

THE TREE PERCEPTIONS IN A SAHELIAN CONTEXT

ANR « FUTURE SAHEL »

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INTRODUCTION

Context

- **Observation** : populations mainly focused on pastoralism or agro-pastoralism.
- **Objective** : understand the "traditional" place of ESS products from trees to increase socio-environmental resilience.

What are the uses of trees as providers of resources and vectors of ecosystem services (medicinal, cosmetics, food, fodder, etc.)?



Hypothesis

- in the Sahel, populations are dependent on woody species in their daily lives ?
- characterise the socio-ecosystem : populations have different use of space ?
- does isolation increase the pressure on the "tree" resource ?



CONTRASTED AREAS ?

Where it tack place

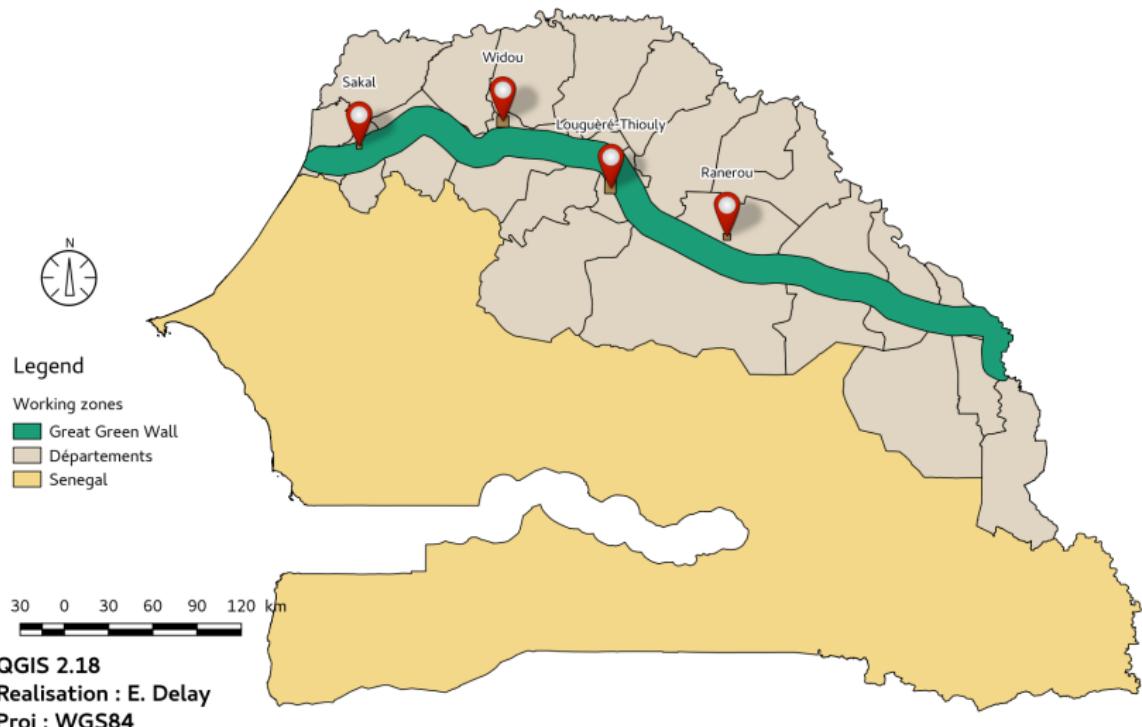


Figure: study area

Focus on : vegetation

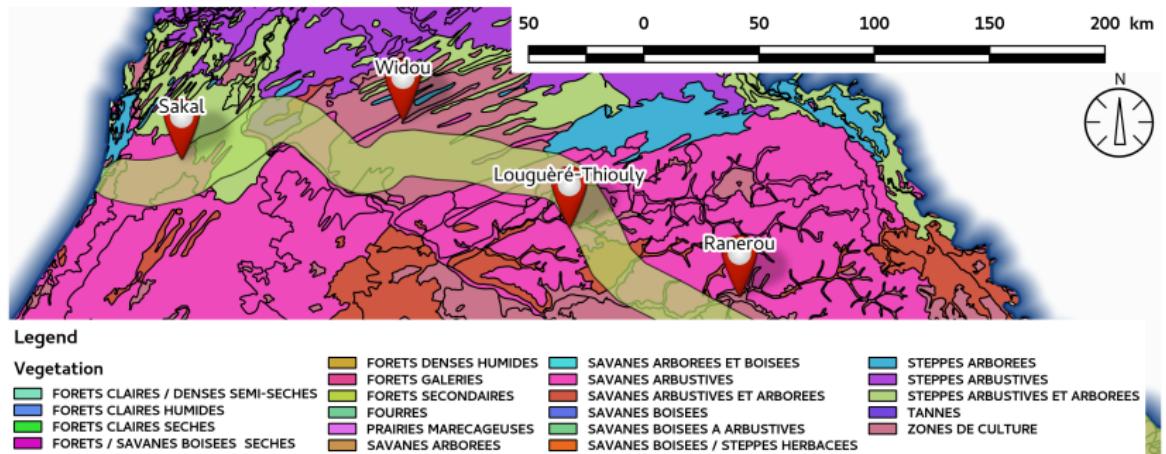


Figure: Vegetation map

Focus on : soil

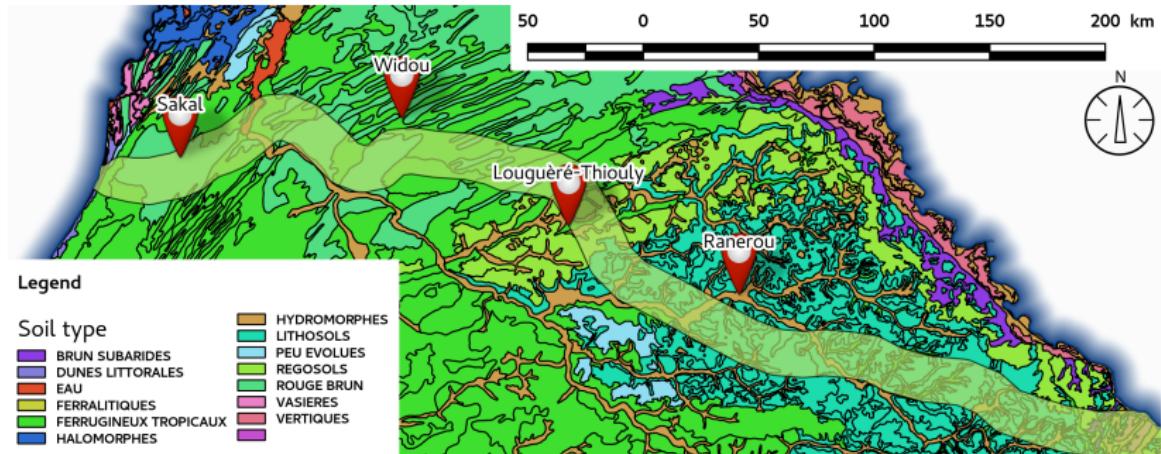


Figure: Vegetation map

Focus on : population

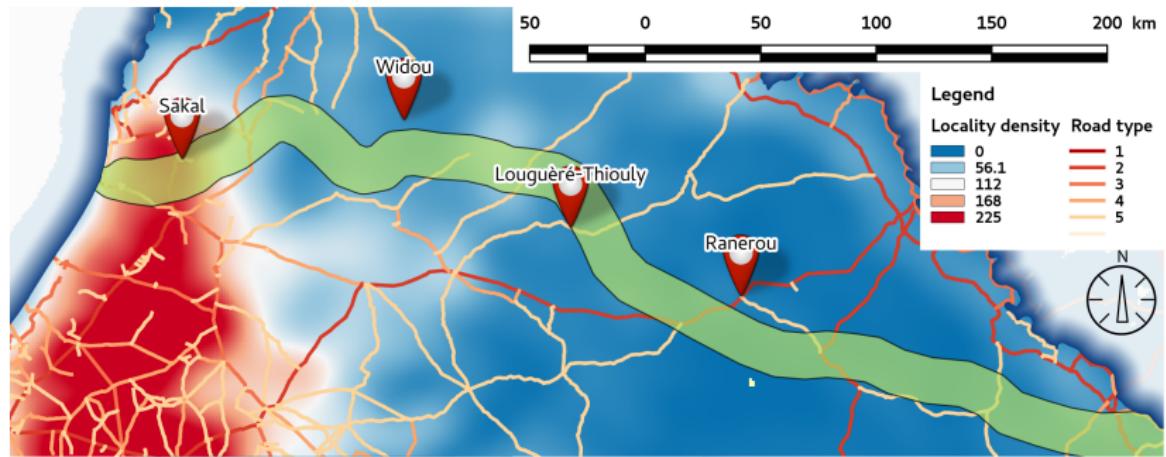


Figure: Population map

Focus on : water

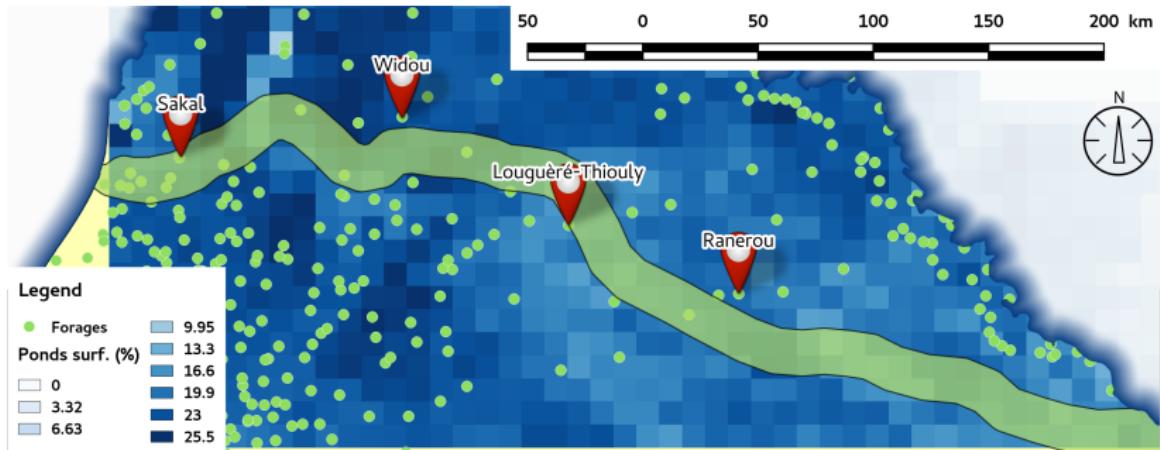


Figure: water map

Focus on : agriculture

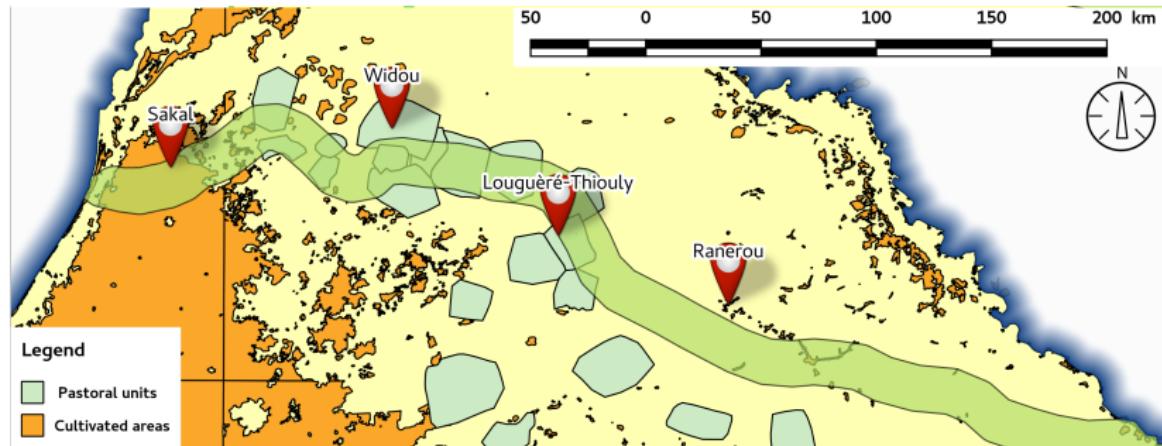


Figure: agricultural map

METHODOLOGY - ETHNOBOTANICAL ENTRY

Ethnobotanical interviews

Structured semi-structured interviews with stakeholders (individual and focus groups) in order to understand the problems and realities of the field, to identify the essential elements to be taken into account.

Know/understand the uses, the rising strategies, the seasonality, the methods of valorisations.



The questionnaire approach

A specific questionnaire is used to quantify the information already obtained during the interviews.

Completion of 30 questionnaires per site (a total of 120 questionnaires for all sites).



METHODOLOGY – CONTRIBUTIONS OF LANDSCAPE ECOLOGY

The landscape ecology approach 1/3

A work inspired by the work proposed by Sinare *et al.* (2016)

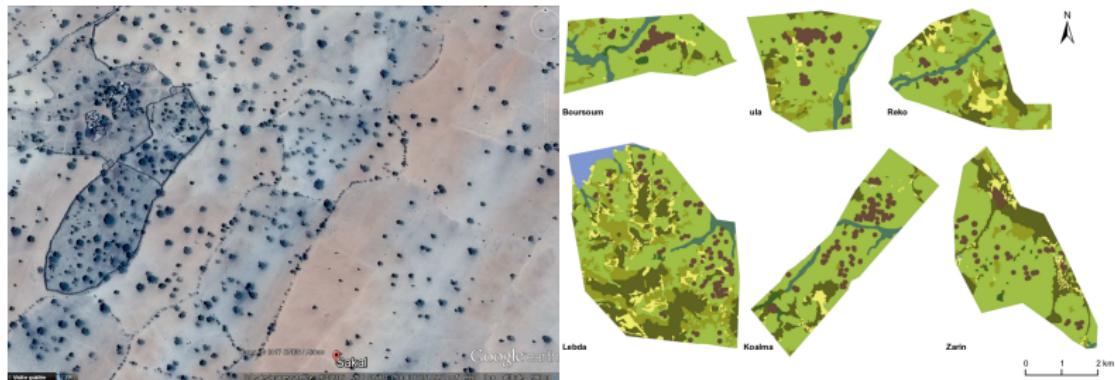


Figure: Screenshot Google-earth and maps from Sinare *et al.* (2016)

Landscape ecology in workshop 2/3



(a)



(b)



(c)



(d)

Landscape ecology in workshop 3/3



(e)



(f)



(g)



(h)

METHODOLOGY - THE PARTICIPATORY APPROACH

Workshop

Workshops with objective to highlight stockholders importance of trees in each structure of the landscape.

- bring space structure out (orientation + mark in the living space),
- identify the spatial units in the region,
- quantify the use of the trees in these units.



Workshop quantification

Quantify the use of the trees in these units using mind maps and glass beads.



FIRSTS RESULTS

Result 1 : identification of the living space

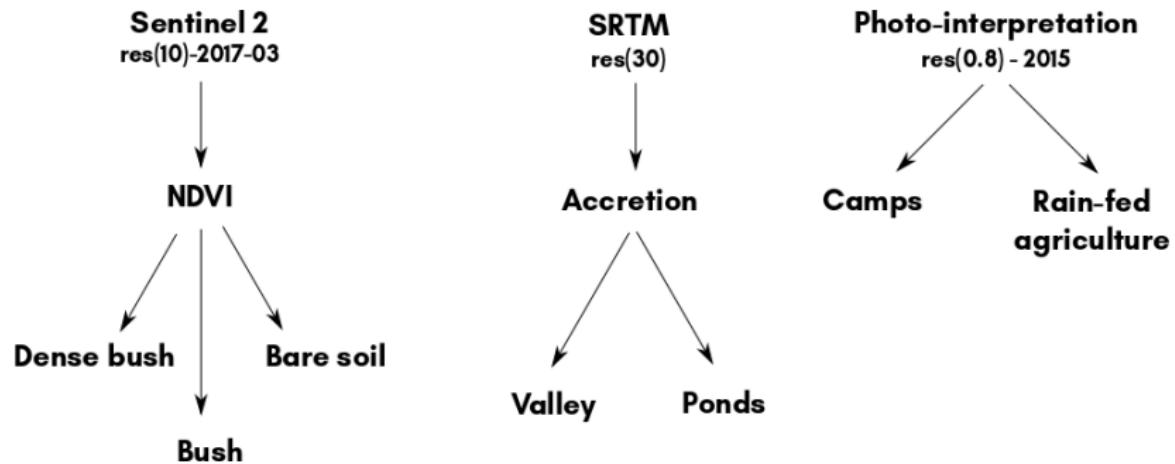


(i)

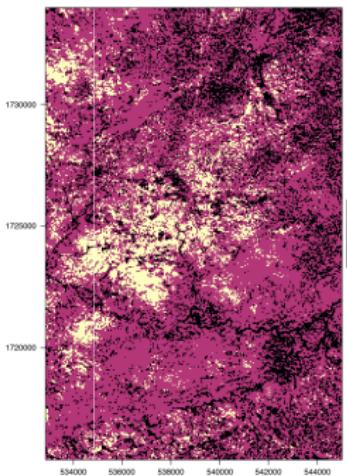


(j)

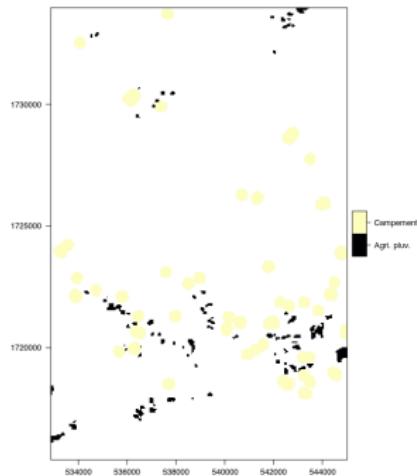
Result 2 : patches classification



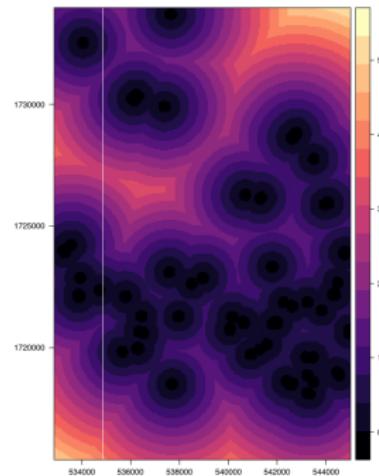
Result 2 : patches classification



(k)



(l)



(m)

Result 3 : Quantification

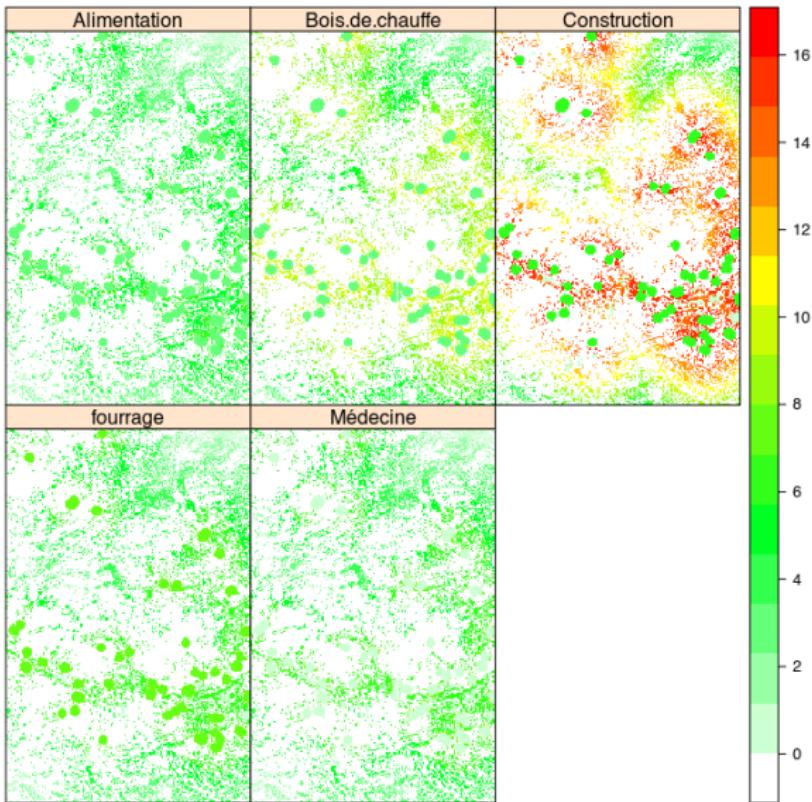


Result 3 : Quantification

Services éco-systémiques pondérés en fonction des unités spatiales



Result 4 : spatiale quantification



Result 4 : spatiale quantification

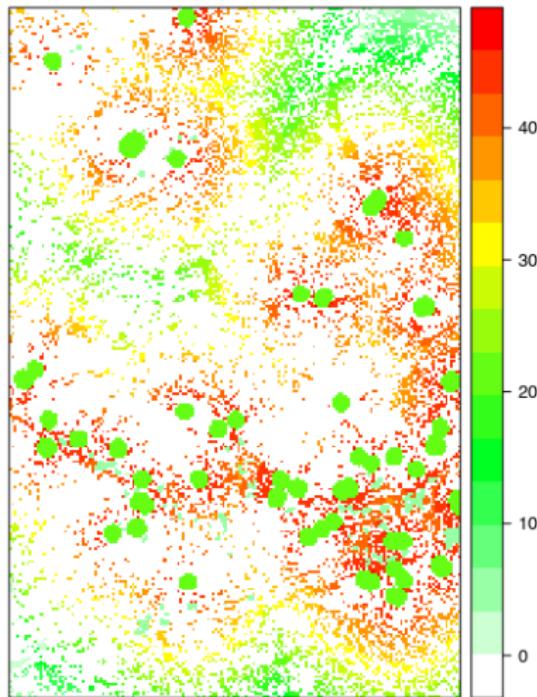


Figure: Sum of trees uses

CONCLUSION

From trees to ComMod

An interdisciplinary approach:

- ethnobotanical investigation makes it possible to identify socio-spatial practices,
- landscape ecology, allow spatial identification of places contribution for those practices
- The formalisation of practices and the identification of place leads to the formalisation of behavioural models and therefore to a prospective approach validated by the actors.

Thank you for your attention



github



You can find this presentation on [github](#)