

PROJECT PROPOSAL FOR ACAI PARTNER

1. Title

Promoting Happy Aging in ASEAN: Enhancing Health, Security, and Social Participation

2. Abstract (If it is a research project, 150–300 words)

Research problem: The ASEAN region is experiencing rapid population aging, with over 20% of the population in several countries projected to be aged 60 or above by 2050. This demographic shift necessitates the development of effective public policies that address the needs of older adults while harnessing their potential as contributors to society.

Objective: This study addresses two key research areas: (1) exploring effective public policies for happy and active aging in ASEAN countries, and (2) identifying determinants of expected retirement age and working hours among pre-retirees.

Methodology: The research employs a mixed-methods approach. **Scoping reviews** will be conducted to map effective public policies aligned with the WHO Active Aging Framework. Additionally, a **survey** will collect primary data from individuals aged 50–60 employed in the formal sector, while **focus group discussions** with employers will provide insights into barriers to hiring older workers, such as legal restrictions, cost concerns, and policy needs. A **cross-objective analysis** will integrate findings to develop tailored policy recommendations.

Expected outcomes: Expected outcomes include **tailored policy recommendations** that are evidence-based and context-specific, addressing the unique needs of ASEAN countries. The study will identify gaps in current aging policies, providing actionable insights to **improve policy frameworks** and support aging populations more effectively. By highlighting successful policies from individual ASEAN countries, the research will **enhance regional collaboration**, fostering knowledge sharing and the adoption of best practices. Ultimately, the recommendations will promote **happy and active aging**, creating environments that enhance the well-being and quality of life for older adults in the region.

3. Introduction

The world is undergoing a profound demographic transformation, marked by the rapid aging of populations across the globe. By 2050, an estimated 16% of the global population will be aged 65 or older, up from 10% in 2022 (1). This demographic shift presents both opportunities and challenges for societies, particularly in ensuring that older adults can lead healthy, active, and fulfilling lives. The concept of active aging, promoted by the World Health Organization (WHO), emphasizes optimizing opportunities for health, participation, and security to enhance the quality of life as

people age (2). As populations age, governments and organizations must adopt policies to address these evolving needs.

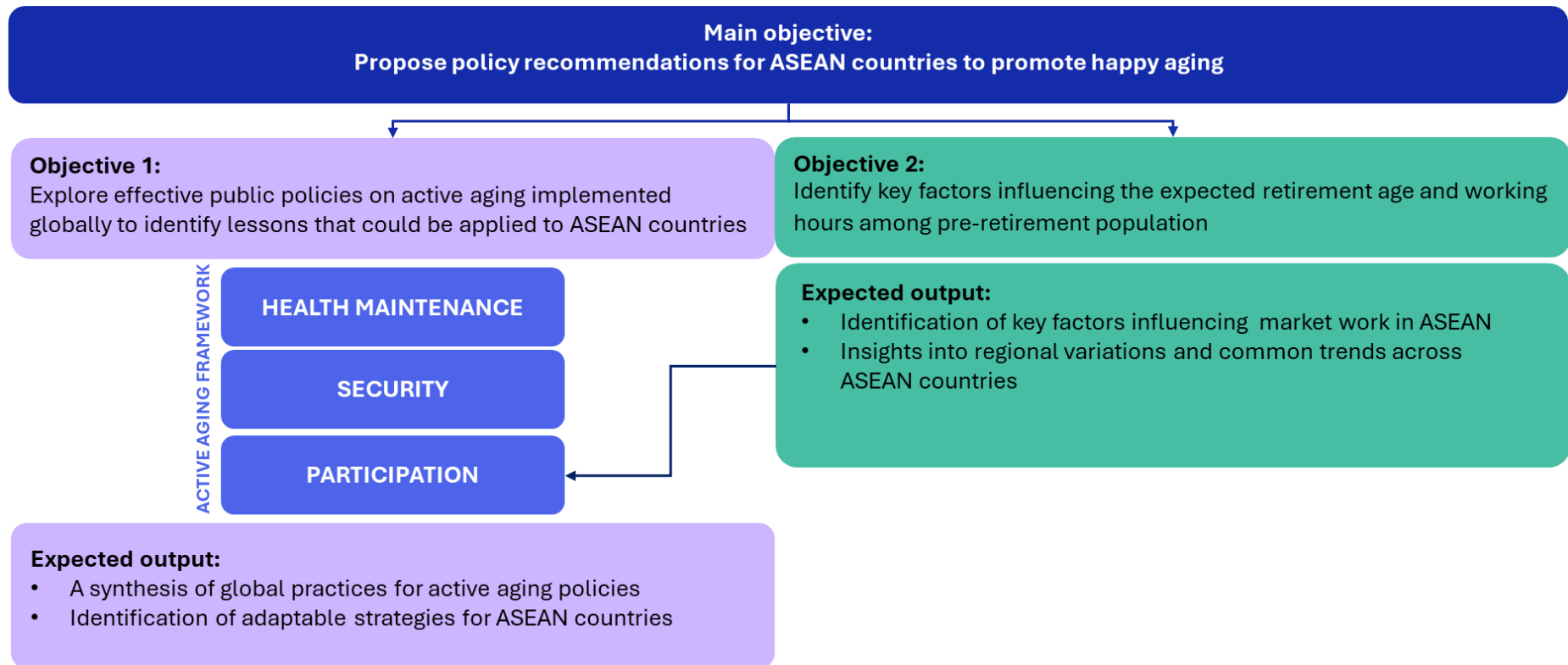
In the ASEAN region, population aging is occurring at an unprecedented pace, driven by declining birth rates and increasing life expectancy. By 2050, over 20% of the population in several ASEAN countries will be aged 60 or above, up from 9.8% in 2017 (3). This demographic transition necessitates the development and implementation of effective public policies that not only address the needs of older adults but also harness their potential as contributors to society. In response to these demographic changes, Our research team was commissioned by the ASEAN Centre for Active Ageing and Innovation (ACAI) to explore strategies for **ensuring happiness after retirement and to identify effective support policies and public mechanisms for aging populations** by conducting a rapid review and proposing research plans to support ASEAN policymaking **(Figure 1)**

To address these challenges effectively, our proposal focuses on two key areas of research. **Firstly, we aim to explore effective public policies for happy and active aging in ASEAN countries.** Happiness among older adults and retirees is influenced by a variety of factors, which can be grouped into three main areas as outlined by the WHO Active Aging Framework: health, participation, and security. Public policies play a critical role in promoting active aging by creating supportive environments, providing access to healthcare, encouraging social participation, and ensuring economic security for older adults. However, the success of these policies depends on their design, implementation and adaptability to local contexts. While some ASEAN countries have made significant strides in developing aging policies, others face challenges such as limited resources, fragmented systems, and a lack of comprehensive frameworks. To address these challenges, we propose research to explore effective public active aging policies and develop actionable recommendations for ASEAN countries.

Secondly, we propose research to identify the determinants of the expected retirement age and working hours among pre-retirees. Participation in the labor market is a crucial component of active aging. It improves financial security, maintains good health, and combats ageism. Older adults should not be forced to retire based solely on age or mandated policies. Therefore, we propose research to identify factors influencing retirement age and working hours among the pre-retirement population. By understanding these factors, policymakers can design flexible workforce policies that accommodate individual needs. This approach will not only support prolonged labor market engagement but also enhance the happiness and security of older adults, ensuring they can lead fulfilling lives in their retirement periods.

Figure 1 Scope of Exploration

What We Will Explore (Research framework)



4. A Proposal to Identify Effective Public Policies for Happy Aging (Active Aging) in ASEAN Countries

The rapid aging of populations worldwide presents both opportunities and challenges, particularly in the ASEAN region, where the proportion of older adults is expected to rise sharply in the coming decades. This trend highlights the urgent need for effective public policies on active aging concept (4). Central to this concept is the idea of happiness in old age, which includes physical health, emotional well-being, social connectedness, and a sense of purpose (5).

Older adults with strong social networks, meaningful activities, and supportive environments report higher life satisfaction and well-being. However, achieving happiness in later life is not just an individual responsibility, it is heavily influenced by the policy environment. Effective public policies can create conditions for older adults to thrive. For instance, policies supporting intergenerational programs, community-based activities, and age-friendly urban planning can significantly improve the quality of life for older adults (4, 6).

In the ASEAN context, diverse socioeconomic conditions and cultural landscapes create unique challenges and opportunities for implementing active aging policies. While some countries have made progress in developing frameworks to support older adults, others face gaps in policy design, implementation, and resource allocation. These gaps can hinder the ability of older adults to achieve happiness and well-being.

This study will explore effective public policies on active aging and examine the policy landscape in ASEAN, identifying adaptable strategies to enhance active aging and happiness after retirement in the region.

4.1 Literature Review

4.1.1. Definition of Older Persons

The definition of “older persons” varies across countries and organizations but is generally based on chronological age. The United Nations (UN) and the World Health Organization (WHO) commonly define older persons as individual aged 60 years and above, though some studies and policies use 65 years as the threshold, particularly in developed nations (7, 8). In many developing countries, the term of older people may apply to those aged 60 years or older. ASEAN Member States (AMS) often adopt these definitions, but specific policies or programs may use different cut-off ages depending on local contexts and needs (9-12). **For this project, as most ASEAN countries are developing nations, older people are defined as people aged 60 years or over.**

According to the levels of an aging society, the United Nations identifies (9-12) three levels of aging societies as follows:

1) Aged Society refers to a society where the population aged 60 or older constitutes more than 10% of the total population (or the population aged 65 or older constitutes more than 7% of the total population).

2) Completed-aged Society refers to a society where the population aged 60 or older constitutes more than 20% of the total population (or the population aged 65 or older constitutes more than 14% of the total population).

3) Super-aged society refers to a society where the population aged 60 or older constitutes more than 28% of the total population (or the population aged 65 or older constitutes more than 20% of the total population).

4.1.2. Aging Population in ASEAN

ASEAN Member States (Singapore, Thailand, Viet Nam, Malaysia, Indonesia, Brunei Darussalam, Myanmar, Cambodia, the Philippines, Lao People’s Democratic Republic) are among the fastest aging countries in Asia and the Pacific. ASEAN is experiencing one of the fastest demographic transitions, with the number of older adults expected to grow from 77.4 million (11.5% of total ASEAN population) in 2020 to 173.3 million (22% of total ASEAN population) by 2050. Population aging is occurring so quickly, while countries in the region have little time to address its challenges and opportunities (13). **Table 1** provides an overview of the age distribution across ASEAN countries in 2023, highlighting the proportion of the population in three key age groups.

Table 1 Proportion of People in ASEAN by Age Groups in 2023

Country	2023		
	Age 0-14	Age 15-59	Age 60+
	Proportion as a percentage		
Singapore	11.69	64.29	24.02
Thailand*	15.63	64.40	19.97
Viet Nam	22.20	63.50	14.30
Malaysia	22.42	65.80	11.79
Indonesia	24.88	63.98	11.14
Brunei	24.40	64.55	11.05
Myanmar	21.68	67.26	11.06
Cambodia	28.56	61.40	10.04
Philippines	30.01	61.20	8.80
Laos	30.56	62.15	7.29
ASEAN	24.35	63.53	12.12

Source: United Nation DESA, World Population Prospects 2023

*The data for Thailand is from the Department of Provincial Administration, Ministry of Interior, as of December 31, 2023

Key Observations:

- 1) Youth Population (0-14 years): the highest proportion of youth is found in Laos and the Philippines, with approximately 30.56% and 30.01% of their populations, respectively. This indicates a significant young demographic in these countries.
- 2) Working-Age Population (15-59 years): Myanmar has the highest proportion of working-age individuals at 67.26%, followed closely by Malaysia at 65.80%. This suggests a strong labor force in these nations.
- 3) Elderly Population (60 years or older): Singapore has the highest proportion of elderly citizens at 24.02%, reflecting its status as one of the most aged societies in ASEAN. Thailand also has a significant elderly population at 19.97%.
- 4) ASEAN Average: the average age distribution across ASEAN member countries shows a youth population of 24.35%, a working-age population of 63.53%, and an older population of 12.12%. This highlights the ongoing demographic transition in the region, with an increasing proportion of older people.

Additionally, both Singapore and Thailand had more older persons than children in their populations (9). In the Philippines and Laos, the proportion of older persons in the population remained below 10%. ASEAN aging situations can be classified into three groups:

Completed-aged society: Singapore

Aged society: Thailand, Viet Nam, Malaysia, Indonesia, Brunei, Myanmar, and Cambodia

Not classified as an aged society: The Philippines and Laos

Regarding old age poverty in ASEAN, the ASEAN Report (2023) (10) reveals that in the past, most older people were less likely to emerge from long-term poverty due to receding capability, deteriorating health, and limited access to financial resources. Poverty in later life was not the same as it was in youth and early adults. In countries with younger populations like the Philippines and Laos, older persons were less likely to become impoverished than the general population, while in countries with more mature populations like Indonesia, Malaysia, and Thailand, the poverty headcount rate of older people was higher than that of the general population or even non-older persons. According to this report, the country-specific profile in AMS can be summarized as follows:

Singapore: More older women were in poverty, and general women were also more likely to slip into poverty. Approximately 88.2 percent of those people had low levels of education. Moreover, they suffered from chronic ailments. Regarding living arrangements, 74.2 percent of older people were living with their family in public housing. Approximately 10 percent of older people still work, and 26.3 percent received pocket money from their families.

Thailand: Poverty was higher among males, especially those aged 70 years or older. They had low levels of education and were in poor health. Most of them lived in rural areas. Some older people lived in unfavorable neighborhoods. Additionally, most older

persons engaged in farm or informal work. In 2021, 32.4 percent of older persons generated income from work, while 32.2 percent were dependent on their children (9).

Viet Nam: Around 8.6 percent of older persons were in poverty, especially older women who experienced higher levels of poverty. They had low educational attainment, and 65.1 percent did not receive social security. Most of them lived in rural areas and typically lived with their families. Regarding employment, 34.8 percent either received remittances directly or were married to a recipient.

Malaysia: About 5.7 percent of households headed by an older person aged 65 years and above lived in absolute poverty. Older women were poorer than their male counterparts, and they had limited capacities. Most of them had low levels of education and usually suffered from chronic health conditions. Most older people lived in rural areas with their families. The majority no longer work, while some older people who worked were in informal and agricultural sectors. Sources of income for older persons in Malaysia were work and remittance from children.

Indonesia: Poverty rate for persons aged 60 and above was 11.96 percent in 2021. There was no gender difference in poverty rates between men and women. Most older people only had primary education, and most had low literacy levels. Around 17 percent lived in rural areas and older people were more likely to live with at least one child (in a poor household). Indigent older people worked the most, but their labor participation declined as they age. Only 28.7 percent of older women worked for pay, and the majority did domestic work. Additionally, 65 percent of older people relied on their children for income.

Brunei Darussalam: Brunei has no official poverty line. The country sets a Zero Poverty 2035 target; however, what constitutes poverty in Brunei is not officially defined. As of November 2022, there were 12,649 family heads receiving assistance under the Community Development Department and Brunei Darussalam Islamic. Moreover, all older people (100%) were protected by state social protection systems. There were only 1.95 percent of older people who engaged in agriculture.

Myanmar: In 2017, there were 24 percent of older persons who lived in poverty, and 40.5 percent of those who were females. They had low levels of education and lived in rural areas. Regarding living arrangements, older persons in Myanmar at 40.0 percent lived with families who were extremely poor. Moreover, 33.3 percent of older people lived in a house with no water and electricity. In terms of employment, older persons (52%) were farmers in rural areas; 60.0 percent relied on their children, while 20 percent earned an income.

Cambodia: More women than men experienced poverty and for more extended periods. They had low educational achievements and suffered from poor health. Approximately 70 percent of older people lived in rural areas, and they lived in large households with no basic facilities. Approximately 80 percent of those lived with their children. Most worked in agricultural sectors, and they depended on their children but generated their own income as well.

Philippines: Approximately 9 percent of older people were members of households that were classified as income poor, and 2.2 percent belonged to households considered subsistence poor. The older population in the bottom income decile had the lowest percent of access to social protection programs. Additionally, the report revealed that older persons were less economically active; 67 percent of older men and 45.3 percent of older women in the labor force were from the poorest segments.

Laos: Poverty among older persons aged 60 – 64 was at 16.8 percent. Most of them had no education or had high levels of illiteracy. They were malnourished and had poor health conditions. Most older persons were in the rural areas and 89.6 percent lived with their families. Regarding employment, most older persons worked in agriculture but were food insecure. Working was their primary source of income.

4.1.3. Aging Policy

Rapid social and economic development, coupled with significant public health achievements, has contributed to increased longevity, presenting new challenges and opportunities for society (14, 15). Governments must implement policies that ensure older adults can live fulfilling and healthy lives as they age, remaining integrated community members. Consequently, the needs of older adults are essential in shaping policies that closely align with their requirements (16).

If we consider the global response to the needs of older adults, The United Nations (UN) has initiated the Decade of Healthy Aging: Plan of Action for the years 2021-2030. This plan emphasizes the latter half of life. However, measures to ensure healthy aging can and should be implemented at all ages, reflecting a life-course approach. This approach encompasses a healthy start to life, interventions at each life stage, and meeting the needs of individuals during critical life stages. It aligns with the action plan of the WHO Global Strategy on Aging and Health, builds on the United Nations Madrid International Plan of Action on Aging, and is synchronized with the United Nations Agenda 2030 on Sustainable Development and the Sustainable Development Goals (17). The goal is to bridge the gaps in need to promote healthy aging within a decade, encompassing 11 relevant targets out of a total of 17 goals (**Figure 2**):



SUSTAINABLE DEVELOPMENT GOALS



Figure 2 Relevant Sustainable Development Goals, required for healthy aging

Source: The image is adapted from source: GlobalAgeing, Sustainable Development Goals and Aging. Washington DC: United Nations; 2019

- 1) No Poverty: Preventing older individuals from falling into poverty is essential.
- 2) Zero Hunger: While food scarcity often focuses on children, addressing nutritional needs among older adults is crucial to prevent malnutrition and dependency on care.
- 3) Good Health and Well-being: Healthy aging enables older adults to contribute to society longer, with opportunities for good health throughout life stages, universal health coverage, and integrated, person-centered health and social systems rather than solely disease-focused systems.
- 4) Quality Education: Lifelong learning is necessary for healthy aging, allowing older individuals to engage in valued activities, maintain decision-making abilities, and preserve their purpose, identity, and independence.
- 5) Gender Equality: Systems should promote equitable workforce participation and social pensions to enhance the economic status of older women and improve their access to services while eliminating gender-based violence.
- 6) Decent Work and Economic Growth: Access to income and financial services will facilitate access to health services and reduce catastrophic expenditures. A healthy workforce boosts productivity and lowers unemployment.
- 7) Industry, Innovation, and Infrastructure: Infrastructure for healthy aging must include age-inclusive and affordable internet access.
- 8) Reduced Inequality: Policies are needed to address inequities across all sectors since older adults often face unequal access to services due to gender, ethnicity, or education level.
- 9) Sustainable Cities and Communities: Age-friendly cities enable individuals to maximize their abilities throughout their lives.

- 10) Peace, Justice, and Strong Institutions: Campaigns are necessary to raise awareness of agism, advocate for healthy aging, and enact laws preventing age-based discrimination at all levels.
- 11) Partnerships for the Goals: Active partnerships among various sectors and stakeholders are required alongside investments in age-friendly environments and integrated health and social care systems.

Globally, there is a concerted effort to plan policy activities aimed at addressing the diverse needs of societies with increasing elderly populations comprehensively and sustainably. These efforts outline broad guidelines that allow each region to adapt them according to its specific context.

From the macro-level healthy aging goals established by the UN, it can be anticipated that any country capable of bridging all existing gaps will be well-positioned to transition towards an active aging society. Let's examine the categorization of the needs of older adults in low-middle-income countries (LMICs), such as the Islamic Republic of Iran. A qualitative study was conducted to explore the active aging needs from the perspectives of older adults and geriatric experts. This study took place in four provinces with the highest elderly populations in Iran. The findings from this research facilitate a clearer understanding of what older adults require and were categorized these needs into three main themes (18):

- 1) Basic Individual Needs: These are categorized as physiological, psycho-emotional, and spiritual.
- 2) Managerial Needs: These include political-legal, socioeconomic, cultural-spiritual (social activities), academic, environmental (age-friendly), technological, and specialized services (such as daycare).
- 3) Educational Needs: These focus on training self-care for older adults, healthcare worker empowerment, and family caregiving empowerment.

When the Needs of the Aged Society Come with Challenges

ASEAN's rapid demographic shift toward an aging population is transforming its social, economic, and political landscape. This transition poses multifaceted challenges, necessitating comprehensive strategies to address its impacts (19, 20).

Firstly, the aging population places immense pressure on health care systems. Older adults in the region are increasingly susceptible to chronic illnesses such as diabetes, hypertension, and depression. Alarming, around 60% of older individuals in Asia-Pacific do not receive regular health checks, exacerbating health inequities (19). Health infrastructure in many ASEAN countries remains underdeveloped, requiring substantial investments to ensure access to preventive care and treatment.

Economic security for older adults is a pressing concern. Approximately 40% of individuals over 60 lack pension coverage, with women disproportionately affected due to their unpaid domestic roles (19). Many older adults continue working informally

beyond retirement age without labor protections or benefits. This situation underscores the need for comprehensive pension reforms and financial preparedness initiatives.

Moreover, the shift from multigenerational households to nuclear families has left many elderly individuals socially isolated. This isolation contributes to mental health challenges, including depression, which affects 31% of older adults in the Asia-Pacific region (19). Strengthening community support systems and fostering intergenerational relationships are crucial to addressing this issue.

Finally, aging populations reduce workforce participation rates, potentially hindering economic growth. In ASEAN, informal employment among older adults is prevalent, with 94% of those aged 65 or older working without basic labor protections (19). Policies promoting lifelong learning and flexible retirement options are essential to maintain productivity.

The aging population in ASEAN represents a demographic shift with profound implications for healthcare systems, economic security, and social structures. Addressing these challenges requires coordinated efforts at both national and regional levels (21, 22).

Existing Aging Policies in ASEAN

A review of the literature reveals numerous initiatives that have already been implemented across ASEAN countries, each accompanied by its own set of challenges. As part of this study, a rapid review was conducted to examine existing aging policies in ASEAN countries. The findings from the rapid review are summarized in **Table 2**.

Table 2 Rapid review results of existing aging policies in ASEAN from 2019 to 2023

Country	Existing policies					
	Health domain		Security domain		Participation domain	
	Key feature	Challenges	Key feature	Challenges	Key feature	Challenges
Completed-aged society						
Singapore (10, 23, 24)	Action Plan for Successful Aging: Holistic approach focusing on preventive healthcare, active aging	<ul style="list-style-type: none"> - High healthcare costs. - Workforce shortages in eldercare services 	Senior Employment Credit (SEC): Encourages older workers' participation in the workforce through wage offsets Action Plan for Successful Aging: age-friendly infrastructure	<ul style="list-style-type: none"> - Limited financial inclusion for informal sector workers - Challenges in accessing financial services for some elderly individuals 	Active Ageing Centers (AACs): Encourages lifelong learning and intergenerational interactions	<ul style="list-style-type: none"> - Insufficient community support structures in some neighborhoods - Limited awareness of elderly rights in certain communities
Aged society						
Thailand (25, 26)	The Action Plan for the Elderly developed in line with the United Nations Decade of Healthy Ageing: - Community-based LTC programs	<ul style="list-style-type: none"> - Limited coverage - Insufficient trained caregivers - Financial constraints - Pandemic disruptions 	Old Age Allowance and Pension from Social Security Fund, National Saving Fund and pension for civil servant: financial supports for retirees from	<ul style="list-style-type: none"> - Insufficient retirement savings for many Thais - Challenges in accessing financial services in rural areas. - Economic impact of aging on 	Tax incentive policy: Exempt corporate income tax for companies or partnerships that employ seniors aged 60 and above.	<ul style="list-style-type: none"> - Insufficient community support structures - Limited awareness of elderly rights in rural areas

Country	Existing policies					
	Health domain		Security domain		Participation domain	
	Key feature	Challenges	Key feature	Challenges	Key feature	Challenges
	- Proactive care for elderly in >1,000 sub-districts - Focus on shifting from institutional to community-based care		government and savings schemes.	labor force and growth		
Viet Nam (27, 28)	National Action Plan on Aging: Emphasis on healthcare access, social protection, and community-based care for older persons	- Limited healthcare infrastructure in rural areas - low caregiver-to-patient ratio	Social Insurance and Pension Schemes: Provides financial protection through pension schemes	Challenges in accessing financial services in rural areas	National Action Programme for the Elderly: Promotes active aging through community involvement and volunteerism	- Insufficient community support structures - Limited awareness of elderly rights in rural areas
Malaysia (29-31)	National Policy for Older Persons: Focus on active aging, integration of health services, and age-friendly environments	- Shortage of geriatric specialists - Healthcare disparities in rural areas - Malnutrition among elderly populations	National Social Security System (SOCSO) and Employees Provident Fund (EPF): Provides financial protection through pension	- Insufficient retirement savings for many Malaysians - Challenges in accessing financial services in rural areas	- National Policy for Older Persons (NPOP, 2011): Promotes active aging through community involvement and volunteerism	- Insufficient community support structures - Limited awareness of elderly rights in rural areas

Country	Existing policies					
	Health domain		Security domain		Participation domain	
	Key feature	Challenges	Key feature	Challenges	Key feature	Challenges
			schemes and retirement savings		- Senior Citizen Activity Centres (PAWE): Encourages lifelong learning and intergenerational solidarity	
Indonesia (4, 32-34)	National Strategy for Elderly Health: - Promotion of preventive healthcare for older adults - Integration with universal health coverage schemes	- Insufficient healthcare infrastructure in rural areas - High out-of-pocket health expenditures for elderly households - Limited trained healthcare professionals for geriatric care	National Social Security System (BPJS Ketenagakerjaan): Social assistance programs for vulnerable older persons	- Limited coverage of social protection programs for non-formal workers - Challenges in accessing financial services in rural areas	Elderly Golden Age School (EGAS) Initiatives: Encourages active aging through community involvement and volunteerism	- Insufficient community support structures - Limited awareness of elderly rights in rural areas
Brunei (10, 35)	Ministry of Health Strategic Plan: Focus on prevention and control of non-	- Limited specialized geriatric care facilities - High out-of-pocket health	- Comprehensive Welfare System: providing financial support to citizens, including older adults	- Limited financial inclusion for informal sector workers - Challenges in accessing	Islamic Values and Community Engagement Initiatives: Encourages active aging	Limited enforcement of rights and benefits for older persons

Country	Existing policies					
	Health domain		Security domain		Participation domain	
	Key feature	Challenges	Key feature	Challenges	Key feature	Challenges
	communicable diseases (NCDs) among older adults	expenditures for elderly households. - Insufficient data on elderly health status	- Labour Market Policies (e.g., raising retirement age): Policies to encourage older workers' participation in the workforce	financial services in rural areas	through community involvement and volunteerism, guided by Islamic values	
Myanmar (36, 37)	National Strategic Plan on Aging: Focus on improving healthcare access and social support systems for older adults.	- Limited healthcare infrastructure in rural areas - Insufficient trained healthcare professionals for geriatric care - High out-of-pocket health expenditures for elderly households	National Social Protection Strategic Plan: Development of social protection systems, including pension schemes for vulnerable older persons	Limited coverage of social protection programs for non-public sector workers	National Action Plan on Aging: Encourages active aging through community involvement and volunteerism	Limited enforcement of rights and benefits for older persons
Cambodia (4)	- National Ageing Policy: Emphasis on primary healthcare access and	Poor healthcare infrastructure; high out-of-pocket expenses for elderly care	- National Social Protection Policy Framework: Social assistance programs for	- Limited coverage of social protection programs for non-public sector workers.	National Ageing Policy: Promotes intergenerational knowledge transfer	Insufficient community support structures

Country	Existing policies					
	Health domain		Security domain		Participation domain	
	Key feature	Challenges	Key feature	Challenges	Key feature	Challenges
	social welfare programs targeting older populations - Older People's Associations (OPAs) Health Insurance Programs: Community-based health initiatives through OPAs		vulnerable older persons - Law on Social Security Schemes: Pensions for public sector employees	- Inadequate pension amounts for basic needs		
Not classified as an aged society						
Philippines (38, 39)	Legislation and Long-term Care Programme for Senior Citizens: Provides free medical services, discounts on medicines, and access to geriatric care under universal	- Limited geriatric facilities in rural areas - Shortage of healthcare professionals trained in geriatrics - Bureaucratic hurdles in accessing benefits	- Social Pension Program for Indigent Senior Citizens - Social Security System (SSS) Pension - Government Service Insurance System (GSIS) Pension	- Pension amounts are insufficient to meet basic needs - Limited access to financial services in rural areas - Weak enforcement of pension distribution processes	- National Commission of Senior Citizens (RA 11350): Encourages senior citizens' participation in community activities and volunteerism. - Expanded Senior Citizens	- Limited enforcement of discounts and privileges in some localities

Country	Existing policies					
	Health domain		Security domain		Participation domain	
	Key feature	Challenges	Key feature	Challenges	Key feature	Challenges
	health coverage schemes	for indigent seniors	- Tax Reform for Acceleration and Inclusion (TRAIN) Law (Executive Order No. 26)		Act (RA 9994): Provides discounts on transportation, recreation, and utilities.	
Laos (4, 40)	- National Policy towards the Elderly: Focuses on medical treatment, rehabilitation, welfare, and prevention for older persons - Includes community-based health insurance (recently established)	- Weak sub-national implementation - Limited infrastructure - Workforce shortages - Financial barriers	Social Security System (SSS) for the elderly; National Committee for Elderly Affairs: Pension benefits for elderly citizens	- Low pension amounts insufficient for basic needs. - Limited access to financial services in rural areas. - Lack of comprehensive legislation on aging-related financial security	Senior Citizens Act: Encouragement of community involvement and volunteerism among older persons	Insufficient community support structures

Countries classified as "Complete-aged Societies" and "Aged Societies" typically have more developed resources and frameworks to address complex issues such as pension system, specialized geriatric care, and innovative healthcare solutions. They also implement policies to enhance financial security by promoting longer working lives and leveraging the "silver economy."

In contrast, countries not yet classified as aging societies often focus on basic social welfare and healthcare access, and struggle to provide adequate financial safety nets for their elderly populations.

A significant challenge identified in this rapid review across all countries is the accessibility and coverage of public support systems. This highlights the importance of carefully considering feasibility and other success factors for effective policies, as well as establishing robust monitoring and evaluation systems to ensure policies align with strategic plans and achieve their intended goals. Moreover, while each country may have planned solutions to address its challenges and policy gaps, limitations in accessing relevant documents remain a constraint. Implementation plans for these policies may not always be publicly available, making it difficult to assess the progress and impact of existing policies. This lack of transparency hinders regional collaboration, and the sharing of lessons learned to other countries. Therefore, this study aims to identify strategies for addressing these gaps and develop recommendations for future policy improvements.

4.1.4. Aging Concept

In response to the growing aging population and the need to address its challenges, several concepts have been developed to emphasize the positive aspects and potential of aging. These include successful aging, active aging, healthy aging, and productive aging. To better understand and apply these ideas, it is essential to clearly define and summarize each concept as follows.

Successful aging

Successful aging is a broad concept, as the term "successful" refers to achieving desired outcomes, which depend on various characteristics relevant to old age (41, 42). According to the original concept of Rowe and Kahn (43), successful aging involves three key components: **avoiding physical and mental diseases (or the absence of disease), maintaining functional abilities, and staying socially engaged.** However, this definition has been criticized for setting unrealistic standards, as it excludes individuals with chronic illnesses or disabilities. Additionally, it focuses more on individual outcomes rather than population-level outcomes.

Over time, the concept of successful aging has sparked debate, leading to various definitions and expanded focus areas proposed by different studies. These expanded components include functional performance, cognitive function, life satisfaction and well-being, productive or social engagement, longevity, environmental security, financial security, and beliefs (e.g., spirituality, religion, and closeness to God). These elements

are now considered essential components of aging well and have been incorporated into a broader understanding of successful aging (41, 42, 44).

In summary, successful aging seems to be influenced by a combination of three core elements: good health (absence of disease), active social interactions, and life satisfaction in older adults.

Active aging

The World Health Organization (WHO) defines active aging as *"the process of optimizing opportunities for **health, participation and security** in order to enhance quality of life as people age"* (5). This concept emphasizes the importance of enabling older adults to lead fulfilling lives marked by well-being, engagement, and independence. To implement this vision, the WHO has established a policy framework centered on three key areas:

- 1) **Health:** This domain focuses on promoting both physical and mental well-being throughout the aging process. Key strategies include preventive health measures, access to quality healthcare services, and effective management of chronic conditions.
- 2) **Participation:** Active aging encourages older adults to remain engaged in social, economic, cultural, and civic activities. This participation is crucial for maintaining a sense of purpose, belonging, and social connectedness.
- 3) **Security:** Ensuring the security of older adults is vital for their independence and quality of life. This includes access to safe and affordable housing, adequate income, and social support systems tailored to their needs.

Additionally, the WHO (5) proposes a comprehensive model of active aging that recognizes the multifaceted nature of the aging process (**Figure 3**). This model emphasizes that an individual's aging trajectory is shaped by a complex interplay of factors, including health and social services, behavioral, personal, environmental, social, and economic determinants. It acknowledges that these factors interact and influence one another, varying across individuals and populations. The model also underscores the significant role of cultural and gender factors in shaping the aging experience.

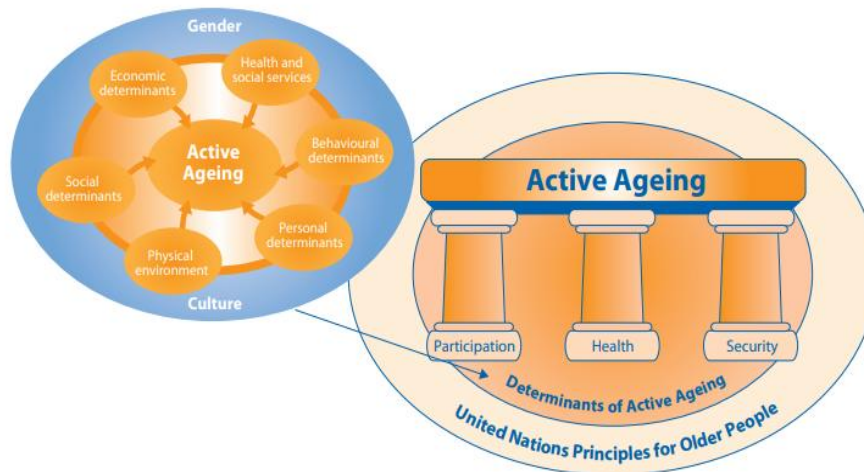


Figure 3 The Determinants and Three Pillars of a Policy Framework for Active Aging

Source: World Health Organization (WHO), Active aging: a policy framework. Geneva: World Health Organization; 2002

Healthy aging

WHO describes healthy aging as the **process of developing and maintaining the functional abilities** that support well-being in older age. Functional ability refers to the skills that enable individuals to do what they find meaningful, such as meeting basic needs, learning, making decisions, moving around, building relationships, and participating in society. This concept highlights both physical and mental capacities, including abilities like walking, thinking, seeing, hearing, and remembering. The goal of healthy aging is to minimize the impact of disease and enhance overall well-being. It plays a vital role in enabling active and productive aging, as good health allows older adults to stay engaged and make meaningful contributions to their communities (45).

Productive aging

Productive aging, as defined by the National Center for Productive Aging at Work under the National Institute for Occupational Safety and Health, is a multifaceted concept that highlights **the valuable contributions older adults can make to their own lives, their communities, and society at large**. It includes a wide range of activities, both paid and unpaid, such as employment, volunteering, caregiving, and involvement in community initiatives (46).

This concept has been useful in promoting and improving opportunities for older adults by reducing barriers to employment, creating part-time and flexible work options, strengthening legal protections for older workers, and encouraging non-economic activities that enhance their quality of life (47).

The preceding review indicates the interconnected nature of the concepts of successful, active, healthy, and productive aging (**Table 3**). While each concept offers a

distinct perspective on aging, they all share the overarching goal of enhancing the quality of life for older adults. Successful and active aging are the broadest concepts, encompassing both health and social well-being dimensions. Although there is some overlap and occasional confusion in the use of these terms, active aging is clearer in the focusing elements and widely adopted in policy initiatives, particularly in Europe and ASEAN.

Table 3 Summary of aging concepts

Concept	Focus	Key components			
		Health		Social well-being	
		Physical health	Mental health	Social engagement	Productivity
Successful aging	Achieving a high quality of life and well-being in later years	/	/	/	/
Active aging	Staying physically, socially, and mentally active as one ages	/	/	/	/
Healthy aging	Maintaining physical and mental health to prevent disease and disability	/	/		
Productive aging	Contributing to society through paid or unpaid activities in later life			/	/

4.1.5. Definition of Happiness

Happiness is a positive emotional state in which individuals feel good about their overall quality of life, often described as being satisfied with life. It is a deeply personal experience, as each person defines happiness based on their circumstances and perspectives (6, 48).

In positive psychology, happiness is linked to **Subjective Well-Being** (SWB), which measures how people evaluate their own lives. SWB focuses on two main parts: **cognitive** (thoughtful evaluations of life satisfaction) and **affective** (emotions, attitudes, behavior, character, and values) (48, 49). People with high SWB often report feeling more satisfied and fulfilled. They are often more productive and sociable, which enhances their overall success and well-being (6).

In summary, happiness is a personal experience that includes both emotions and thoughtful evaluations of life. Those with high SWB tend to enjoy greater life satisfaction and lead more meaningful lives.

4.1.6. Happiness Aspects

Happiness in older adults or retirees is influenced by various factors. Based on a rapid review, these factors can be grouped into three main areas, as outlined by the Active Aging framework: **health** (physical and mental well-being), **security** (environmental and financial stability), and **participation** (engagement in work and social activities). Additionally, happiness is defined by individuals based on their own life circumstances and perspectives. Therefore, **demographic factors** are also considered an important aspect of happiness in aging populations.

Health: physical and mental well-being

Health plays a vital role in the happiness of aging populations. Physical well-being, including mobility and freedom from chronic disease, directly impacts life satisfaction. Older adults with fewer physical limitations tend to report higher happiness levels. In contrast, those who experience illness and physical decline are unable to participate in desired physical and social activities, negatively affecting overall well-being (6, 49-52).

Mental health issues, such as depression and anxiety, significantly reduce happiness in older adults (53). Depression also plays a mediating role between poor sleep and reduced life satisfaction, leading to declines in both physical and psychological health, ultimately resulting in significantly lower life satisfaction (49, 54).

Security: environmental and financial stability

Security encompasses both safe living environments and financial stability, which is essential for the well-being of older adults. Environmental security refers to age-friendly housing, accessible public spaces, and community safety. Older adults with better housing facilities often report higher life satisfaction, particularly among middle-income individuals compared to those with lower incomes. Additionally, research shows that fear of crime or limited transportation options can isolate older adults, negatively impacting their overall well-being (49, 54-56).

Financial security is linked to adequate pensions, benefits, and medical insurance to support longevity life (50, 54). Retirees with defined benefit pensions report higher life satisfaction compared to those with defined contribution pensions or no pensions (6, 50, 56). Similarly, homeownership is associated with increased happiness in retirees (6). These findings highlight the strong connection between perceived financial security and overall well-being in older age.

Participation: engagement in work and social activities

Happiness in retirement is significantly influenced by continued engagement and social connection. Participating in work-like activities, whether paid or voluntary, boosts well-being, especially when chosen willingly. The decision to work or retire stems from personal preference and voluntary retirement leads to greater satisfaction compared to retirement due to financial conditions, health reasons, or unemployment (6, 50).

Social participation, through community groups, intergenerational programs, and religious activities, combats loneliness and enhances emotional well-being (6, 48, 49). Leisure activities, such as exercise or gardening, also contribute positively to happiness (6).

Social relationships with family and friends are crucial for providing support and a sense of belonging. However, caregiving burdens and the loss of a partner can negatively impact happiness (6, 49, 54).

Ultimately, maintaining active involvement and fostering meaningful connections are key to achieving happiness in retirement.

Demographic factors

Demographic factors play a crucial role in shaping happiness among older adults, interacting with health, security, and participation. Key factors include age, marital status, and social support systems. Age itself has a complex relationship with happiness, showing a rise around age 60 and a decline after 75, potentially related to the high risk of health problems and loneliness (6). Marital status significantly impacts life satisfaction among Asian older adults, with married individuals generally reporting higher satisfaction. Conversely, marital dissolution negatively affects happiness (50, 54). Furthermore, social support systems, including political and legal trust, and access to technology like the internet, contribute to well-being by fostering freedom, connection, and engagement in meaningful activities (6, 49).

This literature review shows that well-being in later life is shaped by four interconnected areas: health, security, participation, and demographics. It emphasizes the importance of supporting older adults in maintaining their health, enhancing their security, and actively participating in social activities to improve their overall SWB.

4.2 Research Framework

This framework integrates the Logic Model and Theory of Change to map the pathway toward achieving a 'Happy aging Society' as the ultimate goal (**Figure 4**).

Prior review identifies three key factors influencing happiness in old age: good health, financial and environmental security, and active participation. These factors are essential outcomes that must be achieved before reaching the final goal. Achieving these

outcomes relies on stakeholder support, particularly from governments, through well-designed policies. We hypothesize that comprehensive public policies addressing these areas, while accounting for factors affecting their success, can help build societies that promote happy aging.

A rapid review reveals that some ASEAN countries have implemented policies targeting aging populations. However, these policies often lack full alignment with the Active Aging framework and do not include robust evaluation mechanisms to measure their effectiveness. This gap highlights an urgent need for attention in the ASEAN region.

In summary, this conceptual framework offers a structured approach to addressing these challenges and supports the development of more effective policies.

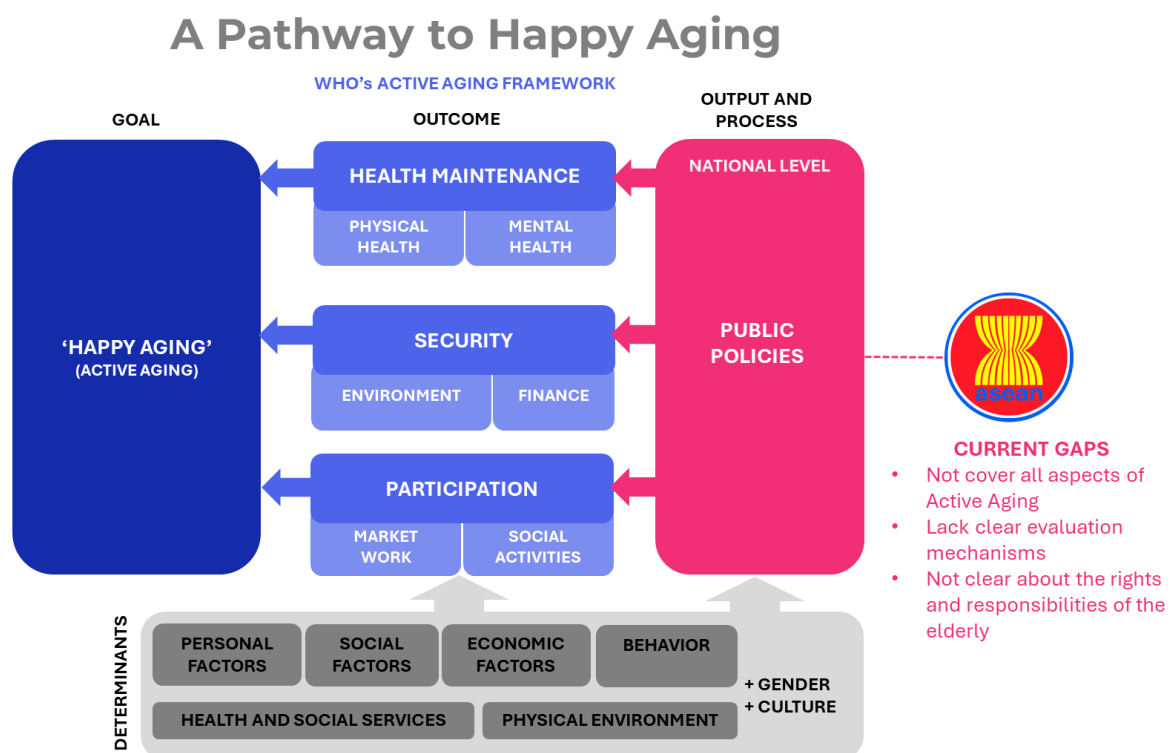


Figure 4 Conceptual framework

4.3 Research Objectives

1. Investigate effective public policies on active aging from aged countries to identify adaptable strategies for ASEAN nations.
2. Analyze the aging policy landscape in ASEAN to understand current practices, gaps, and opportunities for improvement.

4.4 Methodology

A scoping review will be conducted using the Arksey and O'Malley framework (57), which involves five stages: 1) defining the research question, 2) identifying relevant studies, 3) selecting studies, 4) systematically extracting data, and 5) analyzing, summarizing, and reporting results. A consultation exercise will then validate the

preliminary findings and adapt them to the ASEAN context. The review process is outlined below.

Defining the research question

This scoping review addresses two research questions: 1) What are the effective public policies on active aging. This aims to synthesize policy practices for active aging. And 2) What is the current policy landscape for aging in ASEAN. This seeks to understand the current situation and identify adaptable strategies for ASEAN countries.

Identifying relevant studies

A comprehensive search strategy will be developed to identify relevant studies across academic databases such as PubMed, JSTOR, and Springer. Search terms will combine keywords and Boolean operators related to aging or active aging policies.

Additionally, databases of international and government organizations focused on aging policies (e.g., OECD iLibrary, UN Aging Policy Database, WHO reports, ASEAN Secretariat Reports, Ministry of Labour) will be explored. The search will be limited to English-language documents published between 2015 and 2025. Manual searches for reference lists and gray literature (e.g., conference proceedings, theses, reports) will also be conducted to ensure thorough coverage of the topic.

Selecting studies

Studies will be included if they meet the eligibility criteria and exclude if they meet the exclusion criteria (**Table 4**). The target population will encompass all elderly individuals, including both active and non-active seniors, as well as formal and informal workers. Furthermore, we will also examine policies targeting other generations, based on the assumption that active aging requires lifelong preparation and that all members of society contribute to creating a happy aging society. Accordingly, some supporting policies specifically address younger generations.

The selection process will involve two stages: 1) screening titles and abstracts for relevance, and 2) full-text review of potentially eligible studies. Two independent reviewers will conduct the screening process, and any discrepancies will be resolved through discussion or consultation with a third reviewer. Covidence, a systematic review management tool, will be used to facilitate the process.

Systematically extracting data

Data from the studies included will be extracted and charted using a standardized form, capturing study characteristics (e.g., author, year, country) and key themes. To ensure consistency, at least two researchers will independently extract data from the first five studies, verifying that their methods align with the research question and objectives before proceeding with full data extraction.

Analyzing, summarizing, and reporting results

The final stage will involve synthesizing and summarizing the findings to address the research questions. A narrative approach will be used to present the results, highlighting key themes, trends, and gaps in literature. The findings will be presented in thematic sections, providing a comprehensive overview of the current state of public policies on active aging. Additionally, the scoping review results will be reported in accordance with the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidelines (<https://www.prisma-statement.org/scoping>)

Consultation exercise

This research will engage stakeholders in three steps: 1) At the study's outset, consultations with the ACAI network to get suggestions on research objectives, questions, and plans. 2) During the review process, the ACAI team and experts (including Thai experts) will review preliminary results, providing additional insights and perspectives for the scoping review. 3) Before finalizing the report, the ACAI network and interested parties will validate the findings and assess the feasibility of policy options during a conference or stakeholder meeting in 2026.

Table 4 Inclusion and exclusion criteria

Criteria	Scope	Research question 1:	Research question 2:
		What are the effective public policies on active aging?	What is the current policy landscape for aging in ASEAN?
Inclusion criteria	Population (P)	<ul style="list-style-type: none"> • Aging population • Non-aging populations with explicit address intergenerational aspects of aging policies 	
	Interested intervention(I)	<ul style="list-style-type: none"> • Policies targeting active aging or related topics under active aging framework • Policies with documented outcome (e.g., reported outcome or impact) • Studies or reports that discuss key components, success factors, challenges, or implementation strategies of policies 	<ul style="list-style-type: none"> • Aging policies or related policies targeting active aging
	Context (Co)	Complete aged societies (>20% of the population aged 60+) ¹	ASEAN member states
	Types of Sources (T)	<ul style="list-style-type: none"> • Peer-reviewed journal articles • Government reports, white papers, and policy briefs • Gray literature such as conference proceedings and theses 	<ul style="list-style-type: none"> • Government reports, white papers, and policy briefs • International organization reports (e.g., WHO, UN, ASEAN Secretariat) • Legislative documents or national action plans
	Timeframe (T)	Published between 2015 and 2025	
	Language	Documents published in English	
Exclusion criteria	Interest	<ul style="list-style-type: none"> • Documents that do not specifically address active aging or related topics • Documents that discuss aging in a non-policy context (e.g., clinical studies, biological aging research, opinion pieces or editorials) 	<ul style="list-style-type: none"> • Documents that do not address the ASEAN region or its member countries
	Context	Policies or studies from non-complete aged societies countries unless they provide insights relevant to aging policies	Policies or documents from non-ASEAN countries unless they provide comparative insights relevant to ASEAN
	Accessibility	Inaccessible documents	
	Timeframe	Studies or documents published before 2015, unless they are seminal works or provide critical historical context	
	Language	Documents published in languages other than English	

¹ Completed-aged society is defined as a society where the population aged 60 or older constitutes more than 20% of the total population, or the population aged 65 or older constitutes more than 14% of the total population (United Nations & Thailand’s Department of Older Persons, 2024).

5. A Proposal to Determine the Expected Retirement Age and Working Hours Among Pre-Retirees

The World Health Organization has launched the Decade of Healthy Ageing 2021–2030, a global initiative aimed at enhancing the well-being of older adults. A key priority of this initiative is to combat ageism by changing societal attitudes and removing barriers that prevent older individuals from remaining in the workforce (58). If elderly individuals wish to continue working and are capable of doing so, they should not be forced to retire solely due to their age, statutory retirement policies, or a company-specific retirement age. Previous studies have shown that age discrimination, which can include compulsory retirement, limited training opportunities, and employer bias, can affect older workers' ability to stay employed (59, 60). The Global Report on Ageism (61) highlights that mandatory retirement policies can lead to financial insecurity, social isolation, and adverse health outcomes by limiting older adults' workforce participation.

In Thailand the Statutory Retirement Age (SRA) refers to the legally defined retirement age, while private companies may enforce their own company-specific retirement age. Thailand's public sector enforces an SRA of 60, but private companies may set retirement at 55, aligning with the Social Security Retirement Age (SSRA) (the age at which individuals become eligible for full retirement benefits). These policies create a structural barrier, as older workers may be forced out of employment at the age 55 or 60 despite their willingness to continue working.

The study by Aroonjit (2020) (62) conducted qualitative research on blue-collar workers' opinions toward retirement and found that they would like to continue working in the formal sector due to greater financial security, instead of facing compulsory retirement at 55. The study also pointed out that older workers in Thailand face multiple challenges, including forced retirement, hiring bias, and inflexible work arrangements. Without options such as part-time employment or phased retirement, individuals must choose between full-time work and complete retirement. With only these two options, some may shift from the formal sector to the informal sector, which may not be covered by social security benefits. This transition from formal to informal work is evident in Thailand's social security data: the number of workers covered by the Social Security Scheme (SSS) drops by 58% between the ages of 50–59 and 60, with nearly one million individuals leaving the formal workforce (63). Similar evidence is seen in Malaysia, where 39% of respondents in the Malaysia Ageing and Retirement Survey (MARS) reported being forced into retirement.

Previous studies show that expected retirement decisions result from a complex interplay of factors, including age-related regulations, financial considerations, social influences, family situation, health conditions, and policy environments. Understanding these factors is essential, as rigid retirement policies may force capable workers out of the labor market prematurely. Therefore, this study aims to develop two models: the first

identifies factors influencing the expected retirement age, and the second estimates the determinants of expected working hours among the pre-retirement population aged 50-60. While the expected retirement age model indicates when individuals plan to retire, it does not fully capture their labor supply decisions. Many older workers prefer to gradually reduce their working hours rather than retire abruptly.

The second model examines how older workers adjust their working hours based on personal preferences, health, family responsibilities, economic conditions, and employer policies, providing insights to support flexible work options for older workers. Employment decisions involve both workers and employers, as employers must consider productivity, costs, and competitiveness when hiring and retaining older workers. To capture employer perspective and public recommendation relevance, this study will conduct focus group discussions with 30 employer representatives from various industries. The insights gained will help shape policies that address both employee needs and employer concerns, aiming to create approaches that allow older workers to remain in the workforce while ensuring businesses can remain competitive. Without employers' perspective, we might end up with infeasible policy implementation.

The pilot study will be conducted in Thailand with a sample of 1,500 employees and will aim to expand to other ASEAN countries, such as Vietnam, Malaysia, the Philippines, and Indonesia. The ultimate goal is to develop evidence-based policy recommendations that promote active labor participation without age discrimination and support a sustainable, competitive employment environment.

5.1 Literature Review

5.1.1. Definition of Labor and Employees

The concept of labor and employees is fundamental in understanding the dynamics of economics worldwide. Labor refers to the human effort used in the production of goods and services, while employees are individuals who work for an employer in exchange for wages or salaries. The International Labour Organization (ILO) (64-66) emphasizes the importance of labor rights and decent work conditions for all workers.

Key definitions:

Labor encompasses all forms of work, including both formal and informal employment. It is a critical component of economic activity, contributing to GDP and societal development. **Employees** are typically defined as individuals who work under a contract of employment, receiving compensation for their work. Additionally, employees are entitled to various rights and protections, including social security benefits and labor laws. While the economic definition of labor and employees is accurate, recent research suggests we should expand this concept to recognize work as a source of meaning, identity, and social connection. The impact of retirement on life satisfaction extends

beyond financial considerations to include satisfaction with free time, health, and community participation (67). Labor should therefore be understood not merely as economic production, but as an activity that shapes one's identity, social connections, and sense of purpose—all factors that significantly impact post-retirement happiness.

Formal sector includes businesses and activities that are registered and operate within the legal framework of a country. This sector is characterized by compliance with labor laws, tax regulations, and social security provisions. Formal sector workers typically enjoy better job security, access to social benefits, and legal protection. Examples include employees in large corporations and government institutions. In Thailand's context, employees in the formal sectors are those who work for government and state enterprise and private companies registered as employer with the Social Security Office. Recent research indicates that pension quality is a significant determinant of well-being, alongside mutual trust and income (68). Formal sector employment typically provides access to pension systems that offer not just financial security but also peace of mind, reduced stress, and greater life satisfaction. The perceived quality of pension institutions appears to be a key determinant of overall well-being (68).

Informal sector consists of economic activities that are not formally registered or regulated. This includes small, unregistered businesses and self-employed individuals who often lack access to social protection. Informal sector workers face challenges such as lack of job security, limited access to social benefits, and vulnerability to exploitation. Despite these challenges, the informal sector plays an important role in providing livelihoods, especially in developing economies. The absence of structured pension provisions in the informal sector creates vulnerabilities beyond economic insecurity. These include psychological stress, limited ability to plan for the future, and reduced capacity to maintain social connections in later life—all crucial factors for retirement happiness (69). Those with unpredictable finances report significantly lower satisfaction with their social lives and higher rates of severe loneliness (69).

5.1.2. Labor Market for Older People in ASEAN

The labor market for older people in ASEAN is characterized by high participation rates, often driven by economic necessity rather than choice. Labor force participation among older people in ASEAN remains high compared to OECD countries (70). This is particularly evident in the informal sector, where a significant proportion of older workers are employed.

The information in Error! Not a valid bookmark self-reference. also illustrates some country-specific trends. Cambodia shows one of the highest rates of informal employment across all age groups, indicating a large informal sector. Myanmar also has very high informal employment rates, reflecting the country's economic structure. Informal employment in Thailand increases with age, particularly among those aged 60-64 years. Indonesia similar to Thailand, with a significant proportion of informal workers in older age groups. Malaysia has relatively low informal employment rates compared to other ASEAN countries, especially in younger age groups. Lastly, although Singapore data is not available, this country is known for having a highly formalized economy.

Table 5 presents the share of the informal sector to total employment by age groups. Overall, the Table shows the widespread nature of informal employment across ASEAN countries, particularly among older age groups.

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Table 5 Informal Employment by Age Groups in Percentages

Country	Age Groups					All employed
	15-24	25-39	40-59	60-64	65 +	
Singapore	N/A	N/A	N/A	N/A	N/A	N/A
Thailand (2018)	30.9	26.3	42.5	69.2	82.9	37.1
Viet Nam (2016)	N/A	N/A	N/A	N/A	N/A	36.6
Malaysia (2017)	9.7	11.0	18.9	3.4	-	10.6
Indonesia (2018)	31.7	37.4	50.9	71.8	77.9	44.1
Brunei (2017)	58.8	47.4	43.1	38.4	32.3	46.6
Myanmar (2017)	94.2	85.5	77.5	78.9	73.6	84.1
Cambodia (2019)	85.8	86.2	91.5	92.3	94.7	88.3
Philippines (2018)	N/A	N/A	N/A	N/A	N/A	36.6
Laos (2017)	84.9	70.7	76.0	84.3	87.9	75.4

Source: The European Union Delegation to ASEAN (2023)

Note: Figures are percentages of informal workers to total employment in a given age category; N/A is not applicable

This high prevalence of informal employment among older workers is partly due to limited access to adequate pensions, compelling many to continue working beyond traditional retirement ages (70). Expanding social security coverage requires strategies that extend social security and formalize informal businesses (10). A significant challenge is the decline in the working-age population across many member states, which puts pressure on the economy, labor markets, and social security systems (11, 71).

For labor force participation in a formal setting, except the Philippines, which retirement age is already high. Most AMS have revised their retirement age upwards. Some AMS such as Singapore had also introduced reemployment policy (**Table 6**).

Table 6 Retirement Age in ASEAN Member States (AMS)

Country	Current Retirement Age	Previous Retirement Age
Singapore	63 (2022)	62
Thailand	60	

Country	Current Retirement Age	Previous Retirement Age
Vietnam	60	
Malaysia	60 (2018)	58
Indonesia	57 (2019)	56
Brunei Darussalam	60 (2010)	55
Myanmar	62 (2022)	60
Cambodia	55 female, 60 male	
Philippines	65	
Lao PDR	60	

Source: World Economic Situation and Prospect 2019 Report; ASEAN 2023 Report

5.1.3. Factors Influencing Expected Retirement Age and Working Hours

Understanding the key factors that influence retirement decisions is crucial, as research shows that having the freedom to choose between retirement and continued work significantly impacts life satisfaction among older adults (72, 73). Newton et al. (2018) (72) found that women who voluntarily chose either to retire or to continue working reported higher life satisfaction than those forced into retirement. Similarly, OECD (2006) highlights that policies enabling older workers to remain in the labor force for longer periods can directly improve individual well-being (74).

The factors influencing expected retirement age and working hours among the pre-retirement population have been widely studied, particularly in countries with rich longitudinal data. Notable studies include the English Longitudinal Study of Ageing (ELSA), the Survey of Health, Ageing, and Retirement in Europe (SHARE), and the Health and Retirement Study (HRS) in the United States. In Asia, key longitudinal studies include the Malaysian Ageing and Retirement Survey (MARS), the China Health and Retirement Longitudinal Study (CHARLS), the Korean Longitudinal Study of Aging (KLoSA), and the Longitudinal Aging Study in India (LASI).

The OECD (2006) (74) report further classifies retirement determinants into "push" and "pull" factors. Push factors encourage early retirement and include declining health, job dissatisfaction, and age discrimination. Pull factors, which make retirement appealing, include financial security, increased leisure opportunities, and social engagements. The Stanford Center on Longevity (2016) (75) developed the 3D Model of Retirement Decision-Making, which evaluates whether individuals can afford to retire (financial considerations), need to retire (health-related factors), and want to retire (psychological factors). This model underscores the interplay between financial, health, and psychological aspects in shaping retirement decisions.

A wide body of literature on the topic retirement decisions shows it to be a complex interplay of financial incentives, personal preferences, social norms, and institutional constraints. In the following section, we provide an overview of 4 key determinants including retirement regulation constraint, health factors, workplace condition and personal characteristics and financial conditions.

Constraints from Retirement Regulations, particularly statutory or company-mandated compulsory retirement age policies, are often linked to age discrimination. This discrimination can include forced retirement, limited training opportunities, and employer bias, all of which restrict older workers' ability to remain employed (59, 60). Employment decisions should be based on a worker's abilities rather than age. Several

studies suggest that enforcing a statutory retirement age may lead to earlier-than-expected retirement. Barker and Clark (1980) (76) examined the impact of such legislation on older workers, showing how many were pushed out of the labor force due to mandatory retirement provisions. Neumark and Song (2012) (77) found that stronger age discrimination protections at the state level were associated with higher employment and hiring rates for older workers. Similarly, Coppola and Wilke (2010) (78) studied Germany's statutory retirement age (SRA) reform, which raised the retirement age from 65 to 67. Their findings show that the reform shifted retirement expectations for younger cohorts by nearly two years, suggesting that adjusting or removing compulsory retirement policies could help extend working lives.

Health factors are among the most important variables affecting retirement decisions. Both physical and mental health significantly influence retirement timing and expected work hours. Health can be measured objectively, such as through Activities of Daily Living (ADL), which assess basic physical functioning, or subjectively, through self-reported health assessments used in studies like the English Longitudinal Study of Ageing (ELSA). Research consistently shows that poor health increases the likelihood of early retirement. Severe health conditions often lead to disability-related retirement, while less severe but chronic health issues may prompt individuals to retire earlier than planned (79, 80) examined the impact of specific health conditions including cardiovascular diseases, inflammatory disorders, psychological conditions, respiratory illnesses, diabetes, and psychotic disorders on retirement decisions.

Regarding mental health, Olesen et al. (2012) (81) used data from the Household Income and Labour Dynamics in Australia (HILDA) survey to assess mental health using the Mental Health Index (MHI-5). Their findings indicate that poor mental and physical health strongly predict the workforce exit in mid-to-late adulthood, particularly early retirement. Similarly, studies by Robroek et al. (2013) (82) and Scharn et al. (2018) (83) confirm that poor health, physical inactivity, and limited job control contribute to early labor force exit across various European countries.

Workplace factors play a crucial role in retirement decisions. Olesen et al. (2012) (81) examined key work-related factors, including job control, job stress, job security, and skill utilization. They found that low job control and high job stress negatively affect older workers' willingness to continue working. Robroek et al. (2013) (82) further identified physically demanding jobs, high time pressure, low job control, and low rewards as major contributors to early workforce exit. Their study applied the Job Content Questionnaire, which assesses job demands, control, and support.

OECD (2006) (74) highlights that improving workplace conditions can encourage older workers to remain employed. Flexible work arrangements, including part-time options, phased retirement, and reduced working hours, allow older employees to balance job demands with health limitations. Gustman & Steinmeier (2004) (84) analyzed data from the Health and Retirement Study and found that allowing workers to reduce their hours instead of retiring completely would increase labor force participation among older individuals. Similarly, Vanajan et al., (2020) (85) found that offering phased retirement options and flexible scheduling significantly extended older workers' employment durations. Additionally, workplace characteristics such as company size, sector, job type (blue-collar vs. white-collar), and job position (supervisory vs. non-supervisory) should be considered when analyzing retirement trends.

Personal Characteristics and financial conditions, such as age, gender, education, financial status, and family obligations, influence retirement decisions. Higher education levels are often associated with delayed retirement due to greater career satisfaction and financial security. Financial constraints, including debt levels and household income, also impact retirement timing. Individuals with significant financial obligations, such as dependents or family support responsibilities, may opt to work longer. Additionally, measures of financial hardship, such as skipping meals or struggling to pay bills, indicate economic vulnerability and may drive individuals to postpone retirement (78, 86-88).

In conclusion, retirement decisions are shaped by multiple interrelated factors, including regulatory constraints, health conditions, workplace characteristics, and personal and financial circumstances. Policies that reduce age discrimination, promote flexible work arrangements, and address health-related barriers are expected to help extend older workers' participation in the labor force.

5.2 Research Framework

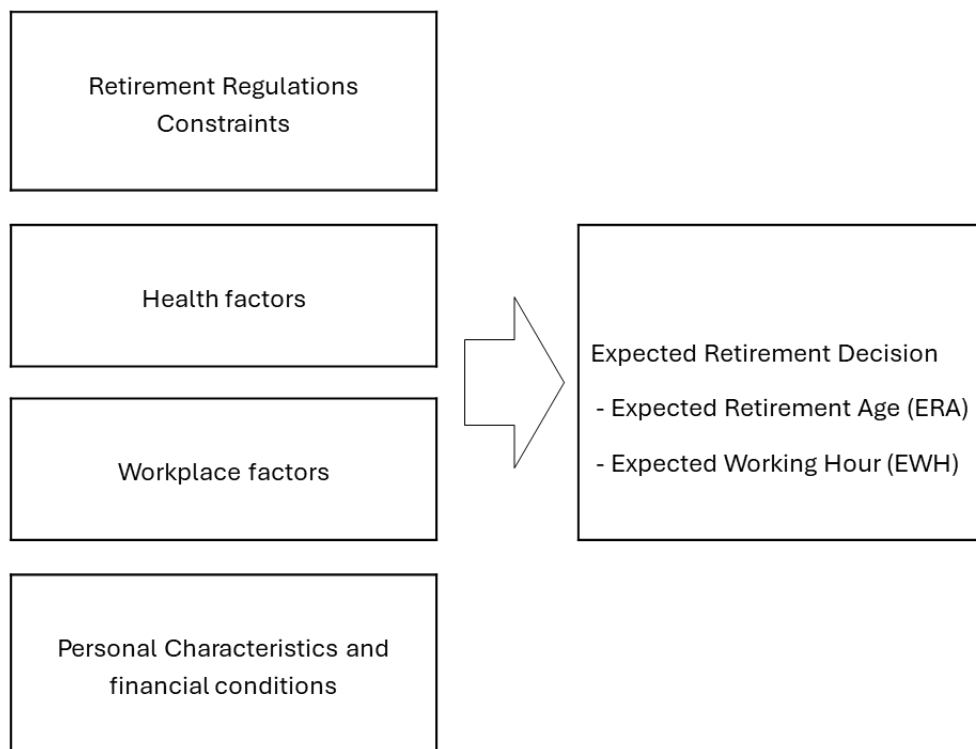


Figure 5 Research Framework

5.3 Research Objectives and Hypotheses

Main Objectives

1. Examine factors influencing the expected retirement age among the pre-retirement population.
2. Explore factors influencing expected working hours among the pre-retirement population.
3. Understand employers' perspectives on challenges, limitations, and considerations when hiring older workers.

Main Hypotheses

H1: Organizations that enforce a strictly compulsory retirement age are associated with lower expected retirement ages among pre-retirement workers.

H2: Access to flexible work arrangements is positively associated with later-expected retirement ages.

H3: Organizations that enforce a strictly compulsory retirement age are associated with lower expected working hours among pre-retirement workers.

H4: Access to flexible work arrangements is positively associated with higher expected working hours among older workers.

5.4 Methodology

This study adopts both quantitative and qualitative methods to comprehensively analyze the factors influencing expected retirement age and working hours among the pre-retirement population. A survey will be conducted to collect primary data from individuals aged 50–60 who are employed in the formal sector. Additionally, focus group discussions with employers will provide insights into their perspectives on hiring older workers, including the legal restrictions that may prevent them from doing so, the key reasons behind their reluctance to hire older employees, and the types of policies needed to balance the costs for employers with the benefits for employees.

Workers in the informal sector are not included in our analysis because age is not a barrier for labor force participation in the informal sector. Specifically, there is no SRA applied to them. In the informal sector, there is no employer. The decision on workforce participation is solely determined on the worker's side.

Employee decision for happy aging: Data Collection and analysis

For the data on employee decision, we conduct structured survey, a sample of 1,500 participants working in the formal sector in Thailand, with future plans to expand the study to ASEAN countries, including Vietnam, Malaysia, the Philippines, and Indonesia. The survey will employ a stratified random sampling method to ensure representation across different industries. We use three types of employees (government, state enterprise and private employees) as strata. Data will be collected by research teams and trained fieldwork teams through face-to-face interviews. The questionnaire will be pre-tested with a small sample (n=30) to assess clarity and reliability. Cronbach's alpha will be used to test the internal consistency of multi-item scales, where applicable.

Sample size calculations

Our target population consists of individuals aged 50–60 who are currently working in the formal sector. The sample size is determined using Cochran's (1977) formula. According to data from the National Statistical Office (NSO), approximately 3,185,527

people in this age range are employed in the formal sector. For sample size determination, we use a 95% confidence level, a 2.53% margin of error, and a 50% population proportion. Based on these parameters, a sample of 1,500 individuals is selected to represent the target population, as calculated below.

$$n_0 = \frac{z^2 p(1 - p)}{e^2}$$

Where e: desired level of precision, the margin of error

p: the fraction of the population (as percentage) that displays the attribute

z: the z-value

$$n_0 = \frac{1.96^2 0.5(1 - 0.5)}{0.0253^2}$$

$$n_0 = 1,500$$

Sampling Method

We will conduct multi-stage sampling. The first stage involves stratified random sampling to select respondents from four regions: the Bangkok and Central region, the Northern region, the Northeastern region, and the Southern region. A total of 1,500 respondents will be selected based on the proportionate size of the target population in each region, derived from the Labor Force Survey (LFS) conducted by the NSO. Specifically, 936 respondents will be chosen from the Bangkok and Central region, 159 from the Northern region, 248 from the Northeastern region, and 157 from the Southern region (**Table 7**).

Table 7 Distribution of Sample in the Formal Sector (Ages 50-59) by Region and Employment Type

Region	Respondents in Formal Sector, Aged 50-59*	Proportional Sampling*: 1500	Work Status			
			Private	Government	State Enterprise	Total
Bangkok & Central	1,987,732	936	749	159	28	967
Northern	337,595	159	96	59	3	159
Northeastern	526,307	248	143	102	3	207
Southern	333,893	157	103	48	6	167
Total	3,185,527	1500	1092	369	40	1500

Source: *numbers and proportions are from the Labor Force Survey Q4/ 2024, National Statistical Office

The second stage involves cluster sampling (**Figure 6**). In cluster sampling, the characteristics within each group should be relatively similar. Since the formal sector across provinces does not differ significantly, we will select one province from each of the four regions, prioritizing the province with the highest proportion of people working in the formal sector which is also derived from the LFS. The selected provinces are:

- Bangkok Metropolitan Region
- Chiang Mai
- Khon Kaen
- Songkhla

Additionally, the expected retirement decision may vary depending on job characteristics, pension benefits, and regulations—such as private sector employment with Social Security benefits, government positions, or state enterprises with their own work regulations and retirement benefits. The sample from each region will be further divided into three groups based on the work status, using the proportions outlined in Labor Force Survey Q4/ 2024, National Statistical Office. In addition, an employee from each category will be interviewed if their last digit of Thai Identification (ID) Number is ranged from 5 to 9.

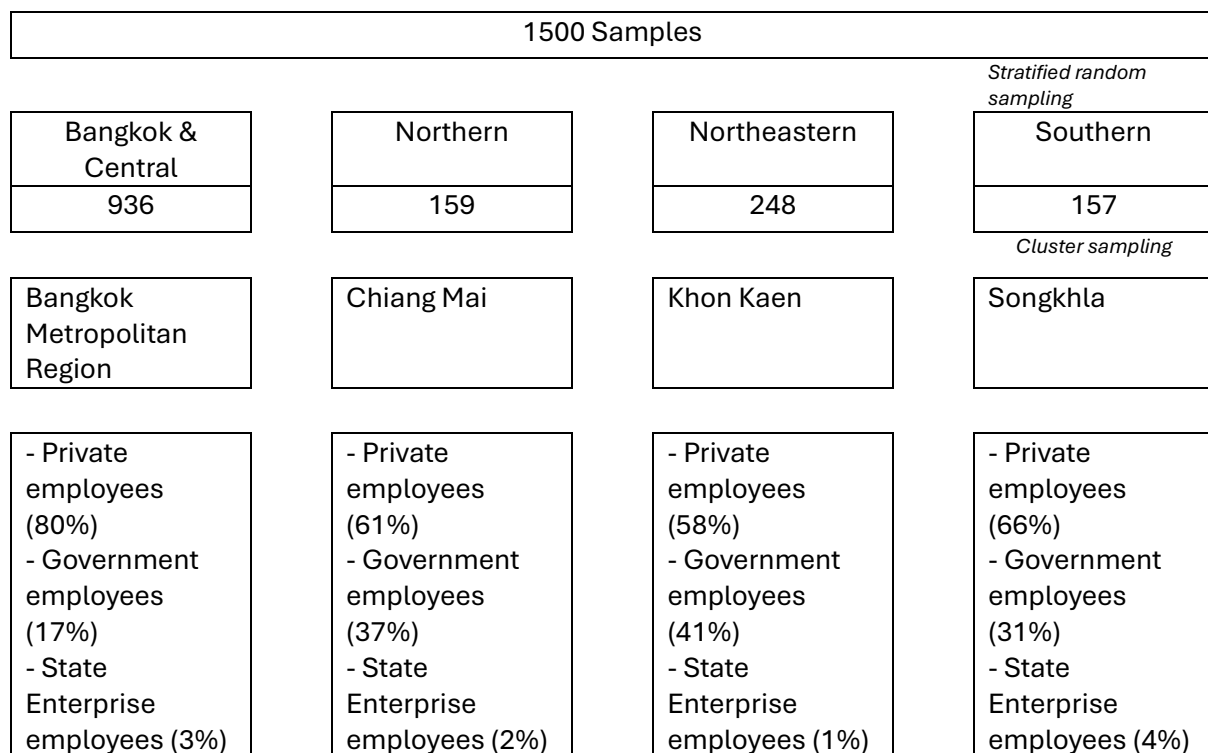


Figure 6 Sampling design

Table 8 provides clear inclusion and exclusion criteria for sampling design, ensuring that the research study targets the appropriate population groups randomly.

Table 8 Inclusion and Exclusion Criteria for Employee Eligibility

Criteria	Inclusion Criteria	Exclusion Criteria
Population	Preretirement Thai workers: workers aged 50–60 years currently working in the formal sector in Thailand	Workers younger than 50 or older than 60 and retirees. Workers without Thai ID card.
Employment Type	Private-sector employees, government employees, and state enterprise employees	Subcontract workers who are not eligible for any employment benefit or are not covered by social security.
Region	Central / Northern / Northeastern / Southern	
Province	Workplaces are in Bangkok Metropolitan Region / Chiang Mai /Khon Kaen / Songkhla	Workplaces are located outside the selected provinces
Sampling Method	Selected through multi-stage, stratified random sampling, and Systematic Random Sampling methods (An employee from each category will be interviewed if their last digit of Thai citizen Identification (ID) Number is ranged from 5 to 9.)	Individuals who were not selected through the sampling process
Data Collection Method	Data collected through face-to-face interviews conducted by research teams or trained fieldworkers	Data obtained from sources other than direct interviews
Survey Pre-Test	Participants willing to take part in the pre-test survey (n=30)	Individuals who refuse to participate in the pre-test survey
Language	Able to speak and read Thai	Unable to communicate in Thai
Willingness to Participate	Provides informed consent and agrees to participate	Declines participation or does not provide consent

Data Analysis

The first model focuses on the expected retirement age, while the second model examines expected working hours per week. These two models can be estimated using methods such as the Heckman selection model, Generalized Linear Models (GLM), Tobit regression, quantile regression, or multiple regression, with or without interaction terms. To determine which model best fits the data, it is important to check for selection bias and assess the distribution of residuals. As a starting point, baseline multiple regression results are presented below.

Expected Retirement Age (ERA) Model

The first model aims to estimate the factors influencing expected retirement age (ERA) based on the framework developed from previous literature (76, 87, 89). The model specification is as follows:

$$ERA_i = \beta_0 + \beta_1 AgeConstraints_i + \beta_2 workplace_{1i} + \dots + \beta_n x_{ni} + \varepsilon_i$$

$$EWH_i = \beta_0 + \beta_1 AgeConstraints_i + \beta_2 workplace_{1i} + \dots + \beta_n x_{ni} + \varepsilon_i$$

Where ERA_i denotes the expected retirement age for individual, EWH is Self-reported expected weekly working hours (hours per week). The main explanatory variables include retirement regulation constraints and workplace conditions, while control variables encompass a wide range of personal, occupational, health, and family-related factors, as described in **Table 9**.

Table 9 Variable Descriptions

Variable	Description	Measurement
ERA	Expected Retirement Age - At which age do you expect to retire from your current job?	Self-reported expected retirement age (years)
EWH	Expected working hours per week	Self-reported expected weekly working hours (hours per week)
Age Regulation Constraints		
Age Regulation Constraints	Whether the organization enforces SRA - Does your organization have an SRA?	1 = Yes, 0 = No
Attitude Toward Post-SRA Work	Personal attitude toward working beyond the statutory retirement age. - How do you feel about the option of continuing working after reaching the SRA?	5-point Likert scale (1 = Strongly dislike, 5 = Strongly like)
Employer Support for Continued Work	- Does your employer offer support for continued employment after retirement age?	1 = Yes, the organization encourages it 2 = Yes, but only for certain roles or positions 3 = No, the organization discourages working beyond retirement age
Workplace factors		
Flexible Work Arrangements	Does your employer offer flexible work arrangements (e.g., flexible hours, work from home)?	1 = Yes, 2 = No 3 = Not sure
Employment Sector	Sector of employment	Public sector, education sector, privatized organizations

Variable	Description	Measurement
Industry Type	Industry in which the respondent works	Categorical (e.g., manufacturing, services, etc.)
Physical Job Demands	Perceived physical demands of the job	4-point scale (Strongly agree to Strongly disagree)
Job Position	Supervisory role or non-supervisory role	Binary: 1 = Supervisor, 0 = non-supervisor
Number of Contribution Years	Total years contributing to social security/pension system	Number of years
Organization Size	Number of employees in the organization	Small, Medium, Large
Job Satisfaction	Overall job satisfaction	5-point Likert scale (1 = Very dissatisfied to 5 = Very satisfied)
Job Control	Level of control over work tasks and processes	Measured using the Job Content Questionnaire
Health Factors		
Chronic Disease	Presence of chronic health conditions	1 = Yes, 0 = No
Self-Reported Health	Overall self-assessed health status	5-point scale (1 = Excellent, 5 = Poor)
Health Limits Work Ability	Whether health problems limit ability to work	1 = Yes, 0 = No
Mental Health	Psychological well-being	Mental Health Index (MHI-5)
Personal and family characteristics and financial conditions		
Number of Dependents	Number of financially dependent family members	Count
Financial Support to Family	Whether the respondent financially supports family members	1 = Yes, 0 = No
Income	Monthly or annual income	Continuous (currency)
Financial Hardship	Experience of financial distress, such as skipping meals	1 = Yes, 0 = No
Debt	Outstanding personal debt	Continuous (currency)
Age	Respondent's age	Years
Gender	Respondent's gender	1 = Male, 0 = Female
Education	Educational attainment level	No schooling, Lower secondary, Upper secondary,

Variable	Description	Measurement
		bachelor's degree, Postgraduate
Pension Plan Participation	Are you currently enrolled in the Social Security Fund /Provident Fund / Government Pension?	1 = Yes, 0 = No

Employer views for feasible policy recommendation: Data Collection and analysis

A focus group discussion will be conducted with 30 employer representatives from the formal sector, including the government sector, state enterprises, and private enterprises. Three employers from each of the ten groups, based on the International Standard Industrial Classification of All Economic Activities (ISIC) classified by the NSO, will be invited to the discussion (**Table 10**). If the industry has any employer associations, a representative from one of them will also be invited. If no associations exist, representatives will be selected and distributed among large, medium, and small companies across the ten industries.

Table 10 Industry Sector Distribution of Selected Companies

Code	Industry Sector	Selected Company
0	Agriculture, Forestry, and Fishing	3
1	Mining and Quarrying	3
2	Manufacturing	3
3	Electricity, Gas, Steam, and Air Conditioning Supply	3
4	Water Supply; Sewerage, Waste Management, and Remediation Activities	3
5	Construction	3
6	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	3
7	Transportation and Storage	3
8	Accommodation and Food Service Activities	3
9	Information and Communication	3
Total	Total Sample	30

Note: We might reallocate the number of firms in each code after consulting with NSO and the Social Security Office (SSO).

The main objective of the focus group method is to gather information on the demand side for policy recommendation formulation. The process will begin with presenting the research findings from the employee decision-making perspective to highlight their expectations and the prevailing situation. Following this, the focus group will be conducted, with a series of questions aimed at understanding the challenges and needs from the employer's point of view.

- What is the current employment situation in your industry? Is there a labor shortage?
- Currently, what proportion of your workforce consists of older employees?
- Does employing older workers affect the competitiveness of your business? How?
- Based on the findings we have presented, do you think employers will be able to accommodate employees' preferences and decisions? How?
- Are current legal requirements or employment regulations an obstacle to hiring older workers?

The data will be analyzed using content analysis to identify common concerns, and insights across different industries. The analysis will highlight employer attitudes toward hiring older workers, as well as the perceived challenges and benefits of employing them. **Table 11** provides guidelines on employer selection to the focus group discussion.

Table 11 Inclusion and Exclusion Criteria for Employer Sample

Criteria	Inclusion	Exclusion
Sector	Formal sector (government, state enterprises, private enterprises)	Private enterprises that are not registered with the SSO.
Industry	Employers from 10 industry sectors based on ISIC classification	Employers from industries outside the selected ISIC codes
Company Size	Large, medium, and small companies included	Sole proprietors or micro-enterprises without employees. International organizations not under Thai Labor Protection Act
Representative	Employer representatives, industry association representatives (if available), Formal government and state enterprise organizations representing as employer.	
Availability	Willing to participate in a focus group discussion	Unavailable during the scheduled discussion period
Language	Able to communicate in Thai (or English if applicable)	Unable to participate due to language barriers

6. Timeline

Activities	Expected Output	Year 2025										Year 2026				
		5	6	7	8	9	10	11	12	1	2	3	4			
Phase 1: Planning and Preparation																
Application for ethical clearance to IHRP	Ethical clearance certificate	■	■													
TH Stakeholder meeting (proposal presentation)	TH Stakeholders informed and engaged with project	■	■													
Phase 2: Data Collection and Analysis																
Objective 1: Scoping Review																
Planning search strategy	Comprehensive search strategy	■														
Finalizing protocol and starting searches	Search initiation		■													
Comprehensive Searching	List of articles retrieved		■													
Screening titles and abstracts	Initial selection completed			■	■											
Full-text screening	Selection completed				■	■										
Data extraction	Key information extracted					■	■									
Data analysis and synthesis	Synthesized findings							■	■							
Cross-objective analysis	Policy recommendations									■	■					
Objective 2: Survey and Focus Group Discussion																
Survey design and pilot testing	Tested and validated tool	■	■	■												
Data collection and cleaning (TH setting)	Cleaned and organized dataset				■	■										
Survey data analysis	Statistical summary and interpretation							■	■							
Conducting FGD (TH setting)	Transcripts and key insights							■								
Qualitative data analysis	Thematic analysis									■						
Cross-objective analysis	Policy recommendations									■	■					

Activities	Expected Output	Year 2025						Year 2026						
		5	6	7	8	9	10	11	12	1	2	3	4	
Phase 3: Dissemination and Finalizing Report														
Drafting the Report														
Finalizing Report	Final report													
Policy brief publication	PB document published													
Article publication (draft to submission process)	Manuscript submitted to journal for publication													
Consultation exercise with ACAI team (sharing session) Note: This session serves as a collaborative knowledge exchange where the research team shares progress, preliminary findings, and challenges, while the ACAI team provides feedback, suggestions, and expert insights to refine the study														
Consultation exercise with network (finding validation and feasibility assessment, e.g., PMAC, ACAI board meeting)														

7. Expected Deliverables, Outcomes, and Impact

Expected Deliverables	Expected Outcomes	Expected Impact
1 Final report	<ul style="list-style-type: none"> • Tailored policy recommendations which have context-specific, actionable policy recommendations for ASEAN countries • Identification of effective public policies for active and happy aging in ASEAN • Clear understanding of gaps and challenges in current aging policies • Insights into determinants of expected retirement age and working hours among pre-retirees in Thailand • Understanding of employer attitudes and barriers to hiring older workers in Thailand • Understanding of employer attitudes and barriers to hiring older workers in Thailand 	<ul style="list-style-type: none"> • Evidence-based policymaking tailored to the unique needs of ASEAN countries • Improved policy frameworks • Enhanced regional collaboration and adoption of best practices across ASEAN • Promotion of flexible retirement policies that combat ageism and support older workers
1 Policy brief	Summary of actionable recommendations	Supports policy changes and program improvements
1 Published journal article	Peer-reviewed dissemination of research	Enhances academic knowledge and establishes credibility

8. Dissemination Plan

Activity	Target Audience	Channels
1 Final report	Policymakers, researchers, regional organizations, civil society	Distributed to stakeholders, published on the research team's website, and shared with regional organizations (e.g., ACAI, ASEAN Secretariat)
1 Policy brief	Policymakers, government agencies, regional organizations	Published online
1 Published journal article	Academics, researchers, practitioners	Published in peer-reviewed journals and shared through academic networks
Side Meeting at Conference	Policymakers, researchers, employers, regional representatives	Hosted at international conferences

9. Sustainability and Future Work

To ensure long-term impact, this research will adopt a multi-pronged approach that extends beyond the study's immediate findings. Key sustainability strategies include:

- 1) Research outputs (policy briefs, case studies, toolkits) will be made publicly available to policymakers, researchers, and civil society, ensuring accessibility and continued use.
- 2) Ongoing collaboration with the ASEAN Centre for Active Ageing and Innovation (ACAI) and other key stakeholders will facilitate policy integration at national and regional levels.
- 3) Findings will be embedded into national aging strategies through partnerships with ministries of health, labor, and social affairs.

10. Team and Expertise

Name (Role)	Qualifications	Relevant experience/Expertise	Alignment with research objectives
Vilawan Luankongsomchit (Principal Investigator)	M.S. in Health Sciences and Technologies (Assessment Management of Health risks at the Human, Animal and Ecosystem Interface) M.S. in Bio-Veterinary Science	Six years in policy research; expertise in strategic evaluation and qualitative research	Leads for objective 1 (scoping review); Planning search strategy, finalizing protocol and starting searches, screening titles and abstracts, full-text screening, data extraction, data analysis and synthesis, research dissemination
Yot Teerawattananon (Co-Investigator & Senior researcher)	PhD in Philosophy in Health Economics	Founding leader of the Health Intervention and Technology Assessment Program (HITAP). Yot has gone on to provide technical advice to many national and international agencies such as: the Gates Foundation, WHO, World Bank, Asian Development Bank and the Centre for Global Development (CGD).	Advisor , providing direction, supervising overall
Kwanputtha Arunprasert (Co-Investigator)	PhD in Pharmaceutical technology	Experience in developmental evaluation for One ID card policy	Aligns with objective 1 (scoping review) by comprehensive searching, screening titles and abstracts, full-text screening, data extraction, data analysis and synthesis, research dissemination
Jiratorn Sutawong (Research assistant)	M.S. in Science (Anti-Aging and Regenerative Science)	Two years of experience in qualitative research and one year in policy research	Aligns with objective 1 (scoping review) by comprehensive searching, screening titles and abstracts, full-text screening, data extraction,

Name (Role)	Qualifications	Relevant experience/Expertise	Alignment with research objectives
		using mixed methods on renal replacement therapy policy change in Thailand.	data analysis and synthesis, research dissemination, coordinator
Benjamaporn Eiamsakul (Research assistant)	Bachelor of Applied Thai Traditional Medicine (B.ATM.)	Two years of experience in qualitative research, experience in developing fall prevention strategies and policy for the elderly.	<p>Aligns with objective 1 (scoping review) by comprehensive searching, screening titles and abstracts, full-text screening, data extraction, data analysis and synthesis, research dissemination, coordinator</p> <p><i>Remark: To address the budgetary constraints, we will seek other sources of funding to support the continued involvement of Benjamaporn Eiamsakul on this project.</i></p>
Worawan Chandoevit (External collaborator and Co-Investigator)	Ph.D. in Economics	Professor in economics and advisor in social security, human resources and social development	Leads for objective 2 (survey and FGD), providing direction, supervising overall, designing policy recommendations, research dissemination
Savinee Mega (External collaborator and Co-Investigator)	Ph.D. in Economics	Experience in Happiness Studies Social Welfare Policy Evaluation	Aligns with objective 2 (survey and FGD) by survey design and pilot testing, data collection and cleaning, survey data analysis, research dissemination
Kanyaphak Ngaosri (External collaborator and Co-Investigator)	M.Econ. (Business Economics Program with a major in Project Analysis)	More than 10 years in public policy research and development with expertise in economic analysis in the	Aligns with both objectives (scoping review, survey, and FGD) by screening titles and abstracts, full-text screening, data extraction,

Name (Role)	Qualifications	Relevant experience/Expertise	Alignment with research objectives
		areas of health, social protection, longevity society, as well as climate issues towards vulnerable groups such as older.	data analysis and synthesis, conduct focus group discussion, research dissemination

11. Risk Assessment

Potential Challenges /Risk	Mitigation Strategies
Data Collection (Low response rates, missing policy data, limited access to data)	<ul style="list-style-type: none"> - Partner with local organizations - Supplement with gray literature sources - Local translators
Ethical Issues (Privacy concerns)	Anonymize data
Time constraints	Implement efficient project management techniques, such as regular team meetings, clear communication channels, and the use of project management tools

12. Appendices (if applicable)

Appendix A: Minimum Wage among ASEAN countries

Table 12 presents the minimum wage levels across ASEAN countries, categorized by hourly, daily, and monthly wages. The data highlights significant variations in minimum wage policies among member states. This table also provides a foundational comparison of minimum wages across ASEAN, serving as valuable preliminary data for expanding future studies. Specifically, it can support research on labor policies and workforce conditions in ASEAN countries with similar economic structures and longevity context. For instance, Malaysia and the Philippines have daily minimum wages comparable to Thailand. These countries could be selected as case studies for examining labor market dynamics, employment policies for aging workers, and economic implications of wage structures. Understanding these similarities will help policymakers and researchers develop cross-country strategies for fair wage policies and workforce sustainability, particularly in addressing the challenges of an aging labor force in the region.

Table 12 Minimum Wage among ASEAN countries (US\$)

Country	Minimum Wage (per hour)	Minimum Wage (per day)	Minimum Wage (per month)
Indonesia	-		129 - 337
Malaysia	1.52	12.96 for working 6 days/week 15.56 for working 5 days/week 19.45 for working 4 days/week	380
Philippines	-	6.32 - 11.00	
Thailand	-	10.13 - 12.03	
Vietnam	0.70-1		137 - 197
Singapore		No Minimum Wage	
Brunei		No Minimum Wage	

Source: ASEAN Briefing (2024), Vietnam Ministry of Labour (2022)

Appendix B: List of potential participants for stakeholder meeting

Potential participants	Number (persons)
Government and Policy Agencies	
Office of Permanent Secretary, Ministry of Labour	1
Department of Labour Protection and Welfare, Ministry of Labour	1
Social Security Office, Ministry of Labour	1
Department of Older Persons, Ministry of Social Development and Human Security	1
Department of Local Administration, Ministry of Interior	1
Office of the Civil Service Commission	1
Office of the Public Sector Development Commission	1
Office of National Economic and Social Development Council	1
National Farmers Council	1
Bangkok Metropolitan Administration	1
Provincial Office - Chiang Mai, Khon Kaen and Songkhla	3
Private Sector and Business Representatives	
The Joint Standing Committee on Commerce, Industry and Banking	1
Federation of Thai Industries	1
Thai Chamber of Commerce and Board of Trade of Thailand	1
Thai Bankers' Association	1
Other companies such as Nestlé, Honda Thailand, HomePro, etc.	2-3
Labor and Union Representatives	
Thai Labour Solidarity Committee	1
State Enterprises Workers' Relations Confederation	1
Informal Labour Confederation (Thailand)	1
Academics and Experts	
Institute of Public Policy and Development	1
Puey Ungphakorn Institute for Economic Research	1
Center for Aging Society Research	1
Center for International Collaboration of Innovation and Safety for Ageing	1
Institute for Population and Social Research	1
College of Population Studies	1
Non-governmental Organization (NGOs)	
Foundation of Thai Gerontology Research and Development institute	1
Foundation for Older Persons' Development	1

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