

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, cosmetic, food, fodder, etc.)?



Socio-environmental resilience: a practical approach

Can we consider the trees eco-systemic services in the Sahelian context as a factor of resilience for the populations and the environment?



Figure: a tree eco-systemic services

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 raising strategies, the seasonality, the methods of valorisation.



The questionnaire approach

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

Completion of 30-40 questionnaires per site (a total of 200 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)

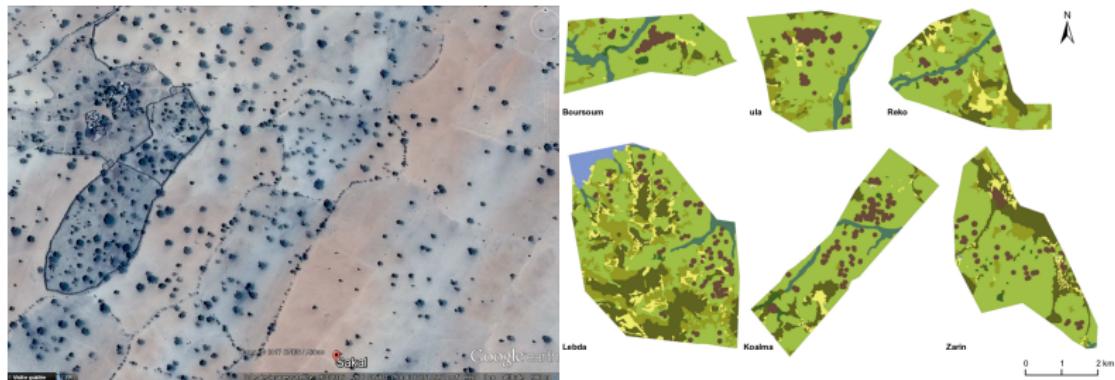


Figure: Screenshot Google-earth and maps from Sinare *et al.* (2016)

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 stakeholders with objective to highlight actors 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.

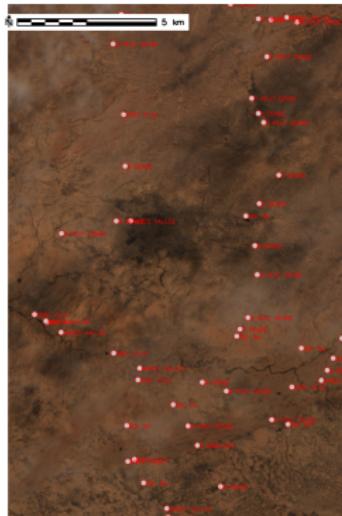


FIRSTS RESULTS

Result 1 : identification of the living space

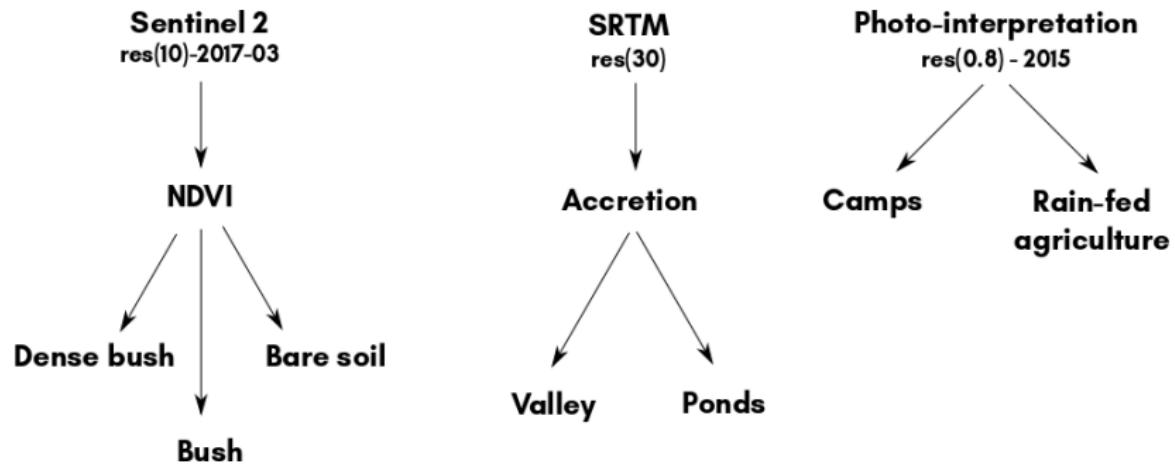


(i)

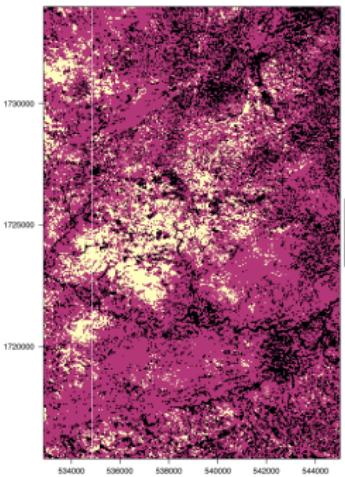


(j)

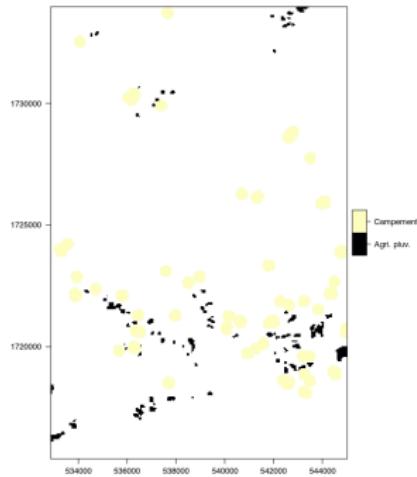
Result 2 : patches classification



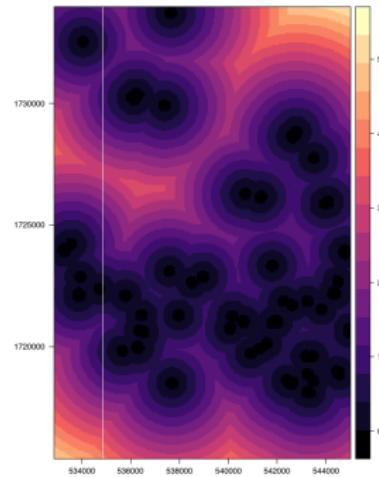
Result 2 : patches classification



(k)



(l)



(m)

Result 3 : Quantification

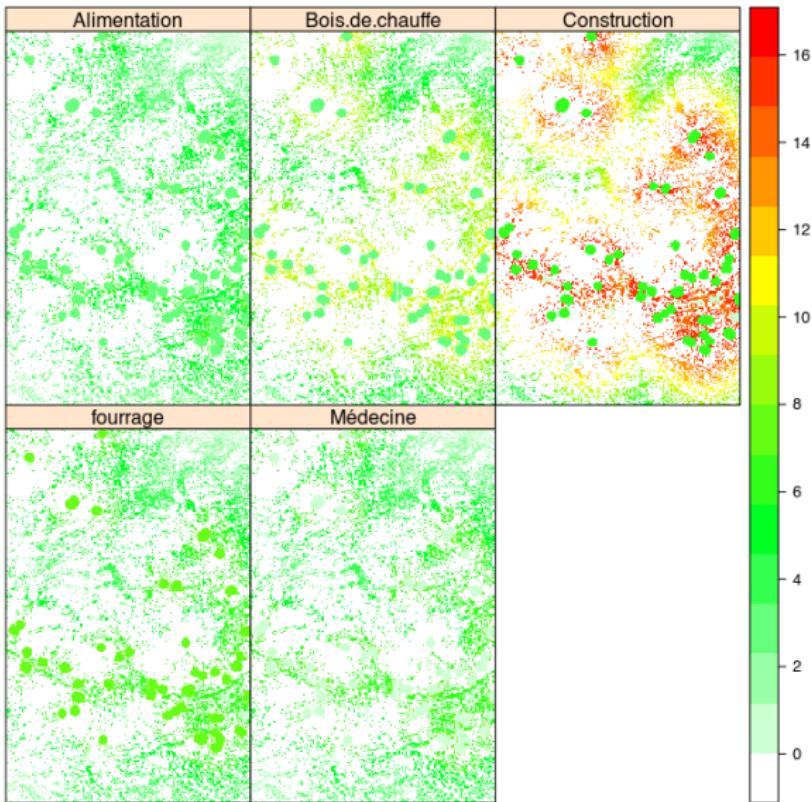


Result 3 : Quantification

Services éco-systémiques pondérés en fonction des unités spatiales



Result 4 : Spatial quantification



Result 4 : Spatial quantification

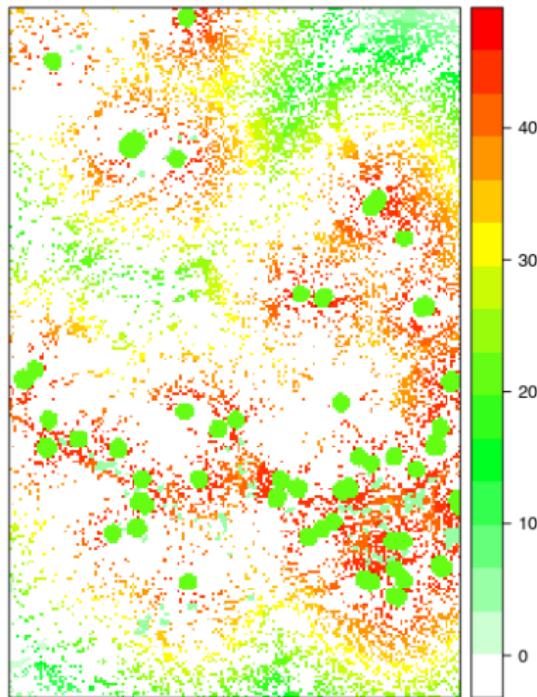


Figure: Sum of trees uses

CONCLUSION

From trees to ComMod

An interdisciplinary approach:

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

Thank you for your attention



github



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