

[A summarized unofficial version of the press release]

KDCA Launches AI-based Real-Time Vector Monitoring System in Collaboration with Local Governments

- *KDCA to operate an AI-based real-time vector mosquito surveillance network across seven regions nationwide.*
- *Expected to support timely and efficient vector control through rapid acquisition of monitoring data.*

Osong, 12 May 2026 — The Korea Disease Control and Prevention Agency (KDCA) announced that it will operate AI-based real-time vector surveillance network starting May 11 to monitor changes in vector distribution amid increasing risks of overseas infectious disease vector introduction due to climate change.

KDCA developed the world's first field-deployable **Artificial Intelligence (Real-Time) Digital Mosquito monitoring System** (hereinafter referred to as **AI-DMS***) in 2023 and completed verification of surveillance accuracy and durability through field testing conducted from 2024 to 2025.

* AI-DMS: **Artificial Intelligence Digital Mosquito monitoring System**

Under the previous manual monitoring system, it typically took approximately 7

to 11 days from mosquito collection to species identification, limiting the ability to provide timely information for immediate vector control measures. To overcome these limitations, the AI-DMS was developed to provide real-time monitoring data by identifying and calculating five major vector mosquito species* with over 95% accuracy.

* *Anopheles* spp., *Culex pipiens*, *Culex tritaeniorhynchus*, *Aedes albopictus*, *Aedes vexans*

Starting from this year, in collaboration with Research Institutes of Public Health and Environment in six local governments—Jeju, Jeonbuk, Jeonnam, Chungbuk, Chungnam, and Ulsan—KDCA will conduct real-time vector monitoring using AI-DMS at a total of seven migratory bird sanctuaries (including one site directly operated by KDCA) from May 11 through October 30.

* Dorasan Peace Park (Paju, Gyeonggi), Dongbaekdongsan Wetland Center (Jeju), Geumgang Wetland Ecological Park (Gunsan, Jeonbuk), Suncheonman National Garden & Wetland (Suncheon, Jeonnam), Hwanho Park (Cheongju, Chungbuk), Birdland (Seosan, Chungnam), and Taehwagang National Garden (Ulsan)

The collected AI-based real-time monitoring results, including hourly and daily mosquito distribution and density changes will be provided weekly to the public through the Infectious Disease Vector Surveillance Weekly Newsletter published

on the KDCA website.

* KDCA Infectious Disease Portal: [<https://dportal.kdca.go.kr/>]

(<https://dportal.kdca.go.kr/>) → Publications/ Laboratory Newsletters → Infectious Disease Vector Surveillance Weekly Newsletter

KDCA Commissioner Dr. Seung-Kwan Lim stated, “Through AI-based real-time vector monitoring network, we will immediately identify and swiftly link the findings to vector control measures, thereby proactively preventing the risk of vector-borne disease outbreaks.”

He also added, “We plan to further expand cooperation with local governments and develop this system into a comprehensive nationwide AI-based surveillance network.”