



# A GIS Approach to Generating a Dengue Risk Map at Shabwah Governorate

Term Project for CRP 514 course

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# Agenda

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- 6 Building the map
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## What is dengue fever?

**Dengue Fever** is an illness caused by infection with a virus transmitted by the *Aedes mosquito*.

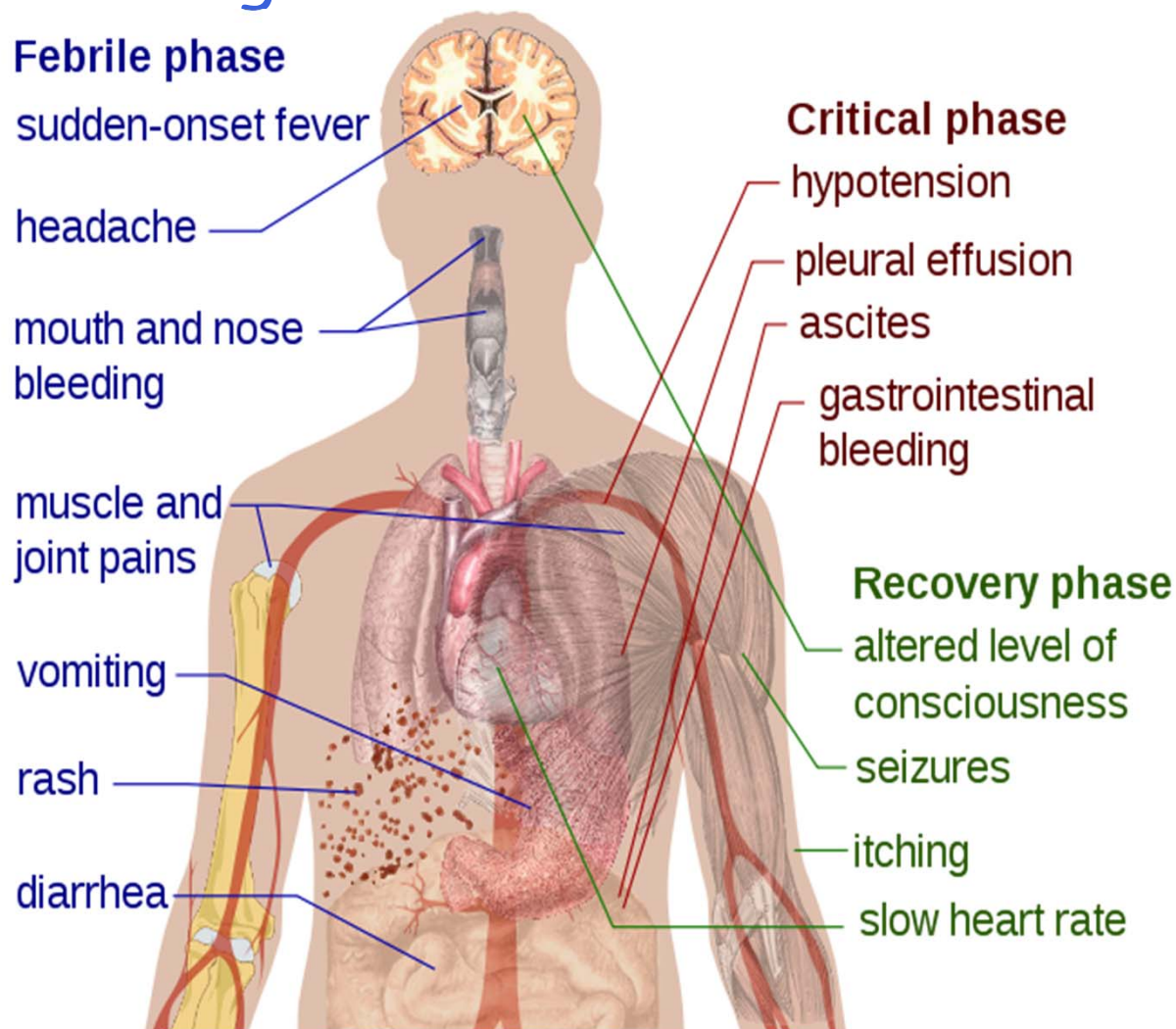
**Mosquito bites and sucks blood containing the virus from an infected person.**



**And passes the virus to healthy people when it bites them.**

# What is dengue fever?

## Symptoms of Dengue Fever





## Shabwah Governorate



## Problem statement

- There is no map represent the disease spread in Shabwah.
- The need of DSS (Decision Support System) perform effectively and in a smartly to control a Dengue Risk .



London cholera epidemic 1854

## Purpose of the project

The purpose of this project is to build the Dengue Fever's GeoDatabase to provide a Software that support to control or prevent DF.



## Resource and Information

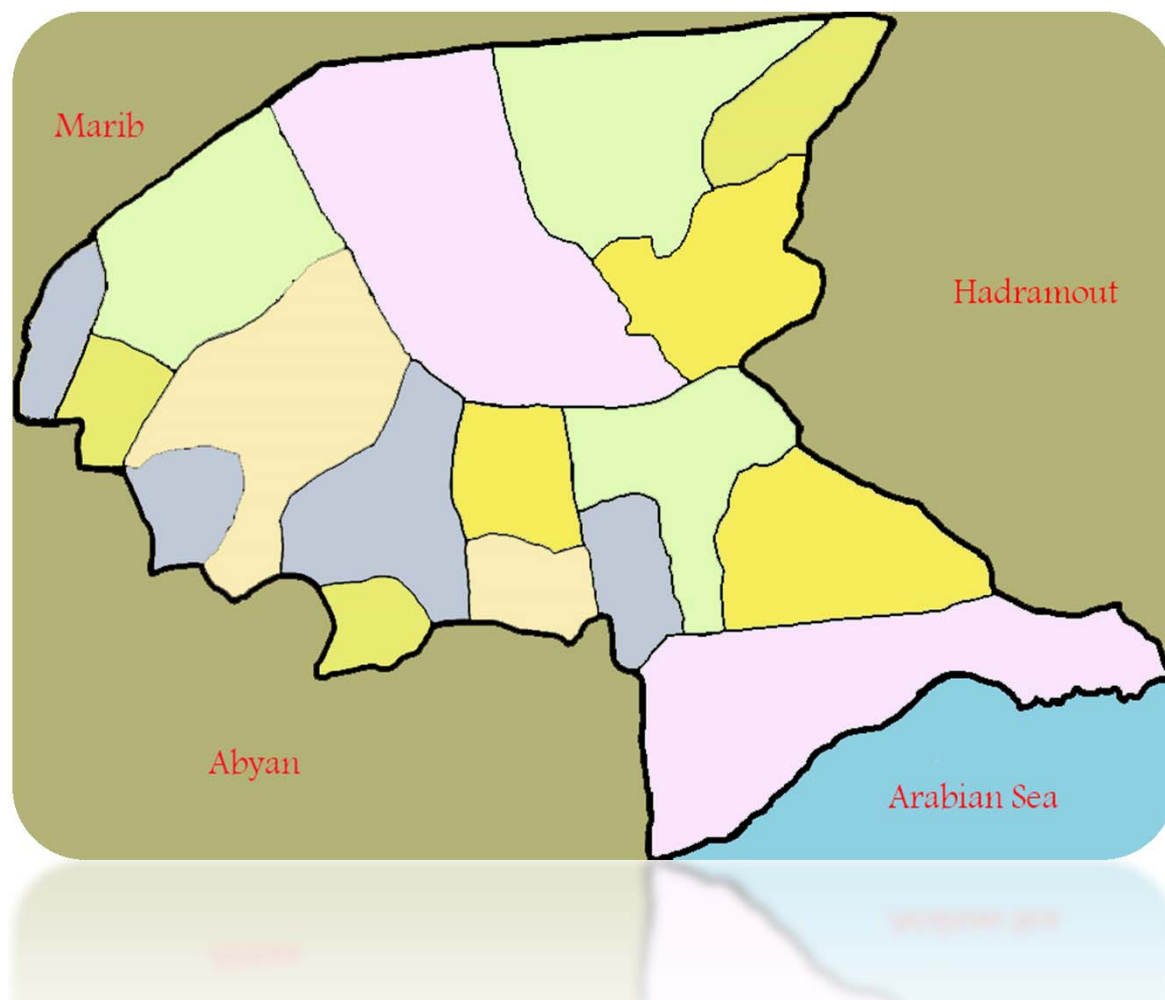
- ArcGIS tool.
- Microsoft Excel
- Data and information from Health Office of Shabwah.





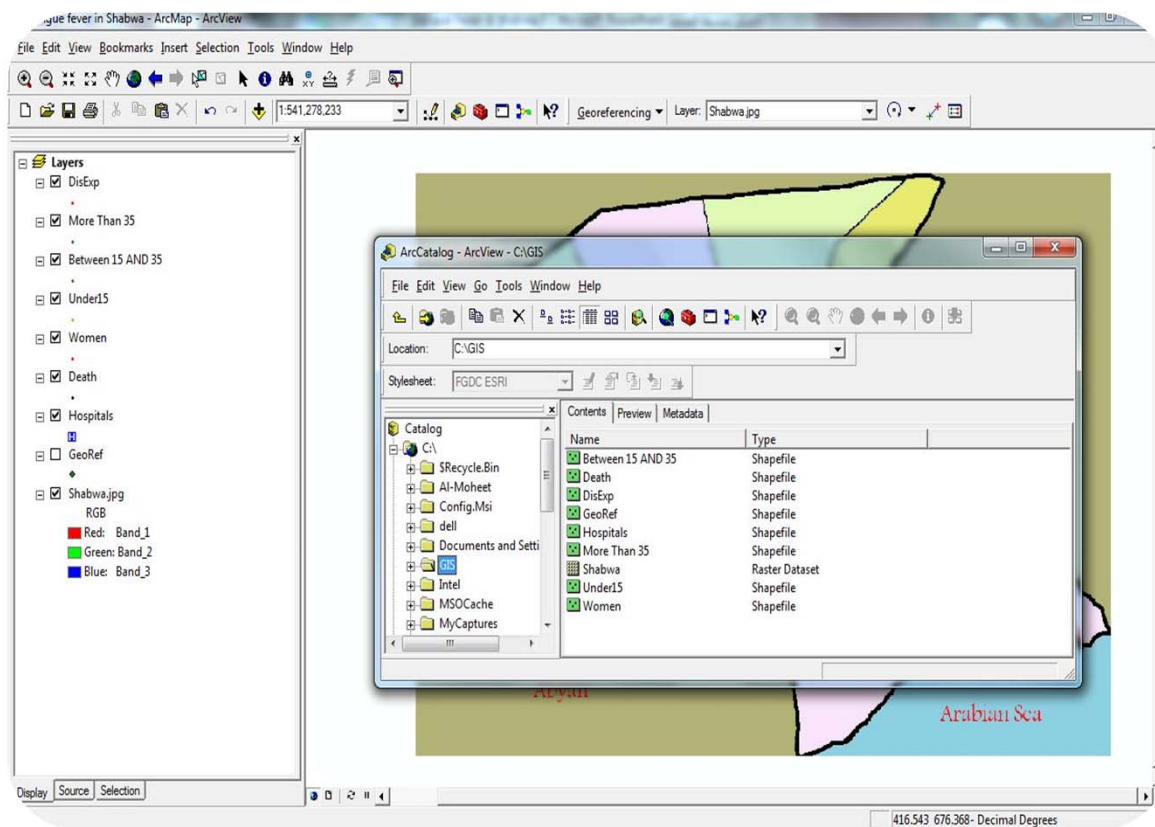
## Building the map

We did not find any proper or clear map for Shabwah, so we create it using Photoshop.



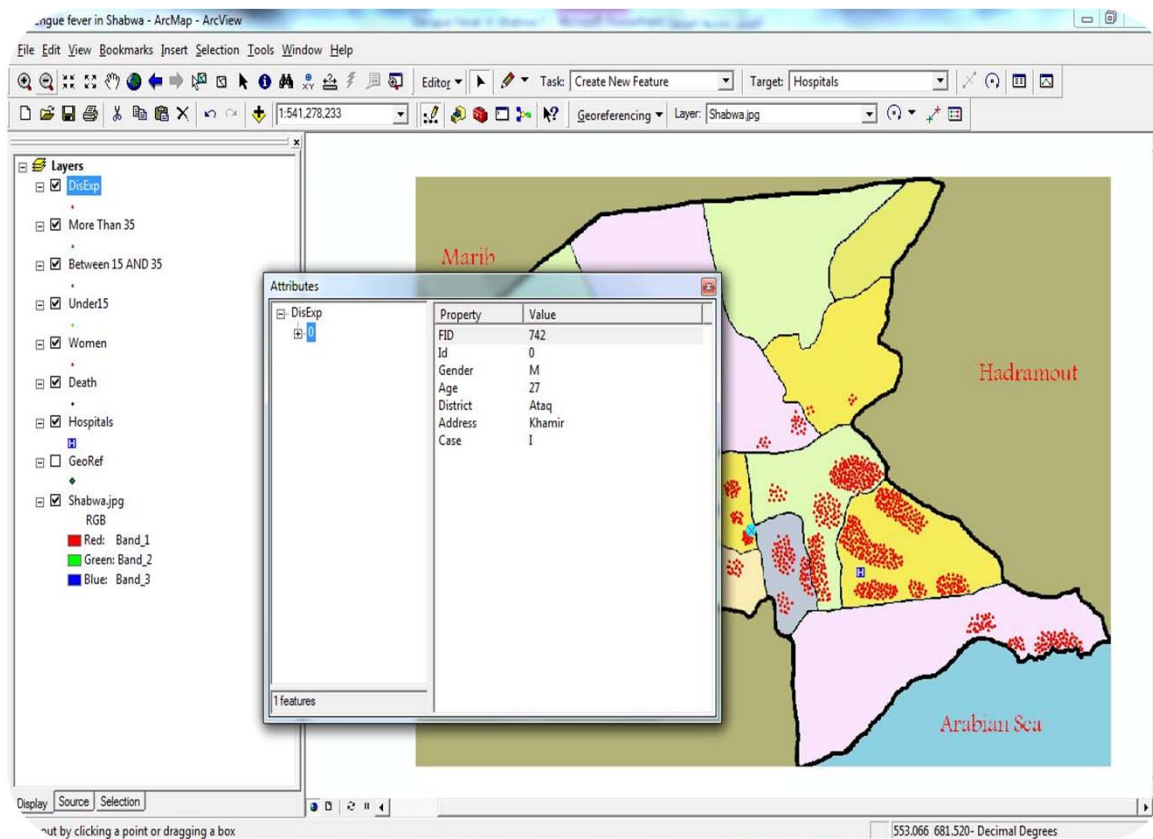
## Building the map

The second step that we did is digitizing that map using ArcGIS tool.

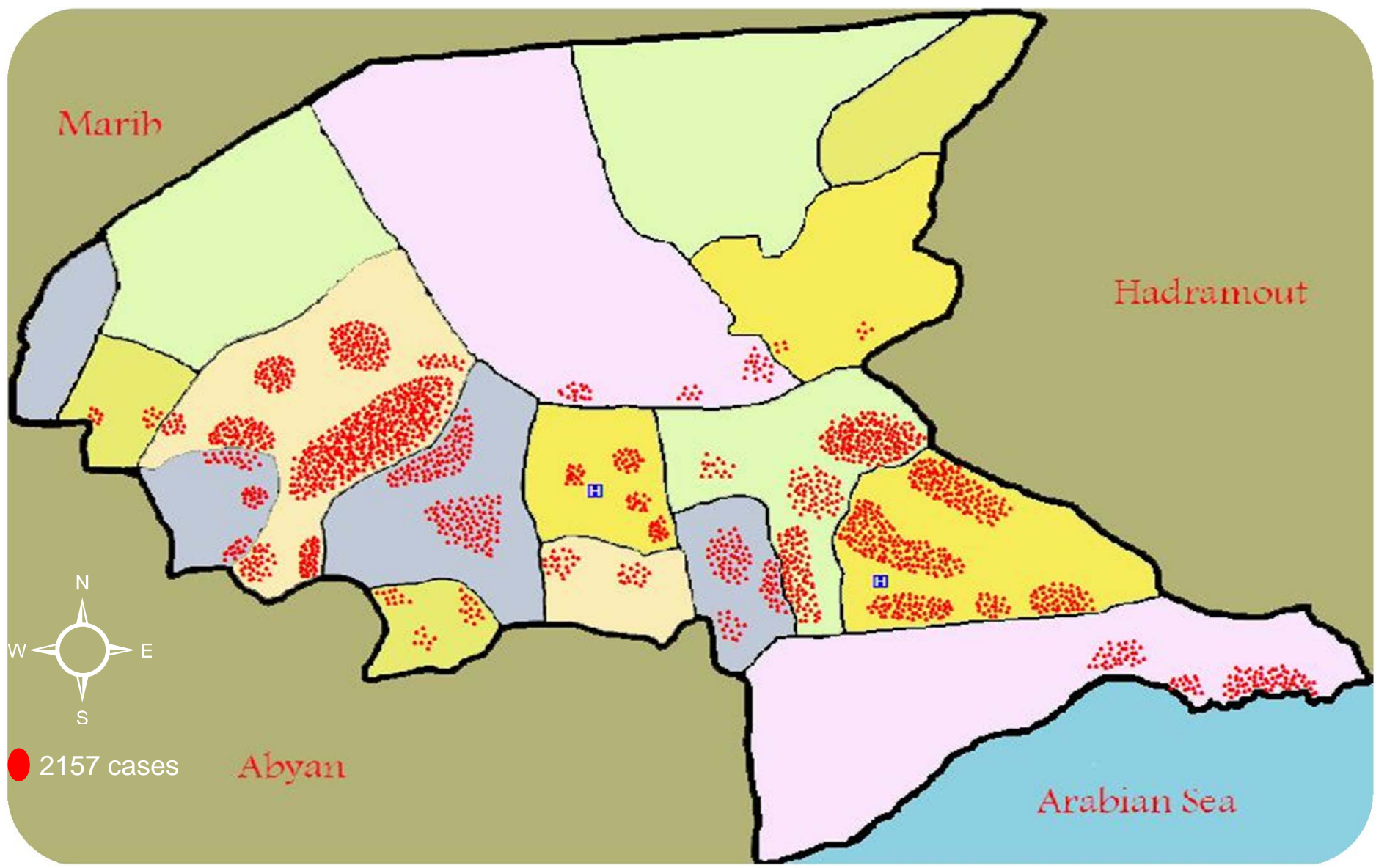


## Building the map

When the map was ready, we started data entry using ArcView application.



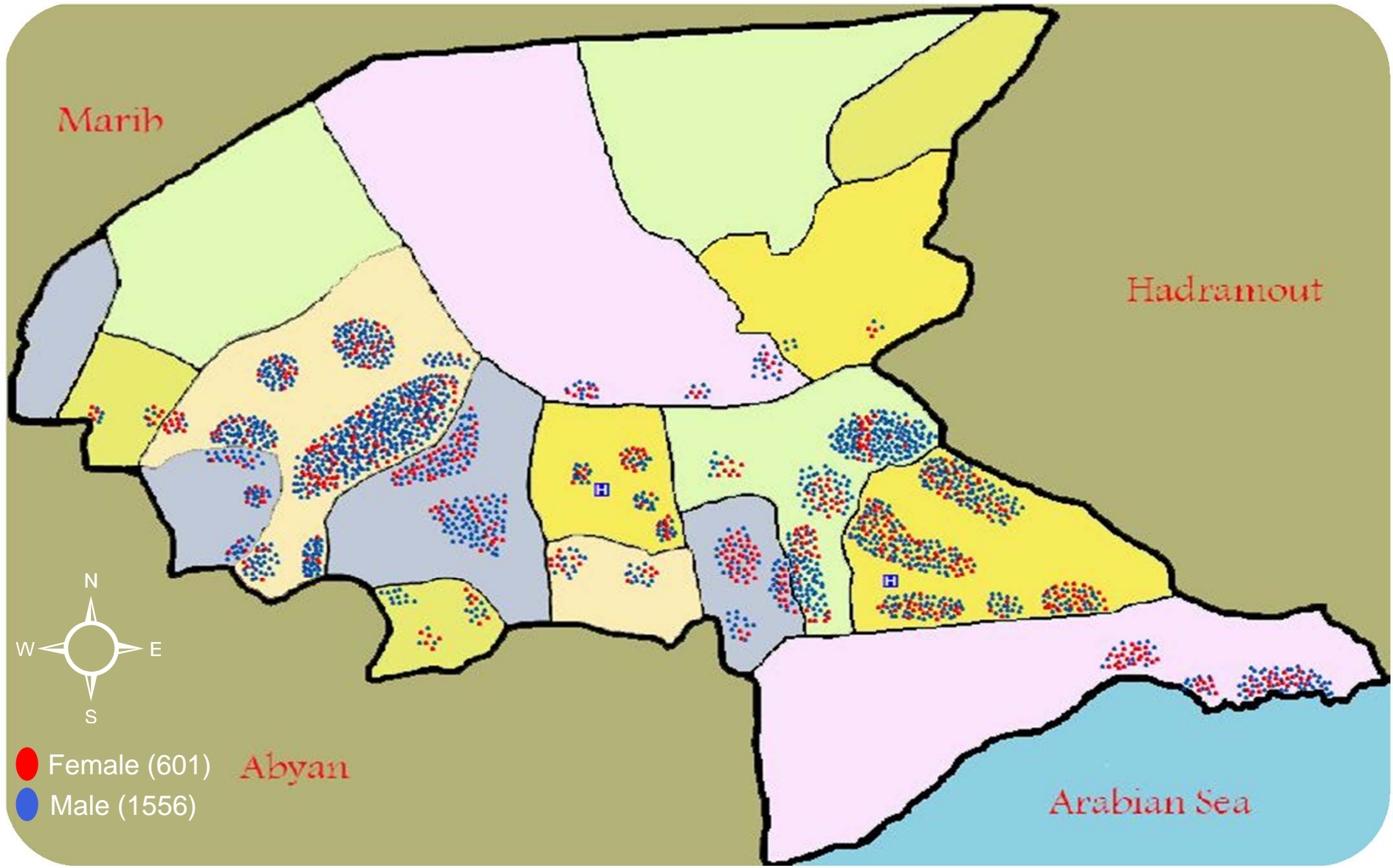
# Result maps All Cases





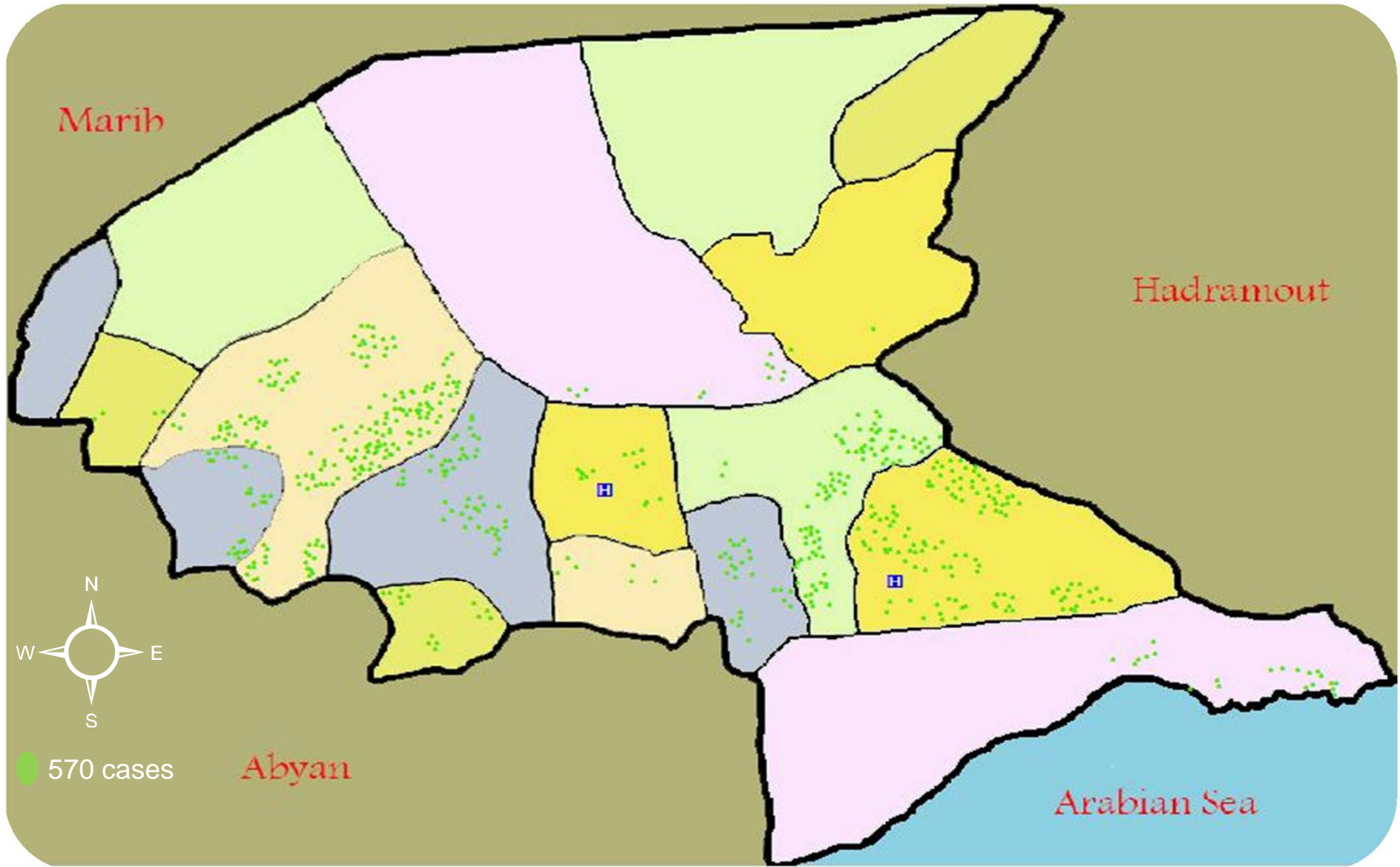


# Result maps Male & Female

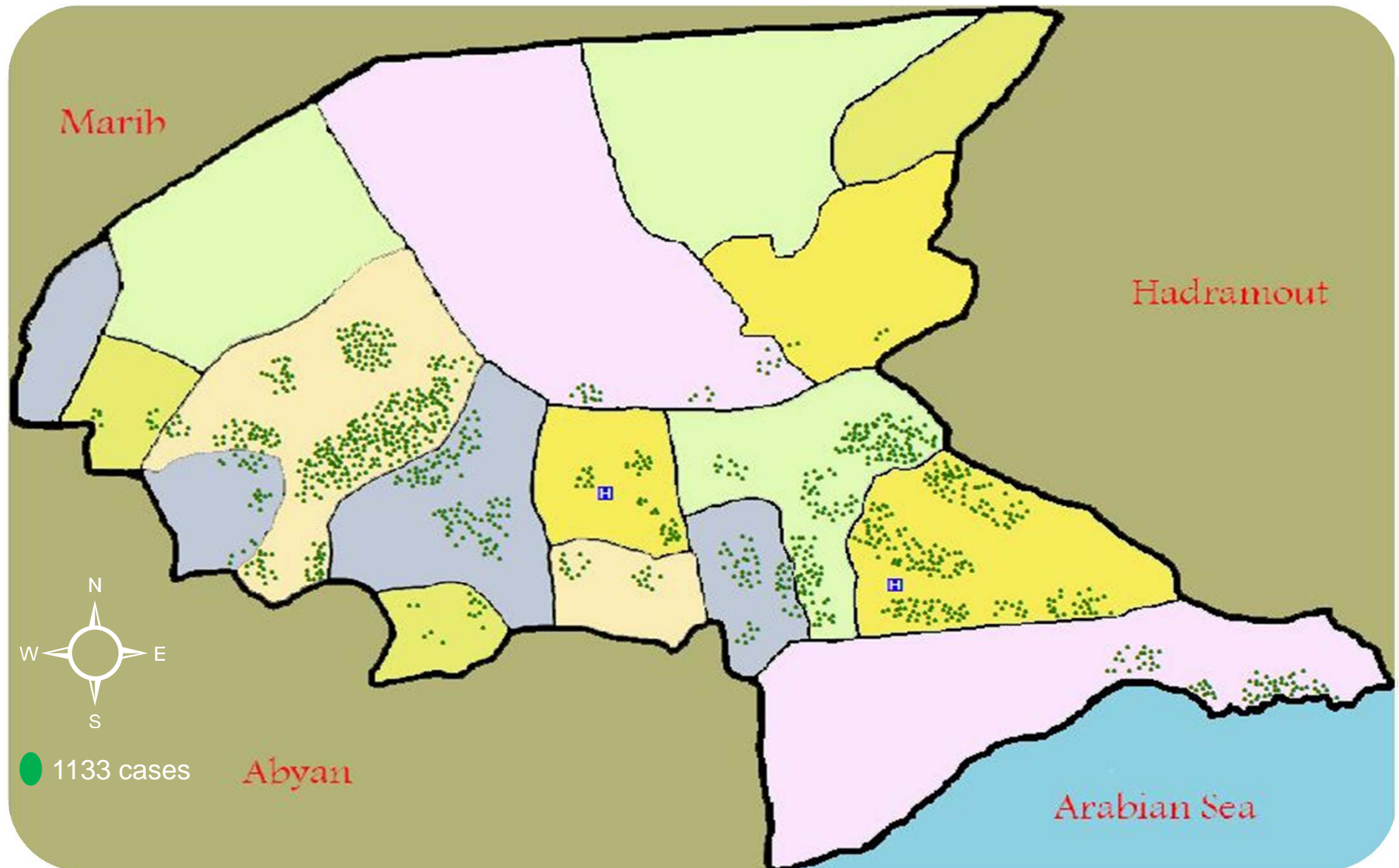




# Result maps Under 15 years



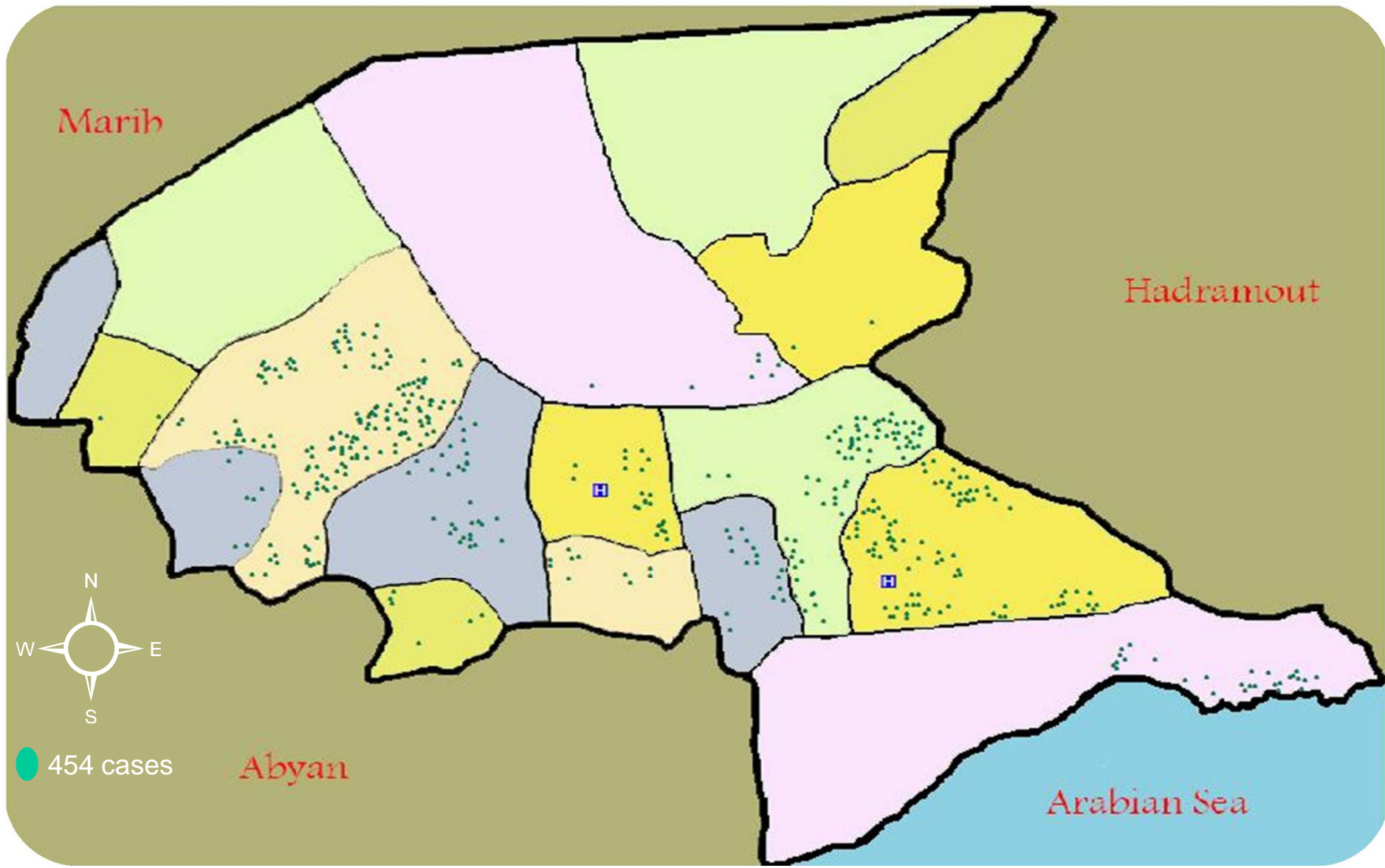
# Result maps 15 -35 years





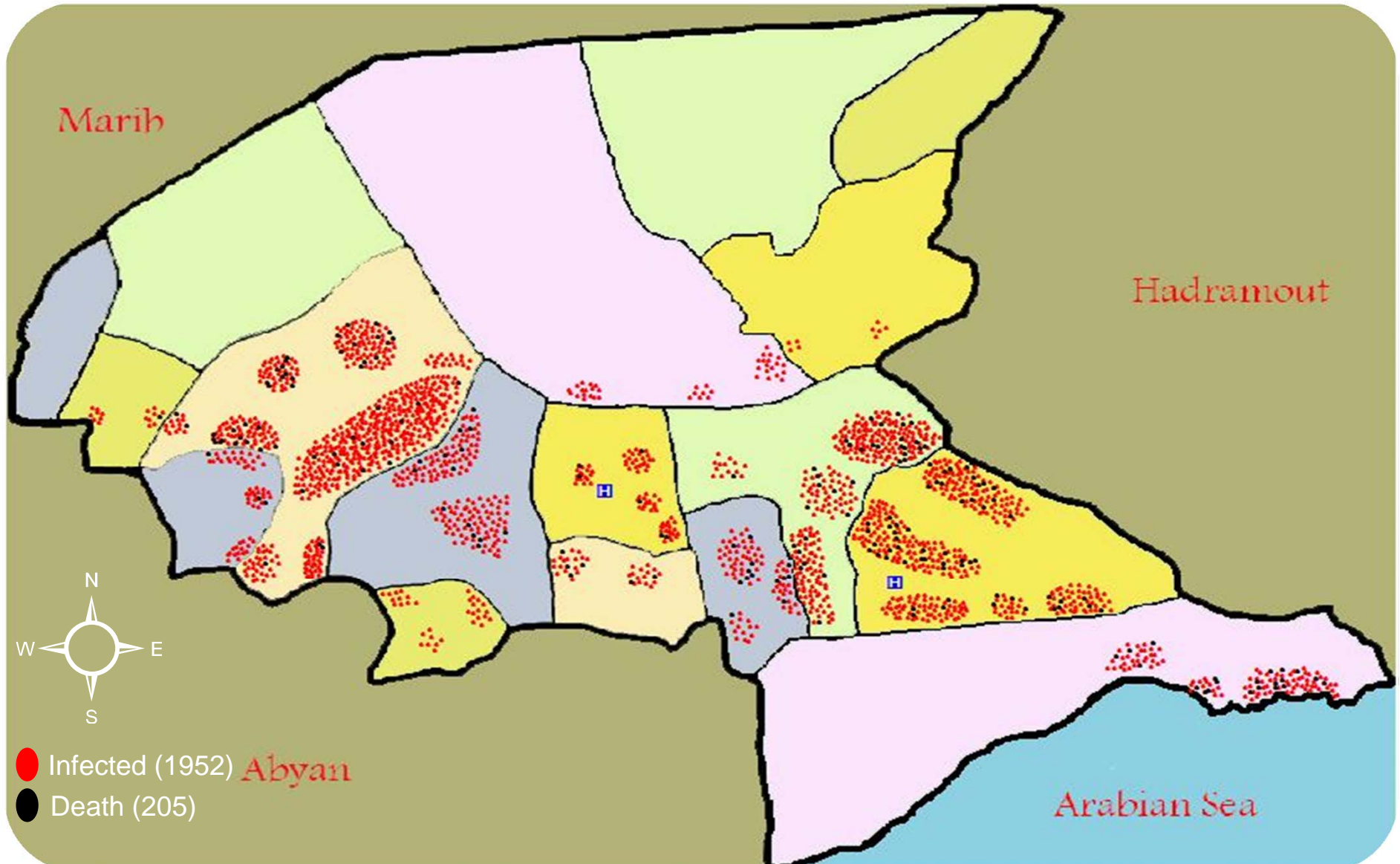


# Result maps **More than 35 years**





# Result maps **More than 35 years**



## Photos from some affected areas





## Conclusion

- GIS and its applications provide more appropriate and diverse tools in data analysis as well as data processing.
- Basing on research into GIS and its applications in community health, we built up a software that support to control or prevent dengue fever in Shabwah Governorate.
- The results of this research is a good reference for individuals, organizations who want to use modern information technology, namely GIS technology, in an effective way.
- Cost less application may play main role in saving lives and efforts in preventing and fighting epidemic such as DF.



# Thank You !

