

# Mid term progress Oct 4- 5/2010 at UNESCO-IHE

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**Progress in Jedeb catchment**

**Oct. 4, 2010**



**UNESCO-IHE**  
Institute for Water Education



# Outline

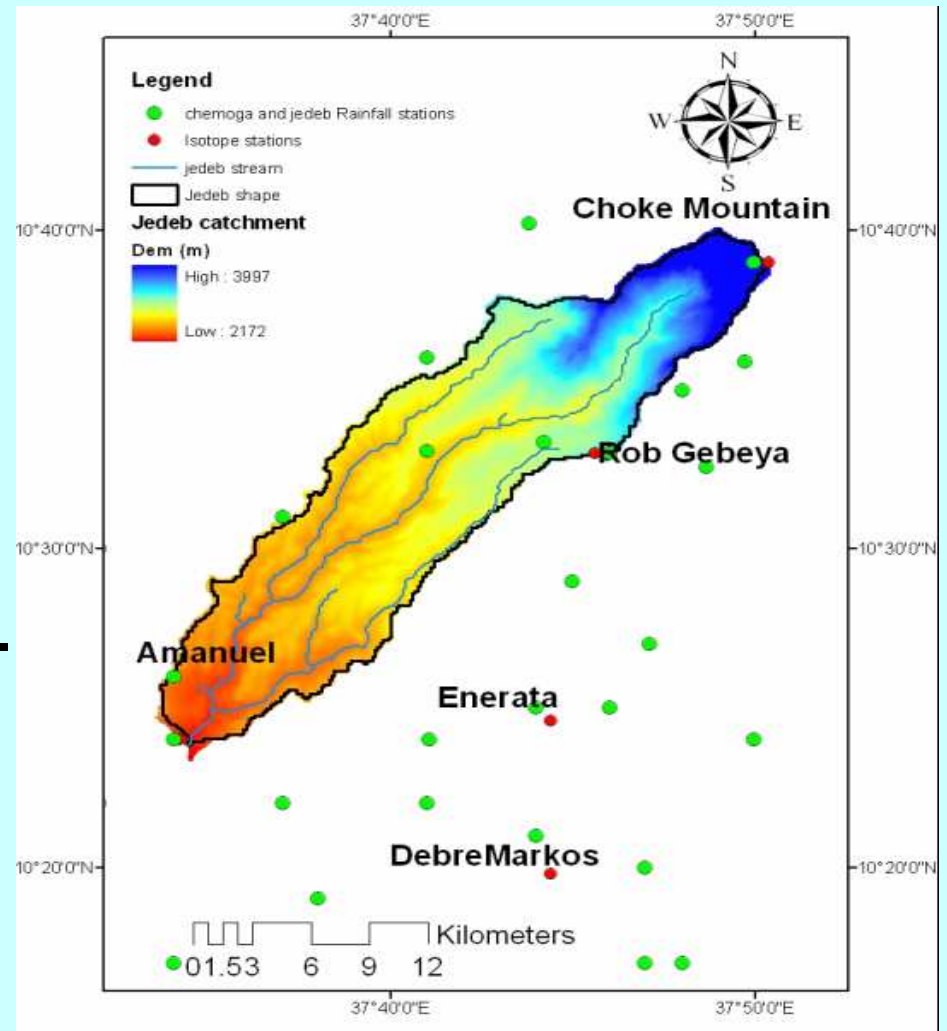
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- 1. Introduction**
- 2. Data collection**
- 3. Streamflow analysis**
- 4. what is next?**



# 1. Introduction

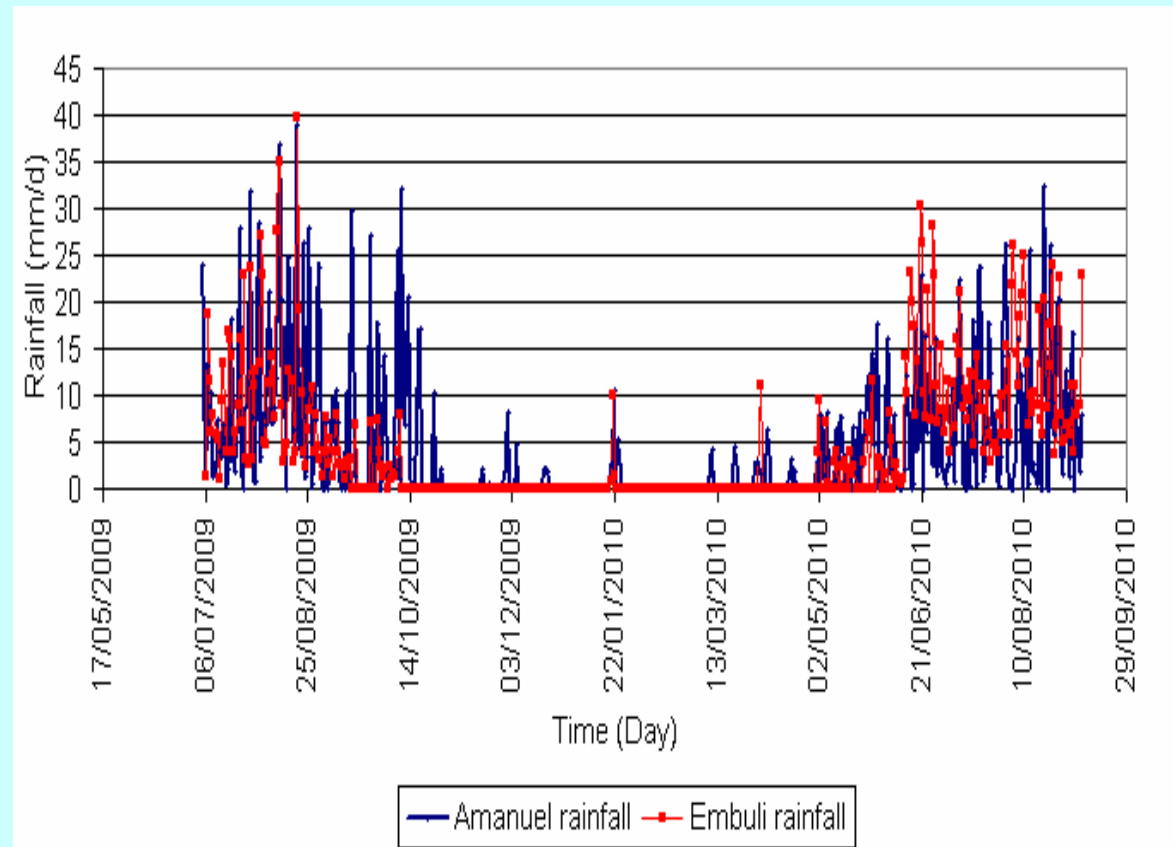
- ✓ Catchment area 242 km<sup>2</sup>
- ✓ Mean annual rainfall 1449 mm/y (1995-2004)
- ✓ Mean annual discharge 861 mm/y
- ✓ Mean annual evaporation 587 mm/y
- ✓ Elevation ranges between 2172-3997 m a.m.s.l



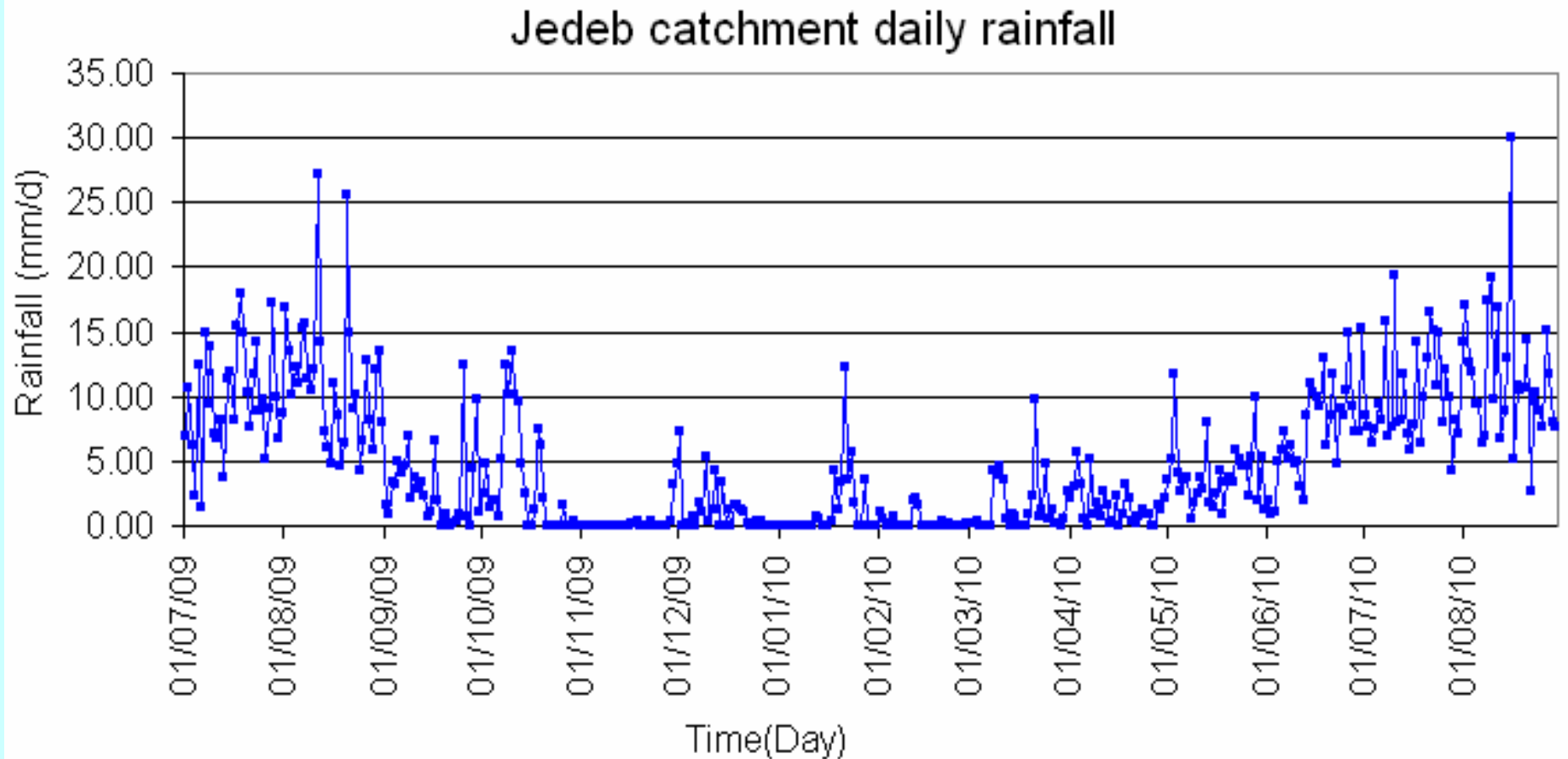
## 2. Data collection

- ✓ Daily rainfall
- ✓ Two stations 7 km apart

- ✓ Temporal distribution

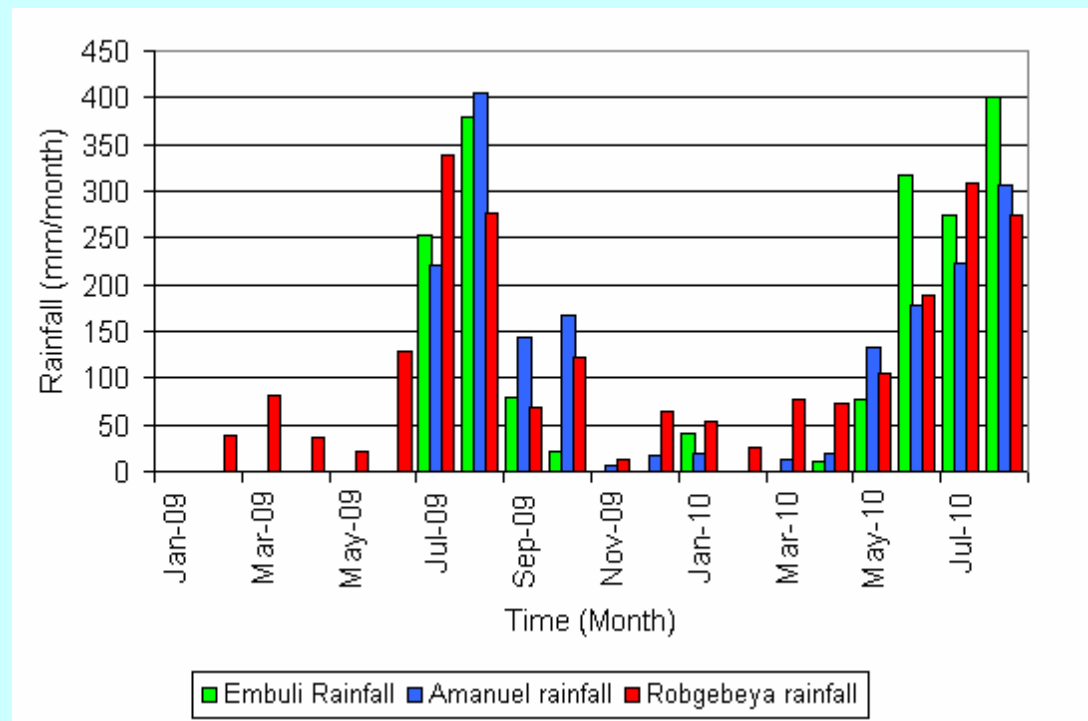


## 2. Data collection continued..

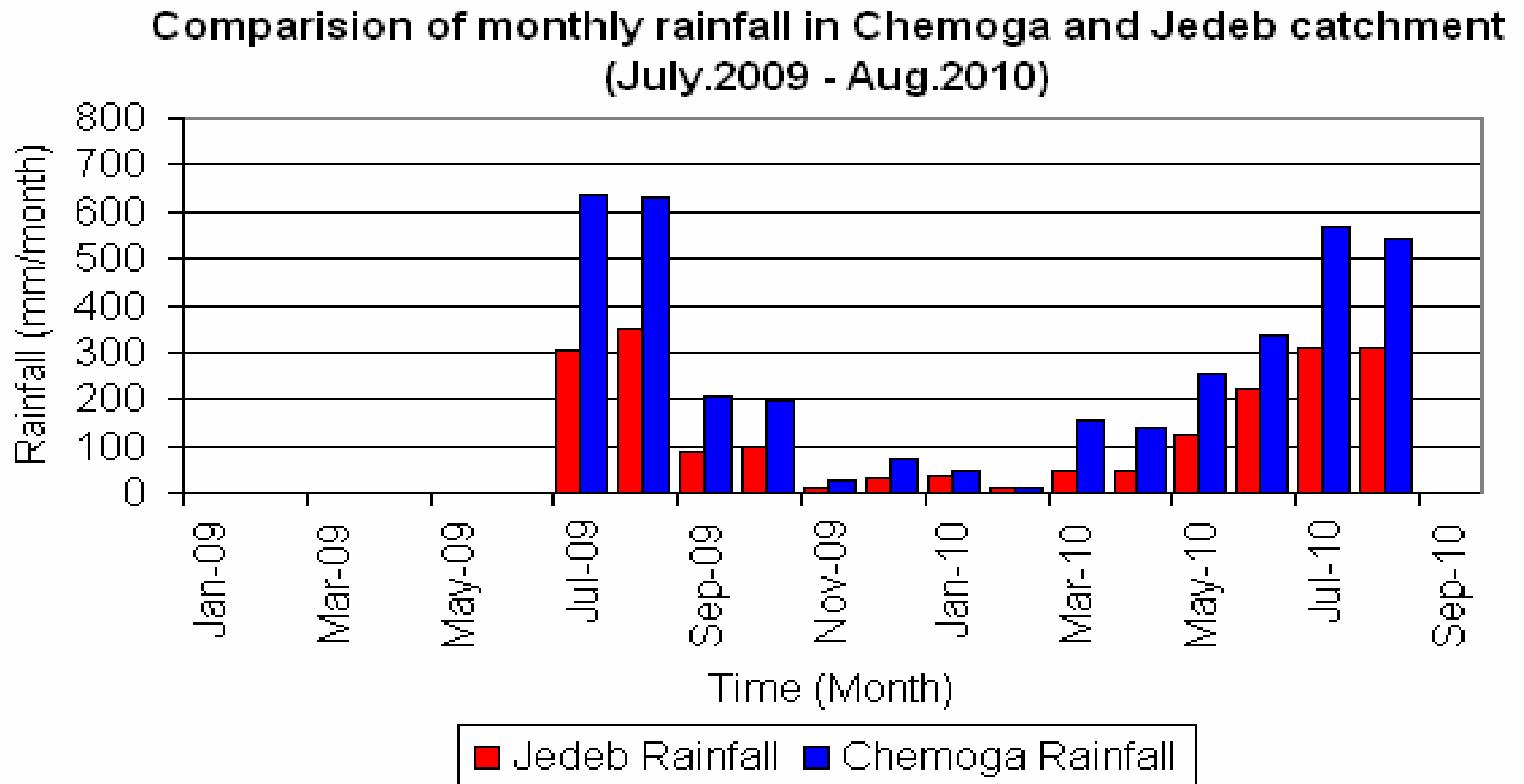


## 2. Data collection continued..

### ✓ Monthly rainfall distribution

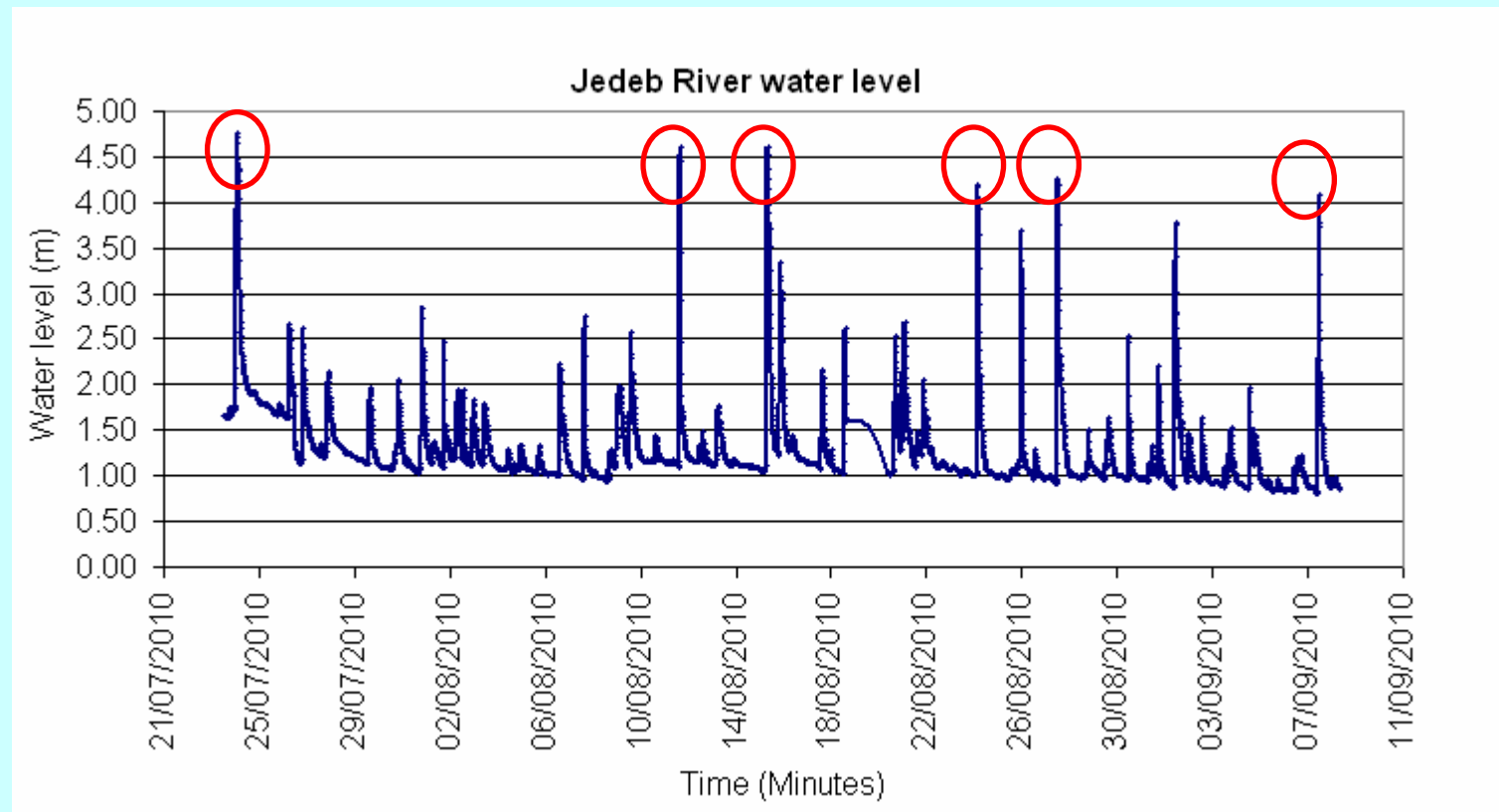


## 2. Data collection continued..



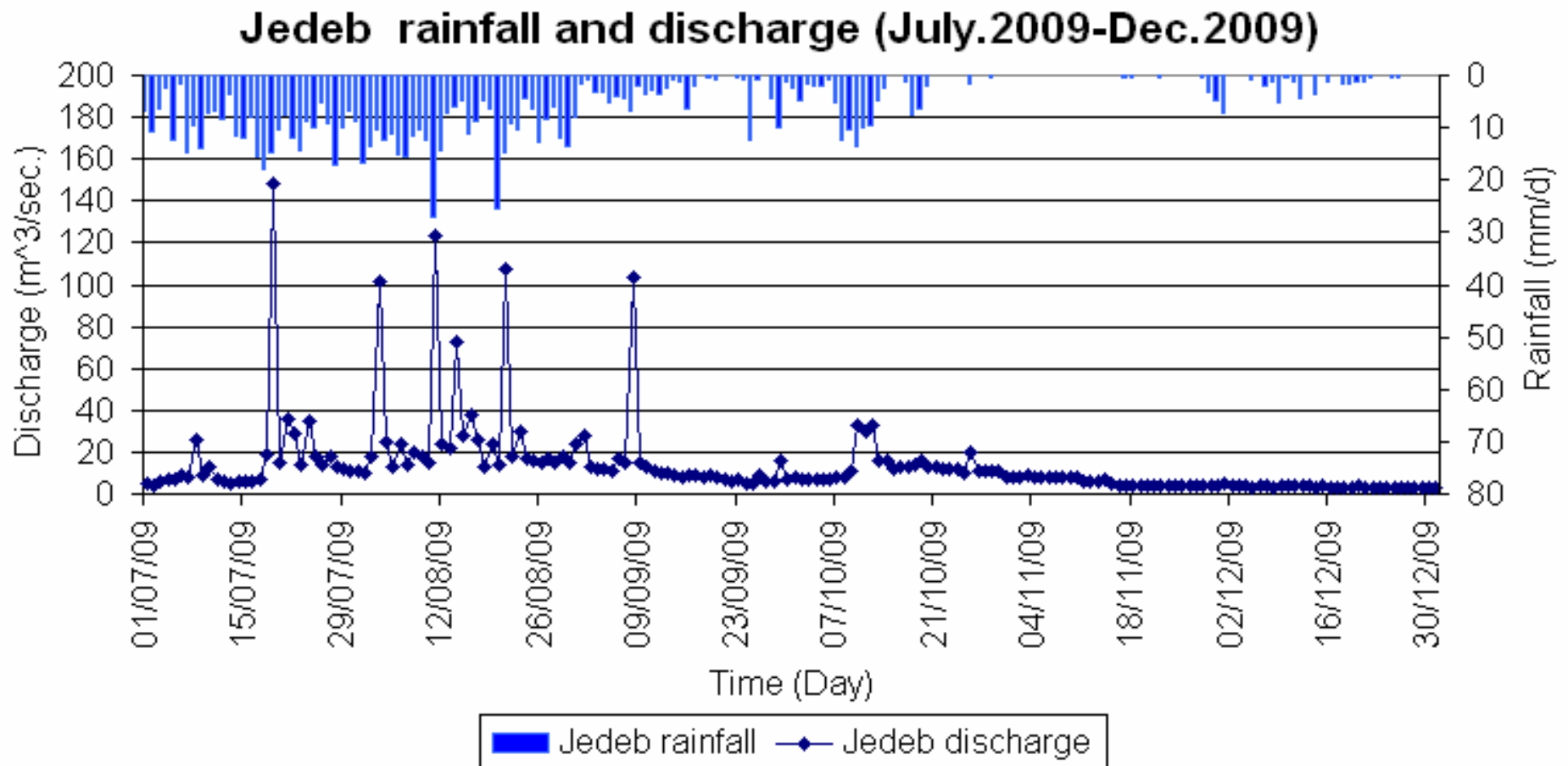
## 2. Data collection continued..

- ✓ water level (every 15 Minutes)

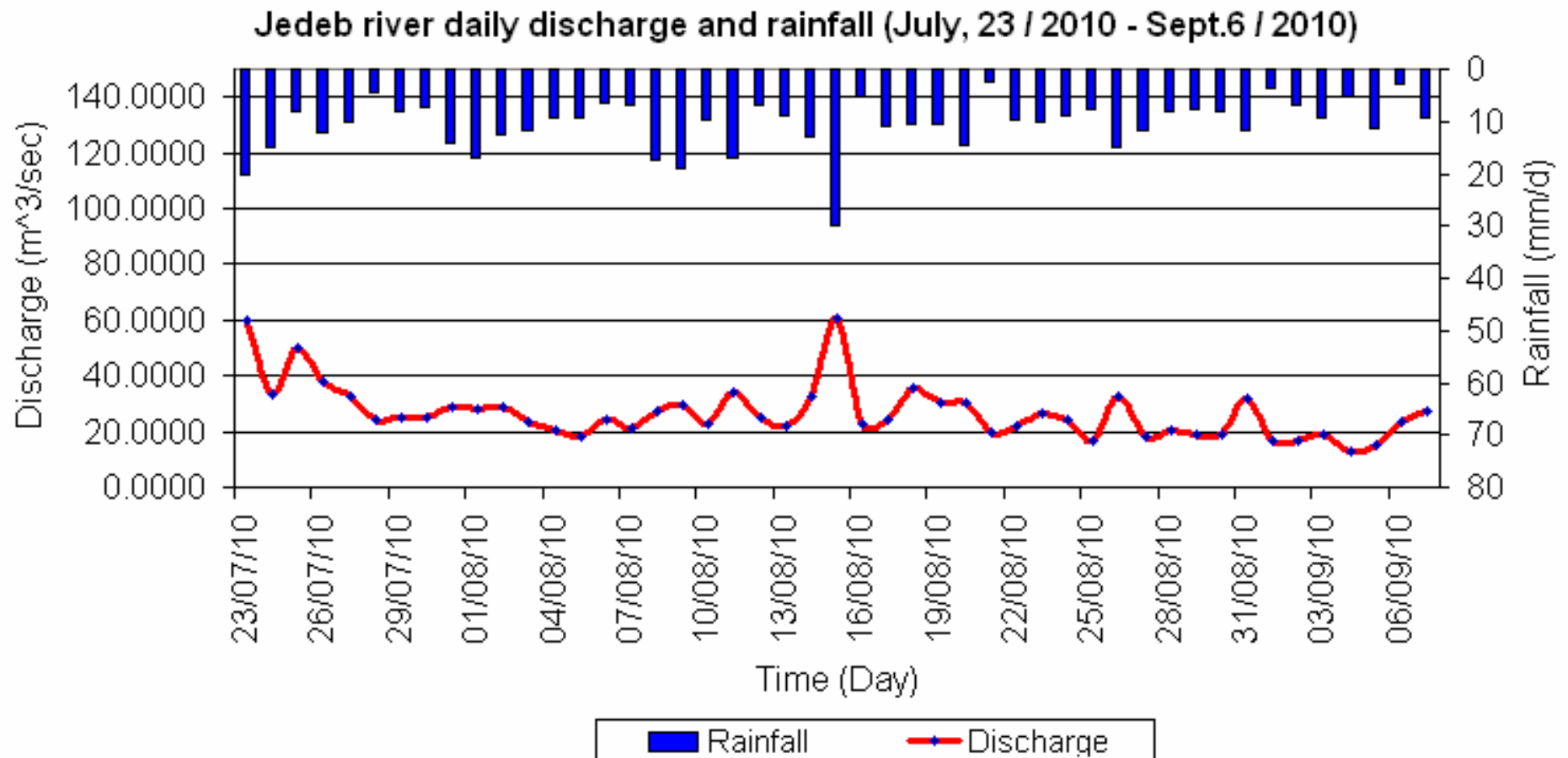




## 2. Data collection continued..



## 2. Data collection continued..



# 3. Streamflow data analysis

## Streamflow analysis using FDC

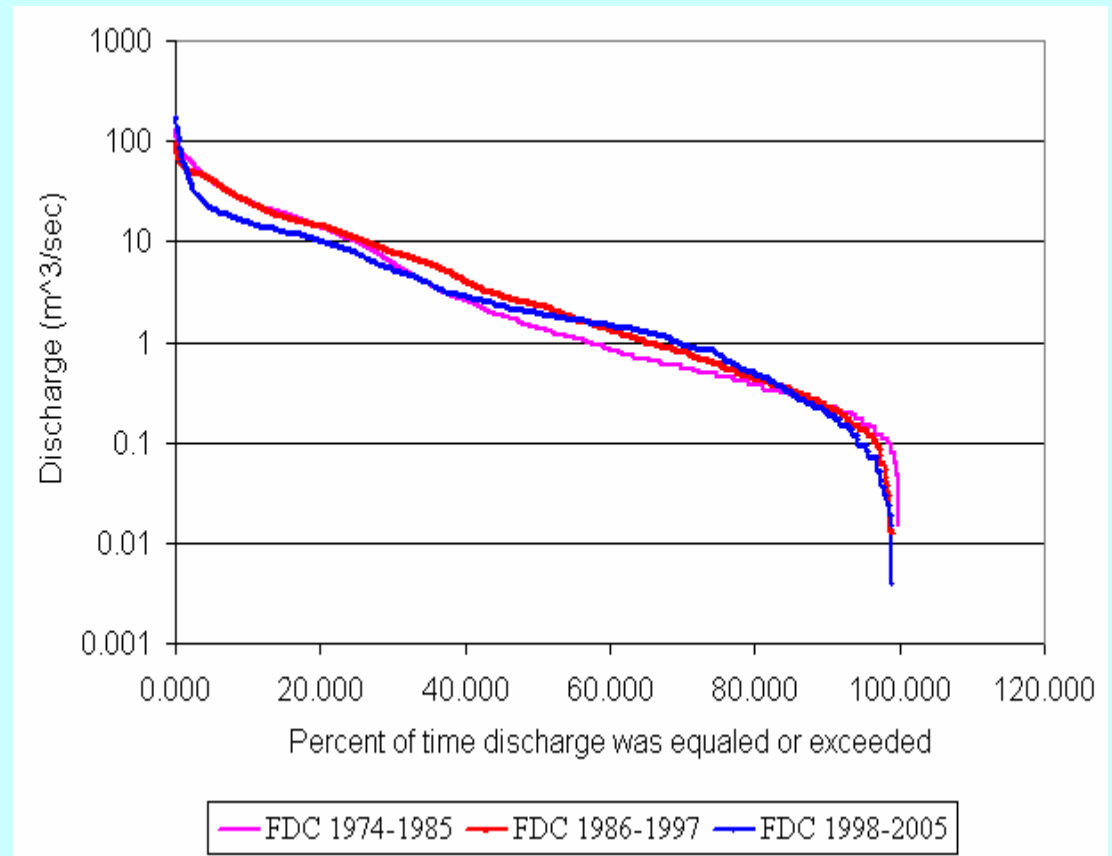
1974-1985

1986-1997

1998-2005

1D Flow Duration curve for different window period

Time	Q50 (m <sup>3</sup> /sec)	Q95 (m <sup>3</sup> /sec)
1974-1985	1.34	0.15
1986-1997	2.3	0.13
1998-2005	1.92	0.093



## 4. What is next ?

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- ✓ **Further streamflow and rainfall data analysis**
- ✓ **Working on the impacts of land use and cover change on streamflow with Ermias (Project -7)**
- ✓ **Studying the runoff generation mechanism using Isotope**



**Thank you!!**

