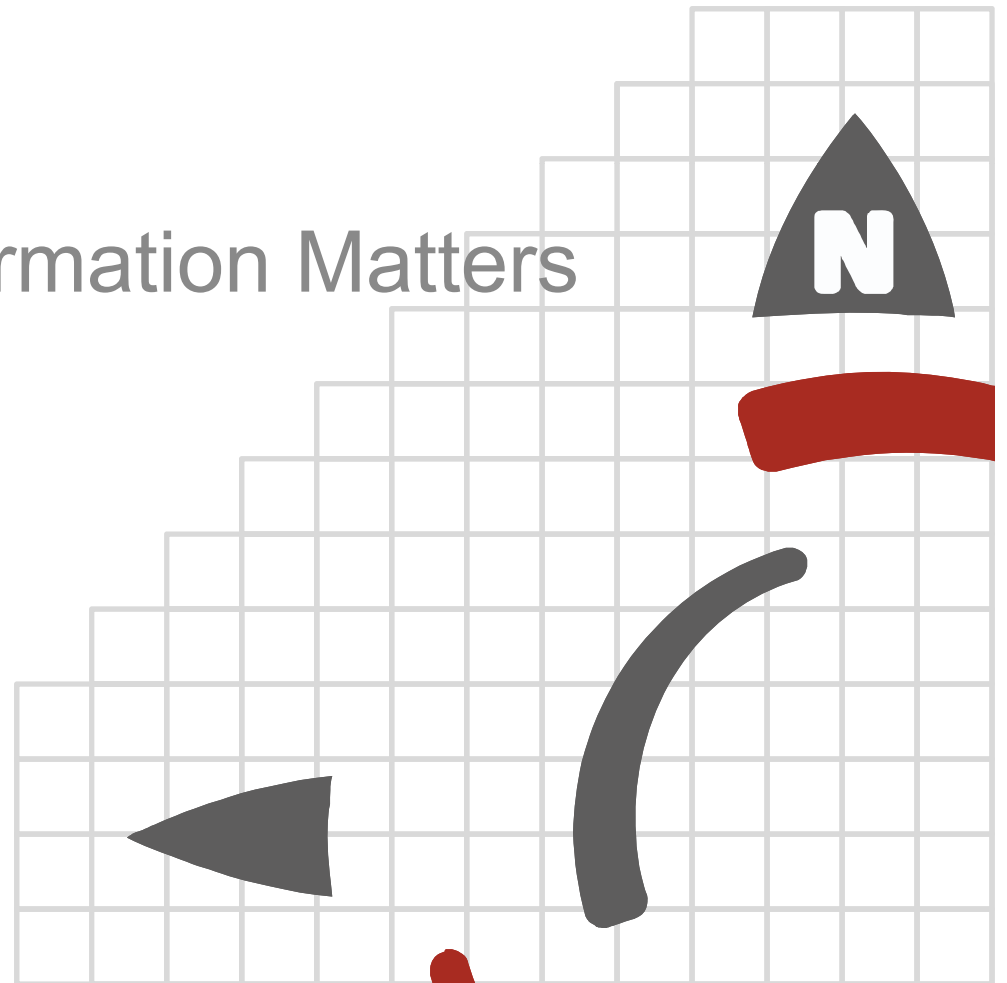




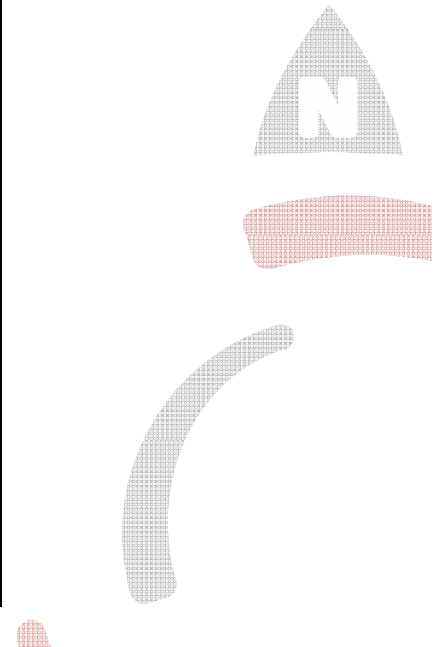
iMMAP

Because Information Matters



Vision

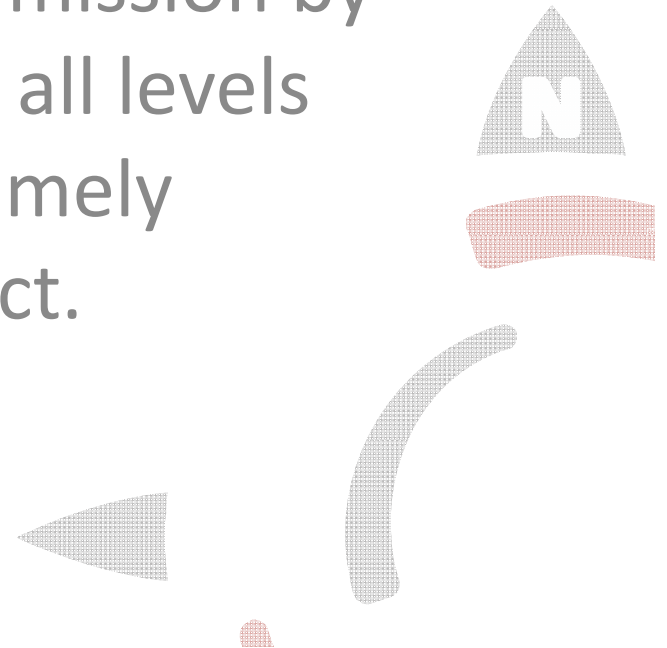
For iMMAP to be an international resource, for relief and host government agencies, that successfully integrates data into practical humanitarian plans through information management and supporting services.





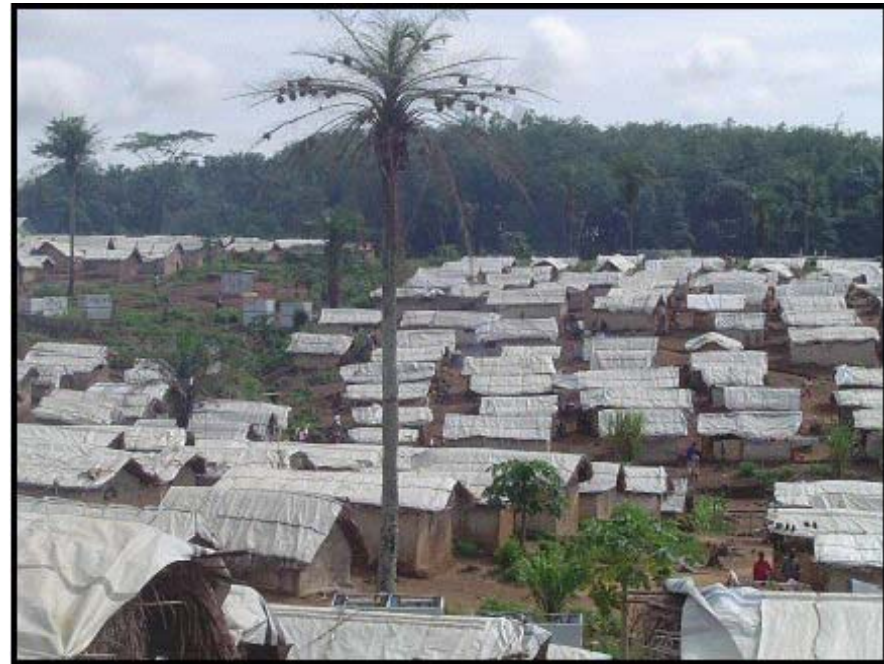
Mission

iMMAP's mission is to alleviate the pain and suffering of those in need. iMMAP accomplishes this important mission by providing decision makers at all levels with reliable, relevant, and timely information upon which to act.



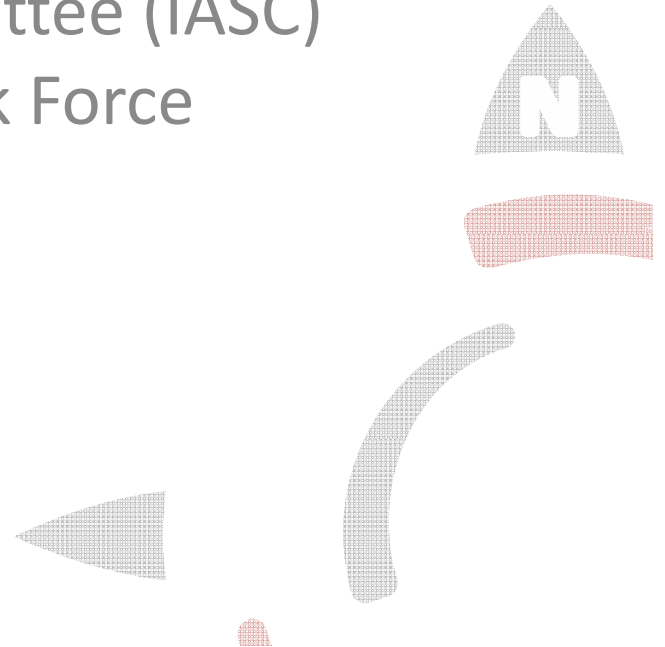
Core Competencies

- Humanitarian Information Management Support;
- Landmine/UXO Surveys and Information Management;
- Public Health, Refugee Surveys and Rapid Humanitarian Assessments;
- Technical Assistance;
- Technical Advisory Support;
- Software Development
- Training



Partnerships

- WFP Stand-By Partner
- IMSMA Global Implementing Partner
- Geographic Information Support Team (GIST)
- InterAgency Standing Committee (IASC)
Information Management Task Force
- InterAction
- Microsoft
- GeoDecisions



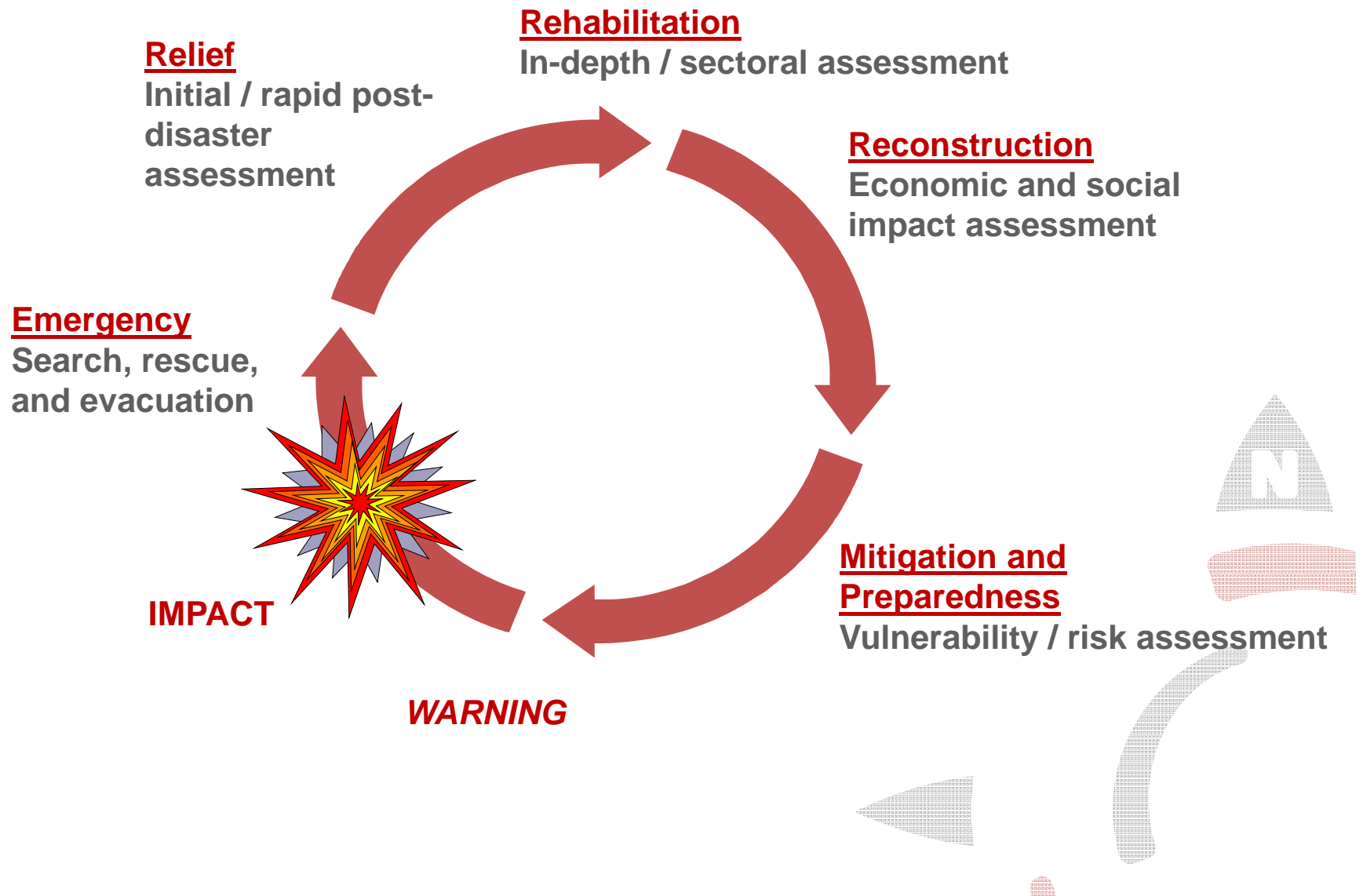


Donors



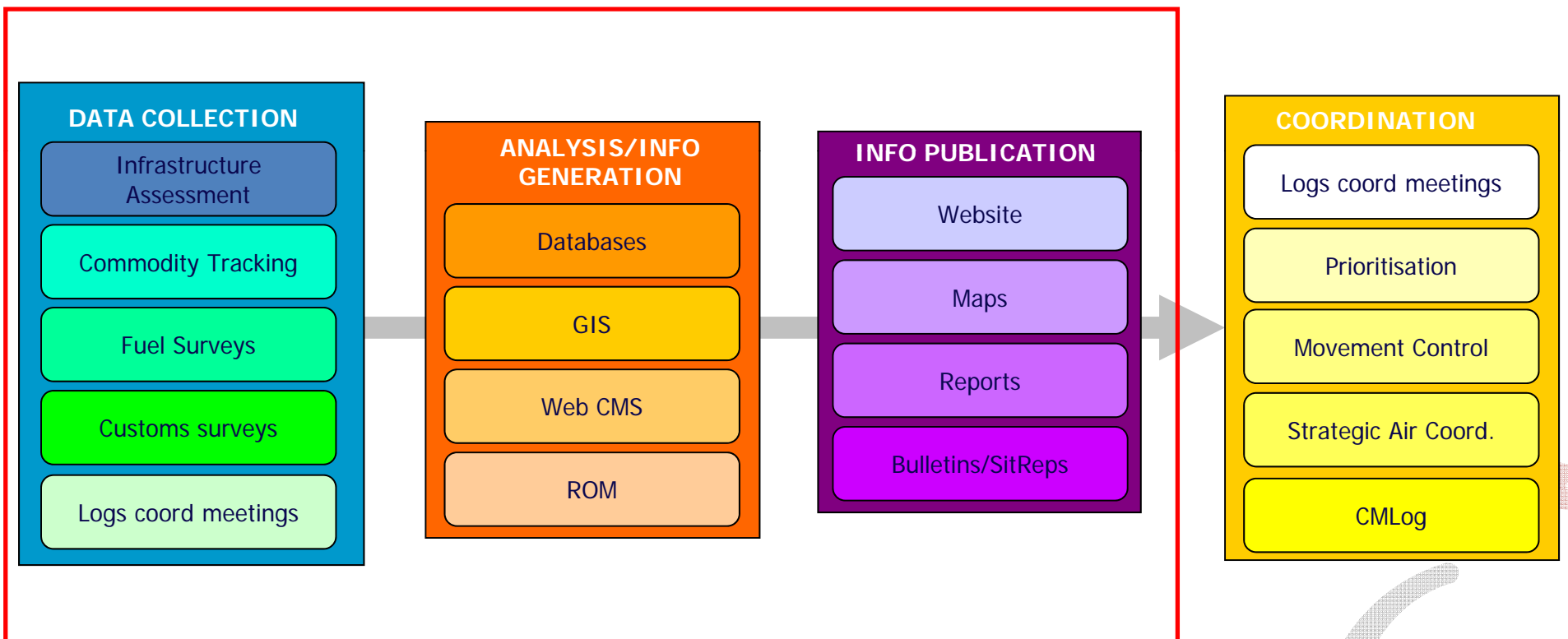
Foreign Affairs and
International Trade Canada



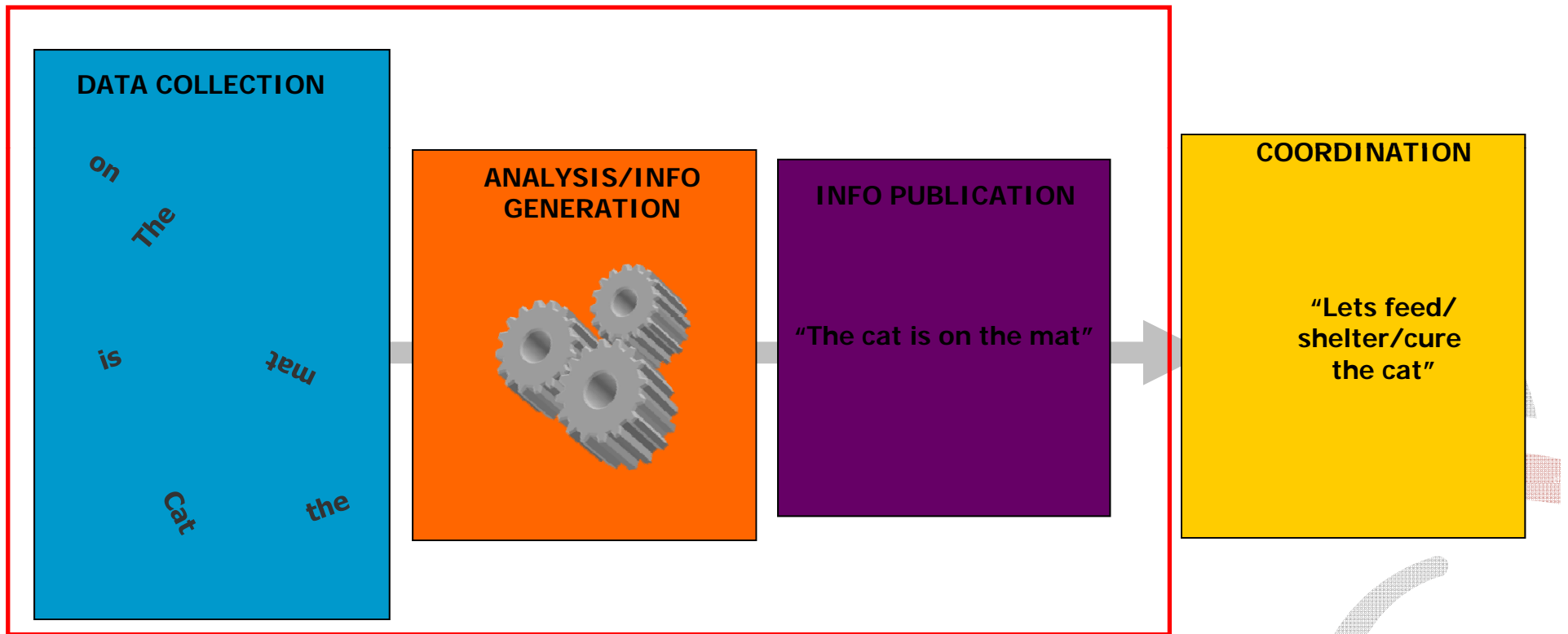


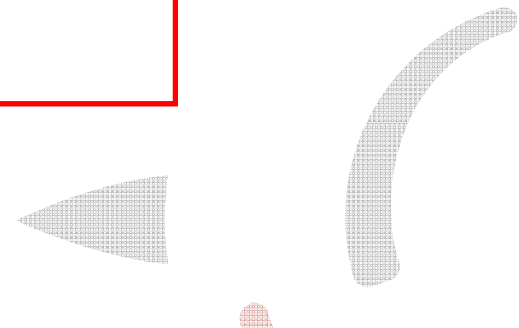
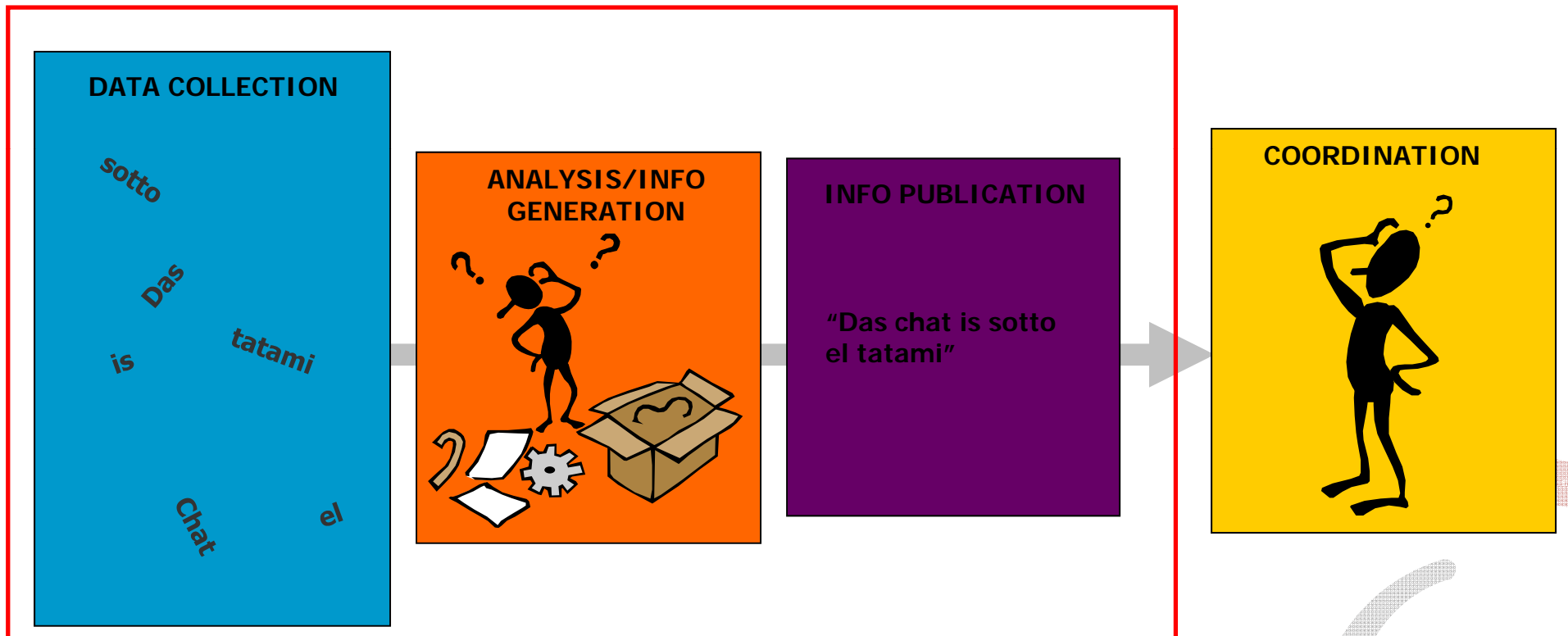
- 
- **Need to set up distribution system quickly**
 - **Need to take account of existing structures**
 - **Wide variety of goods to transport**
 - **Conflicting agendas within humanitarian community**
 - **Poor/inaccurate information**
 - **Chaos/Political factors/security**
 - **Terrain**
 - **Climate**
 - **Damaged infrastructure**
 - **Dynamic theatre of operations**
 - **Storage availability**

Photo: WFP



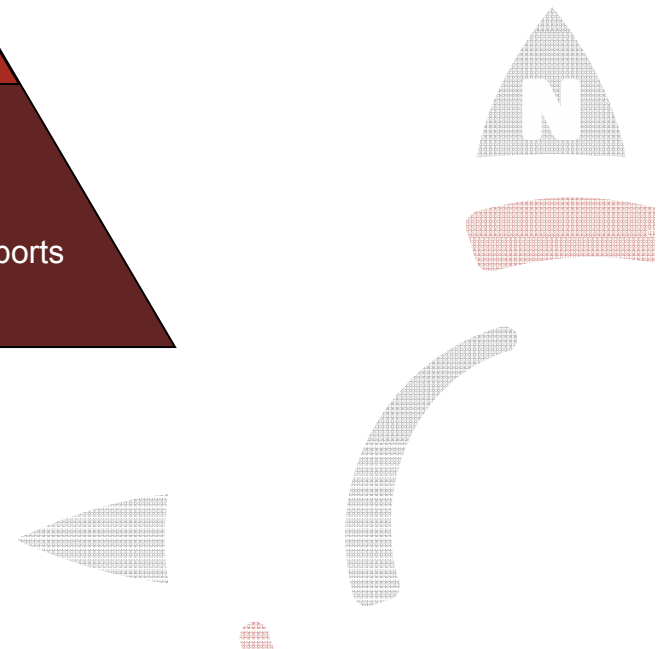
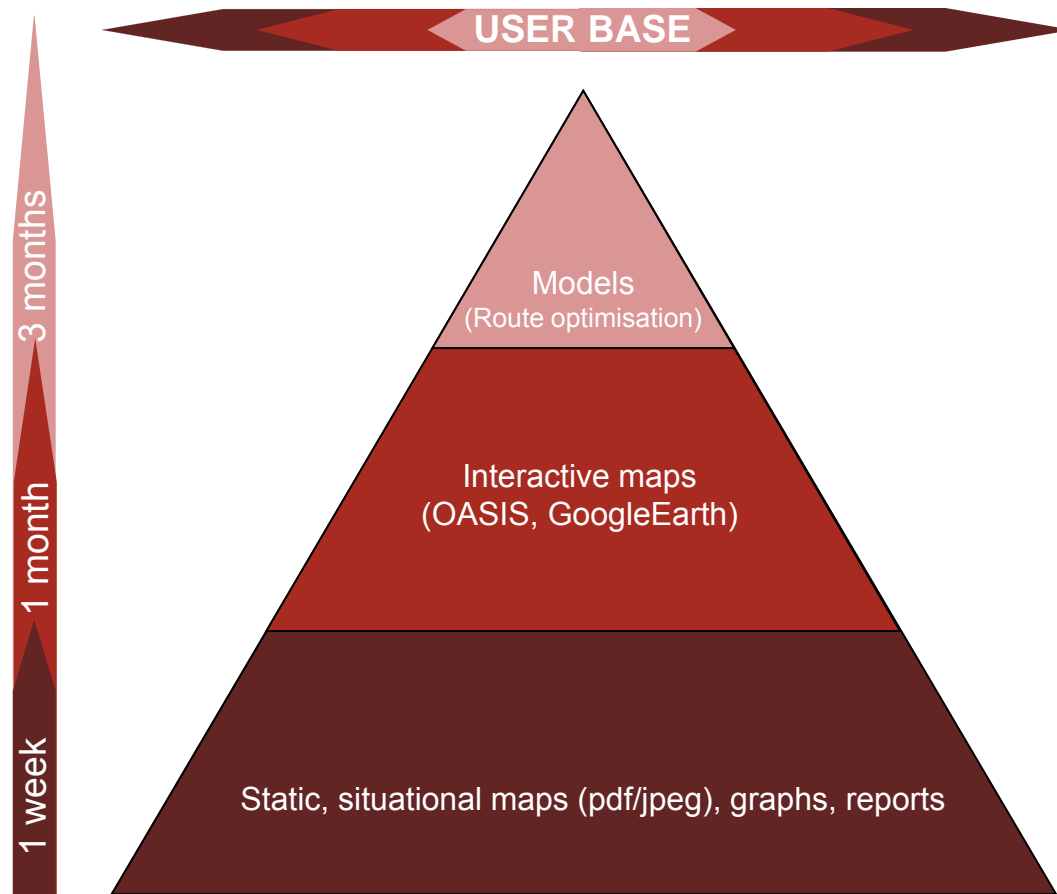
We support the decision-making process, we don't make the decision...



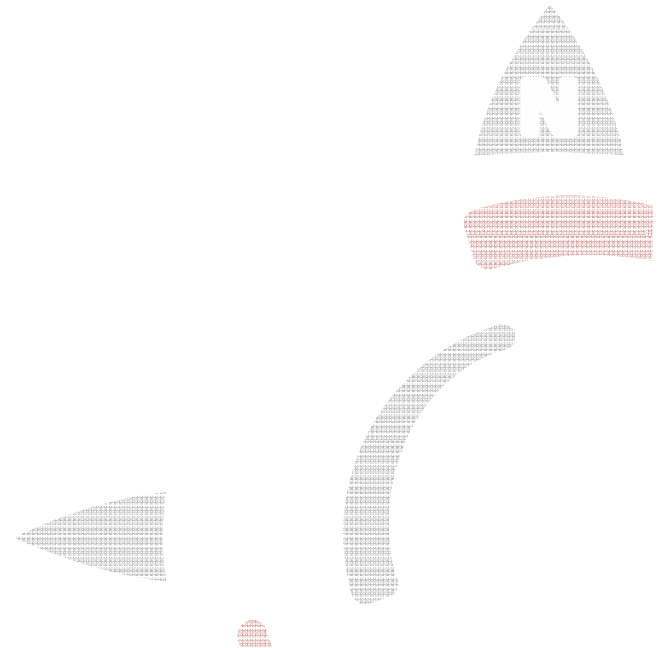




IM Product Pyramid

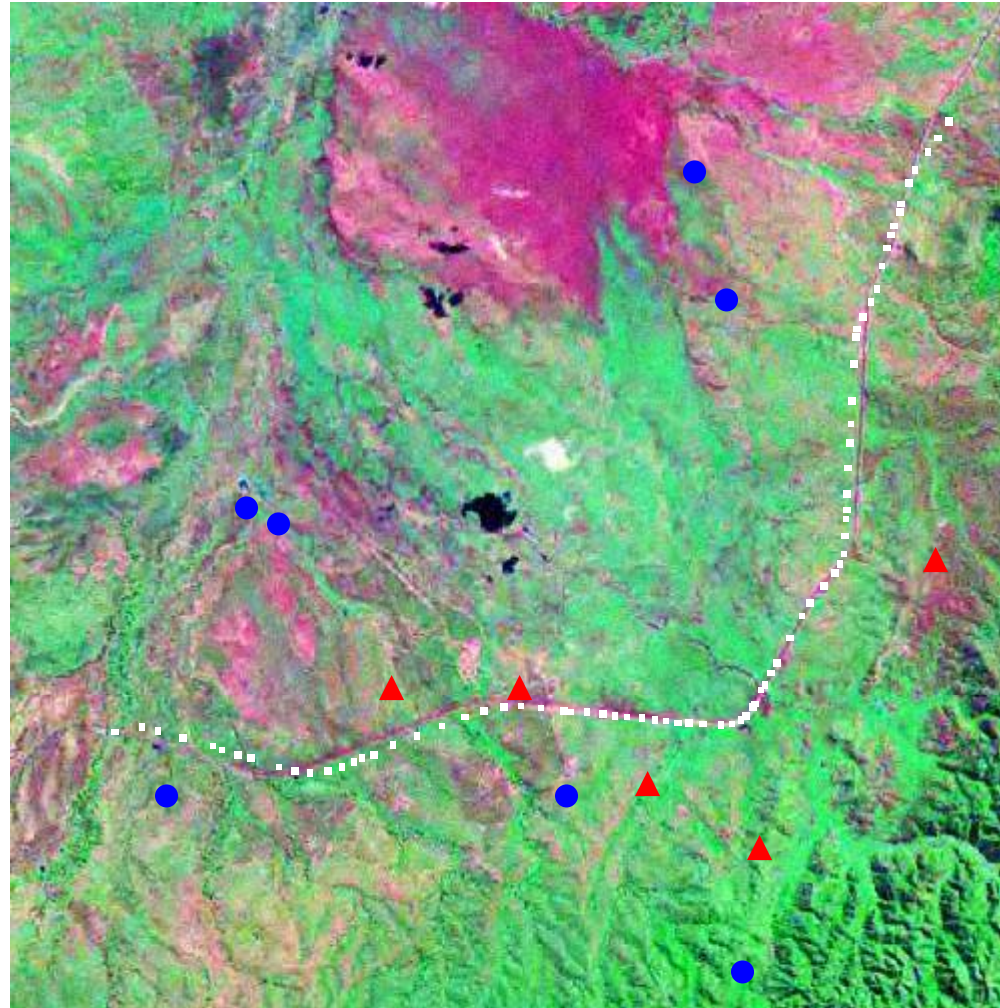


- **Poor/Incomplete information**
- Chaos/Political factors/security
- Terrain
- Climate
- Damaged infrastructure
- Dynamic theatre of operations
- Storage availability



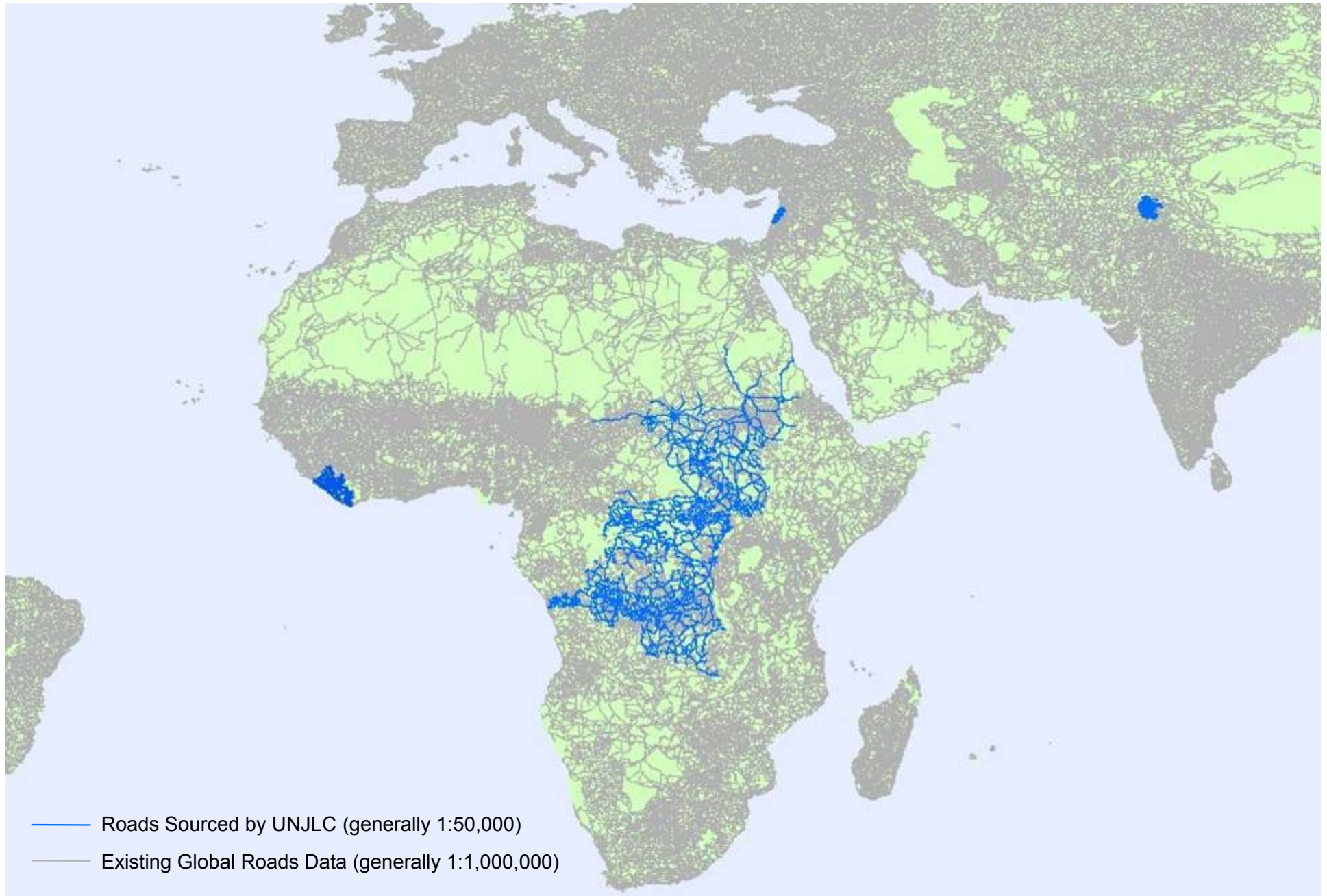


- water sources
- ▲ camp sites

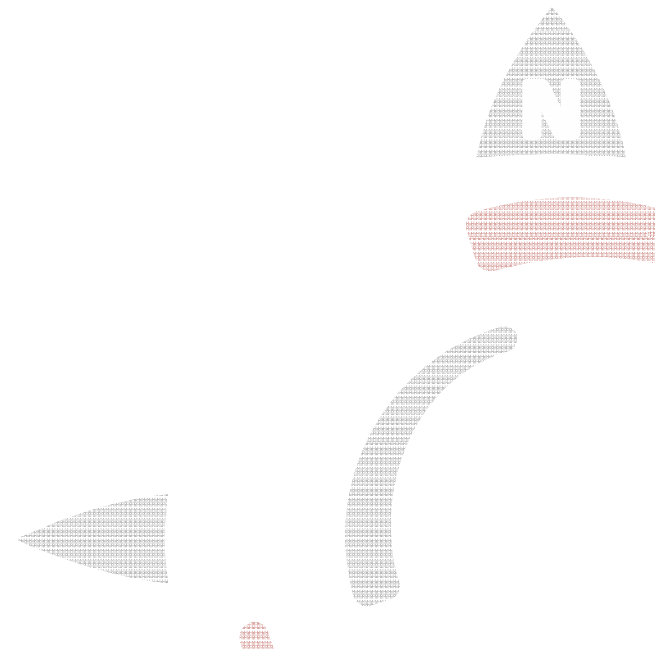




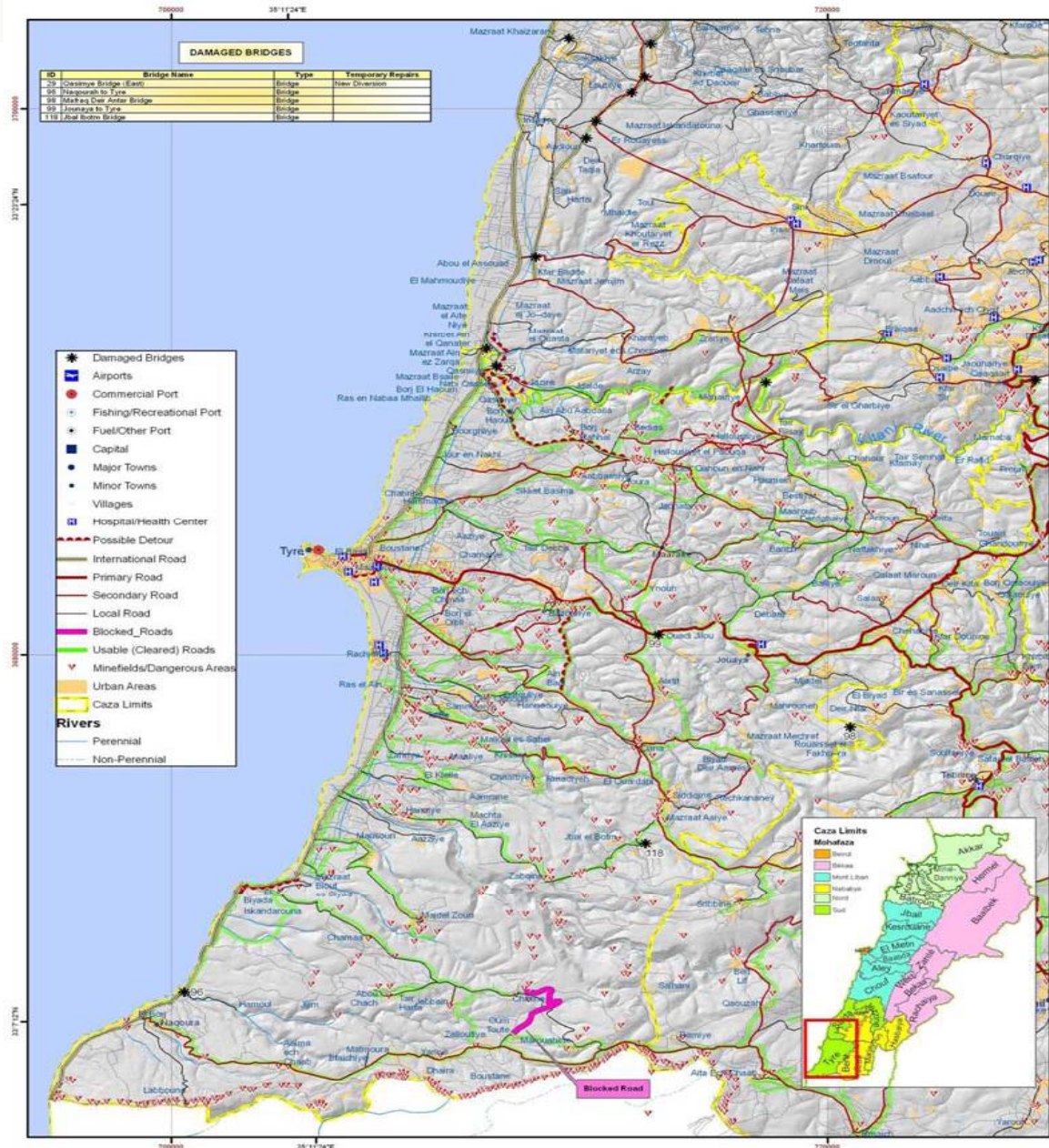
Compilation and archiving



- Poor/Incomplete information
- Chaos/Political factors/security
- Terrain
- Climate
- Damaged infrastructure
- Dynamic theatre of operations
- Storage availability







HAZARDS TO MOVEMENT
TYRE CAZA
 As of October 12, 2006

Produced By:
 UNJLIC
 With kind support from the Vietnam Veterans of America Foundation



Date Created	4-10-2006	Datum	WGS84
UNJLIC Map Num	UNJLIC-LBN-012_A3	GLIDE Num	
The incorporated names and the designations used on this map do not imply official endorsement or acceptance by the United Nations.			
WGS 84 Gird		UTM 30N Gird	

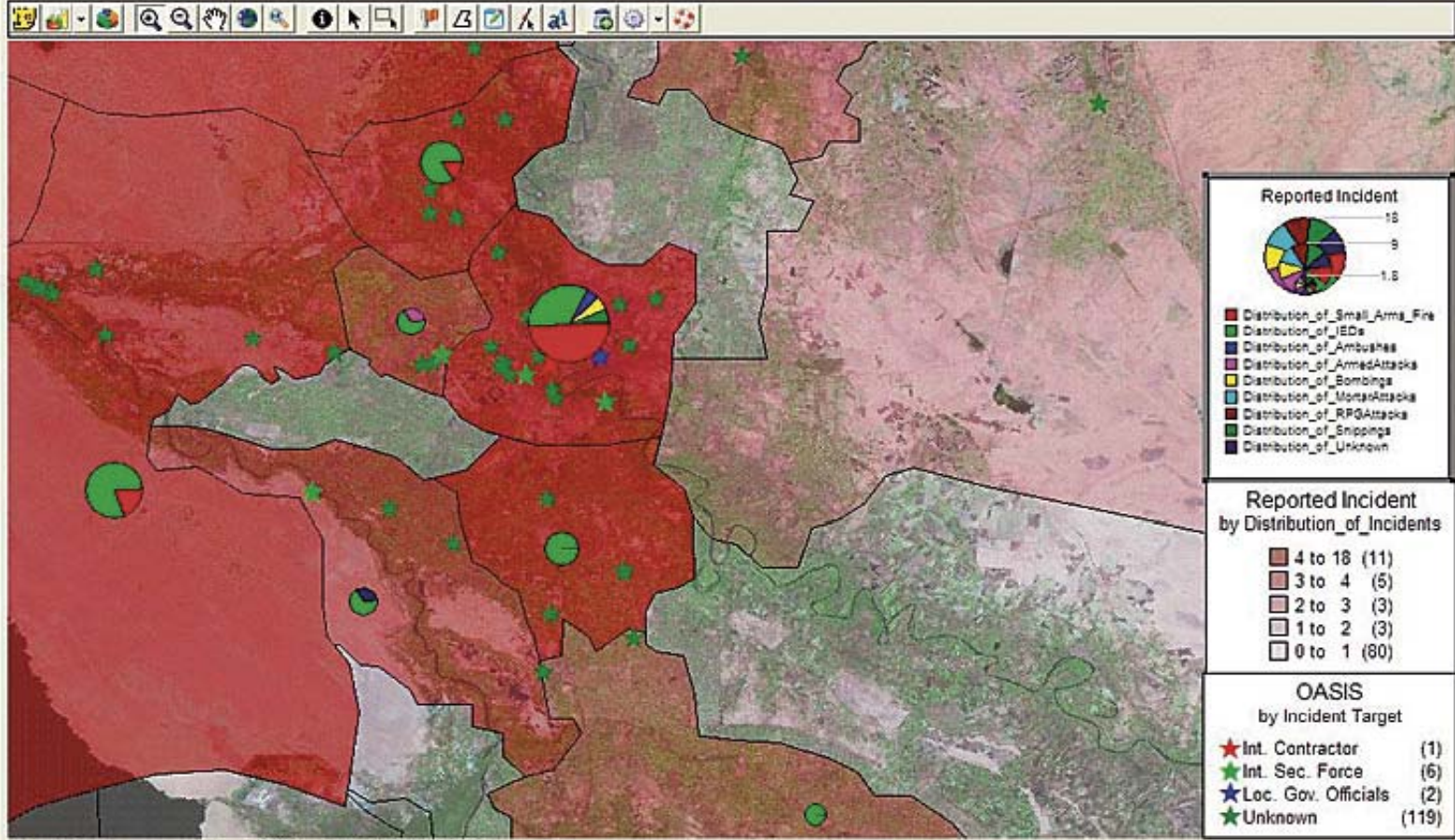
UNJLIC Logo: UNJLIC Logo, Email: Lebanon.maps@unjlic.org, Website: www.unjlic.org/lebanon

OASIS MODULES

OASIS GIS Module
 OASIS GIS module, tools for geographical security analysis and reports

OASIS Weather Satellite Viewer
 VVAFs weather satellite imagery viewer

OASIS Dynamic Content Update
 Latest feeds from OASIS server

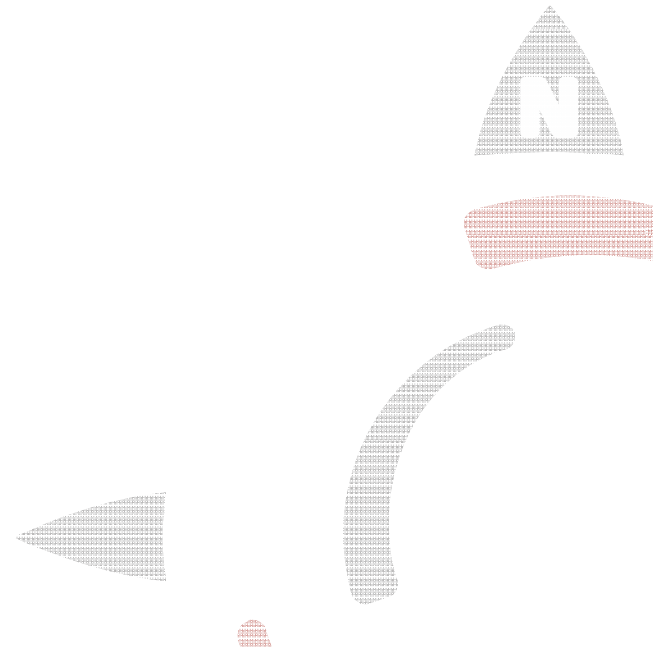


Zoom In Tool Zoom: 180000 m X:44.84087 Y:32.891

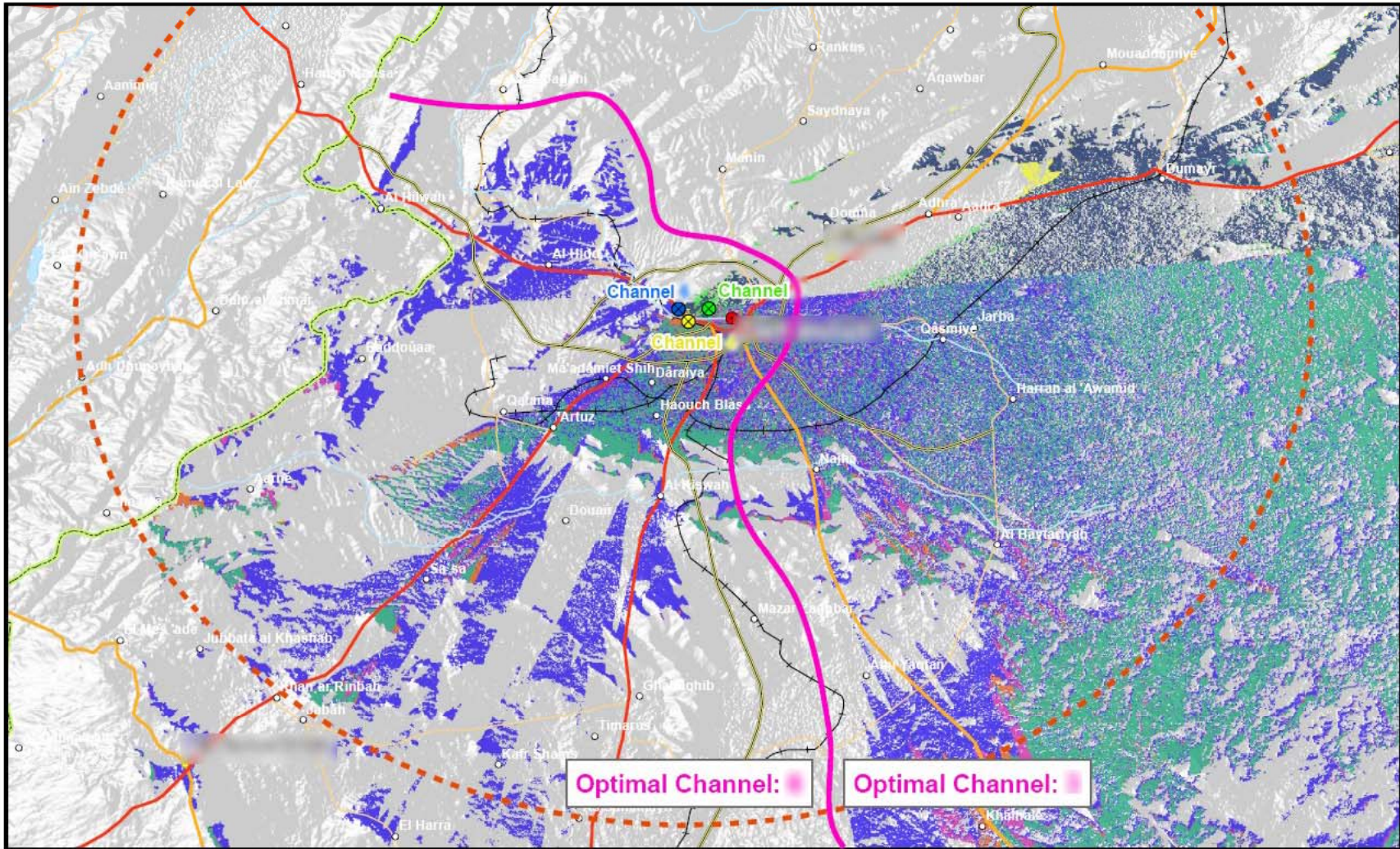
Show incidents categorized by: Target Zoom 180000 m

Type	ID	Date of Inci...	Time of Inci...	Incident Target	Province	District	Town	Description
+ Type: Ambush								
+ Type: Armed Attack								
- Type: Bombing								
	(A60B493F-E836-4803)	/ /	Null	Int. Sec. Force	Baghdad			No description available
+ Type: IED								
- Type: Mortar								
	7	09.03.2005		Unknown				No description available
	20	09.03.2005		Unknown	Salah al-Din	Bayji	Bayji	No description available
	22	09.03.2005		Unknown				No description available
	48	11.03.2005		Unknown	Ninewa	Tikall	Qaim	No description available
	59	09.03.2005		Unknown				No description available
129								

- Poor/Incomplete information
- Chaos/Political factors/security
- **Terrain**
- Climate
- Damaged infrastructure
- Dynamic theatre of operations
- Storage availability







Produced By:
UN Joint Logistics Centre, Core Unit
Data Source: SRTM, VMAP0, ADC, WFP

VHF Coverage - Channels 3, 4 and 6

50 km radius around repeaters

Repeaters

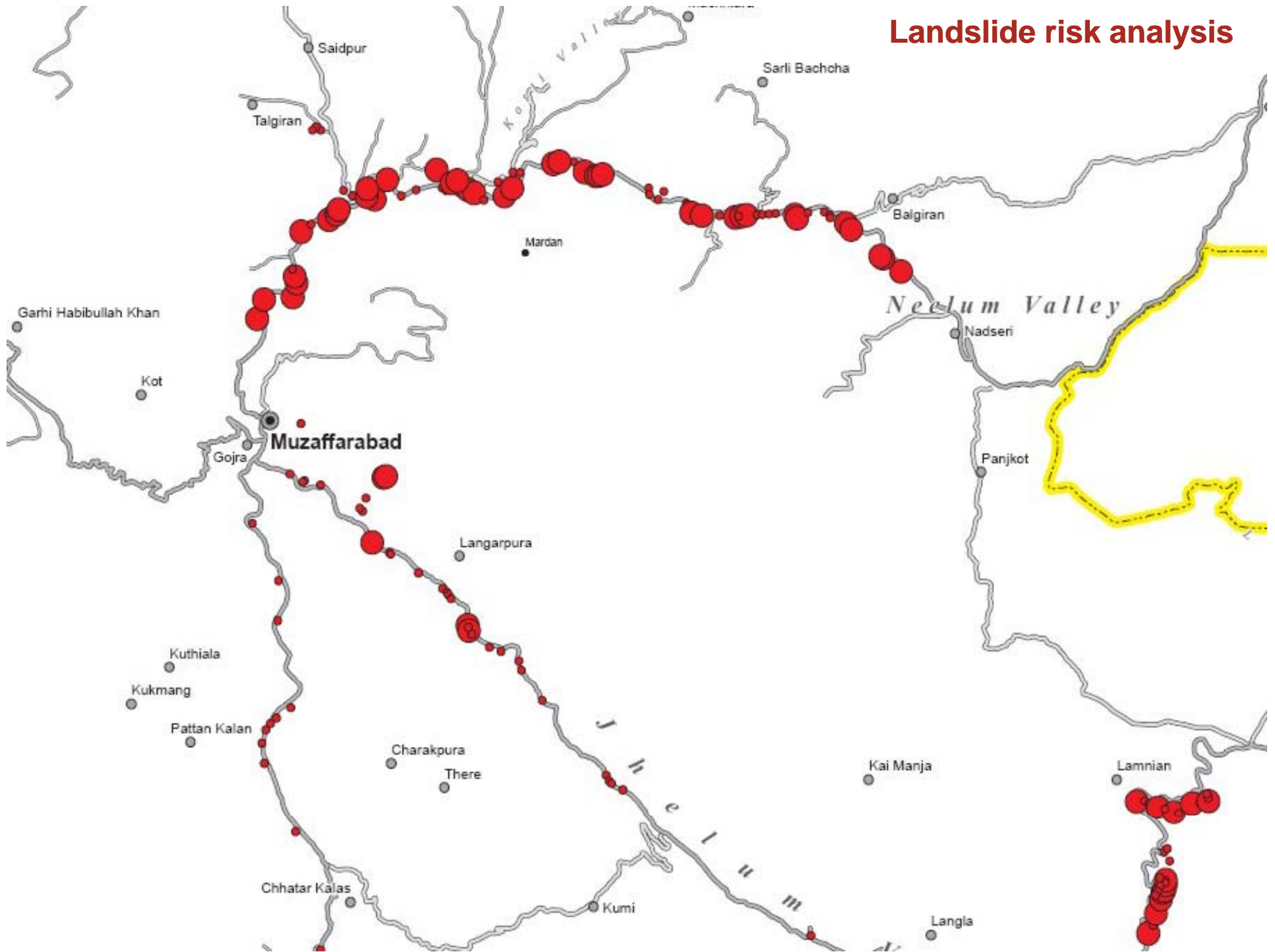
- Channel
- Channel
- Channel

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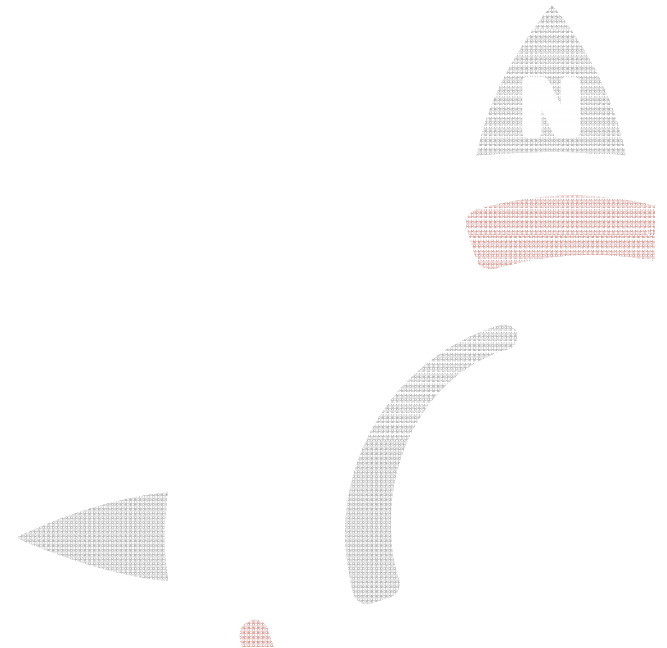
Date Created: 25/05/2007	Datum: WGS84
UNJLC Map Num:	GLIDE Num:
The boundaries and names and the designations used on this map do not imply official endorsement or acceptance by the United Nations.	
Caution: Viewshed analysis does not take into account reflection, refraction specific to the frequency, signal attenuation, interference, and other atmospheric effects on VHF signal range.	

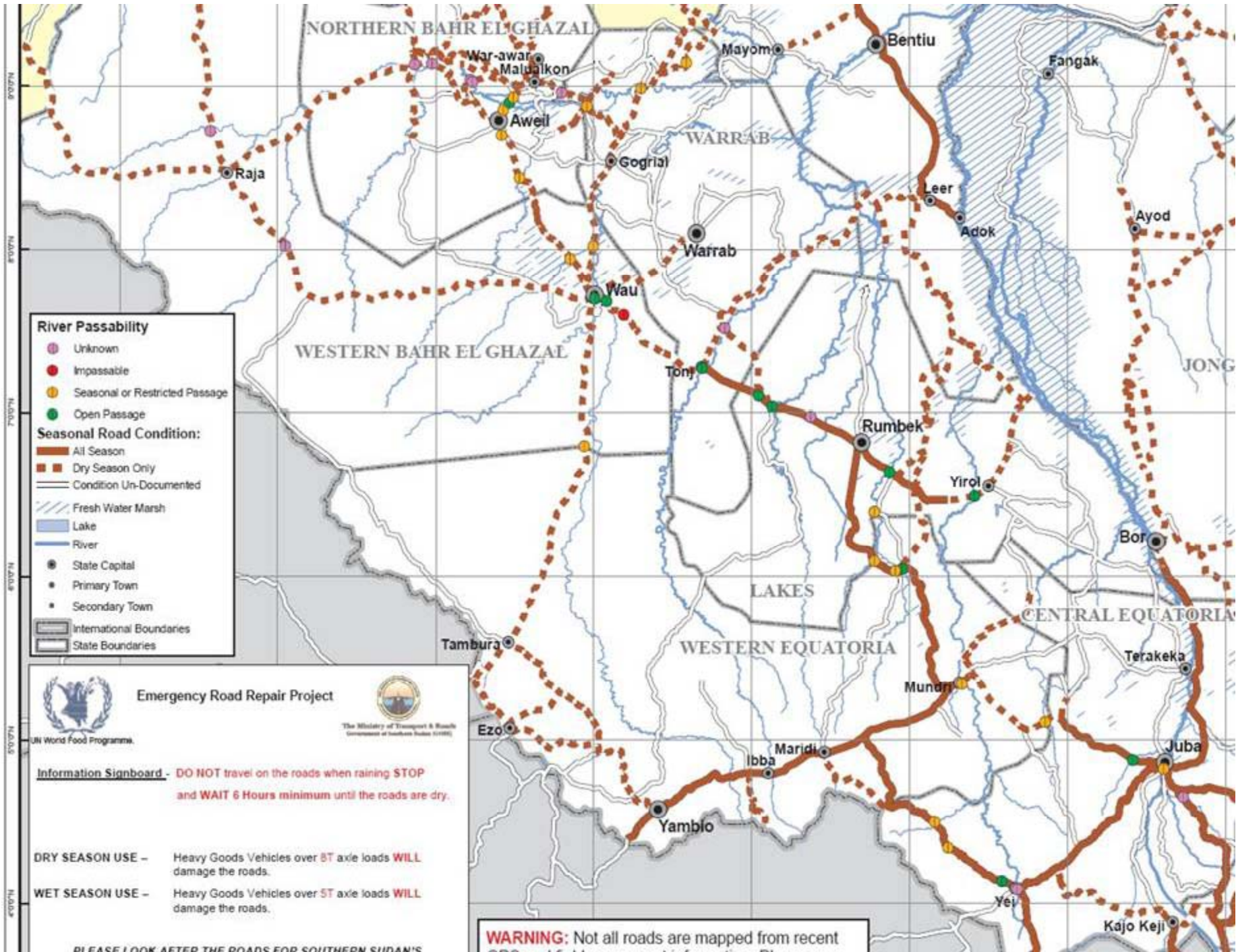


Landslide risk analysis



- Poor/Incomplete information
- Chaos/Political factors/security
- Terrain
- **Climate**
- Damaged infrastructure
- Dynamic theatre of operations
- Storage availability





River Passability

- Unknown
- Impassable
- Seasonal or Restricted Passage
- Open Passage

Seasonal Road Condition:

- All Season
- Dry Season Only
- Condition Un-Documented

/ Fresh Water Marsh
 □ Lake
 — River

● State Capital
 ● Primary Town
 ● Secondary Town

— International Boundaries
 — State Boundaries



Emergency Road Repair Project



The Ministry of Transport & Roads
Government of Southern Sudan (2011)

UN World Food Programme

Information Signboard - DO NOT travel on the roads when raining STOP and WAIT 6 Hours minimum until the roads are dry.

DRY SEASON USE - Heavy Goods Vehicles over 8T axle loads WILL damage the roads.

WET SEASON USE - Heavy Goods Vehicles over 5T axle loads WILL damage the roads.

WARNING: Not all roads are mapped from recent

PLEASE LOOK AFTER THE ROADS FOR SOUTHERN SUDAN'S



Fly To Local Search Directions

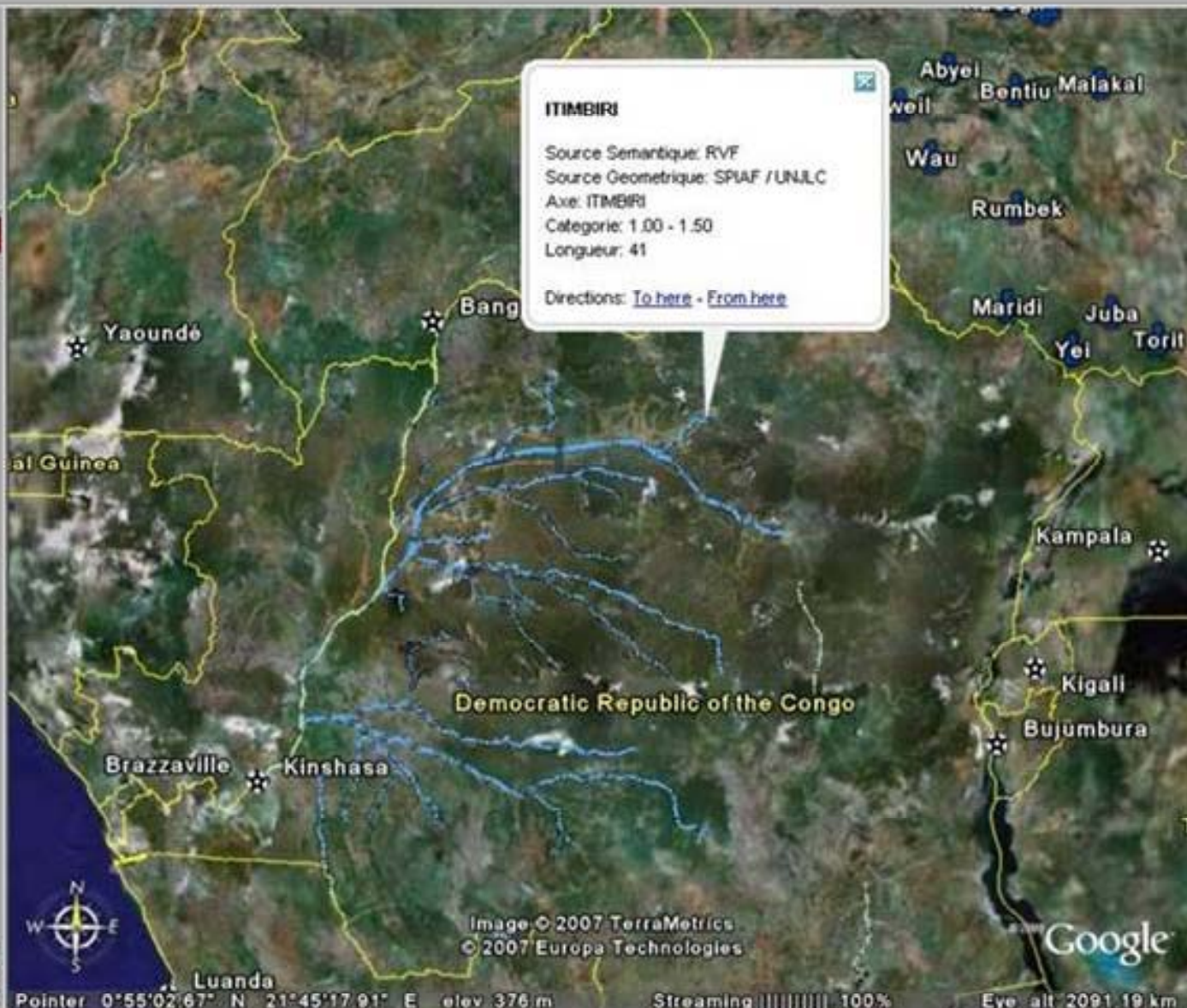
e.g. 1600 Pennsylvania Ave, 20006

Places

- ITIMBIRI
Source Semantique: RVF
Source Geometrique: SPIAF / UNILC
- KWANGO
Source Semantique: RVF
Source Geometrique: SPIAF / UNILC
- KWANGO
Source Semantique: RVF
Source Geometrique: SPIAF / UNILC
- KWANGO
Source Semantique: RVF
Source Geometrique: SPIAF / UNILC
- KWANGO
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Source Semantique: RVF
Source Geometrique: SPIAF / UNILC
- KWANGO
Source Semantique: RVF
Source Geometrique: SPIAF / UNILC
- KWANGO
Source Semantique: RVF
Source Geometrique: SPIAF / UNILC

Layers

- Community Services
- US Government
- Digital Globe Coverage



ITIMBIRI

Source Semantique: RVF
 Source Geometrique: SPIAF / UNILC
 Axe: ITIMBIRI
 Categorie: 1.00 - 1.50
 Longueur: 41

Directions: [To here](#) - [From here](#)



Pointer 0°55'02.67" N 21°45'17.91" E elev 376 m Streaming 100% Eye alt 2091.19 km

Navigation and map controls including:

- Lodging
- Dining
- Roads
- Borders
- Terrain
- Buildings

Navigation buttons: Home, Fly To, Local Search, Directions, Refresh, Rotate, Zoom In, Zoom Out, Full Screen, Print, Share.



- Poor/Incomplete information
- Chaos/Political factors/security
- Terrain
- Climate
- **Damaged infrastructure**
- Dynamic theatre of operations
- Storage availability



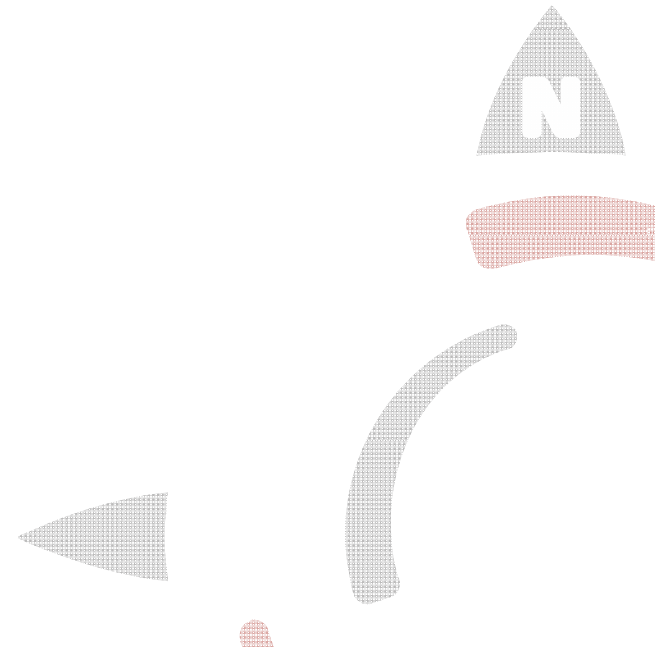
98	Mafraq Deir Antar Bridge	Bridge	
99	Jounaya to Tyre	Bridge	
103	ES SARAFAND HWY BR OV NAHR KHAIZARANE	Bridge	
104	AL KHIDR HIGHWAY BRIDGE OVER HIGHWAY	Bridge	
105	Zifta Road bridge over the Beirut to Tyre Highway	Bridge	
106	Sinniq	Bridge	
107	AL AWALI	Bridge	
108	SAYDA HWY BR NE OV RD	Bridge	
109	Al Masna Customs Crossing	Bridge	
113	Bridge between Tirbil & Firzil	Bridge	
114	Riyag Rail road bridge over Nahr al Litani	Bridge	
115	BEIRUT VIADUCT OV HWY - Bir El Abed	Overpass	Wreckage Removal
116	BEIRUT ASHIYAH HWY OVER Hadi Nasrallah HWY	Overpass	Wreckage Removal
117	AIRPORT Bridge	Bridge	
118	Jbal Ibotm Bridge	Bridge	
119	qaqaieit aljir	Bridge	Temporary Steel Bridge
120	Wazani Bridge	Bridge	
121	El Mari Bridge	Bridge	
122	Fardis Bridge	Bridge	
123	Zaghla Bridge	Bridge	
124	Salhab	Bridge	
125	Tahrir	Bridge	
126	Qaa Culvert (Gov. Hospital)	Culvert	New Diversion
127	Arqa Bridge	Bridge	
128	zaarourieh -allek	Culvert	New Diversion
129	saaydeh - majdaloun	Culvert	New Diversion
130	haret sakher - Ghazir	Bridge	New Diversion
131	BednayeI bridge	Bridge	New Diversion
133	Taanayel Taalbaya Bridge	Bridge	Temporary Steel Bridge
134	Wadi elakhdar/Arbsalim/Kfar Remman	Bridge	Temporary Steel Bridge
135	Ansariyeh Deir Takla	Overpass	
136	Ansariyeh	Overpass	
137	Abou El Aswad	Overpass	
138	Babliyeh interchange	Interchange	
139	Zahrani bridge over the river	Bridge	
140	ROUMINE - Deir Ezzahrani	Bridge	Temporary Steel Bridge
141	Saoufar-Charon	Bridge	
142	Adweh	Bridge	New Diversion

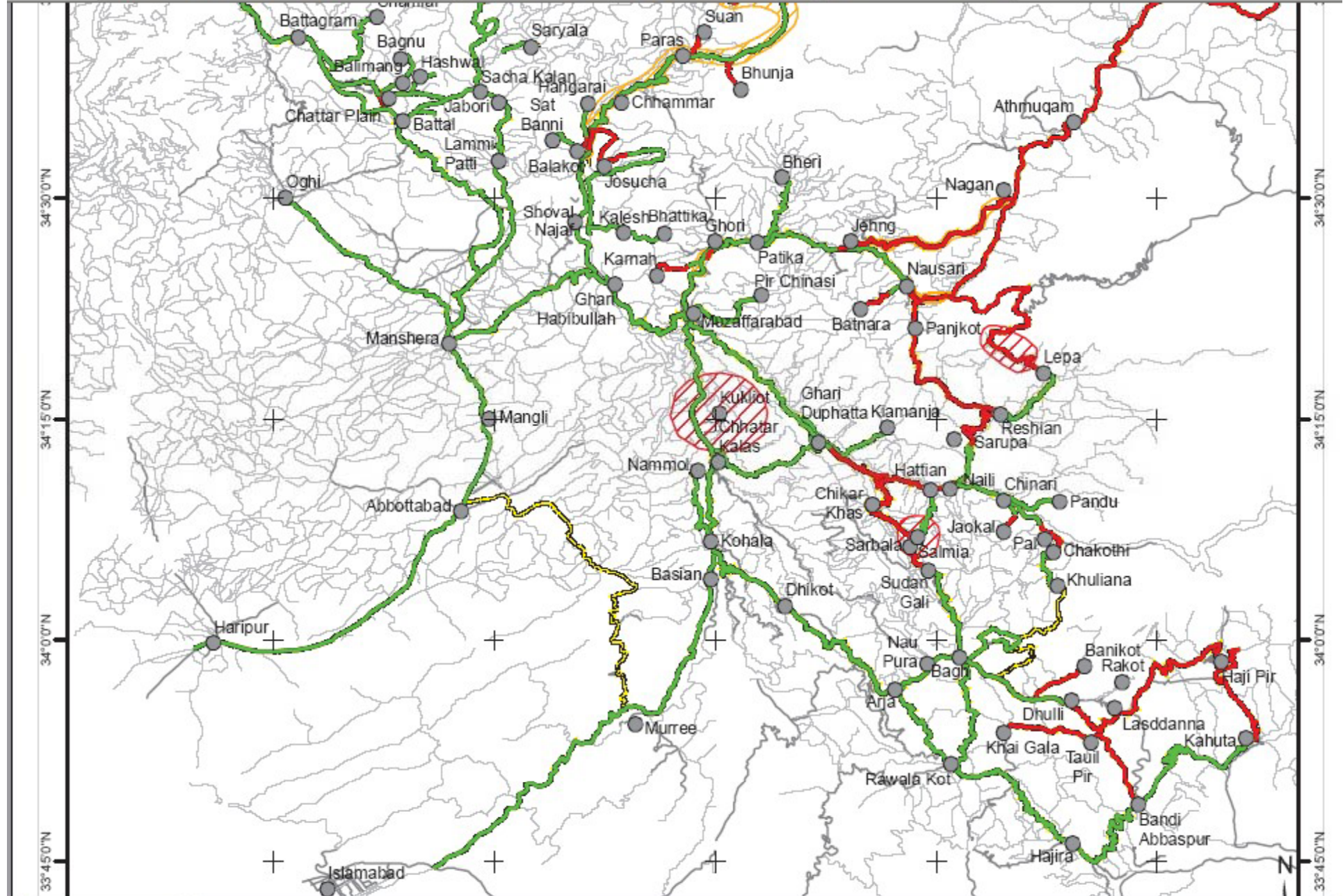


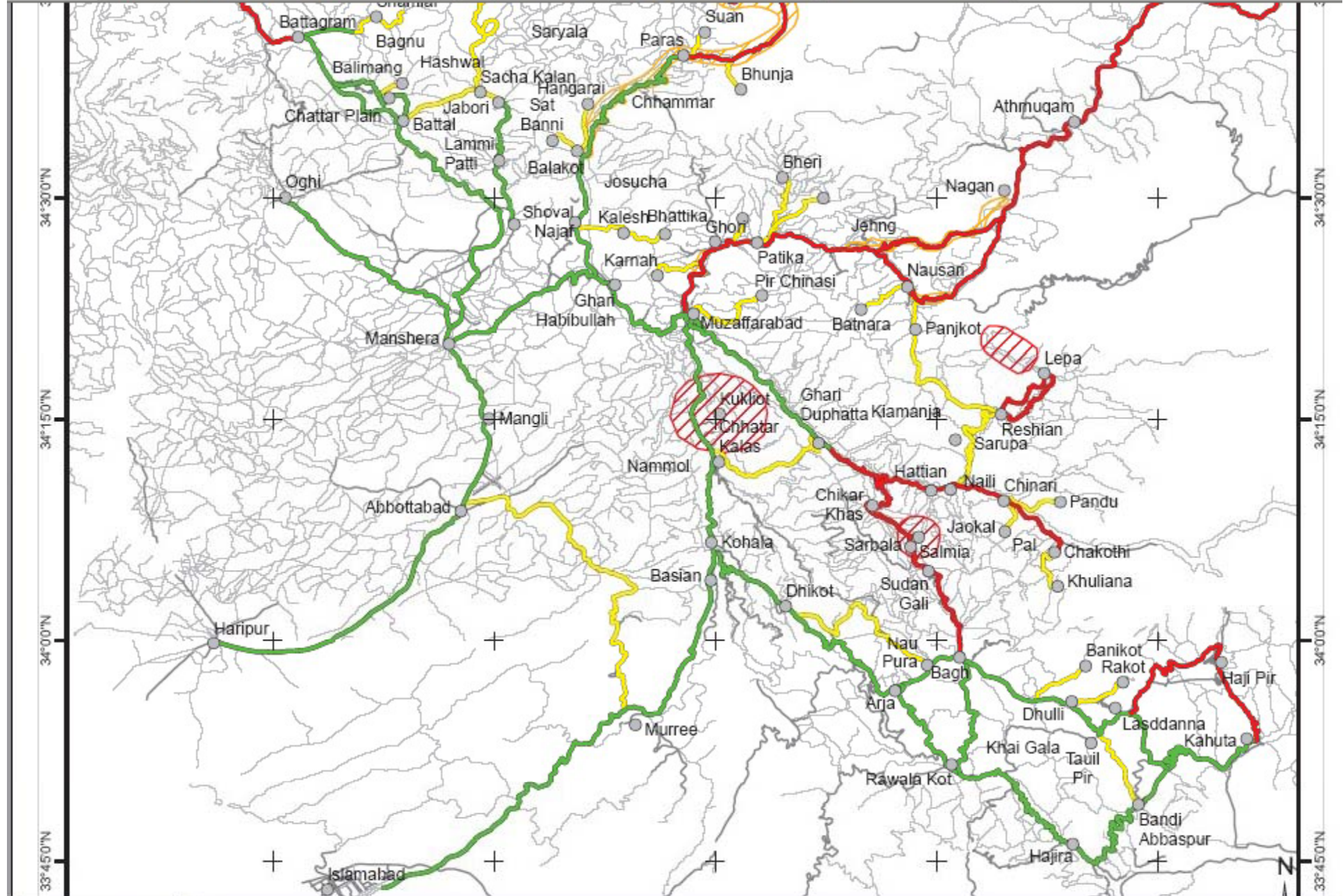


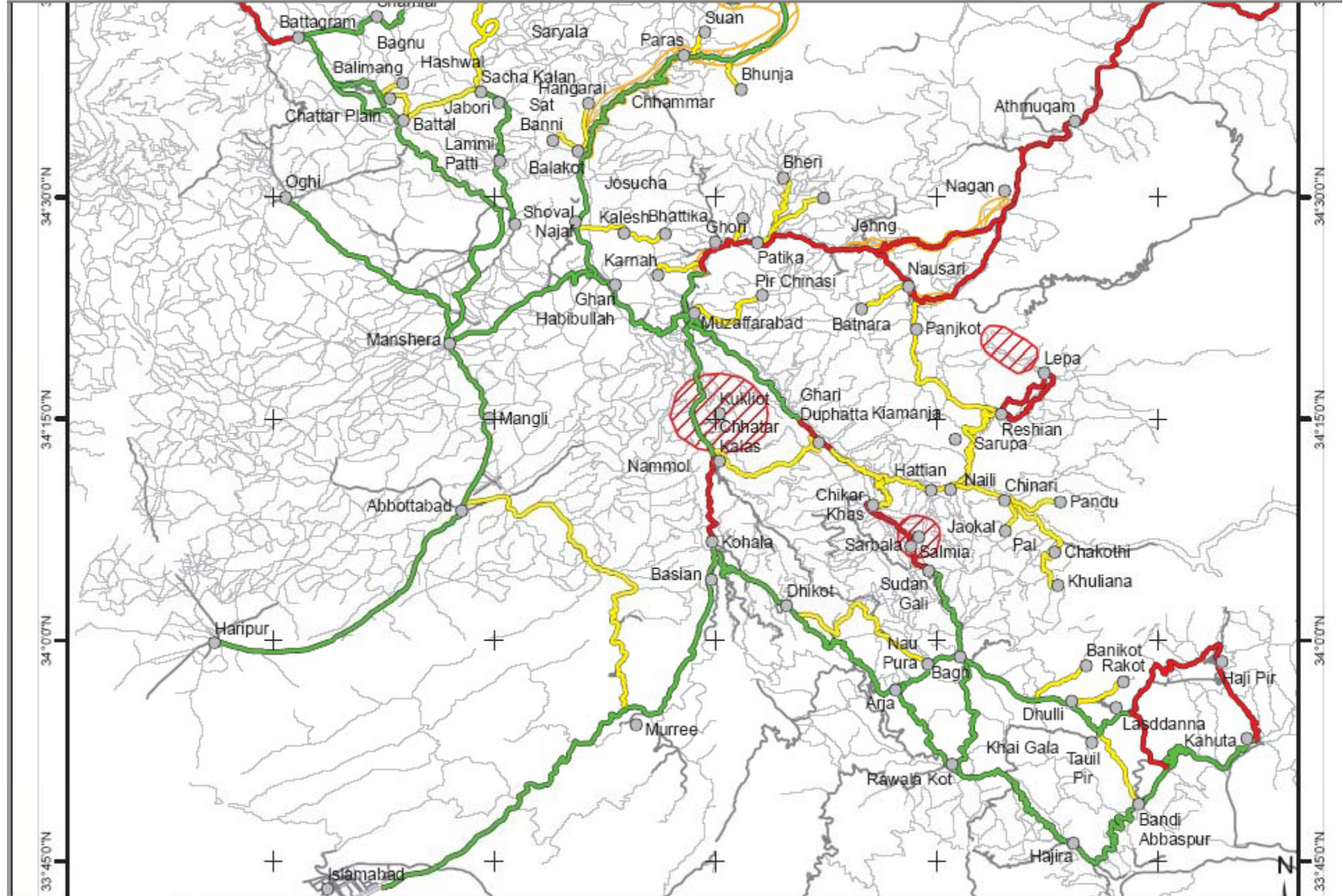
IM to support problems of...

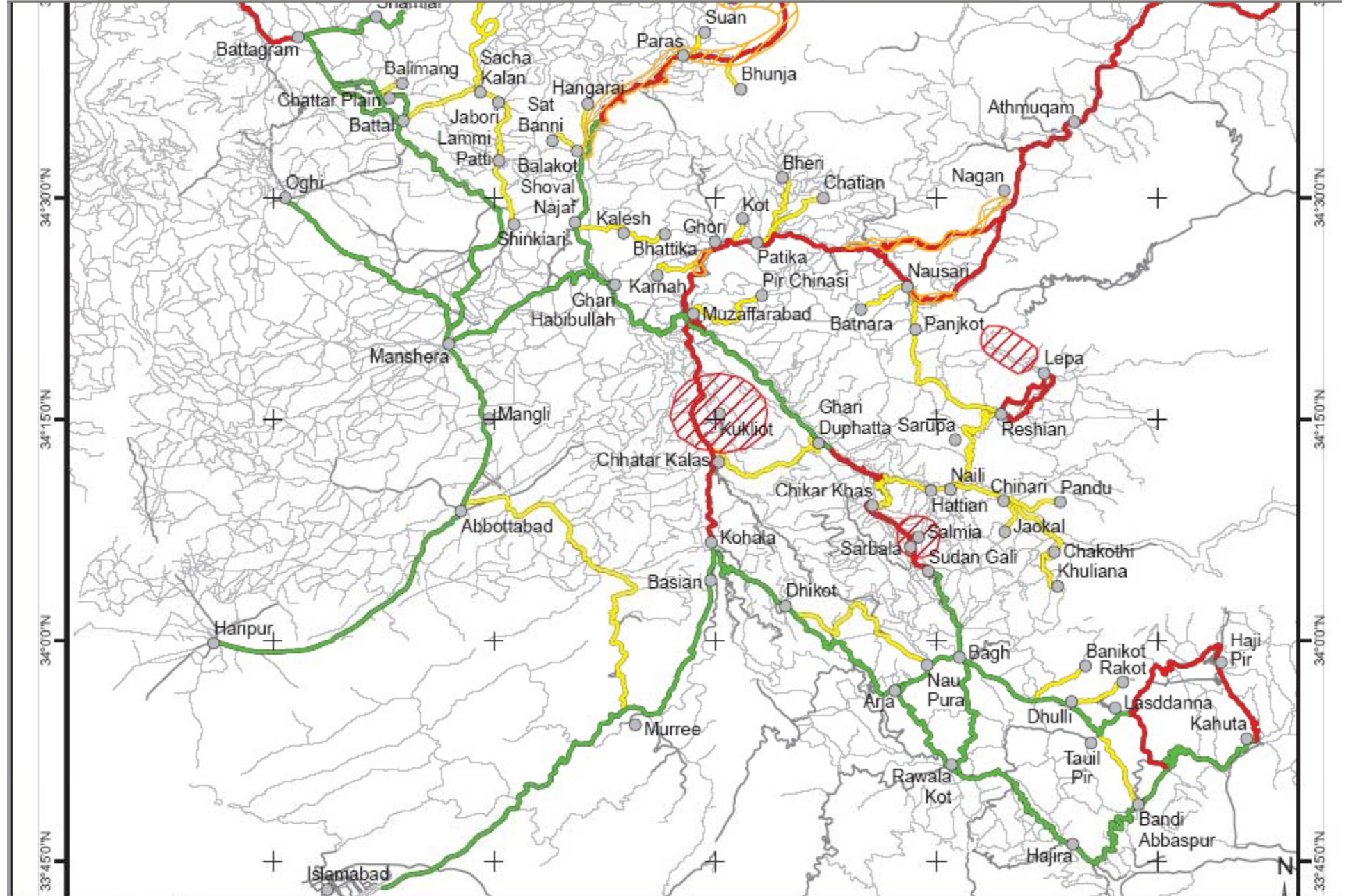
- Poor/Incomplete information
- Chaos/Political factors/security
- Terrain
- Climate
- Damaged infrastructure
- Dynamic theatre of operations
- Storage availability

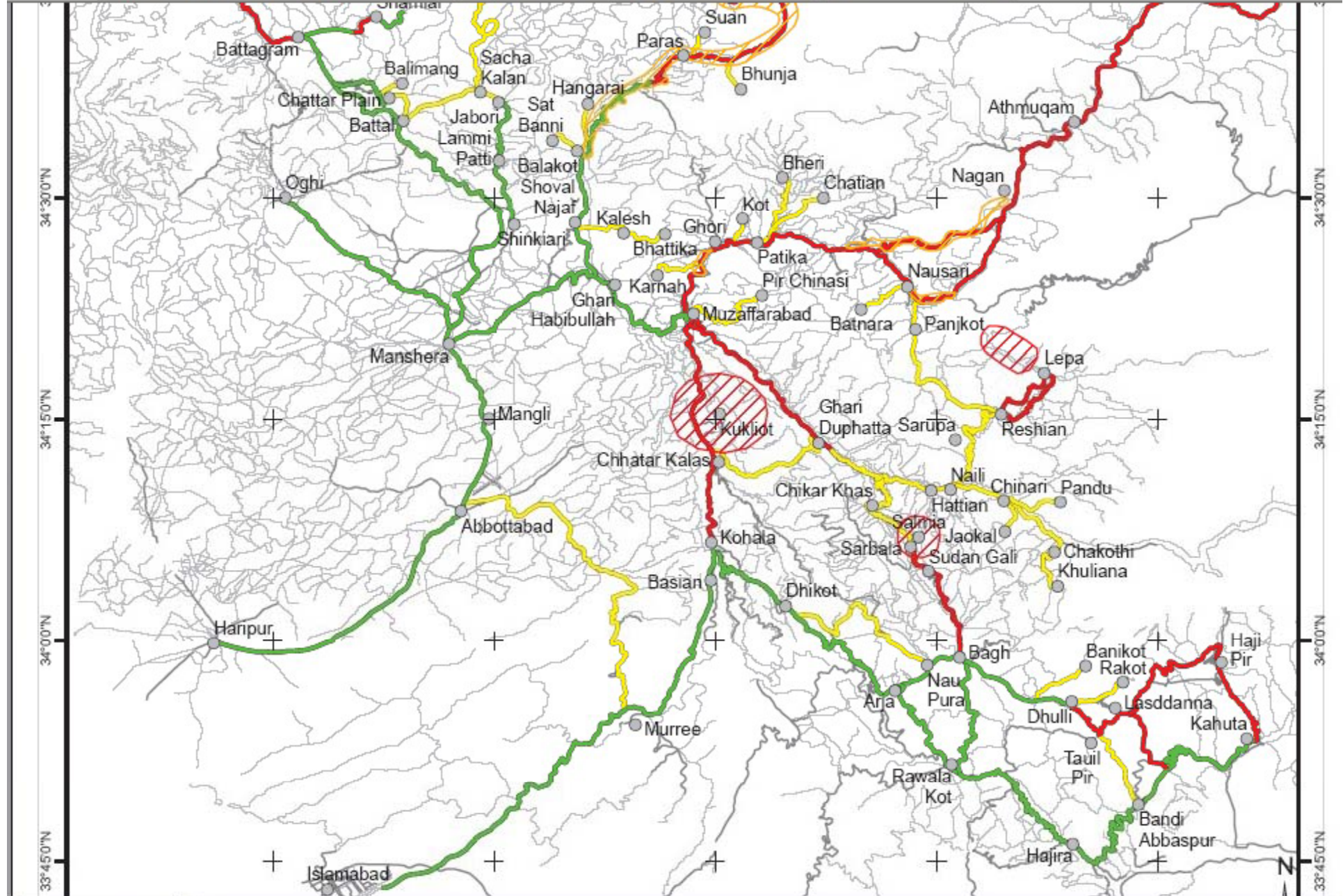




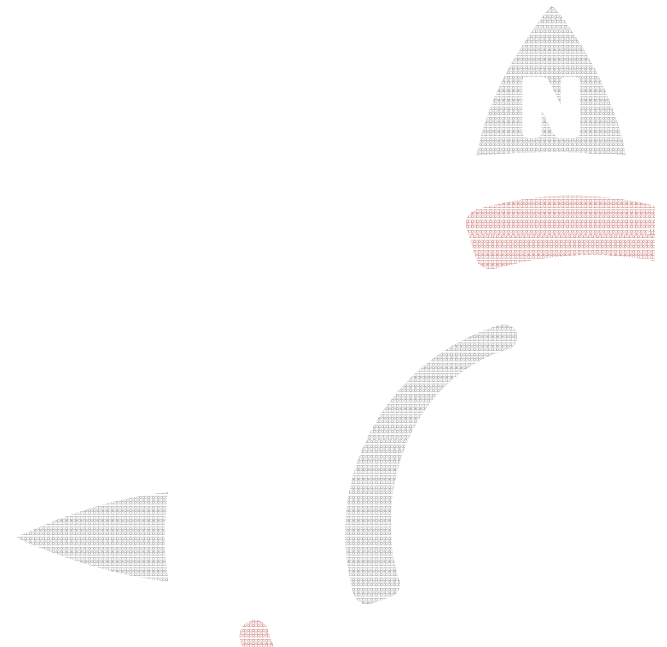




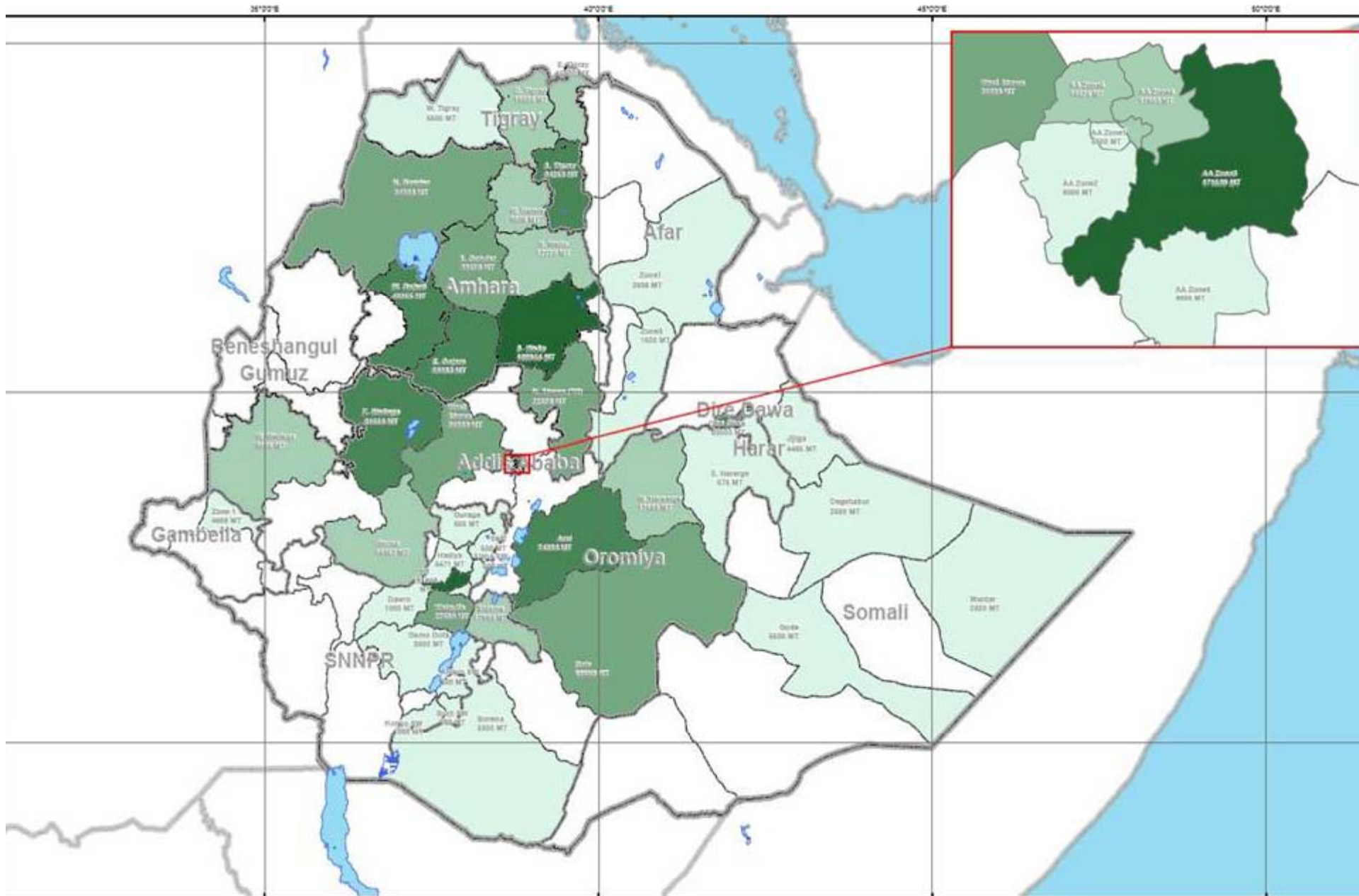




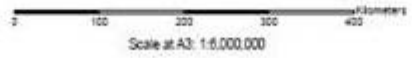
- Poor/Incomplete information
- Chaos/Political factors/security
- Terrain
- Climate
- Damaged infrastructure
- Dynamic theatre of operations
- **Storage availability**



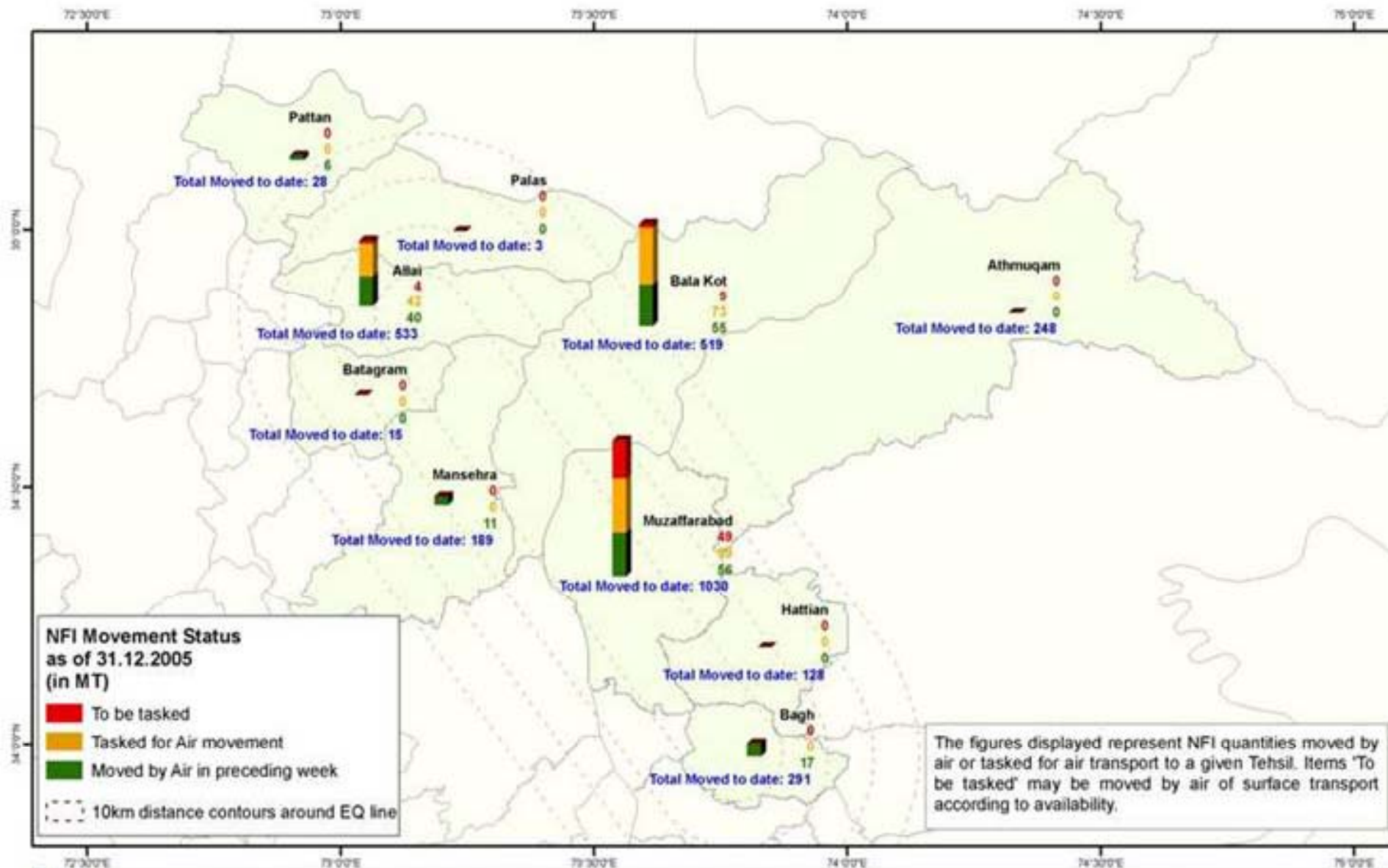




ETHIOPIA
Zone Warehousing Capacity



Date Created: 09 January 2019
 Map from: UNLCC, ISETH, ISEI, A
 Culture/Map: IGIS/GeoGraphic
 (UNLCC) Map
 The boundaries and names &
 designations used on this map
 do not imply endorsement or
 approval by UNLCC. All other
 the best available at the time
 was produced. Update should
 be used where applicable.



NFI Movement Status as of 31.12.2005 (in MT)

- To be tasked
- Tasked for Air movement
- Moved by Air in preceding week
- - - 10km distance contours around EQ line

The figures displayed represent NFI quantities moved by air or tasked for air transport to a given Tehsil. Items 'To be tasked' may be moved by air or surface transport according to availability.



NFI AIR CARGO MOVEMENT BY TEHSIL
As of 31.12.2005

Map Created: 28.12.2005	Editor: m8008
UNJLC Map Num: UNJLC-204-402	GLIDE Num: 80-2005-00174-PK1
The boundaries and names and the designations used on this map do not imply official endorsement or acceptance by the United Nations.	

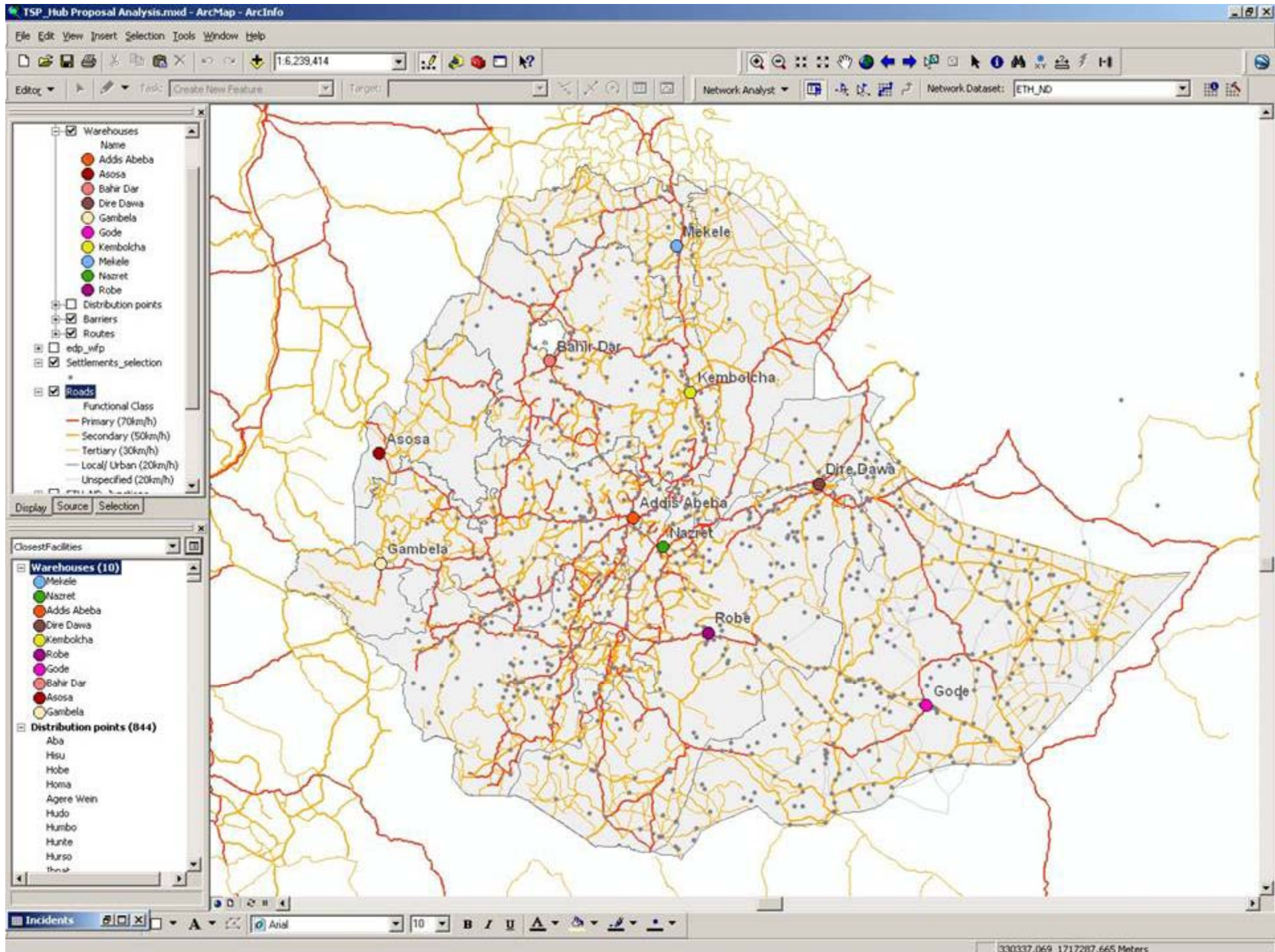
- *What is the optimal route between A and B?*
- *What is the next best alternative if this route is blocked?*
- *What is the level of accessibility of population X?*
- *What is the optimal configuration of pre-positioning warehouses?*

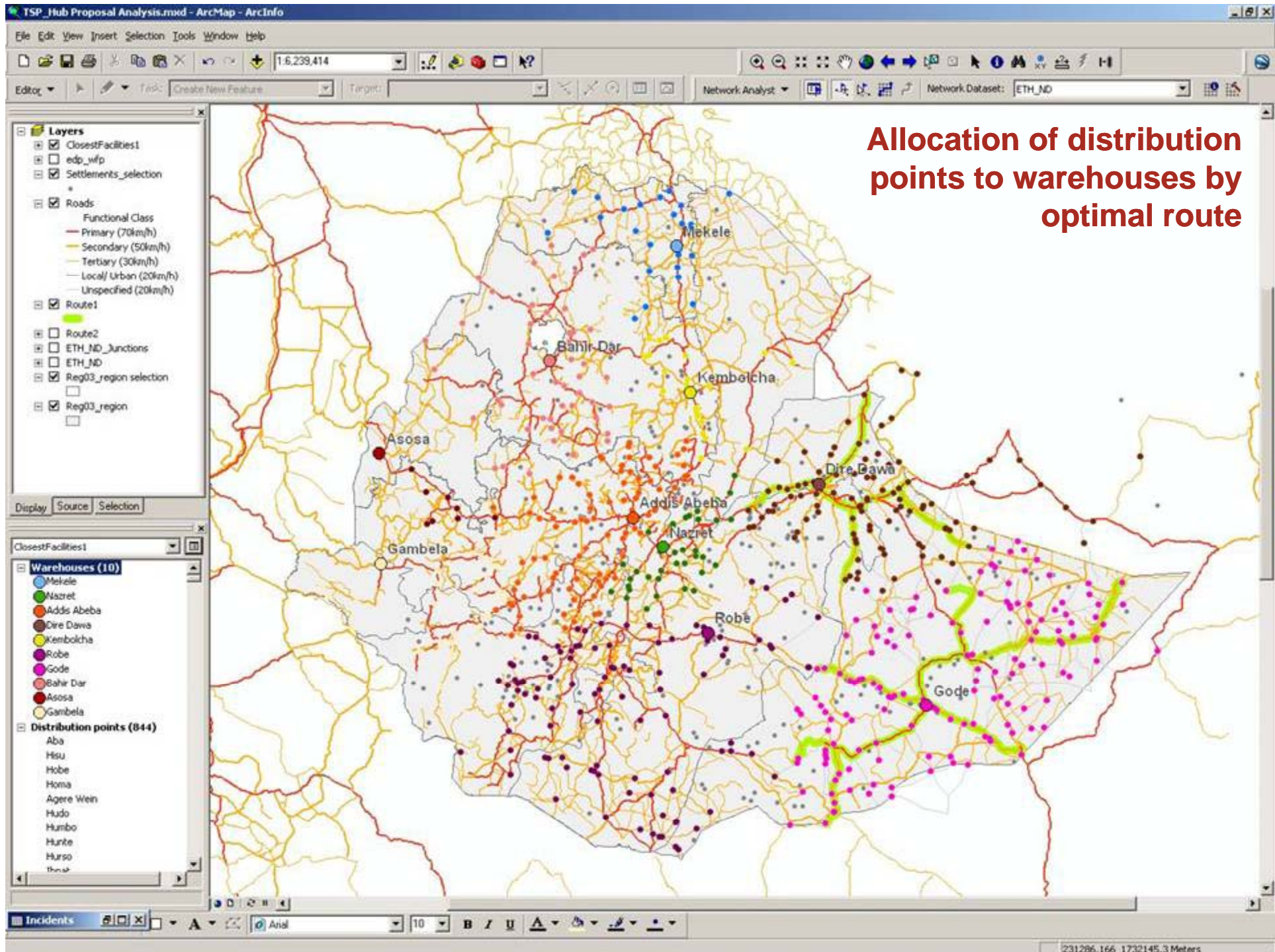


e.g: Origin-Destination matrix for Mozambique

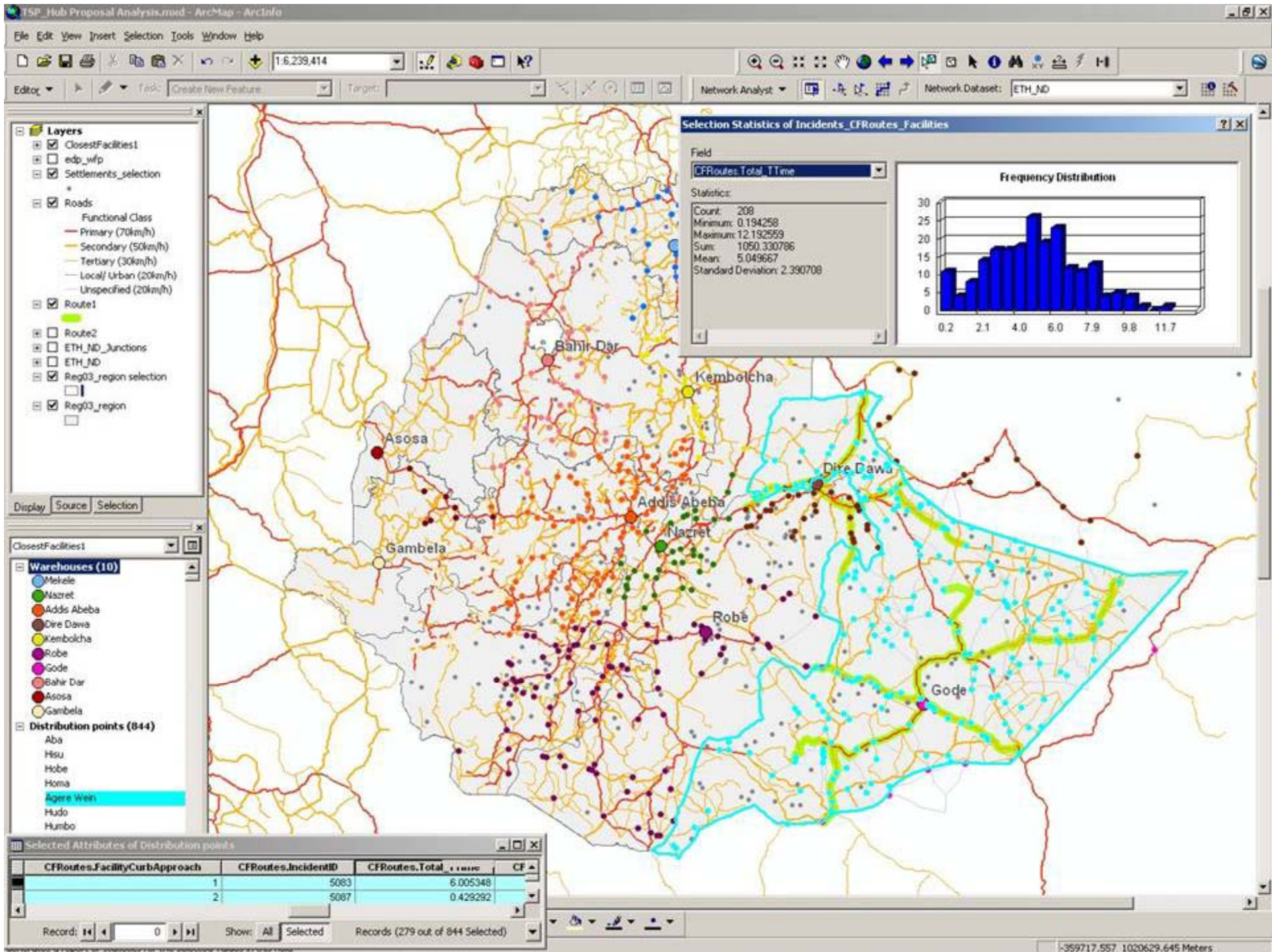
Distance (Km) TravelTime	Beira	Blantyre	Caia	Charre	Chemba	Chiramba	Chupanga	Guro	Lilongwe	Luabo	Manica	Maputo	
Beira		12h2'	4h28'	6h13'	7h43'	9h49'	6h26'	6h42'	15h18'	16h34'	4h12'	19h49'	8h4
Blantyre	567		7h41'	5h48'	8h14'	10h20'	10h50'	6h43'	5h10'	14h1'	10h36'	29h1'	13h
Caia	268	307		1h53'	3h22'	5h29'	3h16'	10h7'	12h37'	12h13'	7h37'	23h14'	5h3
Charre	337	230	77		2h26'	4h32'	5h2'	11h53'	10h44'	11h3'	9h23'	24h59'	7h1
Chemba	358	288	97	58		2h6'	6h31'	10h51'	13h10'	12h46'	10h52'	26h29'	8h4
Chiramba	400	330	139	100	42		8h38'	8h46'	15h16'	14h52'	12h38'	28h35'	10h
Chupanga	265	346	47	116	136	179		12h6'	15h46'	15h22'	9h35'	25h12'	2h1
Guro	403	369	608	677	232	190	604		8h36'	20h30'	3h52'	22h17'	14h
Lilongwe	919	306	608	531	589	631	647	516		18h57'	12h28'	30h53'	18h
Luabo	534	628	273	226	255	297	312	993	929		19h43'	35h20'	17h
Manica	252	601	458	527	547	422	454	232	748	723		19h47'	11h
Maputo	1189	1707	1395	1463	1484	1526	1391	1338	1854	1660	1188		27h
Marromeu	310	391	92	161	182	224	45	650	692	358	499	1436	
Massenguza	364	445	146	215	236	278	99	704	746	412	554	1490	
Mopeia Velha	467	561	206	159	188	230	245	926	862	67	656	1593	
Morrumbala	392	314	131	84	113	155	171	732	615	158	581	1518	
Mutarara	324	245	63	15	44	87	102	663	546	212	513	1450	
Nampula	1010	647	749	654	731	773	789	1011	948	684	1244	2349	
Quelimane	587	440	326	278	307	349	365	804	741	261	776	1713	
Sena	321	251	60	21	37	79	99	660	552	218	510	1447	
Tambara	811	456	757	681	739	554	797	408	480	1079	640	1746	
Tete	561	211	513	436	494	305	552	158	358	834	391	1496	

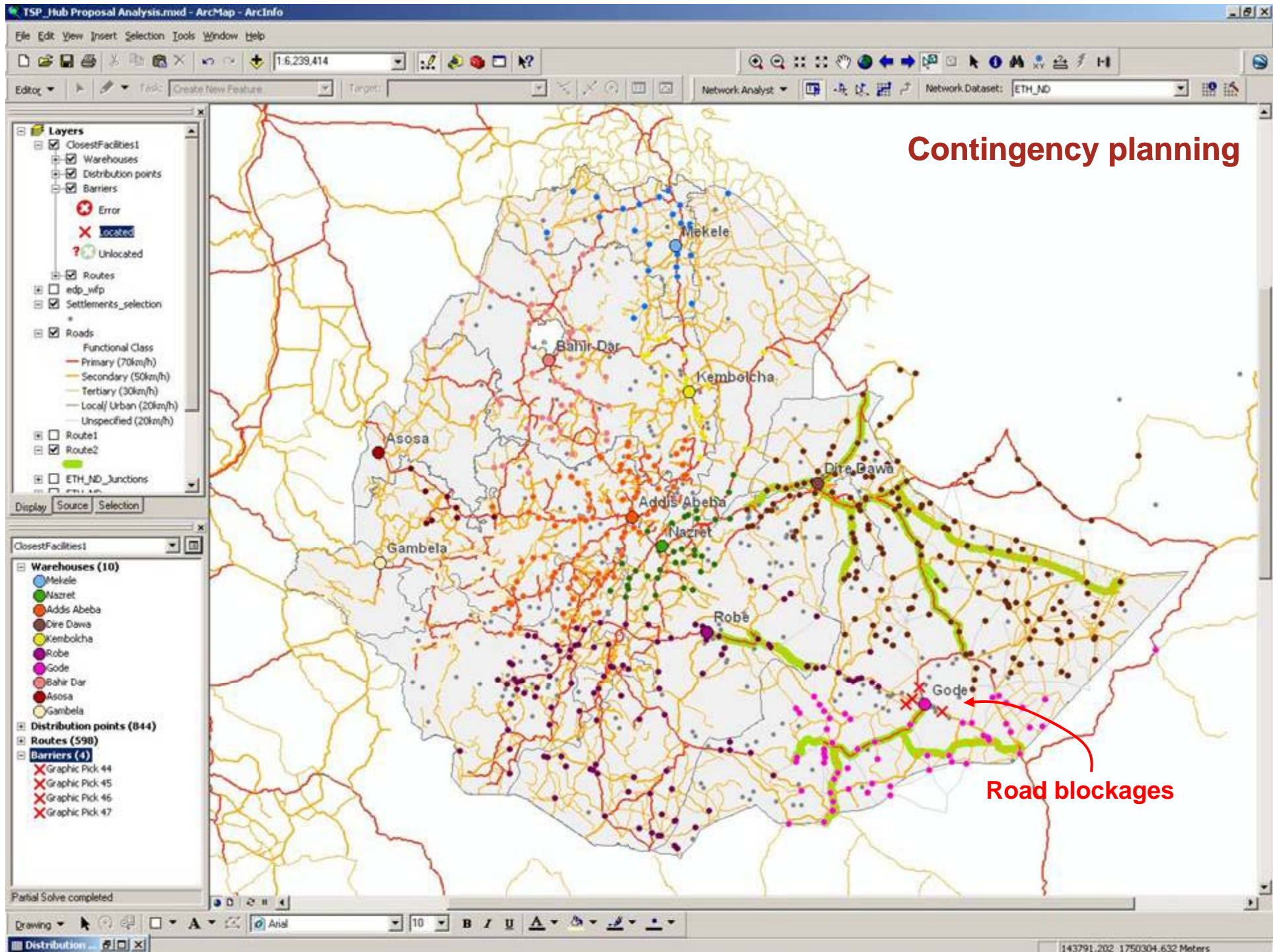


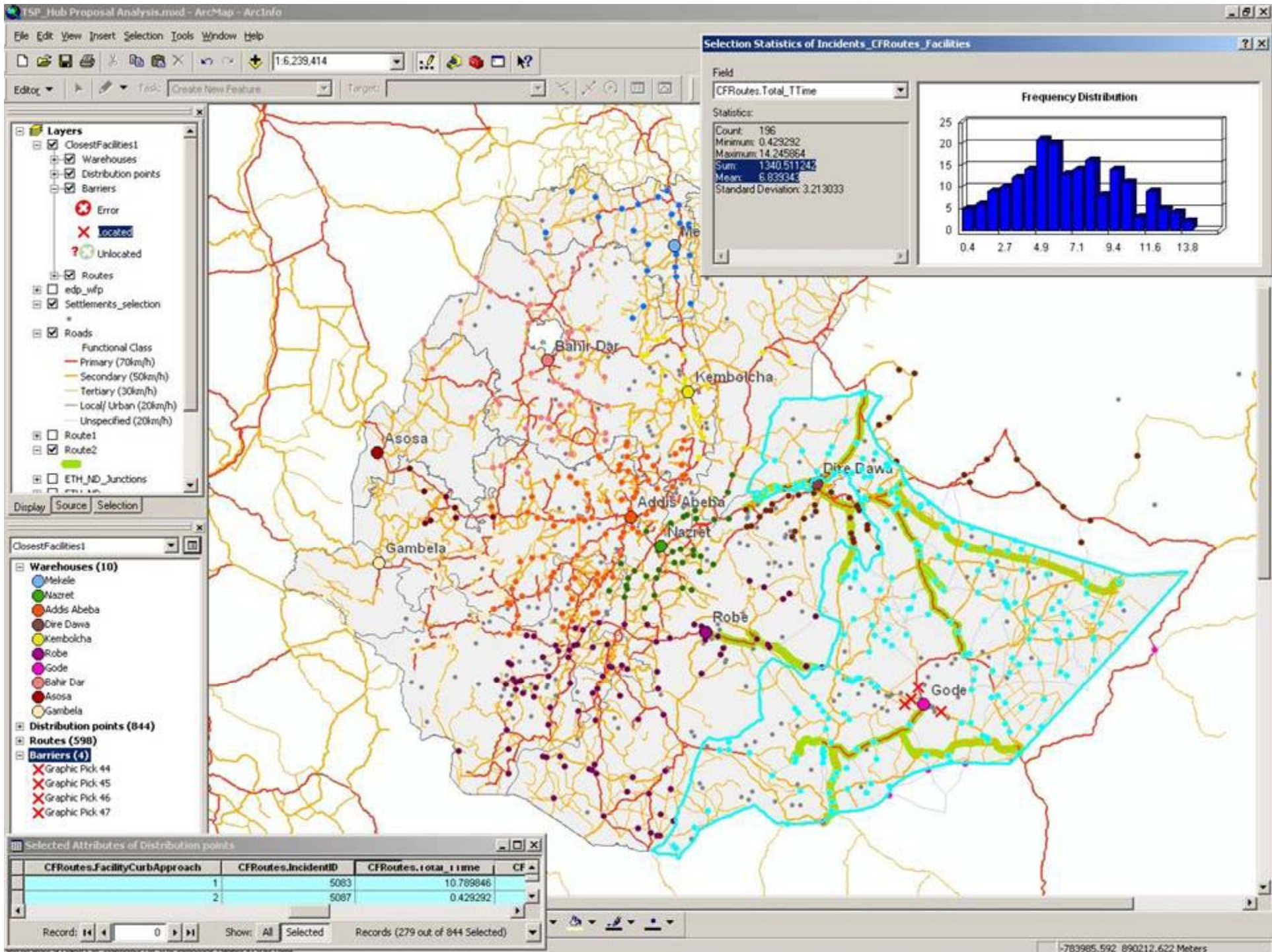




Allocation of distribution points to warehouses by optimal route

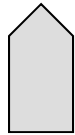




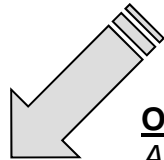
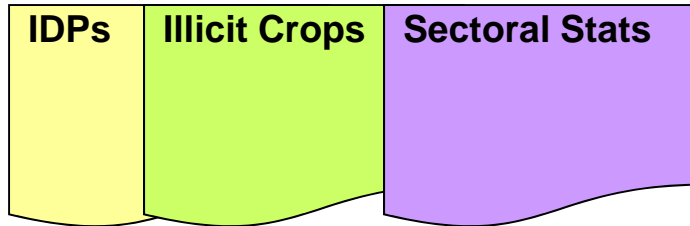
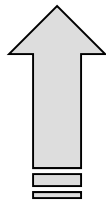


Setting iMMAP IM process

COP



iMMAP



OCHA: (*Humanitarian Analysis*)

Period: 2007 – 2008: ~7,000 records

Without X,Y

UNDSS: (*Security/Conflict Analysis*)

Daily Security Report

Other sources: CINEP, CERAC, P.Obs.

Raster: TLM 100K, DEM 90m, TLM50K?, Ikonos?

Vector: Admin, Hydrology, Roads, Ppl, infrastructure, iMMAP is vectorizing ppl and point of interest from TLM100

OCHA:

More than 400 variables available.

OCHA:

4,000 Orgs registered

200 Orgs program/project registered

ACCION SOCIAL:

Int'l. Coop. Map

Humanitarian Offer

ACCION SOCIAL:

Period: 1997 – 2008

Methodology: IDP Exp/Rec. by Record

CODHES:

Period: 1995 – 2007

Methodology: IDP Reception Estimated

Other sources: Caritas Colombia

UNODC:

SIMCI project. Coca Census 2000 - 2007

PAICMA:

12,900 records (landmines & UXO)

35% with X,Y

7,200 Victims (65% Army, 35% civilians)

Other Sources:

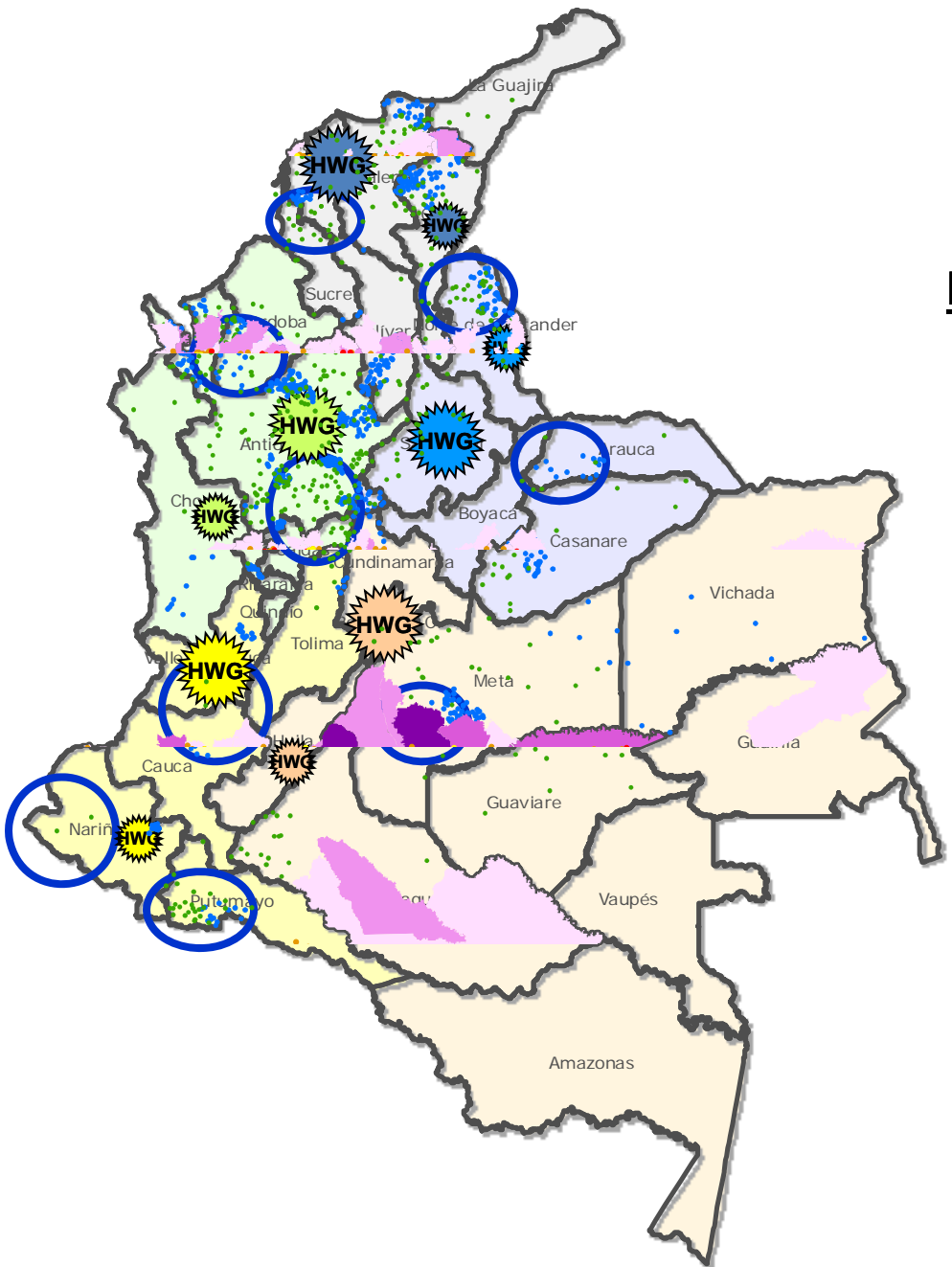
Colombian Campaign To Ban Landmines, Caritas Colombia, Field

Landmines
UXO

Humanitarian
Events

Who
What
Where

Geographic Layers



Humanitarian Context

Landmines

HWG: UNS, iNGO, nNGO, Gov
IDP: Expelled

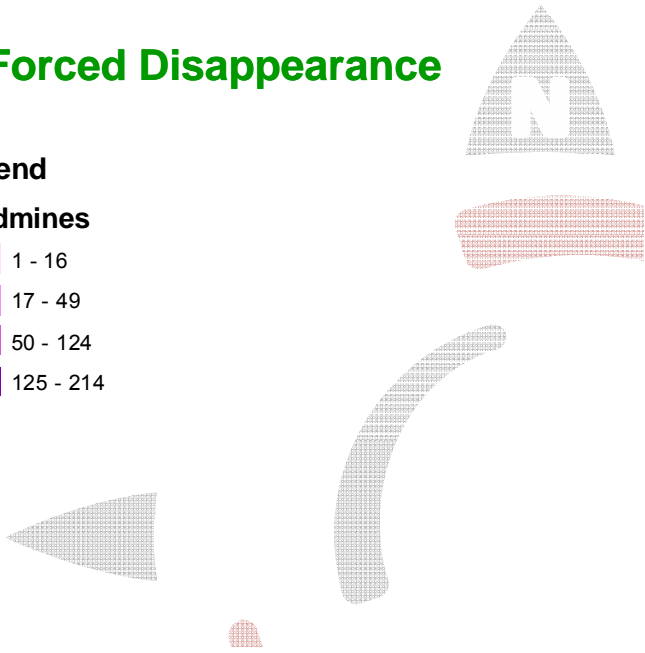
Armed Confrontations

Homicides: Protected Person

Demobilizations

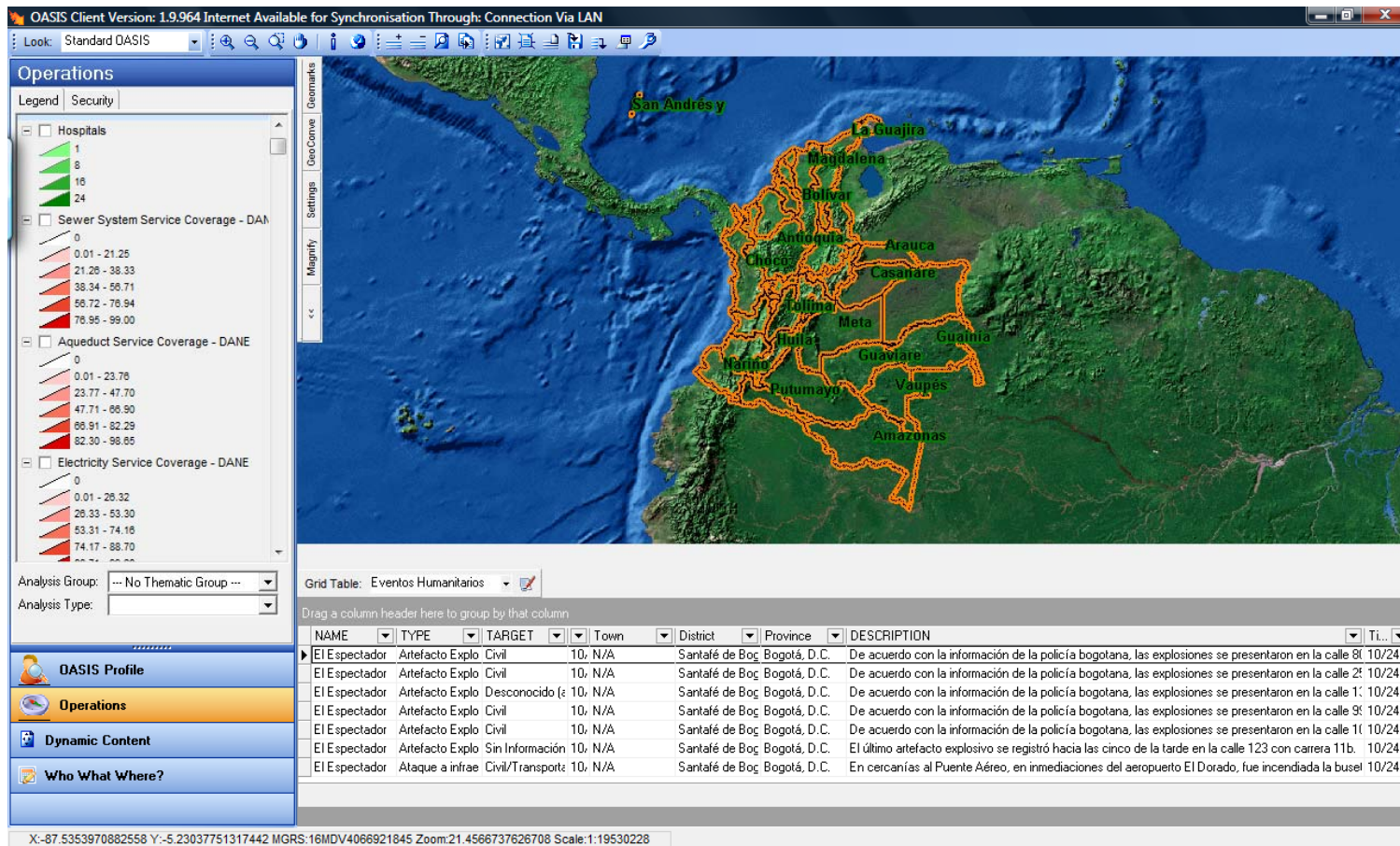
Forced Disappearance

- Legend**
- Landmines**
- 1 - 16
 - 17 - 49
 - 50 - 124
 - 125 - 214





OASIS Colombia



Landmine: PAICMA (Jan 1990 – Sep 2008)

Infrastructure:

Hospitals: Health Ministry (Dec 2007)

Utilities Coverage: National Department of Statistics (Jan 2008)

Road Network: National Institute of Roads (Dec 2007)

Conflict:

Coca Crops: UNODC Census (2000 – 2007)

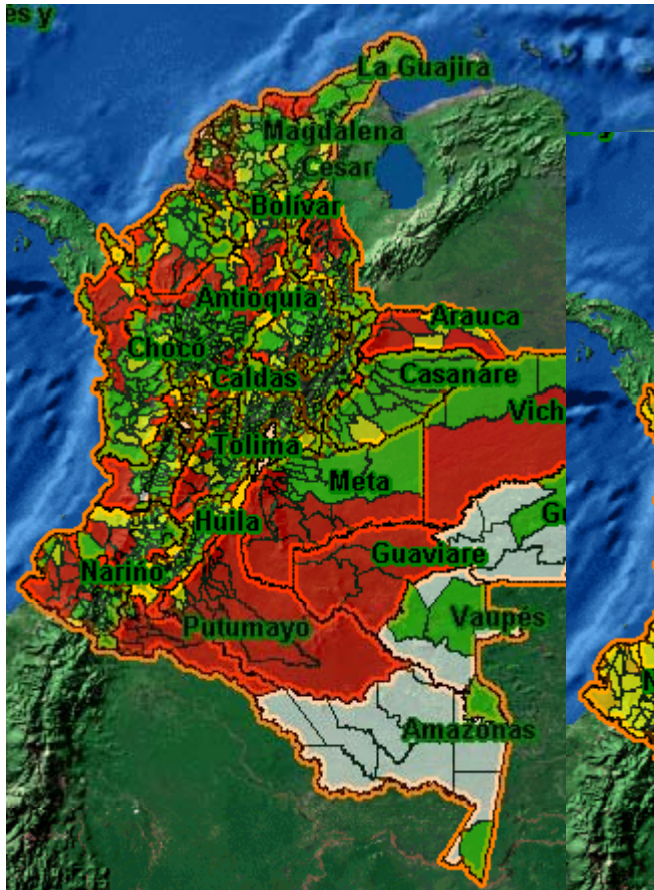
Humanitarian Events: OCHA (Jan 2007 – Sep 2008)

IDP: Agency for Social Action and Int. Coop. (1997-2008)

Hum. Risk Index: OCHA-Santo Tomas Univ. (May 2008)

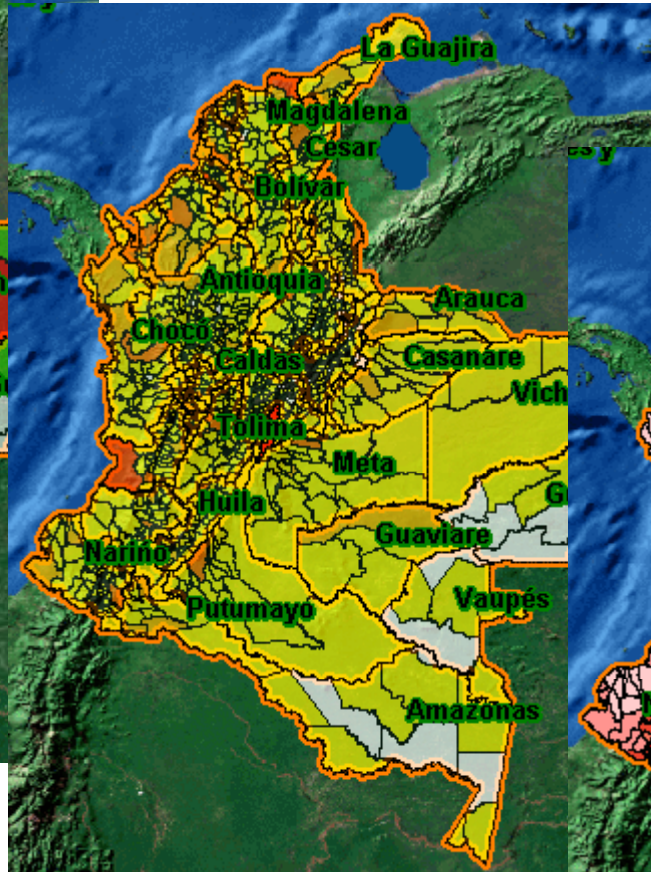
Demography: by Ethnic Groups, Area – National Department of Statistics(2008)

Displaying Sectoral Data

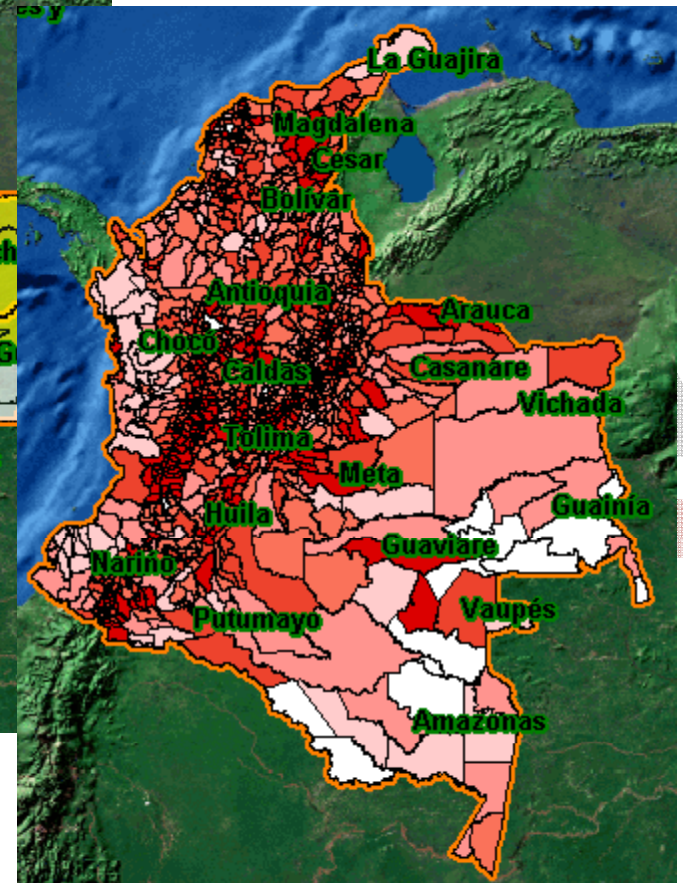


Humanitarian Risk Index: OCHA
 – Santo Tomas University, May 2008

IDP: Agency for Social Action and International Cooperation, 1997 – June 2008



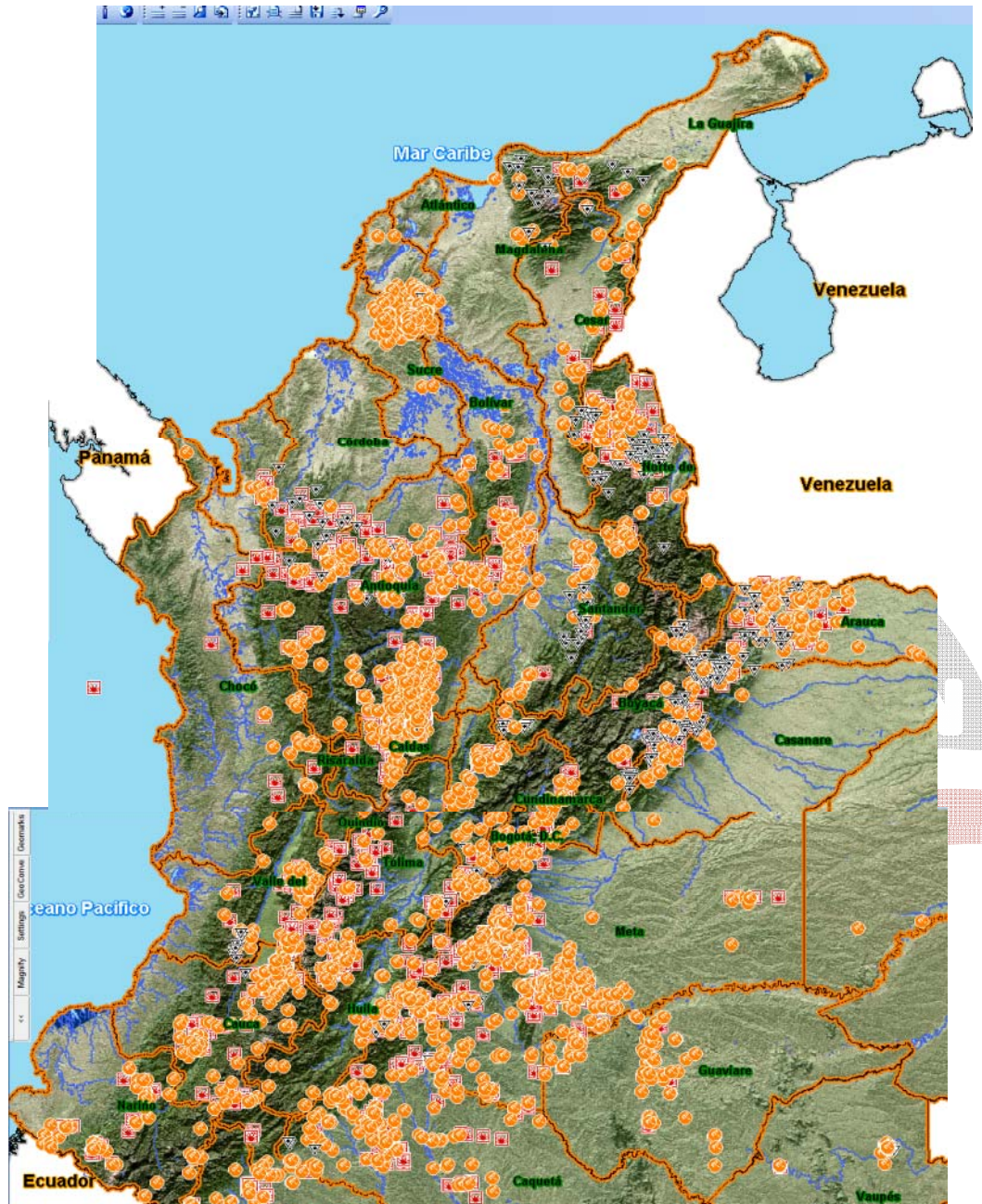
Aqueduct System Coverage: National Department of Statistics, January 2008





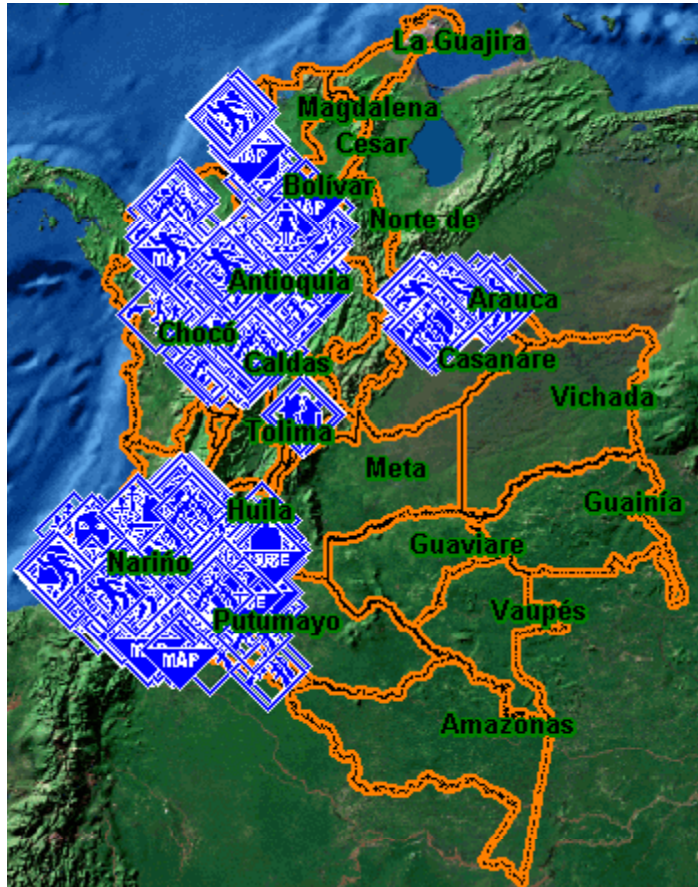
Landmine Eve

- Landmine Information - Colombian Gov
- Mine Accident
- Militar Demining
- Suspicious Infected Area



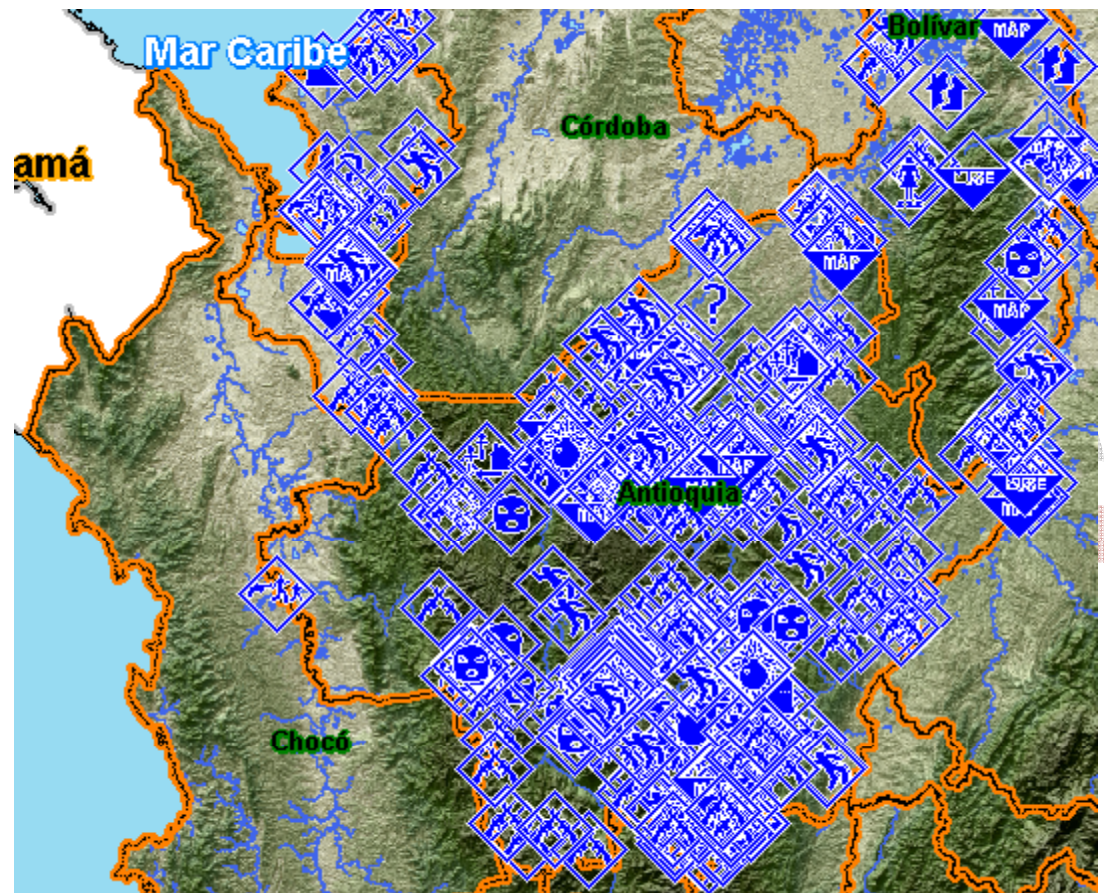


Humanitarian Events



Source: OCHA Database (Jan 2007 – Sep 2008).

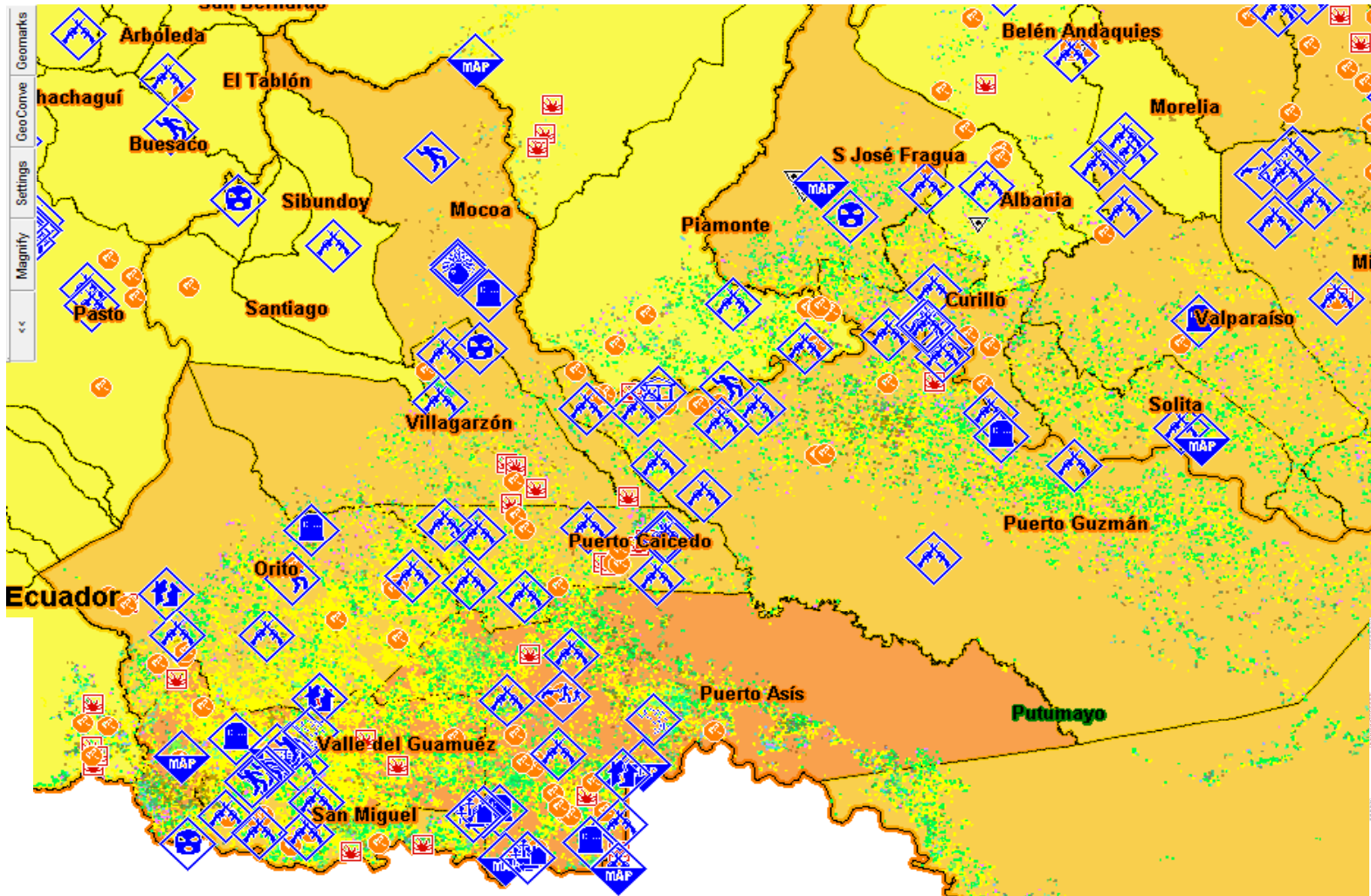
Primary Source: Ombudsman office, Human Rights Vice-Presidential Observatory, Military Forces, National Security Department, Media.



iMMAP is purging OCHA Hum. Events Database to get more accurate geographic position.

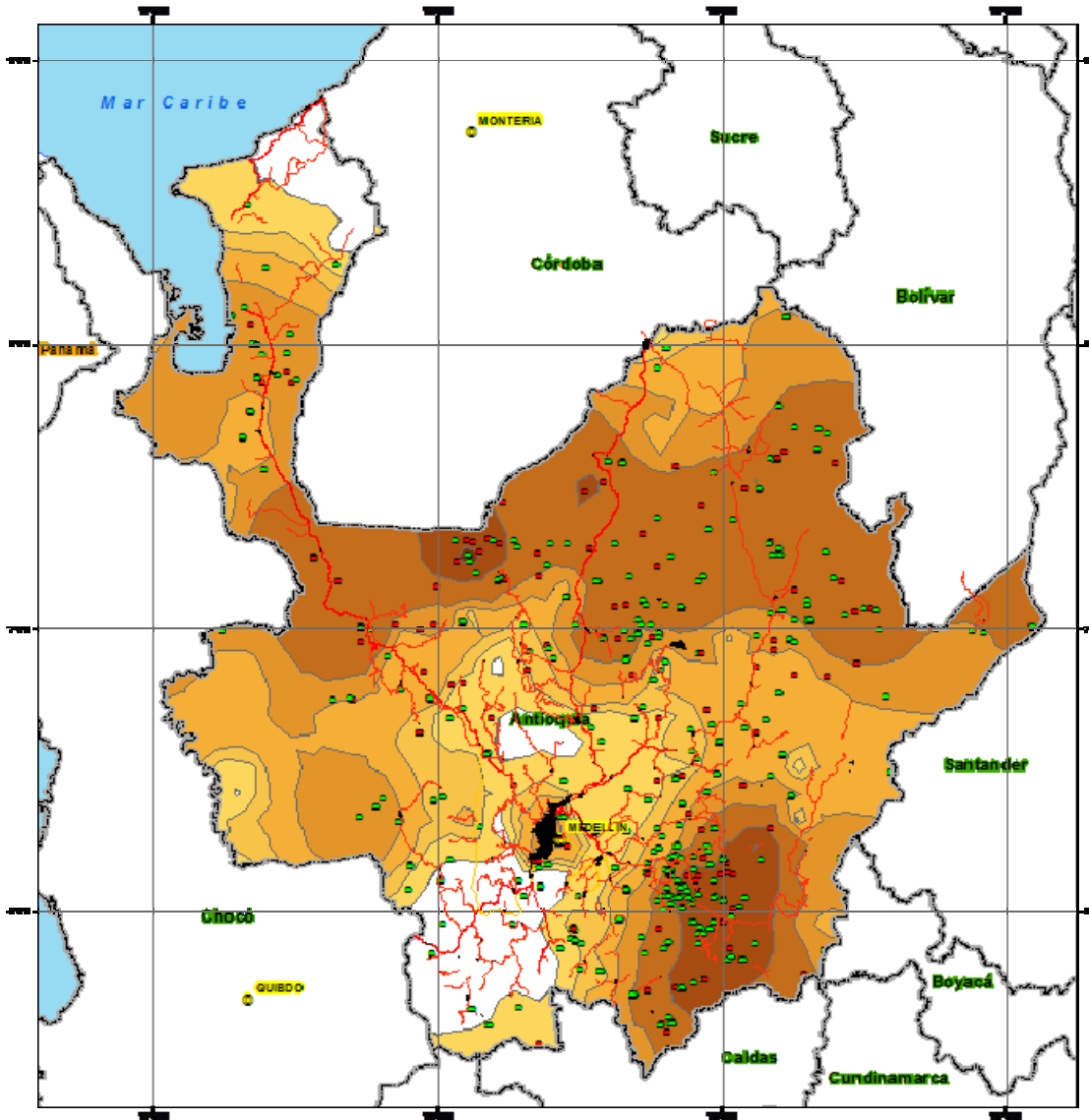


Data Fusion (Putumayo Department)



Landmine Events, Humanitarian Events, IDPs and Coca Crops

Data Analysis Sample: Antioquia



Victim Prediction Map (based on historic victims data: Jan 1990 – Sep 2008)

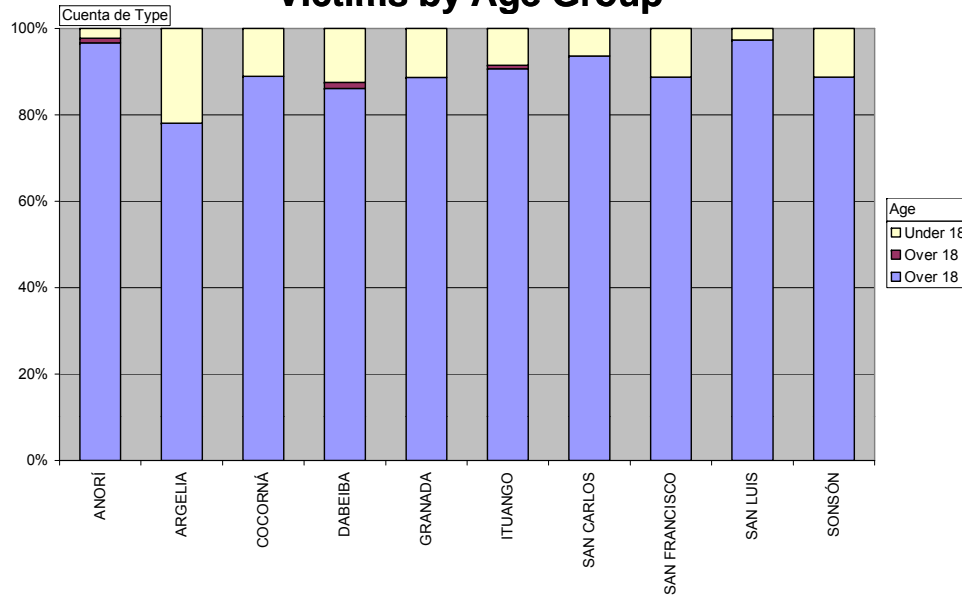
10 most Municipalities affected

Municipality	Qty Accidents
ANORÍ	91
ARGELIA	73
COCORNÁ	72
DABEIBA	72
GRANADA	62
ITUANGO	118
SAN CARLOS	141
SAN FRANCISCO	107
SAN LUIS	75
SONSÓN	71

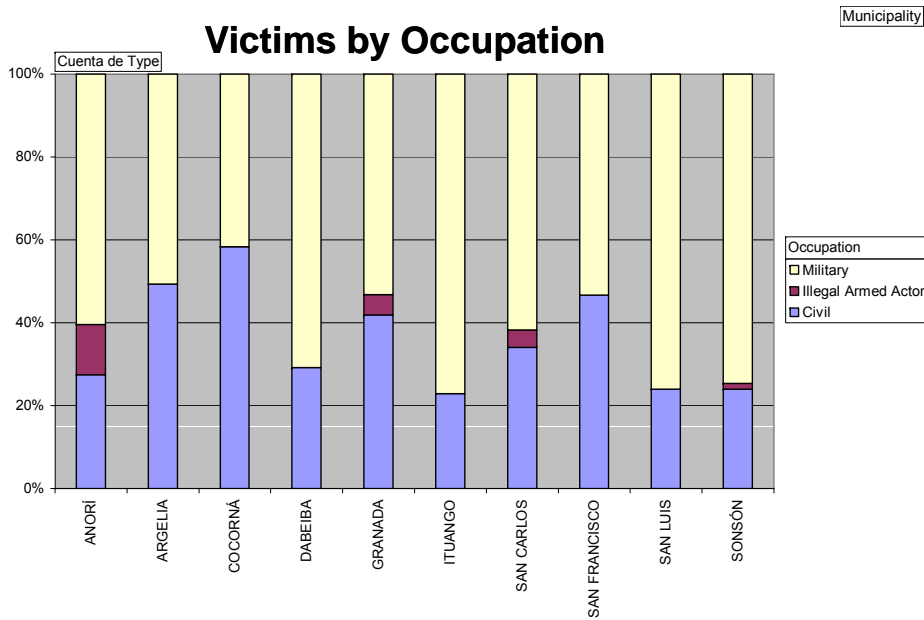


Data Analysis Sample

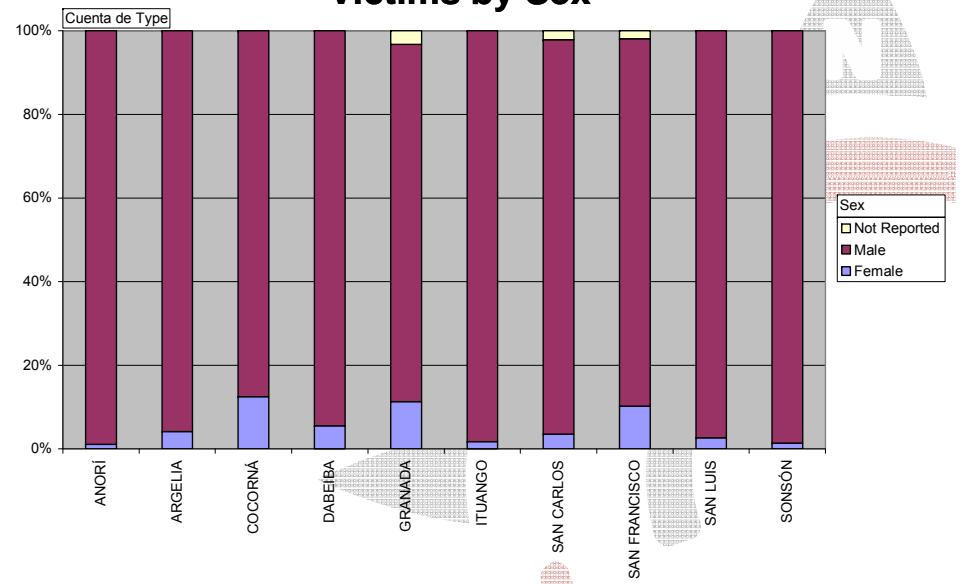
Victims by Age Group



Victims by Occupation

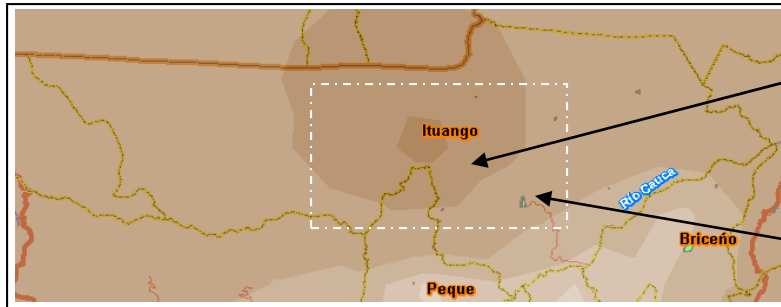


Victims by Sex



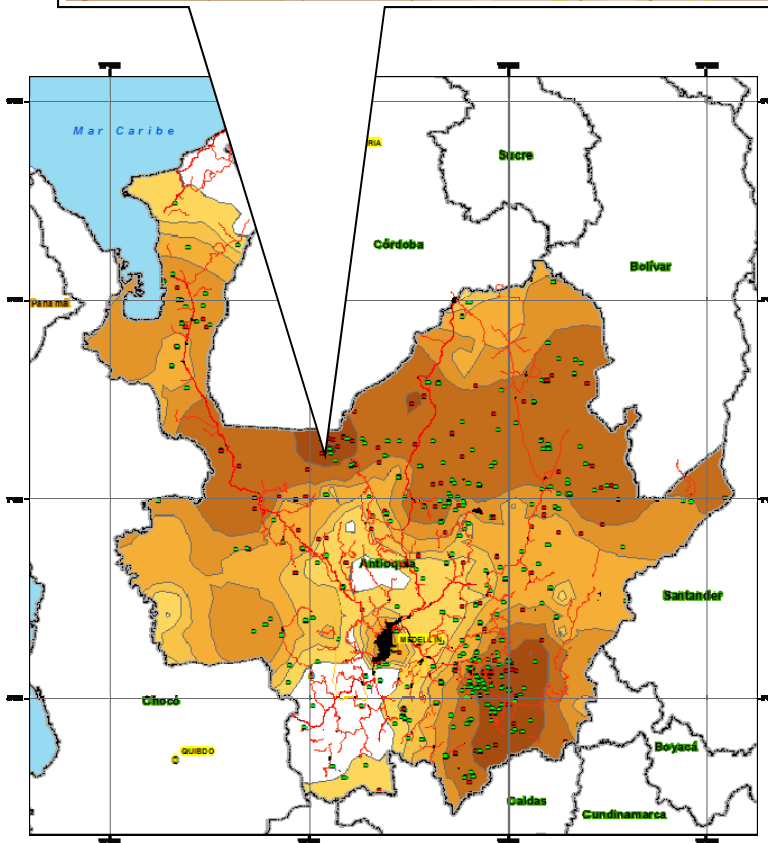


Data Analysis: Ituango Municipality, Antioquia Department



There are not Primary, Secondary or Tertiary Road.

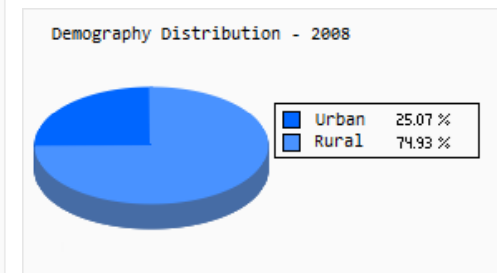
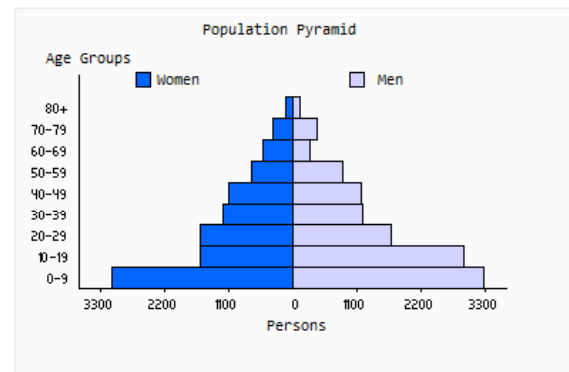
1 Hospital: Level 1



Victims Characteristics (Registered on IMSMA)

Occupation	Civil	22.88%
	Military	77.12%
Sex	Male	98.31%
	Female	1.69%
Condition	Dead	24.58%
	Injured	75.42%
Area	Rural	100.00%
	Urban	0.00%
Age Group	Under 18	8.47%
	Over 18	90.68%

Population Characteristics





Reported By:	El Espectador	Record date:	10/24/2008
Entry Date:	10/24/2008	Violent Incident:	Yes
Incident Type:	Artefacto Explosivo Improvisado - AEI	Incident Target:	Civil
Casualties injured:	2	Casualties Affected:	0
Casualties Dead:	0	Known Casualties:	No
Incident Description:	De acuerdo con la información de la policía bogotana, las explosiones se presentaron en la calle 80 con carrera sexta donde hubo dos personas lesionadas que fueron trasladadas a la clínica El Country. http://www.elespectador.com/noticias/bogota/articulo85643-frente-51-de-farc-seria-responsable-de-seis-explosiones		
Latitude	4.6616188	Longitud:	-74.0496040
Department:	Bogotá, D.C.	Municipality:	Santafé de Bogota
Nearest Town:	Bogotá, D.C.		
Incident Date:	10/23/2008		
Incident Exact Time:	Unknown	Incident Time:	12:00
Verify When published:	No	Allow Other Users To Contact me:	No

CDC Projects in Mine Action

- KAP Survey
 - Survey to assess knowledge, attitudes and practices (behaviors) related to landmines and UXO in affected areas of the country
 - Multi-stage cluster design
 - Randomly select 30-40 household in 30-40 affected villages/towns
 - Interview one randomly selected person (≥ 15 years) in each household
 - Data collection to begin September, 2009



CDC Projects in Mine Action

- Injury Surveillance Support
 - Provided support to ICRC and CCCM for landmine/UXO injury surveillance
 - Training on injury surveillance
 - EpiInfo database and analysis tools

