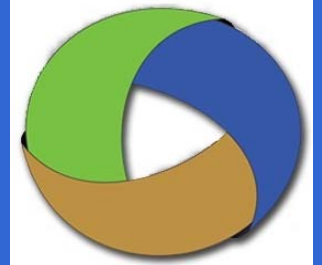
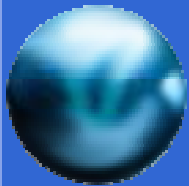


# Crisis of Floods and Mines IRAQ 2013



The 56<sup>th</sup> session of Committee on the Peaceful Uses of  
Outer Space  
12-21 June, 2013



**Eng. Essa Al Fayadh**  
Iraqi National Focal point for UN-Spider  
Director General  
Directorate of Mine Action, Ministry of Environment , IRAQ



# Sequence of Presentation

**1. Introduction**

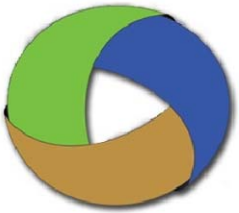
**2. Landmines History in Wassit and Missan Provinces**

**3. Floods in Wassit and Missan Provinces**

**4. Crisis Management**

**5. Role of UN-Spider Program**

**6. Movie about the Crisis management**



# 1. Introduction

- Large areas of the Iraqi lands are suffering from dryness and desertification which lead to the immigration of farmers from the countryside to the city.
- None left but the villages on the banks on the main rivers.
- This phenomena resulted in widening the dust storms in the last four years.





## 2. Landmines History in Wassit and Missan Provinces

- In addition, Iraq is one of the most greatly affected country with the landmines and unexploded ordnance left by previous wars.

1-The 1980 -1988 war with Iran.

2- The 1991 first Gulf war.

3- The 2003 second Gulf war.

- Iraq planted millions of landmines throughout the borders with neighboring countries, Kuwait and Iran.
- The landmine danger still threaten 1.6 million persons for an area of 1730 Km<sup>2</sup> according to the landmine Impact survey results, which was conducted in 2004 – 2006.







## 2. Landmines History in Wassit and Missan Provinces

- Also Iraq was bombed with about 50 million cluster bombs.
- It is well known that 30% of them did not explode which leaves about 16 million dangerous cluster bombs.
- Iraq has extensive unexploded ordnance UXO from the past wars.





## 2. Landmines History in Wassit and Missan Provinces

- Among the provinces affected by this danger that have been mentioned are: Wassit & Missan had the flood and torrent in May of this current year.





## 2. Landmines History in Wassit and Missan Provinces



As the victims of mines, based on the survey of 2012, were as follows:

- **Wassit province : about 4000 Victims.**
- **Missan province : about 5800 Victims.**

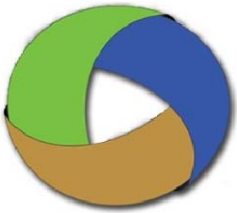




### 3. Floods in Wassit and Missan Provinces

- On 3-6 May 2013 these two provinces, which are located in the east of Iraq in the border areas with neighboring Iran had very heavy rains.
- In addition to exposure to flood coming from the Iranian side of the high land there. Led to the sinking of the many villages and 90% damage for crops there.
- Here begins the risk of flooding in addition to mine drift towards populated areas.





## 4. Crisis Management

### Actions taken

- Spreading mine risk education teams in both provinces.
- Using the media to send messages to the areas where the mines and unexploded ordnance are expected to reach for warning not to approach strange objects and informing about them.

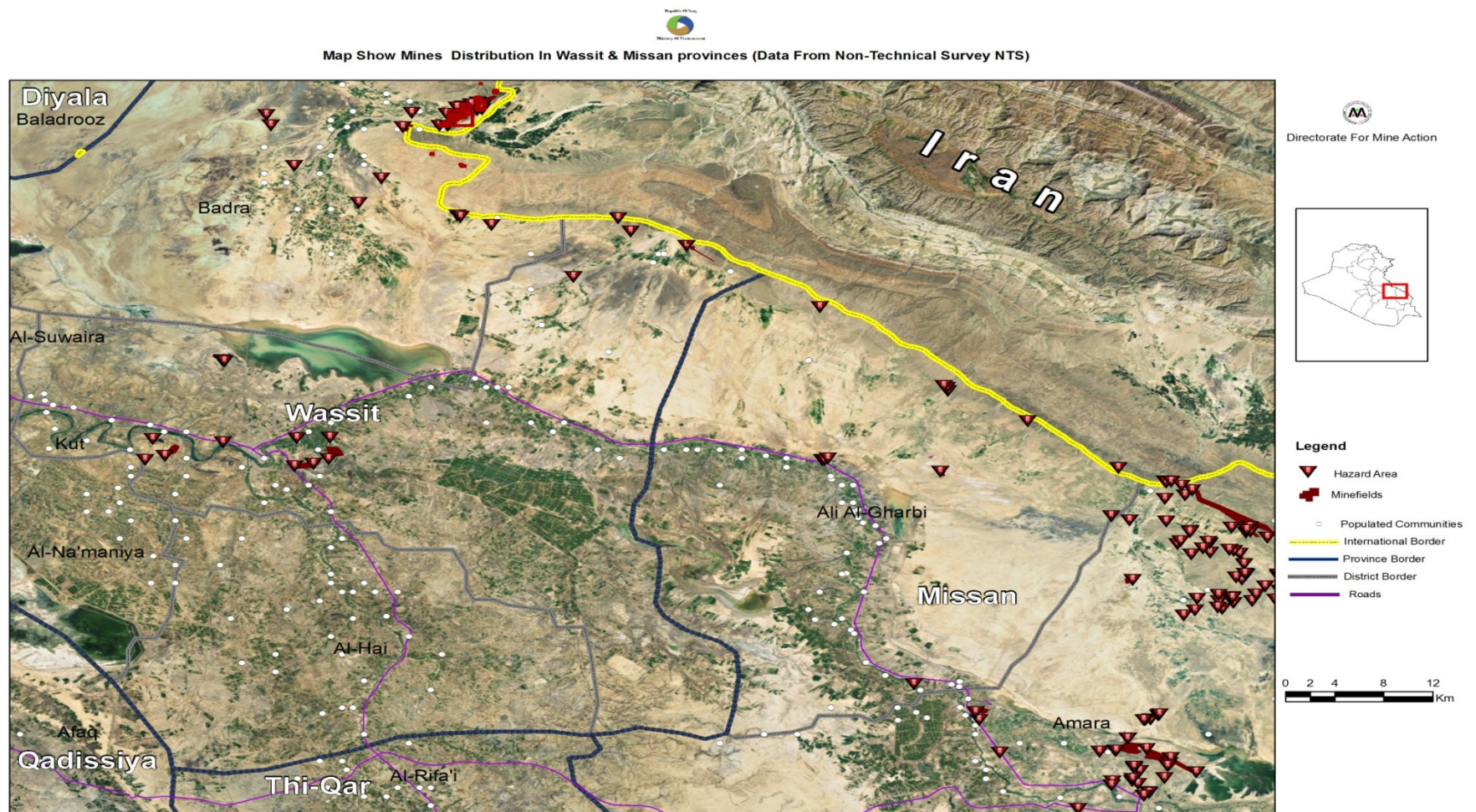




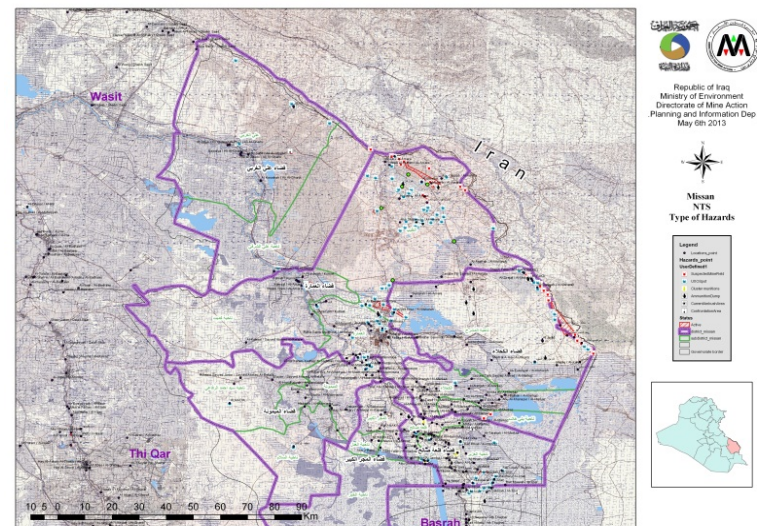


## 4. Crisis Management

- Producing of maps illustrating landmines locations data and distribute them to every body working in the rescuing field.









## 4. Crisis Management

- Deploying 10 field teams to surround populated areas and ensure non-driftage.







## 4. Crisis Management

- Checking the landmine fields and ensure the scatter of mines there.

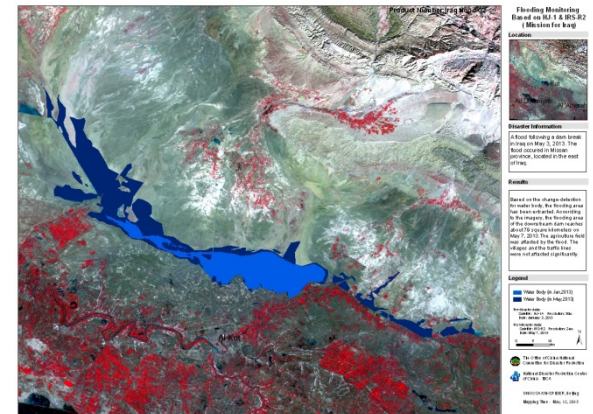
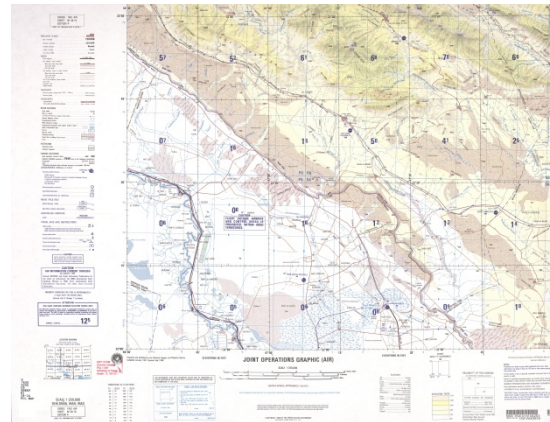
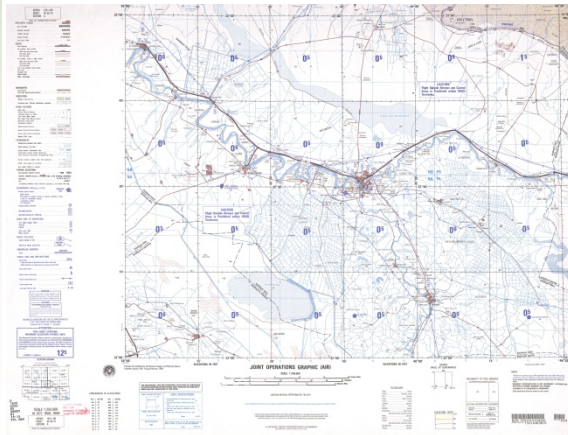
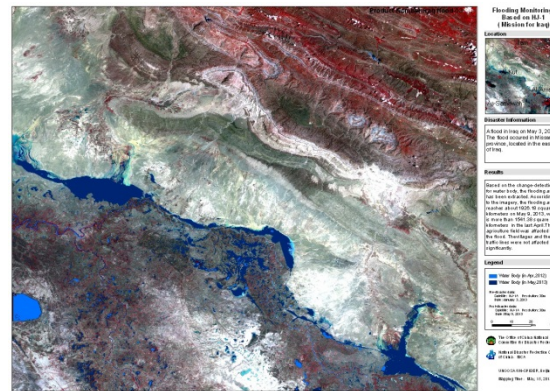






## 4. Crisis Management

- Contacting UN-SPIDER to provide us with flood satellite imagery .

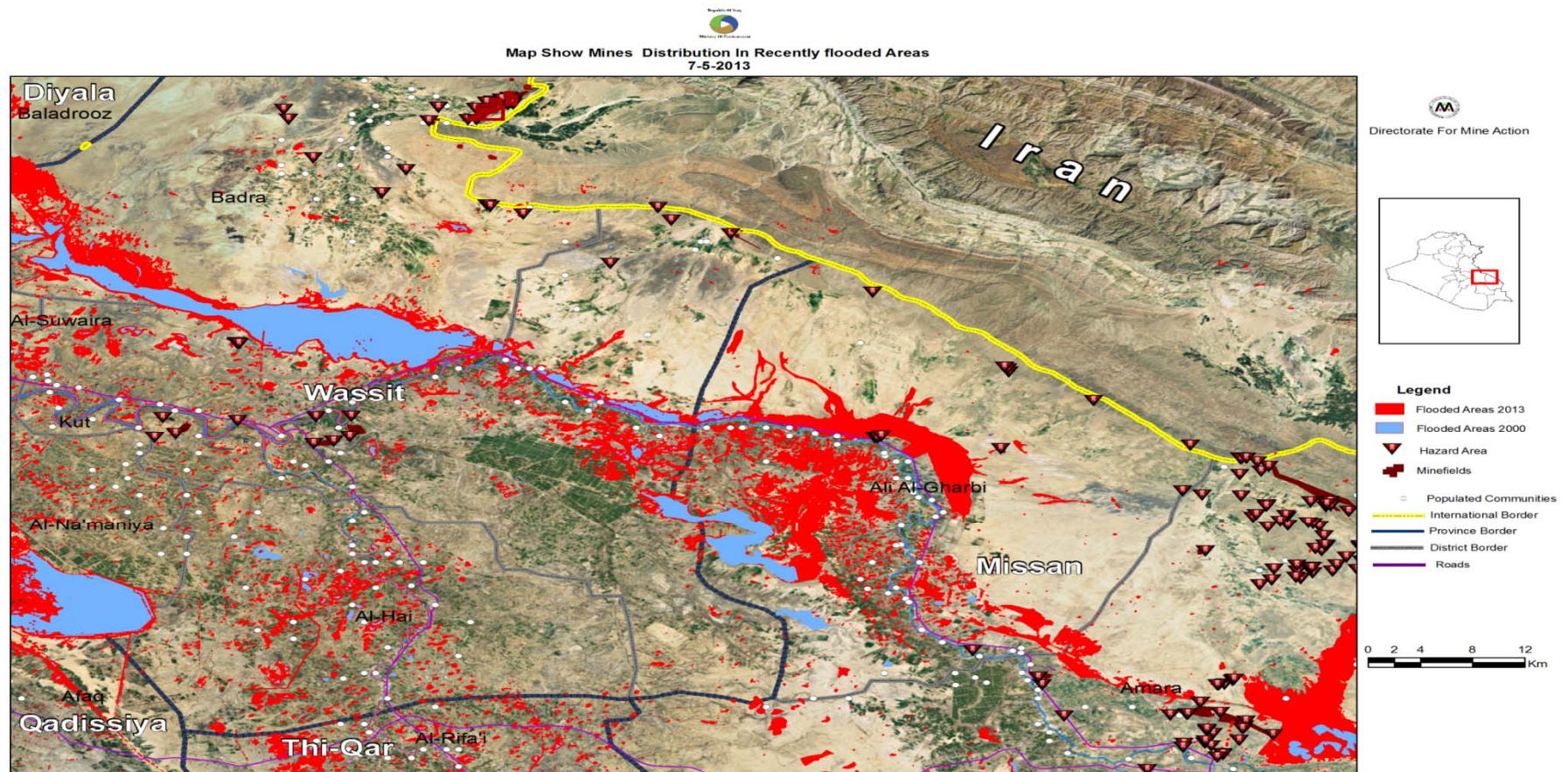




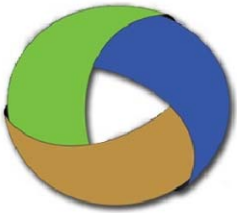


## 4. Crisis Management

- The satellite imagery were distributed after adding the existing landmines in the provinces layer to follow up the residents rescue works, providing aid and setting up tents.







## 4. Crisis Management

- Using media to reassure the citizens and informing them that the danger of landmine did not reach populated areas.
- Visiting the border areas and making sure there are no dangerous driftage.





## 5. Role of UN-Spider Program

### FLOOD WATERS OVER WASIT GOVERNORATE, REPUBLIC OF IRAQ

Analysis with Resourcesat-2 Data Acquired 7 May 2013

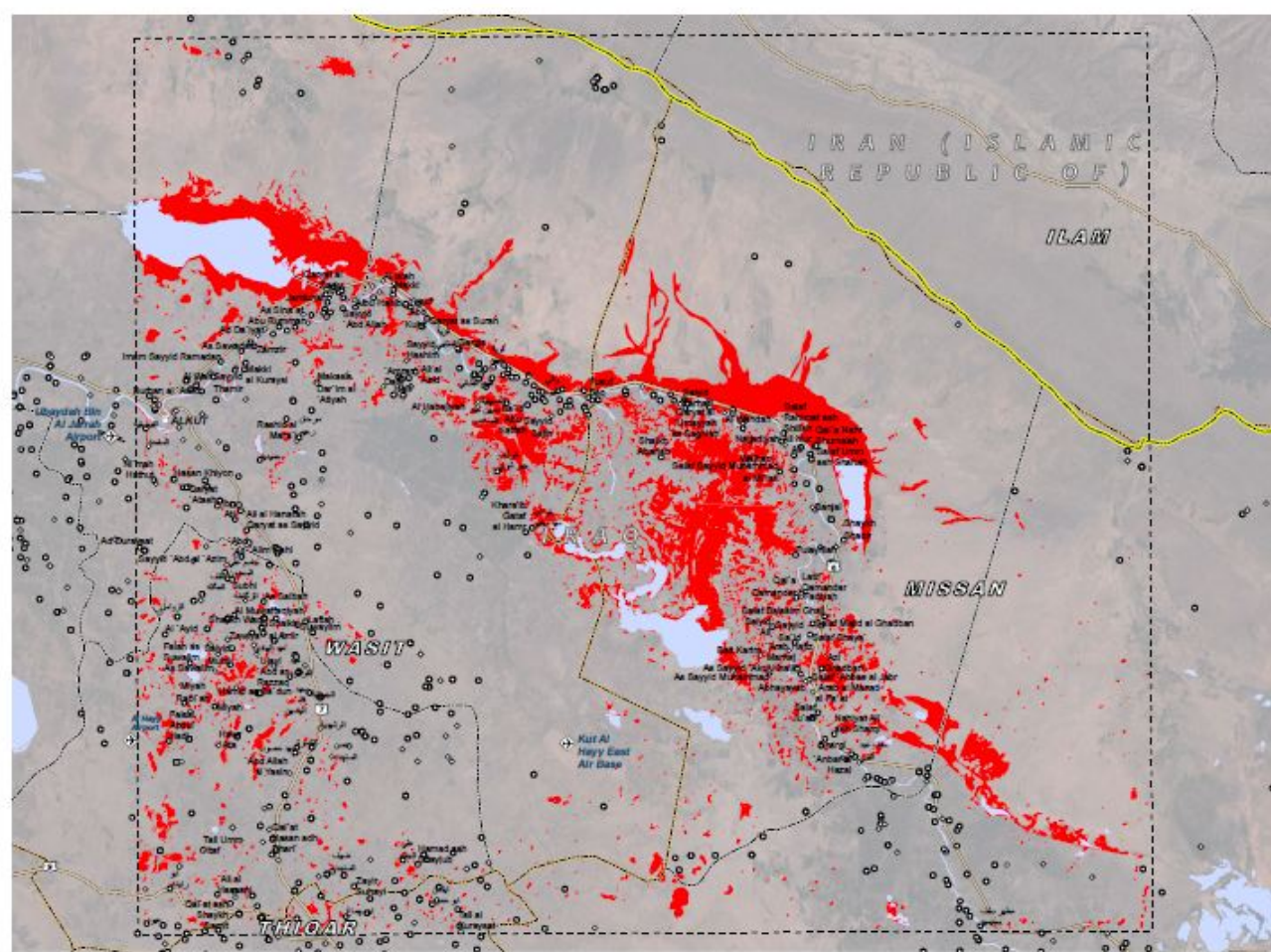
This map illustrates satellite-detected areas of flood waters in the Wasit Governorate in western Iraq as detected by Resourcesat-2 imagery collected on 7 May 2013. At least 70 towns and villages in the analyzed area are potentially inundated. Multiple sections of roadways are likewise potentially affected. It is likely that flood waters have been systematically undetected in highly vegetated areas along main river banks, within built-up urban areas, and in sparse areas of cloud shadow. This analysis has not yet been validated in the field. Please send ground feedback to UNITAR/UNOSAT.

Flooding

Production Date: 06/05/2013

Version 1.0

Activation Number: FL20130508HQ



#### LEGEND

##### FLOOD WATER EXTENT ANALYSIS

(Satellite-Based Classification)

Probable Standing Flood Waters: 7 May 2013 (Resourcesat-2)

Pre-Flood Water Extent: February 2008 (satellite)

UNOSAT Analysis Extent

Populated Places

Airport

Primary Road

International Border

Province Border

District Border

Map Scale for A3: 1:500,000

Satellite Data (1): Resourcesat-2

Imagery Date: 7 May 2013

Resolution: 50 meters

Copyright: Indian Space Research Organization (ISRO)

Source: ISRO and UNOSAT

Pre-Flood Data: SRTM Water Body Dataset

Road Data: Google Map Maker / OSM / ESRI

Other Data: USGS, UNOSAT, NASA, NSA

Analysis: UNITAR / UNOSAT

Production: UNITAR / UNOSAT

Analysis conducted with ArcGIS v10.1

Coordinate System: WGS 1984 UTM Zone 38N

Projection: Transverse Mercator

Datum: WGS 1984

Units: Meter

The depiction and use of boundaries, geographic names and related data shown here are not warranted to be authoritative nor do they imply official endorsement or acceptance by the United Nations. UNOSAT is a program of the United Nations Institute for Training and Research (UNITAR) providing satellite imagery and related geographic information, research and analysis to UN humanitarian and development agencies and their implementing partners.

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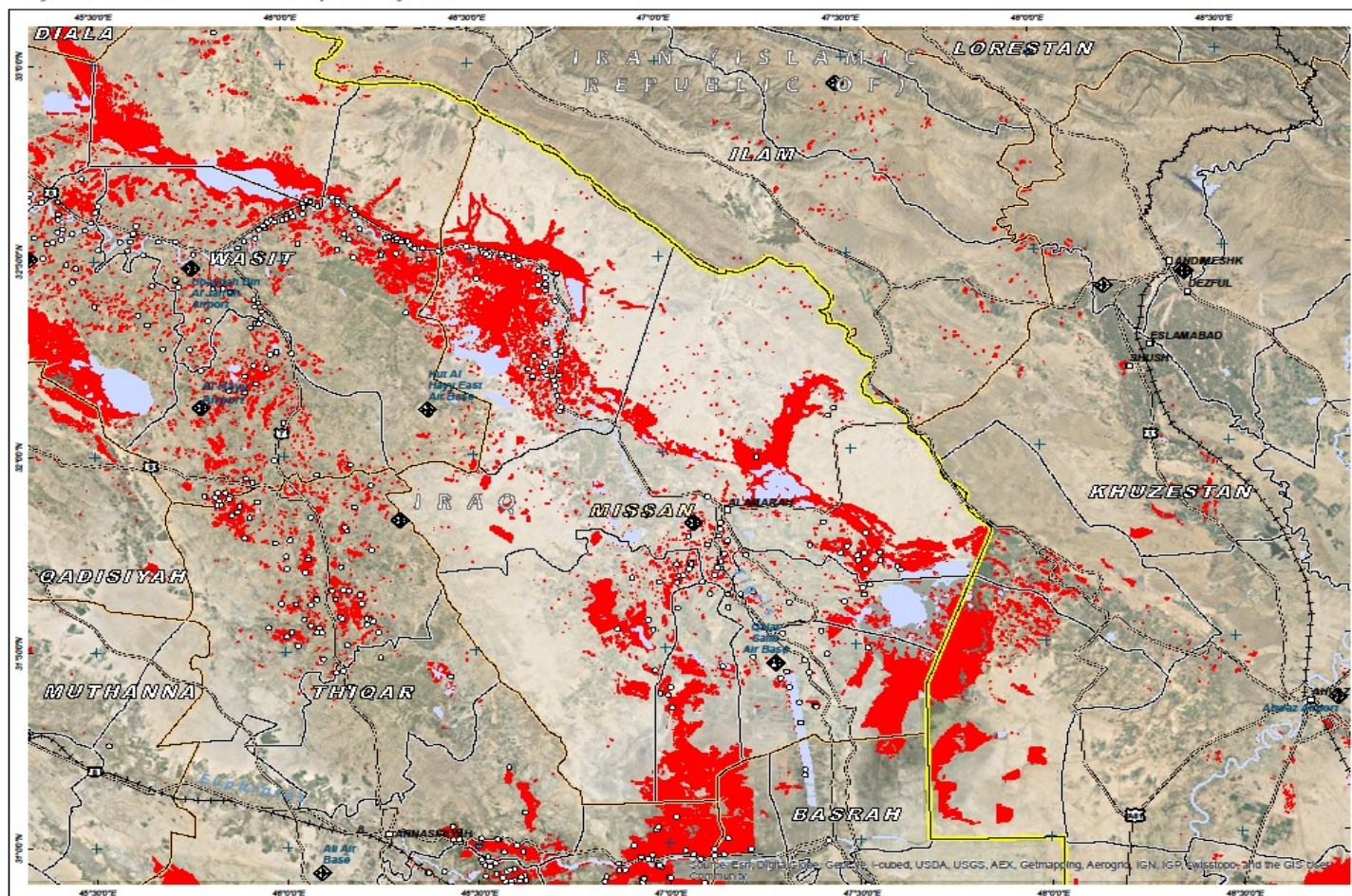
## 5. Role of UN-Spider Program

### FLOOD WATERS OVER MAISSAN GOVERNORATE, REPUBLIC OF IRAQ

Analysis with Resourcesat-2 AWIFS Data Acquired 7 May 2013

This map illustrates satellite-detected areas of flood waters in the central area of the Maissan Governorate in eastern Iraq as detected by Resourcesat-2 AWIFS imagery collected on 7 May 2013. Several towns and villages in the analyzed area are potentially inundated or otherwise affected. Multiple sections of roadways are likewise potentially affected. It is likely that flood waters have been systematically underestimated in highly vegetated areas, along main river banks, within built-up urban areas, and in sparse areas of cloud shadow. This analysis has not yet been validated in the field. Please send ground feedback to UNITAR.

**Flooding**  
Production Date: 10/05/2013  
Version 1.0  
Activation Number: FL20130508IRQ



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## 5. Role of UN-Spider Program

### FLOOD WATERS OVER CENTRAL WASIT GOVERNORATE, REPUBLIC OF IRAQ

Analysis with Resourcesat-2 LISS Data Acquired 7 May 2013

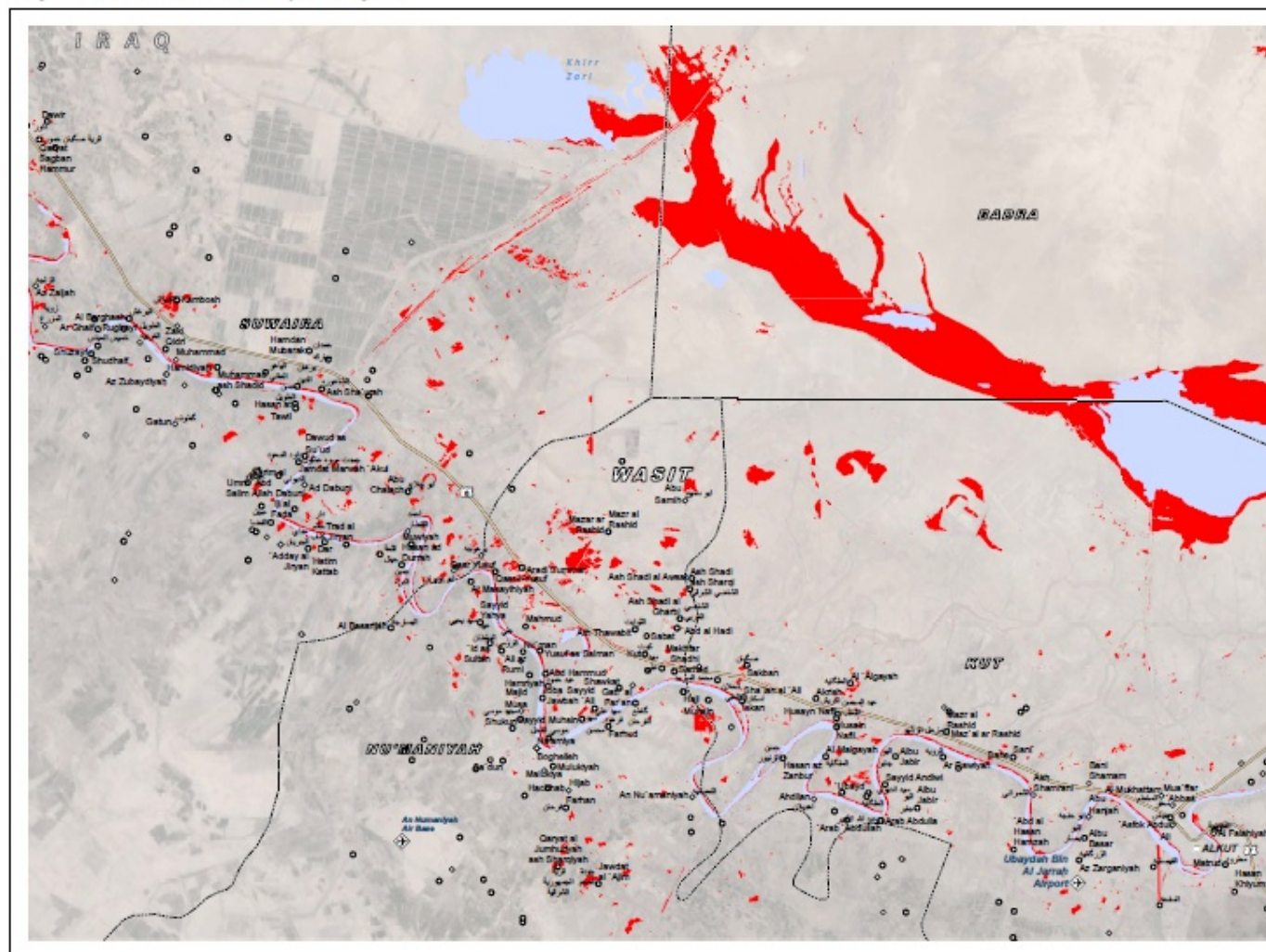
This map illustrates satellite-detected areas of flood waters in the central area of the Wasit Governorate in eastern Iraq as detected by Resourcesat-2 LISS imagery collected on 7 May 2013. At least 55 towns and villages in the analyzed area are potentially inundated or otherwise affected. Multiple sectors of roadways are likewise potentially affected. It is likely that flood waters have been systematically underestimated in highly vegetated areas, along main river banks, within built-up urban areas, and in sparse areas of cloud shadow. This analysis has not yet been validated in the field. Please send ground feedback to UNSTAR.

Flooding

Production Date:  
10/05/2013

Version 1.0

Activation Number:  
FL20130508RQ



#### FLOOD WATER EXTENT ANALYSIS

(Satellite-Based Classification)

Red: Probable Flooding Road Network

Blue: Pre-Flood Water Extent

Black: Populated Places

White: Airport

Grey: Primary Road

Yellow: International Border

Green: Province Border

Black: District Border

Map Scale for A3: 1:225,000

Satellite Data (T): Resourcesat-2 (LISS)  
Imagery Date: 7 May 2013  
Resolution: 23.5 meters  
Copyright: Indian Space Research Organization (ISRO)  
Source: ISRO and UN/UNOSAT  
Pre-Flood Data: SRTM Water Body Dataset  
Road Data: Google Map Maker / OSM/ESRI  
Other Data: USGS, UN/UNOSAT, NASA, NGA  
Analysis: UN/UNSTAR / UN/UNOSAT  
Production: UN/UNSTAR / UN/UNOSAT  
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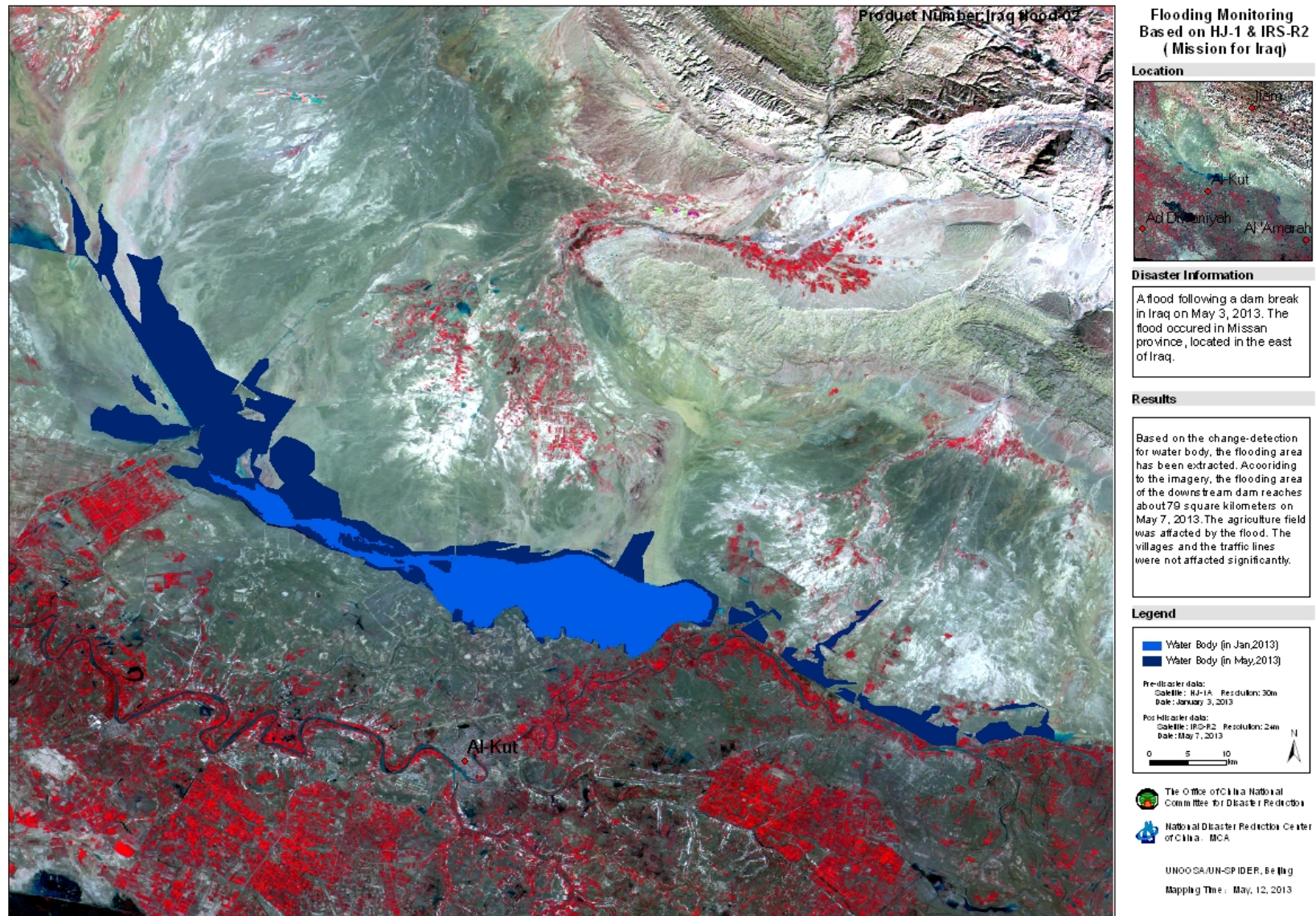
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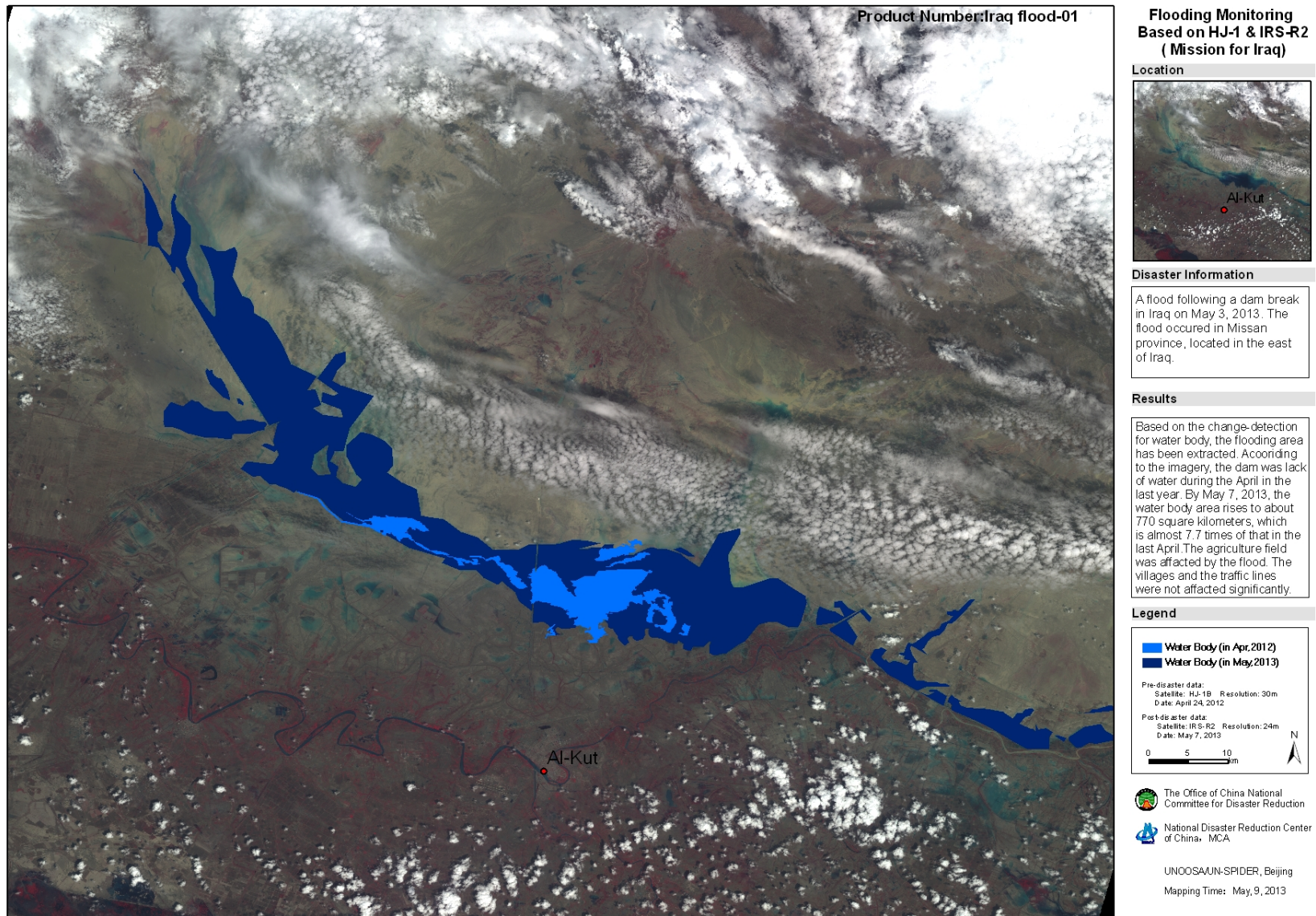
## 5. Role of UN-Spider Program







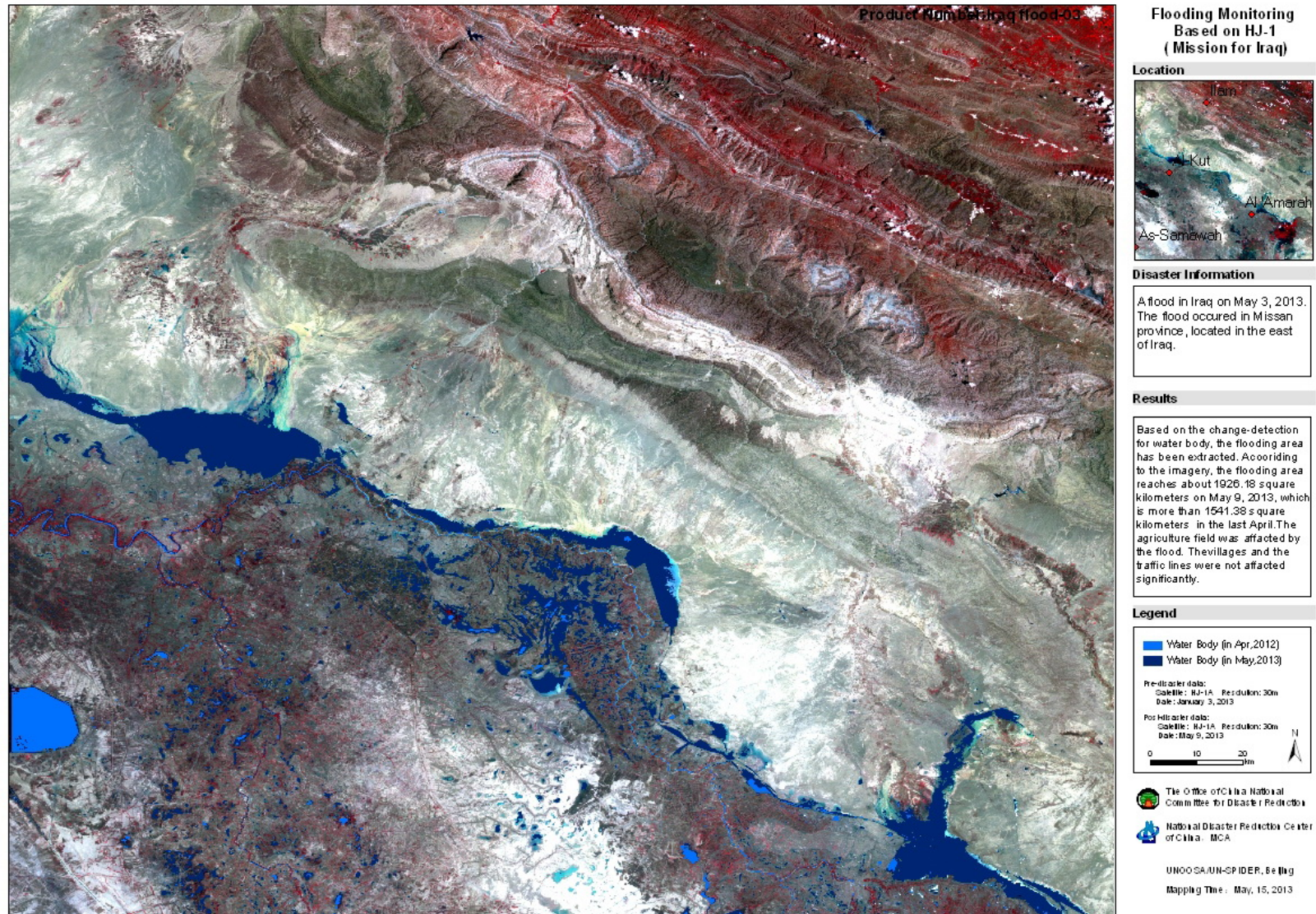
## 5. Role of UN-Spider Program



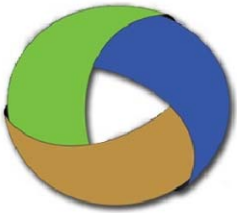




## 5. Role of UN-Spider Program

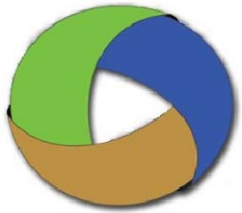






Some drifts in the border areas have been controlled and put warning signs and the team will conduct a survey of all land affected by flooding.





## 6. Movie about the Crisis management



