

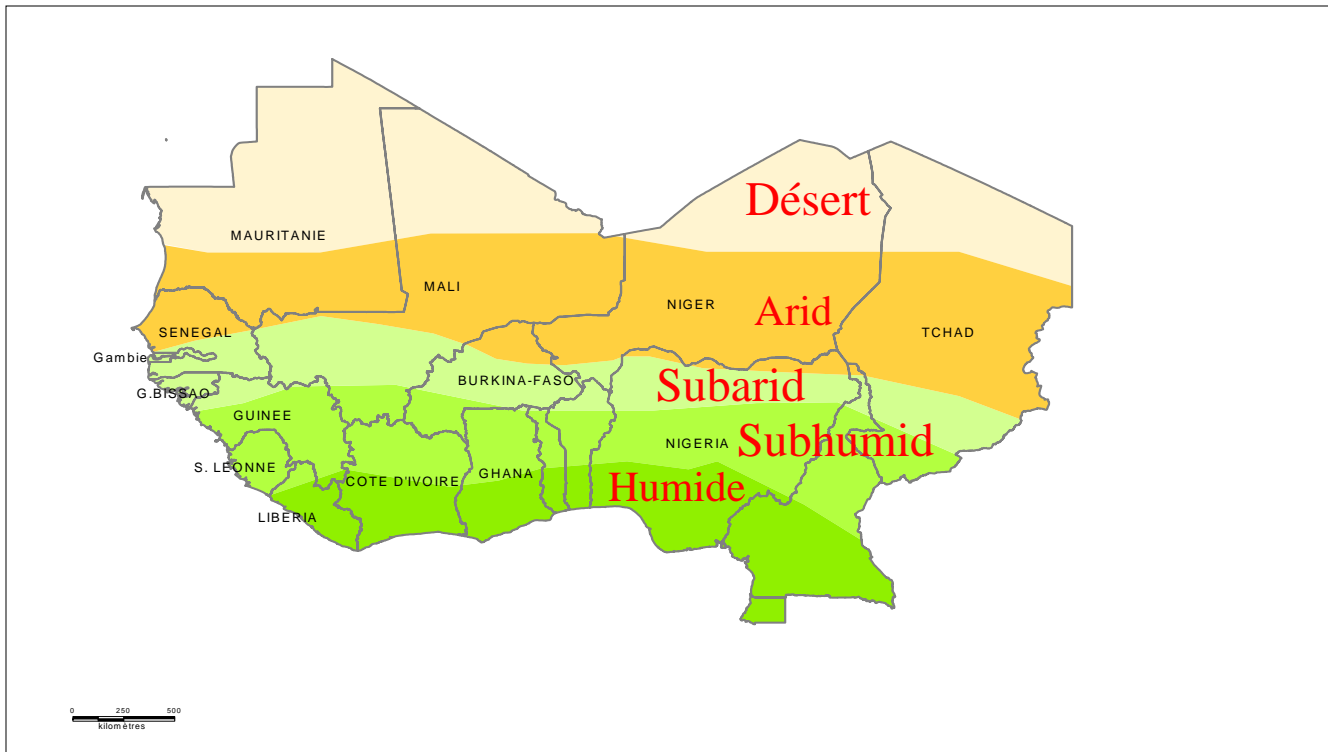


CLIMATE CHANGE IN WEST AFRICA IMPACT ON LIVESTOCK NUMBER AND STRATEGIES OF ADAPTATION

by

A. Gouro , S. Hamadou , Soara A., Guerrini L., Bouyer J.

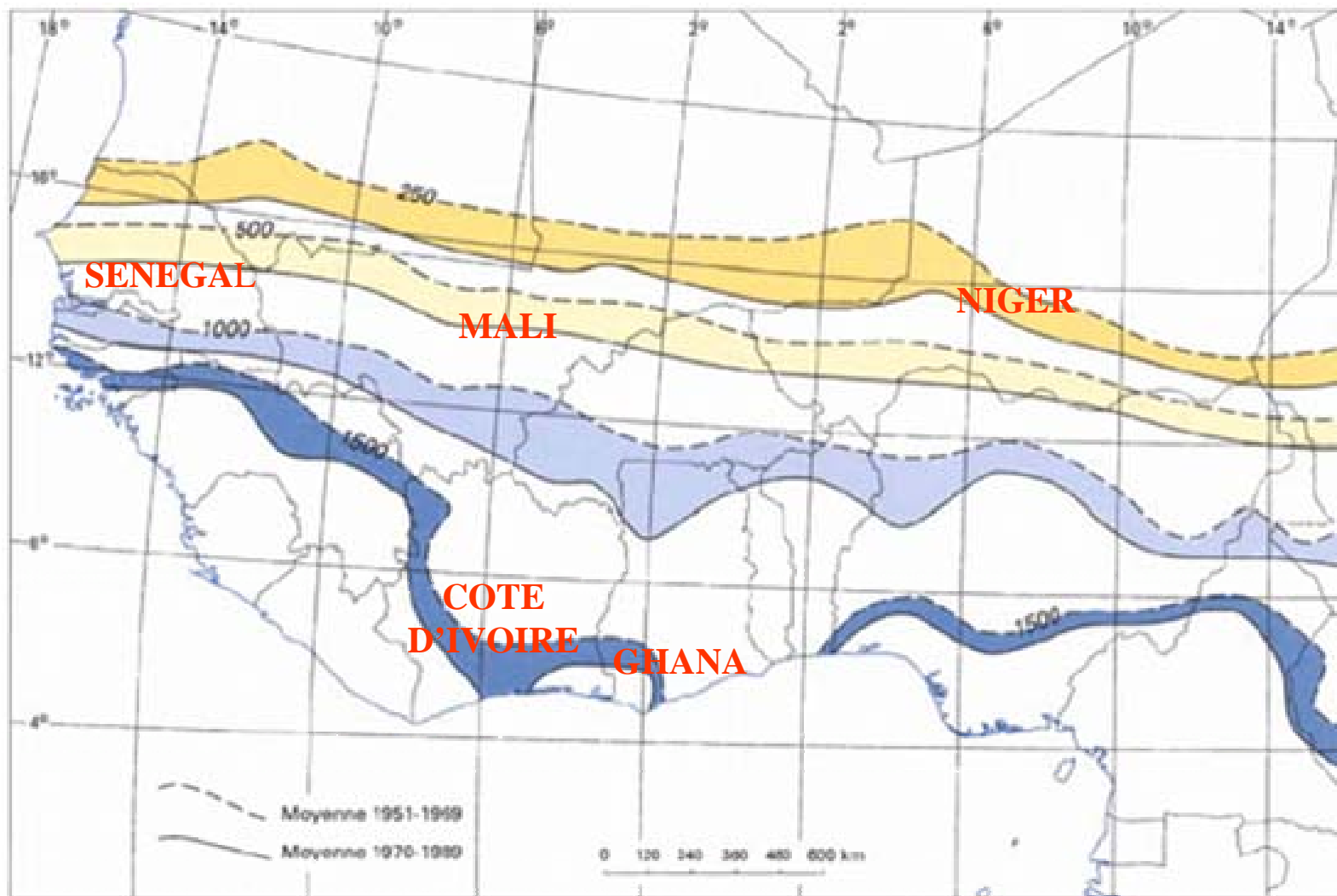
*Centre International de Recherche-Développement sur l'élevage
en zone Subhumide (CIRDES)
Bobo-Dioulasso BURKINA-FASO*



Agroecological zones in west Africa (CIRDES, 1999)

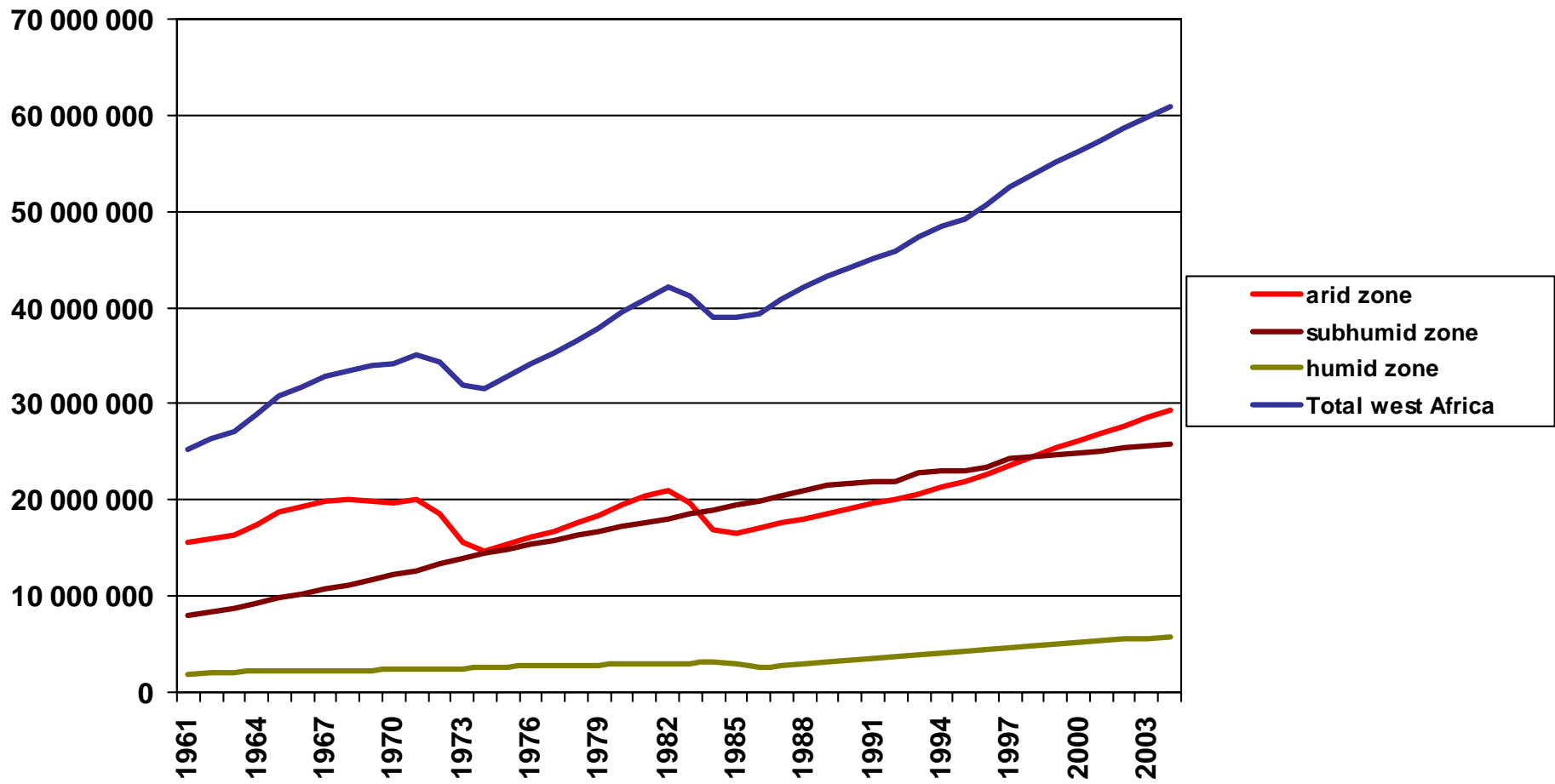
	Plants growing periods (days)	rainfall (mm)
Arid-Subarid	<90	0-500
Subhumid	90-180	500-1000
Humid	180-270	1000-1500

Characteristics of west african agroecological zones

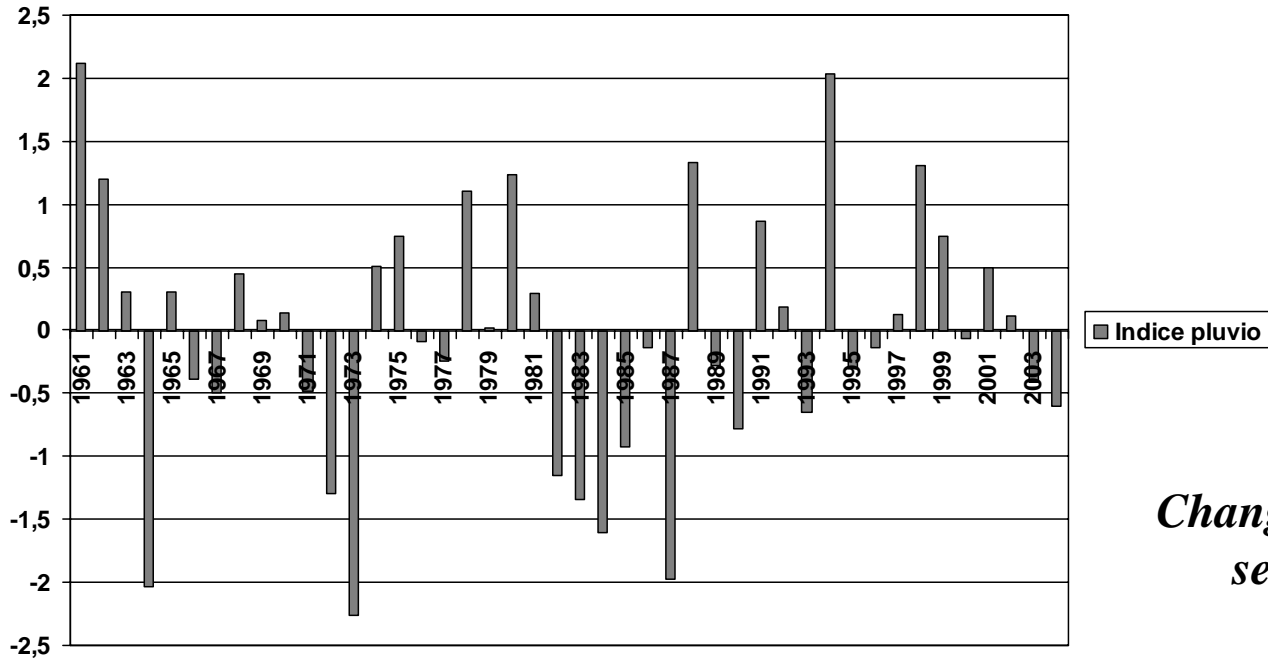


Migration of isohyets from 1969 to 1990 in West Africa (IRD, 1996)

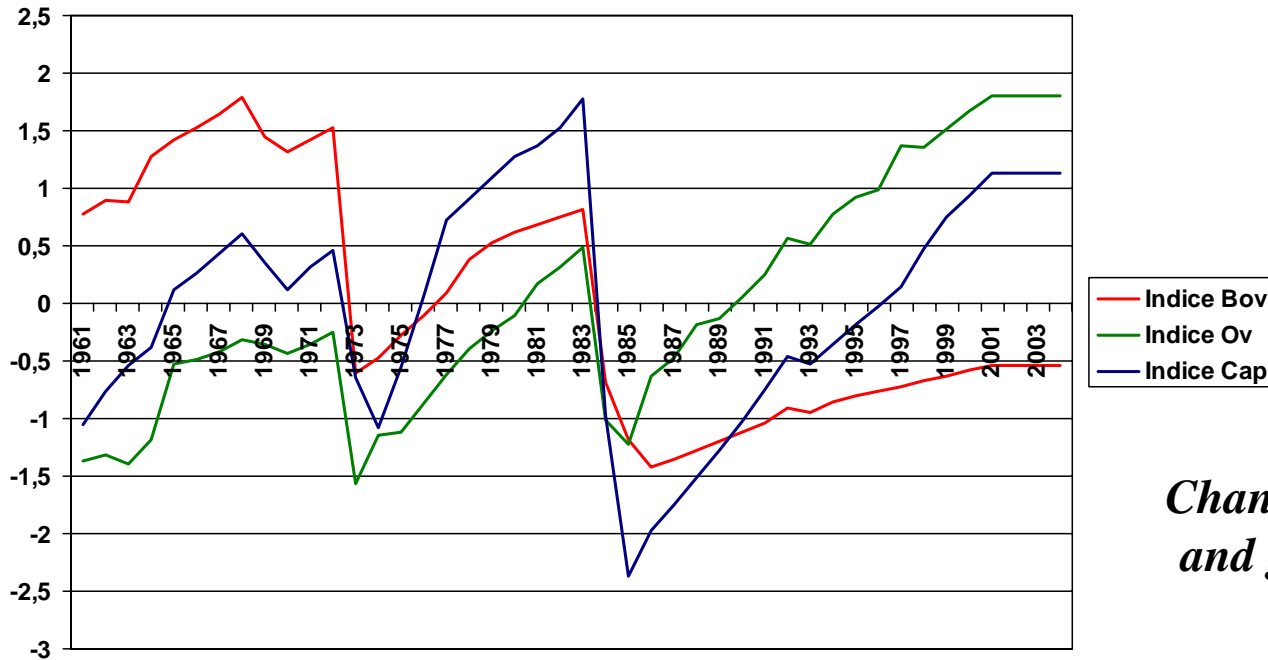
I. CHANGES IN NUMBER OF ANIMALS(Cattle, Sheep and goats) IN WEST AFRICA



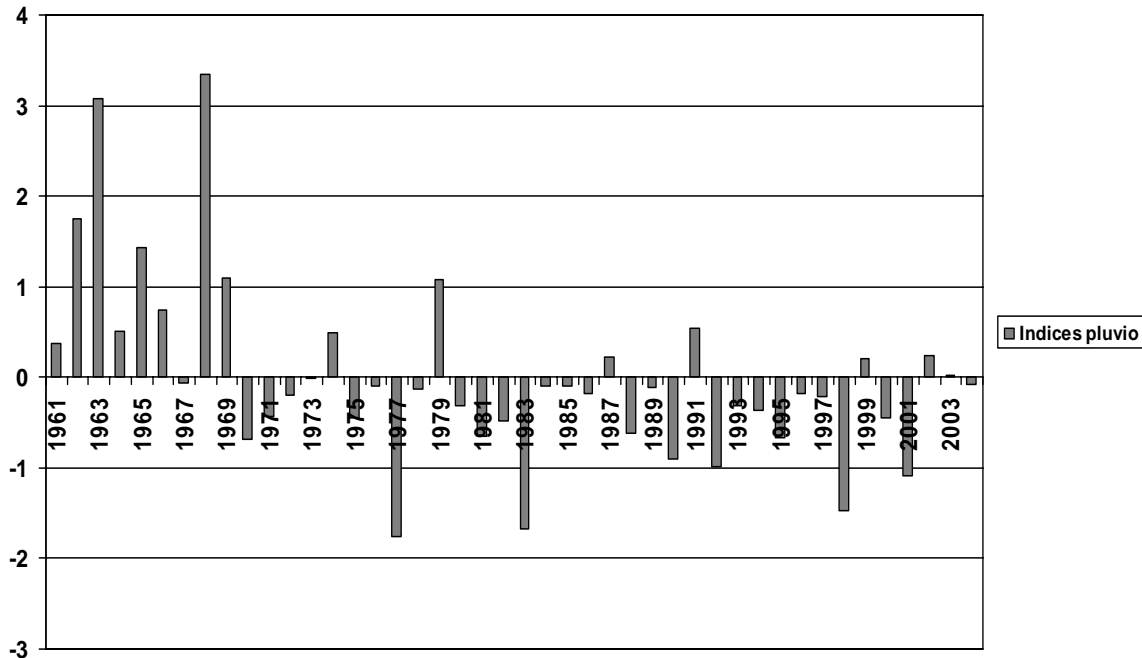
Changes in number of TLU by agroecological zone in west Africa



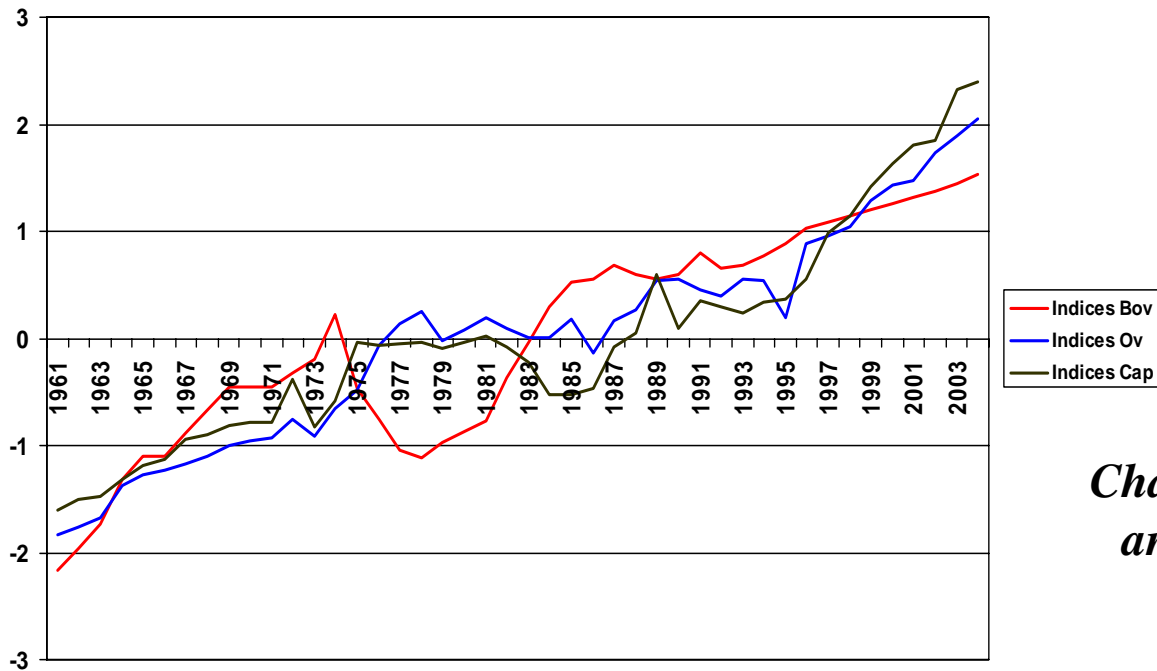
Changes in rainfall in an arid-semiarid zone (NIGER)



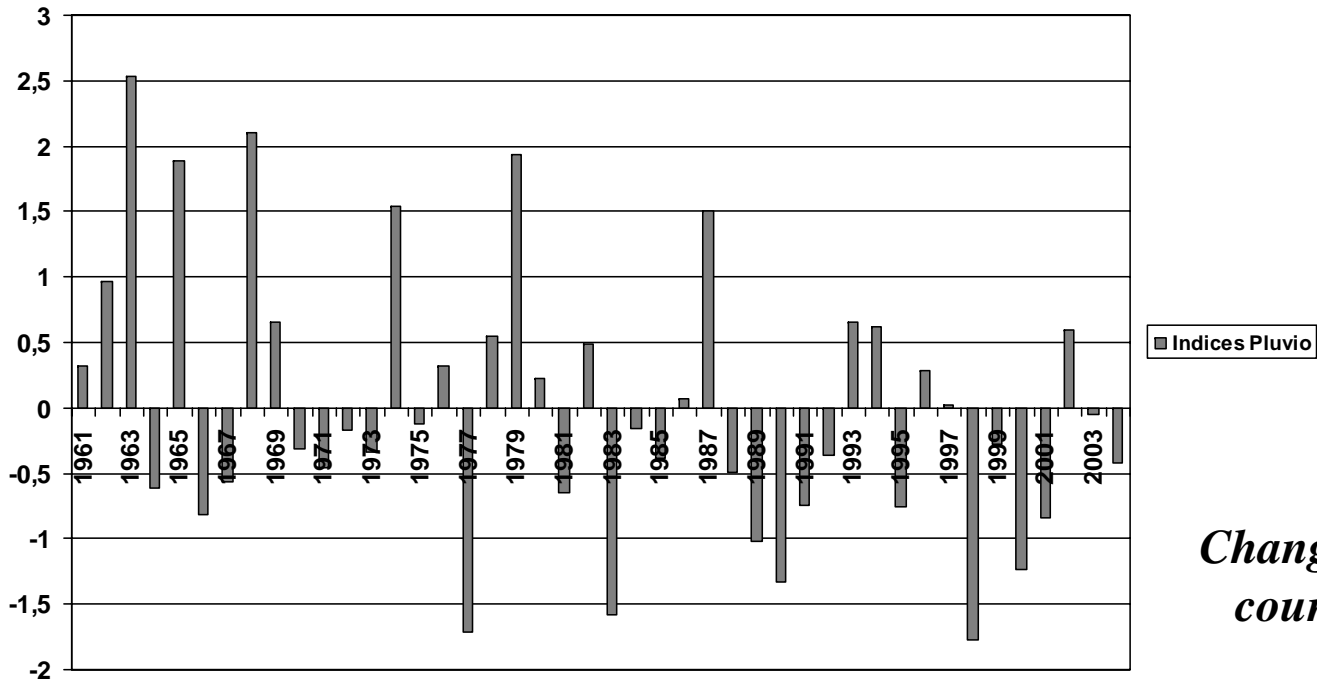
Changes in number of cattle, sheep and goat in an arid-semiarid zone (NIGER)



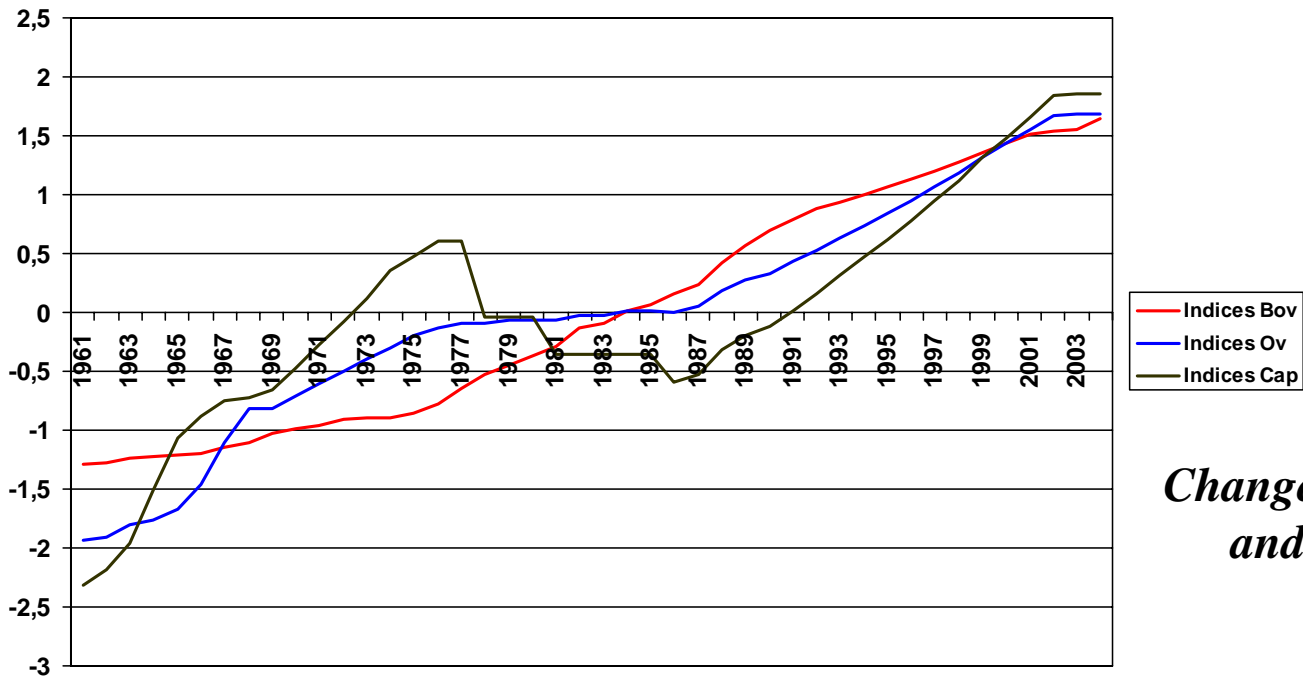
Changes in rainfall in a sunhumid country (GHANA)



Changes in number of cattle, sheep and goat in a subhumid country (GHANA)



Changes in rainfall in a humid country (COTE D'IVOIRE)



Changes in number of cattle, sheep and goat in a humid country (COTE D'IVOIRE)

II. TSE-TSE FLIES DISTRIBUTION

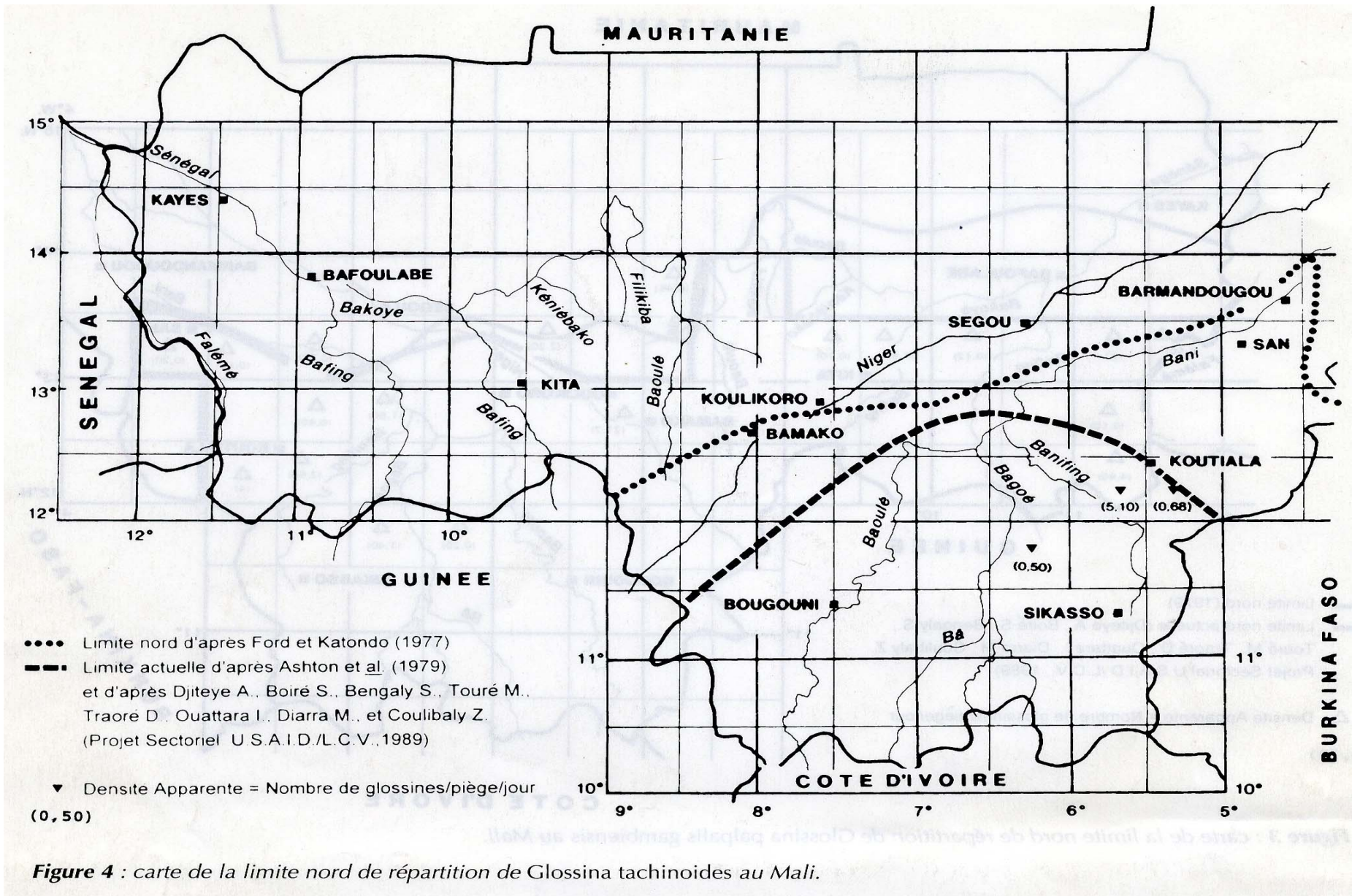
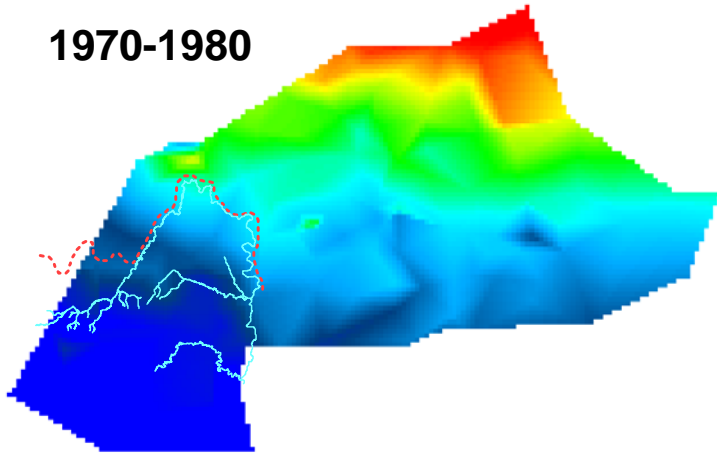


Figure 4 : carte de la limite nord de répartition de *Glossina tachinoides* au Mali.

North boulder of *glossina tachinoides* in Mali

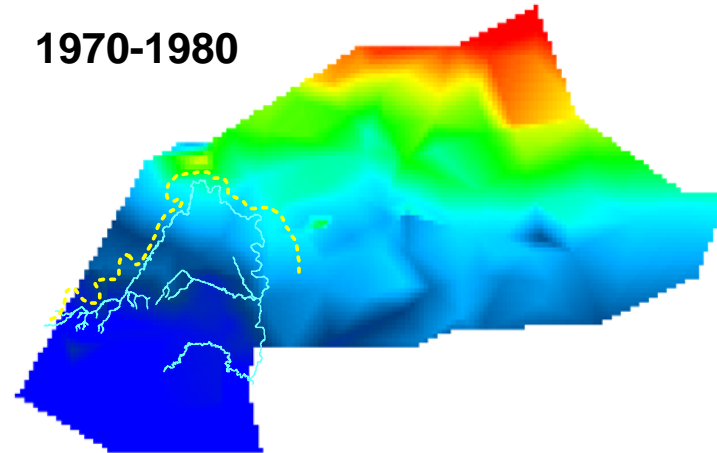
G.p.gambiensis

1970-1980

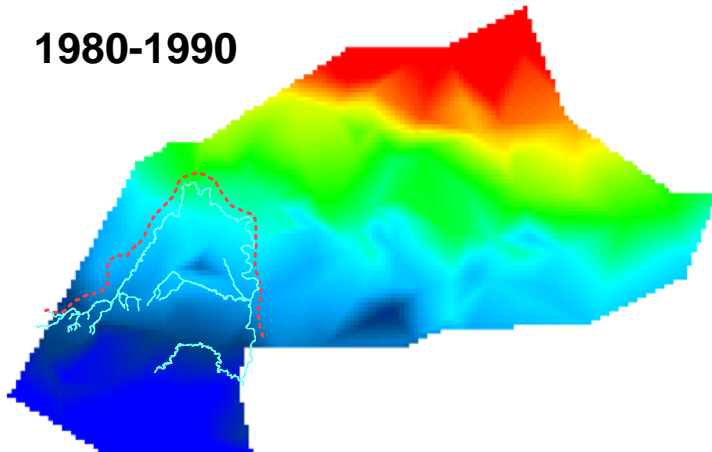


G. tachinoides

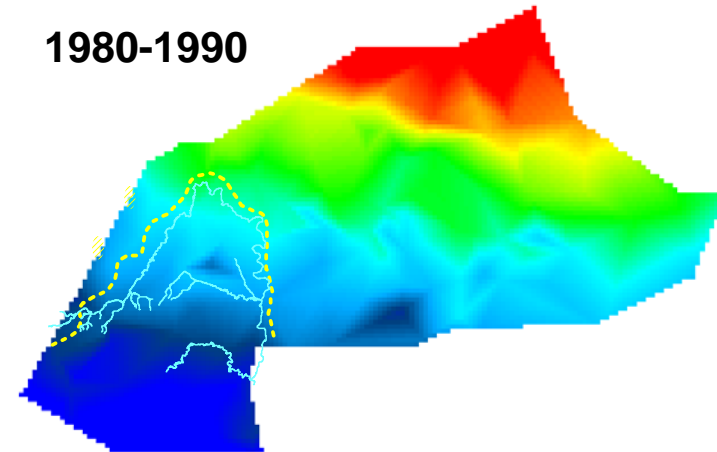
1970-1980



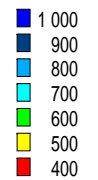
1980-1990



1980-1990

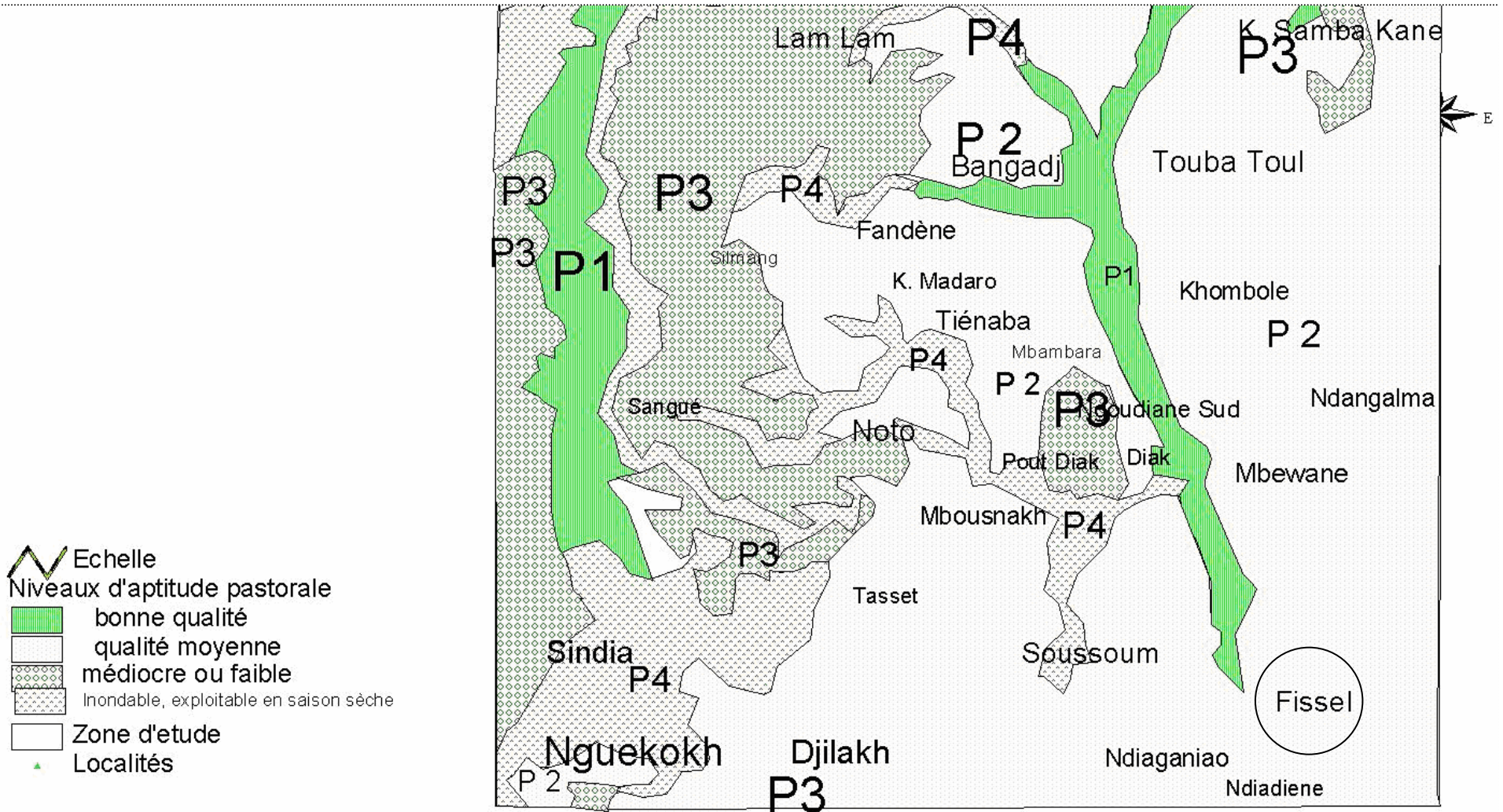


Moyennes pluviométriques (mm)

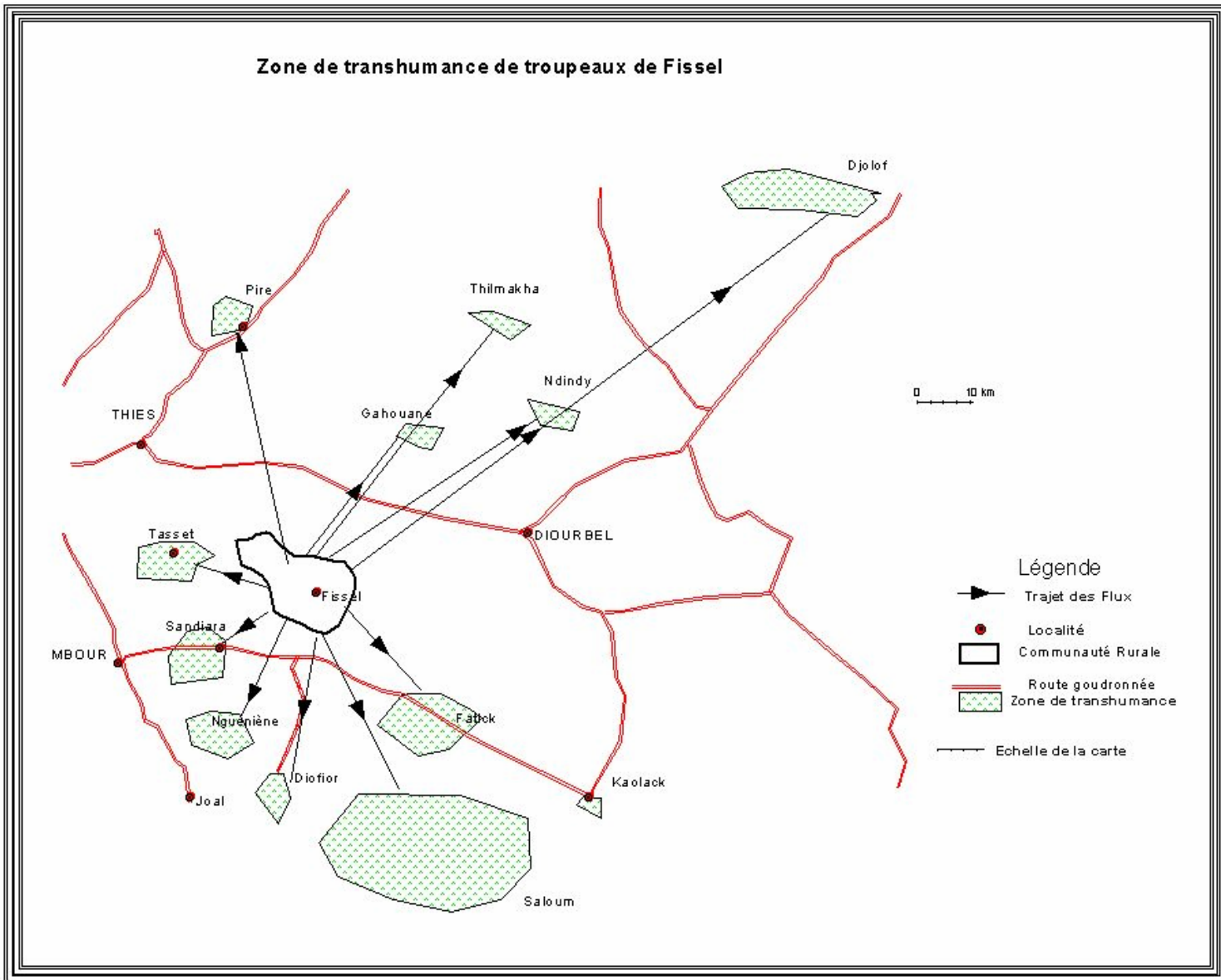


North boulder of *Glossina palpalis gambiensis* and *Glossina tachinoides* in BURKINA FASO

III. CLIMATE CHANGE AND LANDE USE



Potentialités de bas-fonds de TARARE au **SENEGAL**



Stratégies spatiales des éleveurs au SENEGAL

V. STRATEGIES OF ADAPTATION

Species distribution in the three agoecological zones of West Africa (en p.100).

	1961			2004		
	Bovins	Ovins	caprins	Bovins	Ovins	Caprins
Zone aride et subaride	33,2	30,0	36,7	23,4	35,3	41,3
Zone subhumide	58,6	21,8	19,6	23,3	34,8	41,8
Zone humide	45,6	26,8	27,6	46,2	28,1	25,7

Institutional incentives

- Regional level
- National level: national action plans
- GEF financial support

PANA in Niger : 14 adaptations options retained

- 1. Introduction of drought adapted forages species**
- 2. Animal feed banks promotion**
- 3. Promotion of peri urban systems**
- 4. Promotion of animal species adapted to climate variations**

CONCLUSION

- **NUMBER OF ANIMAL HAS BEEN CHANGED FOR ALL SPECIES IN AGROECOLOGICAL ZONES**
 - More seriously in arid and semi-arid
 - Migrations?
 - Change in strategies?
 - Natural adaptaion?
- **HEALTH**
 - Contradictory informations
 - Macroclimat or Microclimat?
 - Direct anthropic factors or though climate change
- **ADAPTATION STRATEGIES**
 - Farmers knowledge based initiatives
 - Few or no states initiatives forv adaptaion
 - Lack of data
 - Lack of informations for policymakers
- **SERIOUS NEED OF RESEARCH :**
 - RIPIECSA : France and African countries (IRD)
 - ACCA : Canada and African countries (IDRC)
 - INSTITUTIONS REGIONALES CONCERNEES : AGRHYMET, INSTITUT DU SAHEL, ACMAD, CIRDES



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