recommendations

The rapidly increasing ageing population poses challenges to economic sustainability and social support structures, requiring strategic policies to rearrange the requirements of both older persons and the working-age demographic. Further, the factors of increasing international migration, declining birth rates, geographical disparities, and improved socioeconomic conditions – which are responsible for enhancing healthcare access, reducing mortality rates, and lowering fertility – also need to be addressed. Some specific policy recommendation is pointed out here.

- Older persons 60 years and older are increasing in proportion and absolute numbers in every census. This trend will continue in the future too. So, policies and programmes should target to initiate age-friendly communities and cities.
- Traditional living arrangements are slowly changing and the traditional elderly care system is under stress. Intervention programmes to provide a community care system is needed
- As noted, a major cause of death is non-communicable and communicable diseases in Nepali older persons. Policies and programmes should go parallelly focusing on both types of diseases.
- For the treatment of older persons and care of older persons specialized health personnel are required. Policies and programmes should focus on producing mid-level health personnel for the community care and treatment of older persons.
- With the increasing number of older persons, the prevalence of disability also increases, older persons and caretakers should be very careful while taking care of themselves, and awareness programmes to prevent falls will remain important.
- The problem of living alone or living with spouse only among older persons is high in the countryside compared to urban areas. Policies and programmes needs to address these problems.

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- The quality of life for older persons will be greatly enhanced by the development of geriatric health services and the education of medical personnel in elder care.
- Nepal's current senior citizen policy seem to stem more from welfare concerns than from an awareness of the country's demographic shift. One important suggestion is to move away from welfare-only methods and toward frameworks based on rights, which acknowledge the worth, independence, and accomplishments of senior citizens. This change would be in line with global frameworks such as the Madrid International Plan of Action on Ageing, which Nepal has been attempting to execute with support from the United Nations..
- Gender-responsive policies should be created that tackle the unique challenges faced by older women, including financial insecurity, health inequalities, and social isolation. These should ensure that disease disaster-resilient development is achieved by incorporating old-age needs in preparedness programs and should further a people's emergency response at a minimum.
- The Government of Nepal provides a social pension (old age allowances) based on chronological age and it is not based on the contribution they have provided. An intervention policy should be introduced to provide a contributory pension system who are not enrolled in the formal sector of employment so that it will be sustainable and also helpful for the social security of older persons.
- There is very little research carried out on the issues of older persons. The government should increase collaboration with universities, other institutions and private sectors so that different issues of older persons are identified and helps for the proper policy formulation.
- Healthy aging is an important issue raised by WHO and UN Bodies. Government policies and programmes should focus on the implementation of healthy aging initiatives through the participation of local government and community people.

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ANNEXES

Annex 1: Index of ageing, dependency ratio and OADR (based on 60 years and over) by districts, NPHC 2011-2021

District / Census Years	Index of ageing		Dependency ratio		Old age dependency ratio	
	2011	2021	2011	2021	2011	2021
Taplejung	23.33	38.30	82.76	62.48	15.65	17.30
Panchthar	25.33	44.67	77.43	61.38	15.65	18.95
Ilam	28.76	59.11	61.55	52.74	13.75	19.59
Jhapa	29.71	45.23	64.85	57.19	14.85	17.81
Morang	26.21	41.91	65.91	57.44	13.69	16.96
Sunsari	22.81	35.02	67.43	58.24	12.53	15.10
Dhankuta	29.86	51.88	70.87	59.16	16.30	20.21
Tehrathum	29.30	49.98	76.08	62.37	17.24	20.79
Sankhuwasabha	26.30	44.95	82.06	64.36	17.09	19.96
Bhojpur	29.31	49.46	81.57	66.68	18.49	22.06
Solukhumbu	26.73	45.26	78.38	63.60	16.53	19.82
Okhaldhunga	30.37	56.69	86.40	64.29	20.13	23.26
Khotang	26.76	47.68	89.83	70.30	18.96	22.70
Udayapur	21.23	37.53	82.38	62.72	14.42	17.12
Saptari	22.10	35.01	80.07	67.27	14.49	17.44
Siraha	20.41	28.98	86.27	74.53	14.62	16.74
Dhanusa	20.21	29.14	80.15	75.92	13.48	17.13
Mahottari	20.25	27.64	90.52	76.75	15.24	16.62
Sarlahi	19.27	27.32	87.54	72.16	14.14	15.48
Rautahat	18.50	22.16	92.46	81.44	14.43	14.78
Bara	17.88	25.66	86.16	69.88	13.07	14.27
Parsa	17.34	26.50	80.73	68.14	11.93	14.27
Sindhuli	20.34	38.08	89.20	62.22	15.07	17.16
Ramechhap	34.02	72.23	84.65	67.64	21.49	28.37
Dolakha	34.51	66.92	82.66	65.54	21.21	26.28
Sindhupalchok	34.10	61.48	78.22	63.95	19.89	24.35
Kavrepalanchok	31.33	56.33	68.09	54.30	16.24	19.57
Lalitpur	32.51	52.77	46.49	41.78	11.41	14.43
Bhaktapur	30.24	42.71	47.68	41.83	11.07	12.52

District / Census Years	Index of ageing		Dependency ratio		Old age dependency ratio	
	2011	2021	2011	2021	2011	2021
Kathmandu	25.41	43.30	42.45	39.30	8.60	11.88
Nuwakot	33.84	58.39	74.93	63.14	18.94	23.27
Rasuwa	30.29	47.81	79.64	61.58	18.52	19.92
Dhading	31.33	55.18	82.44	64.88	19.67	23.07
Makwanpur	22.75	38.54	72.91	55.25	13.52	15.37
Chitawan	29.19	46.09	61.53	51.61	13.90	16.28
Gorkha	38.70	72.84	83.96	68.31	23.42	28.79
Lamjung	39.80	75.85	79.90	63.52	22.75	27.40
Tanahu	31.73	55.33	79.46	59.56	19.14	21.22
Syangja	37.48	72.26	81.51	63.83	22.22	26.78
Kaski	30.19	49.43	60.31	49.17	13.99	16.27
Manang	48.48	90.31	47.15	39.77	15.40	18.87
Mustang	52.75	56.63	52.09	51.93	17.99	18.78
Myagdi	32.68	55.37	86.55	66.78	21.32	23.80
Parbat	34.67	60.79	81.68	65.90	21.03	24.92
Baglung	28.33	47.58	85.99	69.79	18.98	22.50
Nawalparasi -East	26.09	42.04	72.15	55.77	14.93	16.51
Gulmi	30.06	53.53	92.71	72.57	21.43	25.30
Palpa	28.81	51.17	79.77	59.97	17.84	20.30
Nawalparasi -West	25.05	38.06	71.78	56.94	14.38	15.70
Rupandehi	22.10	32.94	71.08	56.40	12.86	13.97
Kapilbastu	20.16	27.16	85.06	70.77	14.27	15.12
Arghakhanchi	28.33	49.47	92.61	72.14	20.44	23.88
Pyuthan	18.24	30.77	104.55	74.98	16.13	17.64
Rolpa	18.26	28.24	96.99	71.19	14.97	15.68
Rukum -East	21.65	32.31	90.31	70.05	16.07	17.11
Dang	18.55	31.95	74.77	55.65	11.70	13.47
Banke	18.33	25.95	74.54	60.76	11.55	12.52
Bardiya	20.54	35.29	70.87	54.97	12.07	14.34
Rukum-West	13.48	24.58	91.40	67.99	10.86	13.41
Salyan	15.29	28.15	87.42	64.87	11.59	14.25
Surkhet	16.55	26.70	81.37	61.83	11.55	13.03
Dailekh	15.42	25.82	97.69	76.08	13.05	15.61
Jajarkot	11.41	18.69	99.85	78.93	10.22	12.43
Dolpa	14.44	19.55	84.70	60.98	10.68	9.97

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District / Census Years	Index of ageing		Dependency ratio		Old age dependency ratio	
	2011	2021	2011	2021	2011	2021
Jumla	13.35	21.39	88.40	63.65	10.41	11.22
Kalikot	13.66	20.91	105.70	81.44	12.70	14.09
Mugu	16.63	20.22	99.67	80.16	14.22	13.48
Humla	17.97	23.65	92.06	80.65	14.03	15.43
Bajura	17.21	25.08	105.90	82.10	15.55	16.46
Bajhang	17.30	26.61	109.00	84.42	16.07	17.74
Achham	18.42	25.89	111.86	91.00	17.40	18.72
Doti	17.49	25.20	104.03	84.69	15.48	17.05
Kailali	19.12	32.30	74.70	57.50	11.99	14.04
Kanchanpur	19.80	33.86	77.89	59.61	12.87	15.08
Dadeldhura	19.35	32.03	94.68	70.39	15.35	17.08
Baitadi	21.53	31.78	97.95	75.16	17.35	18.13
Darchula	21.32	35.45	92.42	69.27	16.24	18.13

Annex 2: Index of ageing by district and province (65 years and over), NPHC 2011

Area	Index of ageing
Nepal	15.11
Province	
Koshi	17.22
Madhesh	12.06
Bagmati	19.55
Gandaki	22.21
Lumbini	13.92
Karnali	8.29
Sudurpashchim	12.12
District	
Taplejung	15.37
Sankhuwasabha	17.48
Solukhumbu	17.90
Okhaldhunga	21.01
Khotang	18.20
Bhojpur	19.92
Dhankuta	19.91
Tehrathum	20.14
Panchthar	16.99
Ilam	18.66
Jhapa	19.35
Morang	16.68
Sunsari	14.46
Udayapur	13.74
Saptari	13.46
Siraha	12.55
Dhanusa	12.09
Mahottari	12.46
Sarlahi	12.15
Rautahat	11.87
Bara	11.20
Parsa	10.74
Dolakha	24.28

Area	Index of ageing
Sindhupalchok	23.36
Rasuwa	20.65
Dhading	22.12
Nuwakot	23.62
Kathmandu	16.98
Bhaktapur	21.00
Lalitpur	22.26
Kavrepalanchok	21.63
Ramechhap	23.63
Sindhuli	13.47
Makwanpur	15.53
Chitawan	20.02
Gorkha	27.13
Manang	32.18
Mustang	35.54
Myagdi	22.13
Kaski	20.78
Lamjung	27.28
Tanahu	21.34
Nawalparasi -East	17.17
Syangja	25.49
Parbat	23.61
Baglung	18.94
Rukum - East	12.76
Rolpa	11.26
Pyuthan	11.59
Gulmi	20.03
Arghakhanchi	19.27
Palpa	19.21
Nawalparasi - West	16.05
Rupandehi	14.39
Kapilbastu	12.77

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Area	Index of ageing
Dang	11.30
Banke	11.49
Bardiya	12.78
Dolpa	7.49
Mugu	8.06
Humla	9.54
Jumla	6.30
Kalikot	6.91
Dailekh	8.98
Jajarkot	6.16
Rukum -West	7.54

Area	Index of ageing
Salyan	8.93
Surkhet	10.07
Bajura	10.90
Bajhang	11.10
Darchula	13.99
Baitadi	14.15
Dadeldhura	12.34
Doti	10.66
Achham	12.19
Kailali	11.87
Kanchanpur	12.33

Source: NPHC 2011

Annex 3: Highest and lowest 15 districts of 60 years and over population, Nepal, 2021

S.N.	Districts with highest percentage of 60+ population			SN	Districts with lowest percentage of 60+ population		
	District	Number	%		District	Number	%
1	Gorkha	42,937	17.10	1	Dolpa	2,650	6.19
2	Ramechhap	28,818	16.92	2	Jumla	8,111	6.85
3	Lamjung	26,113	16.75	3	Jajarkot	13,154	6.95
4	Syangja	41,354	16.34	4	Mugu	4,830	7.48
5	Dolakha	27,423	15.87	5	Kalikot	11,280	7.76
6	Parbat	19,657	15.01	6	Banke	46,968	7.78
7	Sindhupalchok	39,001	14.85	7	Surkhet	20,613	8.05
8	Gulmi	36,142	14.66	8	Rautahat	66,256	8.14
9	Myagdi	15,274	14.27	9	Bara	64,099	8.39
10	Nuwakot	37,578	14.26	10	Parsa	55,556	8.48
11	Okhaldhunga	19,757	14.15	11	Kathmandu	174,057	8.52
12	Dhading	45,573	13.99	12	Humla	4,730	8.53
13	Arghakhanchi	24,562	13.87	13	Salyan	33,426	8.64
14	Manang	764	13.50	14	Dang	58,435	8.65
15	Khotang	23,364	13.32	15	Bhaktapur	38,146	8.82

Source: NPHC 2021

Annex 4: Index of ageing (60 years and over), highest to lowest, NPHC 2011

District	Total		Index of ageing
	0-14	60+	Based on 60+
Mustang	3,016	1,591	52.75
Manang	1,411	684	48.48
Lamjung	53,284	21,208	39.80
Gorkha	89,198	34,516	38.70
Syangja	94,452	35,396	37.48
Parbat	48,939	16,967	34.67
Dolakha	62,766	21,659	34.51
Sindhupalchok	94,193	32,118	34.10
Ramechhap	69,317	23,581	34.02
Nuwakot	88,800	30,049	33.84
Myagdi	39,738	12,987	32.68
Lalitpur	112,109	36,450	32.51
Tanahu	108,670	34,478	31.73
Kavrepalanchok	117,798	36,912	31.33
Dhading	115,639	36,224	31.33
Okhaldhunga	52,615	15,979	30.37
Rasuwa	14,733	4,463	30.29
Bhaktapur	75,525	22,839	30.24
Kaski	142,205	42,935	30.19
Gulmi	103,628	31,154	30.06
Dhankuta	52,195	15,584	29.86
Jhapa	246,465	73,223	29.71
Bhojpur	63,391	18,579	29.31
Tehrathum	33,944	9,946	29.30
Chitawan	171,008	49,924	29.19
Palpa	89,968	25,923	28.81
Ilam	85,884	24,697	28.76
Baglung	96,772	27,417	28.33
Arghakhanchi	74,045	20,978	28.33
Khotang	77,023	20,608	26.76
Solukhumbu	36,711	9,814	26.73
Sankhuwasabha	56,651	14,898	26.30
Morang	303,874	79,636	26.21

District	Total		Index of ageing
	0-14	60+	Based on 60+
Nawalparasi -East	103,575	27,019	26.09
Kathmandu	414,441	105,303	25.41
Panchthar	66,792	16,918	25.33
Nawalparasi -West	110,912	27,783	25.05
Taplejung	46,800	10,917	23.33
Sunsari	250,378	57,117	22.81
Makwanpur	144,436	32,866	22.75
Saptari	232,816	51,454	22.10
Rupandehi	299,508	66,183	22.10
Rukum -East	20,746	4,492	21.65
Baitadi	102,162	21,991	21.53
Darchula	52,762	11,250	21.32
Udayapur	118,309	25,115	21.23
Bardiya	146,780	30,145	20.54
Siraha	245,140	50,030	20.41
Sindhuli	116,040	23,599	20.34
Mahottari	247,963	50,210	20.25
Dhanusa	279,335	56,466	20.21
Kapilbastu	218,774	44,108	20.16
Kanchanpur	164,914	32,660	19.80
Dadeldhura	57,899	11,206	19.35
Sarlahi	301,237	58,056	19.27
Kailali	278,427	53,249	19.12
Dang	199,412	36,998	18.55
Rautahat	278,410	51,493	18.50
Achham	114,800	21,143	18.42
Banke	177,325	32,503	18.33
Rolpa	93,473	17,064	18.26
Pyuthan	98,600	17,988	18.24
Humla	20,664	3,714	17.97
Bara	269,997	48,286	17.88
Doti	91,895	16,070	17.49
Parsa	228,797	39,663	17.34
Bajhang	86,775	15,008	17.30

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District	Total		Index of ageing
	0-14	60+	Based on 60+
Bajura	59,201	10,189	17.21
Mugu	23,661	3,936	16.63
Surkhet	135,043	22,344	16.55
Dailekh	112,071	17,284	15.42
Salyan	98,087	14,996	15.29
Dolpa	14,707	2,123	14.44
Kalikot	61,915	8,457	13.66
Rukum -West	65,386	8,815	13.48
Jumla	45,089	6,018	13.35
Jajarkot	76,825	8,764	11.41
Nepal	9,248,246	2,154,410	23.30

Source: NPHC 2011

Annex 5: Index of ageing by districts (60 years and over), highest to lowest, NPHC 2021

District	Total population		Index of ageing
	0-14	60+	Based on 60+
Manang	846	764	90.31
Lamjung	34,426	26,113	75.85
Gorkha	58,947	42,937	72.84
Syangja	57,230	41,354	72.26
Ramechhap	39,895	28,818	72.23
Dolakha	40,976	27,423	66.92
Sindhupalchok	63,437	39,001	61.48
Parbat	32,334	19,657	60.79
Ilam	60,661	35,859	59.11
Nuwakot	64,360	37,578	58.39
Okhaldhunga	34,852	19,757	56.69
Mustang	3,154	1,786	56.63
Kavrepalanchok	81,948	46,165	56.33
Myagdi	27,583	15,274	55.37
Tanahu	77,182	42,702	55.33
Dhading	82,595	45,573	55.18
Gulmi	67,512	36,142	53.53
Lalitpur	106,410	56,151	52.77
Dhankuta	36,856	19,120	51.88
Palpa	60,763	31,094	51.17
Tehrathum	22,726	11,359	49.98
Arghakhanchi	49,649	24,562	49.47
Bhojpur	42,269	20,906	49.46
Kaski	132,356	65,430	49.43
Rasuwa	12,038	5,755	47.81
Khotang	48,997	23,364	47.68
Baglung	69,408	33,025	47.58
Chitawan	167,736	77,313	46.09
Solukhumbu	28,061	12,700	45.26
Jhapa	250,038	113,092	45.23
Sankhuwasabha	42,695	19,191	44.95
Panchthar	45,324	20,247	44.67
Kathmandu	401,944	174,057	43.30

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District	Total population		Index of ageing
	0-14	60+	Based on 60+
Bhaktapur	89,309	38,146	42.71
Nawalparasi (East)	95,302	40,065	42.04
Morang	295,185	123,709	41.91
Makwanpur	119,722	46,135	38.54
Taplejung	33,529	12,841	38.30
Sindhuli	83,344	31,734	38.08
Nawalparasi (West)	101,665	38,694	38.06
Udayapur	95,496	35,837	37.53
Darchula	40,277	14,279	35.45
Bardiya	120,580	42,554	35.29
Sunsari	252,687	88,482	35.02
Saptari	210,377	73,653	35.01
Kanchanpur	143,345	48,535	33.86
Rupandehi	304,340	100,249	32.94
Rukum (East)	17,680	5,713	32.31
Kailali	249,648	80,640	32.30
Dadeldhura	43,680	13,,991	32.03
Dang	182,902	58,435	31.95
Baitadi	78,848	25,060	31.78
Pyuthan	76031	23,393	30.77
Dhanusa	289,972	84,506	29.14
Siraha	245,003	70,990	28.98
Rolpa	76,137	21,500	28.24
Salyan	73,230	20,613	28.15
Mahottari	240,516	66,478	27.64
Sarlahi	283,940	77,569	27.32
Kapilbastu	222,578	60,455	27.16
Surkhet	125,177	33,426	26.70
Bajhang	68,366	18,192	26.61
Parsa	209,682	55,556	26.50
Banke	181,020	46,968	25.95
Achham	86,610	22,427	25.89
Dailekh	86,641	22,374	25.82
Bara	249,830	64,099	25.66

District	Total population		Index of ageing
	0-14	60+	Based on 60+
Doti	75,023	18,904	25.20
Bajura	49,930	12,522	25.08
Rukum (West)	54,169	13,314	24.58
Humla	20,000	4,730	23.65
Rautahat	298,922	66,256	22.16
Jumla	37,919	8,111	21.39
Kalikot	53,935	11,280	20.91
Mugu	23,890	4,830	20.22
Dolpa	13,553	2,650	19.55
Jajarkot	70,377	13,154	18.69
Nepal	8,115,575	2,977,318	36.69

Source: NPHC 2021

Annex 6: Total dependency ratio (60 years and over), highest to lowest, NPHC 2011

District	Total			TDR
	0-14	15-59	60+	Based on 60+
Achham	114,800	121,534	21,143	111.86
Bajhang	86,775	93,376	15,008	109.00
Bajura	59,201	65,522	10,189	105.90
Kalikot	61,915	66,576	8,457	105.70
Pyuthan	98,600	111,514	17,988	104.55
Doti	91,895	103,781	16,070	104.03
Jajarkot	76,825	85,715	8,764	99.85
Mugu	23,661	27,689	3,936	99.67
Baitadi	102,162	126,745	21,991	97.95
Dailekh	112,071	132,415	17,284	97.69
Rolpa	93,473	113,969	17,064	96.99
Dadeldhura	57,899	72,989	11,206	94.68
Gulmi	103,628	145,378	31,154	92.71
Arghakhanchi	74,045	102,609	20,978	92.61
Rautahat	278,410	356,819	51,493	92.46
Darchula	52,762	69,262	11,250	92.42
Humla	20,664	26,480	3,714	92.06
Rukum -West	65,386	81,182	8,815	91.40
Mahottari	247,963	329,407	50,210	90.52
Rukum - East	20,746	27,946	4,492	90.31
Khotang	77,023	108,681	20,608	89.83
Sindhuli	116,040	156,553	23,599	89.20
Jumla	45,089	57,814	6,018	88.40
Sarlahi	301,237	410,436	58,056	87.54
Salyan	98,087	129,361	14,996	87.42
Myagdi	39,738	60,916	12,987	86.55
Okhaldhunga	52,615	79,390	15,979	86.40
Siraha	245,140	342,158	50,030	86.27
Bara	269,997	369,425	48,286	86.16
Baglung	96,772	144,424	27,417	85.99
Kapilbastu	218,774	309,054	44,108	85.06
Dolpa	14,707	19,870	2,123	84.70
Ramechhap	69,317	109,748	23,581	84.65

District	Total			TDR
	0-14	15-59	60+	Based on 60+
Gorkha	89,198	147,347	34,516	83.96
Taplejung	46,800	69,744	10,917	82.76
Dolakha	62,766	102,132	21,659	82.66
Dhading	115,639	184,204	36,224	82.44
Udayapur	118,309	174,108	25,115	82.38
Sankhuwasabha	56,651	87,193	14,898	82.06
Parbat	48,939	80,684	16,967	81.68
Bhojpur	63,391	100,489	18,579	81.57
Syangja	94,452	159,300	35,396	81.51
Surkhet	135,043	193,417	22,344	81.37
Parsa	228,797	332,557	39,663	80.73
Dhanusa	279,335	418,976	56,466	80.15
Saptari	232,816	355,014	51,454	80.07
Lamjung	53,284	93,232	21,208	79.90
Palpa	89,968	145,289	25,923	79.77
Rasuwa	14,733	24,104	4,463	79.64
Tanahu	108,670	180,140	34,478	79.46
Solukhumbu	36,711	59,361	9,814	78.38
Sindhupalchok	94,193	161,487	32,118	78.22
Kanchanpur	164,914	253,674	32,660	77.89
Panchthar	66,792	108,107	16,918	77.43
Tehrathum	33,944	57,687	9,946	76.08
Nuwakot	88,800	158,622	30,049	74.93
Dang	199,412	316,173	36,998	74.77
Kailali	278,427	444,033	53,249	74.70
Banke	177,325	281,485	32,503	74.54
Makwanpur	144,436	243,175	32,866	72.91
Nawalparasi - East	103,575	181,010	27,019	72.15
Nawalparasi - West	110,912	193,209	27,783	71.78
Rupandehi	299,508	514,505	66,183	71.08
Dhankuta	52,195	95,633	15,584	70.87
Bardiya	146,780	249,651	30,145	70.87
Kavrepalanchok	117,798	227,227	36,912	68.09
Sunsari	250,378	455,992	57,117	67.43

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District	Total			TDR
	0-14	15-59	60+	Based on 60+
Morang	303,874	581,860	79,636	65.91
Jhapa	246,465	492,962	73,223	64.85
Ilam	85,884	179,673	24,697	61.55
Chitawan	171,008	359,052	49,924	61.53
Kaski	142,205	306,958	42,935	60.31
Mustang	3,016	8,845	1,591	52.09
Bhaktapur	75,525	206,287	22,839	47.68
Manang	1,411	4,443	684	47.15
Lalitpur	112,109	319,573	36,450	46.49
Kathmandu	414,441	1,224,496	105,303	42.45
Nepal	9,248,246	15,091,848	2,154,410	75.56

Source: NPHC 2011

Annex 7: Total dependency ratio (60 years and over), highest to lowest, NPHC 2021

District	Total			TDR
	0-14	15-59	60+	Based on 60+
Achham	86,610	119,815	22,427	91.00
Doti	75,023	110,904	18,904	84.69
Bajhang	68,366	102,527	18,192	84.42
Bajura	49,930	76,071	12,522	82.10
Rautahat	298,922	448,395	66,256	81.44
Kalikot	53,935	80,077	11,280	81.44
Humla	20,000	30,664	4,730	80.65
Mugu	23,890	35,829	4,830	80.16
Jajarkot	70,377	105,829	13,154	78.93
Mahottari	240,516	400,000	66,478	76.75
Dailekh	86,641	143,298	22,374	76.08
Dhanusa	289,972	493,269	84,506	75.92
Baitadi	78,848	138,249	25,060	75.16
Pyuthan	76,031	132,595	23,393	74.98
Siraha	245,003	423,960	70,990	74.53
Gulmi	67,512	142,840	36,142	72.57
Sarlahi	283,940	500,961	77,569	72.16
Arghakhanchi	49,649	102,875	24,562	72.14
Rolpa	76,137	137,156	21,500	71.19
Kapilbastu	222,578	399,928	60,455	70.77
Dadeldhura	43,680	81,931	13,991	70.39
Khotang	48,997	102,937	23,364	70.30
Rukum-(East	17,680	33,393	5,713	70.05
Bara	249,830	449,208	64,099	69.88
Baglung	69,408	146,778	33,025	69.79
Darchula	40,277	78,754	14,279	69.27
Gorkha	58,947	149,143	42,937	68.31
Parsa	209,682	389,233	55,556	68.14
Rukum - West	54,169	99,257	13,314	67.99
Ramechhap	39,895	101,589	28,818	67.64
Saptari	210,377	422,225	73,653	67.27
Myagdi	27,583	64,176	15,274	66.78
Bhojpur	42,269	94,748	20,906	66.68

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District	Total			TDR
	0-14	15-59	60+	Based on 60+
Parbat	32,334	78,896	19,657	65.90
Dolakha	40,976	104,368	27,423	65.54
Dhading	82,595	197,542	45,573	64.88
Salyan	73,230	144,672	20,613	64.87
Sankhuwasabha	42,695	96,155	19,191	64.36
Okhaldhunga	34,852	84,943	19,757	64.29
Sindhupalchok	63,437	160,186	39,001	63.95
Syangja	57,230	154,440	41,354	63.83
Jumla	37,919	72,319	8,111	63.65
Solukhumbu	28,061	64,090	12,700	63.60
Lamjung	34,426	95,313	26,113	63.52
Nuwakot	64,360	161,453	37,578	63.14
Udayapur	95,496	209,388	35,837	62.72
Taplejung	33,529	74,220	12,841	62.48
Tehrathum	22,726	54,646	11,359	62.37
Sindhuli	83,344	184,948	31,734	62.22
Surkhet	125,177	256,523	33,426	61.83
Rasuwa	12,038	28,896	5,755	61.58
Panchthar	45,324	106,829	20,247	61.38
Dolpa	13,553	26,571	2,650	60.98
Banke	181,020	375,206	46,968	60.76
Palpa	60,763	153,170	31,094	59.97
Kanchanpur	143,345	321,877	48,535	59.61
Tanahu	77,182	201,269	42,702	59.56
Dhankuta	36,856	94,623	19,120	59.16
Sunsari	252,687	585,793	88,482	58.24
Kailali	249,648	574,378	80,640	57.50
Morang	295,185	729,262	123,709	57.44
Jhapa	250,038	634,924	113,092	57.19
Nawalparasi -	101,665	246,509	38,694	56.94
Rupandehi	304,340	717,368	100,249	56.40
Nawalparasi -East	95,302	242,712	40,065	55.77
Dang	182,902	433,656	58,435	55.65
Makwanpur	119,722	300,216	46,135	55.25

District	Total			TDR
	0-14	15-59	60+	Based on 60+
Bardiya	120,580	296,766	42,554	54.97
Kavrepalanchok	81,948	235,926	46,165	54.30
Ilam	60,661	183,014	35,859	52.74
Mustang	3,154	9,512	1,786	51.93
Chitawan	167,736	474,810	77,313	51.61
Kaski	132,356	402,265	65,430	49.17
Bhaktapur	89,309	304,677	38,146	41.83
Lalitpur	106,410	389,106	56,151	41.78
Manang	846	4,048	764	39.77
Kathmandu	401,944	1,465,586	174,057	39.30
Nepal	8,115,575	18,071,685	2,977,318	61.38

Source: NPHC 2021

Annex 8: Old age dependency ratio (60 years and over), highest to lowest, NPHC 2011

District	Total		OADR
	15-59	60+	Based on 60+
Gorkha	147,347	34,516	23.42
Lamjung	93,232	21,208	22.75
Syangja	159,300	35,396	22.22
Ramechhap	109,748	23,581	21.49
Gulmi	145,378	31,154	21.43
Myagdi	60,916	12,987	21.32
Dolakha	102,132	21,659	21.21
Parbat	80,684	16,967	21.03
Arghakhanchi	102,609	20,978	20.44
Okhaldhunga	79,390	15,979	20.13
Sindhupalchok	161,487	32,118	19.89
Dhading	184,204	36,224	19.67
Tanahu	180,140	34,478	19.14
Baglung	144,424	27,417	18.98
Khotang	108,681	20,608	18.96
Nuwakot	158,622	30,049	18.94
Rasuwa	24,104	4,463	18.52
Bhojpur	100,489	18,579	18.49
Mustang	8,845	1,591	17.99
Palpa	145,289	25,923	17.84
Achham	121,534	21,143	17.40
Baitadi	126,745	21,991	17.35
Tehrathum	57,687	9,946	17.24
Sankhuwasabha	87,193	14,898	17.09
Solukhumbu	59,361	9,814	16.53
Dhankuta	95,633	15,584	16.30
Kavrepalanchok	227,227	36,912	16.24
Darchula	69,262	11,250	16.24
Pyuthan	111,514	17,988	16.13
Rukum - East	27,946	4,492	16.07
Bajhang	93,376	15,008	16.07
Taplejung	69,744	10,917	15.65
Panchthar	108,107	16,918	15.65

District	Total		OADR
	15-59	60+	Based on 60+
Bajura	65,522	10,189	15.55
Doti	103,781	16,070	15.48
Manang	4,443	684	15.40
Dadeldhura	72,989	11,206	15.35
Mahottari	329,407	50,210	15.24
Sindhuli	156,553	23,599	15.07
Rolpa	113,969	17,064	14.97
Nawalparasi - East	181,010	27,019	14.93
Jhapa	492,962	73,223	14.85
Siraha	342,158	50,030	14.62
Saptari	355,014	51,454	14.49
Rautahat	356,819	51,493	14.43
Udayapur	174,108	25,115	14.42
Nawalparasi -West	193,209	27,783	14.38
Kapilbastu	309,054	44,108	14.27
Mugu	27,689	3,936	14.22
Sarlahi	410,436	58,056	14.14
Humla	26,480	3,714	14.03
Kaski	306,958	42,935	13.99
Chitawan	359,052	49,924	13.90
Ilam	179,673	24,697	13.75
Morang	581,860	79,636	13.69
Makwanpur	243,175	32,866	13.52
Dhanusa	418,976	56,466	13.48
Bara	369,425	48,286	13.07
Dailekh	132,415	17,284	13.05
Kanchanpur	253,674	32,660	12.87
Rupandehi	514,505	66,183	12.86
Kalikot	66,576	8,457	12.70
Sunsari	455,992	57,117	12.53
Bardiya	249,651	30,145	12.07
Kailali	444,033	53,249	11.99
Parsa	332,557	39,663	11.93
Dang	316,173	36,998	11.70

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District	Total		OADR
	15-59	60+	Based on 60+
Salyan	129,361	14,996	11.59
Surkhet	193,417	22,344	11.55
Banke	281,485	32,503	11.55
Lalitpur	319,573	36,450	11.41
Bhaktapur	206,287	22,839	11.07
Rukum - West	81,182	8,815	10.86
Dolpa	19,870	2,123	10.68
Jumla	57,814	6,018	10.41
Jajarkot	85,715	8,764	10.22
Kathmandu	1,224,496	105,303	8.60
Nepal	15,091,848	2,154,410	14.28

Source: NPHC 2011

Annex 9: Old age dependency ratio (60 years and over), highest to lowest, NPHC 2021

District	Total		OADR
	15-59	60+	Based on 60+
Gorkha	149,143	42,937	28.79
Ramechhap	101,589	28,818	28.37
Lamjung	95,313	26,113	27.40
Syangja	154,440	41,354	26.78
Dolakha	104,368	27,423	26.28
Gulmi	142,840	36,142	25.30
Parbat	78,896	19,657	24.92
Sindhupalchok	160,186	39,001	24.35
Arghakhanchi	102,875	24,562	23.88
Myagdi	64,176	15,274	23.80
Nuwakot	161,453	37,578	23.27
Okhaldhunga	84,943	19,757	23.26
Dhading	197,542	45,573	23.07
Khotang	102,937	23,364	22.70
Baglung	146,778	33,025	22.50
Bhojpur	94,748	20,906	22.06
Tanahu	201,269	42,702	21.22
Tehrathum	54,646	11,359	20.79
Palpa	153,170	31,094	20.30
Dhankuta	94,623	19,120	20.21
Sankhuwasabha	96,155	19,191	19.96
Rasuwa	28,896	5,755	19.92
Solukhumbu	64,090	12,700	19.82
Ilam	183,014	35,859	19.59
Kavrepalanchok	235,926	46,165	19.57
Panchthar	106,829	20,247	18.95
Manang	4,048	764	18.87
Mustang	9,512	1,786	18.78
Achham	119,815	22,427	18.72
Darchula	78,754	14,279	18.13
Baitadi	138,249	25,060	18.13
Jhapa	634,924	113,092	17.81
Bajhang	102,527	18,192	17.74

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District	Total		OADR
	15-59	60+	Based on 60+
Pyuthan	132,595	23,393	17.64
Saptari	422,225	73,653	17.44
Taplejung	74,220	12,841	17.30
Sindhuli	184,948	31,734	17.16
Dhanusa	493,269	84,506	17.13
Udayapur	209,388	35,837	17.12
Rukum -East	33,393	5,713	17.11
Dadeldhura	81,931	13,991	17.08
Doti	110,904	18,904	17.05
Morang	729,262	123,709	16.96
Siraha	423,960	70,990	16.74
Mahottari	400,000	66,478	16.62
Nawalparasi -East	242,712	40,065	16.51
Bajura	76,071	12,522	16.46
Chitawan	474,810	77,313	16.28
Kaski	402,265	65,430	16.27
Nawalparasi -West	246,509	38,694	15.70
Rolpa	137,156	21,500	15.68
Dailekh	143,298	22,374	15.61
Sarlahi	500,961	77,569	15.48
Humla	30,664	4,730	15.43
Makwanpur	300,216	46,135	15.37
Kapilbastu	399,928	60,455	15.12
Sunsari	585,793	88,482	15.10
Kanchanpur	321,877	48,535	15.08
Rautahat	448,395	66,256	14.78
Lalitpur	389,106	56,151	14.43
Bardiya	296,766	42,554	14.34
Parsa	389,233	55,556	14.27
Bara	449,208	64,099	14.27
Salyan	144,672	20,613	14.25
Kalikot	80,077	11,280	14.09
Kailali	574,378	80,640	14.04
Rupandehi	717,368	100,249	13.97

District	Total		OADR
	15-59	60+	Based on 60+
Mugu	35,829	4,830	13.48
Dang	433,656	58,435	13.47
Rukum -West	99,257	13,314	13.41
Surkhet	256,523	33,426	13.03
Bhaktapur	304,677	38,146	12.52
Banke	375,206	46,968	12.52
Jajarkot	105,829	13,154	12.43
Kathmandu	1,465,586	174,057	11.88
Jumla	72,319	8,111	11.22
Dolpa	26,571	2,650	9.97
Nepal	18,071,685	2,977,318	16.48

Source: NPHC 2021

Annex 10: Trend of dependency ratio and index of ageing - 2021 (based on 60 years and over and 65 years and over)

Area	Based on old age 60+				Based on old age 65+			
	Total dependency ratio	Child dependency ratio	Old-age dependency ratio	Index of ageing	Total dependency ratio	Child dependency ratio	Old-age dependency ratio	Index of ageing
Nepal	61.38	44.91	16.48	36.69	53.28	42.65	10.63	24.91
Province								
Koshi	59.25	41.38	17.86	43.16	50.38	39.08	11.30	28.92
Madhesh	73.35	57.50	15.85	27.57	65.23	54.81	10.42	19.01
Bagmati	48.85	32.94	15.91	48.30	41.55	31.33	10.22	32.63
Gandaki	59.27	38.02	21.25	55.90	49.41	35.67	13.75	38.54
Lumbini	61.51	46.06	15.44	33.53	53.82	43.87	9.95	22.69
Karnali	69.68	56.17	13.52	24.06	61.88	53.58	8.29	15.48
Sudurpashchim	67.95	52.09	15.86	30.46	60.17	49.67	10.50	21.14

Source: NPHC 2021

Annex 11: Dependency ratio and index of ageing by district – 2021

Area	Based on	Based on old age 65+				
	Total dependency ratio	Old-age dependency ratio	Index of ageing	Total dependency ratio	Old-age dependency ratio	Index of ageing
Nepal	61.38	16.48	36.69	53.28	10.63	24.91
Koshi	59.25	17.86	43.16	50.38	11.30	28.92
Taplejung	62.48	17.30	38.30	53.41	10.75	25.21
Sankhuwasabha	64.36	19.96	44.95	53.99	12.39	29.78
Solukhumbu	63.60	19.82	45.26	53.78	12.63	30.68
Okhaldhunga	64.29	23.26	56.69	53.26	14.99	39.15
Khotang	70.30	22.70	47.68	58.97	14.54	32.72
Bhojpur	66.68	22.06	49.46	55.35	13.77	33.12
Dhankuta	59.16	20.21	51.88	49.07	12.59	34.51
Tehrathum	62.37	20.79	49.98	51.54	12.73	32.80
Panchthar	61.38	18.95	44.67	51.33	11.54	29.01
Ilam	52.74	19.59	59.11	43.22	12.14	39.06
Jhapa	57.19	17.81	45.23	48.78	11.51	30.88
Morang	57.44	16.96	41.91	49.00	10.70	27.92
Sunsari	58.24	15.10	35.02	50.53	9.50	23.14
Udayapur	62.72	17.12	37.53	54.22	11.00	25.45
Madhesh	73.35	15.85	27.57	65.23	10.42	19.01
Saptari	67.27	17.44	35.01	59.03	11.66	24.62
Siraha	74.53	16.74	28.98	65.83	10.92	19.89
Dhanusa	75.92	17.13	29.14	66.70	10.99	19.74
Mahottari	76.75	16.62	27.64	67.88	10.77	18.85
Sarlahi	72.16	15.48	27.32	64.15	10.11	18.71
Rautahat	81.44	14.78	22.16	74.06	10.11	15.81
Bara	69.88	14.27	25.66	62.74	9.46	17.76
Parsa	68.14	14.27	26.50	60.81	9.29	18.03
Bagmati	48.85	15.91	48.30		10.22	32.63
Dolakha	65.54	26.28	66.92	53.20	16.87	46.42
Sindhupalchok	63.95	24.35	61.48	52.51	15.67	42.54
Rasuwa	61.58	19.92	47.81	52.20	12.96	33.02
Dhading	64.88	23.07	55.18	54.20	15.10	38.61
Nuwakot	63.14	23.27	58.39	52.00	14.86	40.00
Kathmandu	39.30	11.88	43.30	33.94	7.57	28.71
Bhaktapur	41.83	12.52	42.71	36.17	8.03	28.53
Lalitpur	41.78	14.43	52.77	35.34	9.23	35.36

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Area	Based on	Based on old age 65+				
	Total dependency ratio	Old-age dependency ratio	Index of ageing	Total dependency ratio	Old-age dependency ratio	Index of ageing
Kavrepalanchok	54.30	19.57	56.33	44.88	12.27	37.61
Ramechhap	67.64	28.37	72.23	54.35	18.20	50.32
Sindhuli	62.22	17.16	38.08	53.79	11.07	25.90
Makwanpur	55.25	15.37	38.54	47.68	9.75	25.69
Chitawan	51.61	16.28	46.09	44.04	10.48	31.22
Gandaki	59.27	21.25	55.90	49.41	13.75	38.54
Gorkha	68.31	28.79	72.84	54.94	18.55	50.99
Manang	39.77	18.87	90.31	32.60	12.77	64.42
Mustang	51.93	18.78	56.63	43.46	12.15	38.81
Myagdi	66.78	23.80	55.37	56.10	15.87	39.45
Kaski	49.17	16.27	49.43	41.74	10.48	33.52
Lamjung	63.52	27.40	75.85	50.88	17.55	52.66
Tanahu	59.56	21.22	55.33	49.49	13.56	37.74
Nawalparasi	55.77	16.51	42.04	47.96	10.66	28.59
Syangja	63.83	26.78	72.26	51.64	17.34	50.56
Parbat	65.90	24.92	60.79	54.09	16.02	42.10
Baglung	69.79	22.50	47.58	58.72	14.52	32.84
Lumbini	61.51	15.44	33.53	53.82	9.95	22.69
Rukum (East)	70.05	17.11	32.31	60.68	10.65	21.30
Rolpa	71.19	15.68	28.24	62.68	9.93	18.82
Pyuthan	74.98	17.64	30.77	65.21	11.07	20.45
Gulmi	72.57	25.30	53.53	59.56	15.86	36.29
Arghakhanchi	72.14	23.88	49.47	59.90	15.07	33.62
Palpa	59.97	20.30	51.17	50.16	12.92	34.70
Nawalparasi	56.94	15.70	38.06	49.57	10.26	26.11
Rupandehi	56.40	13.97	32.94	49.57	9.00	22.18
Kapilbastu	70.77	15.12	27.16	63.37	10.13	19.03
Dang	55.65	13.47	31.95	48.62	8.35	20.74
Banke	60.76	12.52	25.95	54.65	8.24	17.75
Bardiya	54.97	14.34	35.29	48.22	9.36	24.09
Karnali	69.68	13.52	24.06	61.88	8.29	15.48
Dolpa	60.98	9.97	19.55	54.38	5.46	11.17
Mugu	80.16	13.48	20.22	71.64	8.12	12.78
Humla	80.65	15.43	23.65	70.87	9.18	14.88
Jumla	63.65	11.22	21.39	56.59	6.42	12.79

Area	Based on	Based on old age 65+				
	Total dependency ratio	Old-age dependency ratio	Index of ageing	Total dependency ratio	Old-age dependency ratio	Index of ageing
Kalikot	81.44	14.09	20.91	71.96	8.13	12.73
Dailekh	76.08	15.61	25.82	67.21	9.79	17.05
Jajarkot	78.93	12.43	18.69	71.07	7.49	11.78
Rukum (West)	67.99	13.41	24.58	60.37	8.27	15.87
Salyan	64.87	14.25	28.15	57.01	8.81	18.27
Surkhet	61.83	13.03	26.70	55.04	8.29	17.73
Sudurpashchim	67.95	15.86	30.46	60.17	10.50	21.14
Bajura	82.10	16.46	25.08	73.31	10.84	17.36
Bajhang	84.42	17.74	26.61	75.33	11.94	18.83
Darchula	69.27	18.13	35.45	60.63	12.10	24.93
Baitadi	75.16	18.13	31.78	66.09	12.01	22.21
Dadeldhura	70.39	17.08	32.03	61.77	11.15	22.03
Doti	84.69	17.05	25.20	74.85	10.81	16.88
Achham	91.00	18.72	25.89	81.39	12.74	18.56
Kailali	57.50	14.04	32.30	51.09	9.39	22.53
Kanchanpur	59.61	15.08	33.86	52.25	9.77	22.99

Source: NPHC, 2021

Annex 12: Percentage surviving to age 60 by ecological zone and provinces, 2021 census, Nepal

Area	Percentage surviving to age 60 by ecological zone and provinces, 2021 census, Nepal		
	Both sex	Women	Men
Nepal	80.0	84.7	75.1
Ecological zone			
Mountain	80.6	84.3	77.0
Hill	81.2	86.4	75.9
Tarai	79.0	83.5	74.4
Province			
Koshi	78.5	83.2	73.9
Madhesh	81.1	83.9	78.3
Bagmati	82.6	87.0	78.3
Gandaki	80.5	87.0	73.4
Lumbini	76.8	82.7	70.6
Karnali	81.7	86.0	77.2
Sudurpashchim	79.1	85.3	72.4

Source: NPHC, 2021, Thematic report of Mortality, 2024

Annex 13: Remaining life expectancy at age 60, by ecological zones and provinces

Area	Life expectancy at age 60, 2021 census, Nepal		
	Both sex	Women	Men
Nepal	19.4	20.7	18.2
Ecological zone			
Mountain	20.7	22.3	19.2
Hill	19.7	21.2	18.3
Tarai	19.0	20.0	18.0
Province			
Koshi	19.3	20.5	18.2
Madhesh	19.6	20.3	19.0
Bagmati	19.3	20.7	18.0
Gandaki	20.0	21.4	18.6
Lumbini	18.8	20.0	17.7
Karnali	19.8	21.5	18.3
Sudurpashchim	19.8	21.9	17.8

Source: NPHC, 2021, Thematic report of Mortality, 2024

Annex 14: Disability status of older person in Nepal, 2021

Disability and types	Nepal		
	Men	Women	Total
Population with Disability	104,238	101,798	206,036
Physical disability	34,242	26,497	60,739
Low vision	25,729	30,057	55,786
Blind	3,023	3,623	6,646
Deaf	12,167	11,449	23,616
Hard of hearing	12,875	12,761	25,636
Deaf and Blind	2,078	2,335	4,413
Speech problem	4,174	3,712	7,886
Mental or Manosamajik	1,368	2,298	3,666
Intellectual disability	590	1,020	1,610
Hemophilia	520	493	1,013
Autism	207	573	780
Multiple disability	7265	6,980	14,245
No disability	1,339,108	1,430,992	2,770,100
Not reported	561	621	1182
Total senior citizen (>=60)	1,443,907	1,533,411	2,977,318

Source: NPHC 2021

Annex 15: Disability status of older person by provinces: Koshi and Madhesh, 2021

Disability and types	Koshi			Madhesh		
	Men	Women	Total	Men	Women	Total
Population with	19,955	19,030	38,985	13,255	11,957	25,212
Physical disability	6,070	4,620	5,207	4,632	2,978	7,610
Low vision			9,827	4,066	4,463	8,529
Blind	533	594	1,127	502	513	1,015
Deaf	2,319	2,062	4,381	1,298	1,261	2,559
Hard of hearing	3,218	2,775	5,993	650	683	1,333
Deaf and Blind	423	471	894	237	268	505
Speech problem	880	798	1,678	455	336	791
Mental or	300	475	775	186	252	438
Intellectual	127	200	327	107	207	314
Hemophilia	82	77	159	112	91	203
Autism	27	100	127	37	99	136
Multiple disability	1,356	1,310	2,666	973	806	1779
No disability	252,807	264,619	517,426	273,999	259,846	533,845
Not reported	33	20	53	30	20	50
Total senior	272,795	283,669	556,464	287,284	271,823	559,107

Source: NPHC 2021

Annex 16: Disability status of older person by provinces: Bagmati and Gandaki, 2021

Disability and types	Bagmati			Gandaki		
	Men	Women	Total	Men	Women	Total
Population with	21,663	22,020	43,683	14,043	13,208	27,251
Physical disability	6,726	5,690	12,416	4,529	3,189	7,718
Low vision	5,270	6,183	11,453	2,944	3,256	6,200
Blind	628	709	1,337	336	422	758
Deaf	2,512	2,324	4,836	1,972	1,855	3,827
Hard of hearing	3,003	3,086	6,089	1,954	2,026	3,980
Deaf and Blind	456	521	977	293	286	579
Speech problem	851	779	1,630	726	687	1,413
Mental or	301	581	882	216	358	574
Intellectual disability	112	232	344	71	113	184
Hemophilia	138	147	285	28	25	53
Autism	42	140	182	21	55	76
Multiple disability	1,624	1,628	3,252	953	936	1,889
No disability	291,167	318,935	610,102	138,986	162,137	301,123
Not reported	27	37	64	332	401	733
Total senior citizen	312,857	340,992	653,849	153,361	175,746	329,107

Source: NPHC 2021

Annex 17: Disability status of older person by provinces: Lumbini and Karnali, 2021

Disability and types	Lumbini			Karnali		
	Men	Women	Total	Men	Women	Total
Population with	18,659	18,009	36,668	6,555	6,280	12,835
Physical disability	6,281	4,686	10,967	2,433	1,853	4,286
Low vision	4,930	5,702	10,632	1,414	1,769	3,183
Blind	549	628	1,177	156	270	426
Deaf	2,046	2,008	4,054	916	780	1,696
Hard of hearing	2,205	2,202	4,407	662	677	1,339
Deaf and Blind	359	407	766	121	132	253
Speech problem	636	538	1,174	292	250	542
Mental or	218	356	574	55	74	129
Intellectual disability	93	121	214	33	37	70
Hemophilia	108	108	216	12	7	19
Autism	48	98	146	17	33	50
Multiple disability	1,186	1,155	2,341	444	398	842
No disability	219,370	233,570	452,940	58,240	633,44	121,584
Not reported	85	66	151	28	35	63
Total senior citizen	238,114	251,645	489,759	64,823	69,659	134,482

Source: NPHC 2021

Annex 18: Disability status of older person by province: Sudurpashchim

Disability and types	Sudurpashchim		
	Men	Women	Total
Population with Disability	10,108	11,294	21,402
Physical disability	3,571	3,140	6,711
Low vision	2,485	3,477	5,962
Blind	319	487	806
Deaf	1,104	1,159	2,263
Hard of hearing	1,183	1,312	2,495
Deaf and Blind	189	250	439
Speech problem	334	324	658
Mental or psychosocial	92	202	294
Intellectual disability	47	110	157
Hemophilia	40	38	78
Autism	15	48	63
Multiple disability	729	747	1,476
No disability	104,539	128,541	233,080
Not reported	26	42	68
Total senior citizen (>=60)	114,673	139,877	254,550

Source: NPHC 2021

Annex 19: Percentage surviving to age 60 & Life expectancy at age 60)

Area	Percentage surviving to age 60			Life expectancy at age 60		
	Both sex	Women	Men	Both sex	Women	Men
Nepal	80.0	84.7	75.1	19.4	20.7	18.2
Ecological Zone						
Mountain	80.6	84.3	77.0	20.7	22.3	19.2
Hill	81.2	86.4	75.9	19.7	21.2	18.3
Tarai	79.0	83.5	74.4	19.0	20.0	18.0
Province						
Koshi	78.5	83.2	73.9	19.3	20.5	18.2
Madhesh	81.1	83.9	78.3	19.6	20.3	19.0
Bagmati	82.6	87.0	78.3	19.3	20.7	18.0
Gandaki	80.5	87.0	73.4	20.0	21.4	18.6
Lumbini	76.8	82.7	70.6	18.8	20.0	17.7
Karnali	81.7	86.0	77.2	19.8	21.5	18.3
Sudur Paschim	79.1	85.3	72.4	19.8	21.9	17.8
District						
Taplejung	76.6	78.7	74.8	20.0	20.0	20.2
Sankhuwasabha	79.0	81.3	76.8	19.3	20.1	18.6
Solukhumbu	78.8	83.9	74.9	21.7	22.4	20.6
Okhaldhunga	82.8	85.9	79.7	23.8	26.6	21.5
Khotang	83.1	86.7	79.6	22.0	22.5	21.6
Bhojpur	79.9	84.7	75.2	20.0	21.9	18.5
Dhankuta	77.5	82.3	72.9	18.5	20.5	17.0
Tehrathum	75.9	78.8	73.3	18.8	20.1	17.6
Panchthar	73.1	77.3	69.0	17.5	18.6	16.7
Ilam	79.7	83.1	76.6	19.8	20.1	19.5
Jhapa	79.4	84.6	74.2	18.7	19.6	17.9
Morang	77.6	83.2	72.1	17.5	19.2	16.1
Sunsari	78.8	83.0	74.6	17.1	18.4	15.9
Udayapur	81.7	87.1	76.1	20.2	21.8	18.7
Saptari	81.0	84.5	77.5	18.9	19.6	18.2
Siraha	80.1	83.6	76.5	18.7	19.3	18.2

Area	Percentage surviving to age 60			Life expectancy at age 60		
	Both sex	Women	Men	Both sex	Women	Men
Dhanusa	78.9	82.3	75.3	17.6	18.2	17.1
Mahottari	80.7	83.8	77.6	18.3	18.6	18.0
Sarlahi	81.0	83.8	78.4	18.8	19.6	18.2
Rautahat	82.5	84.7	80.3	19.8	21.4	18.7
Bara	83.7	85.8	81.8	19.8	20.7	19.1
Parsa	84.5	86.5	82.7	19.7	20.4	19.1
Dolakha	83.2	88.8	77.3	21.1	22.4	19.7
Sindhupalchok	80.6	84.2	77.2	20.7	23.0	18.9
Rasuwa	81.2	86.3	78.4	22.0	23.4	20.2
Dhading	80.5	86.2	75.5	21.9	23.1	20.7
Nuwakot	79.0	82.8	75.2	20.0	21.3	19.0
Kathmandu	84.9	88.5	81.6	17.0	18.5	15.6
Bhaktapur	84.5	88.1	81.1	17.3	18.4	16.1
Lalitpur	84.3	89.1	79.8	17.3	18.8	16.0
Kavrepalanchok	79.8	86.5	73.3	18.7	20.4	17.2
Ramechhap	82.3	88.3	76.2	23.5	25.7	21.4
Sindhuli	81.7	85.5	78.1	20.6	22.0	19.3
Makwanpur	78.8	83.7	74.0	18.3	20.1	16.9
Chitawan	82.4	87.3	77.2	19.5	21.0	18.3
Gorkha	81.6	87.1	75.6	23.2	25.4	21.4
Manang	75.0	85.2	67.8	18.5	20.9	15.8
Mustang	89.1	91.4	88.1	19.3	20.0	19.3
Myagdi	80.1	88.1	73.6	20.8	22.3	19.1
Kaski	80.9	86.7	74.9	17.9	20.0	16.1
Lamjung	82.9	88.6	76.8	20.9	21.6	20.2
Tanahu	79.8	86.8	72.0	18.9	20.6	17.4
Nawalparasi -East	80.0	87.1	72.3	18.2	19.6	17.0
Syangja	80.2	88.3	70.8	19.5	20.8	18.1
Parbat	81.7	88.3	74.4	20.5	22.8	18.5
Baglung	79.9	86.1	72.6	19.5	20.1	19.0
Rukum -East	81.8	88.6	75.1	21.8	24.1	19.7

Area	Percentage surviving to age 60			Life expectancy at age 60		
	Both sex	Women	Men	Both sex	Women	Men
Rolpa	78.7	86.0	70.6	19.7	21.9	17.8
Pyuthan	77.0	83.7	68.6	19.3	20.8	17.8
Gulmi	77.8	86.7	66.8	20.1	21.5	18.8
Arghakhanchi	76.9	85.4	66.4	19.7	22.4	18.0
Palpa	78.5	85.0	70.7	19.0	20.8	17.5
Nawalparasi -West	77.9	83.1	72.7	17.9	18.7	17.2
Rupandehi	77.0	82.0	71.9	17.1	18.1	16.3
Kapilbastu	74.8	80.0	69.9	17.8	18.8	16.9
Dang	78.0	85.0	70.8	17.9	19.9	16.3
Banke	74.4	78.6	70.2	17.5	18.6	16.5
Bardiya	79.2	84.7	73.2	19.4	20.7	18.3
Dolpa	79.7	83.9	76.9	20.8	22.0	19.2
Mugu	80.8	85.9	75.1	18.9	20.3	18.1
Humla	86.1	88.9	84.4	21.4	24.2	19.5
Jumla	83.0	85.8	79.4	16.3	18.4	15.4
Kalikot	82.1	84.8	79.6	21.2	23.8	19.2
Dailekh	83.9	89.1	78.4	21.0	23.1	19.3
Jajarkot	82.4	85.8	80.9	20.9	23.5	18.4
Rukum -West	84.3	88.8	80.0	21.7	25.1	19.3
Salyan	81.4	87.2	75.4	18.7	20.8	17.0
Surkhet	79.9	84.7	74.7	18.8	20.2	17.6
Bajura	81.2	84.7	78.1	19.8	22.5	17.9
Bajhang	80.0	85.3	74.6	21.2	24.4	17.5
Darchula	83.7	88.9	79.8	22.1	25.0	19.7
Baitadi	82.6	89.1	75.7	21.6	25.4	18.5
Dadeldhura	84.7	88.6	80.3	20.5	24.0	17.9
Doti	79.8	87.8	71.2	21.2	24.0	18.0
Achham	76.8	85.5	68.2	20.3	23.4	17.2
Kailali	77.4	83.7	70.7	17.9	19.8	16.4
Kanchanpur	79.2	85.4	72.5	18.3	19.8	16.8

Annex 20 : Remaining life expectancy at age 60 by both sex, men, and women with districts of Nepal, 2021 census

Area	Remaining life expectancy at age 60		
	Both sex	Women	Men
Nepal	19.4	20.7	18.2
District			
Taplejung	20.0	20.0	20.2
Sankhuwasabha	19.3	20.1	18.6
Solukhumbu	21.7	22.4	20.6
Okhaldhunga	23.8	26.6	21.5
Khotang	22.0	22.5	21.6
Bhojpur	20.0	21.9	18.5
Dhankuta	18.5	20.5	17.0
Tehrathum	18.8	20.1	17.6
Panchthar	17.5	18.6	16.7
Ilam	19.8	20.1	19.5
Jhapa	18.7	19.6	17.9
Morang	17.5	19.2	16.1
Sunsari	17.1	18.4	15.9
Udayapur	20.2	21.8	18.7
Saptari	18.9	19.6	18.2
Siraha	18.7	19.3	18.2
Dhanusa	17.6	18.2	17.1
Mahottari	18.3	18.6	18.0
Sarlahi	18.8	19.6	18.2
Rautahat	19.8	21.4	18.7
Bara	19.8	20.7	19.1
Parsa	19.7	20.4	19.1
Dolakha	21.1	22.4	19.7
Sindhupalchok	20.7	23.0	18.9
Rasuwa	22.0	23.4	20.2
Dhading	21.9	23.1	20.7

Area	Remaining life expectancy at age 60		
	Both sex	Women	Men
Nuwakot	20.0	21.3	19.0
Kathmandu	17.0	18.5	15.6
Bhaktapur	17.3	18.4	16.1
Lalitpur	17.3	18.8	16.0
Kavrepalanchok	18.7	20.4	17.2
Ramechhap	23.5	25.7	21.4
Sindhuli	20.6	22.0	19.3
Makwanpur	18.3	20.1	16.9
Chitawan	19.5	21.0	18.3
Gorkha	23.2	25.4	21.4
Manang	18.5	20.9	15.8
Mustang	19.3	20.0	19.3
Myagdi	20.8	22.3	19.1
Kaski	17.9	20.0	16.1
Lamjung	20.9	21.6	20.2
Tanahu	18.9	20.6	17.4
Nawalparasi (East)	18.2	19.6	17.0
Syangja	19.5	20.8	18.1
Parbat	20.5	22.8	18.5
Baglung	19.5	20.1	19.0
Rukum -East	21.8	24.1	19.7
Rolpa	19.7	21.9	17.8
Pyuthan	19.3	20.8	17.8
Gulmi	20.1	21.5	18.8
Arghakhanchi	19.7	22.4	18.0
Palpa	19.0	20.8	17.5
Nawalparasi (West)	17.9	18.7	17.2
Rupandehi	17.1	18.1	16.3

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Area	Remaining life expectancy at age 60		
	Both sex	Women	Men
Kapilbastu	17.8	18.8	16.9
Dang	17.9	19.9	16.3
Banke	17.5	18.6	16.5
Bardiya	19.4	20.7	18.3
Dolpa	20.8	22.0	19.2
Mugu	18.9	20.3	18.1
Humla	21.4	24.2	19.5
Jumla	16.3	18.4	15.4
Kalikot	21.2	23.8	19.2
Dailekh	21.0	23.1	19.3
Jajarkot	20.9	23.5	18.4
Rukum -West	21.7	25.1	19.3

Area	Remaining life expectancy at age 60		
	Both sex	Women	Men
Salyan	18.7	20.8	17.0
Surkhet	18.8	20.2	17.6
Bajura	19.8	22.5	17.9
Bajhang	21.2	24.4	17.5
Darchula	22.1	25.0	19.7
Baitadi	21.6	25.4	18.5
Dadeldhura	20.5	24.0	17.9
Doti	21.2	24.0	18.0
Achham	20.3	23.4	17.2
Kailali	17.9	19.8	16.4
Kanchanpur	18.3	19.8	16.8

Source: NPHC, 2021, Thematic report of Mortality, 2024

Publisher:

Government of Nepal

Office of the Prime Minister and Council of Ministers

National Statistics Office

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