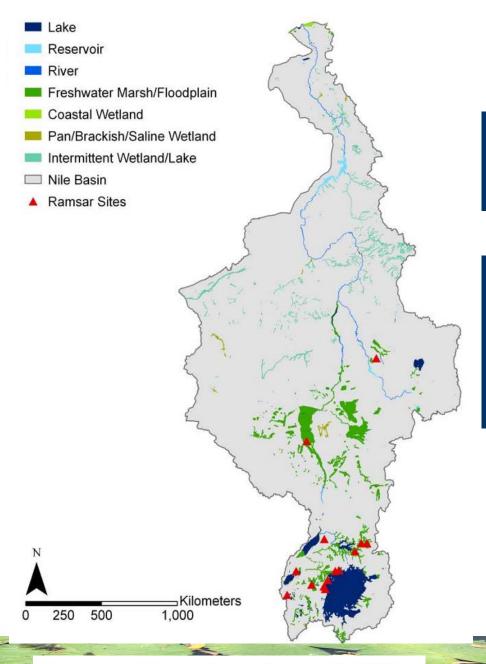


## ALOS K&C 12

Wetland Theme: The Upper Nile Basin
Lisa-Maria Rebelo
International Water Management Institute



#### **Wetlands of the Nile Basin**

- Wetlands occur extensively across the Basin
- Offer many ecosystem services
- Vital in supporting local populations
- Sustainable management is critical

"Wetlands affect the daily lives of every one of Uganda's citizens and provide a powerful wall of protection for Uganda's economic development" (Paul Mafabi, commissioner of the Wetlands Management Department in Uganda's Ministry of Water and Environment)

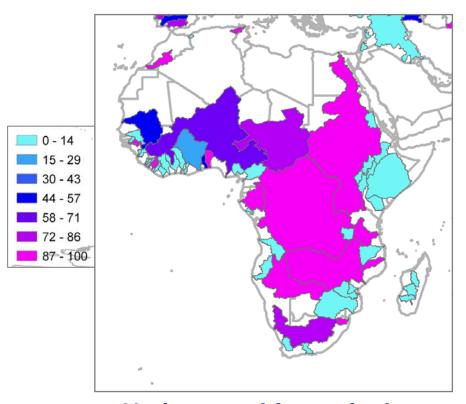
Ethiopia	2.9 (2.2)
Uganda	5.7 (5.0)

www.iwmi.org

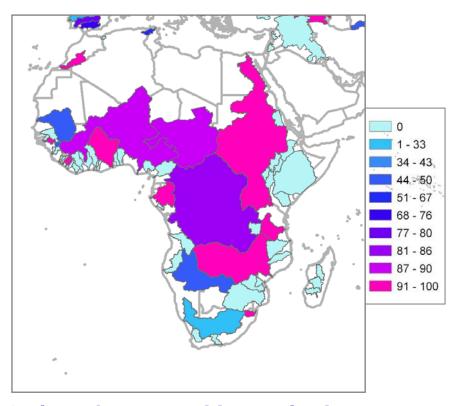
Global Lakes and Wetlands Database (Lehner and Doll 2004)



# Wetlands of International Importance in the Nile Basin:



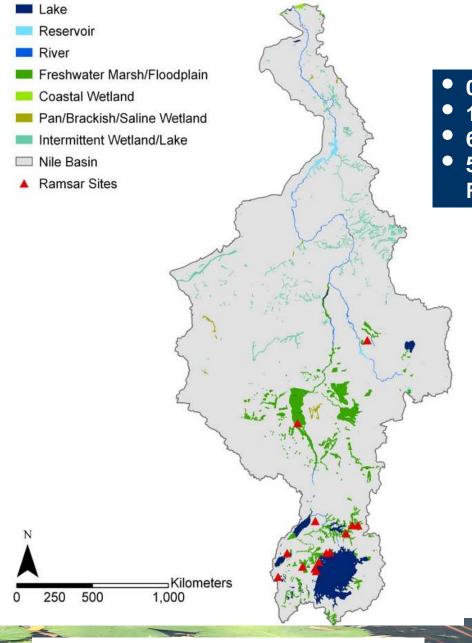
% sites used for agriculture



% sites threatened by agriculture







- 0.6 13 million ha
- 10 40 km wide
- 650 km long
- 5.7million ha designated a Ramsar site



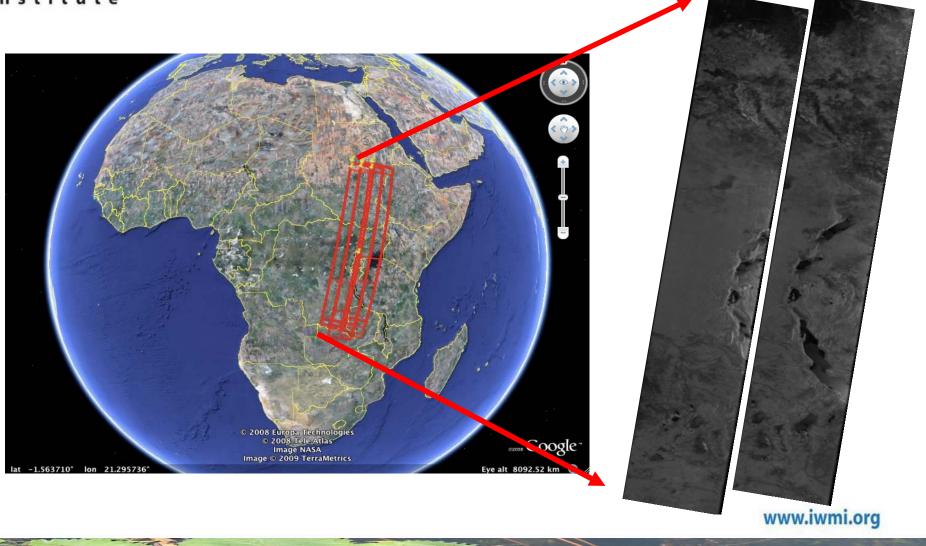
#### The Sudd Wetland: Opportunities and Constraints

- Dynamic wetland system
- Designated as a Ramsar site in 2006
- Extent is determined by fluctuations in outflow from Lake Victoria
- Large evaporation from the wetland, 40% of inflows
- Home to several hundred thousand people
- → Key challenge maintaining the balance between food security and socio-economic needs, and conservation of the wetland biodiversity
- The main goal of the study is to understand and assess options for integrated management of the Sudd wetland, addressing:
  - Food security
  - Socio-economic development
  - Maintenance of ecosystem services

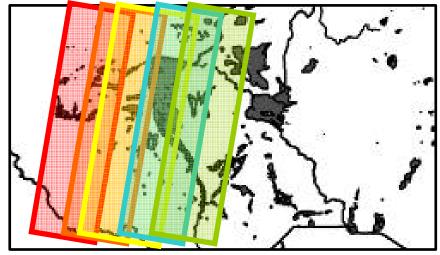




### **The Sudd Wetland: Inundation Extent**



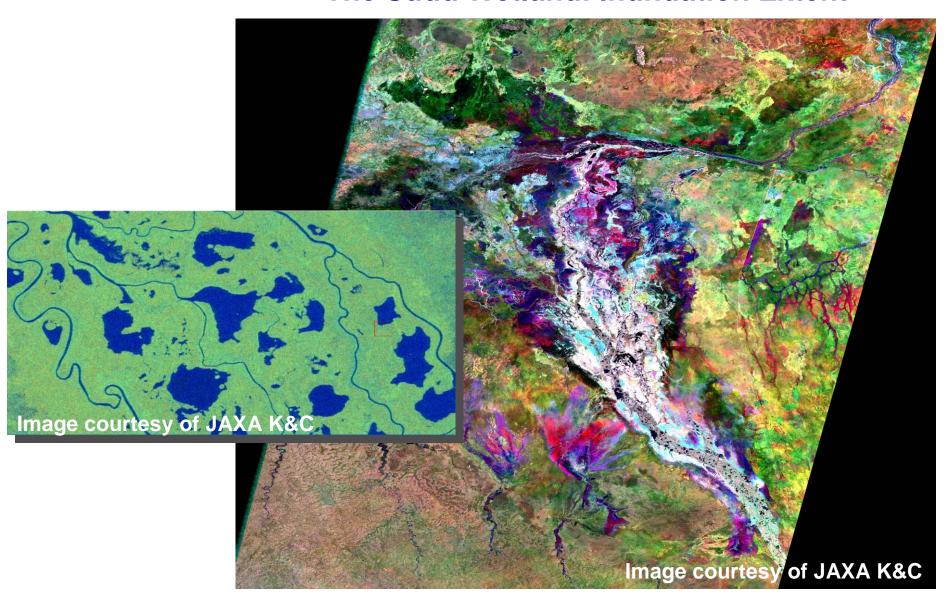




259 ----- 247

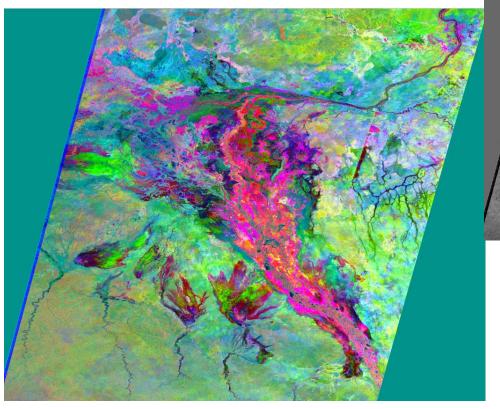
UPPER NILE BASIN		RSP					
		259	256	253	250	247	
CYCLE	12	Jun 2007					
	13	Aug 2007			Jul 2007		
	14	Sep 2007	Sep 2007	Sep 2007		Sep 2007	
	15	Nov 2007			Oct 2007	Oct 2007	
	16	Dec 2007	Dec 2007	Dec 2007		Dec 2007	
	17				Jan 2008		
	18		Mar 2008	Mar 2008			
	19	May 2008	May 2008	May 2008	Apr 2008	Apr 2008	
	20	Jun 2008			Jun 2008	Jun 2008	

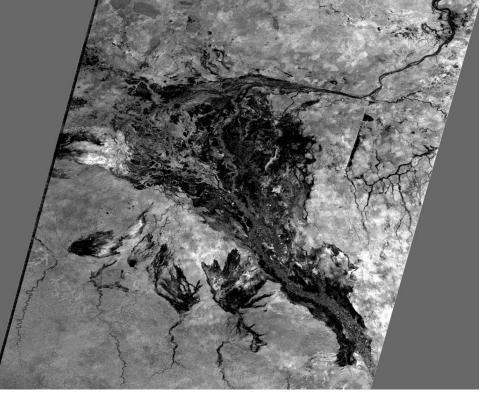
#### **The Sudd Wetland: Inundation Extent**



ALOS PALSAR (ScanSAR)
RED: June 2007, GREEN: September 2007, BLUE: December 2007







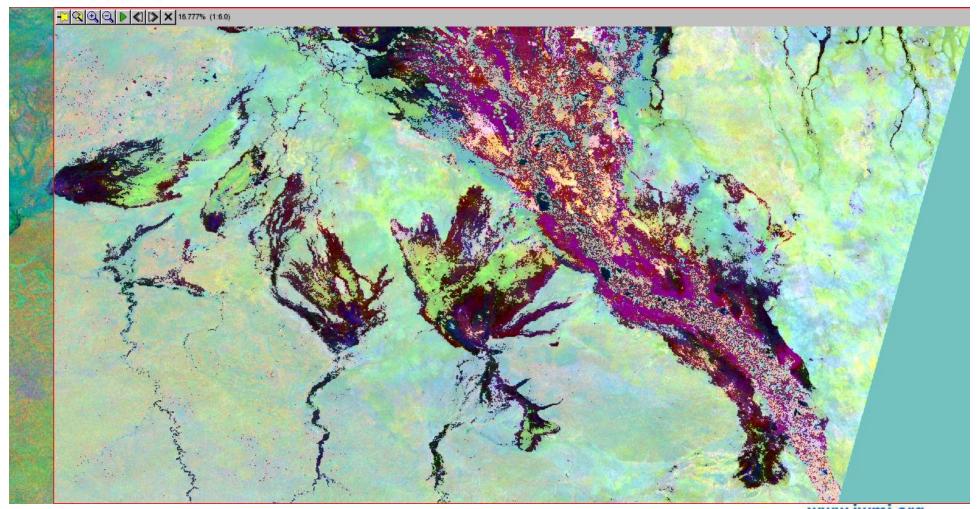
**ALOS PALSAR: ScanSAR** 

PCA: June 2007, Sep 2007, Dec

2007



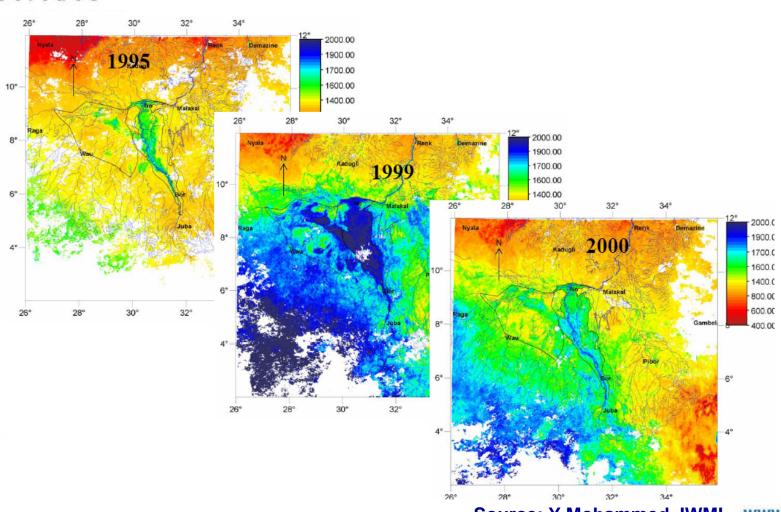








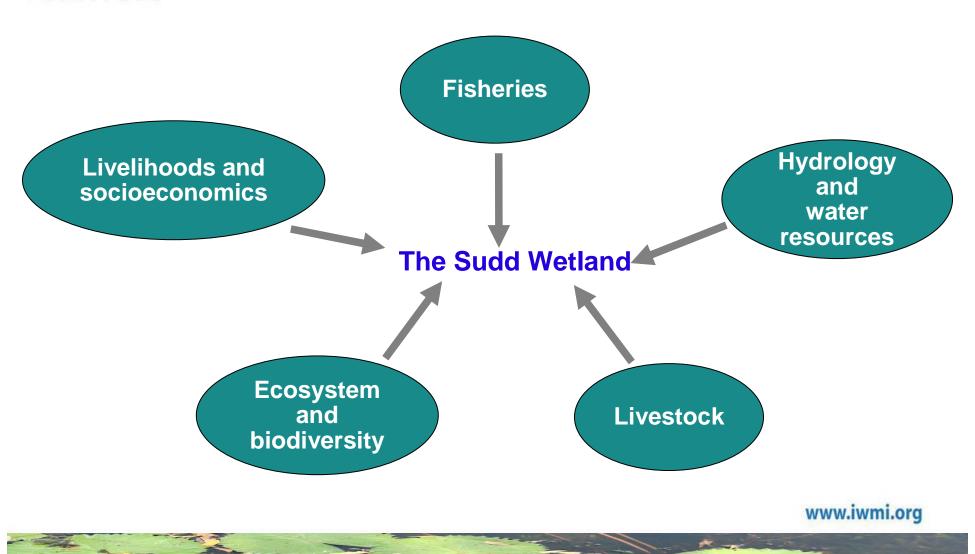
### **The Sudd Wetland: ET Estimations**



Source: Y Mohammed, IWMI www.iwmi.org



### **The Sudd Wetland: Opportunities and Constraints**





Knowledge base of socio-economic system

Livelihoods and socioeconomics

Analyse opportunities and constraints for optimal benefits

**Fisheries** 

The Sudd Wetland

Analyse Sudd hydrology and implications to/from WR developments

> Hydrology and water resources

Knowledge base of wetland biodiversity and conservation needs

**Ecosystem and biodiversity** 

Livestock

Opportunities and constraints for optimal benefits

Synthesize the 5 components to identify management options, and conflicts and tradeoffs for these



## Thank you!

