

Applying innovative cloud computing technology for the effective management of Groundwater resources to promote Sustainable food security within the Sokoto Basin, Nigeria

Olayinka Simeon Oladeji; Alessandro Novellino;
Rasaq Owolabi; Lateef Kolawole; & Ekbal Hussain

Scientific Background and Objectives

- ❖ The low adaptive capacity of climate change in developing countries has aggravated occurrences of intense weather events and enhanced vulnerabilities of food securities.



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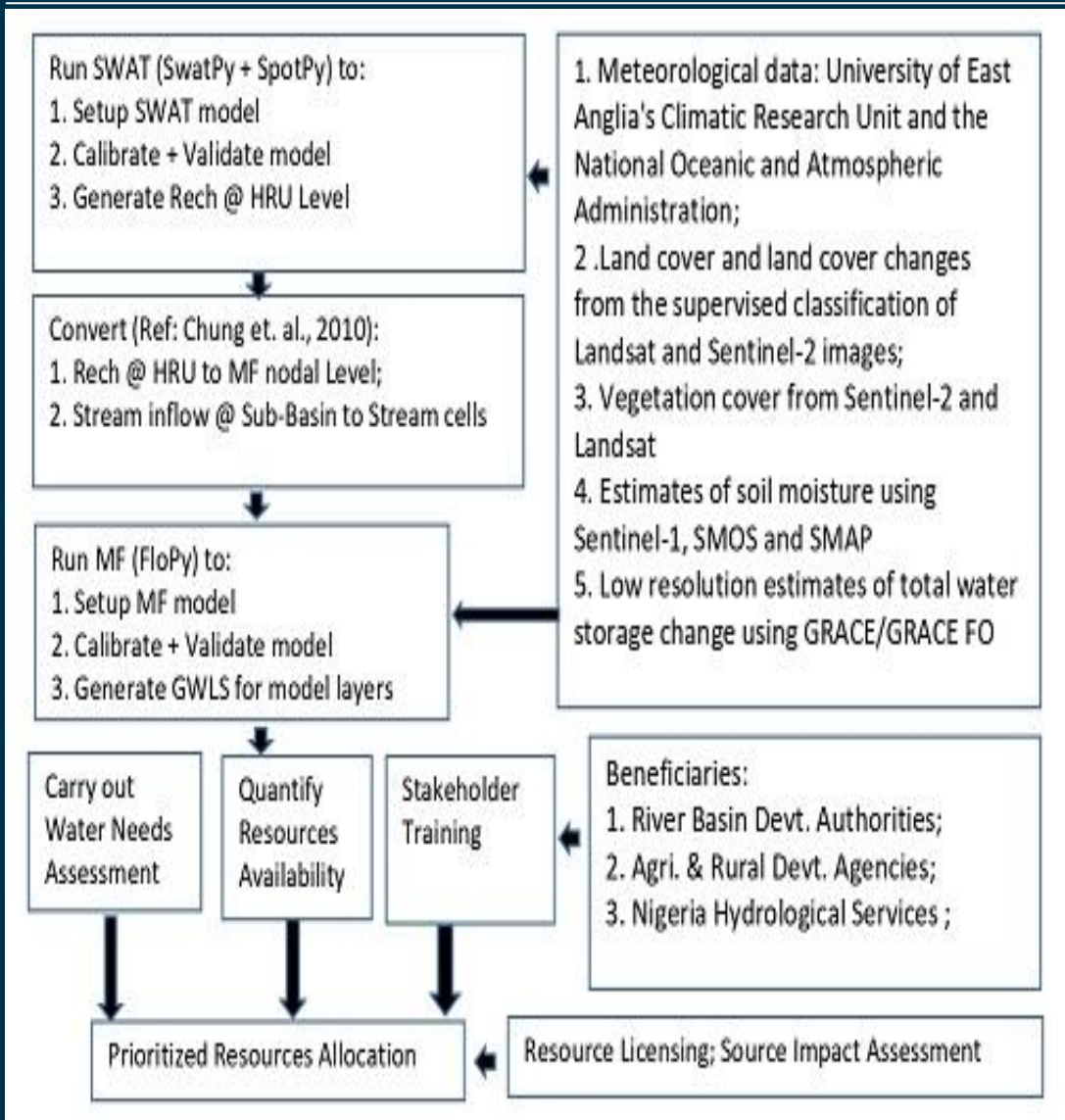
Age	Formation	Class	Group	Description
Quaternary	Sandy Drifts and Laterites		Continental	
Post Paleocene	Gwandu Fm	Aquifer	Continental	Laterites, Sst; Grits;
Paleocene	Oolitic Ironstone		Sokoto	
	Gamba Fm	Aquiclude		Clay; Clayite Fm
	Kalambaina Fm	Aquifer		Marine Lst;
	Dange Fm	Aquiclude		Marine Lst
Maastrichtian	Wurno Fm	Aquifer	Rima	Sand; Sst
	Dukamaje Fm	Aquiclude		Clay; Shale
	Taloka Fm	Aquifer		Clayite; Sst
Cretaceous / Late Jurassic	Gundumi Fm	Aquifer	Basal	Sst
	Ilo Fm	Aquifer		
PreCambrian	Basement Complex	Aquiclude		Metamorphic Rks



Effects & Impacts:

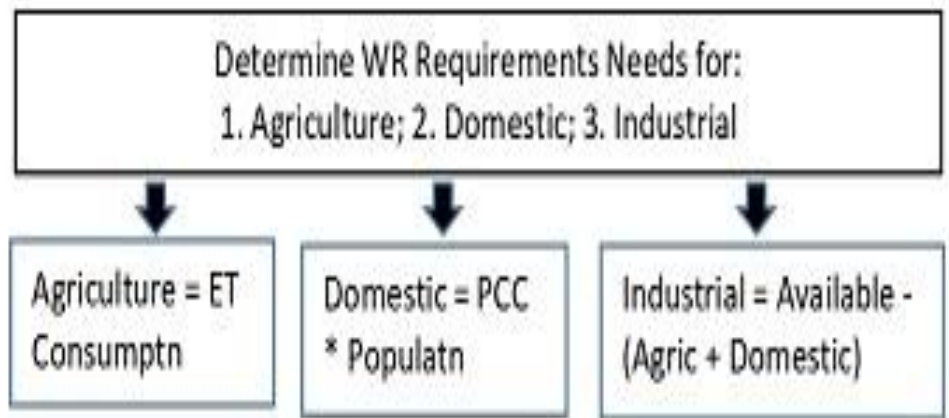
- ✓ Decreasing available potable water;
- ✓ Vulnerability of agricultural production;
- ✓ Expanding desertification;
- ✓ Intensified conflicts between the pastoralists and the farmers;

Vertical Stratification as Presented:



Prioritized allocation:

1. Available groundwater resources will be allocated;
2. Following calculated assessment needs as threshold to control water usage;
3. Through existing pipe networks;
4. Evoke transparency in the groundwater management;
5. Militate recurrent agitations.



Project Team



S/N	Name	Affiliation	Role	Email Address	Photograph
1	Olayinka Oladeji	Ladoke Akintola University, Ogbomoso, Nigeria	Lecturer & African Co-PI	osoladeji@lautech.edu.ng	
2	Rasaq Owolabi		PhD Student & Team Member	roso4real@yahoo.com	
3	Lateef Kolawole	Private Practice	Researcher & Team Member	latikol@yahoo.co.uk	
4	Alessandro Novellino	British Geological Survey	Remote Sensing Geoscientist & European Co-PI	alessn@bgs.ac.uk	
5	Ekbal Hussain		Remote Sensing Geoscientist & Team Member	ekhuss@bgs.ac.uk	