

# THE TREE PERCEPTIONS IN A SAHELIAN CONTEXT

ANR « FUTURE SAHEL »

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# INTRODUCTION

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# 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.)?



# 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

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# 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 30-40 questionnaires per site (a total of 200 questionnaires for all sites).



## METHODOLOGY – CONTRIBUTIONS OF LANDSCAPE ECOLOGY

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# The landscape ecology approach 1/3

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

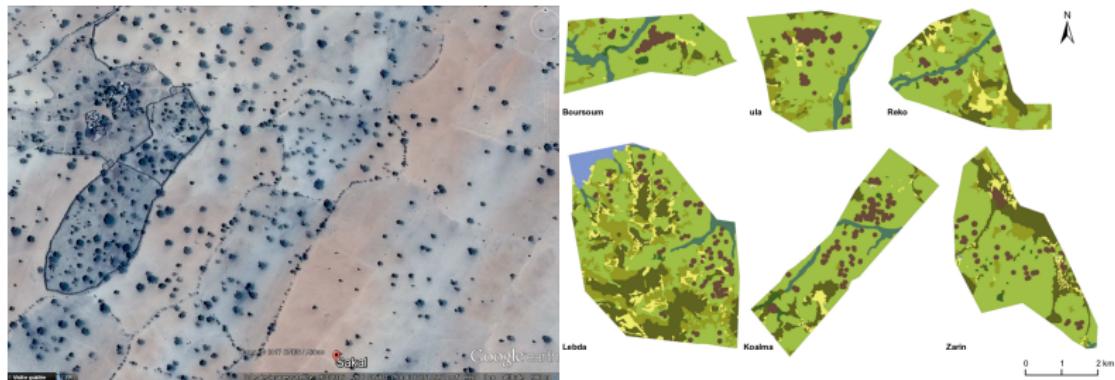


Figure: Screenshot Google-earth and maps from Sinare *et al.* (2016)

# Landscape ecology in workshop 2/3



(a)



(b)



(c)



(d)

# Landscape ecology in workshop 3/3



(e)



(f)



(g)



(h)

## METHODOLOGY - THE PARTICIPATORY APPROACH

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# Workshop

Workshops with stockholders 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.



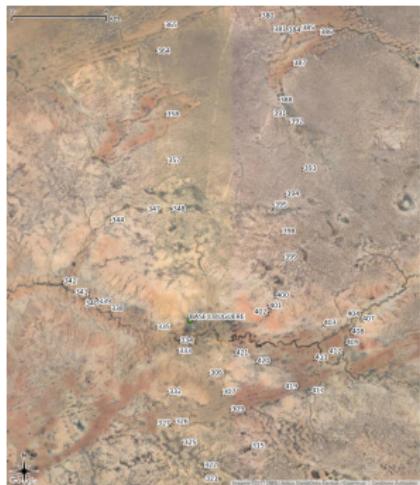
## **FIRSTS RESULTS**

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# Result 1 : identification of the living space

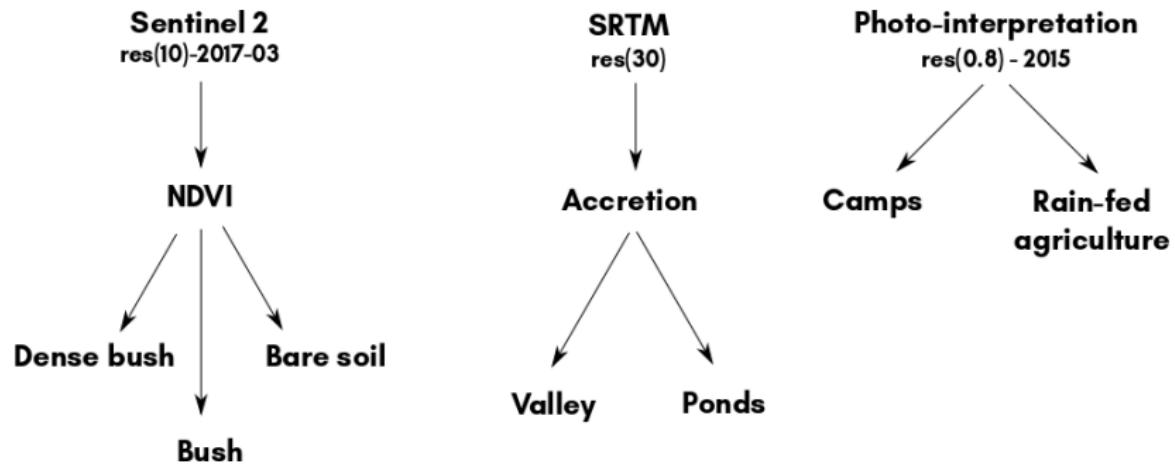


(i)

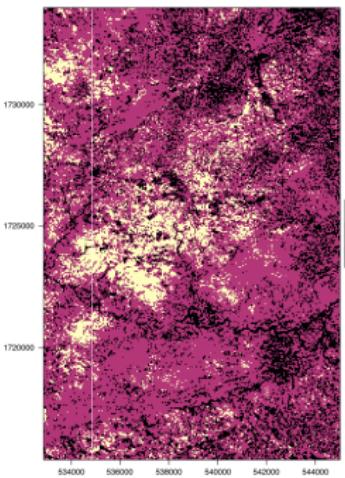


(j)

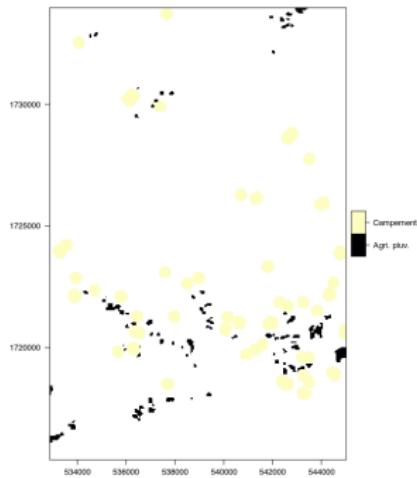
## Result 2 : patches classification



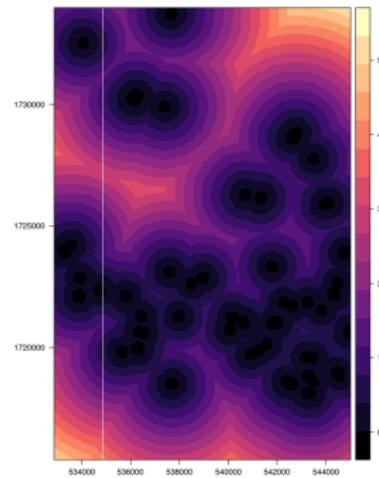
## Result 2 : patches classification



(k)



(l)



(m)

# Result 3 : Quantification

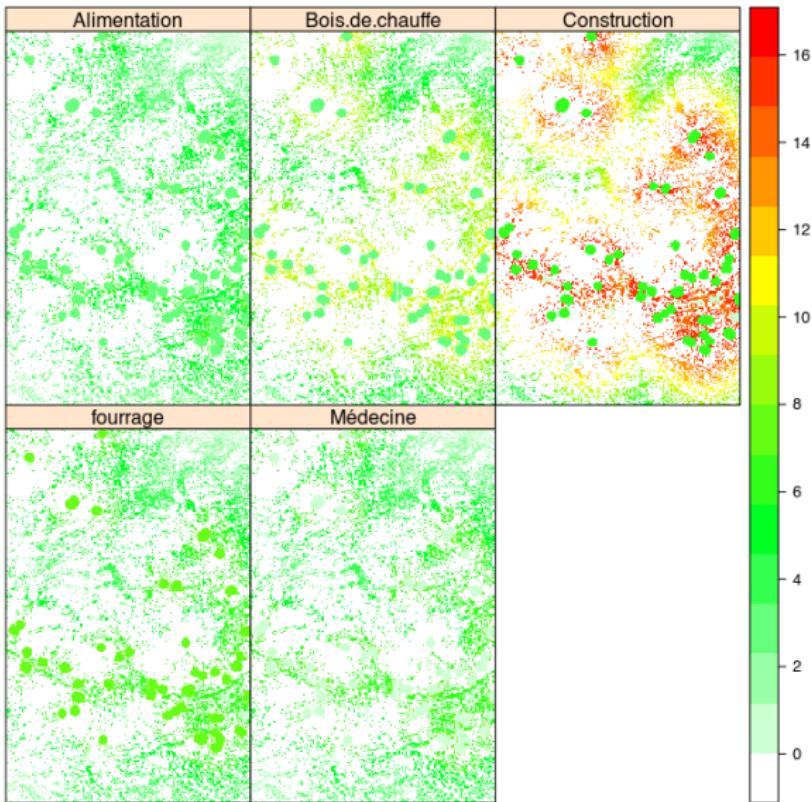


# Result 3 : Quantification

## Services éco-systémiques pondérés en fonction des unités spatiales



# Result 4 : spatiale quantification



## Result 4 : spatiale quantification

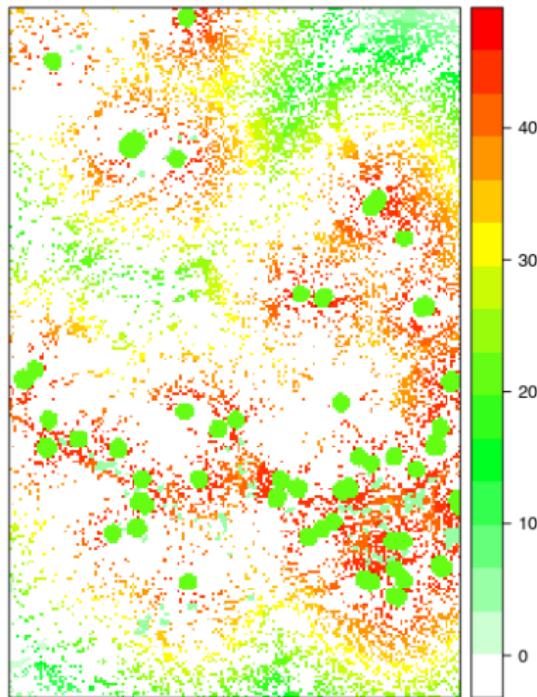


Figure: Sum of trees uses

# CONCLUSION

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# From trees to ComMod

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An interdisciplinary approach:

- ethnobotanical investigation work 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](#)