Agriculture and Biotechnology Ready for Future Growth

The world's first ever dengue vaccine, a historic milestone paving the way to significantly impact dengue burden in endemic countries. Crickets - from insects to food revolution



February 2017 vol. 27 no. 2

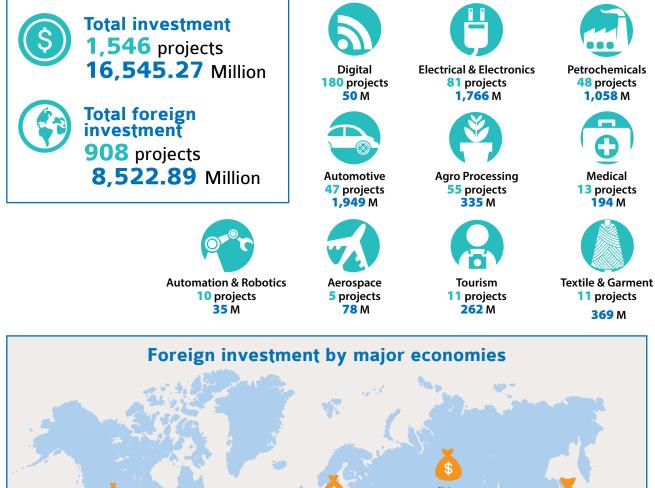


2 | FEBRUARY 2017

BOINET APPLICATION

(January-Decemcer 2016)

Foreign investment by target sector



China 104 Projects USA Netherlands Japan 921 M South Korea 29 Projects 1 Projects 264 Projects 35 Projects 263 M 847 M 1,627 M 254 M Taiwan 42 Projects 188 M THAILAND * Hong Kong 37 Projects 570 M Indonesia 3 Projects 140 M Singapore 140 M 1,054 M Australia Unit: US\$ (US\$ = 35.3182 THB) 27 Projects Note: Investment projects with foreign equity participation from more than one 341 M 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. For more details, please see link http://www.boi.go.th/index.php?page=Report_investment

TIR **CONTENT** February 2017

02 | BOI Net Application

03 Cover Story

Agriculture and Biotechnology Ready for Future Growth

05 | Industry Focus

Thailand is gearing up to becoming Asia's biotechnology center

07 | Short Article

The world's first ever dengue vaccine, a historic milestone paving the way to significantly impact dengue burden in endemic countries.

- **08** | Company Interview
- Crickets from insects to food revolution **10** Missions and Events
- **News Bites**
- 11 | Thailand Economy-At-A-Glance
- 12 About BOI

FEBRUARY 2017 I **3**



Agriculture and Biotechnology Ready for Future Growth

The agriculture sector and biotechnology industry have become strong pillars of the Thai economy and are transforming Thailand into a knowledge-based and valueadded economy, making them strategically important to the country's future development plans. Both were also designated among the 10 future industries to drive Thailand's economic development as new growth engines.

Progressive developments in both sectors are leading to improved applications across the medical, aquatic, agricultural and industrial fields. With a reputation as the "kitchen to the world" and the medical hub of Asia, Thailand is solidifying its position as a global leader in agriculture and a biotech powerhouse, and remains one of the top 10 food exporters in the world. In these highly competitive sectors, Thailand is working to improve its competencies in biotechnology and agriculture, and will raise its competitiveness and capabilities even further in the coming years.

Smart Growth, Smart Farmers

As part of the Thai government's move to smart growth and Thailand 4.0, the government has adopted a policy to reform the agriculture

sector to ease problems faced by Thai farmers and to support national development by transitioning to "smart farming."

The reform focuses on seven areas. The first seeks to designate agricultural zoning in all provinces in accordance with each area's geographical and climatic conditions. An "Agri Map" will be adopted to suggest farmers grow crops suitable for their respective farmland.

The second involves the establishment of 882 learning centers to increase the efficiency of agricultural production. Each district will have one learning center of this kind, harnessing big data analytics to ensure increased stability in food prices. Technologies will also be used to reduce wastage, better monitor crop conditions and to adopt improved weather forecast systems. In the third area, the grouping of farmers and farmland will be promoted for greater efficiencies, which will enhance cooperation between farmers and the public and private sectors, in the form of "Public-Private-People Partnerships."

The fourth seeks to encourage farmers to produce in response to market demand. They will also be urged to upgrade their products to international standards to make them more Deputy Prime Minister, Dr. Somkid Jatusripitak, fully supports the continuation of agricultural reform, particularly the smart farmer project to help farmers develop their own businesses. competitive in world markets. Organic produce is one such category for which farmers can tap into fast-growing demand in Thailand. In the fifth area, banks for agricultural products will be set up through the grouping of farmers and their participation in management to better improve farm inventories.

The sixth area seeks to promote teamwork through a "single command" system in order to translate and execute the reform plan into action by improving on reporting lines with the provinces. This system will be overseen by the Ministry of Agriculture and Cooperatives. The seventh area initiated reductions in agricultural production costs, for example, reducing rice farming in favor of other cash crops in line with the country's water resource management plan. With the anticipated drop in production, the price for rice will increase. These areas will contribute to greater opportunities for farmers, which will also enable more competitiveness for Thailand's agriculture sector.

Deputy Prime Minister, Dr. Somkid Jatusripitak, fully supports the continuation of agricultural reform, particularly the smart farmer project to help farmers develop their own businesses.

"Farmers need to get more training to sell or export their products via e-commerce, while agricultural communities should have their own brands," he said. "The farm sector will be supported with machinery in order to cut their production costs, and the Bank for Agriculture and Agricultural Cooperatives, the Agriculture Ministry and Village Funds are required to engage more in farm sector reform."

Biotechnology as a growth-driver

The reform drive is wide-ranging, as the government and the private sector also recently launched an ambitious bioeconomy development plan under a public-private collaborative scheme to promote more private investment in biotechnology-related businesses.

Twenty-three organisations from government units, the private sector, educational institutes and research centers signed a memorandum of understanding to drive biotechnology development, contributing to the wider bioeconomy.

Industry Minister, Uttama Savanayana, said the investment was expected to come from both domestic and foreign investors interested in bio-industry projects that would turn economic crops into high-value products. These would include bio-energy (such as ethanol and biomass power), bio-plastics, "food and feed of the future", which will produce ingredients to substitute for chemicals, and biopharmaceuticals.

The first development will focus on tapioca and sugar cane, where 10 million farmers are engaged in expanding and diversifying into other farm products. Sugar cane and tapioca are now used as raw materials for many industries such as ethanol, bioplastics, food, bioenergy and biopharmaceuticals.

Securing leadership in agro-production

Thailand is among the world's top exporters of cassava and sugarcane. The scheme is expected to increase the value of cassava by THB 100 billion (USD 2.9 billion) per year and sugarcane by THB 300 billion (USD 8.6 billion) per year, and increase farmers' incomes by THB 75,000 (USD 2,141) per person per year, by the end of the 10-year program. The private investment portion in the 10-year development plan is expected to reach THB 400 billion (USD 11.4 billion).

Dr. Jatusripitak said that this is the right time to implement such a development plan, reiterating that the bioeconomy will help increase income in the farm sector, which covers half of the Thai population. Farmers could improve incomes, more than 20,000 jobs would be created in production and research, while bioproducts should substantially reduce emissions of carbon dioxide from the exploitation of fossil fuels, he added.

Dr. Jatusripitak also specified that bioeconomy development should be focused in the Eastern Economic Corridor (EEC), which will run through Chachoengsao, Chonburi, and Rayong, in addition to Khon Kaen province, which is a key location for sugarcane cultivation. Biotechnology and bieconomy projects will be among the first that the government backs in the EEC with a total of THB 1.5 trillion (USD 42.8 billion) over the next 10 years.

The corridor has been designated for development as a high-tech industry cluster, with an eye towards becoming Asean's leading economic zone for industrial, infrastructure and urban development. Dr. Jatusripitak added that the government expects to see concrete projects coming up by the end of this year. This sharpened focus and support for agriculture and biotechnology are seen as instrumental in the government's efforts to upgrading Thailand's competitiveness, and building a strong economic foundation for sustainable growth.

FEBRUARY 2017 I **5 INDUSTRY** FOCUS

Thailand is gearing up to becoming Asia's biotechnology center

Defining Biotechnology

At its simplest, biotechnology is technology based on biology. Biotechnology harnesses cellular and biomolecular processes to develop technologies and products that help improve our lives and the health of our planet. We have used the biological processes of microorganisms for more than 6,000 years to make useful food products, such as bread and cheese, and to preserve dairy products.

Modern biotechnology provides breakthrough products and technologies to combat debilitating and rare diseases, reduce our environmental footprint, feed the hungry, use less and cleaner energy, and have safer, cleaner and more efficient industrial manufacturing processes.

Currently, there are more than 250 biotechnology health care products and vaccines available to patients, many for previously untreatable diseases. More than 13.3 million farmers around the world use agricultural biotechnology to increase yields, prevent damage from insects and pests and reduce farming's impact on the environment.

Global scale, universally significant

Based on its applications, the global biotechnology market is divided into the biopharmaceutical, bioservices, bioagriculture, bioindustrial segments. The entire market was valued at approximately at THB 11.56 trillion (USD 330.3 billion) in 2015, and is expected to reach THB 14.5 trillion (USD 414.5 billion) by the end of 2017, and upwards of THB 27 trillion (USD 775.2 billion) by 2024, which is at an average annual growth rate well into the double-digits, according to a new research report by Global Market Insights, Inc.

Increasing demand for agricultural and food products due to the growing population is positively impacting the growth of the industry. Factors such as limited availability of agricultural land, water shortages, the lowyielding crops, and pests are encouraging researchers to develop innovative agricultural technologies through extensive R&D activities. According to BCC Research, the global market for agricultural biotechnology is expected to reach THB 1.6 trillion (USD 46.8 billion) by 2019, with a five-year compound annual growth rate of 11%. The biotechnology tools category, the fastest growing segment of the market is growing at a phenomenal 49.9% CAGR.

An increase in government funding and widespread technological advancements has allowed Thailand's biotechnology industry to experience a high growth rate in recent years. Mr. Rutjawate Taharnklaew, Vice President of Betagro Research & Development Center,

An increase in government funding and widespread technological advancements has allowed Thailand's biotechnology industry to experience a high growth rate in recent years.

Under this policy framework, a strong emphasis will be placed on enhancing R&D in the private sector and utilizing the intellectual capital created from the biotech revolution to strengthen the country's overall competitiveness.

said that there are three major segments in this industry in Thailand which have been growing significantly and still have considerable potential for future growth, which are, medicalbiotechnology, agriculture-bio-technology, and cosmetic-biotechnology.

Government efforts in gearing Thailand to become Asia's biotechnology center

The government of Thailand has been aggressively promoting growth and fostering developments in biotechnology, in an effort to transform Thailand into the center of biotechnology in Asia.

The government established the National Center for Genetic Engineering and Biotechnology (BIOTEC) laying a solid foundation for future biotech developments.

The government launched the Biotechnology Development Policy Framework 2012-2021, a collaboration between the National Science Technology and Innovation Policy Office (STI) and BIOTEC. This multibillion baht plan aims to promote sustainable growth in the biotechnology industry through research funding, strategy mapping and investment incentives. Under this policy framework, a strong emphasis will be placed on enhancing R&D in the private sector and utilizing the intellectual capital created from the biotech revolution to strengthen the country's overall competitiveness.

The preferred destination for biotech companies

Biotechnology companies in Thailand enjoy a variety of competitive advantages including intellectual property protections and a robust and technically-equipped workforce. Currently, 24 universities across the country have the combined capacity to supply approximately 7,000 students with a biotechnology background each year.

In Thailand, as it is located in a hot and humid climatic zone, which supports a variety of tropical ecosystems and provides wider niches for organism's survival. The country is able to support a much larger variety of plant, animal and microbe species. Thailand has approximately 15,000 species of plant which account for approximately 10% of estimated total number of plant species found globally according to European and Mediterranean Plant Protection Organization (OEPP). This is an advantage to the country to be a research hub for this growing biotechnology field.

In addition, well-established infrastructure including various pilot plants in Thailand, such as one at Fermentation Technology Research and Service Center (FTC) located at the Faculty of Agro-Industry of Kasetsart University, which operates at the capacity of 500 liters, a collaboration of both private and public sectors, namely, Betagro, Agricultural Research Development Agency (ARDA) under the Ministry of Agriculture, and Kasetsart University. There are also several more pilot plants located in Mahidol University, King Mongkut's University of Technology Thonburi, and Chulalongkorn University at a greater scale of 1,000-3,000 liters capacity. These pilot plants allow companies and even startups to scale up their research before commercializing their innovations. Government and organizational support is also provided through the National Science and Technology Development Agency (NSTDA), which is home to four national research centers (BIOTEC, MTEC, NANOTEC, and NECTEC) and one technology management center (TMC). NSTDA acts as a bridge between the requirements of academic research and innovation in the industry.

Thailand Science Park (TSP), the first technology and innovation hub of Thailand, serves as a one-stop service center to assist both foreign and local companies engaged in scientific and technological research. TSP is a key hub for research and development where specialists and researchers from industry, academia and NSTDA collaborate to further inspire and stimulate the formation and growth of knowledge-based businesses. A network of 1,600 full-time researchers and technicians, of which around 400 hold doctorate degrees, can be found at TSP. TMC also provides important support in biotechnology through its Technology Licensing Office (TLO), which is responsible for the licensing of intellectual property.

The Board of Investment (BOI) is doing its part to support the growth and development of the biotechnology sector. BOI investment incentives for biotechnology companies in Thailand include a tax exemption on import duties on machinery, an 8-year exemption of corporate income tax, an additional 5-year 50% reduction of corporate income tax on net profit, a 10-year double deduction on transportation, electricity and water supply costs, and a deduction from net profit of 25% of investment in infrastructure installation and construction costs.



The world's first ever dengue vaccine, a historic milestone paving the way to significantly impact dengue burden in endemic countries

Getting to know Dengue

Dengue is a mosquito-borne flavi-virus disease that has spread to most tropical and many sub-tropical areas. The disease is caused by four closely related viruses, the Dengue viruses 1-4. There are no specific dengue therapeutics and prevention is currently limited to vector control measures. A dengue vaccine would therefore represent a major advance in the control of the disease.

According to the World Health Organization (WHO), dengue is the fastest growing mosquito-borne disease in the world today, causing nearly 400 million infections every year across more than 120 countries around the world. Most survive with few or no symptoms, but more than two million annually develop what can be a dangerous dengue hemorrhagic fever, which kills more than 25,000 people each year. Globally, dengue is estimated to cost USD 9 billion annually in direct and indirect costs.

In 2016, the number of dengue fever and dengue hemorrhagic fever (DHF) cases in Thailand totals in 63,310 people from representing all 77 provinces, according to the Thai Ministry of Public Health.

Dengvaxia, the world's first ever dengue vaccine, a major innovation and a public health breakthrough.

The growing global epidemic of dengue is of mounting concern, and a safe and effective vaccine is urgently needed.

Over three decades of scientific innovation and collaboration in 5 countries, namely, Vietnam, Philippines, Indonesia, Malaysia, and Thailand. Sanofi Pasteur, the vaccines global business unit of Sanofi, a global healthcare leader, successfully launched the world's first ever dengue vaccine.

The vaccine was tested on more than 30.000 volunteers in 15 countries around the world, and was proven to be able to prevent the infection in 60% to 65% of the cases in all 4 stereotypes of dengue viruses. On-umar Banpamai, an infectious diseases specialist at Samitivej Sukhumvit Hospital said, "The vaccine shows around 93% efficacy in reducing the severity of the disease and over 80% effectiveness in lessening the need for hospitalization." Moreover, WHO expects the vaccine to be an integrated part of the Global dengue prevention and control strategy (2012-2020). In 2020, WHO objects this vaccine to be able to reduce over 50% in mortality and 25% reduction in morbidity due to dengue.

In 2016, the vaccine is approved in various countries in tropical areas, namely, Mexico, Philippines, Brazil, El Salvador, Costa Rica, Paraguay, Guatemala, Peru, Indonesia, Singapore and Thailand.

Thailand plays an important role in developing the world's first dengue vaccine.

Thai researchers and clinicians have long been in the forefront of efforts to better understand and treat dengue infections and the Faculty of Tropical Medicine, Mahidol University has played a particularly key role over the years in development in the field of dengue research. With an advancement in technologies in biotechnology field in Thailand, together with the quality Thai researchers, Thailand is becoming an attractive destination for researches and developments. Thai researchers and clinicians have long been in the forefront of efforts to better understand and treat dengue infections.

8 I FEBRUARY 2017 COMPANY **INTERVIEW**

Crickets - from insects to food revolution

Insects will be an important alternative source of protein for the future with protein levels are at 70% in crickets. ost people would have varying degrees of fear when talking about eating insects, with the inevitable 'yuck factor,' but who could have imagined that this is a market that has been growing massively in the past few years?

Insect consumption is also widely seen as an important solution in helping to feed the growing population, expected to reach over 9 billion by 2050.

Surprisingly, insects are consumed by over 80% of people today in non-western countries. According to experts, insects will be an important alternative source of protein for the future with protein levels are at 70% in crickets. The FAO says insects are an environmentallyfriendly food source, emitting considerably far less in greenhouse gases than livestock, consume less water and do not require large swathes of land for production.

An underestimated market

In 2013, the Food and Agriculture Organization of the United Nations (FAO) published "Edible Insects: Future Prospects for Food and Feed Security," encouraging global citizens to consume edible insects.

The European Union (EU) has taken further steps in this field, agreeing on new food regulations allowing the import and consumption of new and innovative foods

"Cricket Pasta Anyone?

Bugsolutely produces pasta from cricket flour in Bangkok. The company anticipates exponential growth in this market."

Thailand Investment Review

produced from edible insects. These regulations will take effect on January 1, 2018, and are expected to greatly increase demand for edible insects.

While the FAO publication generated an unusual amount of attention, the EU's action provided a stamp of official approval, prompting market interest and expansion, with a flood of new businesses entering this growing market worldwide.

According to an analysis from GMI, the edible insect market is financially promising with 2015's revenue at just over THB 1.1 billion (USD 33 million), with a 40% CAGR expected in the following years. By 2023, global revenue is forecast to exceed THB 18.3 billion (USD 522 million).

The main segment in this market is powder/flour, such as cricket flour. It is undergoing rapid growth and is set to grow 30 times over the next five years. As concerns over food security and the future of food meet food technologies, the market is moving towards introducing more efficient protein sources with impressive nutritional profiles for both humans and livestock.

In Thailand, the cricket market has undergone massive growth in just the past 2-3 years. In 2015, the market value was roughly THB 1 billion (USD 29 million), which is the largest in Asia-Pacific, and second largest in the world after Canada.

"Within the next five years, especially if the EU starts implementing the new regulation on novel foods, a lot of investors will flood into Thailand," predicted Yupa Hanboonsong, an entomology expert at Khon Kaen University's Faculty of Agriculture.

Bugsolutely – producing pasta from crickets

Massimo Reverberi, the Italian-born director of Bugsolutely – a Bangkok-based company that produces pasta from cricket flour made in Thailand, is at the forefront of this unfolding trend and sees the huge potential of the nutritional and economic benefits in crickets.

The company's main product is cricket pasta, considered an innovative super-food launched last year.

Currently, the products are exported to South Korea, with an agreement soon to be completed with a distributor in Great Britain. Mr. Reverberi now has his sights set on markets in the US, Australia, New Zealand and Japan.

Confident that this market has the potential for exponential growth in the future, Bugsolutely is planning for vertical integration by producing its cricket flour in-house to further reduce the cost of production, and to expand its production capacity to capture the increasing demand, both domestically and internationally.

Huge opportunity for Thailand as a production hub to serve global demand

There are many businesses dealing with insects in Thailand in food production but also in other industries, such as the medical sector. For instance, a Belgian business making supplementary food capsules from cricket flour successfully convinced several private Thai hospitals to use their capsules to help patients get their weight under control.

Insect farming in Thailand can serve both human consumption as well as animal feed, while cricket farming in Thailand is one of the main sources of food for numerous chicken and pork farms from leading agriculture and food companies in Thailand.

There are several reasons why Thailand is a leading country in this industry and why many companies decided to choose Thailand as their production hub. First, Thailand has an abundant supply of edible insects, which has attracted a lot of new and emerging western companies. Second, Thailand has farmed crickets for over 20 years with advanced techniques which ensure that crickets are clean and safe. Third, the cost of production is favorable compared with Canada, the world's largest cricket producer. While Canadian cricket flour costs between THB 2,100 to 4,800 (USD 60 to 137) per kilo, Thailand produces cricket flour at THB 700 and 900 (USD 20 to 26) per kilo.

However, Thailand is aiming to capture further growth and development in the edible insects market. The Thai Ministry of Agriculture expects to obtain the "Good Agriculture Practice (GAP)" certification for cricket farming by 2017. This will further enhance Thailand's reputation as the go-to destination for investors who think of alternative protein sources and making insects part of a sustainable diet in the future. Thailand has farmed crickets for over 20 years with advanced techniques which ensure that crickets are clean and safe.



10 I FEBRUARY 2017 BOI'S MISSIONS AND EVENTS



Deputy Prime Minister, Dr. Somkid Jatusripitak led the Thai delegation comprised of economic ministers, high-ranking government officials, and key business persons on a roadshow to Myanmar from February 2-5, 2017. Dr. Somkid delivered the keynote speech on "Thailand-Myanmar Business Cooperation" to highlight the close cooperation between the two countries and to encourage increased bilateral trade and investment, at a business meeting organized by the Board of Investment (BOI) in Yangon on February 3, 2017.



On January 16, 2017, Dr. Bonggot Anuroj, Senior Executive Advisor, welcomed the delegation from Nepal at the One Start One Stop Investment Center (OSOS). She gave a presentation on BOI's investment promotion policies and its facilitation and services for investors.



BMW Global Sourcing Day on January 12, 2017 at OSOS by Mr. Wirat Tatsaringkansakul, Director of the BUILD Unit, BOI and Carsten Mueller-Deiters, head of purchasing for BMW Group Thailand. This collaboration between the BOI and BMW Group Thailand will organize a business matchmaking event and sourcing of suppliers for automotive parts to find quality Thai automotive parts producers for global BMW group.

Lew's BITES

Taiwan pact backs Thai agriculture and biotech sector

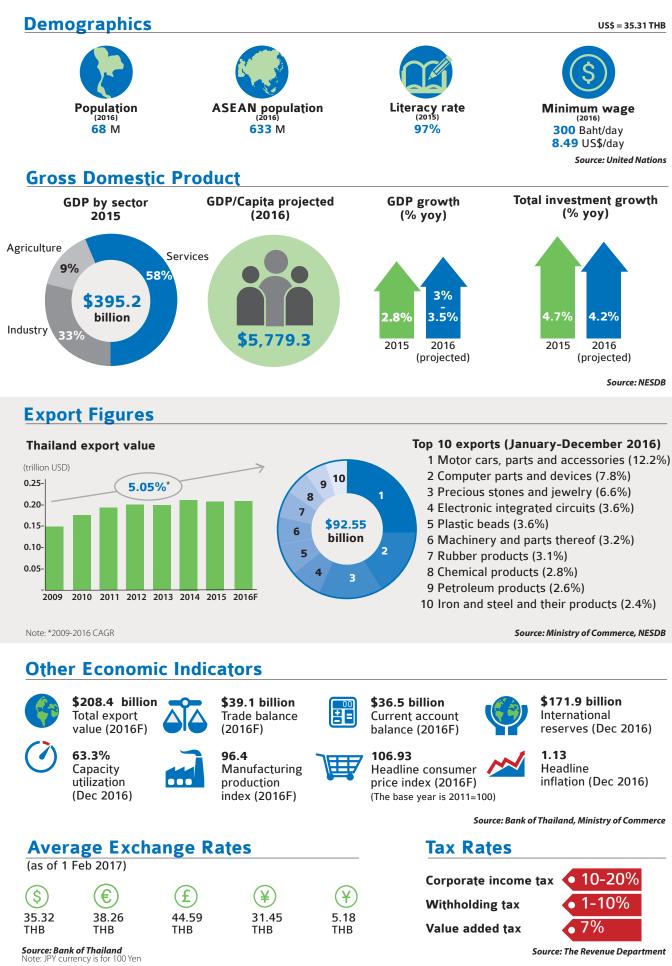
Taiwanese authorities have reached an agreement with the Thai government to support the development of local information and communications technology in agriculture and biotechnology. The accord will bring significant economic

opportunities for both countries, said Taiwan's Science and Technology Minister Yang Hung-Duen. The development is part of the Taiwanese government's policy to expand beyond traditional high-tech hardware to ICT products, in which it has long been a world leader, to the integration of hardware and software and higher-margin converged technologies. Mr. Yang said ICT can play an enabling role in the advance of high-end medical devices and products, preventive medicine and telemedicine through the use of biochips. He added that he foresees good prospects for medical biotechnology because Thailand has considerable potential as a medical tourism hub in the region.

Government promoting rice megafarms

The government is committed to ramping up the rice megafarm scheme this year, for which it will provide soft loans, machinery and agricultural equipment to farmers in order to cut production costs and raise productivity. Participating farmers can borrow up to THB 5 million (USD 142,816) at 0.01% interest from the Bank of Agriculture and Agricultural Cooperatives (BAAC), while the Commerce Ministry will be responsible for the marketing and sales of the rice, and finding buyers. Ms. Chutima Bunyapraphasara, the Deputy Agriculture and Cooperatives Minister, said the rice megafarm scheme will be developed and run this year on three different farming models based on different geographic locations and demand from participating farmers. The megafarm project implemented last year entails participating farmers pooling their rice farmland together into one large plot, after which modern equipment, including harvesting machinery, is deployed. Acting as a group, participating farmers can negotiate for better access to markets and financial resources such as loans. This grouping and joint management is intended to ensure efficiency in the entire rice business – from planning to farming and marketing to distribution.

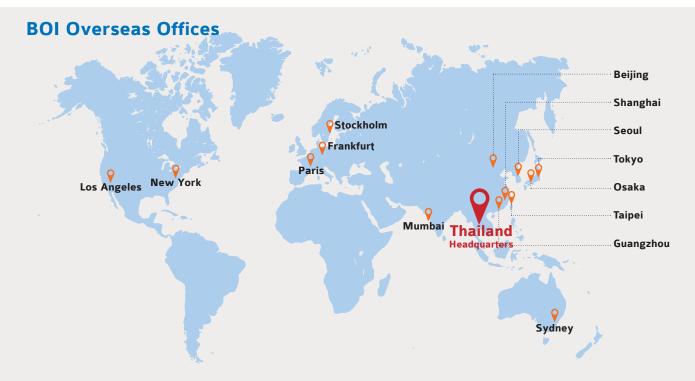
FEBRUARY 2017 | **11** THAILAND ECONOMY-AT-A-GLANCE



Thailand Investment Review

12 I FEBRUARY 2017 ABOUT **BOI**

The Office of the Board of Investment (BOI) is the principle goverment 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 foreigners 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 consultion services to Thai investors who are interested in investment opportunities abroad.



Head Office, Office of the Board of Investment 555 Vibhavadi-Rangsit Road, Chatuchak, Bangkok 10900 Thailand Website: www.boi.go.th Email: head@boi.go.th

New York

Thailand Board of Investment, New York Office 7 World Trade Center, 34th Fl., Suite F 250 Greewich St., New York, NY 10007 USA Tel: +1 212 422 9009 Fax: +1 212 422 9019 Email: nvc@boi.go.th

Los Angeles

Thailand Board of Investment, Los Angeles Office Royal Thai Consulate-General Boulevard, 3rd FI, Los Angeles, CA 90004 USA Tel: +1 323 960 1199 Fax: +1 323 960 1190 Email: boila@boi.go.th



Paris

Thailand Board of Investment, Paris Office Ambassade Royale de Thailande 8, Rue Greuze 75116 Paris, France Tel: +33 1 5690 2600-1 Fax: +33 1 5690 2602 Email: par@boi.go.th

Frankfurt

Thailand Board of Investment, Frankfurt Office Bethmannstr 58, 5.OG 60311 Frankfurt am Main Federal Republic of Germany Tel: +49 69 9291 230 Fax: +49 69 9291 2320 Email: fra@boi.go.th

Stockholm Thailand Board of Investment, Stockholm Office Stureplan 4C, 4th FI, 114 35 Stockholm, Sweden Tel: +46 8 463 11 58, 72, 74-75 Fax: +46 8 463 11 60 Email: stockholm@boi.go.th

Mumbai

Thailand Board of Investment, Mumbai Office Royal Thai Consulate General Express Tower, 12th Fl, Barrister Rajni Petel Marg, Nariman Point, Mumbai, Maharashtra 400021 Tel: (91 22) 2204 1589-90 Fax: (91 22) 2282 1525 Email: mumbi@boi.go.th

Taipei

Thailand Board of Investment, Taipei Office Taipei World Trade Center, 3rd FI, Room 3E40, No.5, Xin-yi Road, sec.5, Taipei 110, Taiwan, R.O.C. Tel: +88 6 2 2345 6663 Fax: +88 6 2 2345 9223 Email: taipei@boi.go.th

Seoul

Thailand Board of Investment, Seoul Office #1804, 18th Fl, Daeyungak Tower 25-5, 1-KA, Chungmu-Ro, Chung-Ku, Seoul, 100-706, Korea Tel: +82 2 319 9998 Fax: +82 2 319 9997 Email: seoul@boi.go.th

Beijing

Thailand Board of Investment, Beijing Office Royal Thai Ambassy, No.40 Guang Hua Road, Beijing, 100600, P.R. China Tel: +86 10 6532 4510 Fax: +86 10 6532 1620 Email: beijing@boi.go.th

Shanghai

Thailand Board of Investment, Shanghai Office Royal Thai Consulate General 2nd Fl, 18 Wanshan Road, Changning District, Shanghai 200336, P.R. China Tel: +86 21 6288 3030 ext.828,829 Fax: +86 21 6288 3030 ext.827 Email: shanghai@boi.go.th

Guangzhou

Thailand Board of Investment, Guangzhou Office Royal Thai Consulate General, No. 36 Youhe road, Haizhu District, Guangahou, P.R.C. 510310 Tel: +86 20 8385 8988 ext.220-225 +86 20 8387 7770 (direct line) Fax: +86 20 8387 2700 Email: guangzhou@boi.go.th

Tokyo

Thailand Board of Investment, Tokyo Office Royal Thai Ambassy, 8th Fl, Fukuda Building West, 2-11-3 Akasaka, Minato-ku, Tokyo 107-0052 Japan Tel: +81 3 3582 1806 Fax: +81 3 3589 5176 Email: tyo@boi.go.th

Osaka

Thailand Board of Investment, Osaka Office Royal Thai Consulate General, Bangkok Bank Building, 7th Fl, 1-9-16 Kyutaro-Machi, Chuo-Hu, Osaka 541-0056 Japan Tel: +81 6 6271 1394 Fax: +81 6 6271 1394 Email: osaka@boi.go.th

Sydney

Thailand Board of Investment, Sydney Office Level 1, 234 George Street, NSW 2000, Australia Tel: +61 2 9252 4884 Fax: +61 2 9252 2883 Email: sydney@boi.go.th