6

Understanding and Analysing Data

Table of Contents of the Module

Understanding and Analysing Data

The module is for beginner and experienced humanitarians who want to discover the basics of analysis.

Questions this module explores:

► What are the possibilities and what are the analysis
challenges in a humanitarian setting?
► What is the analysis spectrum?
► What are the most common biases and pitfalls, and how to avoid them?
► What questions to ask when looking at performing
a humanitarian data based analysis?

Learning Objectives

This module aims to support the learner in applying the following objectives:

► Be able to define a data analysis methodology based
on the needs, capacity, and data quality.
► Be aware of biases in data analysis and interpretation
► Be able to explore data, identify gaps and perform a document analysis

Module Topics

► Analysis and its spectrum
► Biases in analysis
► Exploring data and documenting analysis

Recipes

A suggested step-by-step process to achieve learning objectives

This module contains 60 to 90 minutes exercises and it is recommended to deliver it across 5 sessions.

► **Session 1:** Defining humanitarian analysis? (45 mins)

◉ Exercise: **What is analysis in a humanitarian context? (exercice) (6 - 9)** to invite participants to get to a common understanding of what analysis may mean in this particular context
◉ Handout **Proposed definition for analysis in humanitarian settings (6 - 5)**

► **Session 2:** Discovering the analysis possibilities. (60 mins)

⊙ Exercise: **Unveiling the analysis spectrum (6 - 2)** to discover the types of analysis available and understand how they relate to each other, and the resources and preliminary questions/answers required to perform them.
⊙ Handout the **Description of the analysis spectrum (6 - 1)**

► **Session 3:** Beware of the biases (60 mins)

⊙ Exercise: **Mental shortcuts and thinking errors (exercice) (6 - 3)** to discover the most common biases or errors in humanitarian analysis and how to spot and correct them.
⊙ Handout **Analysing Analysers (6 - 7)**
⊙ Handout **Cognitive Biases in Humanitarian Analysis (6 - 6)**

► **Session 4:** Understanding the challenge of using data for exploratory analysis (60 mins)

⊙ Exercise: **Exploratory analysis, gaps and pitfalls (exercice) (6 - 12)** to discover the most common biases or errors in humanitarian analysis and how to spot and correct them.

Ingredients

Pick and choose ingredients to create your own recipe. Do you have an ingredient we're missing? Send an email to data.literacy@ifrc.org

Exercises

Short, discrete social learning experiences

► Exercise 1 – What is Analysis in a humanitarian context? (45 mins)
► Exercise 2 – Unveiling the Analysis Spectrum. (60 mins)
► Exercise 3 – Mental shortcuts and inherent thinking errors. (60 mins)
► Exercise 4 – Exploratory analysis, gaps and pitfalls. (60 mins)

Slide Decks

Presentations to be used and/or adapted:

► HIAC examples of analysis

Checklists/Handouts/Materials

For documentation of essential elements of the learning experience

► Handout 1 – Proposed definition of analysis in a humanitarian setting.
► Handout 2 – Overview of the Analysis Spectrum.
► Handout 3 – ACAPS cognitive biases in humanitarian analysis poster.
► Handout 4 – Analysing Analysers & Cognitive bases.
Data and Technology Checklist

Next Steps

Relevant modules in the Data Playbook with suggested content*

*Feel free to explore the whole modules

► Module 4 – Getting the data we need: Hands on Review with External Data Sets and the UsingSpreadsheets Test
► Module 5 – Data for Decision Making: Dataset Check-in
► Module 8 – Presenting and Visualising Data: Data MakerOvers
► Module 9 – Making Data Useful/Useable to Ourselves and Others: Making Decisions with Data

Credit

Mununori Musori, Laurent Fernandez, IFRC V1 Sprint and Data Playbook Beta contributors

Module reviewers

Esra Yılmaz, Kemal Öztürk, Parima Davachi

Resources

Data Action by Sarah Williams — Humanitarian Analysis Program (IFRC)

6 - 1 Description of the analysis spectrum

We usually identify 6 types of analysis in humanitarian settings. The usages range from discovering data or phenomena to building scenarii about potential future phenomena to plan actions. In disaster and crisis management, this ranges from identifying a sudden event to making scenarios about what potential disasters or crises may happen in the future.

Different analysis types have different concrete purposes: identifying an event and whether populations are affected allows deciding whether efforts should be dedicated to understand better its current humanitarian consequences and trigger an emergency response, while building scenarii can be useful to identify the future evolution of a disaster, it's potential effect on existing crises, or its potential to trigger a crisis. It can even be used to prepare communities for disasters or crises that have never affected them before.

These analyses can be used in many areas other than disaster and crisis management.

Types of analysis

Exploratory analysis

Engage and discover what is there and how usable it is.

Eg. looking for relevant data sets, evaluating their quality and useability

Descriptive analysis

Descriptive analysis reports or summarizes what is known about situations, people, places, or objects. It identifies what is valid or worth noting about "who, what, when, where, and how," and organizes the data in a way that is easy to comprehend and recall. Many assessment products nowadays clump data and reports together without useful judgments or questions like "so what," and leave the interpretation to the reader, without explaining further.

Eg. using data to build a situation report

Explanatory analysis

Explanatory analysis probes the reason or immediate causes of a situation, explaining why it has or is developing in the way portrayed by valid sources. At this level, analysts do not just organize and report interesting information, but must use argumentation to give context for the facts, judgments, and observations about patterns or changes in behaviour. Explanatory analysis is often included in assessment products to provide a rationale for a recent trend, such as increasing violence between communities and the resulting needs.

Eg. using data to understand the causes of a current humanitarian situation

Interpretive analysis

Interpretive analysis examines the significance of a problem or topic of interest as it relates to the decision maker's interests, using logic to interpret and make judgments about various values or meanings behind the data. All of the previously mentioned analytical levels and techniques are used in evaluative analysis, but the distinction is found in the structure, the selected data, and argumentation of the product. This may entail evaluating the nature of a situation - is it a severe humanitarian crisis?

The extent of a problem - is it a major food-security crisis? Or, the significance of a situation – do decision makers need to pay attention now rather than next year?

Eg. using data to interpret a current humanitarian situation and design an immediate emergency response

Anticipatory analysis

Anticipatory analysis looks to the future, asking what might happen next and proactively trying to anticipate courses of action that decision makers may take in response to potential issues or triggers. Forecast analysis by definition is carried by its underlying framework of drivers, influences, and assumptions in the absence of hard data. Forecasts are based on lessons learnt, the analysts' experience, knowledge, and strategies for modelling evidence that include scenarios and risk analyses.

Eg. using data to build scenarios on what humanitarian situations could arise and unfold

Prescriptive analysis

Prescriptive analysis is known as response analysis and planning in the humanitarian sector. It entails the selection and design of appropriate and proportionate responses or interventions.

Eg. using data to prepare communities and plan a response to future events

Who uses what type of analysis

What we can say as a good rule of thumb is that an individual analyst can do an Exploratory, Descriptive analysis.

While an individual may be able to perform an Explanatory analysis, it is likely that this would require collaborating with others.

Interpretive, Anticipatory and Prescriptive analysis will most likely require working as a group, benefiting from a wide range of perspectives and expertise. Several brains think better than one and at the end of the day the human brain is the best analytical tool we have...

Summary graph: the Analysis Spectrum
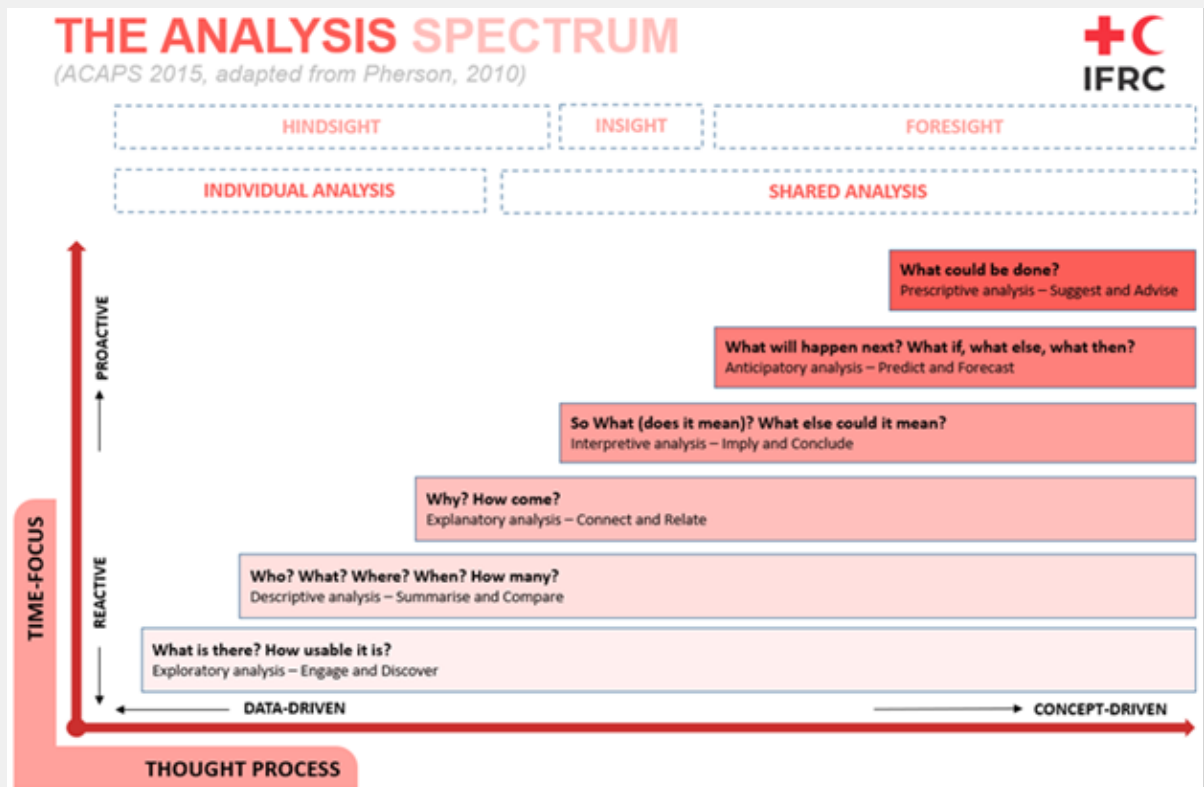
Credit

ACAPS 2015, Pherson, 2010 — HIAC, ACAPS

6 - 2　Unveiling the analysis spectrum

With this exercise, participants will discover the different types of analysis that can be used, and get the basic knowledge allowing them to know what type of analysis they need, or can apply. The exercise should be facilitated by a data ready person or expert in data analysis.

DATA
PLAY
BOOK

► **People:** At least 6 participants, Facilitator (analyst)
► **Time:** 60 to 90 Minutes
► **Difficulty:** Medium
► **Virtual Materials:** virtual meeting platform, shared document/writing space
► **In Person materials:** Flipcharts/noteboards, sticky notes, markers

Exercise

Preparation:

Review and prepare accompanying content **Unveiling the analysis spectrum (exercise material) (6 - 8)**, **Mapping the types of Analysis (6 - 11)**, and **Description of the analysis spectrum (6 - 1)**. You may also use **HIAC examples of analysis (6 - 10)**.

Part 1: Share (10 minutes)

In the plenary, present the 6 types of analysis of the analysis spectrum, and their purpose (see document **Unveiling the analysis spectrum (exercise material) (6 - 8)**.

Part 2: Explore (30 minutes)

Form groups of 3 to 4 people. In small groups, assign analysis types to the groups.

Ask the groups to answer the following questions about the assigned analysis types:

► Who needs to do it? Who needs the result?
► What do we need to know before doing the analysis?
► Provide a real life or fictitious example by analysis type

Each group/individual takes notes in the table such as the one at the bottom of the document **Unveiling the analysis spectrum (6 - 2)**.

Part 3: Discuss (20 minutes)

► Share findings in plenary and discuss analysis type by analysis type/group by group (15 minutes)
► Split participants into groups again and ask each group/individual to place each type of analysis on a time-focus/thought-process graph (1 graph by group). Tip: replicate the example found in the document **Mapping the types of Analysis (6 - 11)** using a tool that allows using virtual post-its such as jamboard, or miro. (5 – 10 minutes)
► Regroup in plenary for groups to present their graphs and discuss. (5 minutes)
► Show the right answer (graph at the bottom of the document **Description of the analysis spectrum (6 - 1)**. Before leaving, make sure to hand this overview document out to the participants.

Extra Credit

If you need to provide examples for each type of analysis, you can use the slide deck **HIAC examples of analysis (6 - 10)**.

Credits

IFRC, ACAPS, Pherson

DATA PLAY BOOK

6 - 3 Mental shortcuts and thinking errors (exercice)

The objective of this exercise is to raise awareness of some of the cognitive biases that we find in humanitarian analysis, and of the errors that they lead us to commit. By working in groups, the participants will learn to recognize biases in themselves and in others.

DATA PLAY BOOK

- ► **People:** 10+ participants, 1 facilitator
- ► **Time:** 60 Minutes
- ► **Difficulty:** Medium
- ► **Virtual Materials:** virtual meeting platform, shared document/writing space
- ► **In Person materials:** Flipcharts/noteboards, sticky notes, markers

Exercise

Preparation:

Review and prepare accompanying content **Background, field info and biases list (exercise material) (6 - 4)**. **Cognitive Biases in Humanitarian Analysis (6 - 6)** and **Analysing Analysers (6 - 7)**.

Part 1: Share

In plenary, Share and read aloud the objectives of the exercise:

"As a group: Reach agreement on the 3 most important issues.

Everyone will be assigned a bias and participate in the discussion in line with their assigned bias ; Other group members try to guess which bias is being exercised. If a participant's bias has been recognised, the player is out of the discussion."

Read the background information to the participants and share the handout material document **Background, field info and biases list (exercise material) (6 - 4)**.

Part 2: Discuss

Assign a bias to each participant (send private message or have a 'confidential discussion' to the individuals to assign the biases). Make sure you have pre-defined the biases for each individual beforehand.

Split participants in groups to discuss.

Regroup in plenary.

- ► Did you come to an agreement?
- ► What challenges did you face?
- ► Could you identify all the biases within the group?

Handout **Cognitive Biases in Humanitarian Analysis (6 - 6)** with all biases for people to put on their wall.

Handout the **Analysing Analysers (6 - 7)**

Credits

IFRC, HIAC, ACAPS, Pherson

6 - 4 Background, field info and biases list

(exercise material)

Material to be used with Mental shortcuts and thinking errors (exercice) (6 - 3) (exercise)

Background

You are working for DG ECHO in Brussels. Together with your colleagues, you have been tasked to look at the current humanitarian situation in Libya.

About 3 weeks ago, protests started in Libya against the acting government. As unrest rapidly spread throughout the country, governmental security forces began responding to protesting crowds with increasing violence.

During the workshop, you, together with a group of experts from different organisations, are to decide on the 3 most important humanitarian issues in Libya.

The discussion is influenced by overt and concealed biases of the participants. The objective of this exercise is to train your brain to exercise and recognise these specific heuristics and cognitive biases.

Information from the field

Your team has received the following reports and snippets of information on the current situation in Libya:

⊙ Around 3.2 million people are likely to be in need of humanitarian support including those that have fled to neighbouring countries, Sub-Saharan migrants and those living in areas affected by conflict (according to pre-crisis population estimates).

⊙ Several media outlets reported that some people in Tripoli have turned to selling their kidney in order to be able to survive.

⊙ In humanitarian emergencies, women and children are more vulnerable to abuse and human rights violations. Indigenous ethnic groups and tribes tend to live away from easy-to-access settlements, and are traditionally marginalised. An international human rights organisation reports that Sub-Saharan migrants face violence in all of the affected areas. A majority of them are unable to flee and are trapped in their houses. The organisation states that they are the most vulnerable group and in need of additional support.

⊙ A new way of collecting data by tracking mobile phone movement was recently piloted. The resulting preliminary analysis showed that almost 50% of the population, or 3.2 million people, are displaced.

⊙ The number of children seen begging on the street has increased. The number of nurses not showing up for work has increased as well.

⊙ During the meeting, one of your colleagues contacts a friend in Tripoli, who owns a grocery shop. He explains that first aid to those injured, fuel and repairs to the traditionally poor road infrastructure are the main needs. There is no need for food support as there are sufficient supplies in stock.

⊙ Bread prices in Tripoli are 0.5 LD for a loaf of bread, 2 in El Brega city and up to 4 LD (eight times the pre-crisis price) in Zawiya city.

⊙ Since the start of the crisis 3 weeks ago, the humanitarian community has been working under the assumption that markets where communities buy their basic needs are accessible and functional. Cash-based programming is seen as the preferred modality in all affected locations. However, recent findings of a phone assessment showed that key informants in almost half of the affected communities indicate that insecurity impedes access to markets.

⊙ The assessment shows as well that affected families are unable to access sufficient food and are in need of improved access to health facilities.

Biases at play in the game

1	Anchoring bias	The tendency to rely too heavily on one piece of information (often the first piece of information heard) when making decisions.
2	Clustering Illusion bias	The human brain excels at finding patterns and relationships, but tends to overgeneralise – The tendency to see patterns where none exist.
3	Confirmation bias	Only seeking information that is consistent with the lead hypothesis, judgment, or conclusion.
4	Framing bias	Being influenced in our decisions by how the situation is presented.
5	Group Thinking bias	Adopting a belief because many other people do.
6	Halo Effect	The tendency to accept or reject everything another group member says because the analyst likes/respects or dislikes/disrespects the person.
7	Institutional bias	Interpreting information in line with the interests of a certain organisation.
8	Mirror Imaging bias	Assuming that, given similar circumstances, others will always act as you would.
9	Pro-Innovation bias	Tendency to overvalue the usefulness of innovation and undervalue its limitations.
10	Salience bias	A tendency to focus on the most easily recognisable, interesting or shocking features in a set of data.
11	Stereotype bias	The tendency to expect a group or person to have certain characteristics without having real information.
12	Impact bias	To overestimate the significance of an event based on the potential impact

6 - 5 Proposed definition for analysis in humanitarian settings

The structured, transparent, controlled and iterative human process of transforming raw data into actionable insights for decision making. It involves:

1   Uncovering and describing **trends**, **patterns** and **anomalies** in your data

2   **Explaining** and interpreting these patterns and trends by placing them in **context**, using **lessons learned** and **experience**.

3   Use those findings to identify **current** and **forecasted** **priority needs**, and inform **decision making**

6 - 6 Cognitive Biases in Humanitarian Analysis

⬓ **Download Poster**

6 - 7 Analysing Analysers

Material to be used with **Mental shortcuts and thinking errors (exercice) (6 - 3)**

A good analyst is one who is constantly thinking about the way (s)he is thinking. This document talks about the way the brain works cognitively, when it comes to analysis. It presents the different types of cognitive bias that affect analysis, as well as different techniques to counter those biases.

Here, we talk about the way the brain works cognitively, when it comes to analysis. We also discuss different types of bias that affect analysis and present some of the different techniques to counter bias. It's not enough just to recognize it but we must be constantly aware of its influence.

How the brain thinks

Our brain uses two types of thinking when facing a question or situation.

fast thinking	slow thinking
to address simple problems	to address more complex problems
often "automatised" or unconscious	conscious thinking process, requires focus and reasoning
operates on biases and shortcuts that may not be accurate	evaluates mental shortcuts to assess how right they are in a given situation.
hard to modify	flexible
low energy requirement for the brain	high energy requirement for the brain

To manage our energy, the "lazy" brain prefers using fast thinking, which exposes us more to biases.

The good analyst

Fast and slow thinking are complementary when working together. One should base decisions on experience and ideally make decisions quickly BUT also one doesn't want to ignore new information or get stuck due to your biases. Changing our thinking is tiring! It takes energy to use a different system of thinking and maybe even harder to accept the conclusion.

A good analyst:

► never stops thinking about thinking
► has an acute understanding about how the brain works and the cognitive pitfalls we keep falling for if we don't pay attention to the way we think, at the same time as we are thinking it.
► is able to constantly challenge fast thinking by switching to slow thinking to identify and correct biases.

An analyst must recognize and account for the presence of cognitive biases and heuristics, the influence of background and experience as well as how our memory works when selecting and processing information, and subsequent consequences for analysis.

Perception is a deliberate process where we pay attention to a small part of the whole picture and exclude almost all that is not within the scope of attention. Perception frames our view of the world and our actions and can make us unaware of other's vision of the same issue.

So, what shapes our perception?

► Past experience can handicap analysis as well as aid analysis. Past experience can make us think that we know better when fresh eyes can spot important factors,
► Our education (he is from Oxford and the other from some generic unknown university),
► Or even cultural values – such as the fact that someone went to university and the other didn't,
► Roles and tasks (he is the country director),
► Assumptions and preconceptions,
► Memory which is unreliable.

Cognitive Biases

Biases are always around, independently of the types of analysis of the Analysis spectrum (from exploratory to prescriptive analysis) (see document **Description of the analysis spectrum (6 - 1)**), and all along the data management process (from data collection to interpretation and decision making).

► They are normal processes, designed to make decisions quickly. They are unconscious, automatic and non-controllable...
► They are inherent thinking errors caused by our simplified information selection and processing strategies
► Knowing/understanding/recognizing them and applying key structured techniques can help mitigate their negative consequences
► SLOW DOWN!

Take a look at the 14 most common cognitive biases in humanitarian analysis listed by ACAPS, grouped by category **Cognitive Biases in Humanitarian Analysis (6 - 6)**

► Selection biases (Anchoring Effect, Availability Cascade, Confirmation, Evidence acceptance, Salience)
► Social biases (Groupthinking, Halo Effect, Institutionalization Bias, Mirror imaging, Stereotyping)
► Process biases (Clustering Illusion, Framing Bias, Hindsight Bias, Impact Bias)

Cognitive biases are particularly sneaky, just knowing you have them, won't change them at all. You can't suppress them either. In fact, fighting bias too hard creates new biases. "Since learning about confirmation bias, I keep seeing it everywhere".

Improving Analysis

Knowing, being aware of biases is NOT half the battle – but it is just a first step. Make sure you have enough time – using slow thinking takes time and it is common for us to default to fast thinking when we don't have enough time AND we're under pressure. The analyst needs focus (not being disturbed) as well as skills, knowledge of tools and techniques that can improve the quality and credibility of the analysis.

Five habits of master analysts:

1 Know when to challenge key assumptions—usually far more often than you think!
2 Consider alternative explanations or hypotheses for all events—including the null hypothesis and the deception hypothesis when applicable.
3 Look for inconsistent data that provides sufficient justification to quickly discard a candidate hypothesis.
4 Focus on the key drivers that best explain what has occurred or what is about to happen.
5 Anticipate the customers' needs and understand the overarching context within which the analysis is being done.

Credit

IFRC HIAC, ACAPS

DATA PLAY BOOK

6 - 8 Unveiling the analysis spectrum

(exercise material)

Use with Unveiling the analysis spectrum (6 - 2)

DATA PLAY BOOK

Types of analysis and why use them

The list of analysis (ACAPS 2015, Pherson 2010) and purposes below is extracted from a more detailed Data Playbook document on the analysis spectrum.

Exploratory analysis

Engage and discover what is there and how usable it is.

Descriptive analysis

Report or summarize what is known about
situations, people, places, or objects

Explanatory analysis

Probe the reason or immediate causes of a situation,
explaining why it has developed or is developing.

Interpretive analysis

Examine the significance of a problem or topic of interest as it relates
to decision maker's interests, using logic to interpret and make
judgments about various values or meanings behind the data

Anticipatory analysis

Look to the future, asking what might happen next and
proactively try to anticipate courses of action that decision
makers may take in response to potential issues or triggers

Prescriptive analysis

Known as response analysis and planning in the humanitarian
sector. It entails the selection and design of appropriate
and proportionate responses or interventions

Deep-diving in the analysis spectrum (group work)

Type of analysis	Who needs it? When?	What do we need to know before doing the analysis?	Real life example
Exploratory			
Descriptive			
Explanatory			
Interpretive			
Anticipatory			
Prescriptive			

6 - 9 # What is analysis in a humanitarian context? (exercice)

This exercise is an introduction to the field of data analysis and why it is important. It invites participants to reflect about the broader meaning of analysis in a humanitarian context. Participants will explore the different definitions of analysis available on the web and come to a shared definition. The exercise should be facilitated by a data ready person or expert in data analysis.

DATA
PLAY
BOOK

► **People:** 6 to 20 participants
► **Time:** 45 Minutes
► **Difficulty:** Easy
► **Virtual Materials:** virtual meeting platform, shared document/writing space
► **In Person materials:** Flipcharts/noteboards, sticky notes, markers

Exercice

Preparation:

Review and prepare accompanying content:**Proposed definition for analysis in humanitarian settings (6 - 5)**

Part 1: Explore (30 minutes)

► Form groups of 3 to 4 people
► Invite groups to look for definitions of "analysis" on the web and to discuss and choose their favourite definition, write it in the shared note-taking space.
► Optionally, invite the groups to illustrate the definition with a drawing (virtual or not) of their choice.

Part 2: Discuss (15 minutes)

► Invite groups to present in plenary, sharing the definition, (and optionally the drawing on camera or by sharing screen) and explain why they think this definition reflects well analysis in humanitarian settings.
► Share the definition proposed in the document **Proposed definition for analysis in humanitarian settings (6 - 5)**
► Invite participants to compare this definition to theirs.
► Before leaving, make sure the participants will still have access to the note taking document and the proposed definition.

Credit

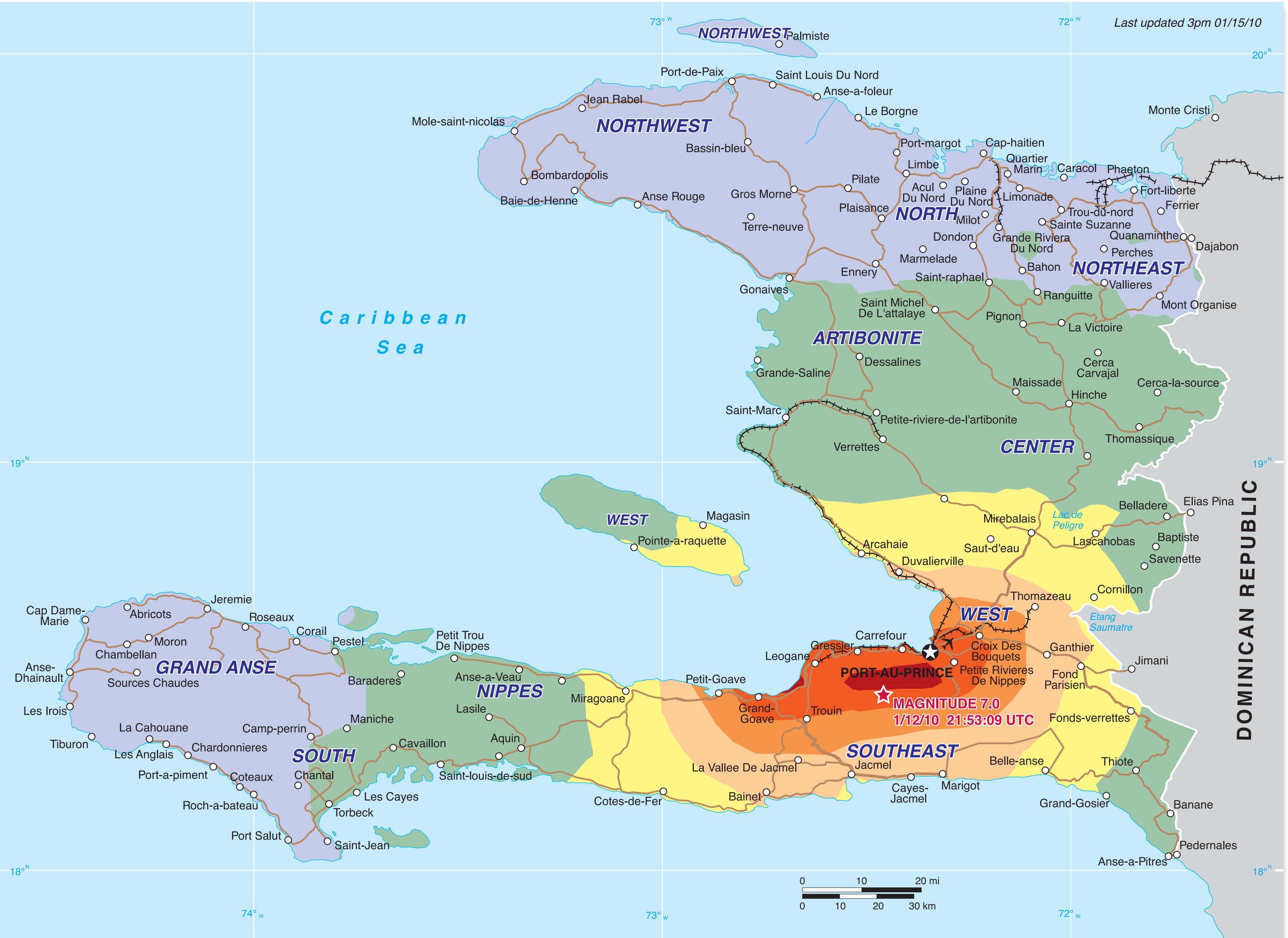IFRC, HIAC, ACAPS

6 - 10 HIAC examples of analysis

Humanitarian Information Analysis Course

Last updated 3pm 01/15/10

EARTHQUAKE INTENSITY
The Modified Mercalli (MMI) Intensity Scale*

ESTIMATED MMI INTENSITY		POPULATION EXPOSED TO SHAKING
4	LIGHT	5,887,000
5	MODERATE	7,261,000
6	STRONG	1,049,000
7	VERY STRONG	571,000
8	SEVERE	314,000
9	VIOLENT	2,246,000
10^	EXTREME	332,000

*MMI is a measure of ground shaking and is different from overall earthquake magnitude as measured by the Richter Scale.

^Area shown on map may fall within MMI 9 classification, but constitute the areas of heaviest shaking based on USGS data.

Source: USGS/PAGER Alert Version: 8

Caribbean Sea

NORTHWEST
NORTH
NORTHEAST
ARTIBONITE
CENTER
WEST
GRAND ANSE
NIPPES
SOUTH
SOUTHEAST

DOMINICAN REPUBLIC

PORT-AU-PRINCE
MAGNITUDE 7.0
1/12/10 21:53:09 UTC

The boundaries and names used on this map do not imply official endorsement or acceptance by the U.S. Government.

| 0 | 10 | 20 mi |
| 0 | 10 | 20 | 30 km |

Population in need potentially reachable via each border crossing
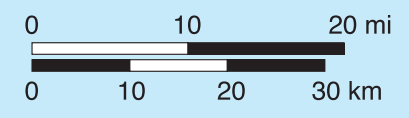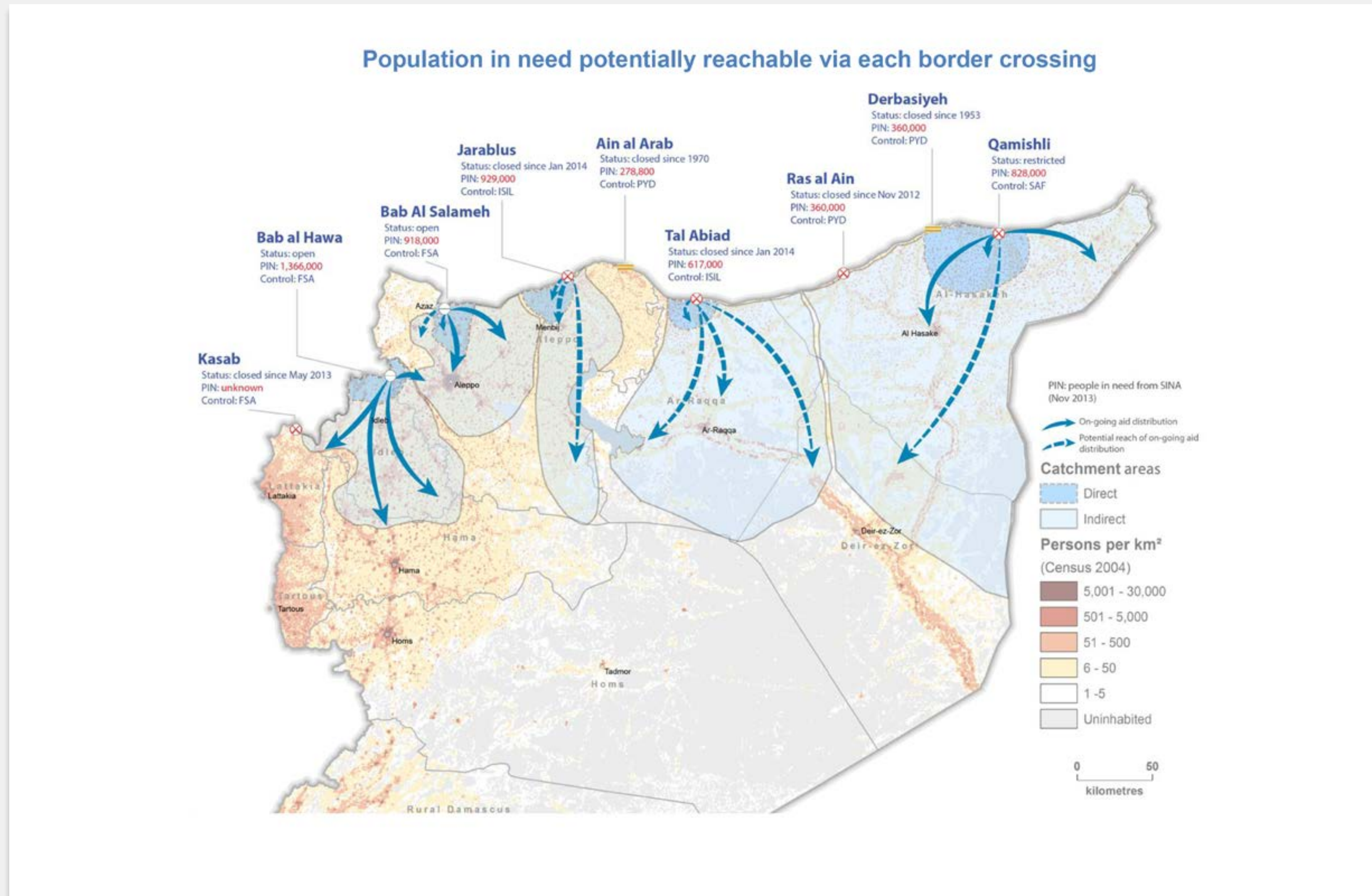
(i) Source: ACAPS

Mozambique: Cyclone Idai - results and analysis of aerial survey as of 29th March 2019

MA028 v11

EARLY WARNING, EARLY ACTION AND READINESS REPORT   Risks of Concern
June - November 2016

Libya
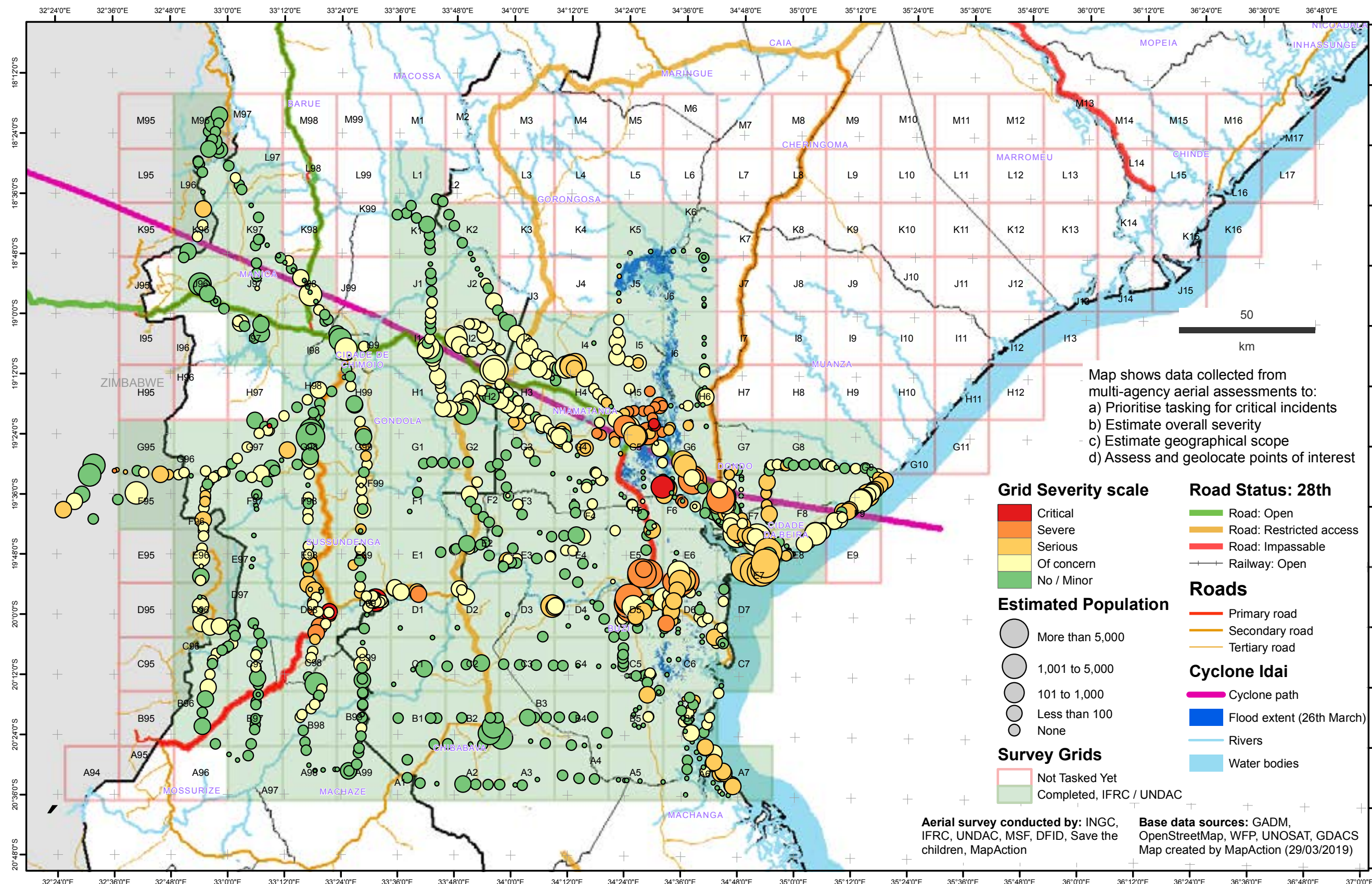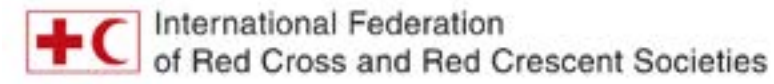Armed conflict involving competing governments and affiliated armed groups, migration

Nigeria and the Lake Chad Basin
Armed conflict involving Boko Haram insurgents and national/regional forces

Ethiopia
Flooding and drought

The Gambia
Electoral violence involving government forces and opposition members

Somalia
Armed conflict involving government forces and insurgent armed groups, drought

Philippines
Armed conflict involving government forces and insurgent armed groups, drought

South-East Asia
Drought in Cambodia, Papua New Guinea, Timor-Leste, Vietnam

Burundi
Armed conflict involving government forces and armed opposition groups (affecting Rwanda, DRC, Tanzania and Uganda)

Rep. of Congo
Armed conflict involving government forces and opposition armed groups

Democratic Rep. of Congo
Electoral violence involving government forces and opposition groups

Southern Africa
Drought in Angola, Lesotho, Malawi, Mozambique (conflict), Swaziland and Zimbabwe

MULTI-REGION RISKS

La Niña
Extreme climate events, compounding El Niño impacts

Yellow Fever
Epidemic alert, Yellow Fever Belt and Republic of Congo

IASC Inter-Agency Standing Commitee

SERIOUSNESS
MODERATE   HIGH   VERY HIGH

RISK TYPE ICONS
Conflict   Drought   Flood   Epidemic

We are in September 2014 (winter is coming). How would you modify this information product so it can have more analytical value for humanitarian decision makers?

Winter Temp., camps and informal settlements 2014 - 15
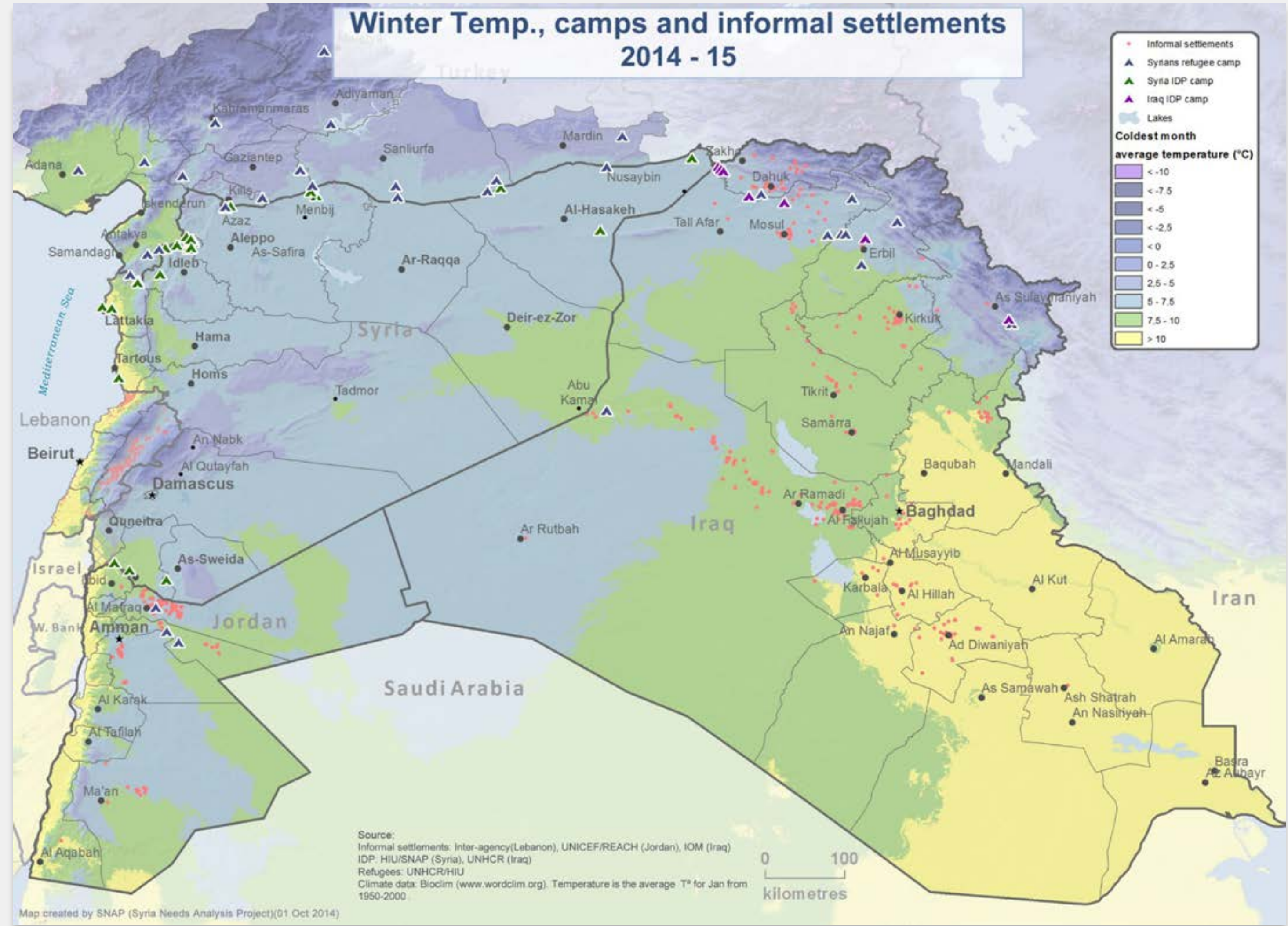
(i) Source: ACAPS

6 - 11 Mapping the types of Analysis

Anticipatory

Exploratory

Interpretive

Explanatory

Prescriptive

Descriptive

Proactive ○

Position each type of analysis on the graph

Groupe 1

Time-Focus

Reactive ○

Data Driven   **Concept-Driven**

Thought Process

6 - 12 Exploratory analysis, gaps and pitfalls (exercice)

Explore an existing dataset to look for gaps and potential pitfalls for analysis. Think about ways to tackle these challenges and about what would have been useful to know about the dataset.

DATA PLAY BOOK

► **People:** At least 8 to 10 participants
► **Time:** 60 Minutes
► **Difficulty:** Easy to Medium
► **Virtual Materials:** virtual meeting platform, shared document/writing space
► **In Person materials:** Flipcharts/noteboards, sticky notes, markers

Exercise

Preparation:

Review and prepare accompanying content: **Description of the analysis spectrum (6 - 1**)) and **Exploratory analysis, gaps and pitfalls (exercice) (6 - 12)**.

In this exercise, you will invite participants to do an exploratory analysis of a dataset inspired by an existing damage and needs assessment dataset from Mozambique.

► Present the Exploratory type of analysis (see document
Description of the analysis spectrum (6 - 1))
► Share the dataset **Cidade Da Beira assessment (mock data set) (6 - 13)**

Part 1: Explore

Form groups of 4 to 5 people. As a group, invite participants to explore the data set in view of answering one or both the following questions from the head of operations:

► How many families are in need of emergency shelter/tents in Cidade da Beira?
► Which neighborhood has the most affected people?

As they explore the dataset, instruct the participants to particularly answer the following three questions that they will have to report on in plenary:

1   Do you have enough info to answer the question asked by the
     head of operations? Why? Particularly pay attention to:

      a)   Which columns are not useful for determining shelter needs?
      b)   Which data columns or rows have confusing information/why?
      c)   What is the missing information?

2   What would you do about the inconsistencies and
     how would you obtain the missing data?
3   What information would have been useful to know about the dataset?
4   After determining the geographical areas for the shelter intervention,
     what data do you need to collect to select recipient households?

Part 2: Discuss

► Regroup in plenary and ask the groups to share their answers.
► Debate in plenary

CREDITS

IFRC, HDX

6 - 13 Cidade
Da Beira
assessment

(mock data set)

⤓ **Download Resources**