

Mapping of land cover between 1986 and 2006 in a Watershed
Kondièba-Tiendaga in soudanian area in the south of Mali
from Landsat images.

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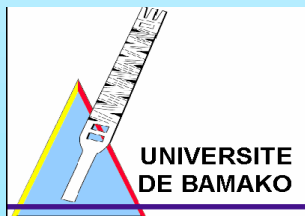
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Outline

- Background
- Study area
- Data and Methods
- Results and Conclusion

Background

- **Climatic variability (Rainfall deficit of 20-25%) in progress since the yards 1970**
- **Fragile ecosystems**
- **Strong demographic growth (2,2-3% per yard)**
- **Extensive agriculture with a weak restoration of the grounds**
- **Deforestation**
- **Breeding**
- **Activities of gold washings and late bush fires**

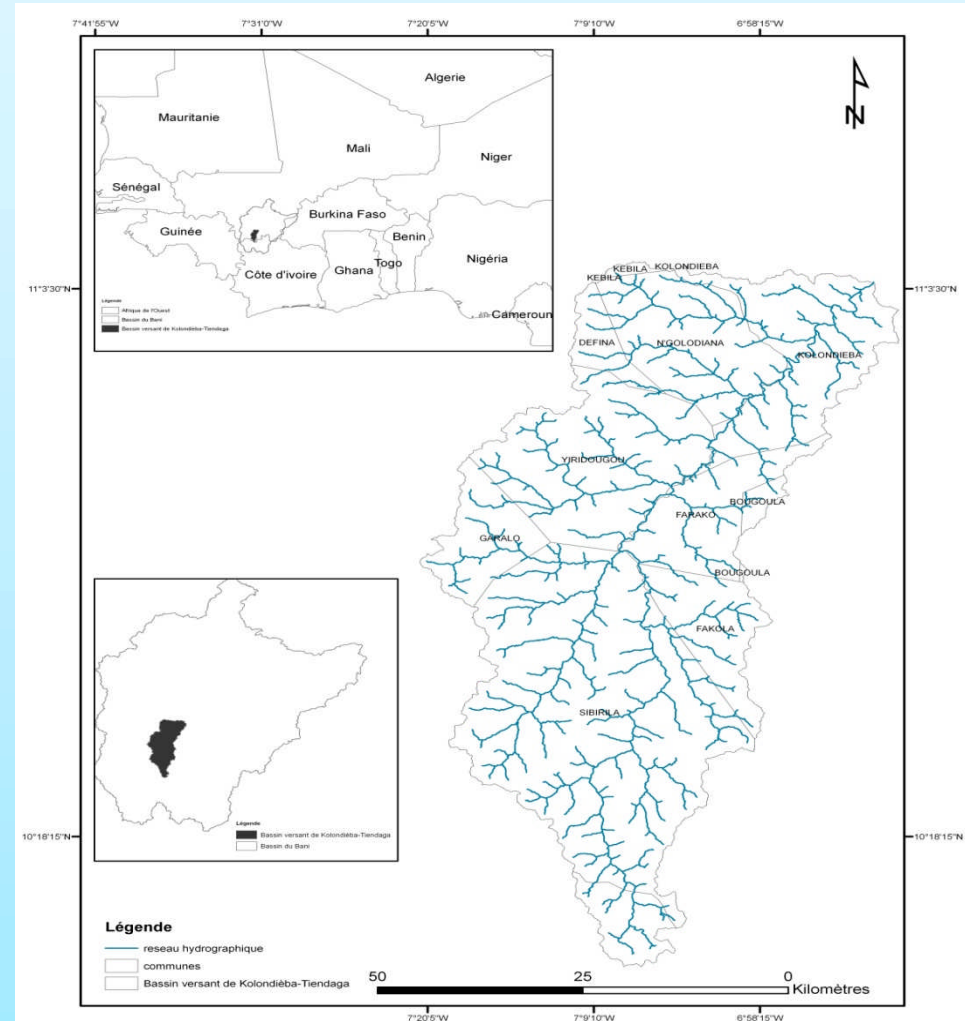
Study area

Situation: 7° and 6°W and 10° and 11°N

Area: 3087Km²

Soudanese climate: Rainfall between
1000 and 1200 mm

Geology: Socle granitic and
metamorphic



Data and Methods

- 2 satellites images Landsat from 1986 and 2006
- Topographic map of Bougouni
- Images SRTM (MNT)
- Supervised classification (algorithme of maximum Likelihood)

Results and Conclusion

This study made it possible to identify 4 cartographics unit:

Unit1: SN,C, H (bares soils, crops, and habitat)

Unit2: Forest galerie

Unit 3: Savanna tree

Unit4: other vegetation

This results show an increase of 4% of unit 4 and a reduction of 1% of the first unit.

Table : Area and pourcentage of cartographics units between 1986 and 2006

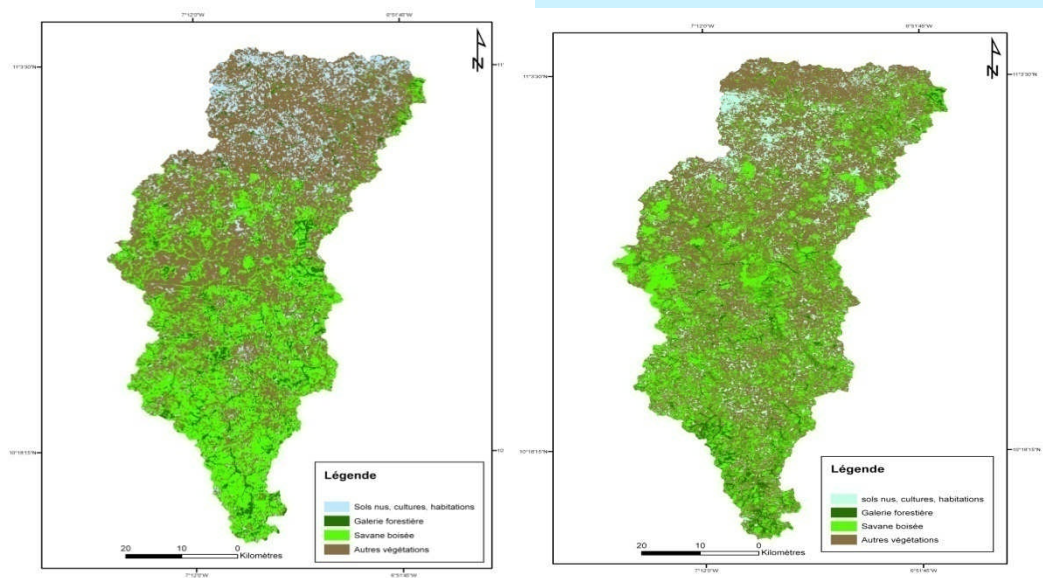


Figure1: Land cover map of Watershed Kolondièba-Tiendaga 1986

Types d'occupation du sol	Superficie en 1986		Superficie en 2006		Evolution de l'occupation du sol	
	Km ²	%	Km ²	%	Km ²	%
Unité sols nus, cultures, habitations	328,711	11	317,054	10	11,657	6
Galerie forestière	232,243	8	205,361	7	26,882	13
Savane boisée	963,197	31	898,251	29	64,946	31
Autre végétation	1552,718	50	1656,202	54	-103,484	-50

Figure 2: Land cover map of watershed Kolondieba-Tiendaga 2006

Thank You for your attention