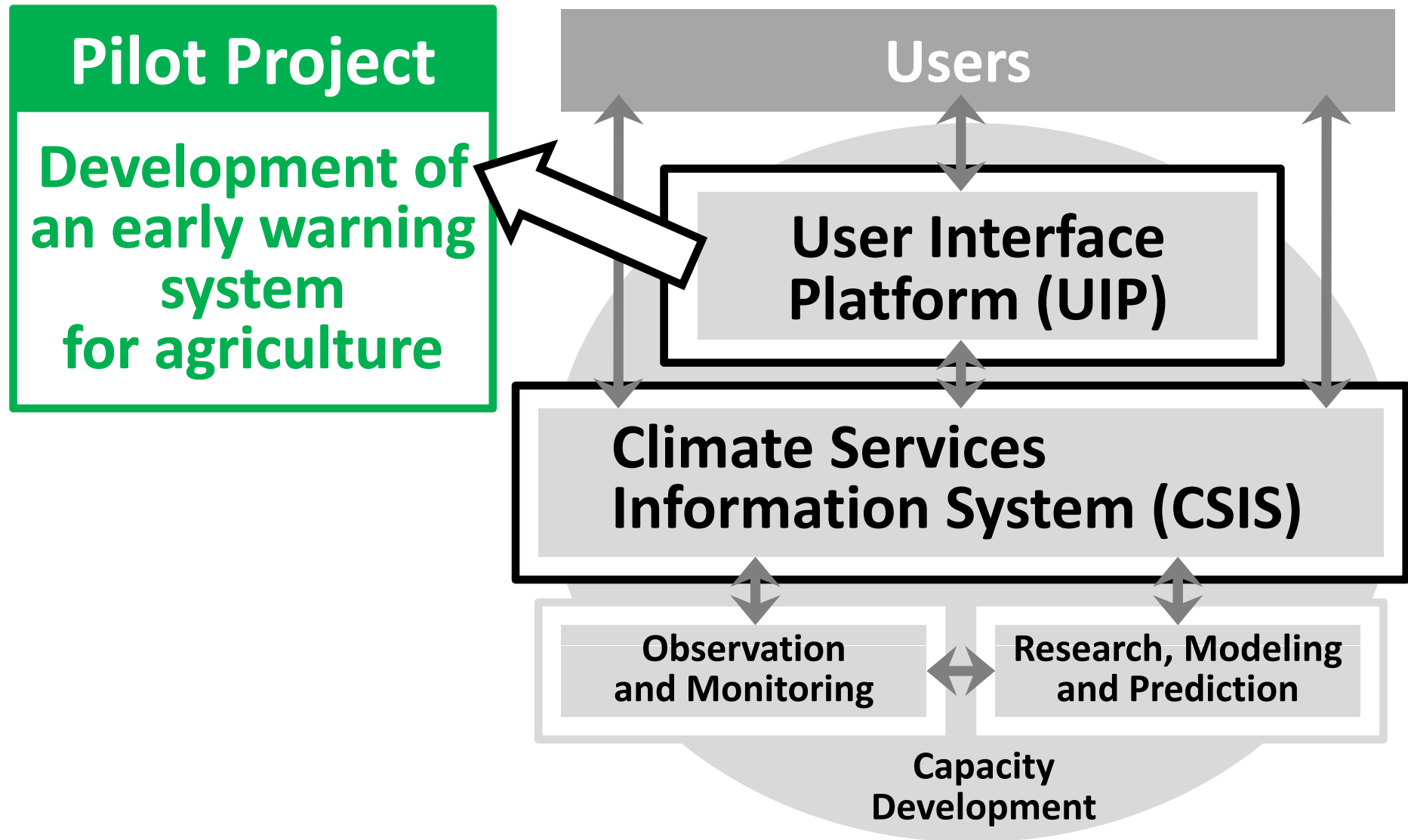


A photograph of four men standing in a rice field. Three men are wearing white short-sleeved shirts and dark trousers, while one man on the right is wearing a light blue long-sleeved shirt and trousers. They are looking towards a large body of water in the distance under a clear blue sky. The text 'Japan's pilot project on user interface platform for agriculture' is overlaid in yellow on the upper part of the image.

Japan's pilot project  
on user interface platform  
for agriculture

*Shotaro TANAKA  
Tokyo Climate Center  
Japan Meteorological Agency (JMA)*

# Introduction



*GFCS five pillars and their links to users*

# Climate risk impacts on various fields

JMA is making efforts to develop best practices to use climate information in various sectors.

Impacts on

## Agricultural products

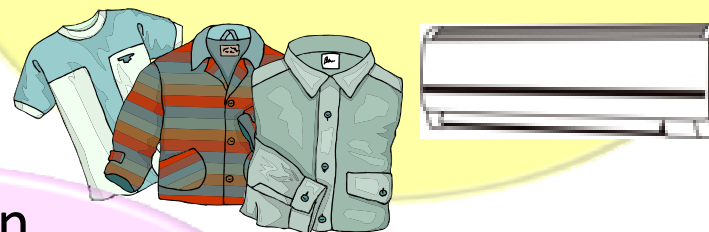
- **Cold/heat** waves hinder the growth of agricultural products.
- **Heavy rainfall** or **drought** causes destruction of crops.



Impacts on

## Retail selling

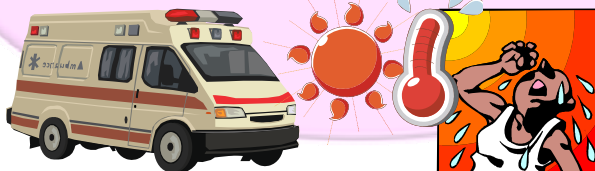
- **Cold/heat** waves damage the selling of clothes and electric appliances.



Impacts on

## Human Health

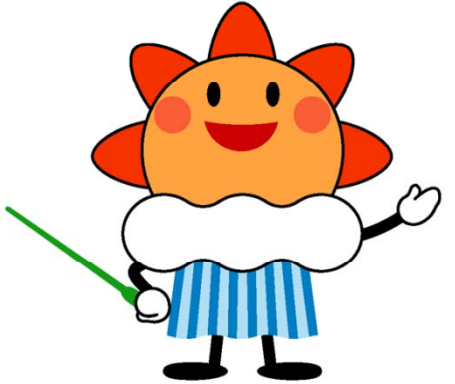
- **Heat** waves increase the risk of heat stroke.



And so on...

# A pilot project for agriculture: rice production


Impacts on  
**Rice production**  
- Cold/hot summer conditions  
cause damage to rice.



**Provider**  
JMA



**Collaboration!**



**User/Intermediary**  
Agricultural  
Research Institute  
(NARO/TARC\*)

\* National Agriculture and Food Research Organization/Tohoku Agricultural Research Center

# Key processes of cooperative Pilot Project



**1. Dialogue & Sharing knowledge**

**2. Developing technology**

**3. Spreading best practices**

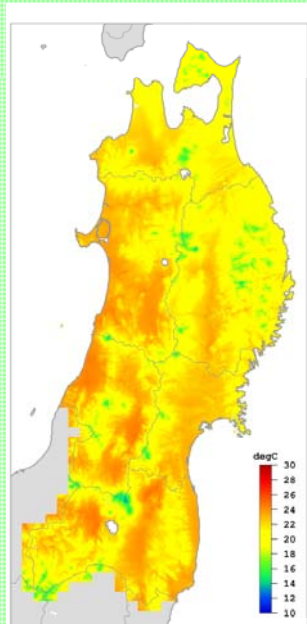
# Developing Technology

Dialogue & Sharing knowledge



Making 7-day mean temp.(T7d) prediction at **a 1-km resolution up to two weeks ahead**

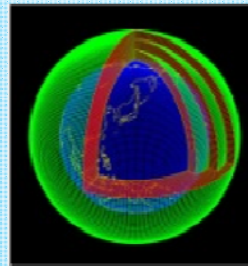
Agricultural Research Inst.



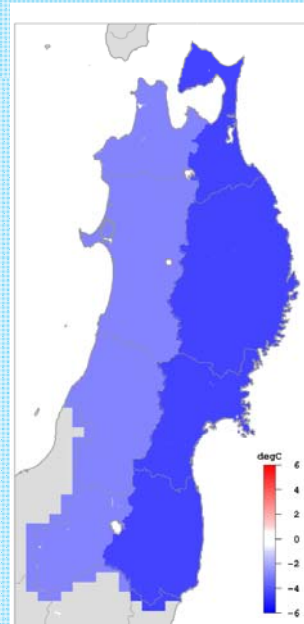
Climatological normal of T7d (1km-resolution)

+

JMA



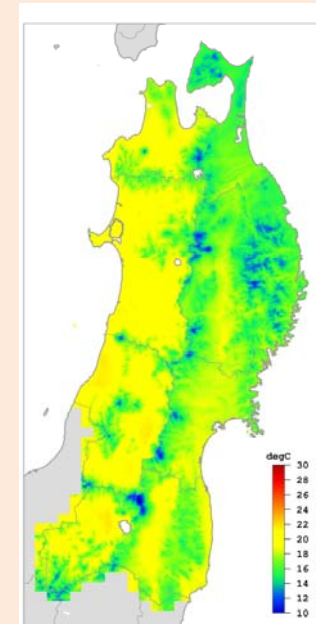
Numerical Weather Prediction



Mean value of predicted T7d anomalies (regional-scale)

=

New Product



Mean value of predicted T7d (1km-resolution)

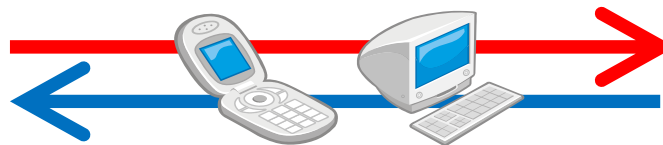
# Tailoring and experimental provision

- The agricultural research institute (NARO/TARC) **tailors** temperature prediction to **customized information for agriculture**.
- Farmers can **view the information** for their registered points **on the Internet** and **receive an alert by e-mail**.



**Agricultural Research Institute (NARO/TARC)**

**Tailored climate information**



**Feedback by questionnaire survey**

**Farmers**

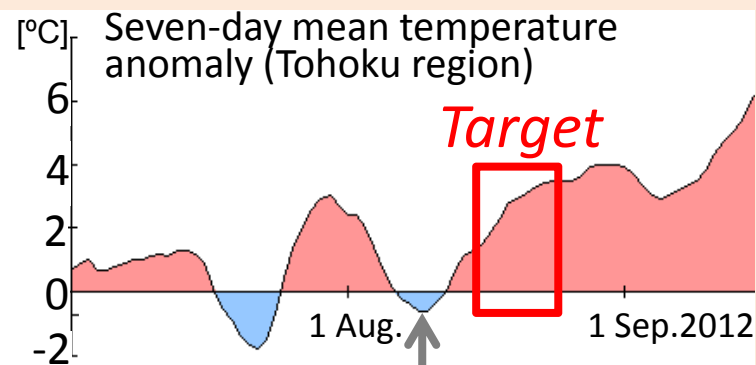


**Action!**

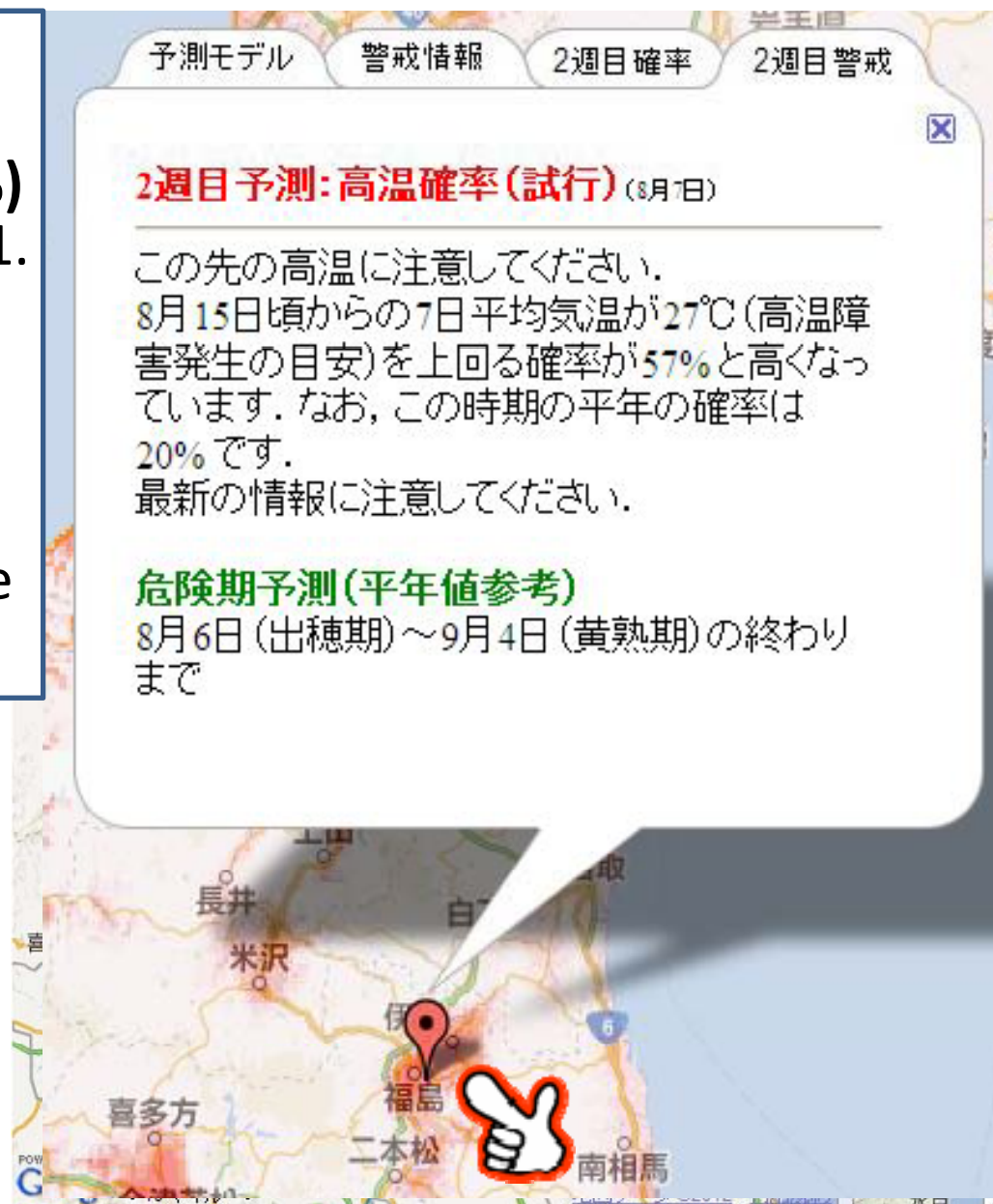
\* In collaboration with the Faculty of Software and Information Science at Iwate Prefectural University (IPU)

# Tailoring and experimental provision

- On 7 Aug., 2012, predicted **probability of temperatures of  $\geq 27^{\circ}\text{C}$  was 57% (normal: 20%)** during the period from 15 to 21.
- The agricultural research institute called farmers **to take countermeasures controlling water depth in their rice fields** to avoid poor grain filling in rice crops.



Issued on 7 Aug.





# Spreading best practices

- JMA provides the results of the pilot project to other sectors and the public.
- JMA and the Agricultural Research Institute started collaborative projects for other regions than Tohoku (in northern Japan).
- JMA initiated dialogue, sharing knowledge and climate risk assessments with other user sectors (e.g. apparel, energy) to develop tailored information.