



Thailand SDG Investor Map

6 July 2022



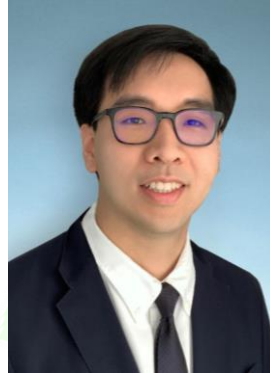
Project Team



Chacharee Therapong
Principal Consultant



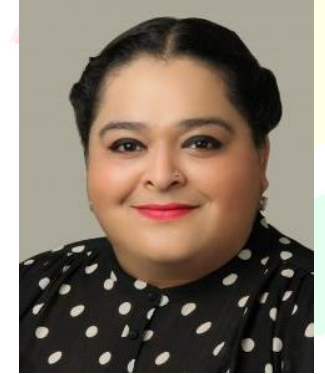
Tanakorn Suesatpanit
Consultant



Pramon Karnchanapimonkul
Consultant



Aphinya Siranart
Head of Exploration,
UNDP Accelerator Labs



Devahuti Choudhury
SDG Impact Specialist,
APAC at UNDP



Thailand - Country Profile

Provinces and Regions	77 provinces spread over 6 regions: North, Northeast, East, Central, South, and West
Population	Approx. 69.8 million (in 2020)
GNI Per Capita (USD)	7,040 (in 2020)
GDP Per Capita (USD)	7,186.9 (in 2020)
Demographic dividend	<p>Senior citizens account for over 13% of the total population in 2020 and are expected to account for 29.6% of the total population in 2050. This is mainly driven by low fertility rate.</p> <p>Working-age population is expected to decline from 43.2 million in 2020 to 36.5 million in 2040. Ratio of working-age to senior is expected to drop from 3.6 in 2020 to 1.8 in 2040.</p>
Investment climate	Thailand has pro-investment policies, especially for foreign direct investment, such as Board of Investment (BOI) tax incentives and Eastern Economic Corridor. Thailand also has well-developed infrastructure.
Ease of doing business ranking	21 of 190 countries (in 2020)
Global Competitive Index 4.0	40 of 141 countries (in 2019)
Human Development Index	79 of 189 countries (in 2019)
Foreign Direct Investments	USD 23.85 billion (FDI) (in 2020)

Thailand's National Development Priorities

20-Year National Strategy

2037 Vision

1. Security
2. Competitiveness Enhancement
3. Human Capital Development and Strengthening
4. Social Cohesion and Equity
5. Eco-friendly Development and Growth
6. Public Rebalancing and Development

13th National Economic and Social Development Plan

High-value Eco-friendly Economy

1. High-value agriculture
2. Value-based tourism
3. Electric vehicles
4. Integrated medical and health industry
5. Logistics gateway
6. Smart electronics and digital services

Society of Opportunities and Equality

7. SMEs, community and SEs grow sustainably and continuously
8. Prosperous, modern and livable areas and cities
9. Reduce inter-generational poverty & sufficient social protection

Sustainable Way of Life

10. Circular Economy and Low Carbon Society
11. Reduce natural disasters and climate risks

Supporting Factors for Transformation

12. Skilled manpower that meets the needs of future development
13. High-performance government sector

BCG Model

Food and Agriculture

- Increase productivity through technology
- Diversify products
- Develop value-added premium products

Medical and Wellness

- Build capacity for drugs and medical devices production
- R&D for personalized and preventive medicine


Bioenergy, Biomaterial, Biochemical

- Renewable energy production with smart microgrid, and energy storage
- Convert biomass into high-value added products

Tourism and Creative Economy

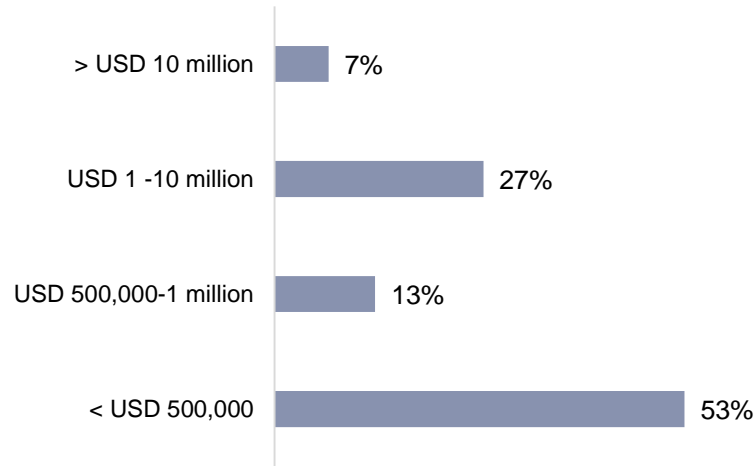
- Promote second-tier provinces through tourism infrastructure development
- Promote eco-tourism and environmental conservation, and high-quality tourism that integrate local knowledge and culture, and creative economy

Priority Sectors based on Thailand's Development Needs and Policies

Sector	Sub-sectors/Key Industries	Investment Opportunity Areas (IOAs)	Relevant SDGs [direct]
Food & Beverage [Agriculture]	<ul style="list-style-type: none"> Agricultural products 	<ul style="list-style-type: none"> Smart Farming and Precision Agriculture Value Chain Development for Sustainable/Organic Products Sustainable Packaging from Agricultural Byproducts and Wastes Alternative Proteins as Food for the Future 	
Renewable Resources and Alternative Energy	<ul style="list-style-type: none"> Solar technology and project developers Biofuels 	<ul style="list-style-type: none"> Decentralized Electricity Generation from Solar PV Community Biomass and Biogas Power Plant <i>Sustainable Aviation Fuel*</i> <i>Sustainable Biofuel Production*</i> 	
Healthcare	<ul style="list-style-type: none"> Health care delivery 	<ul style="list-style-type: none"> Telemedicine to Enhance Medical Access in Remote Areas <i>Cross-Subsidy for Private Healthcare Services*</i> 	
Transportation	<ul style="list-style-type: none"> Road transportation 	<ul style="list-style-type: none"> Smart Mobility Platform for Passengers and Freight Logistics <i>Electric Vehicle (EV) Manufacturing and Infrastructure Development*</i> 	
Financials	<ul style="list-style-type: none"> Commercial banks Insurance 	<ul style="list-style-type: none"> Microcredit for Business Purposes Microinsurance for Enhanced Financial Security of Low Income Groups 	
Infrastructure	<ul style="list-style-type: none"> Waste management 	<ul style="list-style-type: none"> Waste Management Systems and Platform Waste Management Infrastructure 	
Services	<ul style="list-style-type: none"> Hotels and lodging 	<ul style="list-style-type: none"> Medical and Wellness Tourism Eco & Community-Based Tourism 	
Education	<ul style="list-style-type: none"> Education technology 	<ul style="list-style-type: none"> Decentralized Online Learning Platform for STEM and Digital Skills, and Financial Literacy 	

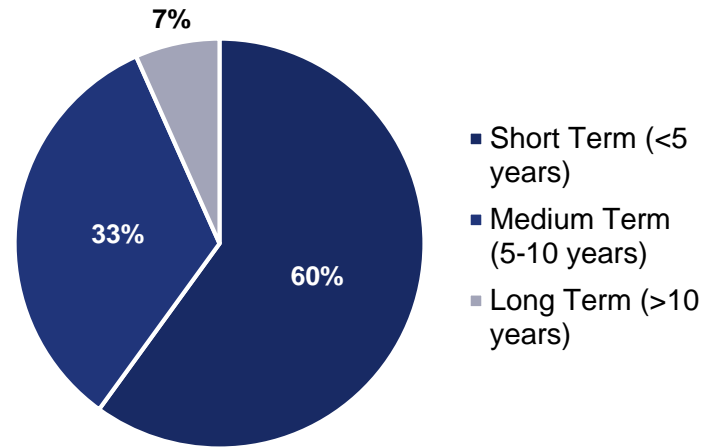
Some High-Level Insights from the SDG Investor Map (1/2)

Ticket Size



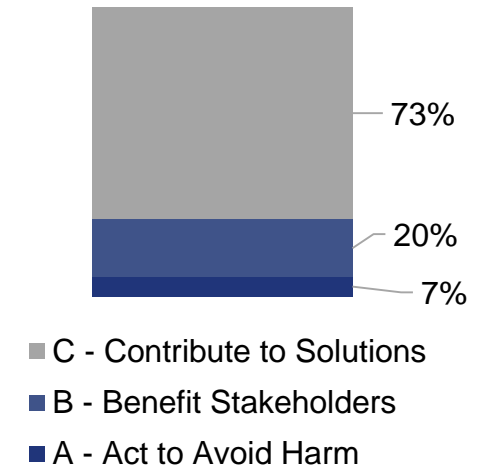
- 67% need investment < USD 1M
- 27% need investment USD 1-10M (agriculture, financials, infrastructure)
- 7% need investment > USD 10M (renewable energy)
- Most IOAs in Thailand do not require high initial investment but still exhibit strong commercial returns. This reflects the impact investing market in Thailand that is being developed in the early phase.

Investment timeframe for IOAs



- 60% have payback period of <5 years (short-term)
- 33% have payback period of 5-10 years (medium-term)
- 7% have payback of >10 years (long-term)
- IOAs from renewable energy, health, financials, and tourism have longer payback period as they require larger investment funding

IMP Analysis



- 11 IOAs for Category C – Contribute to Solutions
- 3 IOAs for Category B – Benefit Stakeholders (from Infrastructure and Hospitality/Recreation Tourism)
- 1 IOA for Category A - Act to avoid harm (from financial sector)

Some High-Level Insights from the SDG Investor Map (2/2)



6 IOAs utilize digital technologies, while 5 IOAs will reach full potential if they use digital technologies, which will help offer affordable and accessible solutions.



Agriculture



Renewable Energy



Healthcare



Transportation



Financial Services



Infrastructure (Waste)



Tourism



Education

The map also raises key concerns from a gender and marginalization perspective that the identified Investment themes can solve for. Some examples are shown below:



- **Agriculture:** Investing in business models that integrate digital technologies can empower women and senior farmers by removing certain barriers, such as reducing labor-intensive farm work and providing higher income to post-harvest work mostly performed by women. This can create positive impact on millions of women as 31% of women were employed in the agricultural sector in 2019.
- **Waste Management:** Investing in waste management solutions that can offer dignified livelihood options to female informal waste pickers. They are the most vulnerable as they are often paid 35% less than men, and are exposed greater social stigma and health hazards.
- **Healthcare:** Investing in business models that offer long-distance services can improve accessibility to healthcare for women, elderlies and those living in remote regions.
- **Tourism:** Women consisted of 64.8% of formal employment in the accommodation and food service industry category in 2019, which was severely affected by the pandemic.

SAMPLE INVESTMENT OPPORTUNITY AREA

Sustainable Packaging from Agricultural Byproducts and Wastes



Priority Sector: Food and Beverage (Agriculture)
Priority Subsector: Food and Agriculture

Business Model: Through B2B and B2C models, business model can buy agricultural waste/byproducts from farmers as raw materials, which will be processed into sustainable packaging. This will generate income for farmers from selling the agricultural waste/byproducts, reduce plastic wastes, and reduce air pollution from less open burning of agricultural waste/byproduct. Moreover, sustainable packaging can also decrease health risks from less exposure to contaminants in plastics.



Development need

- 280 million pieces of plastic wastes in 2020 due to increase in food deliveries
- 2.88m tons of plastic were discarded in 2018
- 51,000 tons/year of plastic waste ended up in Thai waters in 2016
- Open-burning of agricultural waste account for over 30% of PM 2.5 pollution



Expected development outcomes

- Distribute income farmers
- Reduce marine and air pollution
- Reduce health risks from leakage of chemicals from plastic packaging, and intake of chemicals from microplastics in seafood
- Reduce healthcare expenditures for both the government and citizens



Stakeholders impacted

- **People:** Farmers, especially female farmers and communities can generate income from selling the agricultural waste/byproducts to the packaging producers.
- **Public sector:** Municipalities can save waste management costs and achieve plastic reduction targets. Help farmers achieve a higher income.

IMP Classification

C – Contribute to Solutions: Sustainable packaging from agricultural waste/byproducts provide alternatives to plastics that can reduce marine plastic pollution and air pollution, while also providing income to farmers.



Economic considerations

- **Packaging accounts for 44% of the total plastic end-use in 2018.** Conversely, this presents good investment opportunities for sustainable packaging.
- 65% of Thai consumers living in urban areas are **willing to pay extra** for products that can help reduce plastic use.
- There are **insufficient regulations** to penalize the use of traditional plastics. Thus, businesses and consumers are burdened with additional costs of using sustainable alternatives



Enabling factors

- **Thailand 4.0 and BCG Model** supports biotechnology development.
- **Thailand's Roadmap on Plastic Waste Management (2018-2030)** sets timeframe for eliminating use of plastics.
- **BOI** offers tax benefit and other incentives for agro-industry and bio-based technology.



Investment Timeframe

- **Less than 5 years** to generate return (short-term)
- Currently, there is a much higher level of public awareness about environmental issues, consumers have a higher willingness to pay for sustainable packaging.
- There is also more advanced technology to reduce production costs.



Risk Factors

- **Efficiency risk:** Obtaining certifications and labels have high cost that hinder small businesses.
- **Execution risk:** Consumers can be discouraged from buying sustainable packaging due to higher price than plastic.
- **External risk:** Low public awareness and knowledge of different types of packaging can confuse consumers between sustainable and unsustainable packaging.

SAMPLE INVESTMENT OPPORTUNITY AREA

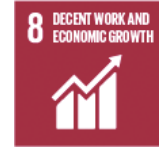
Medical & Wellness Tourism



Priority Sector: Services

Priority Subsector: Hospitality and Recreation

Business Model: Through B2C business model, investment in medical and wellness tourism can promote local businesses and supply chain, such as sustainably produced food, herbal and spa products, local craft products, wellness and hospitality services such as day spas and traditional Thai massages. Target groups may include long-stay foreign and domestic tourists and elders. This IOA will help generate income to second tier provinces and the communities, drive development of local products and economic growth, and help the planet by reducing environmental impact of tourism sector. Investors can invest money in infrastructure and accommodations that will support companies operating medical and wellness tourism.



Development need

- Tourism concentrates in the top 5 provinces receiving around 78% of foreign tourists
- Due to the pandemic hardly hitting tourism, , women working in tourism sector faces high risk to employment



Expected development outcomes

- Hospitals, long-stay rehabilitation, and wellness centers with healthcare professionals being located in second tier provinces can expand the accessibility of healthcare to people.
- Increase the demand for sustainably produced products, which promote the local economy and employment in hospitality-related jobs for local communities.



Stakeholders impacted

- **People:** Employment, income generation, and increase access to healthcare for people and women in second tier provinces
- **Corporates:** Great opportunity for the development of high value added health and spa products.

IMP Classification

B – Benefit Stakeholders: Medical and wellness tourism in second tier provinces creates jobs for local communities and increases access to healthcare and sustainably produced food for the people.



Economic considerations

- In 2019, formal employment in the accommodation and food service industry category consisted of **702,400 female (64.8%)** and 380,800 male (35.2%) workers.
- **Tourism revenue** in Thailand is seasonally concentrated in during high season from December to February, consisting of 28% of all tourist visits.



Enabling factors

- **Second National Tourism Development Plan (2017-2021)** aims to improve products and services for medical and wellness tourism, and promote niche-market branding.
- Hospitals and medical centers in Thailand have **accreditation from the Joint Commission International (JCI)**, a globally recognized standard for healthcare.
- **BOI** offers tax incentives and other benefits for specialized medical centers, hospitals (under specific locations) and traditional Thai medical services.



Investment Timeframe

- **5-10 years** to generate return (medium-term)
- May require **high capital investment** in infrastructure such as buildings and equipments.

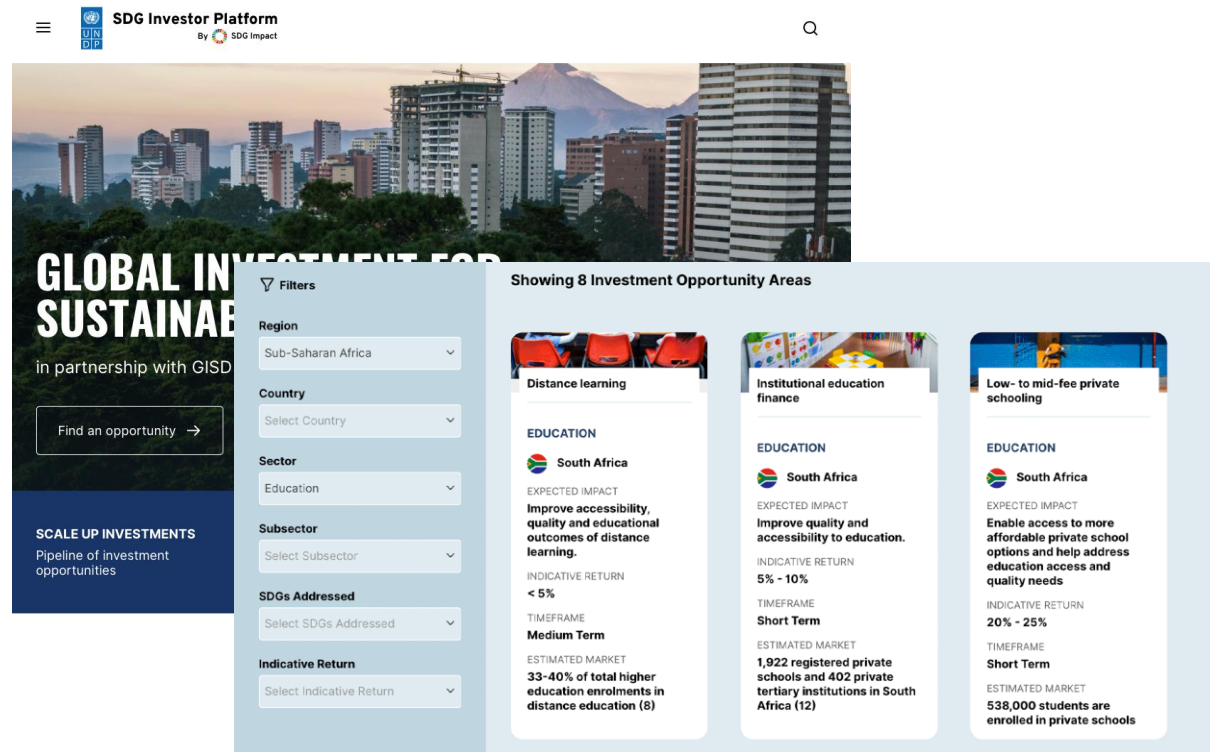


Risk Factors

- **Unexpected impact risk:** Medical and wellness tourism may compete with for human resources from primary healthcare services.
- **Stakeholder participation risk:** Development of local supply chain should be emphasized. Otherwise, the opportunity to contribute to the local community may be missed.

We have developed resources to share Thailand SDG Investor Map findings:

The full map is available on the global SDG Investor Platform



A quick reckoner on the investor map is available in the form of a digital handbook



Thank You

