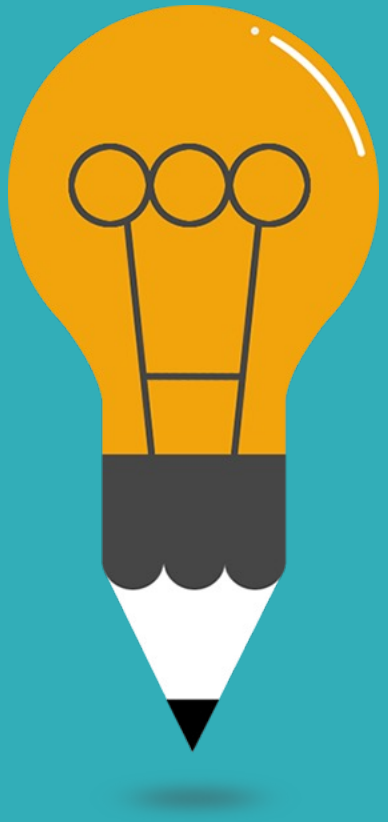
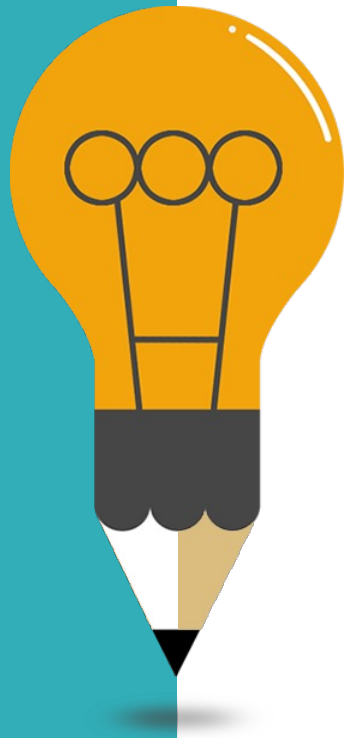


Current work on Thailand NTA:

The 2021 revision of Thailand NTA and implications for sustainable consumption by the elderly

Watcharapol Wongniyomkasat
Office of the National Economic and Social Development Council (NESDC)

Current work on Thailand NTA

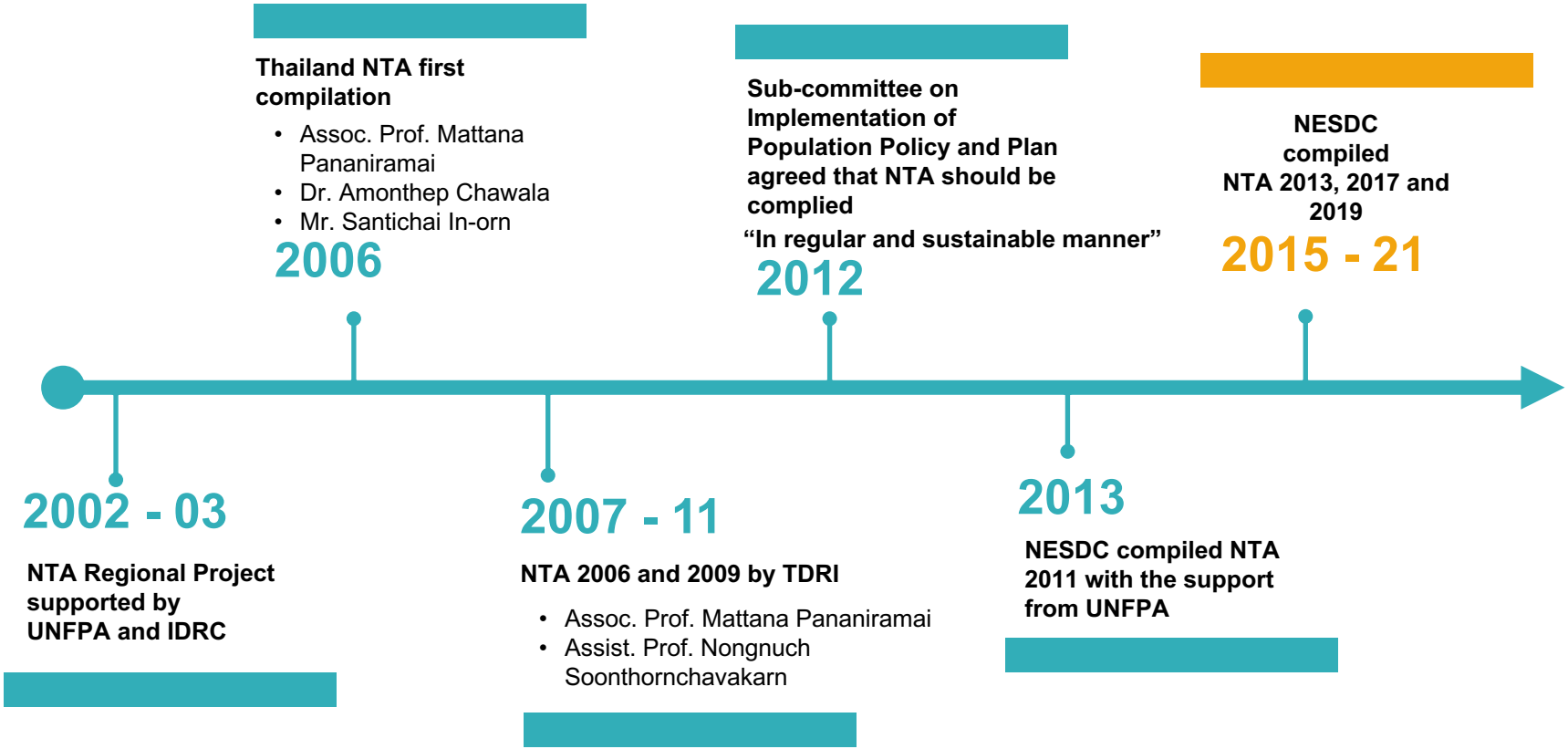


01 Thailand NTA in the past

02 Thailand NTA 2021

03 Implications : Sustainability analysis of elderly consumption using NTA

Thailand NTA in the past



NTA Applications in Thai Policy

NTA's evidence on sustainability of social protection was included in the ***Quarterly Social Situation Report***
February 28, 2022

Public health consumption was a critical element of health inequality analysis in **"Poverty and Inequality Situation of Thailand 2019"**

NESDC and UNFPA Thailand co-organized an online symposium on **"National Transfer Accounts and Social Protection Provision in Thailand"** on December 17, 2021

Policy Evaluation

NTA results and the 2040 projection were incorporated in the drafting of **Population Plan during the Twelfth National Economic and Social Development Plan (2017-2021)**

Policy Formulation

Policy Advocacy

Public and private consumption for children in early age was an empirical evidence for government's decision making process on the introduction of **Child Support Grant**

Thailand NTA in 2023 – Next Step

In September 2023, project to be published :

Thailand NTA 2021

An analysis of the consumption of the elderly in Thailand

Thailand NTA 2021

Aggregate Control

- National Income of Thailand (NESDC)

Age Profiles

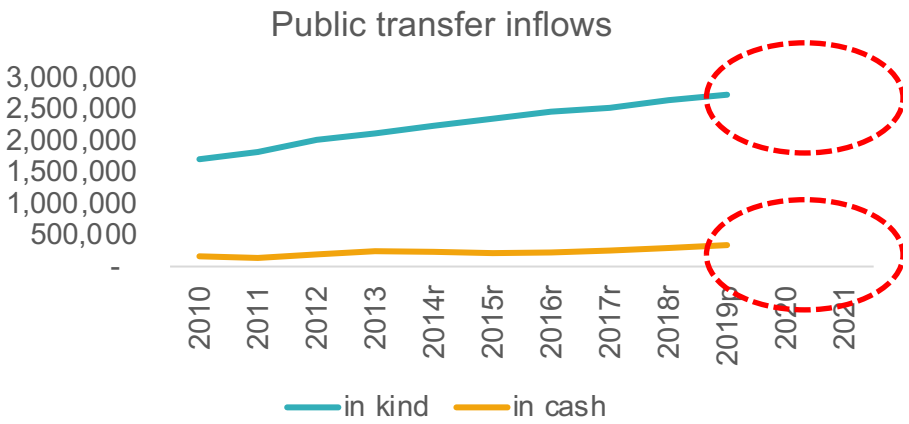
- Socio-economic Surveys (NSO)
- Health and Welfare Survey (NSO)
- Education Statistics (MOE)

Population

- Population Projections 2010-2040 (NESDC)

The result of 2021 NTA will help to understand and analyze the patterns of Transfers more clearly because during COVID-19 outbreak that year, the government used a lot of financial measures.

Thailand NTA in 2021



- In 2019, public transfers inflows, in cash amounted to approximately 340 billion baht, but during the Covid-19 period, the government used a lot more measures, causing transfers to about 600 billion baht.
- NTA of 2021 helped to analyze the comparative government transfers between those years (2019 vs 2021) and analyze details of public transfers inflows, in cash of 2021.

Key economic measures to remedy and mitigate the impact of COVID-19 outbreak

I. Measure to remedy household : For example , (1) Cost of living support, (2) Household consumption support, (3) Cash transfer for self-employed workers, vulnerable group s, and agricultural workers/farmers

II. Measure to support the tourism sector : For example, *"We Travel Together"*

III. Measure to support businesses and SMEs : for example, Financial support meas ures for SMEs

IV. Measure to support affected workers : for example, Measures to alleviate social security members

source: NESDC economic report, NESDC

Implications：Sustainable consumption by the elderly

Introduction

- In 2023, NESDC plans to write a policy brief on Thailand's pension system by analyzing consumption patterns and levels of the elderly to compare the gap between labor income and consumption.
- NTA will be used to analyze the sustainability of elderly consumption under various variables, such as survival rate, productivity growth rate, etc.
- We will apply the sustainable consumption concept from Handbook on Population Ageing and Sustainable Development United Nations, by Department of Economic and Social Affairs (2022) in section “3.17 Sustainable consumption with funded retirement”.

Implications：Sustainable consumption by the elderly

Concept

the expected years lived at each age based on survival rates by single years of age

consumption and labor income from NTA

economic discounting factor equals to the productivity growth rate minuses the interest rate

- the age pattern of years lived
- the age profiles of per capita
- the rate of productivity growth
- the market rate of interest

the present value of prospective lifetime

$$PV(YL49) = \frac{sum\ of\ YL49}{l(x)} \text{ for x>=49}$$

$$PV(C49) = \frac{sum\ of\ C49}{l(x)} \text{ for x>=49}$$

$$Consumption\ adjustment = \frac{PV(YL49)}{PV(C49)}$$

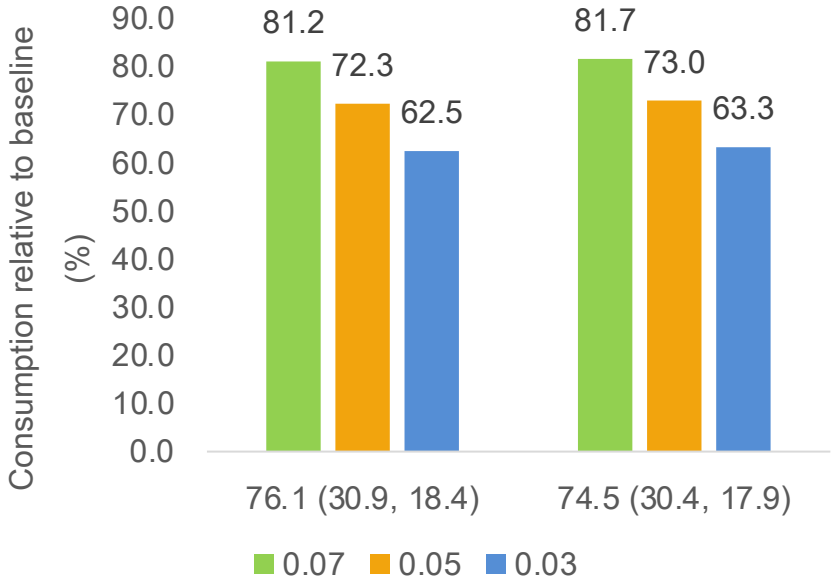
lifetime budget balance

if equal 1 : current patterns of consumption and labor income are sustainable
if unequal 1 : not in balance or unsustainable

Implications：Sustainable consumption by the elderly

Preliminary results*

Sustainable consumption relative to baseline, asset-based system, for high and low life expectancy and three interest rates (7, 5, and 3).



- In Thailand, the consumption adjustment of 0.812 means that consumption at ages 49 and above would have to fall to 81.2% of its previous value.
- Lifecycle patterns that are not in balance or explain that the savings would not be sufficient to cover future consumption, so you'd need to work more or consume less (save more) or both.
- On the other hand, everyone could just work more (more at each age or retire later), in that case
  PV(C49) = PV(YL49) * 1.23
  Everyone would have to work 23% more.

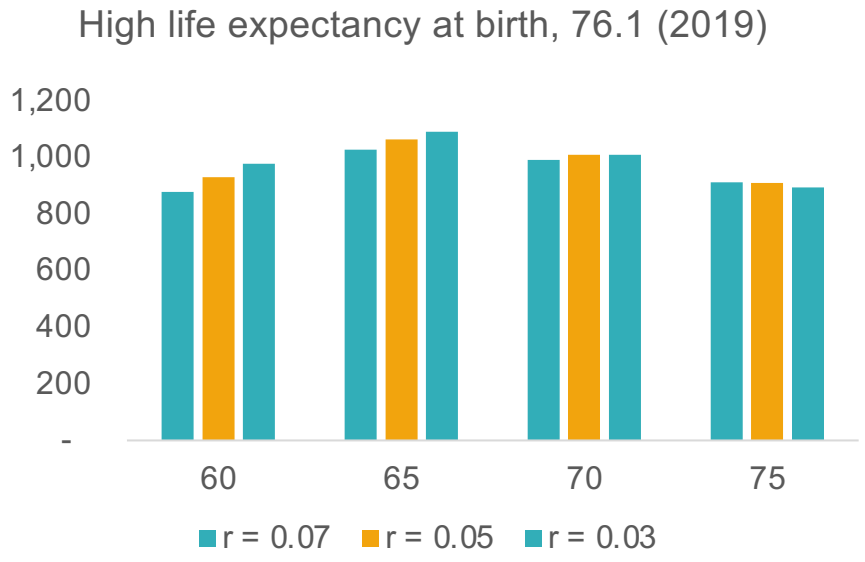
source: Thailand NTA 2019, compiling by author

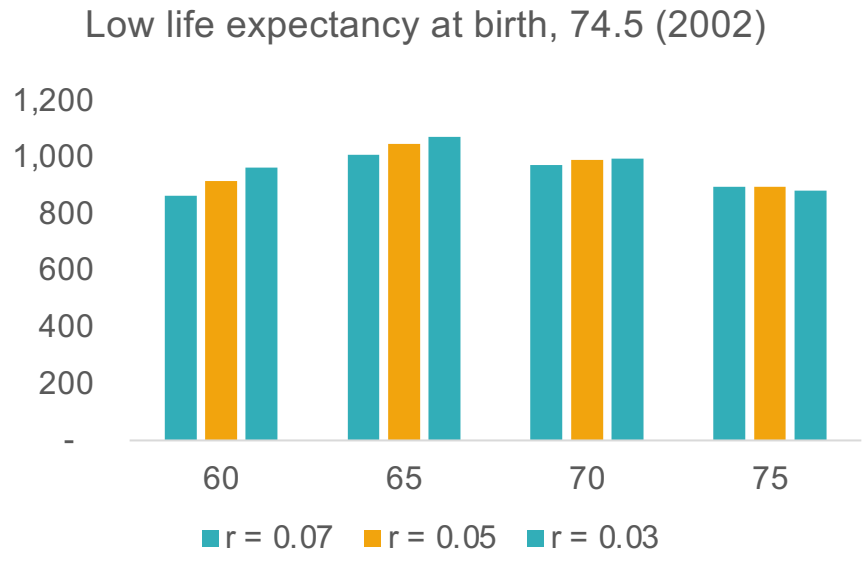
Note: In the final report, study results may differ from the preliminary results.

Implications：Sustainable consumption by the elderly

Preliminary results*

Per capita wealth required to fund old-age deficit by age, Thai baht (1000s), given three interest rates and TH survival rates for 2002 and 2019.





source: Thailand NTA2019, compiling by author

Note: In the final report, study results may differ from the preliminary results.

Implications：Sustainable consumption by the elderly

Preliminary results*

Adjustment in per capita consumption, relative to 2019 consumption, to allow asset-based funding consumption for ages 49 and above.

Life expectancy at birth (age 49 and 65)	Interest rate		
	0.07	0.05	0.03
76.1 (30.9, 18.4)	81.2	72.3	62.5
74.5 (30.4, 17.9)	81.7	73.0	63.3

Note: Thailand mortality in 2019 and 2002 and Thailand per capita consumption and labor income in 2019; productivity growth of 1.5% per annum; pre-retirement phase begins at age 49.

source: Thailand NTA 2019, compiling by author

Per capita wealth required to fund old-age deficit by age, Thai baht (1000s) and normalized values, given three interest rates and Thai survival rates for 2019, life expectancy at age 0, 49, and 65 in parentheses).

	r = 0.07			r = 0.05			r = 0.03	
	1,000 baht	Normalized		1,000 baht	Normalized		1,000 baht	Normalized
Age	TH survival rates for 2019 (76.1, 30.9, 18.4) age = 0, 49, 65							
60	876.5	4.3		929.1	4.6		975.6	4.8
65	1,025.50	5.1		1,063.20	5.2		1,088.50	5.4
70	990.3	4.9		1,007.70	5		1,009.10	5
75	910.2	4.5		909.7	4.5		892.2	4.4
Age	TH survival rates for 2002 (74.5, 30.4, 17.9) age = 0, 49, 65							
60	864.5	4.3		916.3	4.5		962.7	4.8
65	1,008.30	5		1,045.60	5.2		1,071.70	5.3
70	971.9	4.8		990.1	4.9		993.8	4.9
75	894.2	4.4		896	4.4		882.3	4.4

Notes: Normalized values are relative to per capita labor income 30-49. Based on per capita labor income and consumption age profiles for Thailand in 2019. Wealth required to fund lifecycle deficit for ages 49 and above. Consumption and labor income assumed to increase at 1.5 percent per year.

Note: In the final report, study results may differ from the preliminary results.

Implications : Sustainable consumption by the elderly

Summary

- Prospective lifetime consumption of the elderly remains unsustainable (consumption > labor income) so we should trying to reduce consumption levels or increase labor income.
- In Thailand, the starting point of age at which accumulation begins is at 49, which is the point at which the lifecycle wealth turns negative and it turns out to be 0.812. If we can reduce the starting point for accumulating wealth for retirement, there is a chance that the decrease in present value will not be very high or we don't have to work harder to have enough money left for retirement.
- If calculated from the maximum case (life expectancy at birth = 76.1, age = 65, interest rate = 3%), we need to spend 1.01 million baht to cover the deficit that will occur during retirement age. In addition, if the interest rate is even lower, it will require more money to compensate for the very severe deficit level.
- The main challenge is earning income after retirement. We should make money from other sources (apart from labor income) to support consumption during retirement such as savings and return on investment.

Thank you