

# Geo-data preparedness: trying to be ready at the time of a crisis

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## Two real events

### 1. 2004 Tsunami in South-East Asia (Thailand)

26.12.04: event

03.01.05: first contact with the National Mapping Agency (NMA)

11.01.05: found the person to talk with

14.01.05: NMA ask for written request

20.01.05: official request sent by WHO

21.01.05: positive answer from the NMA

24.01.05: difficulties to transfer the data via internet

28.01.05: CD rom taken from the NMA

22.02.05: CD rom arrive at WHO

➡ Lack of proper documentation

➡ Data does not correspond to what we were looking for

➡ Could not use the data

*Almost 2 months !*

## Two real events

### 2. 2006 Earthquake in Yogyakarta (Indonesia)

27.05.06: Event

29.05.06 (8:00): First contact with the NMA by phone and by email

(9:32): indication of a first point of contact at the NMA and link to the already available data from their web site

(15:15): confirmation from the NMA that they are ready to provide access to their other maps (paper and vector)

➡ Proper documentation

➡ Data does correspond to what we were looking for

➡ could use the data

*Less than 8 hours !*

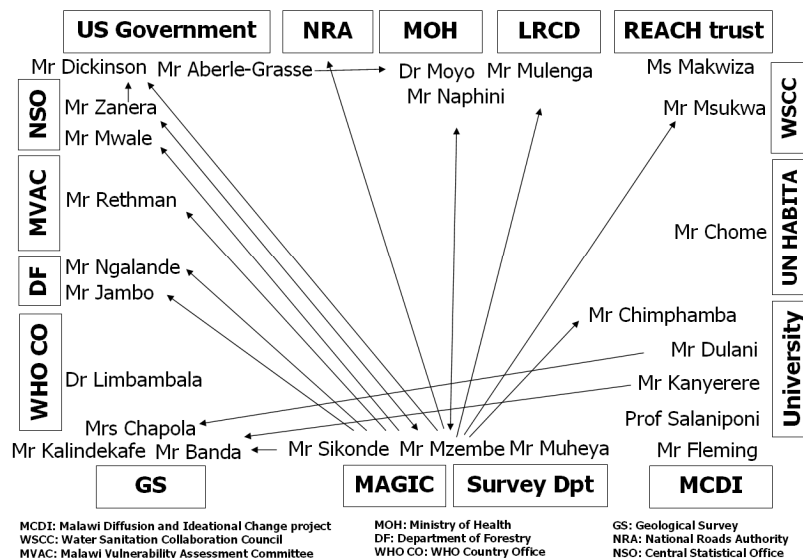
## The differences between the two events ?

### At the time of the 2<sup>nd</sup> event:

- The connection with the NMA was already well established
- The data was already existing and could be downloaded from a site managed by the NMA
- The NMA could easily share its data (data policy)
- The data has been created based on standards that were compatible with our own standards (metadata, ground reference)

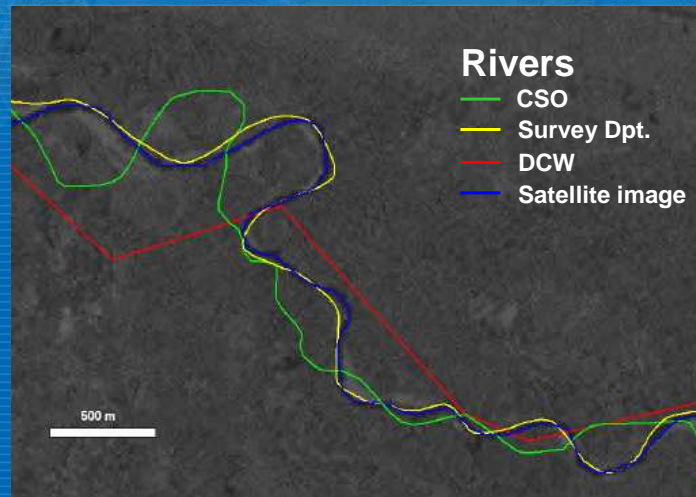
## An other part of the challenge...

### Who works with whom ?



## An other part of the challenge...

- ➔ Duplication of efforts for the creation of datasets that are of questionable quality



## An other part of the challenge...

- ➔ Important number of lost opportunities

- in Malawi: collect of the location of the health facilities and schools, in the context of the 2008 population census without collaborating with the Ministry of Health nor the Ministry of education
- nobody at the Ministry of Health knew that the University of Malawi was giving a course on medical geography
- large park of specific hardware (e.g. large size printer, GPS devices) which is not frequently used

- ➔ Leveraging the existing capacity and data as well as improving the working connection between the stakeholders would benefit all, facilitate humanitarian interventions and improve decision making

## How does the UN address these issues ?

### 1. The Second Administrative Level Boundaries data set project (SALB)

- ❖ A working platform for the collection, management, visualization and sharing of data/information at the Second Administrative Level which is:
  - 1) *Covering all the UN countries*
  - 2) *Freely redistributable (under copyright)*
  - 3) *Validated by the National Mapping Agencies*
  - 4) *Standardized (international border, Metadata, coding scheme, editing protocols)*
- ❖ A data set which contains:
  - 1) *National Mapping Agencies contact information*
  - 2) *Coded historic changes starting from 1990 for the 1<sup>st</sup> level and from 2000 for the 2<sup>nd</sup> level*
  - 3) *GIS maps corresponding to the situations observed since January 2000*

## How does the UN address these issues ?

### 1. The Second Administrative Level Boundaries data set project (SALB)

[http://www.who.int/whosis/database/gis/salb/salb\\_home.htm](http://www.who.int/whosis/database/gis/salb/salb_home.htm)

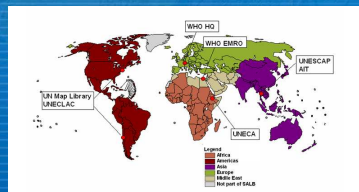
NMA Contact information for 160 countries

January 2000 data:

- tables for 168 countries
- validated maps for 47 countries
- maps still under validation for 50 other countries

2005-2007 data

- historic changes until 2005 for 105 countries. 18 of them reaching 2007 and 31 other going until 2006
- validated maps representative of situation after 2005 for 32 countries
- maps still under validation for 10 other countries



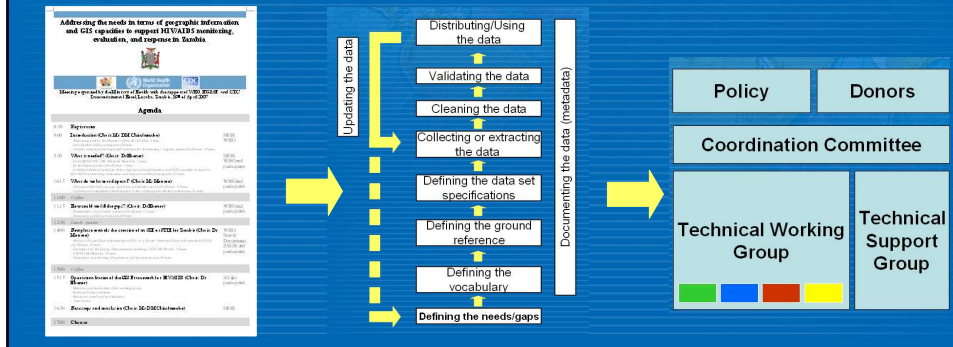
➡ Channel which is established between the countries and the UN and which can be used in time of crisis

➡ Example of the Earthquake in Yogyakarta

## How does the UN address these issues ?

### 2. By facilitating processes aiming at revitalising the Spatial Data Infrastructure (NSDI) process in countries

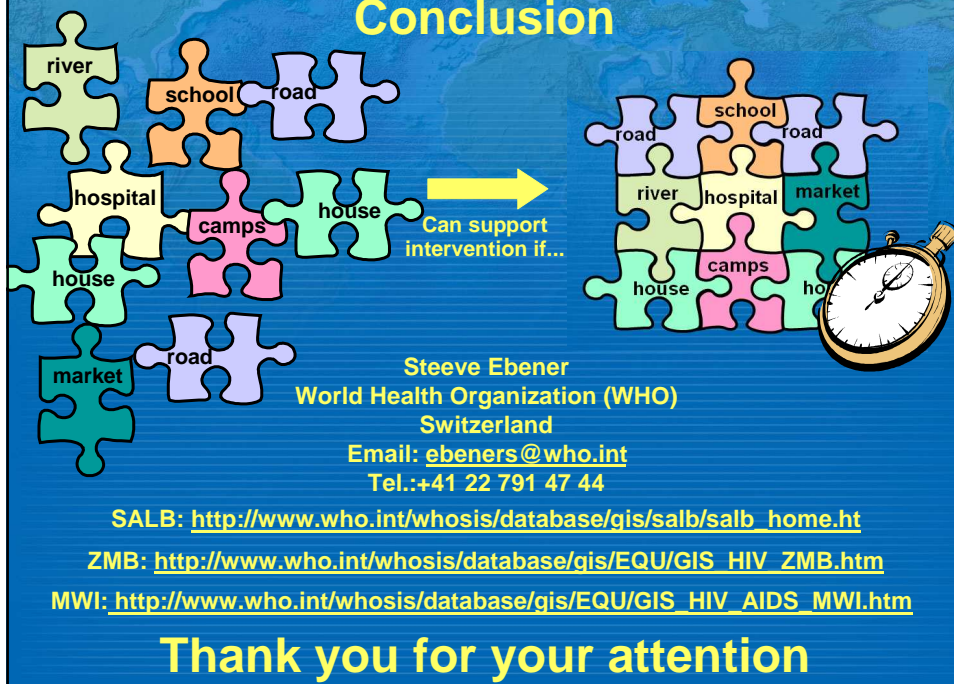
- ➔ standards, protocols, guidelines and practices
- ➔ working connections and collaboration (skills, hardware, software,...)
- ➔ infrastructures (metadata portal) and training
- ➔ policies and funding



## Conclusion

- Data preparedness is key to allow a useful use of Geography and GIS in time of crisis
- The GIS work in humanitarian activities start therefore long before the crisis itself by:
  - trying to establish channels which could be used to get the appropriate data in a timely manner
  - facilitating communication and working relationships between stakeholders in countries to avoid duplication of efforts and allow a better use of the available resources
  - providing material to ensure data compatibility (standards, protocols, recommendations, tools...)
- ➔ Geography and GIS provide a neutral working platform which can improve coordination
- ➔ The UN and its convening power has an important role to play in this context

## Conclusion



Can support intervention if...

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SALB: [http://www.who.int/whosis/database/gis/salb/salb\\_home.ht](http://www.who.int/whosis/database/gis/salb/salb_home.ht)  
ZMB: [http://www.who.int/whosis/database/gis/EQU/GIS\\_HIV\\_ZMB.htm](http://www.who.int/whosis/database/gis/EQU/GIS_HIV_ZMB.htm)  
MWI: [http://www.who.int/whosis/database/gis/EQU/GIS\\_HIV\\_AIDS\\_MWI.htm](http://www.who.int/whosis/database/gis/EQU/GIS_HIV_AIDS_MWI.htm)

## Thank you for your attention