

TIR

FARMNOVATION TECHNOLOGIES IN THE FIELD



-50%

80%

20%

17%

60%

-40%

-20%



CONTENTS

02

BOI NET APPLICATION

03

COVER STORY

05

INDUSTRY FOCUS

07

SHORT ARTICLE

08

COMPANY INTERVIEW

10

BOI'S MISSIONS & EVENTS

11

THAILAND ECONOMY AT-A-GLANCE

12

ABOUT BOI

BOI NET APPLICATION

JANUARY - SEPTEMBER 2019



TOTAL INVESTMENT
1165
 Projects
US \$10,401.85
 Million



TOTAL FOREIGN INVESTMENT
689
 Projects
US \$6,734.12
 Million

FOREIGN INVESTMENT BY TARGET SECTORS

	ELECTRONICS 94 Projects US \$1,675.15 Million		AUTOMOTIVE 60 Projects US \$1,116.48 Million
	PETROCHEMICALS & CHEMICALS 45 Projects US \$515.75 Million		TOURISM 9 Projects US \$291.46 Million
	DIGITAL 93 Projects US \$192.99 Million		AGRICULTURE & FOOD PROCESSING 48 Projects US \$317.87 Million
	BIOTECHNOLOGY 4 Projects US \$141.99 Million		MEDICAL 12 Projects US \$82.56 Million
	AUTOMATION & ROBOTICS 5 Projects US \$25.58 Million		AEROSPACE 2 Projects US \$18.11 Million

MAJOR FOREIGN INVESTMENTS

Unit: US\$ (US\$ = 30.1 THB as of 30 December 2019)

Note: Investment projects with foreign equity participation from more than one country are reported in the figures for both countries. Statistics on net applications are adjusted whenever applications are returned to applicants due to insufficient information.



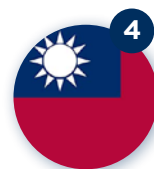
1
JAPAN
167 Projects
US \$1,966.35
 Million



2
PEOPLE'S REPUBLIC OF CHINA
139 Projects
US \$1,509.60
 Million



3
SWITZERLAND
15 Projects
US \$389.04
 Million



4
TAIWAN
44 Projects
US \$320.93
 Million



5
SINGAPORE
88 Projects
US \$309.10
 Million



6
HONG KONG
44 Projects
US \$296.91
 Million



7
NETHERLANDS
30 Projects
US \$196.11
 Million



8
AUSTRALIA
11 Projects
US \$151.63
 Million



9
USA
24 Projects
US \$101.96
 Million



10
SOUTH KOREA
21 Projects
US \$80.80
 Million

For more details, please see www.boi.go.th

AGRICULTURE IS LIFE



Blessed with natural biodiversity and fertile land, Thailand is one of the world's top exporters of commodities and food products. With a long history in agriculture, the nation has significant earnings from exporting rice, rubber, cassava, sugar and many other products. In fact, the agricultural sector accounts for approximately eight percent of the country's GDP¹. In addition, approximately 43 percent of Thailand's total land area is deployed for agricultural activities², and almost one-third of the country's labor force³ is working in the sector.

STRIVE FOR EXCELLENCE

Over the years, Thailand has transitioned to become a major producer of agricultural products by changing from traditional agriculture to industrial agriculture. Thai farmers have been quick to adopt new crop varieties, nutrient-rich fertilizers, and state-of-the-art farming equipment to improve product quality, farm productivity and crop yields. Local suppliers actively brought in machinery from abroad and applied them to local uses. New business models have emerged for hired services and rental markets that have increased farmers access to the benefits of modern machinery. In addition, the government has set standards for agricultural commodities and food products to ensure that they are high quality and safe for consumption. These standards range from the basic farm-level Good Agricultural Practice (GAP), to the more specific

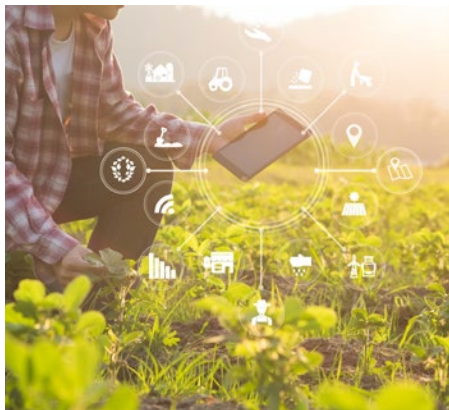
Good Manufacturing Practice (GMP), Hazard Analysis Critical Control Point (HACCP) and Organic Agricultural Certification Thailand (ACT). Enhancing farm productivity, crop yields and product quality has been a key driver in Thailand's competitiveness in the global market.

Despite the adoption of many modern farming techniques, there is still a significant opportunity to improve farm productivity and increase efficiency through agricultural research and by adopting advanced technologies, including biotechnology, drones, big data, artificial intelligence and robotics. With the help of these disruptive technologies, new businesses and business models have emerged to help smallholders, who are the majority of Thai farmers, to reduce costs and produce more crops, benefiting the whole economy.

MORE MOUTHS TO FEED

Demand for agricultural products is increasing globally while the world is facing numerous challenges. Over the next 30 years, two billion people are projected to be added to the current population. By 2050, the Earth's limited resources will need to be shared by approximately 9.73 billion inhabitants. In addition, urbanization and increasing income are typically linked to shifts in diet, including higher consumption of meat, fruits and vegetables. Moreover, there is rising demand for agricultural commodities for industrial purposes. When combined, these trends lead to estimates that the demand for agricultural products will increase by 48.6 percent over that same 30-year period. At the same time, farm labor is aging and there is increased pressure on crops from natural disasters and changes of weather, influenced by

1 https://www.theglobaleconomy.com/Thailand/share_of_agriculture/
 2 <http://www.oae.go.th/assets/portals/1/files/Land%20Utilization2560.pdf>
 3 <http://www.nso.go.th/sites/2014>



climate change, that are disrupting agricultural production.

These factors pose significant challenges to global agriculture⁴. In order to overcome these challenges, farm productivity needs to apply cutting-edge technology innovations to create sustainable capacity improvements.

SMARTER FARMING IS THE KEY

To be competitive in the 21st century, farmers must apply advanced technology in all aspects of the farming process, from seeding to crop harvesting, to maximize both quantity and quality. The “smart farming” concept is revolutionizing the agriculture world by increasing farm productivity and efficiency in a sustainable manner, particularly because it allows more precise farming and better resource management.

The rate of new technology adoption in agriculture is increasing around the globe thanks to extensive research and a growing number of AgriTech startups. The benefits from the application of technology in farming are wide-ranging. Smart data collection devices such as sensors, cameras and drones efficiently collect large amounts of real-time data on soil, plants, livestock, weather, and other farm conditions to provide area-specific information to enable individual decision making. Via the Internet of Things (IoT), farm equipment can be linked, allowing for data analysis and remote control over automation systems and robotics technology.

Advanced data analytics, including artificial intelligence (AI), provides farmers with useful agricultural advice. This kind of technological support enables farmers to know when, and how much, water and fertilizer to feed each crop so that shortages are eliminated and waste is minimized.

THAILAND: SMART FARMER, SMART GROUP, SMART ENTERPRISE

As a leading agricultural producer, Thailand has embraced the ongoing “smart farm” technological transformation.

The government has prioritized smart farming technologies and expertise as critical tools to restructure and reskill the agricultural sector to increase farm yields and reduce production costs. Those farmers who apply these technologies are known as “smart farmers”.

The concept of a smart farmer has been a part of the agriculture development plan since 2011. Currently, an ongoing

Young Smart Farmer Program is being implemented that equips participants with knowledge of farm management, entrepreneurship, and farming technology, including IoT innovation. The new wave of smart farmers are expected to be more creative, innovative and tech-savvy. They will be comfortable in engaging technology to optimize yields and market their products. Most importantly, they will be leaders of their communities and help expand the network of smart farmers, smart groups and smart enterprises.

As Thai farmers become more skilled in applying advanced technologies, it is expected that there will be significant opportunities created for tools and digital services for farm monitoring, precision farming, farm management, and digital platforms. Smart farming technology, in the hands of capable agriculture sector, will help to increase both the quality and quantity of agricultural products exported by Thailand.



⁴ <http://www.fao.org/3/a-i6583e.pdf>

THE TRANSITION: COMPOSING A SMART FARM

COLLABORATION TOWARDS VISION

The 20-year Agriculture and Cooperatives Strategies (2017-2036) defines Thailand's vision for the future of smart farming in the kingdom. It defines three primary objectives for the initiative, to give farmers greater financial security, to create a more prosperous agriculture segment, and to emphasize sustainable agricultural resource management¹. The strategy, drawn in line with the United Nations' Sustainable Development Goals (SDGs), aims to increase the per capita income of Thai farmers to about US \$13,000, a jump of 590 percent, in 20 years. Reaching this goal in a sustainable way will require more productive farming, with assistance from new technology, to reform the Thai agriculture sector.

Driven by the national policy, a steering committee under the Ministry of Agriculture and Cooperatives (MOAC) was created in 2018 to spearhead the development of smart farming. Key government organizations involved in the effort include Ministry of Higher Education, Science, Research and Innovation (MHESI), Ministry of Digital



Economy and Society (MDES) and Ministry of Commerce (MOC), which collaborate with corporate partners from various industries including Agri-food and ICT.

The application of advanced technology is having an effect on the agriculture industry. MOC has built big data systems to support the trade of agricultural products and to assist farmers in making farming decisions, focusing initially on rice, palm oil, rubber, corn and tapioca, five major export crops². From the agricultural side, the National Electronics and Computer Technology Center (NECTEC) and MOAC have developed a large farming database that links data of farmer registration, household registration and land rights³. The big data will help policymakers and farmers make the best farming decisions, improve crop zoning and will be used to increase farmer participation in government support programs. Charoen Pokphand Foods (CPF), a food production giant, applies smart

technology into the development project "Self-sufficient Farmers, Sustainable Maize" (Banlang Model), which is implemented in small pilot areas growing animal feed corn. The project reportedly led to a yield increase by 32 percent and farmers' income increase by 37 percent in 2018⁴. Total Access Communication (dtac),⁵ a large mobile phone service provider which has long been involved in rural community development, in the past few years has leveraged its digital expertise to become an active startup accelerator. In addition, through its 10 years of work empowering farmers, the company educated 20,000 farmers in agricultural marketing in partnership with MOAC, and is accelerating its program of scaling up innovative agritech startups.

TECHNOLOGIES IN ACTION

With the country's position as a leading agricultural goods producer, supported by public funding and policy, and surrounded by innovative startups and research centers, the

1 http://www.oae.go.th/assets/portals/1/files/bapp/strategic20year_eng.pdf
 2 <https://thainews.prd.go.th/en/news/detail/TCATG190919160036546>
 3 https://www.nationthailand.com/Startup_and_IT/30322224
 4 http://27.254.85.188/download/sustainability/report/Final_CPF_SD_2018_ENG.pdf
 5 <https://www.dtac.co.th/sustainability/en/project/Project-SmartFarmer>

Thai agricultural sector is transitioning to a smarter future. The following are some of the many exciting emerging agricultural technologies currently adopted in Thai farms.

DRONES FOR PRECISION AGRICULTURE

Drones are perhaps one of the most widely applied new technologies across various industries. In agriculture, Thai farmers are becoming familiar with the flying vehicles during the past few years owing to the fact that they are easy to use, as well as affordable, even for smallholdings. A number of farmers see drones mainly as labor-saving devices, deploying the equipment for seeding, precision fertigation and chemical spraying. Currently there are both locally made drones, such as Kaset Gen-Y, Novy and Bug Away Thailand, and imported drones, such as DJI from China and SenseFly from Switzerland. These devices have demonstrated that the application of drones can reduce farming costs, specifically fertilizer, chemical and labor costs. Monitoring and collecting data for farm planning and management to increase productivity and yields is a less widely deployed application of drones, due to requirements for advanced skills, extra data, and higher cost. One of the pioneers working in this field is a Thai startup SkyVIV. The company specializes in industrial drones and has extended to agricultural drones by working with data experts and local large scale farms. The startup is improving its crop yield analytics and expects this will bring new level of profitability to its clients' farm businesses.

SMART GREENHOUSE

Thai farmers have started adopting smarter greenhouses equipped with advanced sensor-driven automation systems. The National Science and Technology Development Agency (NSTDA), an agency under MHESI, recently developed the Handy Sense-TMEC smart greenhouse system. This system can be applied not only by rural farmers, but also by city dwellers with limited farming space. Many local suppliers for greenhouses offer monitoring and control systems catering to all sizes of farms. Some,



for example, Speedy Access and Smart Farm DIY, also provide design and consultation services to meet the specific needs of growers. Driven by the changing domestic and export food markets, demands for greenhouses are rising, creating market opportunities for providers of cost effective, high tech greenhouses.

AGRICULTURE APP

Agri-tech software and app development is another flourishing area. There are a wide variety of digital agricultural assistants, ranging from a simple knowledge library app to complex precision farming support. For example, Ricult, a dtac accelerate startup, makes use of big data and machine learning to give farmers farm insights they need for improving productivity. At the same time Ricult's credit scoring algorithms identify farmers' credit risk level and as a result help bank decisions on lending. In collaboration with dtac and Rak Ban Kerd Co, the startup moved forwards to develop the app Farm Man Yum. The app serves farmers with tailored made information and advice for precision farming based on big data.

ARTIFICIAL INTELLIGENCE

Large farm operators are assimilating smart farming by integrating big data, robots and artificial intelligence (AI). Mitr Phol, one of the world's top producers of sugar, partners with NSTDA and IBM to pilot the use of AI, weather data and analytics in

sugarcane farming. Another example is CPF, who partners with Sertis an AI and big data expert, in developing a farm management system that increases CPF biosecurity.

LOOKING FORWARD

It is evident Thai farmers are open to modern farming technology and find it increases productivity and efficiency. They have an increasing amount of smart farming knowledge gained through thorough training and the influx of information. Technology adoption rate will be accelerated as prices of technological devices allow more returns on investment. The Office of the Board of Investment (BOI) promotes the transition of the agriculture sector to agriculture 4.0 by providing smart farming incentives to interested investors. Manufacturers of smart farming products, such as detection or tracking systems, resources regulation systems and smart greenhouse systems, as well as service providers that enable digitization of farming are granted a five-year corporate income tax (CIT) exemption with no annual limit. Manufacture of electronic control and measurement instruments or their parts for agricultural use receives an eight-year CIT exemption. BOI's tax incentives and support from one-stop consultation services help businesses from planting the seeds of investment to the harvest of their rewards in this resource-rich country.

ICT FOR AGRICULTURE

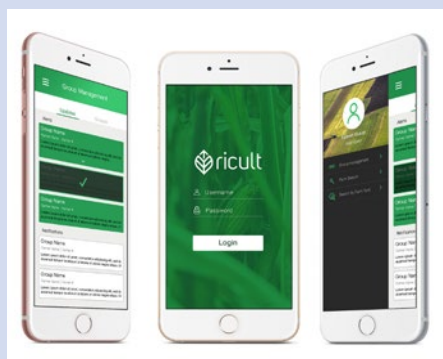
DIGITAL AGRICULTURE

Advancements in technology have changed how crops are grown and how livestock are bred, while farms are better managed and crop markets operate more efficiently with higher productivity and profit. ICT and other technologies are playing a vital role in reshaping agriculture. Accelerated by a surge in mobile technology, increasingly affordable web-enabled smartphones, and the improving digital skills of farmers, there is increasing use of digital platforms and applications for a variety of agricultural purposes at different points of the value chain. Digital tools enable extensive linkages between agricultural and food industry stakeholders. With just a few clicks, these digital tools give smallholder farmers access to farming data to inform their decisions that was once impossible for them to reach. In addition, through these tools, farmers can make direct purchases at the best prices, share farming resources to reduce costs, and even sell produce directly to consumers to enjoy increased profits.

DIGITAL ASSISTANTS FOR THAI FARMERS

As part of the Thailand 4.0 strategy, the Thai government supports the application of technical innovation in core economic sectors, including the agriculture sector. Over the past few years, the Thai agriculture sector has seen rapid growth in digital platforms and applications, developed by both the public and private sectors, creating real change in farmers' lives.

Thai farmers are encouraged to use digital platforms for learning and planning. These tools help them to receive information and gain knowledge through mobile applications. For example, soil and land data and management knowledge are obtained from the application Kod Du Ru Din. Farmers can then use the application



Pui Rai Plaeng Map to help them in making decisions on soil management and fertilizer application. Further, digital platforms such as Talad offer a comprehensive digital marketplace that connects farmers, machinery and equipment suppliers, output suppliers, farm service providers, and crop buyers. There are also specialized apps, such as Farmto, which directly connects organic farmers with end consumers. Buyers can reserve organic products and follow them from farm to table, even having the opportunity to visit the farm and to attend farming activities. Agri-bank financial services are also available through digital platforms. For example, the Bank for Agriculture and Agricultural Cooperatives offers its clients financial services, news on agricultural commodities and help improving financial literacy for farmers.

HOLISTIC SOLUTIONS NEEDED

Although there are a number of digital platforms and mobile applications for farmers, there are still significant opportunities in the sector. For instance, most current options do not offer holistic solutions to the many different problems that smallholders face along the whole value chain. Two remarkable Agritech startups are now seeking to fill this gap.

FarmAI is a startup company working to address this opportunity by applying its analytics to years of data on climate, soil and crops to provide farmers useful recommendations



about crop planning and precision farming. In addition to these useful insights, the app also provides an accounting system for business management and even has a system that facilitates Organic Certification submissions. FarmAI is developing new capabilities, including farmer communities, online markets, and the startup plans to add a loan application feature in the near future.

Similarly, another startup, Ricult, used its expertise in big data and machine learning to deliver valuable agriculture insights to farmers. It also offers crop selling channels that connect plant growers and end buyers directly. At the same time, Ricult uses farm data and credit scoring algorithms to help lenders identify farmers' credit risk levels to assist banks in making lending decisions.

The growth of Agritech startups that are offering services to smallholders reflects that the opportunities and benefits of smart farming are not only available to large scale farming operations. The whole agricultural sector, from top to bottom, can benefit from the application of technology, whether it is through new crop varieties, improved production processes, efficient logistics, better market access, or complete solutions for the whole Agrifood value chain. Technical innovation and strategic partnerships are bringing the benefits of smart farming to smallholder farmers in even the most remote areas.

FROM FAMILY BUSINESS TO INTERNATIONAL LEADER

Mitr Phol Sugar initially began in Ratchburi province in 1946 as a small family business. In 1956, Mitr Phol Sugar Corporation was formally established with the capacity to farm and produce its own sugar in-house, leading to rapid business growth and expansion.

Led by the motto, “Mitr Beyond: Mastery-Innovation Trustworthiness and Resilience,” Mitr Phol has been a leader in the cane and sugar industry in Thailand which. Over 60 years, the company has developed an innovative corporate culture and extensive expertise in the field of integrated agribusiness. The company develops innovative new technologies and processes under its “Value Creation Business Concept” to turn sugarcane – one of Thailand’s most important economic crops – into myriad high value products while promoting sustainability.

SUSTAINABILITY AS A KEY TO SUCCESS

Mr. Vongkusolkit stated that, “since its inception, the company has been committed to building a sustainable future.” The Mitr Phol Research and Development Center was established in 1997 to create a center for excellence and innovation in sustainable business development for the Thai farming industry. Today, the company has centers located in Chaiyaphum and Pathumthani provinces, with over 100 researchers working in four key areas: Crop Production, Sugar Technology and



Specialties, Bio-based hemicals and Energy, and Global Sourcing.

“Mitr Phol is committed to supporting Thailand’s circular and bio-economies and promoting sustainability in the Thai agricultural industry. To capitalize on the extraordinary potential of Thai agricultural economy, Mitr Phol Group has implemented a corporate strategy to propel the company from a sugarcane and bio-power manufacturer to a leading biotechnology conglomerate,” said Mr. Vongkusolkit. In line with this vision, Mitr Phol has expanded to produce biodegradable products and packaging, nutrients for animals and humans, as well as cosmetic goods, dietary supplements, and medicinal components.

Mr. Vongkusolkit elaborated on Mitr Phol Group’s global success. “Mitr Phol is not only the largest sugar producer in Thailand, but the second largest in

the world, with global business operations spanning from Thailand to the People’s Republic of China, Lao PDR, Australia and Indonesia,” said Mr. Vongkusolkit. “The BOI has facilitated this growth by assisting with international business partnerships and promoting Mitr Phol to investors overseas.” As a global leader in the smart farming industry, the group conducts its operations, including corporate governance, community development, environmental protection, and digital innovation, in compliance with international standards and the UN Sustainable Development Goals, making the company highly attractive to international partners.

INNOVATION IN IMPLEMENTATION

The agricultural sector in Thailand is evolving in response to the complex interplay between changing

economic, societal, and environmental factors. Mr. Vongkusolkit said, “As in many countries around the world, Thailand is also experiencing the effects of an aging society, which is beginning to create a shortage of labor in the country. Mitr Phol, however, is striving to overcome these obstacles through the use of advanced technology.”

Mr. Vongkusolkit also discussed how Mitr Phol Group has elevated the standard of sugarcane farming and agricultural management under the Mitr Phol ModernFarm concept. He explained that “this approach uses research and global best practices in farming to help growers achieve greater outputs, control operation costs, reduce manual labor, and preserve soil and water, protecting the environment and increasing productivity through the use of advanced technology and innovative farm management.”

Mr. Vongkusolkit described how “the Mitr Phol ModernFarm model draws inspiration from successful sugarcane farming management systems worldwide and has been implemented in Thailand by Mitr Phol Group for more than five years. The model is also being implemented in Lao PDR and in the People’s Republic of China as part of the Chinese government’s push to help cane growers achieve higher productivity

“the company is on the forefront of using cutting-edge agribusiness technologies such as a satellite remote sensing, UAV (Unmanned Aerial Vehicle), and advanced weather forecasting systems”



and increase sugarcane sweetness.” These practices are aligned with the world-class sustainable sugarcane farming practice “Bonsucro.” Mitr Phol Group is Thailand’s first, and Asia’s second, sugar production company certified under Bonsucro standards.

THE FUTURE OF SMART FARMING IN THAILAND

Mitr Phol is committed to continuously innovating and implementing the best practices in precision farming in order to increase sugarcane farming productivity. Mr. Vongkusolkit explained how “the company is on the forefront of using cutting-edge agribusiness technologies such as a satellite remote sensing, UAV (Unmanned Aerial Vehicle), and advanced weather forecasting systems to help cane growers plan specific actions such as irrigation, fertilizer application and pesticide control proactively to fight against threat of yield loss and increase cane productivity and quality.”

Mr. Vongkusolkit also provided insight on how Thailand’s smart farming industry is evolving. “The industry is growing rapidly as cane growers use smart farming practices to alleviate the challenges created by climate change, labor shortages and increased competition. Mitr Phol sees productivity and sustainability driven by cross-sector action between

Thailand’s cane growers, private sector companies and government sectors,” he said. Mr. Vongkusolkit elaborated on the factors that will enable Thailand’s Smart Farming industry to thrive:

- Cane growers need to adopt the “smart farmer” mindset and apply knowledge of mechanization and high-tech farm management to new farming platforms in order to increase competitiveness.
- Mitr Phol, as a leading private sector actor, has provided contracted cane farmers with extensive support aligned with their core philosophy, “Grow Together.” Mitr Phol facilitates knowledge and technology transfer through Mitr Phol ModernFarm Academy, provides low-interest “green financing” loans for harvesters to purchase advanced mechanics, and invests in innovation and technology that adds value to sugarcane and bio-based products.

As the smart farming industry evolves in Thailand, Mitr Phol will continue to drive growth through its innovative and sustainable farming practices.



ELECTRONICS INDUSTRY OPPORTUNITIES FOR TAIWANESE INVESTORS

16 DECEMBER 2019 Ms. Duangjai Asawachintachit, Secretary General of the BOI, presented on Thailand’s investment promotion policy and competitiveness, highlighting opportunities for Taiwanese investors, at the seminar “Thailand New Investment Promotion Strategies for Smart Electronics Industry”. The event, organized by the BOI Taipei Office, attracted more than 150 investors and suppliers, and included delegates from Thailand’s Eastern Economic Corridor Office (EECO) and the Industrial Estate Authority of Thailand (IEAT). In addition, the seminar featured a group of Taiwanese entrepreneurs already working in Thailand who gave investment insights to the participants and shared their experiences doing business in Thailand.



BOI INVESTMENT CRITERIA SEMINAR

4 DECEMBER 2019 Ms. Kanokporn Chotipal, Executive Director of BOI Chiang Mai office, held a Regional Investment and Economic Center seminar on BOI investment criteria. The event, held in Chiang Mai, featured Ms. Wantana Tatan, Investment Promotion Officer, Senior Professional Level, from BOI central office as a joint speaker, and hosted 150 investors.



ICT INVESTMENT SEMINAR IN LISBON

29 NOVEMBER 2019 Mrs. Cherdchan Arunrat, Director of BOI Office in Paris, gave a presentation on information technology industry investment opportunities in ASEAN. The seminar was a collaboration between the Thai embassy in Lisbon and the Portugal National Association of ICT and Electronics Manufacturers. Thai officers met with representatives from the Portuguese Chambers of Commerce and Industry to discuss strengthening investment collaboration between the two countries.



ENGAGING TAIWANESE HIGH TECH INVESTORS

17-18 DECEMBER 2019 Mr. Seksan Ruangwohan, Deputy Secretary General of the BOI, together with Mrs. Rayrai Ruksilpakit, Director of BOI Taipei Office, visited potential investors to discuss investment opportunities, including promotion measurements and incentive information, in Thailand. The event, organized by BOI Taipei Office, was aimed at targeted industries, particularly corporations in the advanced electronics industry.



VISA AND WORK PERMIT SEMINAR

4 DECEMBER 2019 Mr. Pisut Chotaumpaikorn, Executive Director of the Regional Investment and Economic Center 6 (BOI Surat Thani), Mr. Worakan Kosolpisitkul, Director of One Stop Service Center for VISA and Work Permit, and representatives from the Immigration Bureau and the Department of Employment, presented a seminar in Phuket on the “Single Window for Visa and Work Permit”. This e-service, provided by the BOI, streamlines the process of applying for visas and work permits for foreign experts through the use of a single online application.



BOI PRESENTS AT EMBRACE DIGITAL INNOVATION AND TECHNOLOGY SEMINAR IN SAN FRANCISCO

7 JANUARY 2020 Mr. Narucha Ruchuphan, Director of Investment Promotion Division 5 (Creative and Digital Industries), delivered a presentation on the topic of “Think Asia, Invest Thailand” in order to promote investment into Thailand at the Embrace Digital Innovation and Technology in Thailand seminar in San Francisco, which was organized by The BOI office in Los Angeles, USA.

KEY ECONOMIC FIGURES



GDP
(2018)

US \$506.2
BILLION



GDP PER
CAPITA
(2018)

US \$7,462

GDP GROWTH



INVESTMENT GROWTH



EXPORT VALUE GROWTH



UNEMPLOYMENT
2018*

1.1%



HEADLINE
INFLATION
2019*

1%

Source: NESDB

*Forecast under Source: NESDB, add Bank of Thailand

MARKET PROFILE 2018



POPULATION
69.6
Million

MINIMUM WAGE
PER DAY
THB **331**

\$ APPROXIMATE
US \$11

Source: United Nations and Ministry of Labor

CLMVT ECONOMY AT-A-GLANCE



Source: IMF, International Trade Statistics, UNCTAD, World Bank Data 2018

POPULATION

242
Million

GDP GROWTH

8.2%

FDI

52
US \$ Billion

IMPORT FROM THE WORLD

12.7%
(540 bil. US \$)

EXPORT FROM THE WORLD

9.9%
(535 bil. US \$)

INTERNATIONAL COMPETITIVENESS

Source: WEF, IMD and World Bank

THAILAND IS THE EASIEST CLMVT COUNTRY TO DO BUSINESS.



LEAST TIME
TO SET UP BUSINESS

4.5 DAYS



HIGHEST RATING:
WORLD BANK EASE OF
DOING BUSINESS 2019

27TH



FEWEST
PROCEDURES **5** STEPS



HIGHEST SCORE:
WORLD ECONOMIC
FORUM COMPETITIVENESS
INDEX

38TH

EXPORT FIGURES



EXPORT VALUE
JANUARY-NOVEMBER 2019

234,360.03

US \$
MILLION

TOP 10 INDUSTRIES



Motorcars and Parts
\$24,202.71
Share 10.3%



Computers and Parts
\$15,559.22
Share 6.6%



Precious Stones
and Jewellery
\$14,445.06
Share 6.2%



Rubber Products
\$9,550.66
Share 4.1%



Plastic Beads
\$8,021.62
Share 3.4%



Chemical Products
\$6,657.89
Share 2.8%



Electronic
Integrated Circuits
\$6,498.32
Share 2.8%



Refined Fuels
\$6,374.08
Share 2.7%



Machinery
and Parts
\$6,359.87
Share 2.7%



Iron, Steel
& Products
\$4,901.44
Share 2.1%

TOP 10 MARKETS



USA
\$29,715.39
Share 12.7%



China
\$27,373.10
Share 11.7%



Japan
\$23,504.95
Share 10%



Vietnam
\$11,526.22
Share 4.9%



Hong Kong
\$11,174.24
Share 4.8%



Malaysia
\$9,950.07
Share 4.2%



Australia
\$9,910.38
Share 4.2%



Indonesia
\$8,744.51
Share 3.7%



Singapore
\$8,440.00
Share 3.6%



India
\$7,047.11
Share 3%

Source: Ministry of Commerce

EXCHANGE RATES

(Data as of 30 December 2019)

\$	£	€	¥	¥
THB	THB	THB	THB	THB
30.1	40	34.1	28	3.9

Source: Bank of Thailand
Note: Baht/ 1 Unit of Foreign
Currency - Average Selling Rates.
JPY currency is for 100 Yen

TAX RATES

Source: The Revenue Department

CORPORATE INCOME TAX:	PERSONAL INCOME TAX	VAT	WITHOLDING TAX
20%	35%	7%	1 - 10%

BOI OVERSEAS OFFICES



HEAD OFFICE, OFFICE OF THE BOARD OF INVESTMENT

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ABOUT BOI

The Office of the Board of Investment (BOI) is the principle government agency that operates under the Prime Minister's Office for the purpose of encouraging investment in Thailand. We at the BOI serve as the professional contact points for investors, providing them with useful investment information and services. We offer business support and investment incentive to foreign investors in Thailand, including tax and non-tax incentives. A few non-tax incentives include granting land ownership to foreigners and facilitating visas and work permits. Besides serving the needs of overseas investors, we also offer consultation services to Thai investors who are interested in investment opportunities abroad.

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