

# **Search, Organize and Share: How Information Services Support Disaster Management**

Presented by

Hanna Kubiak, MSc, Senior Director Information Services  
International Sales, GeoEye

at

Fourth United Nations International UN-SPIDER Bonn Workshop on  
Disaster Management and Space Technology: "The 4C-Challenge:  
Communication - Coordination - Cooperation - Capacity  
Development"

October 12th 2010



# Communication, Coordination, Cooperation, Capacity Development



# Web Services

## Web Mapping Service (WMS)

- Generic way of displaying imagery within applications
- Served from across the web, not local content

## Keyhole Markup Language (KML)

- Consume imagery services within Google Earth

## Web Mapping Tiling Service (WMTS)

- A faster way of serving WMS using fixed-size image tiles

## Web Coverage Service (WCS)

- Imagery downloads for use locally
- “AOI downloads” or “clip & ship”

## Web Feature Service (WFS)

- Ability to consume vector data like footprints, cutlines, and annotations

# GeoEye's Capacity Development

Communication

Coordination

Cooperation

Search...



GeoContent.

Organize...



Your Work.

Share...

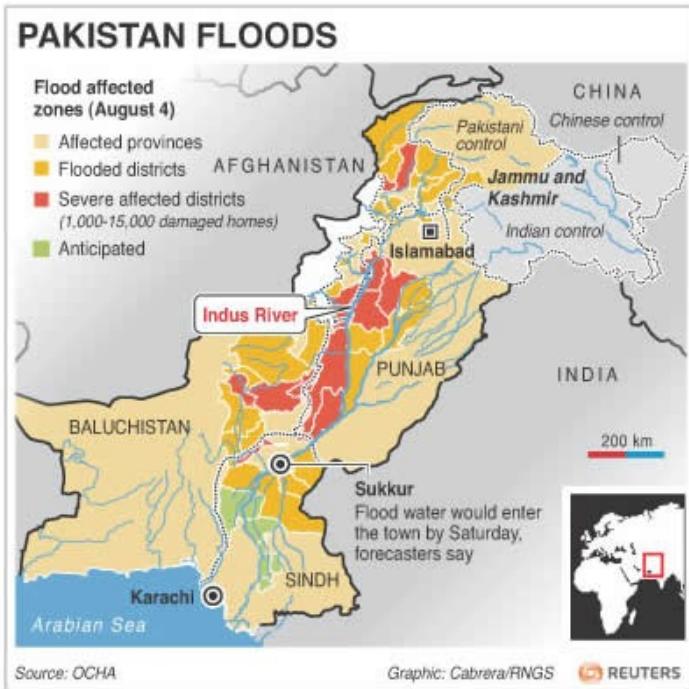


With Colleagues.

# Pakistan floods



Credit:Ashfaq Yusufzai/IPS



Gen Nadeem Ahmed, of the National Disaster Management Authority (NDMA), said 12 million people had been affected in Khyber Pakhtunkhwa and Punjab provinces, where 650,000 houses were destroyed. – BBC News



Azakhel is the largest Afghan refugee camp that the floods destroyed. It had a population of 22,000 people, who lost everything – UNCHR

Dashboard &gt; Project

## Pakistan Floods

Project Name:

Pakistan Floods (Aug 2010)

Point of Contact:

Scott Herman

MEMBERSHIP

Project Description (optional):

Flood damage assessment and disaster relief planning.

DELETE PROJECT

SAVE PROJECT

### SITES ▾

### ADD NEW SITE ▶

Indus River flooding at Sukkur

Sukkur

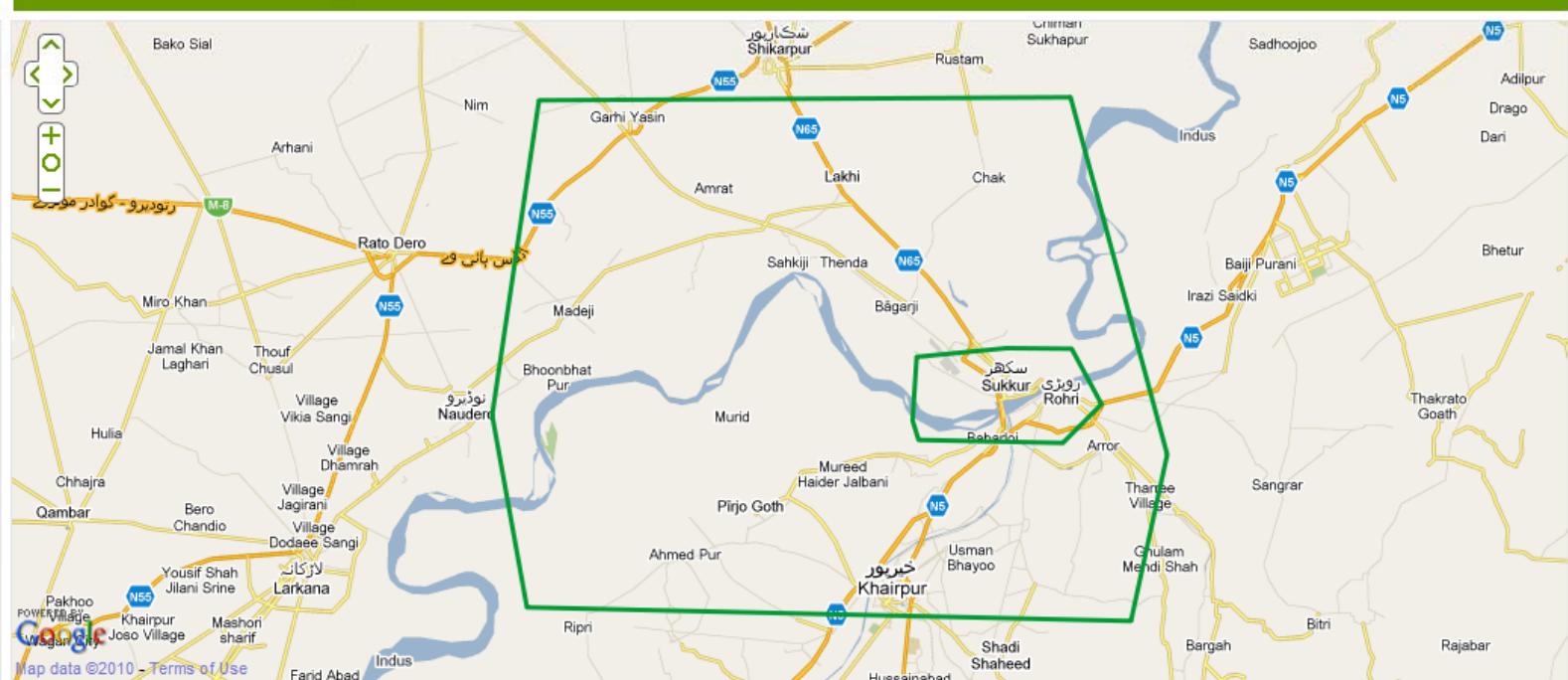
Azhakhel Afghan Refugee Camp

Nowshera

Gahkuch

Khesgi

Chatorkhand





DASHBOARD

[REDACTED]

SEARCH

Dashboard > Pakistan Floods (Aug 2010)

## Indus River flooding at Sukkur

SAVE SITE

BLINK

SEARCH ▾ ORGANIZE ▾ SHARE ▾

You've Selected:

Narrow Results by:

Date

- < 7 Days (0)
- < 90 Days (9)
- < 6 Months (9)
- < 1 Year (11)
- >= 1 Year (0)

Source

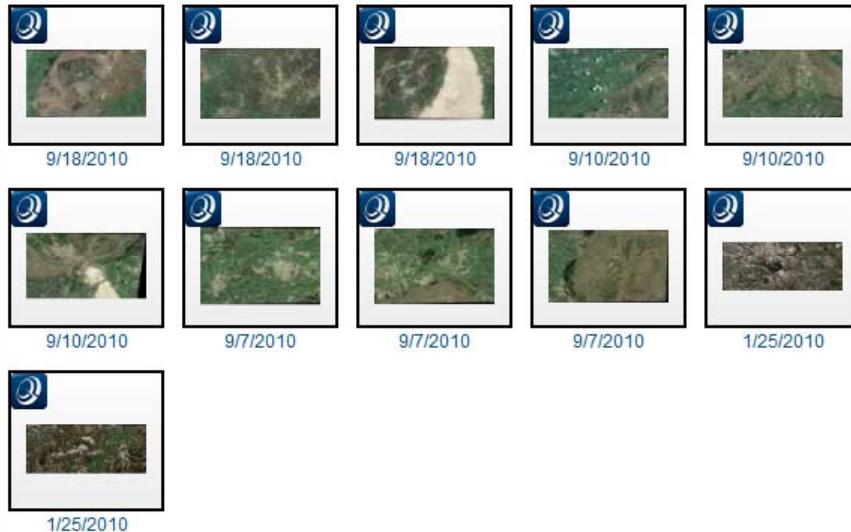
- GeoEye-1 (11)
- IKONOS (0)
- MJ Harden (0)
- WorldView (0)
- QuickBird (0)
- RapidEye (0)
- SPOT (0)
- Other (0)

Resolution

- <= 0.5m (11)
- <= 1m (11)
- <= 10m (11)

Cloud Cover

Image View Site View



Add Selected

◀◀ ▶▶ Page 1 of 1

Image Acquisition Date

- < 7 Days
- < 90 Days
- < 6 Months
- < 1 Year
- >= 1 Year



LAYER CONTROL

Pakistan Currency...

Pakistan Currency

Site Polygon

GO TO:





DASHBOARD

[REDACTED]

SEARCH

Dashboard > Pakistan Floods (Aug 2010)

## Indus River flooding at Sukkur

SAVE SITE

BLINK

SEARCH ▾ ORGANIZE ▶ SHARE ▶

You've Selected:

Narrow Results by:

Date

- < 7 Days (0)
- < 90 Days (9)
- < 6 Months (9)
- < 1 Year (11)
- >= 1 Year (0)

Source

- GeoEye-1 (11)
- IKONOS (0)
- MJ Harden (0)
- WorldView (0)
- QuickBird (0)
- RapidEye (0)
- SPOT (0)
- Other (0)

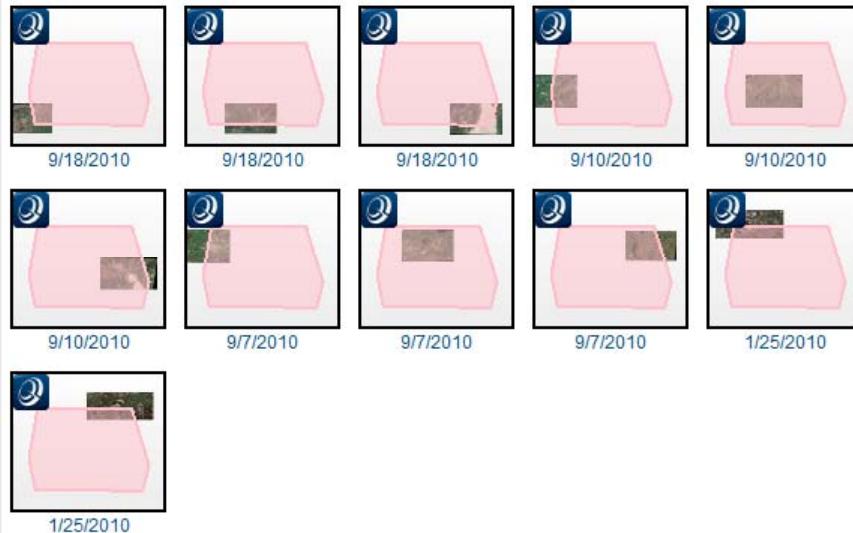
Resolution

- <= 0.5m (11)
- <= 1m (11)
- <= 10m (11)

Cloud Cover

Image View

Site View



Add Selected

◀◀ ▶▶ Page 1 of 1

Image Acquisition Date

- < 7 Days
- < 90 Days
- < 6 Months
- < 1 Year
- >= 1 Year



LAYER CONTROL

Pakistan Currency...

Pakistan Currency

Site Polygon

GO TO: [REDACTED] ▶



DASHBOARD

[REDACTED]

SEARCH

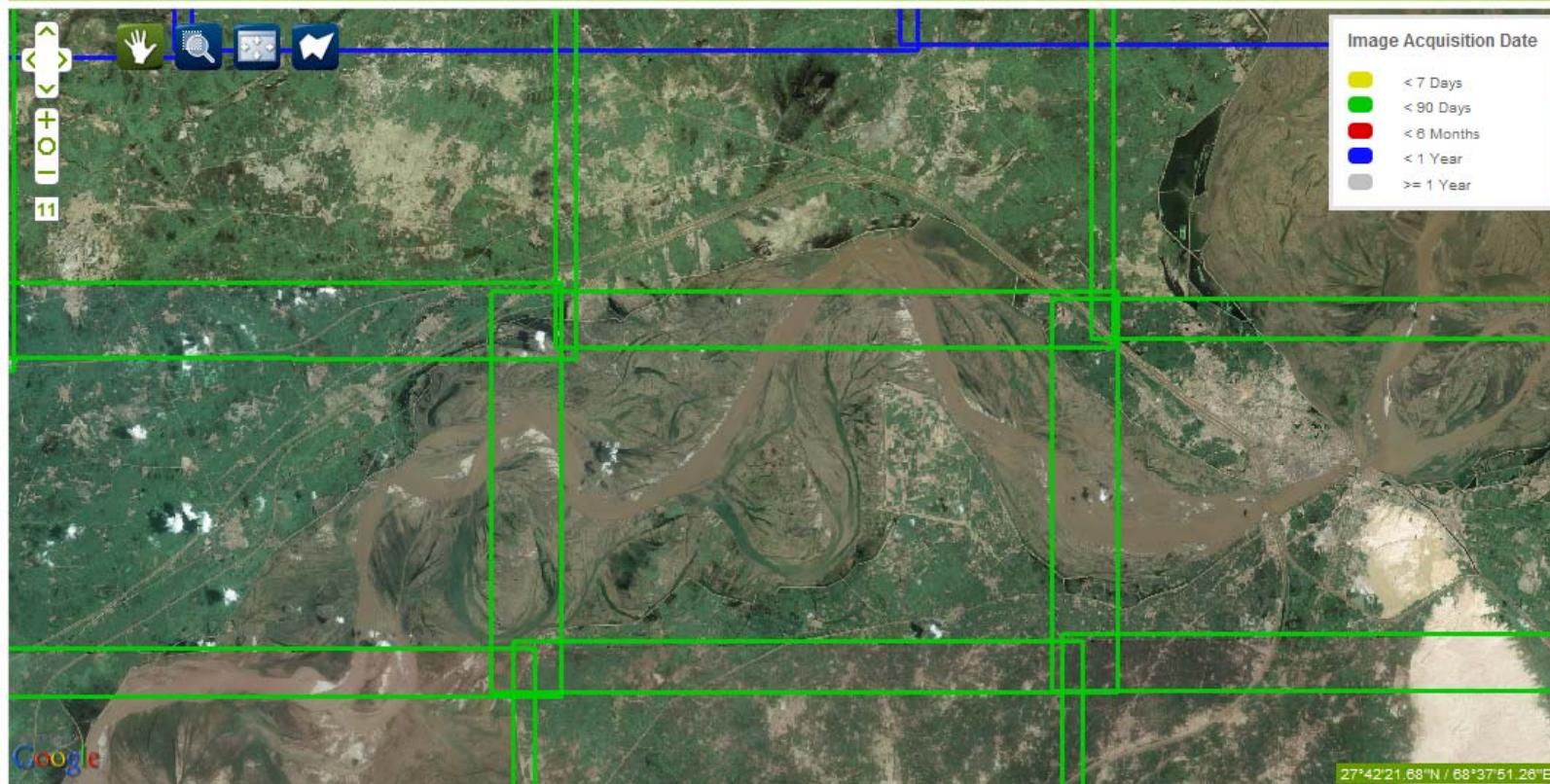
Dashboard > Pakistan Floods (Aug 2010)

## Indus River flooding at Sukkur

SAVE SITE

BLINK

SEARCH ► ORGANIZE ► SHARE ►



### LAYER CONTROL

Pakistan Currency...

Pakistan Currency

Site Polygon

GO TO: [REDACTED] ▶



DASHBOARD

[REDACTED]

SEARCH

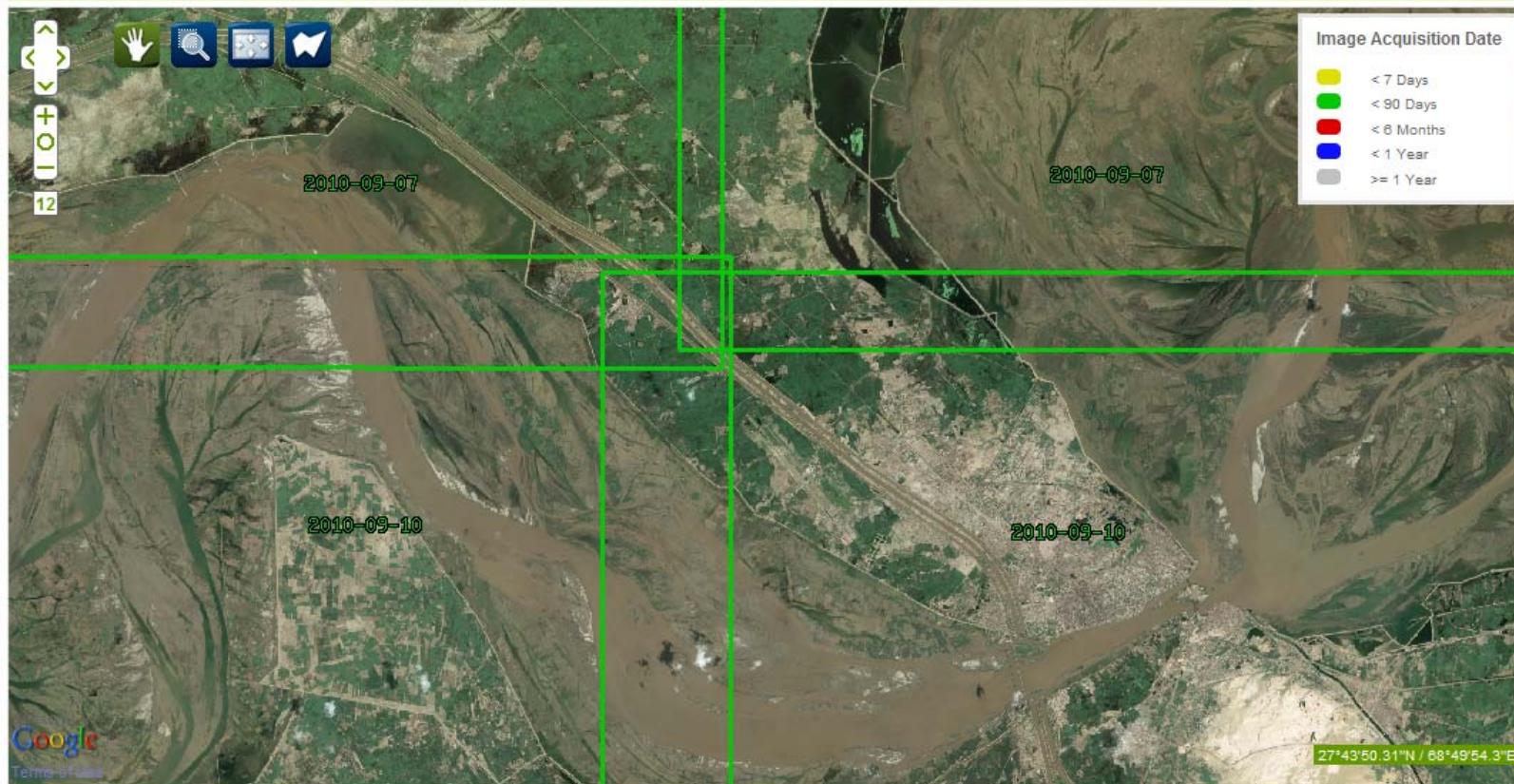
Dashboard > Pakistan Floods (Aug 2010)

## Indus River flooding at Sukkur

SAVE SITE

BLINK

SEARCH ► ORGANIZE ► SHARE ►



### LAYER CONTROL

Pakistan Currency...

Pakistan Currency

Site Polygon

X

X

X

Dashboard &gt; Project

## Pakistan Floods

Project Name:

Pakistan Floods (Aug 2010)

Point of Contact:

Scott Herman

MEMBERSHIP

Project Description (optional):

Flood damage assessment and disaster relief planning.

DELETE PROJECT

SAVE PROJECT

### SITES ▾

### ADD NEW SITE ▶

Indus River flooding at Sukkur

Sukkur

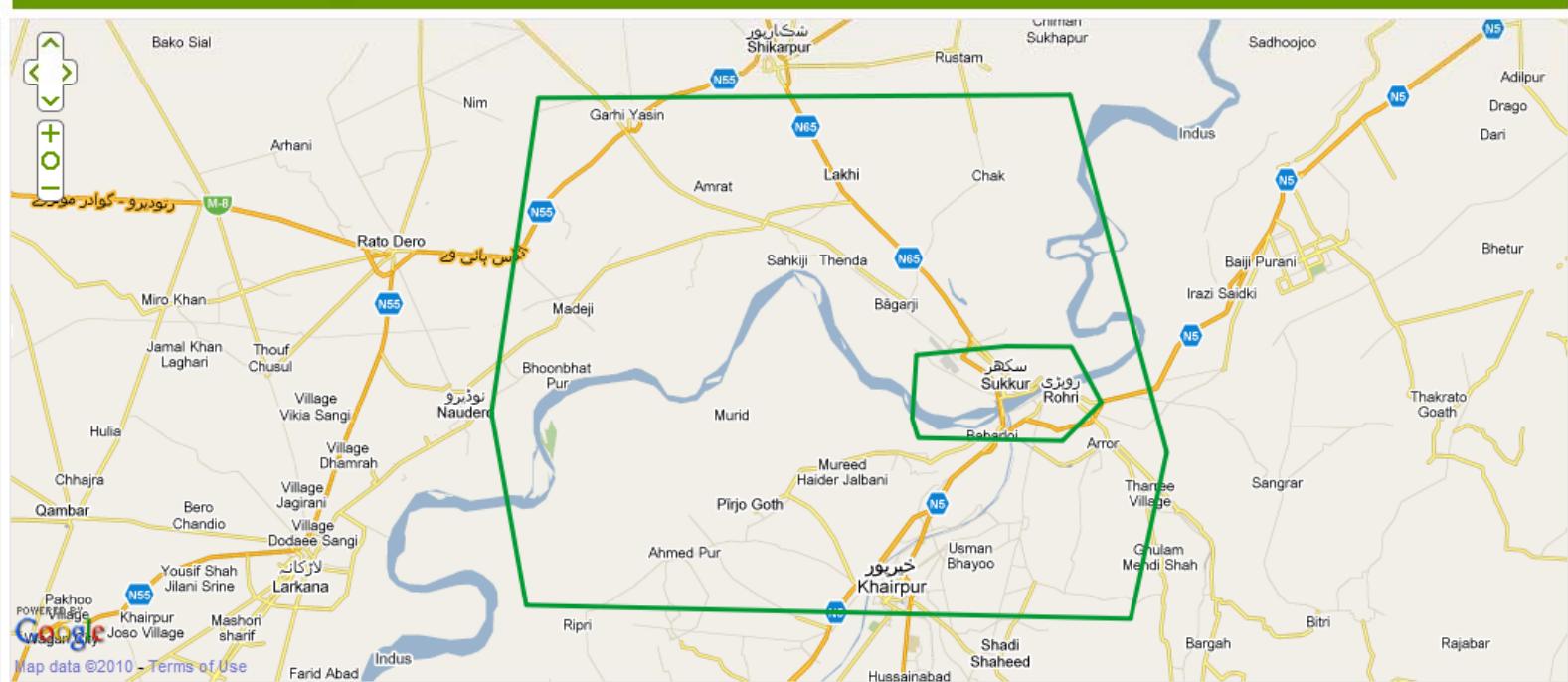
Azhakhel Afghan Refugee Camp

Nowshera

Gahkuch

Khesgi

Chatorkhand





DASHBOARD

[REDACTED]

SEARCH

Dashboard > RDOG Sightseeing

## Azhakhel Afghan Refugee Camp

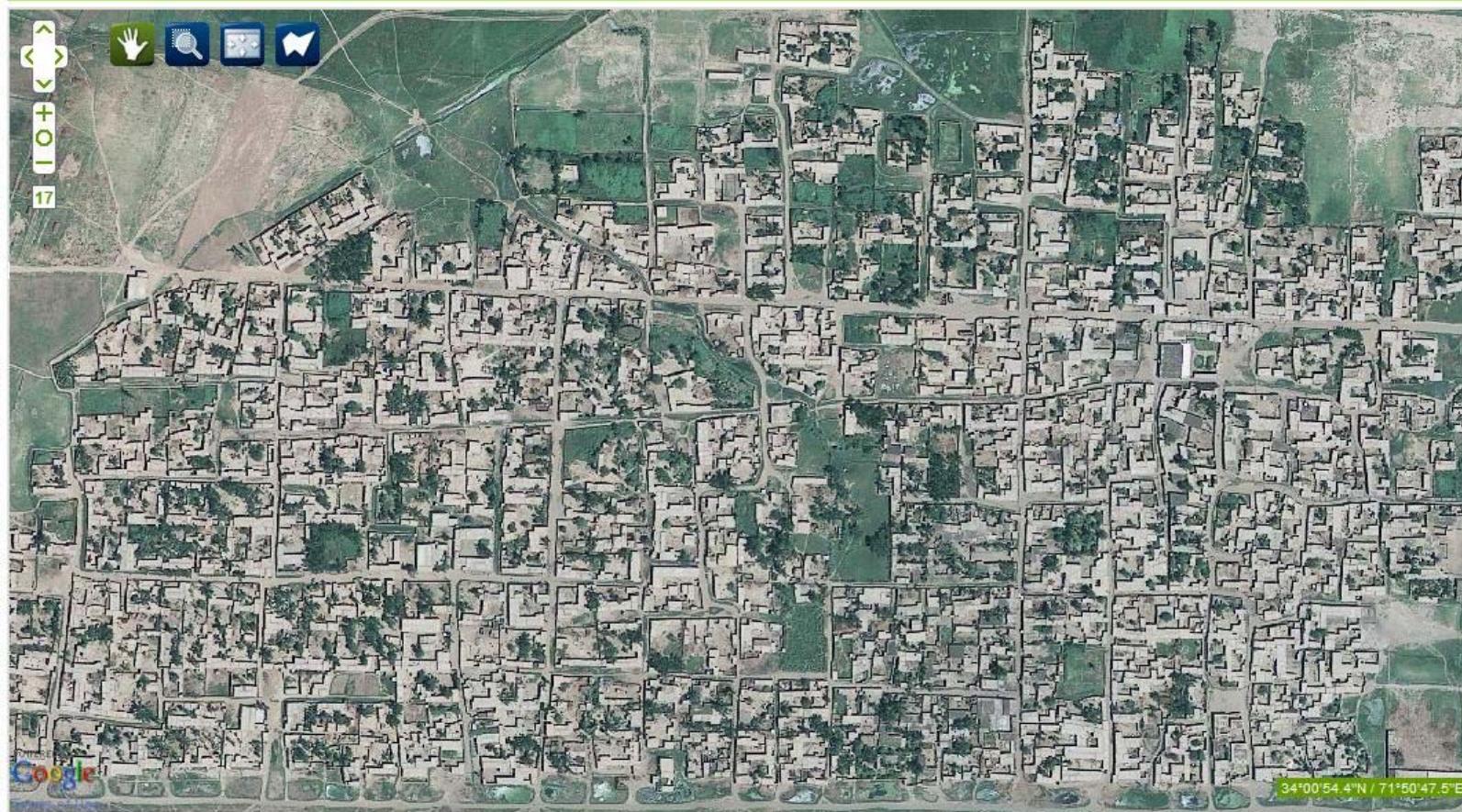
SAVE SITE

BLINK

SEARCH ► ORGANIZE ► ORDER ► SHARE ►

### LAYER CONTROL

- 5V100805C0006152016C...
- 5V090625C0002855275C...
- Site Polygon





DASHBOARD

SEARCH

Dashboard >

## Azhakhel Afghan Refugee Camp

SAVE SITE

BLINK

SEARCH ► ORGANIZE ► ORDER ► SHARE ►

### LAYER CONTROL

5V100805C0006152016C...

5V090625C0002855275C...

Site Polygon





DASHBOARD

SEARCH

Dashboard &gt; Pakistan Floods (Aug 2010) &gt; Project Membership

## Project Members

## ACCOUNT MEMBERS

ADD

SAVE

CANCEL

	Show: All   Users   Groups
1	Aaron Shirley
2	Adam Brink
3	Ana Pizarro
4	Andrew Dwyer
5	Andrew Molchan
6	Andrew Wodder
7	Barbara Kistler
8	Barret Bryant
9	Bess Kotsiras
10	Billy Zsambok
11	Bob Rye
12	Brandon Martinez
13	Cameron Butcher
14	Casey Burkemper
15	Charles Barnard
16	Charles Griggs
17	Charles Pessagno
18	Chris Mayfield
19	Craig Cox
20	Dan Doke
21	Darren Johnson
22	David Berg
23	David Currence
24	David de Castro
25	David Lucio

## USERS IN PROJECT REMOVE

Name	Role
System Administrator	Project Manager
Rob Poplar	BLINK Viewer
<b>Scott Herman</b>	Project Manager
Derek Daczewitz	Project Manager
Frank Evans	Site Contributor
John Davidson	Site Contributor
Richard Mogensen	Site Contributor
Patrick Neal	Site Contributor
Patricio Burbano	Site Contributor

## INFO

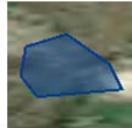


Name: Scott Herman  
Username: sherman  
Email: [REDACTED]@geoeye.com  
Comment:  
Point of Contact?   
Groups:

## GROUPS IN PROJECT REMOVE

Name	Role
EyeQ 2.x Project Man	Project Manager
EyeQ 2.x Site Contrib	Site Contributor

## EyeQ: has new Imagery available for: Sukkur



Project  
**Pakistan Urban Areas**

Site  
**Sukkur**

Questions about this image?  
Please contact:

Scott Herman  
[herman.scott@geoeye.com](mailto:herman.scott@geoeye.com)

**ADD IMAGE TO SITE**

## Image Details

Image Id: 5V100910C0006448135C110000100492M\_001676350

Acquisition Date: Fri, 10 Sep 2010 06:17:08 GMT

Source: GeoEye

Vehicle: GeoEye-1

Data Owner: GeoEye

Ground Sample Distance: 0.49m

Square Kilometers: 525.52

Cloud Cover: 0%

Bits per Pixel: 8

Bands: 3

Dynamic Range Adjustment: Yes

## Spectral

Composition: RGB

Processing: PAN-sharpened

## Product

Type: Pro ORTHO

Sub-Type: Single

## Sun

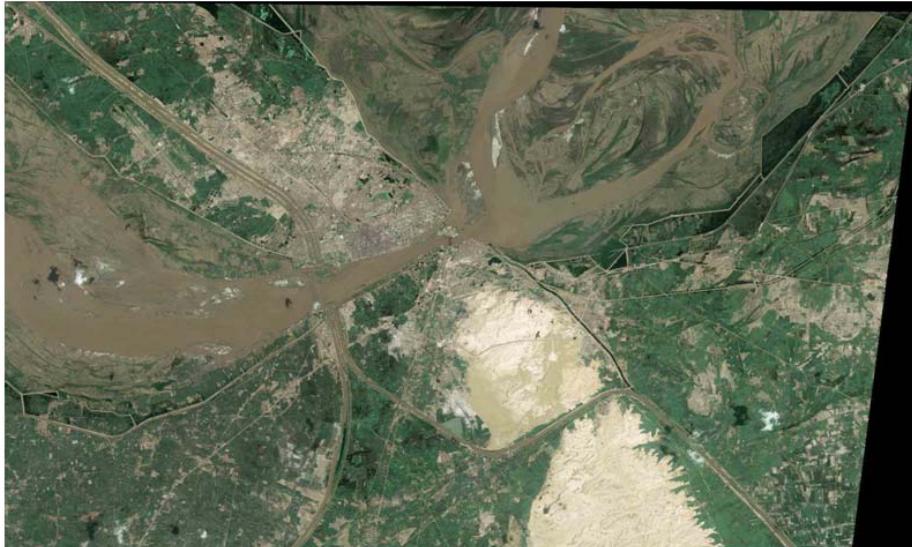
Elevation: 62.70°

Azimuth: 62.70°

## Sensor

Elevation: 24.99°

Azimuth: 239.99°



## Pakistan Floods (Aug 2010)

Indus River flooding at Sukkur

Sukkur

Azhakhel Afghan Refugee Camp

Nowshera

Gahkuch

Khesgi

Chatorkhand



### Azhakhel Afghan Refugee Camp

POC: Scott Herman at [herman.scott@geoeye.com](mailto:herman.scott@geoeye.com)

Description: <none provided>

Save As:

JPEG

Image Size:



SAVE

View With:

Google Earth

ArcGIS

Web Services

VIEW



## ▼ Search

[Fly To](#) [Find Businesses](#) [Directions](#)

Fly to e.g., 1600 Pennsylvania Ave, 20006



## ▼ Places

[Add Content](#)

- Manufacturing / produ...
- Military
- Mining
- Nuclear Issue
- Restaurants
- Shipping
- Special Administrative ...
- Transportation
- Other stuff
- Port Derek
- Imagery Updates
  - Latest Imagery
- Temporary Places
  - [EyeQ:RDOG] Azhakhel Afg...
  - All Layers
    - 5V100805C0006152056C11...
    - 5V100805C0006152016C11...
    - 5V090625C0002855275C11...
    - Site Polygon



## ▼ Layers

- Primary Database
  - Borders and Labels
  - Places
  - Panoramic Photos
  - Roads
- 3D Buildings
- Ocean
- Street View
- Weather
- Gallery
- Global Awareness
- More
- Terrain



Image © 2010 GeoEye  
Image © 2010 DigitalGlobe  
© 2010 Cnes/Spot Image

34°00'43.01"N 71°52'40.91"E elev 952 ft

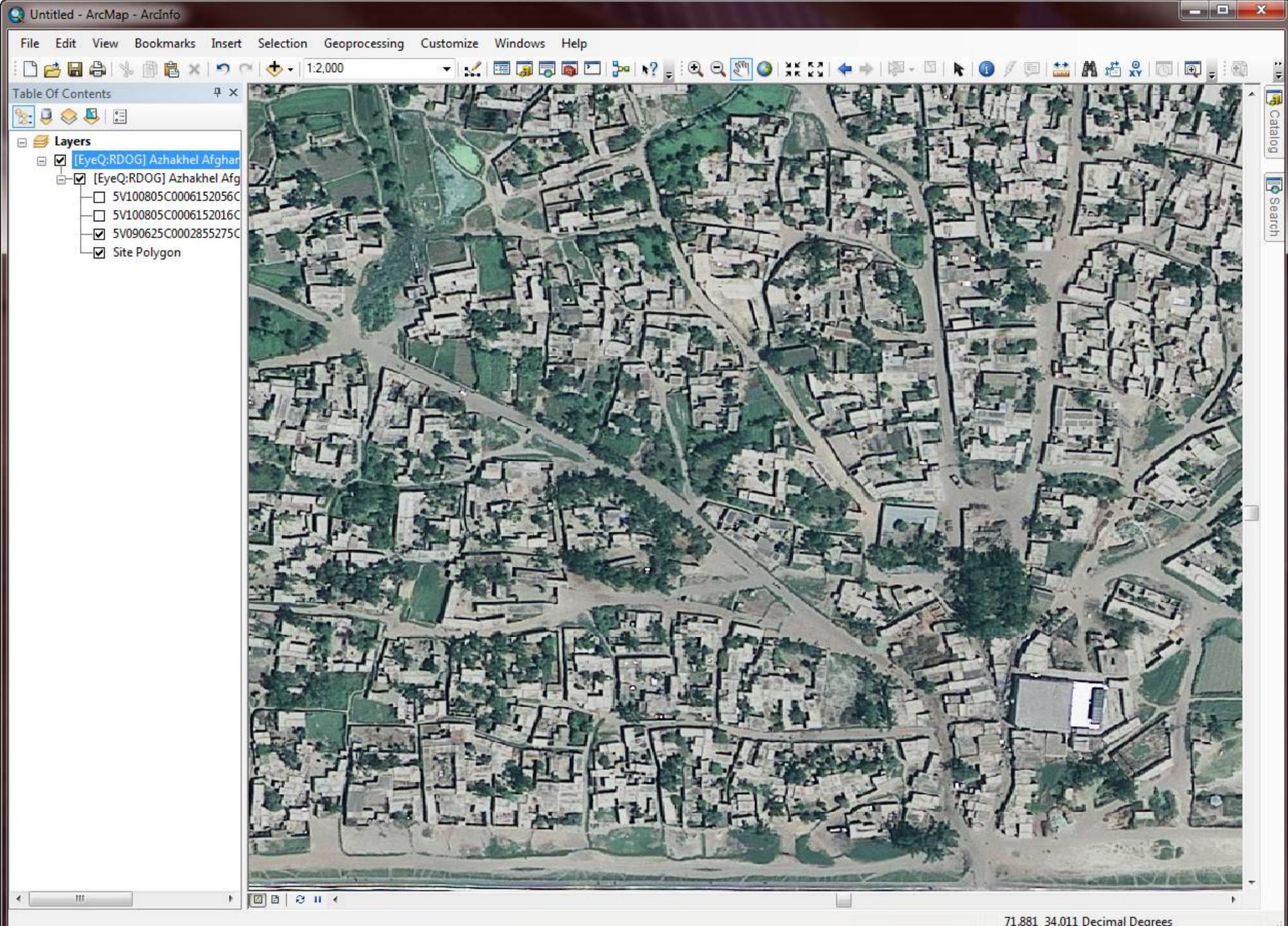
2009 Google

Eye alt 1930 ft



CLASS. N/A - "Azhakhel Afghan Refugee Camp.tif" - Country: N/A, Date: .....-.-.-







DASHBOARD

SEARCH

## Search



For Imagery

## Organize



Your Work

## Share



With Colleagues

CLOSE X

### ▼ PROJECTS & SITES

CREATE NEW PROJECT

#### FIFA World Cup 2010 - 10 sites / Modified: 10/8/2010

CREATE NEW SITE



Nelson Mandela  
Bay Stadium



Loftus Versfeld  
Stadium



Mbombela  
Stadium



Free State  
Stadium



Moses Mabhida  
Stadium

#### Pakistan Floods (Aug 2010) - 5 sites / Modified: 10/8/2010

CREATE NEW SITE



Sukkur (RapidEye  
& GeoEye-1)



Azhakhel Afghan  
Refugee Camp



Nowshera



Khesgi



RapidEye Indus  
River (8 Oct)

#### Evaluation - 9 sites / Modified: 10/9/2010

CREATE NEW SITE



Higashiyashio



Shizuoka



Tokyo



Tomakomai

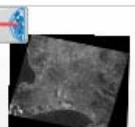
### ▼ SUBSCRIPTION LAYERS

- FIFA World Cup 2010
- Athabasca Hydrocarbon
  - Athabasca Footprints
- NASCAR Event Security
- Australia New Zealand
  - Australia New Zealand Footprints
- Tokyo L1
- Tokyo L2
- JSI 1m GE-1 DS
  - JSI 1m GE-1 DS Footprints
- Pakistan RapidEye
  - Pakistan RapidEye Footprints

### ▼ NOTIFICATIONS



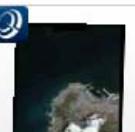
New Imagery available for site:  
Green Point Stadium  
10/8/2010 2:49:48 PM



New Imagery available for site:  
Green Point Stadium  
10/8/2010 2:49:37 PM



New Imagery available for site:  
Green Point Stadium  
10/8/2010 2:46:38 PM



# GeoEye's Capacity Development for Disaster Management



# GeoEye's Capacity Development for Disaster Management

