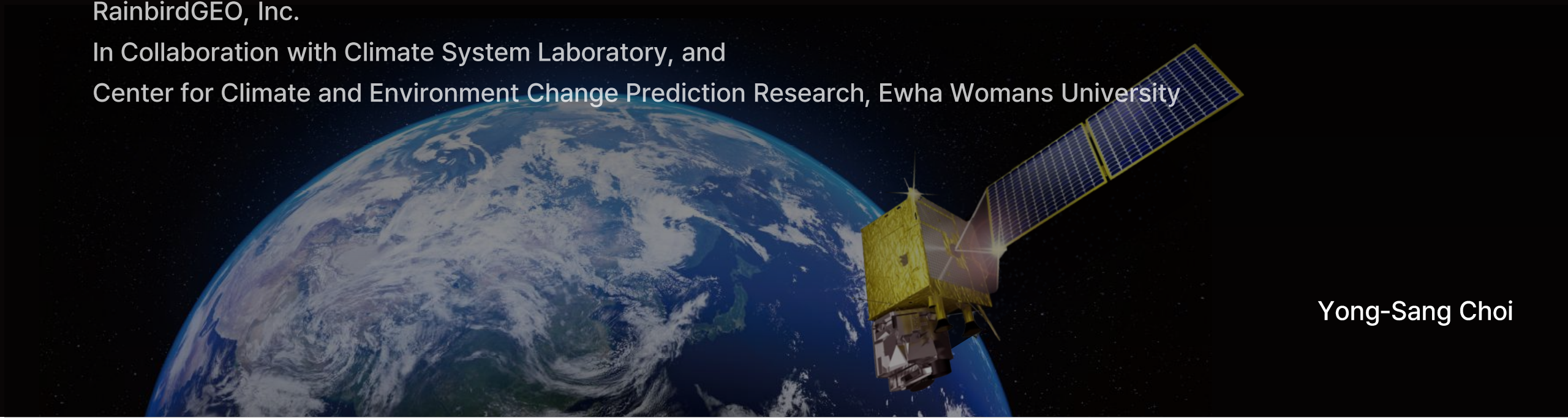
Leveraging Satellite Technology for Multi-Hazard Early Warnings: Lessons from a Climate-Tech Startup

ICC-29 on the RESAP for Sustainable Development in Asia and the Pacific (3 Sep 2025)

RainbirdGEO, Inc.
In Collaboration with Climate System Laboratory, and
Center for Climate and Environment Change Prediction Research, Ewha Womans University



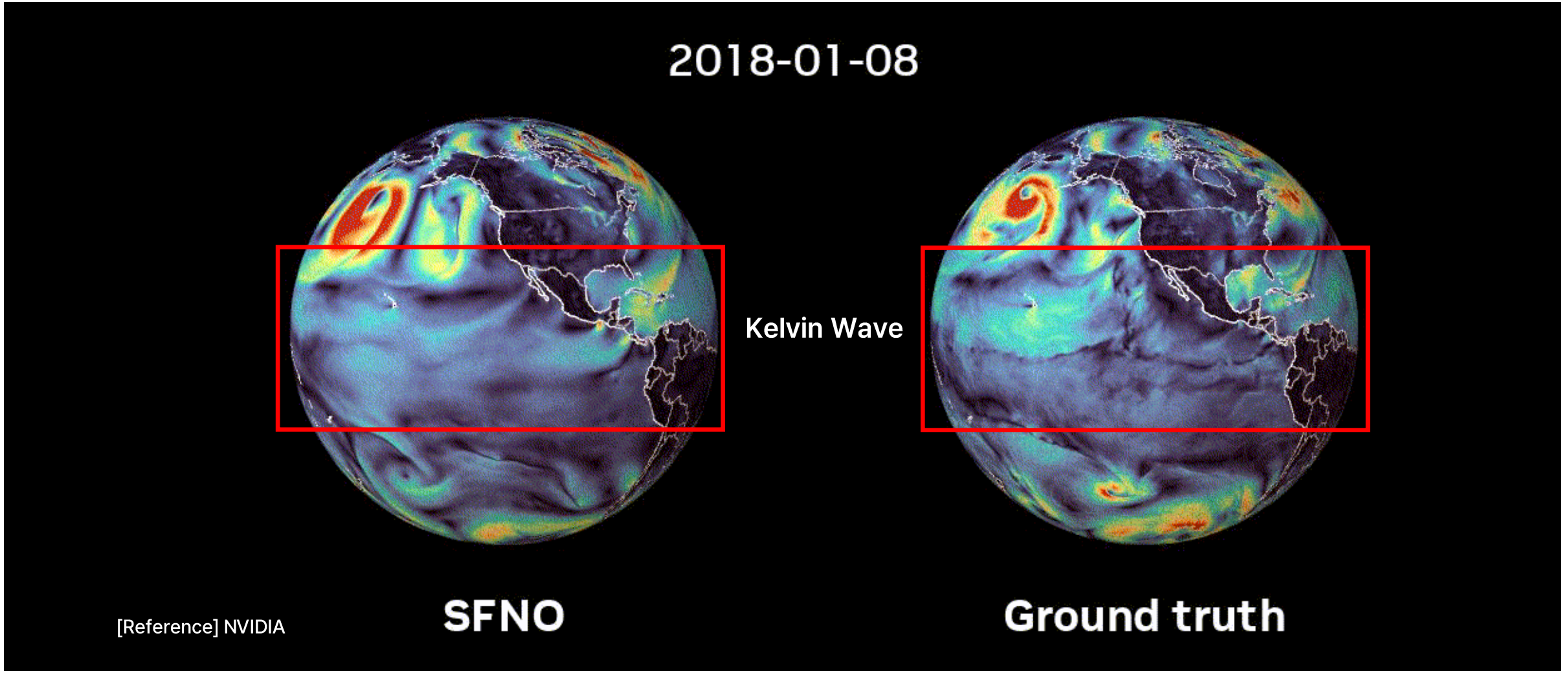
Yong-Sang Choi

RainbirdGEO EWHA WOMANS UNIVERSITY

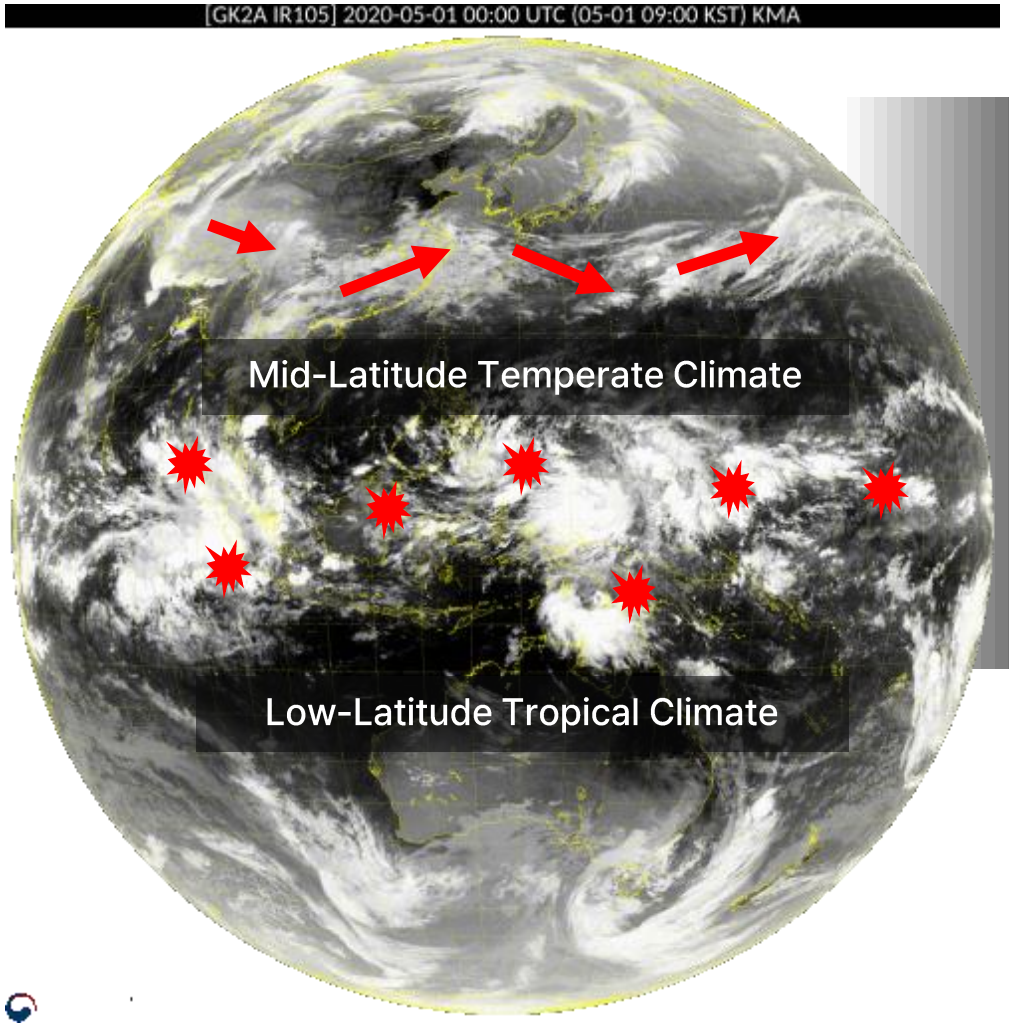
(03759) Room 253 Industry Cooperation Building, Ewha Womans University,
Bugahyeon-ro 150, Seodaemun-gu, Seoul, Republic of Korea


4:15
4G
프놈펜
대체로 흐림
30°
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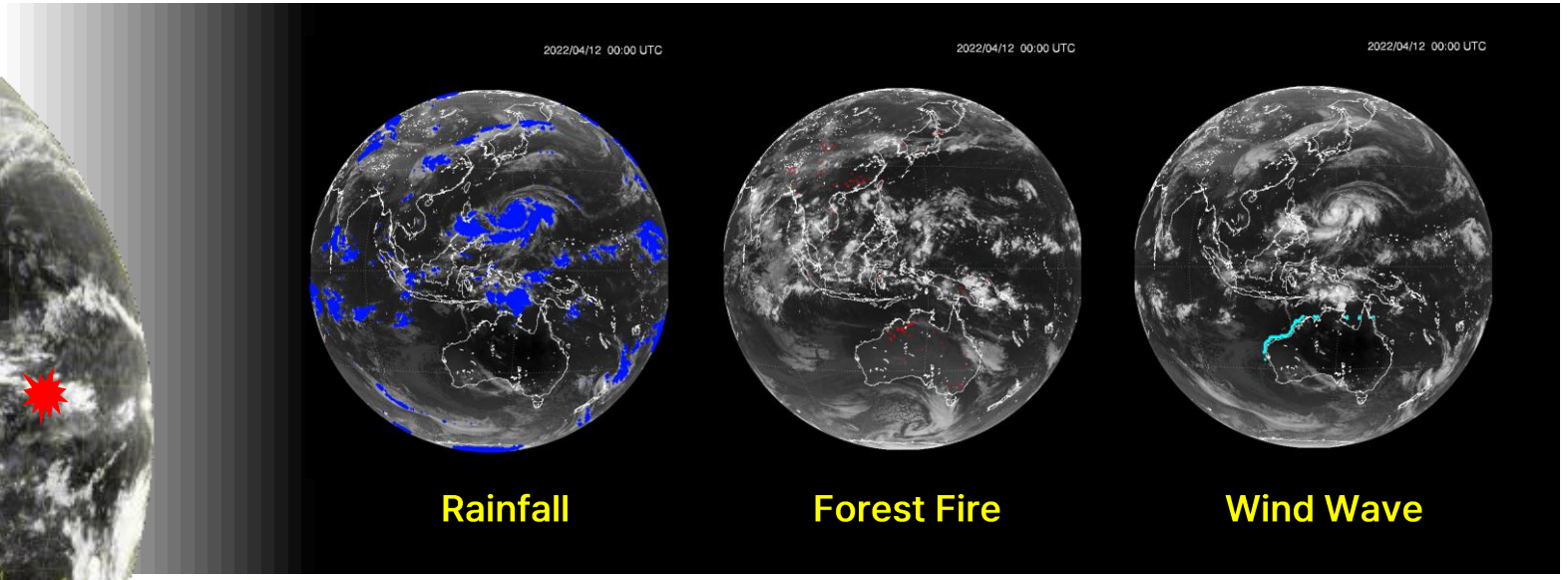
Even advanced AI misses small vortices that trigger tropical storms.



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Climate Risk Predictions by RainbirdGEO's Technology





Mobile
Early Warning System
in every hands

Geostationary satellites monitor regions home to **4 billion people in real-time.**
With 85–100% accuracy, we predict heavy rainfall, forest fires, wind waves, and more.

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Mitigating Climate Risks Worldwide



GREEN CLIMATE FUND

UN environment programme



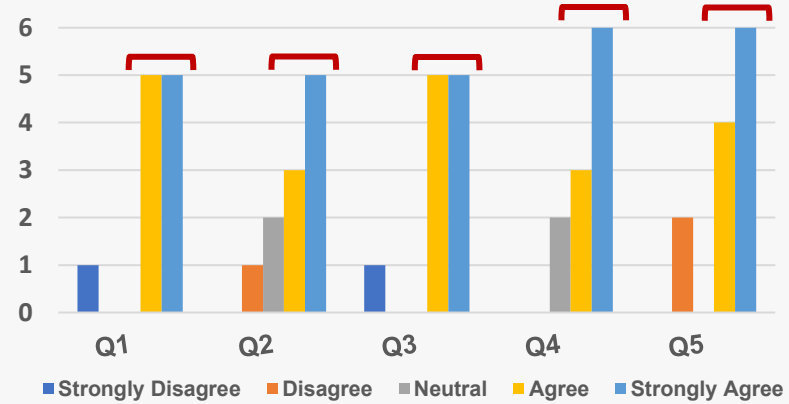
ADB ASIAN DEVELOPMENT BANK



Save the Children

Social Impact Assessment
(by user reports)

Purple and Light Blue indicate the positive social impacts



Q1. Helps to **reduce stress** caused by inaccurate weather information

Q2. Helps to **reduce inconvenience** caused by inaccurate weather information

Q3. Helps to reduce inconvenience caused by unexpected weather changes

Q4. Helps to **reduce the losses** caused by created plan cancellations, because of weather changes

Q5. **Helps to prepare** for climate risk events

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Summary



Efforts to enable science and technology to cross borders

Poverty leads to a lack of systems to predict disasters, as there are few scientists, scientific technology, or information. Basic data are lacking for recovery areas such as geologically based flood areas.



A view of disasters from a social science perspective based on understanding of natural science

Disasters are at the intersection of natural science and social science. Scientific achievements are not immediately applied to disaster risk reduction.



Attempts to connect central/local governments, organizations, and residents for disaster info openness

The lack of transparency and fragmentation are serious problems that accelerate the inequality of disasters.

Thank you



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