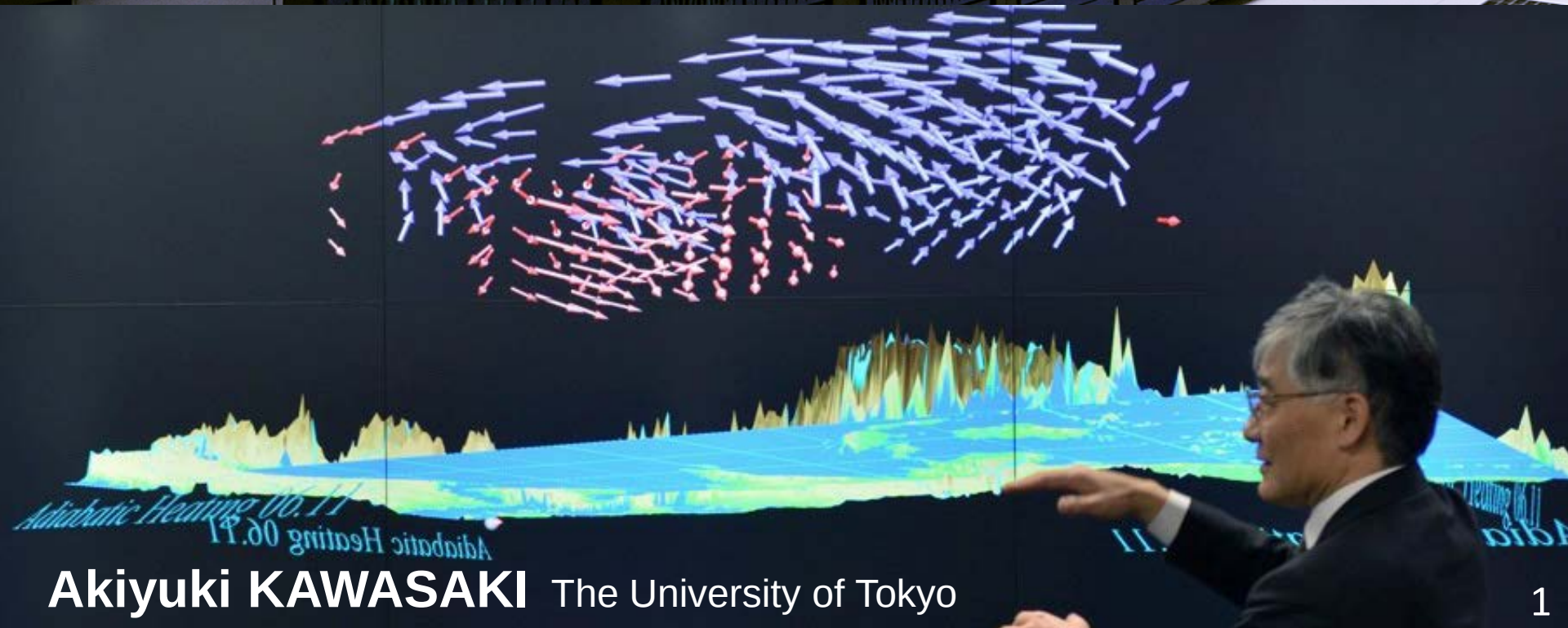


Data Integration and Analysis System (DIAS) ***as a platform for Asian Water Cycle Initiative*** ***(AWCI)***

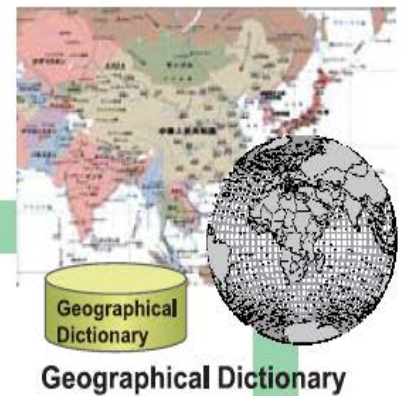
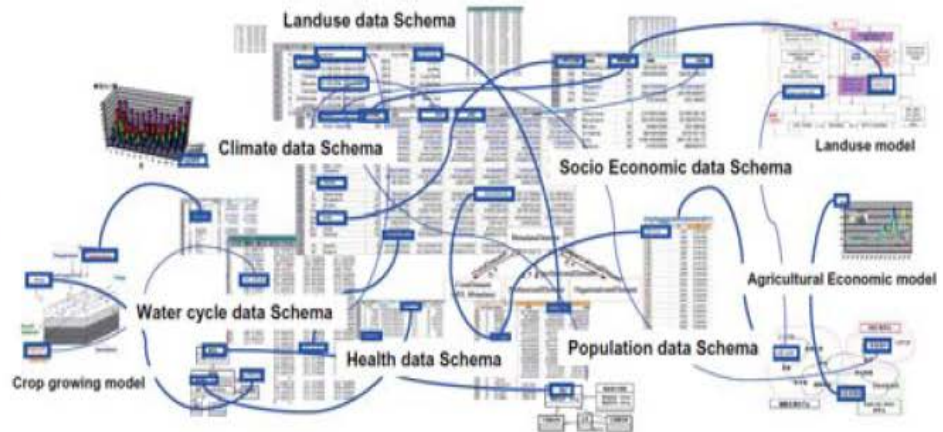
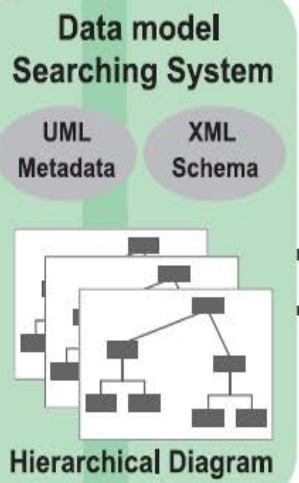
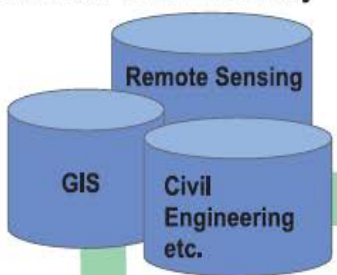


1. Overview of DIAS

1. AWCI Data Archive System

1. Benefit of the use of DIAS as a platform for AWCI

Technical Term Dictionary



DIAS Data Integration & Analysis System

Data Related information Archive System

OWL Association/Link Knowledge

Database Across Searching System

Extra-Large Volume data from various data and information source



In-situ Observation



Citizen Observation



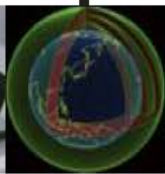
Oceanographic Observation



Satellite Observation



Weather and Climate Model



Operational Observation



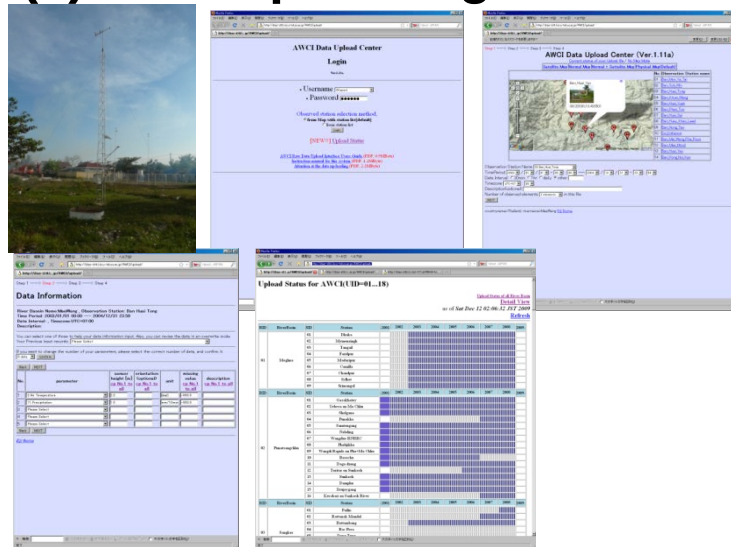
Operational Information

To archive hydro-meteorological dataset, including data loading, QC and metadata registration

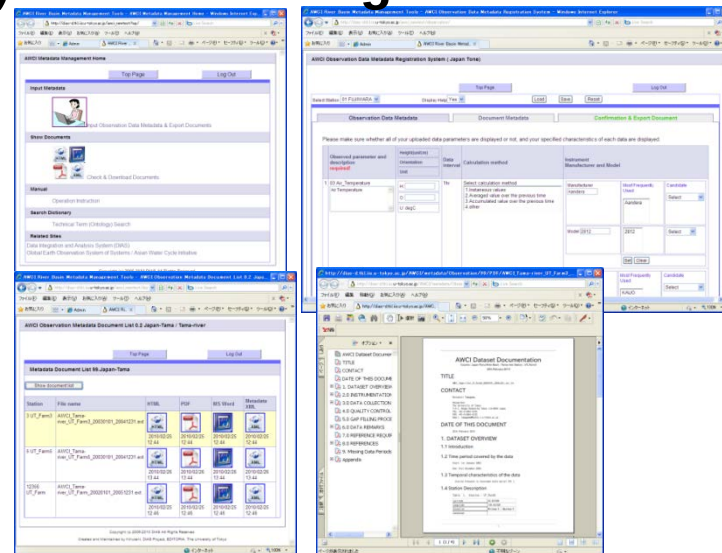


Tool for in-situ data input and management

(1) Data Uploading



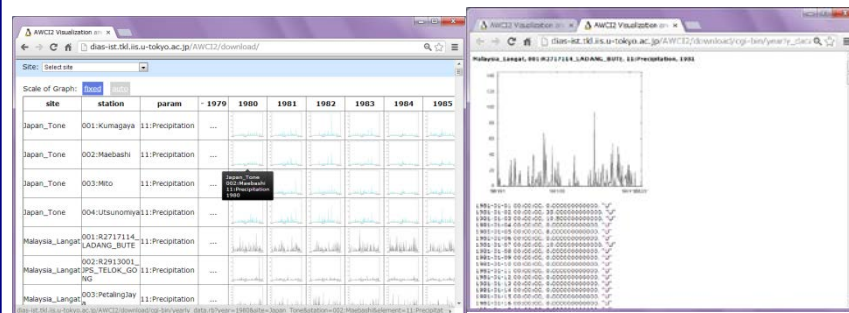
(3) Meta Data Registration



(2) Quality Controlling



(4) Data Downloading



(1) Data Uploading

Step 1 ----> Step 2 ----> Step 3 ----> Step 4

AWCI2 Data Upload Center (Ver.1.16aw)

[Current status of your Upload file](#) / [No Map Mode](#)

ROADMAP SATELLITE HYBRID TERRAIN



No.	Observation Station name
01	Sample_Station_1
02	Sample_Station_2
03	Sample_Station_3
04	Sample_Station_4
05	Sample_Station_5
06	Sample_Station_6
07	Sample_Station_7

- Observation Station Name 07:Sample_Station_7 ▾
- Time Period 2000 ▾ / 07 ▾ / 20 ▾ - 16 ▾ : 34 ▾ --- 2011 ▾ / 06 ▾ / 24 ▾ - 21 ▾ : 37 ▾
- Data Interval ☒ 30min ☐ 1hr ☐ daily ☐ other
- Timezone UTC+09 ▾ : 00 ▾
- Description(optional)
- Number of observed elements 2 elements ▾ in this file

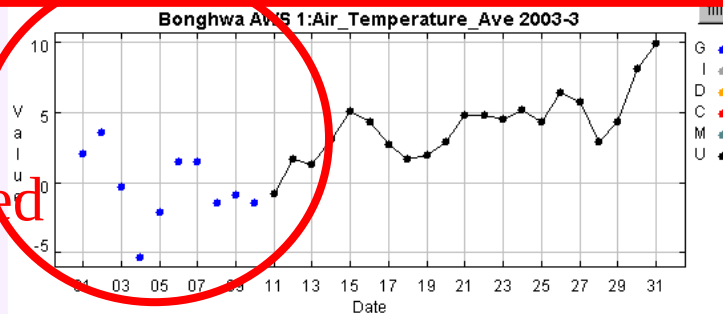
(2) Quality Controlling

G: Good
I: Interpolated
D: Dubious/Questionable
B: Bad
C: Abnormal value
M: Missing
U: Unchecked

Flag Definitions

Number of each Flags

G(10) I(0) D(0) B(0) C(0) M(0) U(21)



Confirmation(edit data dialog)

[Download\(Without flag\)](#)
(GAME:AAH)

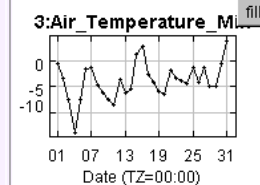
[Download\(With flag\)](#)
(GAME:AAH)

[Download All \(zip-compressed, without flag\)](#)
(GAME:AAH)

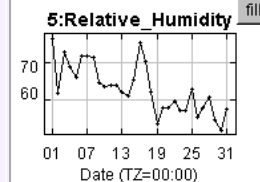
[Download All \(zip-compressed, with flag\)](#)
(GAME:AAH)

	Day	Hour	Minute	Flag/Value	Change to	
From:	01	00	00		Flag= U	
To:	10	23	59		Flag= G	
						Update (TZ=00:00)

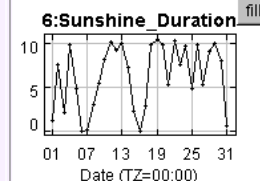
Y-Axis: ☒ Real ☐ Normalized
 (MaxMin)
☐ Overlay



☐ Overlay



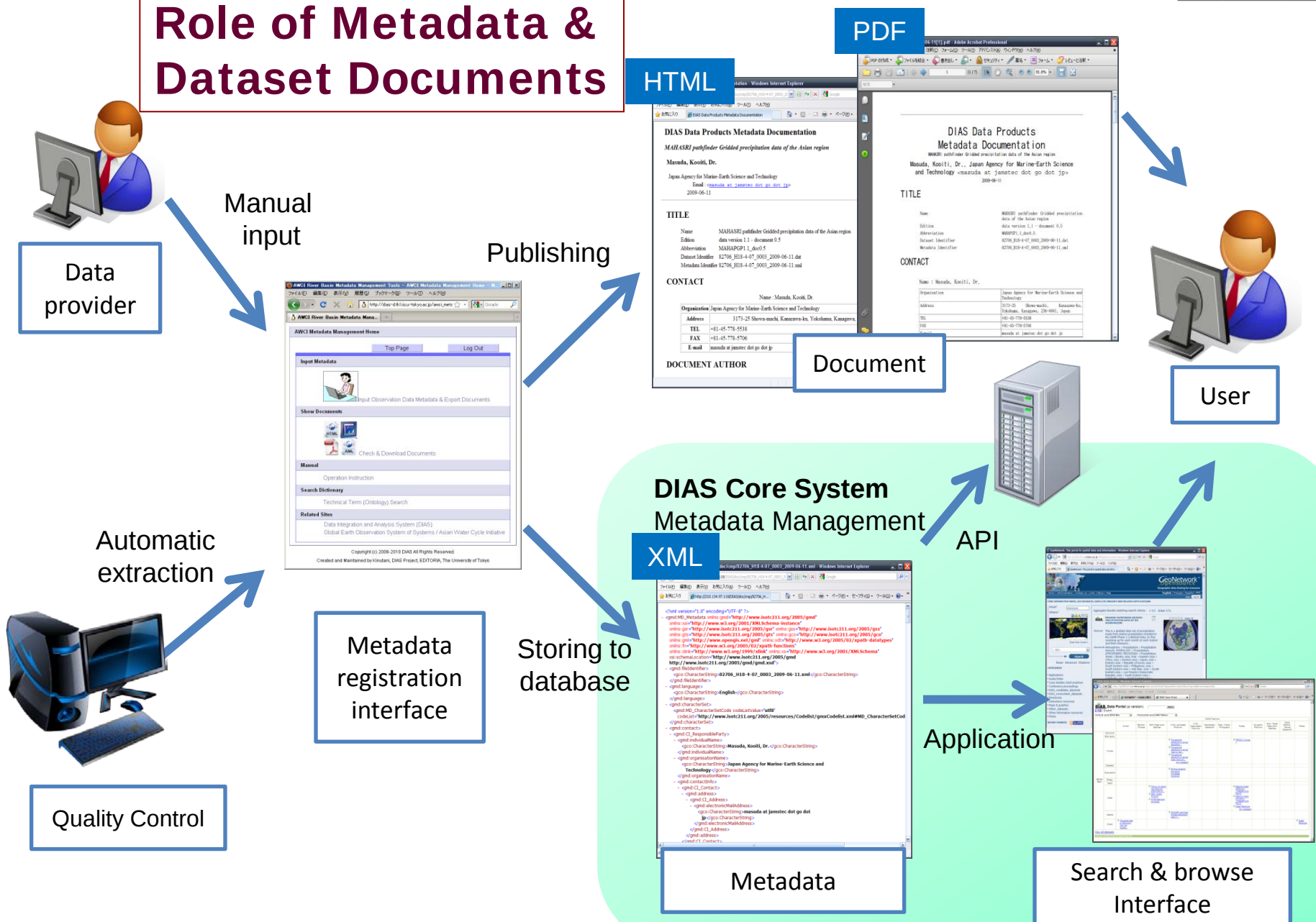
☐ Overlay



☐ Overlay

(3) Meta Data Registration

Role of Metadata & Dataset Documents



(4) Data Downloading

AWCI2 Visualization and Download

Site: Period: Year/Month -

Station:

☒ 001:Kumagaya ☒ 002:Maebashi ☒ 003:Mito ☒ 004:Utsunomiya

A mail will be sent with a link to the zipped dataset file.

Mail to:

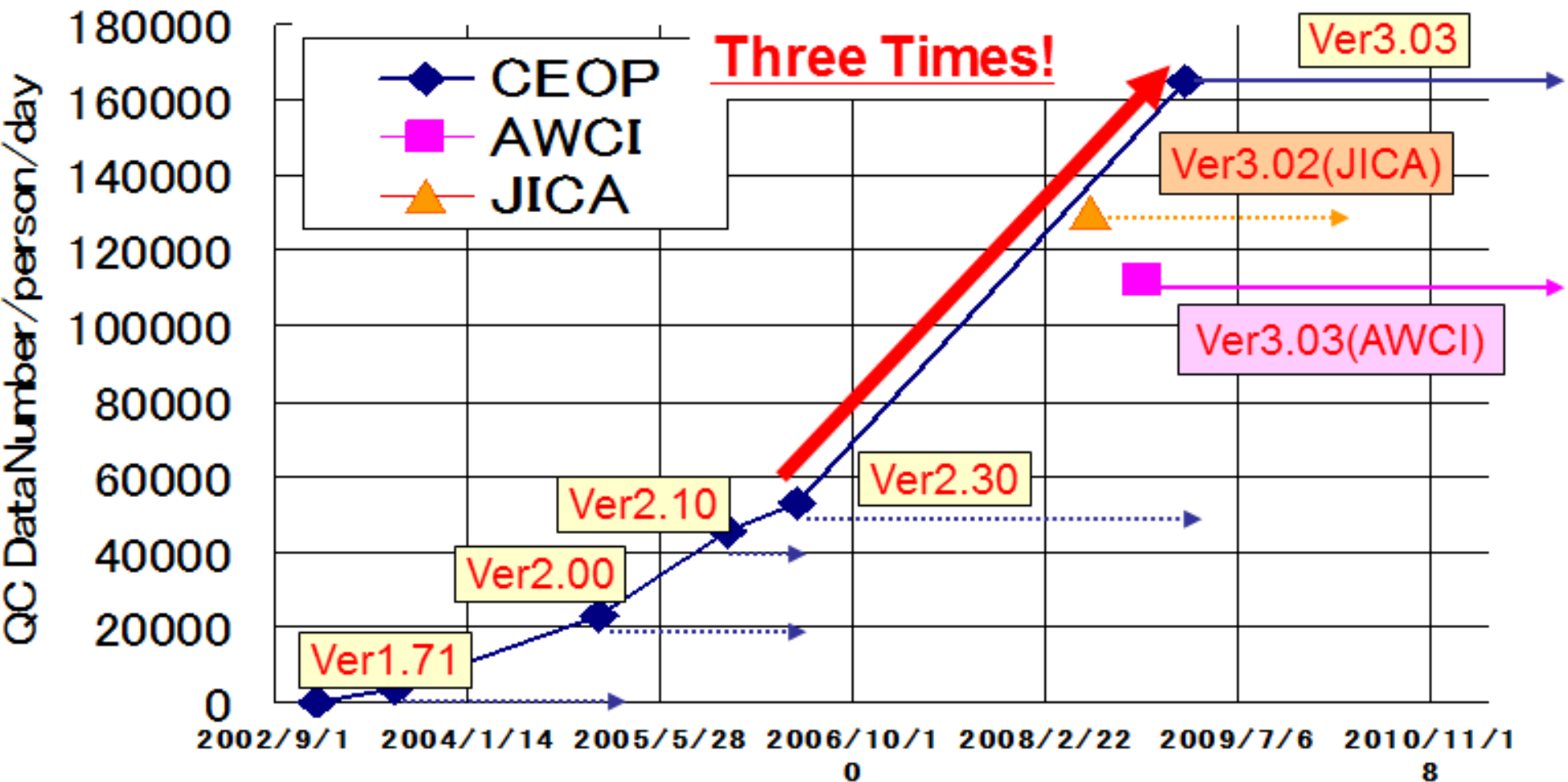
Scale of Graph: ☒ fixed ☐ auto

site	station	param	- 1979	1980	1981	1982	1983	1984	1985
Japan_Tone	001:Kumagaya	11:Precipitation	...						
Japan_Tone	002:Maebashi	11:Precipitation	...						
Japan_Tone	003:Mito	11:Precipitation	...						
Japan_Tone	004:Utsunomiya	11:Precipitation	...						
Malaysia_Langat	001:R2717114	11:Precipitation	...						

Click here to select all stations for downloading.

Or choose to download data for a single station.

Effect of the System !

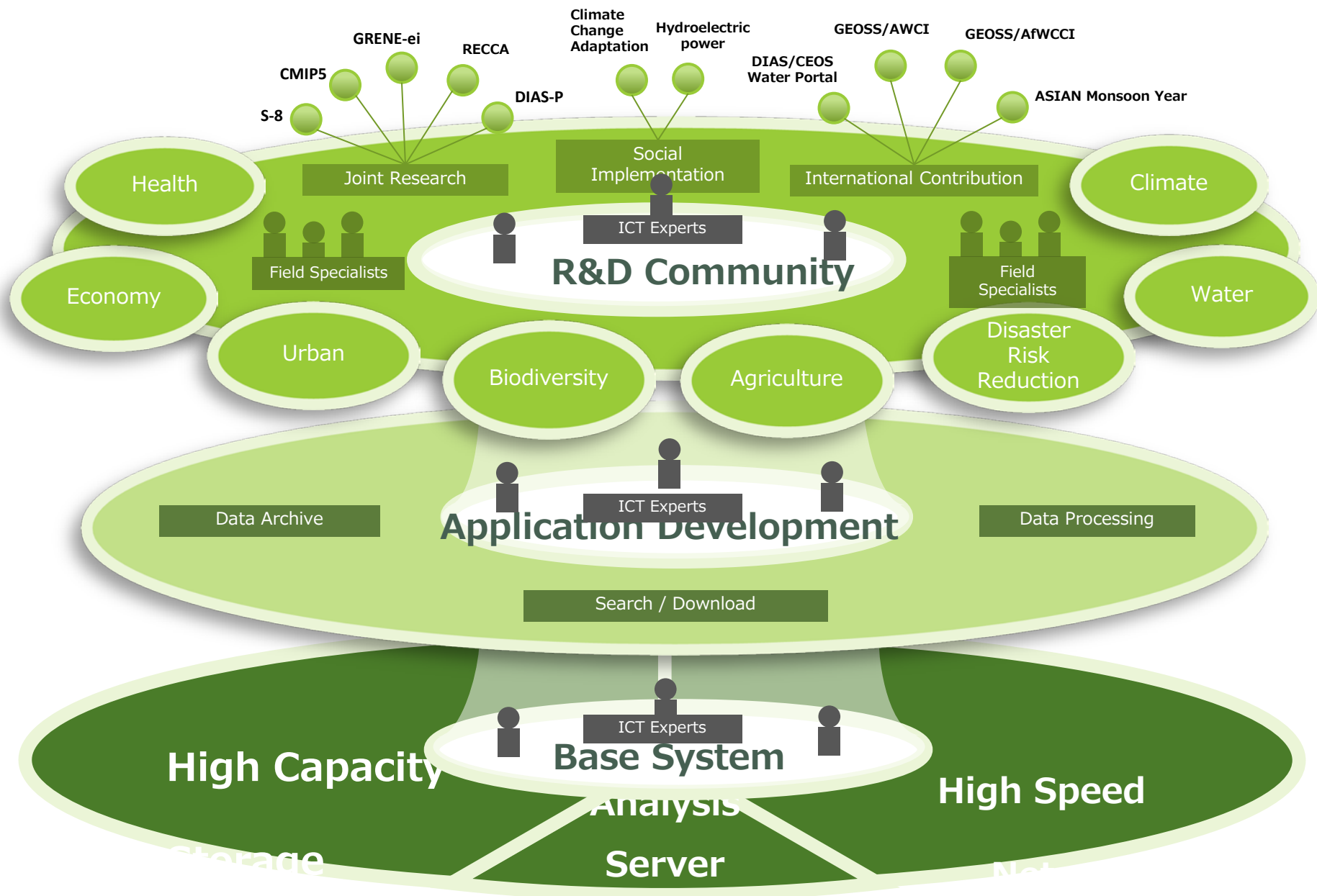


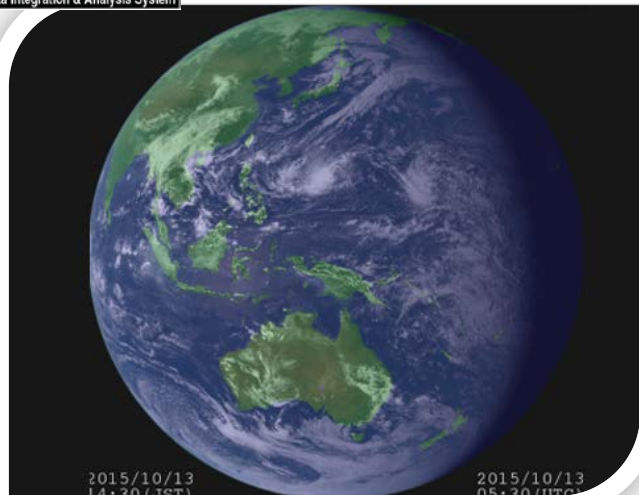
1. Overview of DIAS

1. AWCI Data Archive System

1. Benefit of the use of DIAS as a platform for AWCI

DIAS: Structure





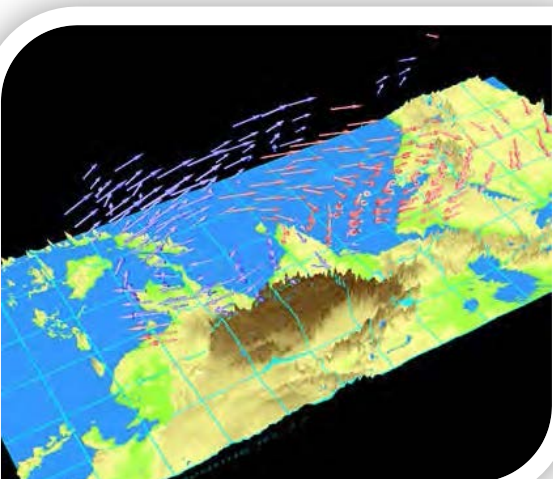
Himawari 8 (GMS) Real-time Visualization Tool



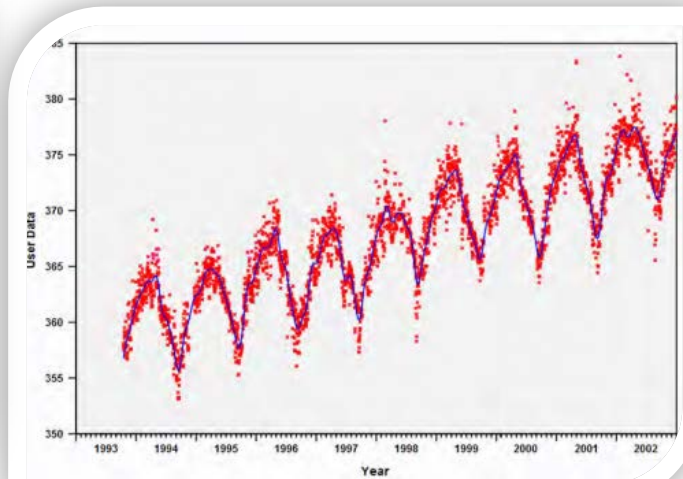
Radar Rain Real-time Visualization Tool



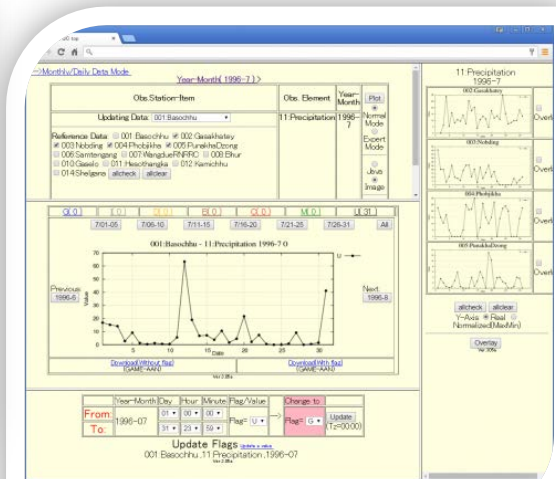
Simulation Model for Rice-Weather relations



3D Visualization Tool

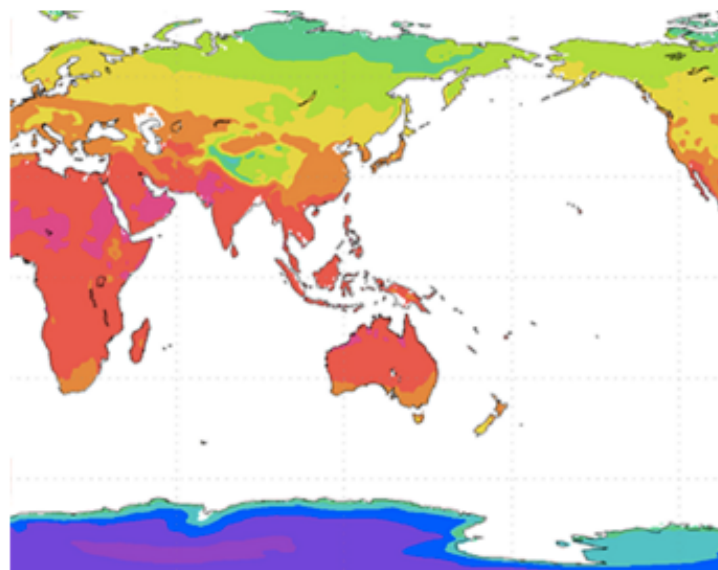


Earth Observation data Analysis Tool



In-situ data Quality Control Tool 13

CMIP5 Data Analysis System



This system is comprised of a set of tools that provide the Intercomparison Project Phase 5 (CMIP5), which has wide-reanalysis data as reference data for comparison with CMIP5 reproducibility of climate models.

HOW TO USE

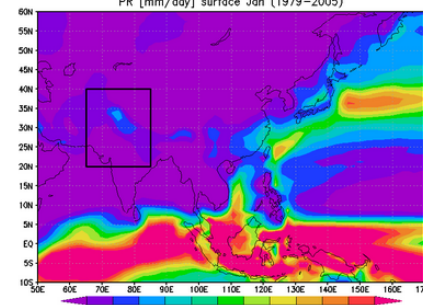
A common web application account is necessary.

Please contact the DIAS Office for details:

CMIP5 (10 models / 66 ensemble members): [Open in New Tab](#)

ACCESS1.0

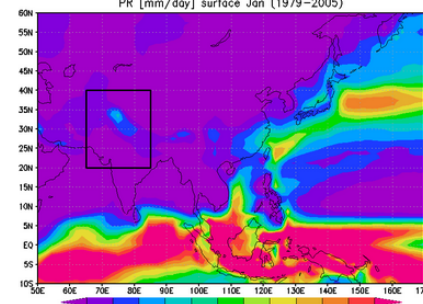
ACCESS1.0 (ens_mean) : Scorr=0.807681, RMSE=0.482758
PR [mm/day] surface Jan (1979-2005)



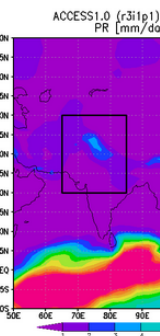
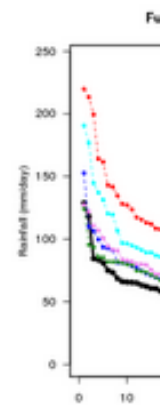
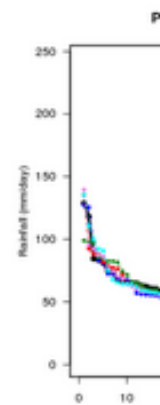
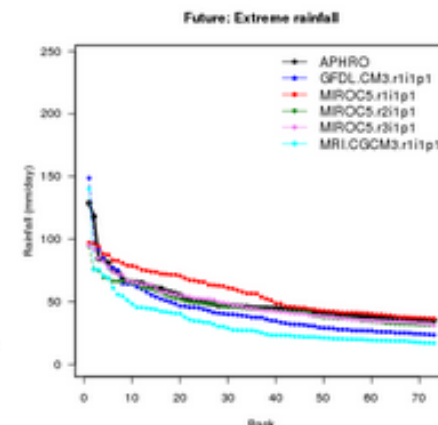
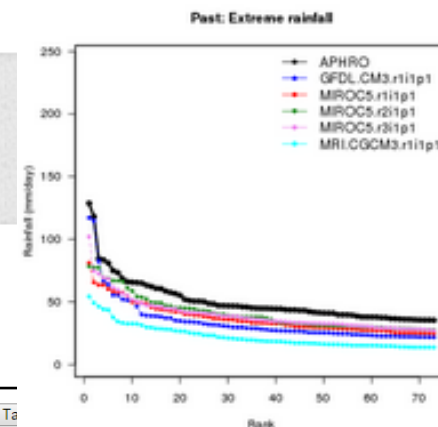
[Difference Image](#)

Ensemble member (3)

ACCESS1.0 (r1i1p1) : Scorr=0.813673, RMSE=0.508184
PR [mm/day] surface Jan (1979-2005)

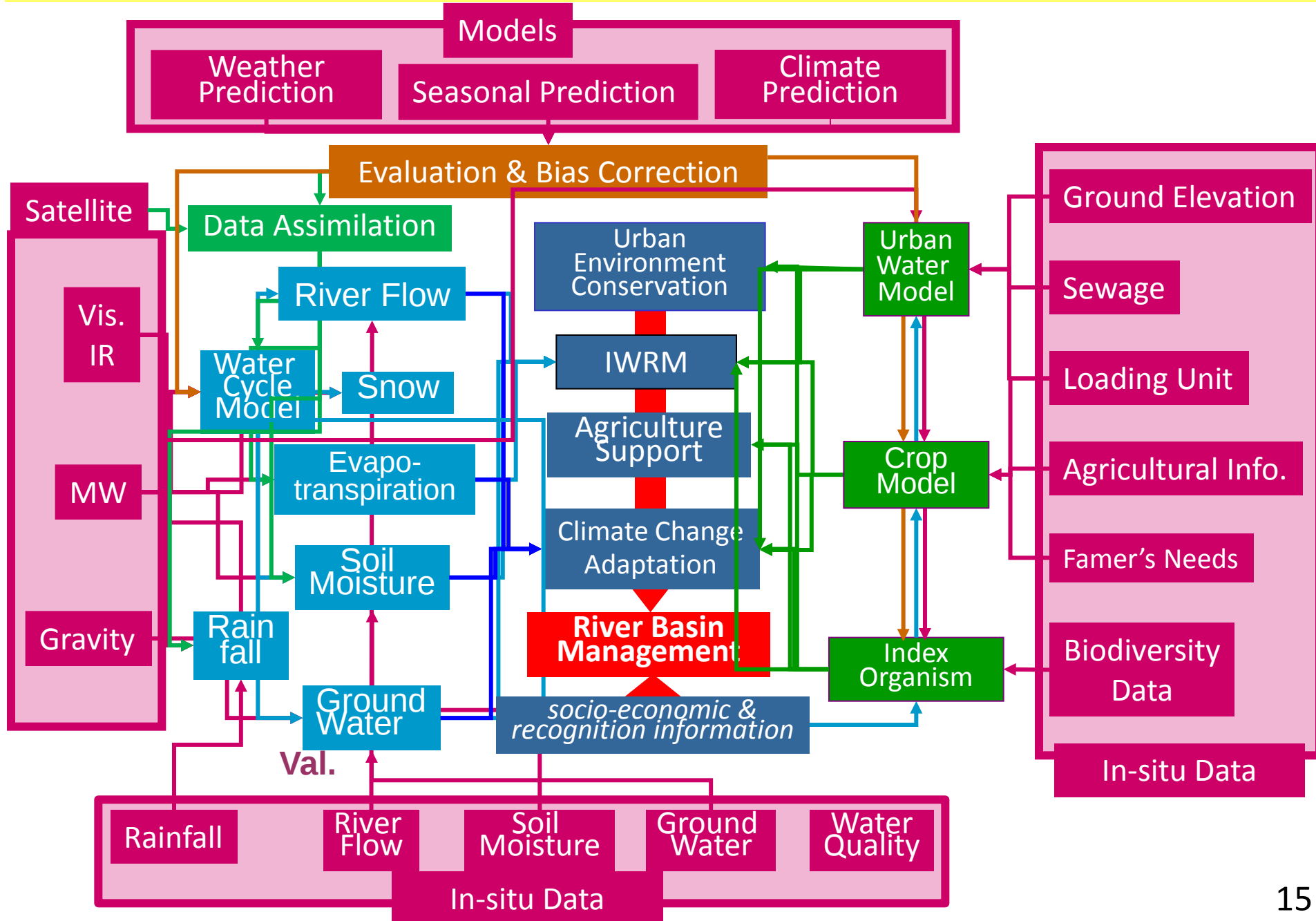


[Difference Image](#)

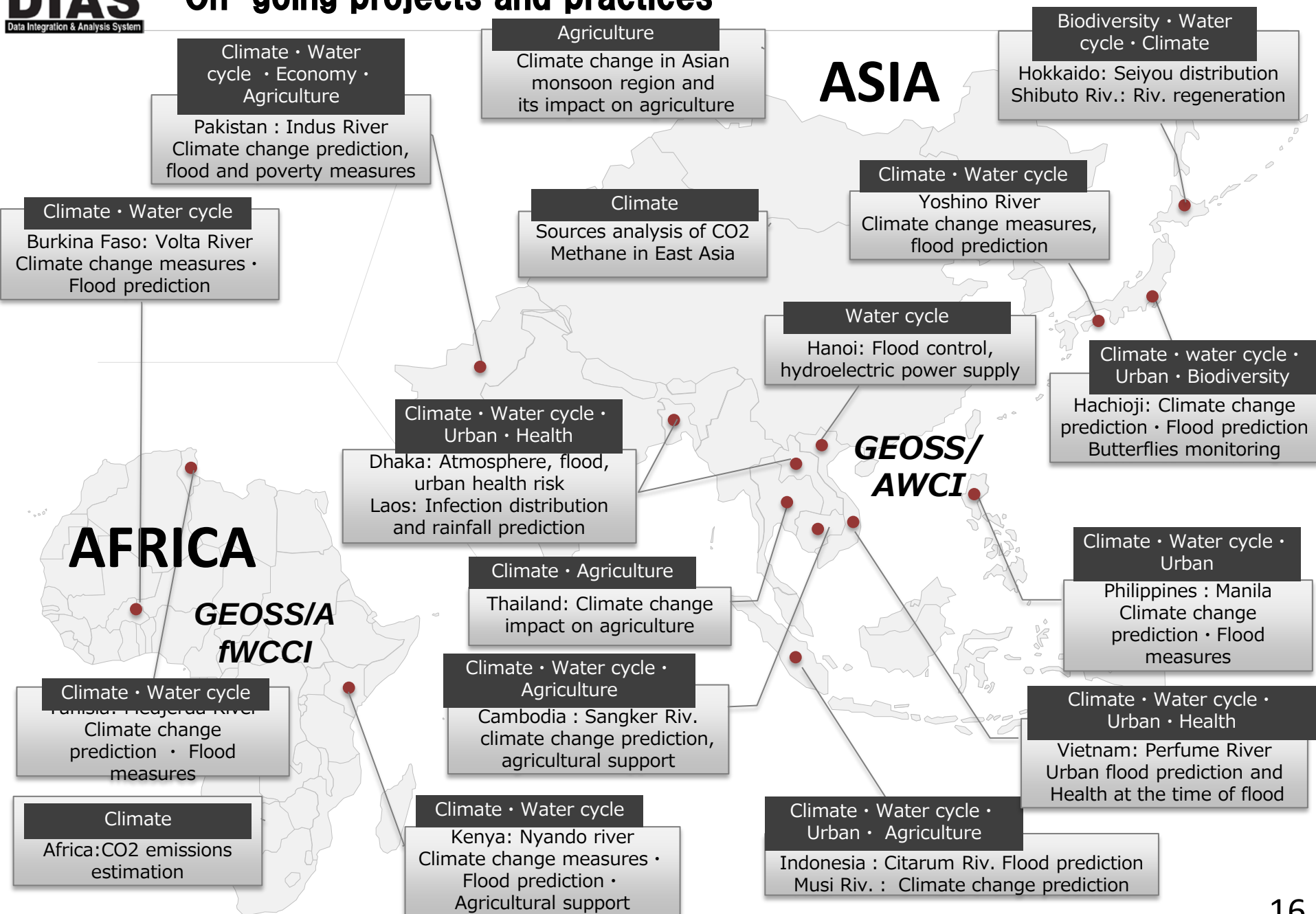


[Difference Image](#)

Water Cycle Integrator (model)



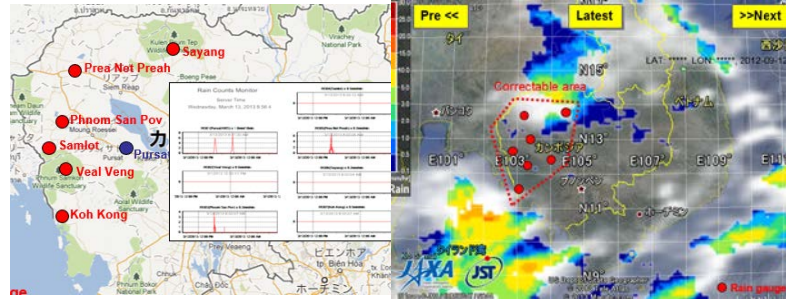
On-going projects and practices



Water-Climate-Agriculture Workbench in Cambodia



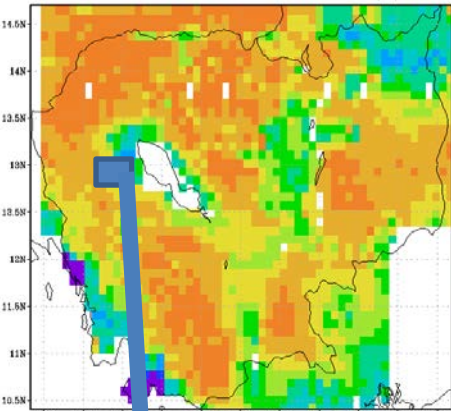
Stakeholder Meeting



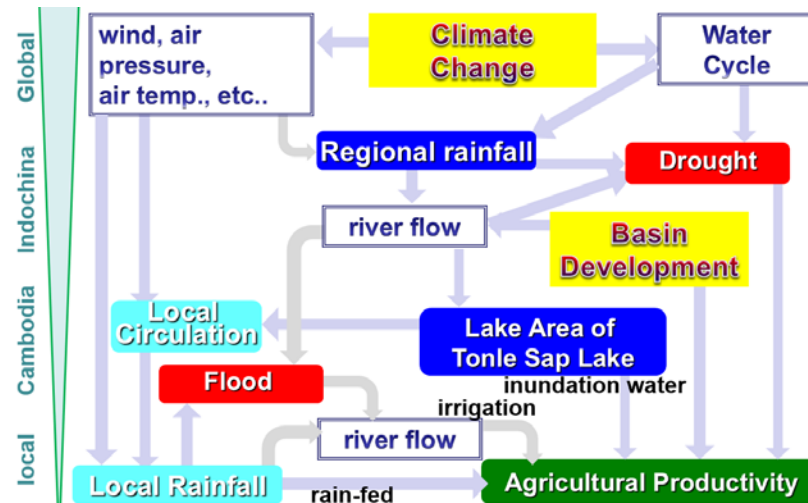
Real-time Rain Gauge → Satellite Data Correction
→ Wide Data Dissemination



Famers' Needs & Experiences



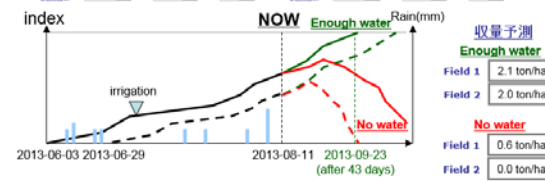
Nation-wide Daily Soil Moisture from Satellite



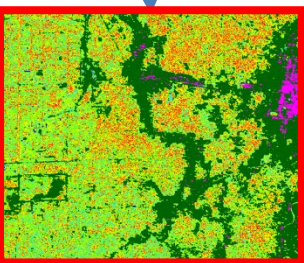
Holistic View of Water-Climate-Agriculture Problems

Farmer: 001: Pech Bora Province: Battambang
Village: Phnom San Pau kaet

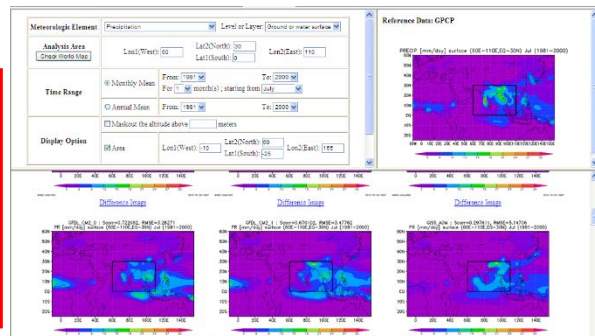
Field#	1	LAT	Lon	Field#	2	LAT	Lon
品種	Xx-045-kmr			品種	YY-072-kmr		
2012	/	Sep	/	2012	/	Sep	/
2012	/	Sep	/	2012	/	Sep	/
2012	/	Sep	/	2012	/	Sep	/
2012	/	Sep	/	2012	/	Sep	/
2012	/	Sep	/	2012	/	Sep	/



Water Cycle-Rice Production Coupled Model



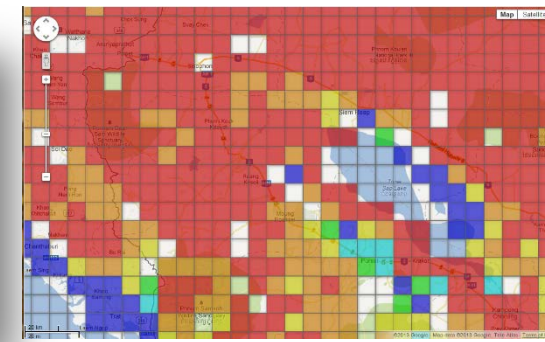
Local Information



Climate Change Analysis Tools

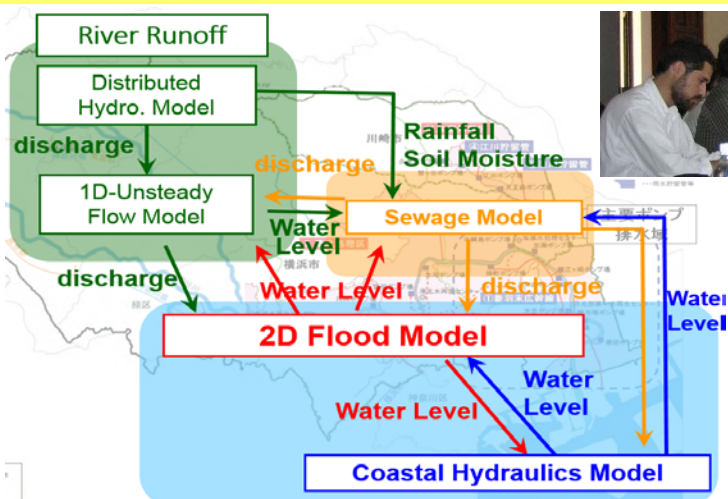


OJT for Local Practitioners

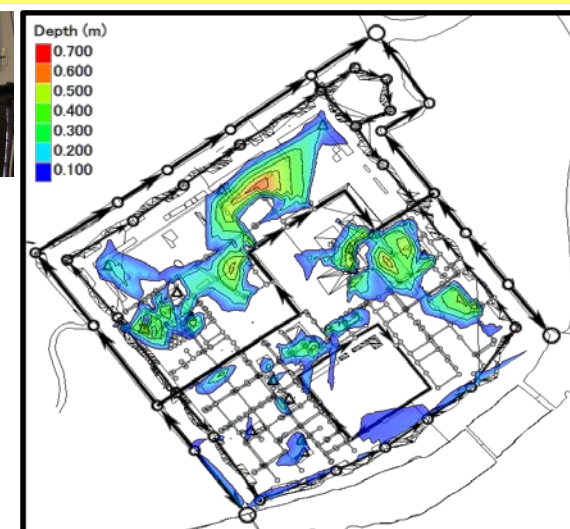


Rice Production Monitoring

Integration of River-Sewage-Public Health in Hue, Viet Nam

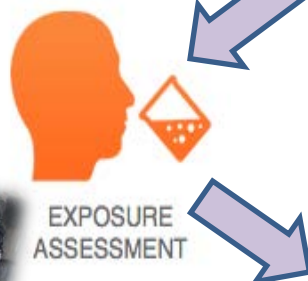


Stakeholder Meeting for Co-design



inundation affected by river flood and sea tide.

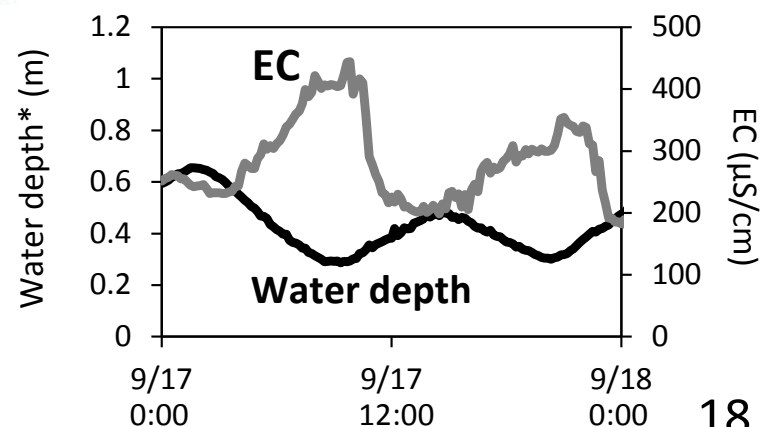
risks of infection from exposure to pathogens



water quality: stagnant or diluted by river water.



Inundation depth (cm)	Non-adults		Adults	
	Exposure Pathway	Exposure Duration	Exposure Pathway	Exposure Duration
10 – 50	Indirect ingestion	< 20% of time outdoor spent in contact with water	Indirect ingestion	< 25% of time outdoor spent in contact with water
50 - 100	Direct ingestion	< 40% of time outdoor spent in contact with water	Indirect ingestion	< 50% of time outdoor spent in contact with water
100 - 200	Direct ingestion	< 60% of time outdoor spent in contact with water	Direct ingestion	< 75% of time outdoor spent in contact with water
> 200	Direct ingestion	< 80% of time outdoor spent in contact with water	Direct ingestion	< 100% of time outdoor spent in contact with water





Data Integration and Analysis System Program

[Home](#)[About](#)[Data & Apps](#)[Research](#)[Results](#)

For Massive and Diverse Data

DIAS is an engine for creating scientific knowledge and public benefit through integrating and analyzing diverse data and collaborating across various fields of application.

DIAS System

Research Area



Climate/Weather



Water



Urban



Disaster Risk
Management



Agriculture



Biodiversity



Health



Economy

News

03

DIAS-GRENE-ci final report session and workshop

Events

Testimonials

“

“We have entered the period of Big Data, which recognizes the