

FOR IMMEDIATE RELEASE

August 26, 2022

Adopted for “Project to Promote Asian DXs in Japan and ASEAN” Promoted by METI (the Ministry of Economy, Trade and Industry) for the Construction of a Dengue Prediction Model and System in Thailand

Kao corporation has been adopted for the “Project to Promote Asian DX in Japan and ASEAN”, a promotion of the Ministry of Economy, Trade and Industry (METI). Kao is collaborating with the Department of Disease Control (DDC) and The National Electronics and Computer Technology Center (NECTEC) in Thailand for “The Project to build the prediction model of mosquito-borne virus spread by using AI technology and improve the forecast system as UX for preventing Dengue fever cases in Thailand.”

About “Project to promote Asian DX in Japan and ASEAN”

This project is based on the contribution from METI to the AEM-METI Economic and Industrial Cooperation Committee (AMEICC), which was provided in the FY2021 supplementary budget. The Japan External Trade Organization (JETRO) serves as the project implementation secretariat and conducts public solicitation, adoption, and support for project implementation. JETRO supports Japanese companies which collaborate with ASEAN companies and organizations to solve ASEAN economic and social issues by developing, operating or evaluating products and services while utilizing innovations such as digital technologies.

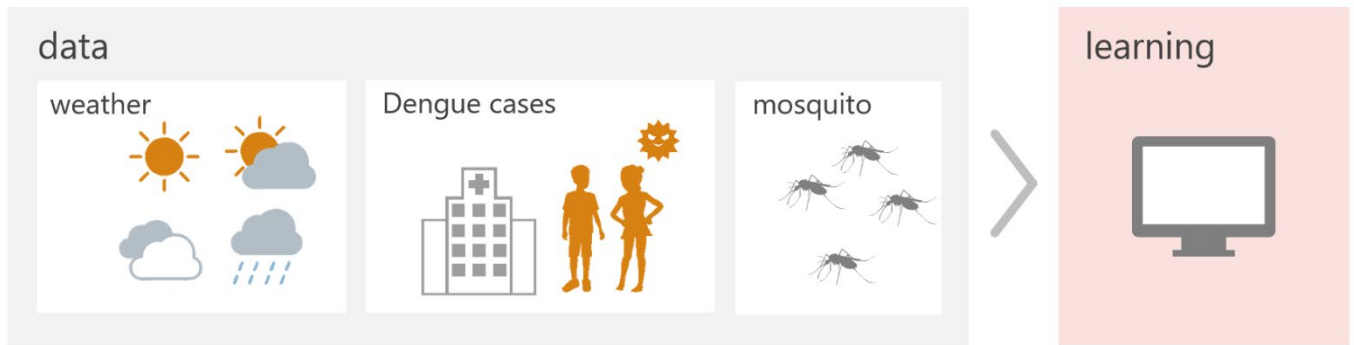
https://www.meti.go.jp/english/press/2022/0418_001.html

Adopted Kao’s project

The Project to build the prediction model of mosquito-borne virus spread by using AI technology and improve the forecast system as UX for preventing Dengue fever cases in Thailand

Contents of the project

This project will conduct empirical research to develop a model for early prediction of Dengue fever spread. Specifically, machine learning will be used to analyze information on Dengue fever cases held by DDC, environmental factors such as weather patterns, and the transmission of Dengue virus by mosquitoes. The project will collaborate with NECTEC to develop and operate an application that provides data on Dengue fever cases, with the aim of making this prediction model effective for preventive actions by consumers.



Construction of a Dengue fever spread forecast model (image)

Aim of the project

This project's aim is the construction of a Dengue prediction model and forecast to reduce the number of cases by informing Thai people of the increased risk of sickness and promoting preventive measures. The project also aims to contribute to the expansion of mosquito-control products by advising appropriate preventive actions, and to avoid economic losses in ASEAN areas caused by Dengue.

Local partners

- Department of Disease Control (DDC), Ministry of Public Health (MOPH)
- The National Electronics and Computer Technology Center (NECTEC) under The National Science and Technology Development Agency (NSTDA)

Background and previous activities by Kao

Dengue fever is one of the mosquito-borne infectious diseases and can, in some cases, involve severe symptoms, even death. Between 50,000 and 150,000 people in Thailand, most commonly children, are infected by Dengue fever annually. In addition, it has become a common social issue in ASEAN due to the high economic costs, such as those for treating the disease, lost opportunities for work, and responding to prevent its spread. However, currently there are no safe and effective vaccines or drugs for Dengue fever. Therefore, avoiding mosquito bites is the key to prevent infection, and education is being promoted accordingly.

In an ongoing study to prevent mosquito bites, Kao developed a unique mosquito repellent technology in 2020, in which low-viscosity silicone oil made the skin surface aversive for mosquitoes, thus preventing mosquitoes from landing on human skin^{*1}. In February 2022, Bioré GUARD Mos Block Serum, a product using this technology, was donated to the Ministry of Public Health and 80,000 packages were distributed in Thailand. In June 2022, Kao officially launched the product in Thailand^{*2}.

Simultaneously, Kao started the global project named as #GUARD OUR FUTURE to protect future lives from mosquitoes. Kao Personal Health Care laboratory and the Kao Industrial (Thailand) are leading the way to promote education, field survey, and research activities related to Dengue fever, in collaboration with DDC, NECTEC, the Industrial Estate Authority of Thailand (IEAT), Amata Corporation, and Mahidol University.

As one of the activities for the #GUARD OUR FUTURE project, Kao will start to build a model that predicts Dengue incidence faster and more accurately. To prevent Dengue epidemics, it is important for each individual person to take appropriate preventive measures. Kao will now collaborate with NECTEC, which has developed and operates an application that provides data on Dengue fever cases, in order to encourage preventive behavior among consumers and contribute to the prevention of Dengue outbreaks before they occur.

*1 2020/12/9 News Release: Technology for Preventing Mosquito Bites Developed by Creating a Skin Surface Mosquitoes Dislike <https://www.kao.com/global/en/news/rd/2020/20201209-003/>

2 2022/6/15 News Release: Kao Launches Bioré GUARD Mos Block Serum , a Newly-developed Mosquito Repellent Product, in Thailand <https://www.kao.com/global/en/news/business-finance/2022/20220615-001/>



Reference: #GUARD OUR FUTURE

Saving Future Lives from Dengue Fever, an Infectious Disease Spread by Mosquitoes
<https://www.kao.com/global/en/news/stories/dengue/>

About Kao

Kao creates high-value-added products and services that provide care and enrichment for the life of all people and the planet. Through its portfolio of over 20 leading brands such as *Attack*, *Bioré*, *Goldwell*, *Jergens*, *John Frieda*, *Kanebo*, *Laurier*, *Merries*, and *Molton Brown*, Kao is part of the everyday lives of people in Asia, Oceania, North America, and Europe. Combined with its chemical business, which contributes to a wide range of industries, Kao generates about 1,420 billion yen in annual sales. Kao employs about 33,500 people worldwide and has 135 years of history in innovation. Please visit the Kao Group website for updated information.

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