

# Water Resource Allocation in Lower Jordan Valley: A prospective work from 2015 to 2050

*An analysis of a range of water management hypotheses*

# I. Introduction

## 2. Objectives

II.  
Context

III.  
Hypoth.

IV.  
Results

V.  
Conclu.

Objectives:

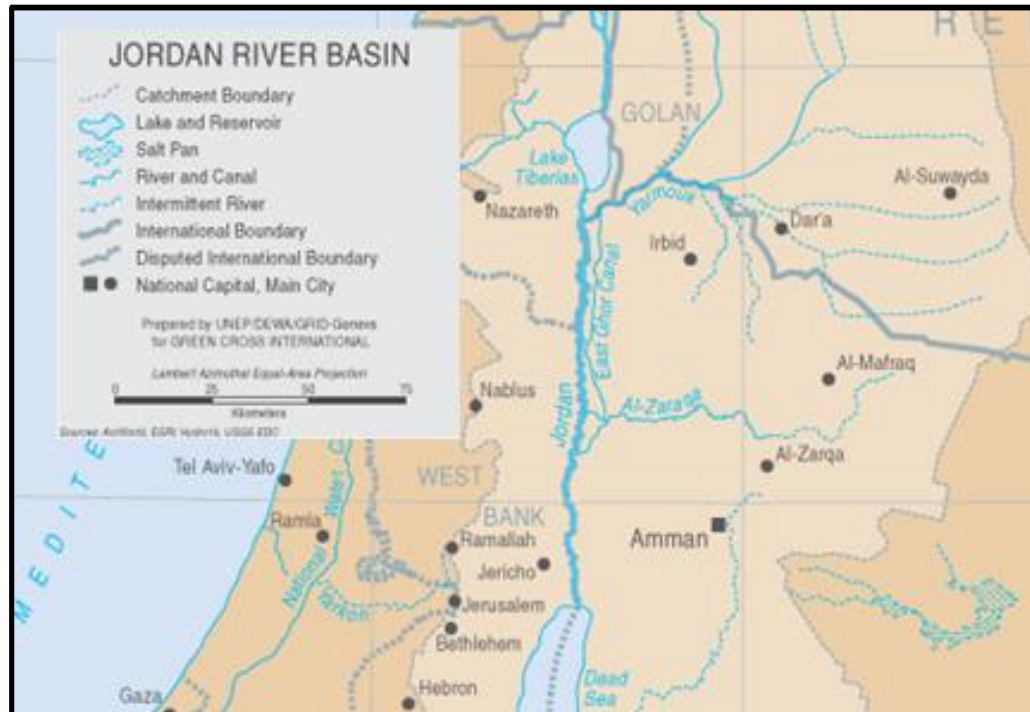
- developing a forward-looking vision of the use of water resources of the lower Jordan Valley on the horizon 2050 on the basis of an assessment and of several contrasted scenarios with the help of the WEAP (Water Evaluation And Planning system) software developed by the Stockholm Environment Institute.
- such a study would allow a better understanding of present and future dynamics of the water use of the lower Jordan Valley and could contribute to public and scientific debates and to help decision makers.

**How far realistic and contrasted scenarios proposed by WEAP hydro balance software and discussed with stakeholders would teach us about best water management in Jordan Valley, up to 2050?**

## I. Intro.

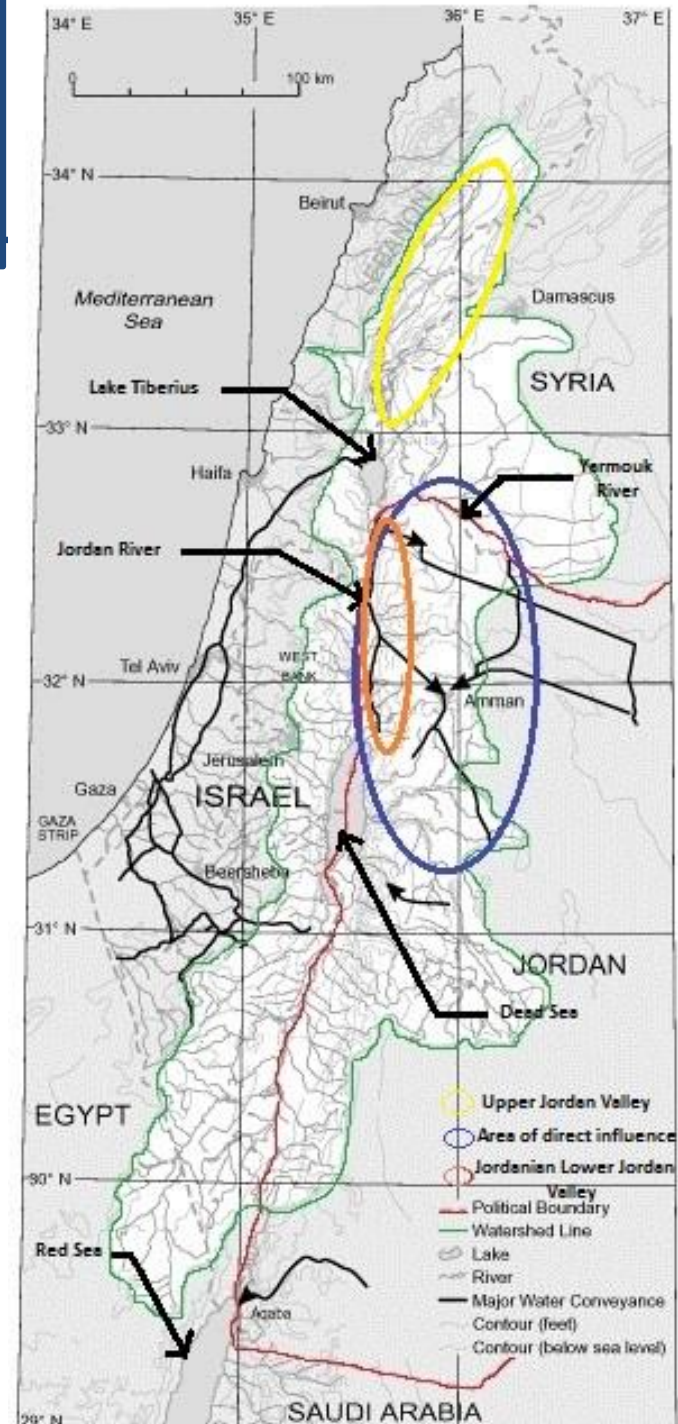
# II. Context

## 1. The Lower Jordan Valley



Northern Jordan, Tsur, 2014

Great Catchment Area of the Jordan River. Source: from Spider International LTD, 2015



## I. Intro.

I.  
Intro.

## II. Context

### 2. Surface resources

III.  
Hypoth.

IV.  
Results

V.  
Conclu.



Zarqa River



Yarmouk River



Adassyia tunnel

Cramez, 2015

I.  
Intro.

## II. Context

### 6. Agricultural Demand

III.  
Hypoth.

IV.  
Results

V.  
Conclu.



Highlands farms, Cramez, 2015

I.  
Intro.

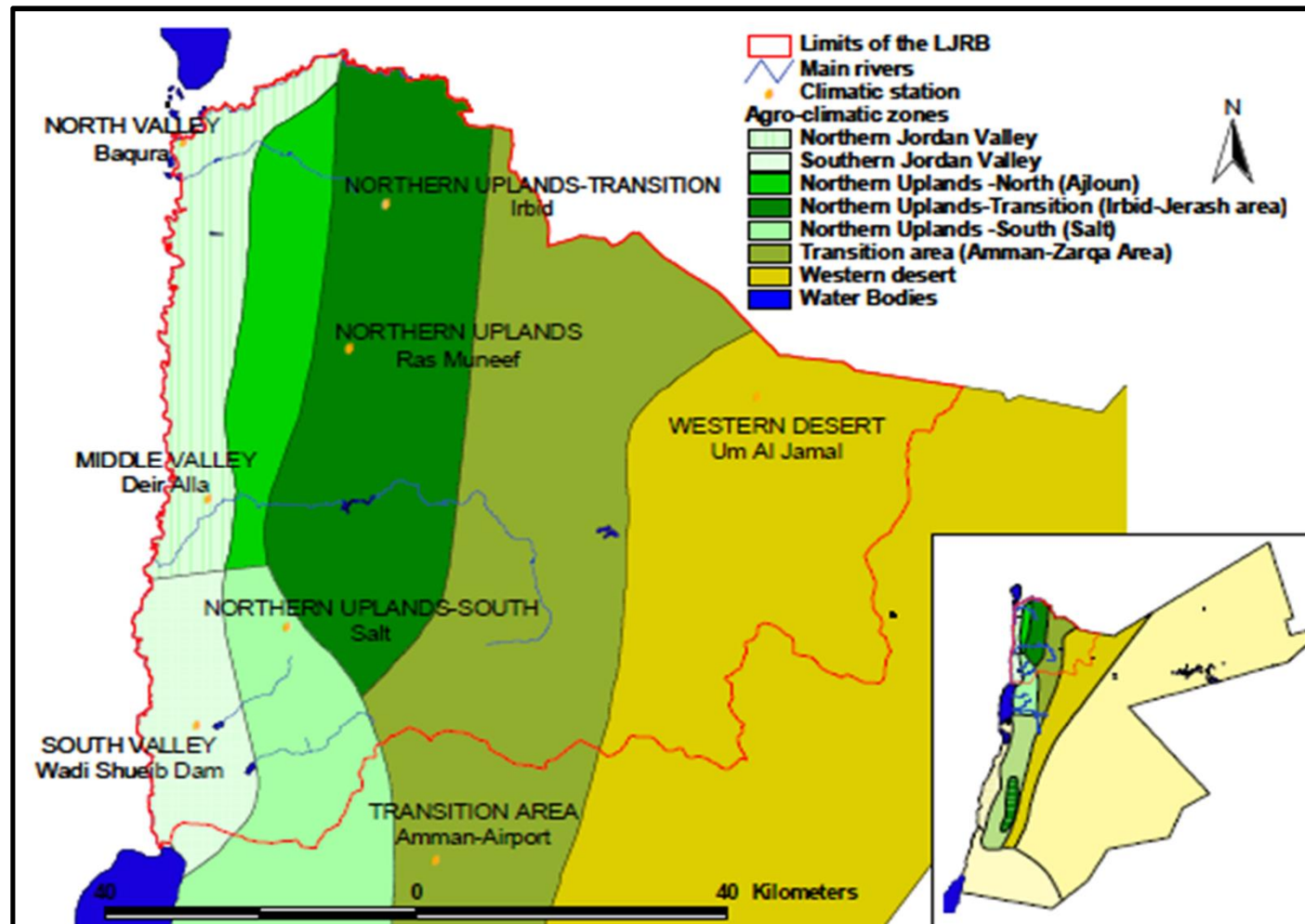
## II. Context

### 6. Agricultural Demand

III.  
Hypoth.

IV.  
Results

V.  
Conclu.



Northern Jordan Climatic Zones, Van Aken et al., 2007

I.  
Intro.

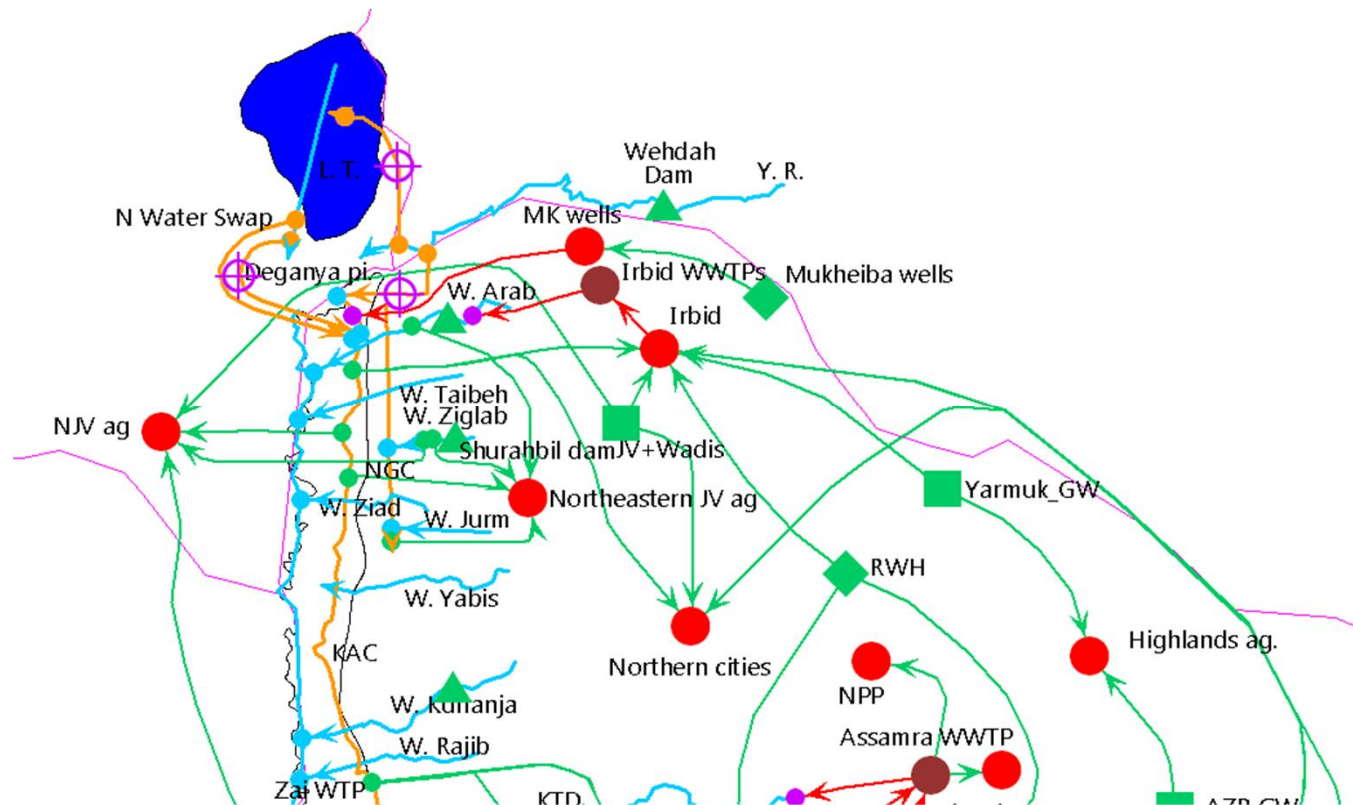
## II. Context

### 7. WEAP (1/3)

III.  
Hypoth.

IV.  
Results

V.  
Conclu.



WEAP model (northern part). Source: Modified from Al-Omari, 2015

# I. Introduction

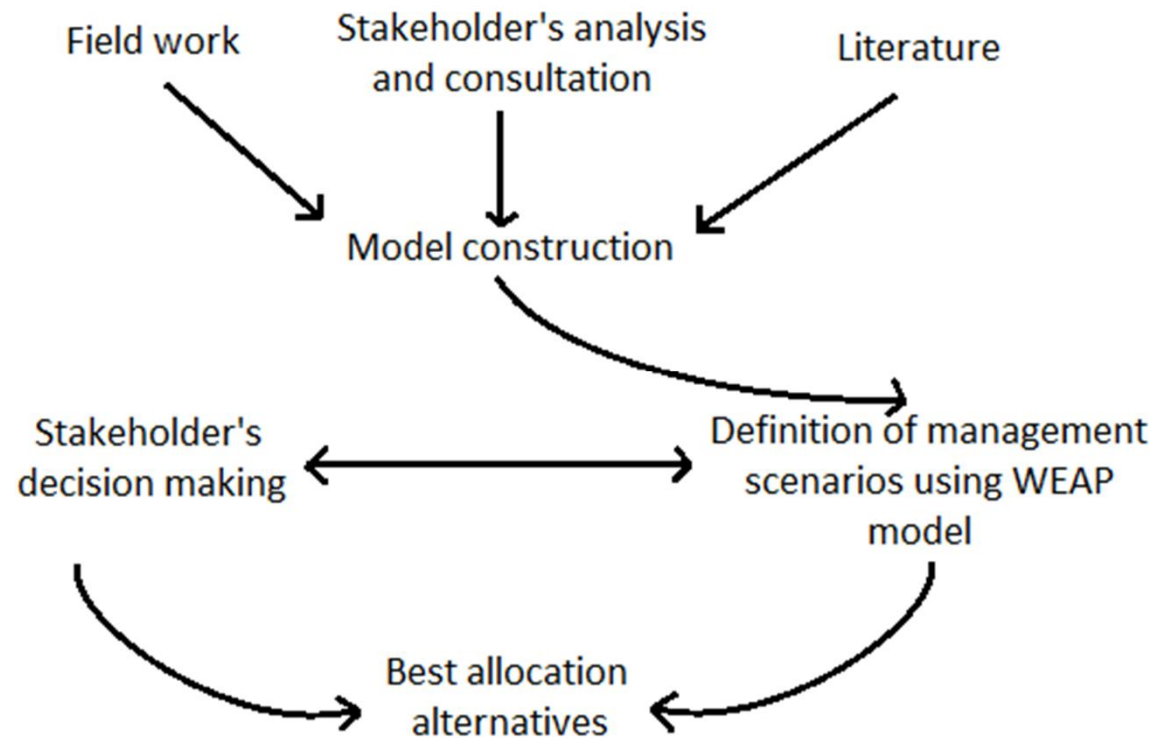
## 3. Methods

II.  
Context

III.  
Hypoth.

IV.  
Results

V.  
Conclu.



I.  
Intro.

## II. Context

### 4. Fossil resources: Disi

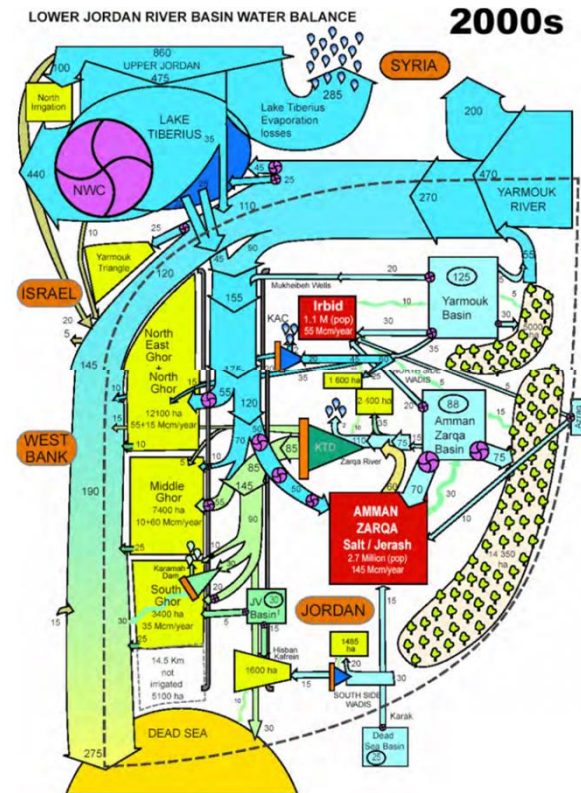
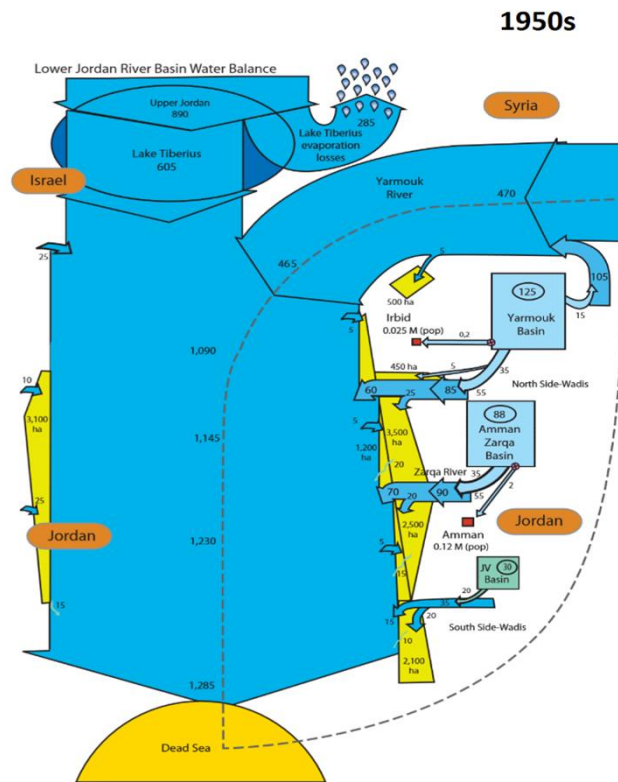
III.  
Hypoth.

IV.  
Results

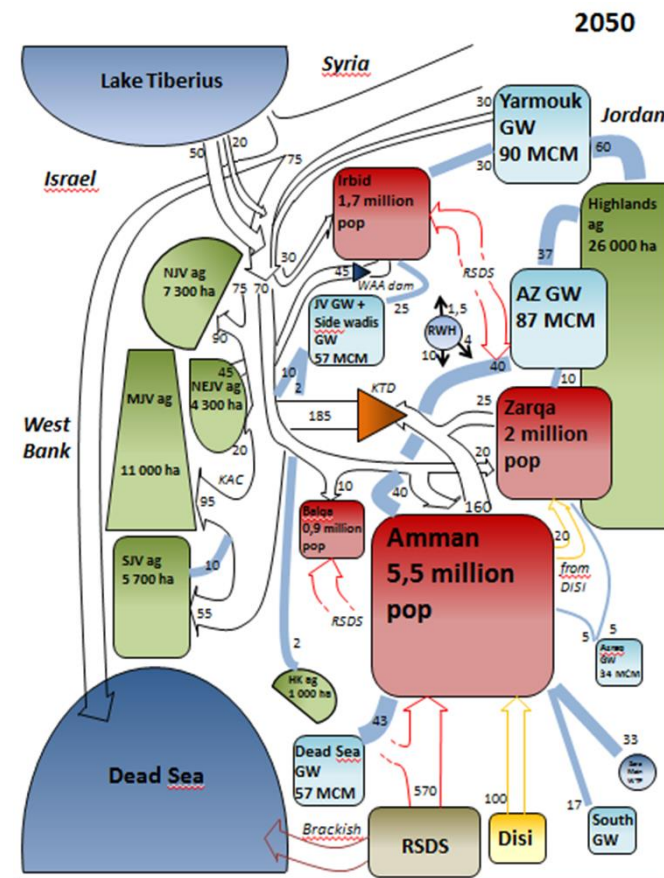
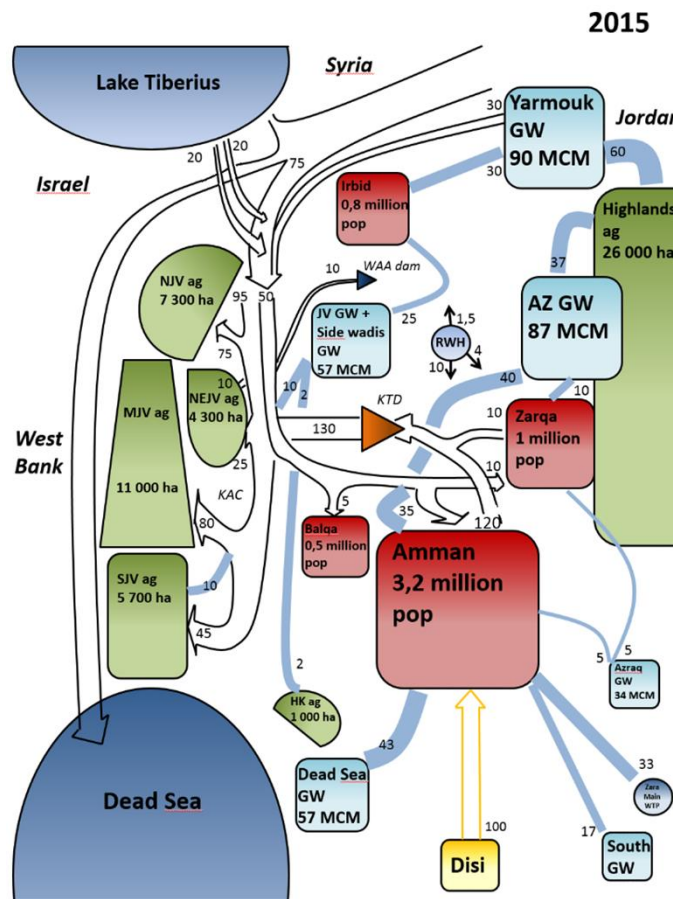
V.  
Conclu.



# Perspective historique



# Complexité croissante



I.  
Intro.

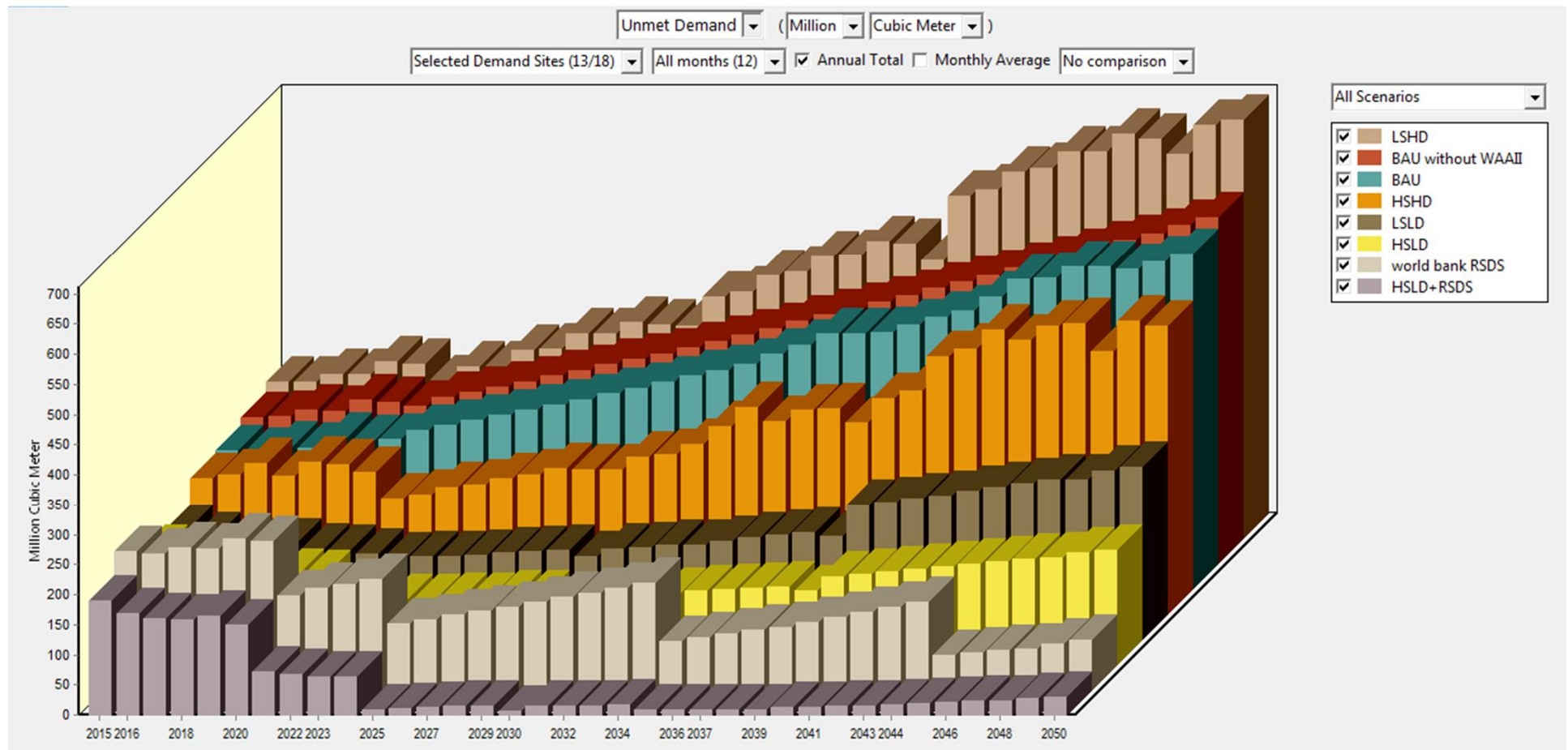
II.  
Context

III.  
Hypoth.

# IV. Results

1.Unmet demand

V.  
Conclu.



I.  
Intro.

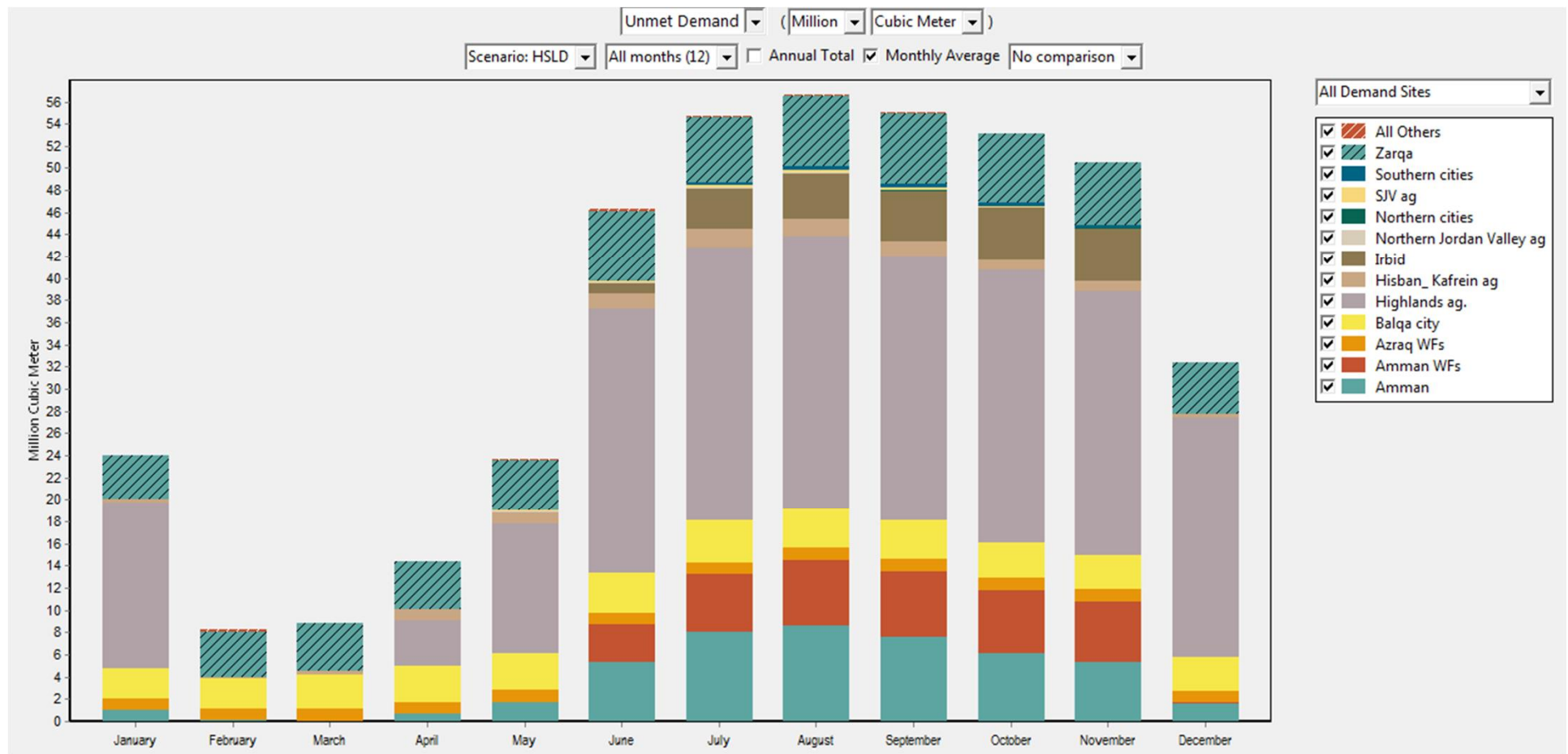
II.  
Context

III.  
Hypoth.

# IV. Results

1.Unmet demand

V.  
Conclu.



I. Intro.	II. Context	III. Hypoth.	IV. Results	V. Conclusion and Limits
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- Need for further interviews (agriculture, ...)
- Lack of most recent data (2011-2015) for WEAP simulation
- Data collection is supported by MWI but in a planning process
- But, prospective is a quite different exercise than forecasting
- The scenarios generation from a Business as Usual scenario
- Sensible demand points: highlands agriculture and main agglomerations
- Possibility to reach zero unmet demand within 35 years under some actions
  - and water reallocation
- Demand hypotheses more efficient than supply hypotheses