

# ***Satellite for River Maintenance***

***2 August 2010***

***Training workshop on riverbank erosion control  
at Danang, Vietnam***

***JICA Expert Hirotada MATSUKI***

# ***GFAS (Global Flood Alert System)***

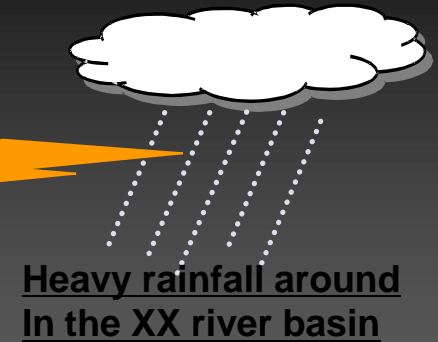
# Schematic Figure of GFAS



## i) Space Agencies

### NASA Homepage

```
connected to servers
Obtain data lists
Data list obtained:
(1)3842RT_2005012621.bin.asc
(2)3842RT_2005012700.bin.asc
(3)3842RT_2005012703.bin.asc
(4)3842RT_2005012708.bin.asc
(5)3842RT_2005012709.bin.asc
(6)3842RT_2005012712.bin.asc
(7)3842RT_2005012715.bin.asc
(8)3842RT_2005012718.bin.asc
Latest data down
*** Latest data check completed ***
(2005/01/28 14:10:37)
```



## ii) IDI-Japan

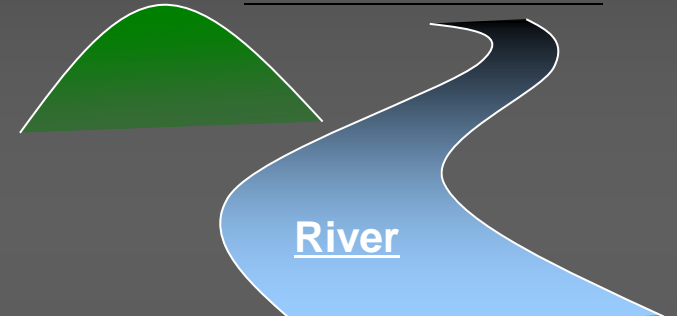
Data Download

Data Processing

Mapping, Email



**System Development**



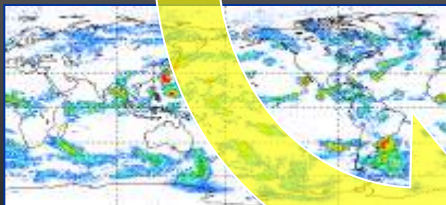
**iv) Hydrological Service  
River Authorities**

**Flood Forecasting and Warning  
using GFAS Information etc.**

## iii) IFNet

1. IFNet Homepage
2. Email of Heavy Rain  
to IFNet members in charge of Flood  
Forecasting and Warning

**v) Residents/  
NGOs/  
Community  
leaders**



<http://gfas.internationalfloodnetwork.org/n-gfas-web/>  
for the world

**About GFAS**  
**Instructions for use**

**Select Conditions**

Date : < 2010/07/29 >

Time : < 18:00 >

Area **World** **Display**

country VietNam **Display**

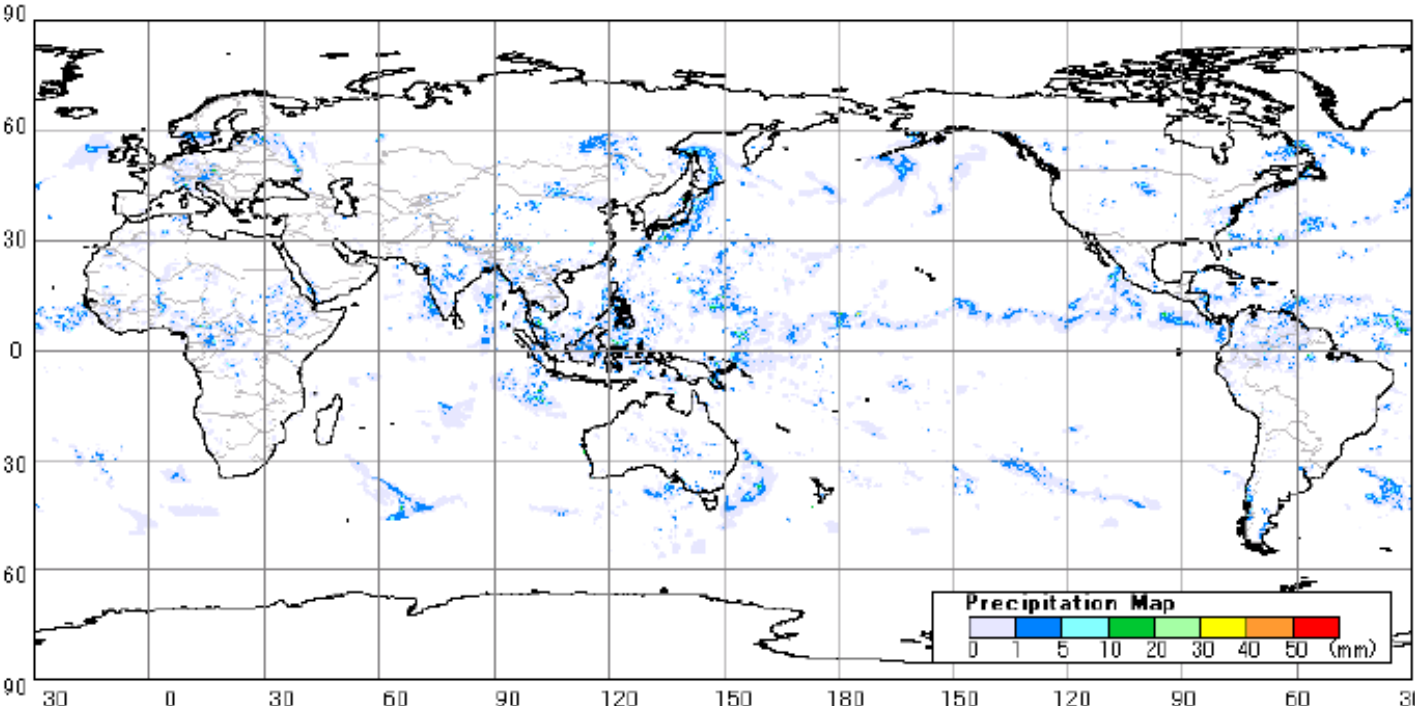
River Basin Hue **Display**

**Heavy Rain Information**  
**Data Download**

**Contact**

IDI-Japan/IFNet secretariat  
[info@internationalfloodnetwork.org](mailto:info@internationalfloodnetwork.org)

**Area : World** As at 18:00, 07 29 2010 (GMT)



<http://gfas.internationalfloodnetwork.org/n-gfas-web/>  
for Vietnam

About GFAS  
Instructions for use

Area : VietNam As at 18:00, 07 29 2010 (GMT)

Select Conditions

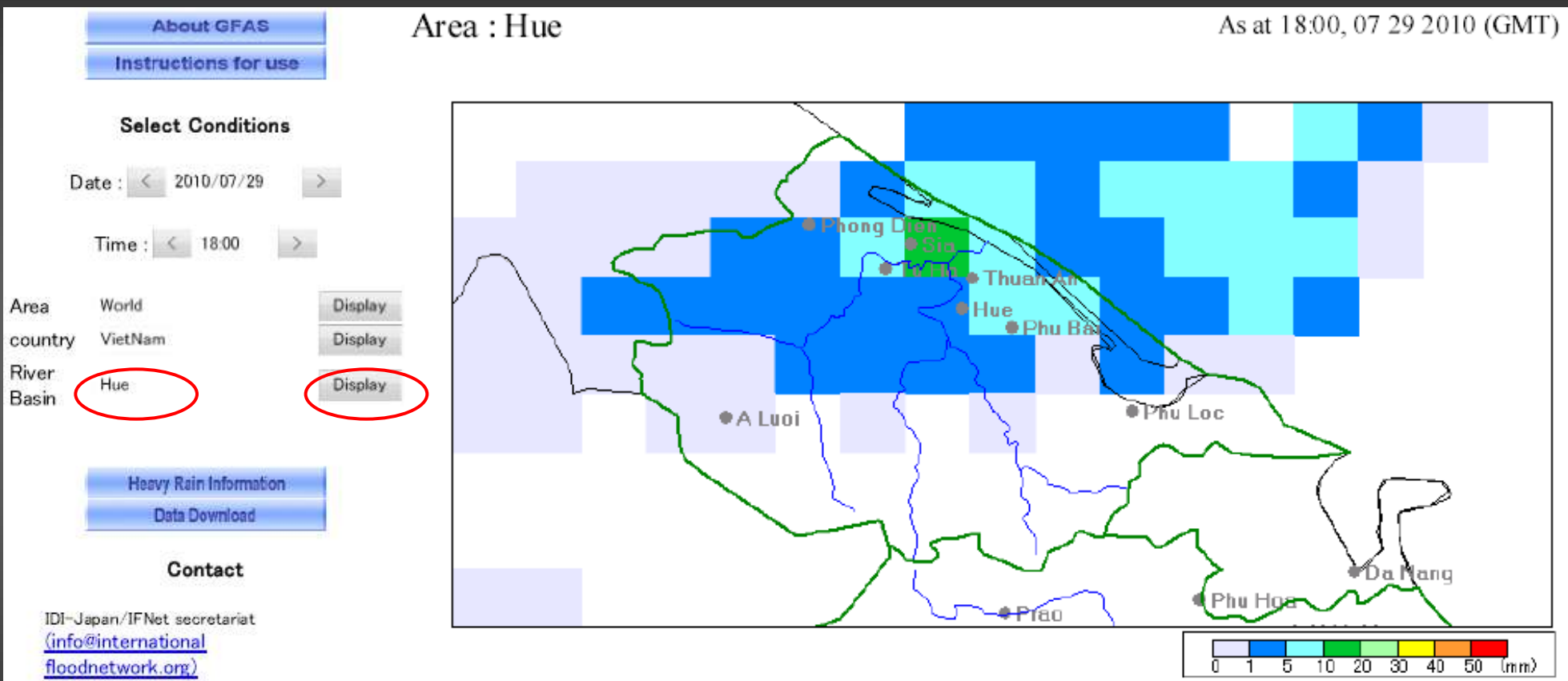
Date : < 2010/07/29 >  
Time : < 18:00 >

Area: World   
country: VietNam   
River Basin: Hue

Heavy Rain Information  
Data Download

Contact  
IDI-Japan/IFNet secretariat  
([info@internationalfloodnetwork.org](mailto:info@internationalfloodnetwork.org))

<http://gfas.internationalfloodnetwork.org/n-gfas-web/>  
for **Huong River**



| time                    | biggest[time]              | spot name |
|-------------------------|----------------------------|-----------|
| 24-hours within biggest | 10.05mm<br>[17:00 - 18:00] | Sia       |

| time              | Basin average[time] | biggest[time] | spot name |
|-------------------|---------------------|---------------|-----------|
| 1-Days cumulative | 3.66mm              | 18.88mm       | Thuan An  |
| 2-Days cumulative | 4.75mm              | 18.88mm       | Thuan An  |
| 3-Days cumulative | 4.76mm              | 18.88mm       | Thuan An  |

<http://gfas.internationalfloodnetwork.org/n-gfas-web/>  
for Thu Bon River

[About GFAS](#)

[Instructions for use](#)

**Select Conditions**

Date : < 2010/07/29 >

Time : < 18:00 >

Area World

country VietNam

River Basin **ThuBon**

[Heavy Rain Information](#)


[Data Download](#)

**Contact**

IDI-Japan/IFNet secretariat  
[info@internationalfloodnetwork.org](mailto:info@internationalfloodnetwork.org)

Area : ThuBon

As at 18:00, 07 29 2010 (GMT)



| time                    | biggest[time]           | spot name |
|-------------------------|-------------------------|-----------|
| 24-hours within biggest | 3.11mm<br>[5:00 - 6:00] | Xa King   |

| time              | Basin average[time] | biggest[time] | spot name |
|-------------------|---------------------|---------------|-----------|
| 1-Days cumulative | 0.71mm              | 5.71mm        | Thon Mung |
| 2-Days cumulative | 12.4mm              | 39.47mm       | Prao      |
| 3-Days cumulative | 12.44mm             | 39.47mm       | A Bach    |

# GFAS for the central Vietnam

from Tokyo



to Vietnam



Alert mail  
(sample)

**Mua to tren *30mm/gio* o vung thuong  
nguồn lưu vuc song Huong va song Thu Bon.  
Vao ngay trang web theo dia chi  
[http://gfas.internationalfloodnetwork.org/  
n-gfas-web/](http://gfas.internationalfloodnetwork.org/n-gfas-web/)  
Lien he van phong So NN&PTNT.**



# GFAS as a V-J communication tool

to Tokyo



from Vietnam

Request mail  
(sample)

**Set up a new interface for \*\*\*\* City.**

**The alert is so frequent that you should  
reset the alert level as 50mm/h.**

**Send e-mails to Matsuki! [2bu01@idi.or.jp](mailto:2bu01@idi.or.jp)**

from Tokyo



to Vietnam

# ***ALOS satellite river monitoring***

**ALOS**



***ALOS: Advanced Land Observation Satellite is a Japanese satellite.***



***It's aimed to contribute for land management, especially disaster prevention.***



***Dai My Ward along Con River after Typhoon Ketsana 2009***



***Dai My Ward along Con River after Typhoon Ketsana 2009***



***Dai My Ward along Con River after Typhoon Ketsana 2009***

**JAXA**

0

2km

*Con River*

*riverside forest*

*Dai My Ward*

*riverside forest*

*ALOS satellite image on 22 Oct. 2009*



***Ha Duc Ward along Vu Gia River after Typhoon Ketsana 2009***





***Ha Duc Ward along Vu Gia River after Typhoon Ketsana 2009***



***Ha Duc Ward along Vu Gia River after Typhoon Ketsana 2009***

0 2km

*Con River*

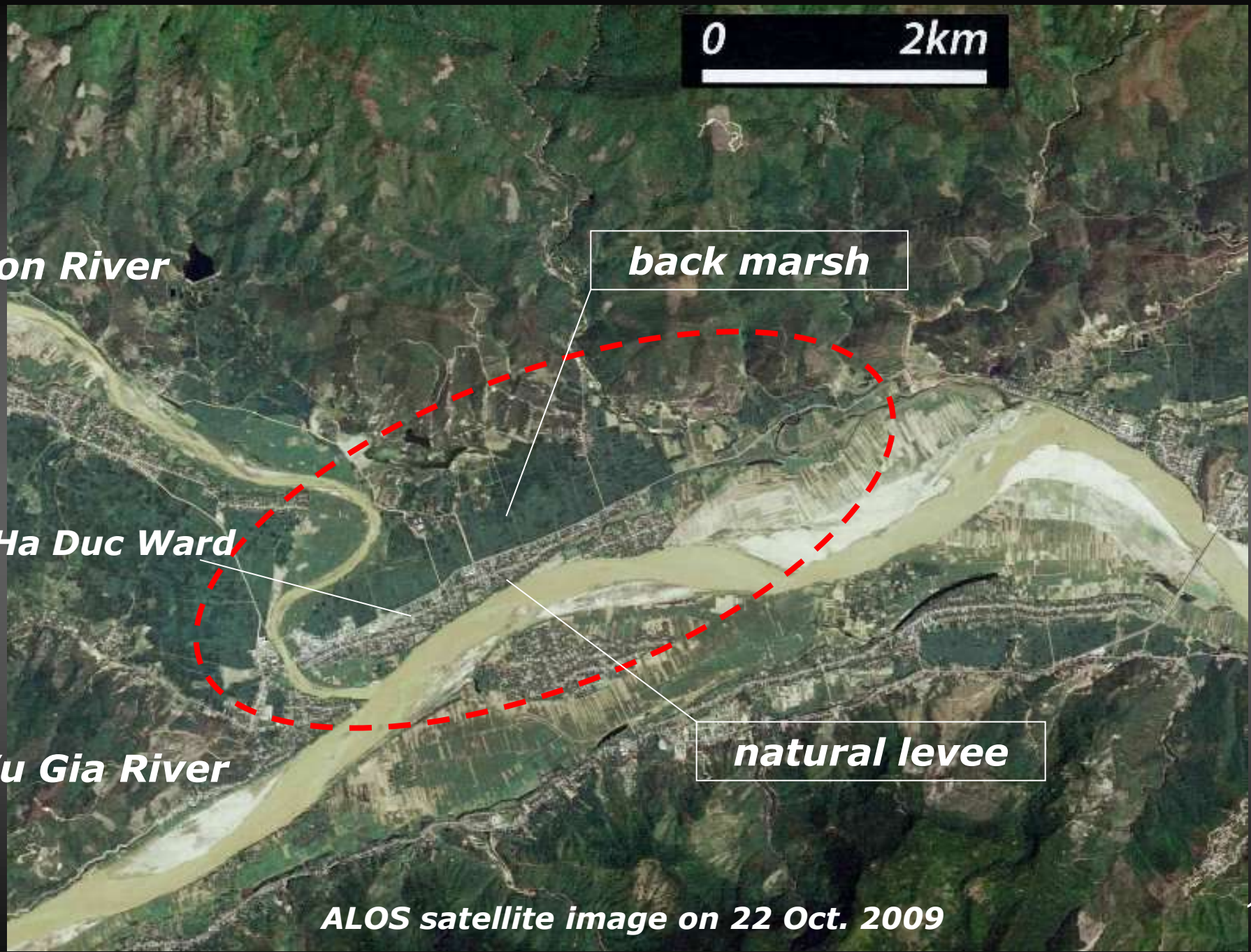
*back marsh*

*Ha Duc Ward*

*Vu Gia River*

*natural levee*

*ALOS satellite image on 22 Oct. 2009*



***Thanks for your attention.***