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**Towards an energy recovery approach for household
waste in the province of Khenifra – Morocco**

A.Ouigmane^{1,2}, O. Boudouch³, A.Hasib^{2*}, M.Berkani¹

¹Laboratory of Spectro-Chimistry Applied and Environment University Sultan Moulay Slimane, Beni Mellal.

² Laboratory of Environment and Valorization d of Agro-Resources University Sultan Moulay Slimane, Beni Mellal

³Transdisciplinary Team of Analytical Sciences for Sustainable Development, University Sultan Moulay Slimane, Beni Mellal



INTRODUCTION

**MATERIELS AND
METHODS**

**RESULTS AND
DISCUSSION**

CONCLUSION

INTRODUCTION

The production of MSW does not cease to increase, hence the need to find a solution to eliminate them in a sustainable way.



Developing countries have problems in waste management. The major part is eliminated in wild dumps despite all the impacts related to this mode.

OB1

INTRODUCTION

Schéma de valorisation des déchets

Slide 4

OB1

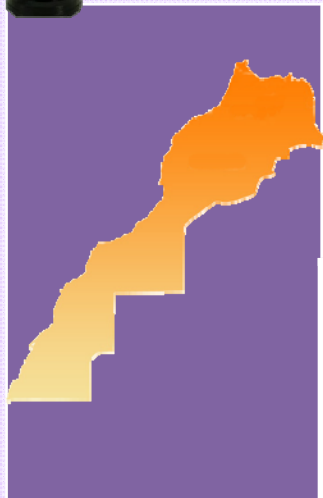
en double ??

Otmane Boudouch; 11/6/2017

INTRODUCTION

Morocco is not excluded from countries with problems in waste management despite the efforts made by the State

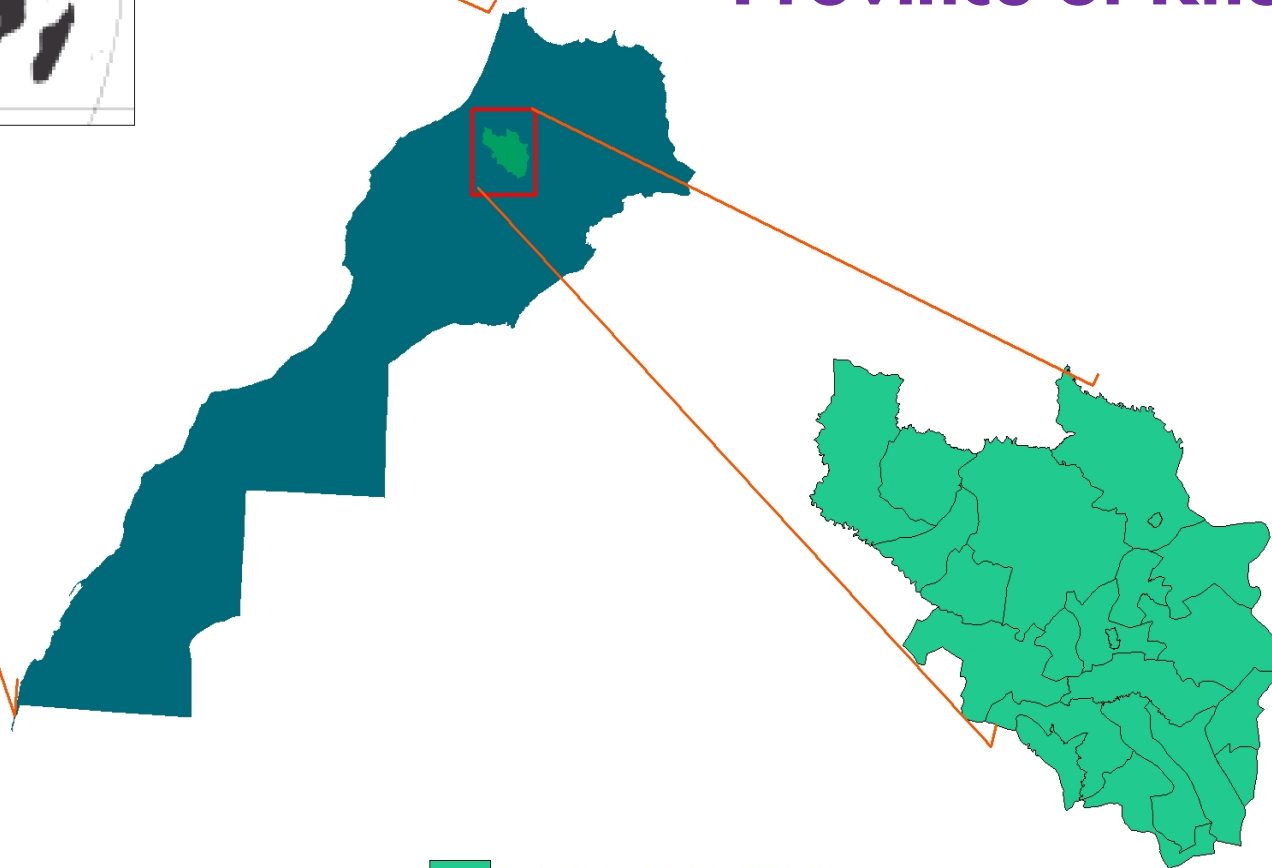



	Population 2014	Production of MSW per year	Ratio de production	More fraction abundant
	33 848 242	6.5 Million T	0,76 Kg/inb/day	Organic materiel

AREA OF STUDY



Province of Khenifra



 Study of area : Province of Khenifra

0 25 50 100 Km

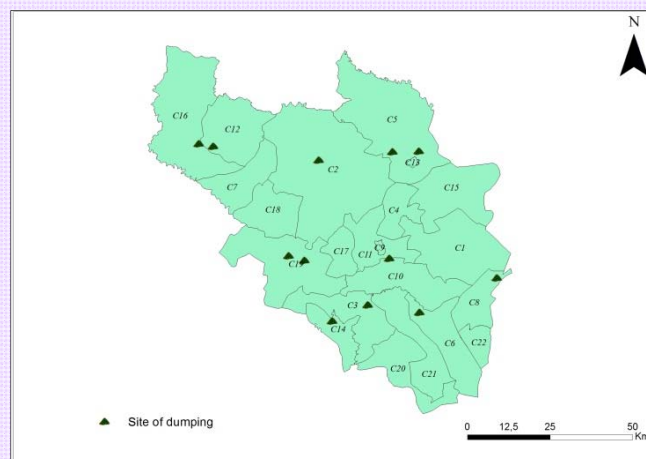
MATERIELS AND METHODS

PROVINCE OF KHENIFRA MOROCCO

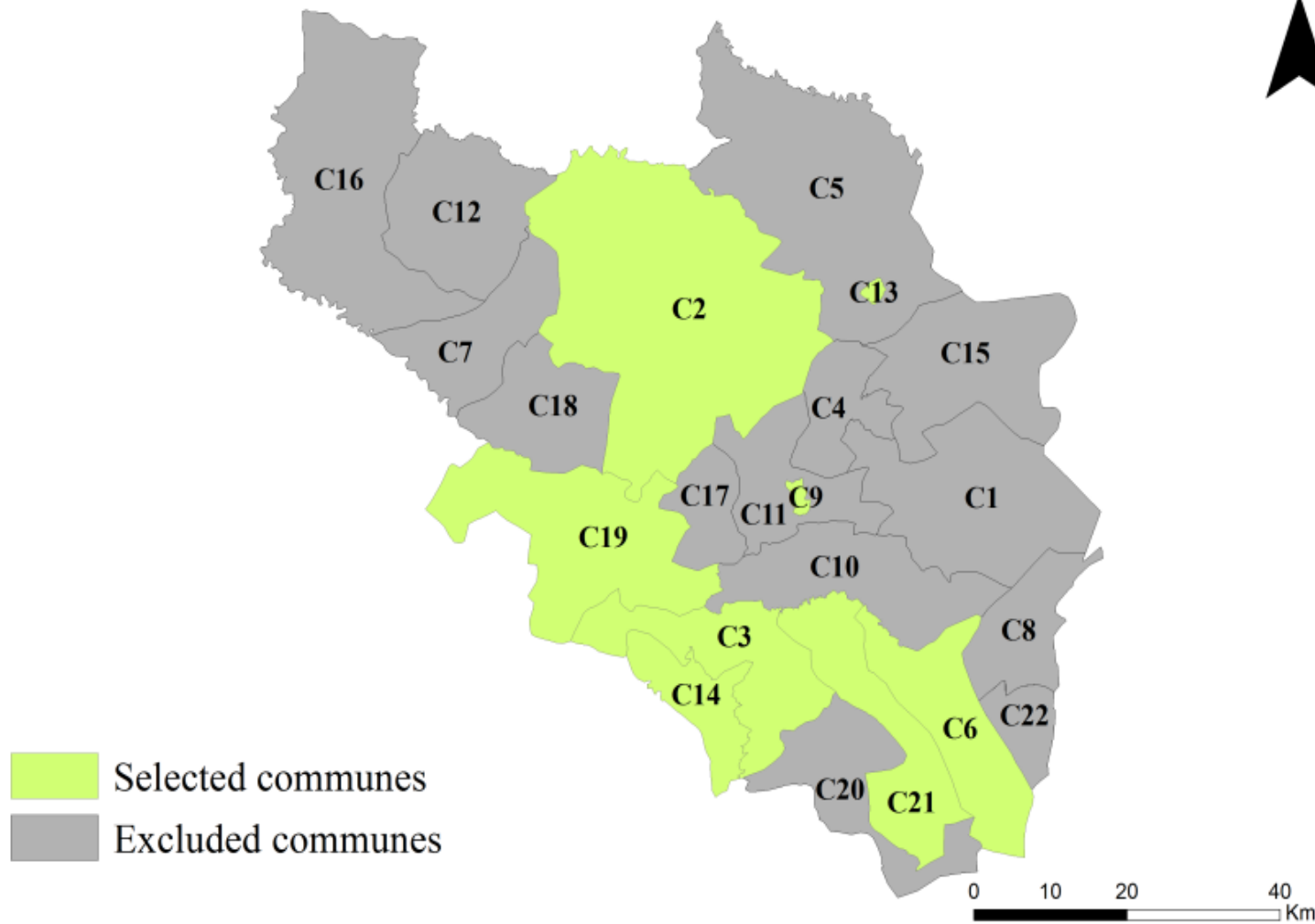


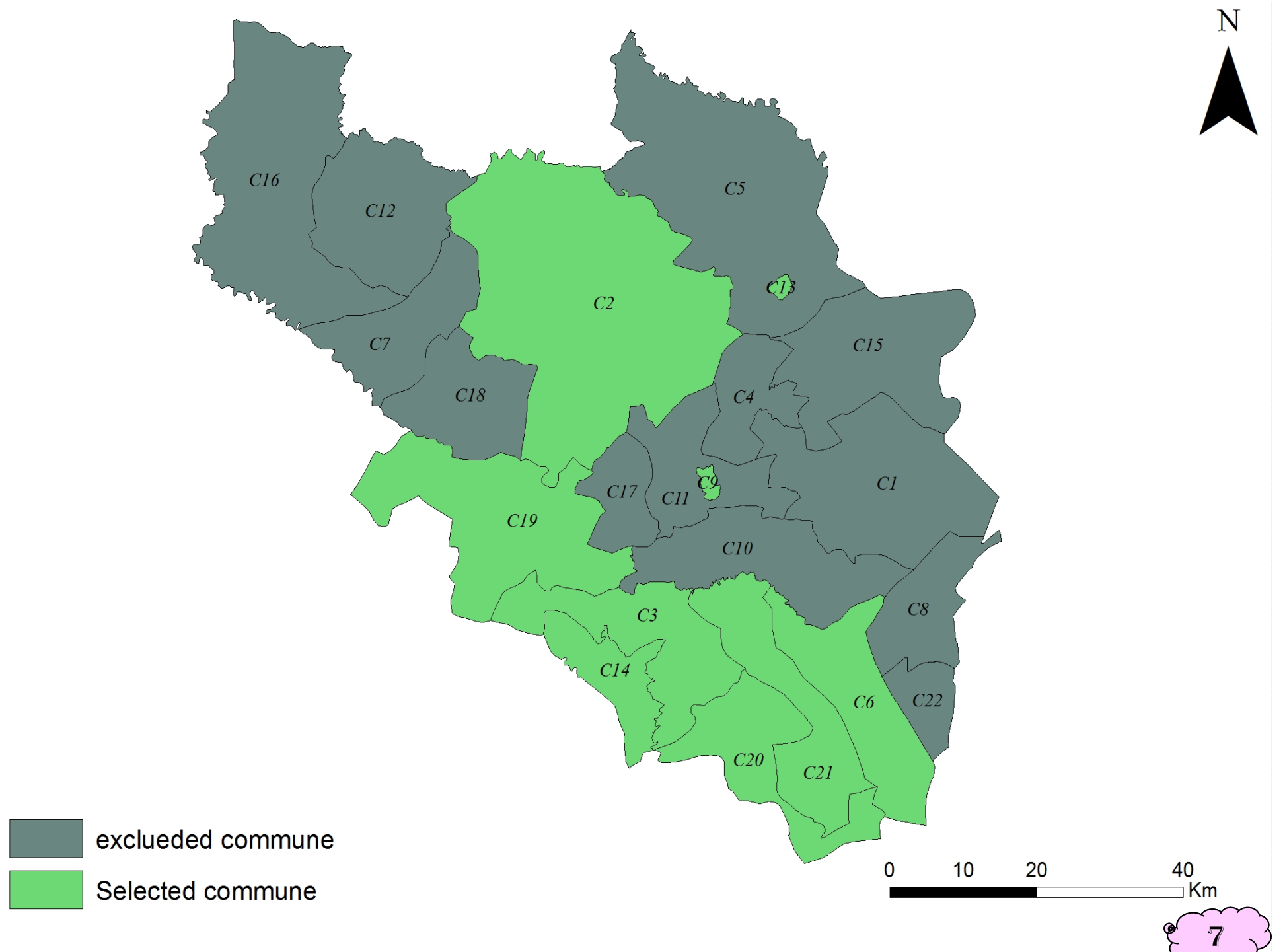
370 178 Inhabitants

Number of commune : 22

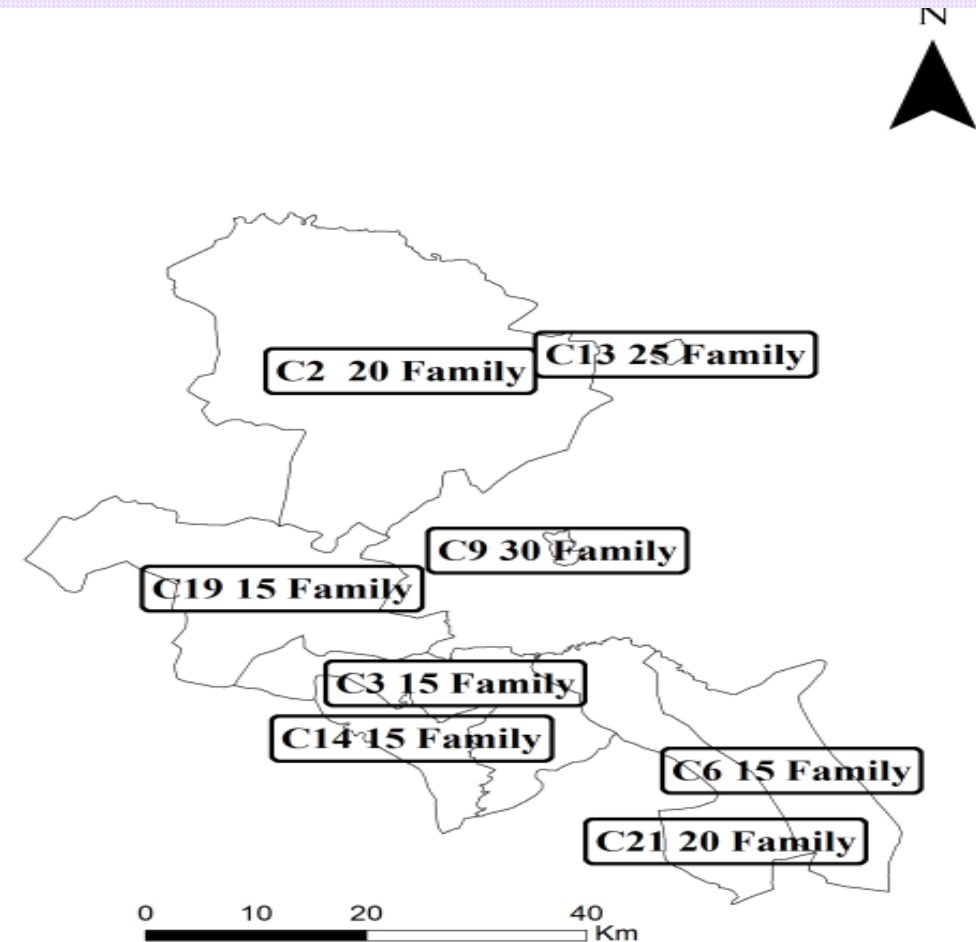
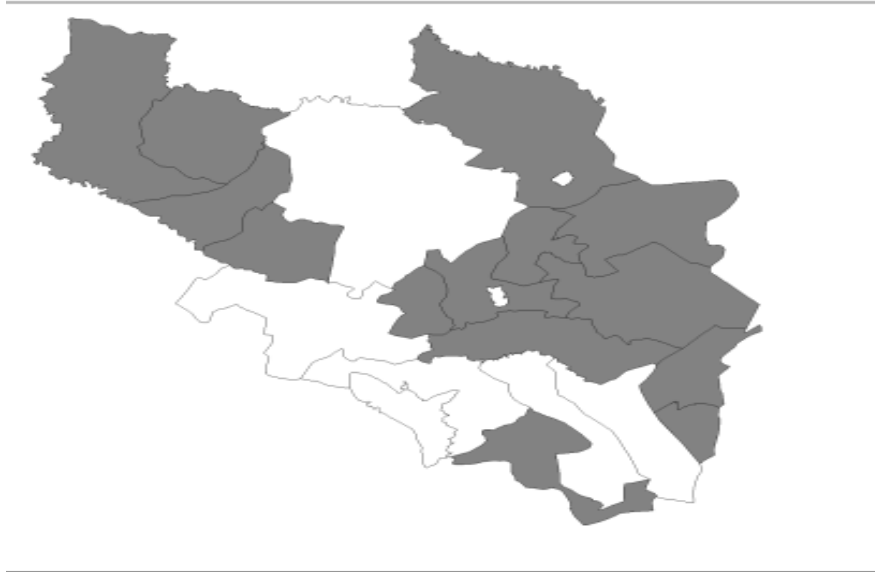


Preliminary study

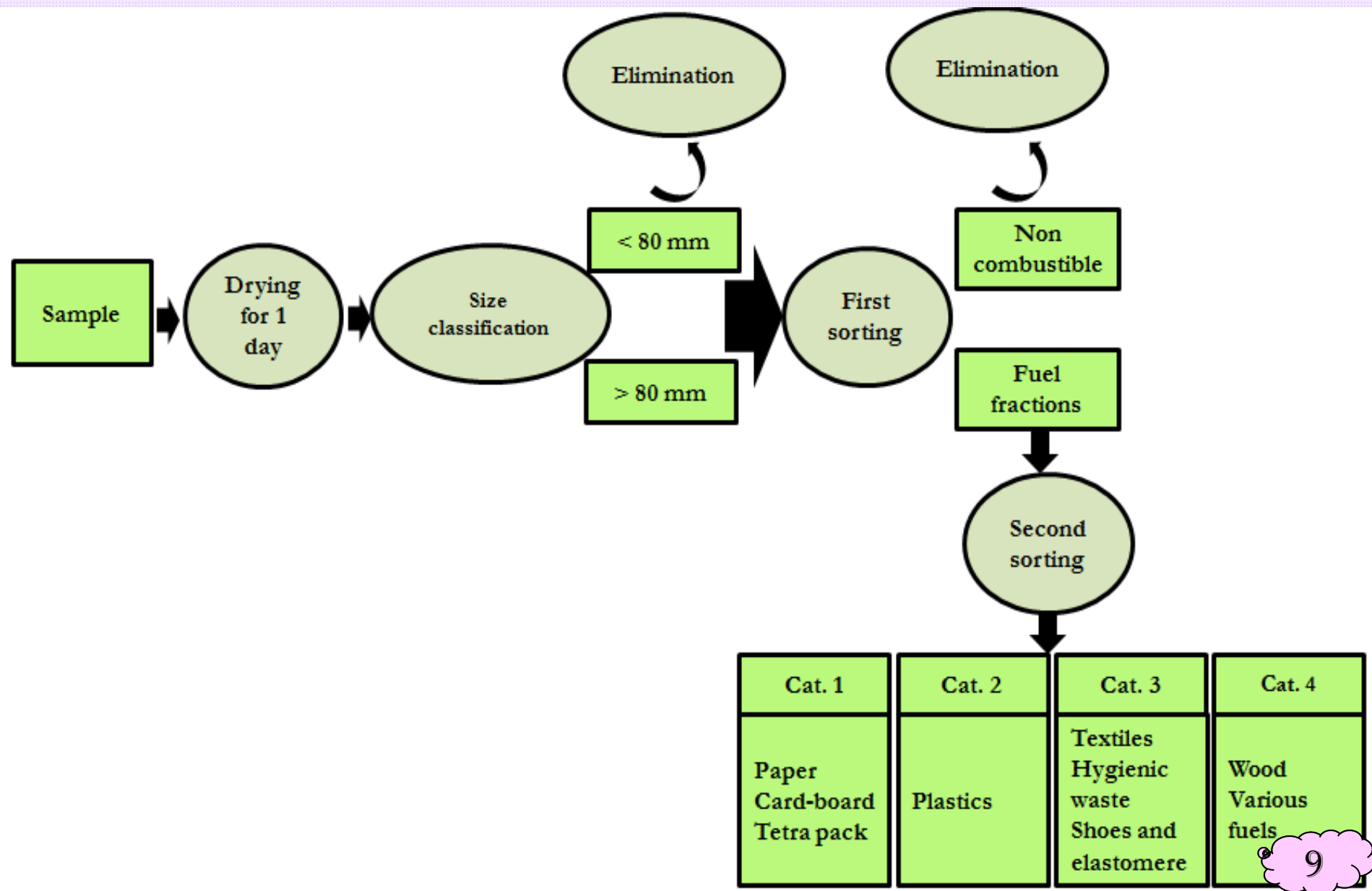




1 Surveys and questionnaires



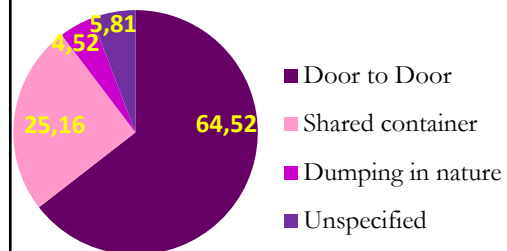
1 Characterization



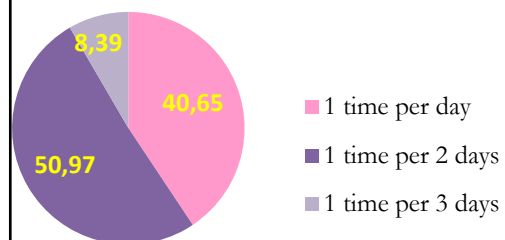
RESULTS AND DISCUSSION

Population

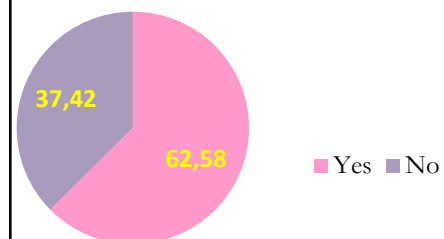
How do you get rid of your waste?



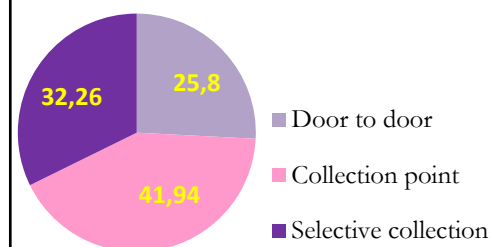
How many times per day?

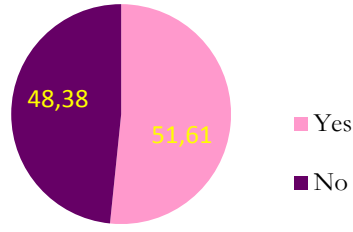
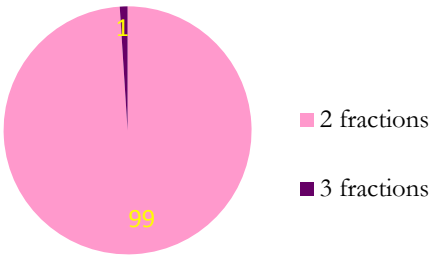


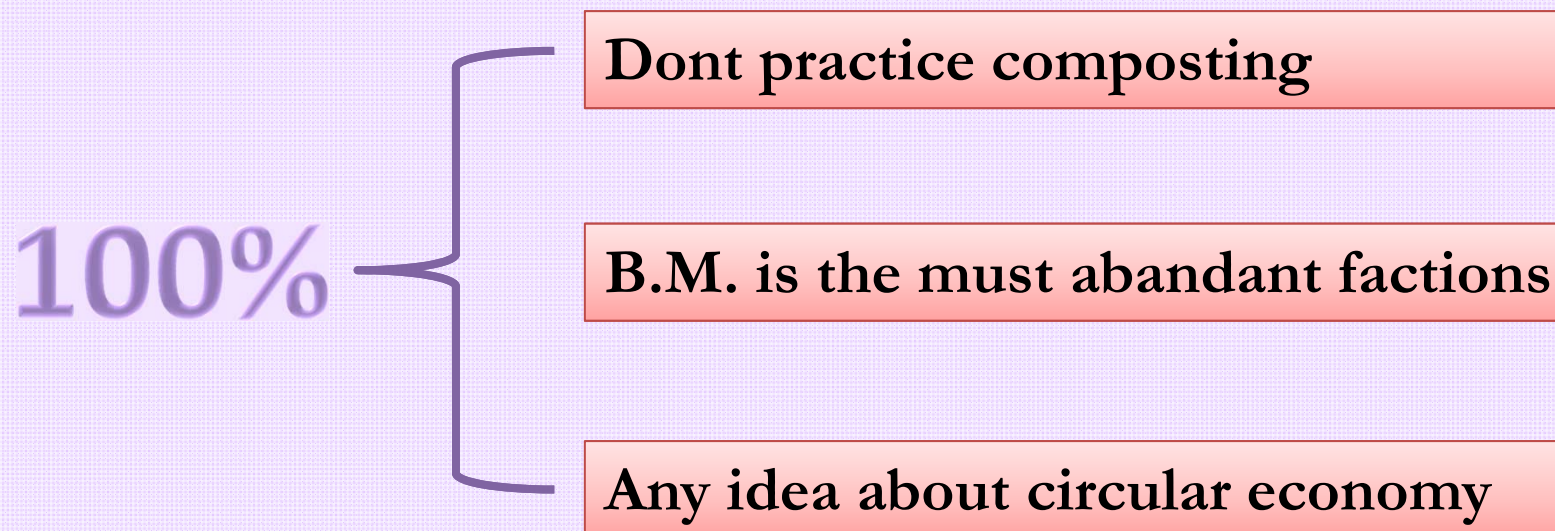
You know what sorting of waste?



Which collection method do you prefer?



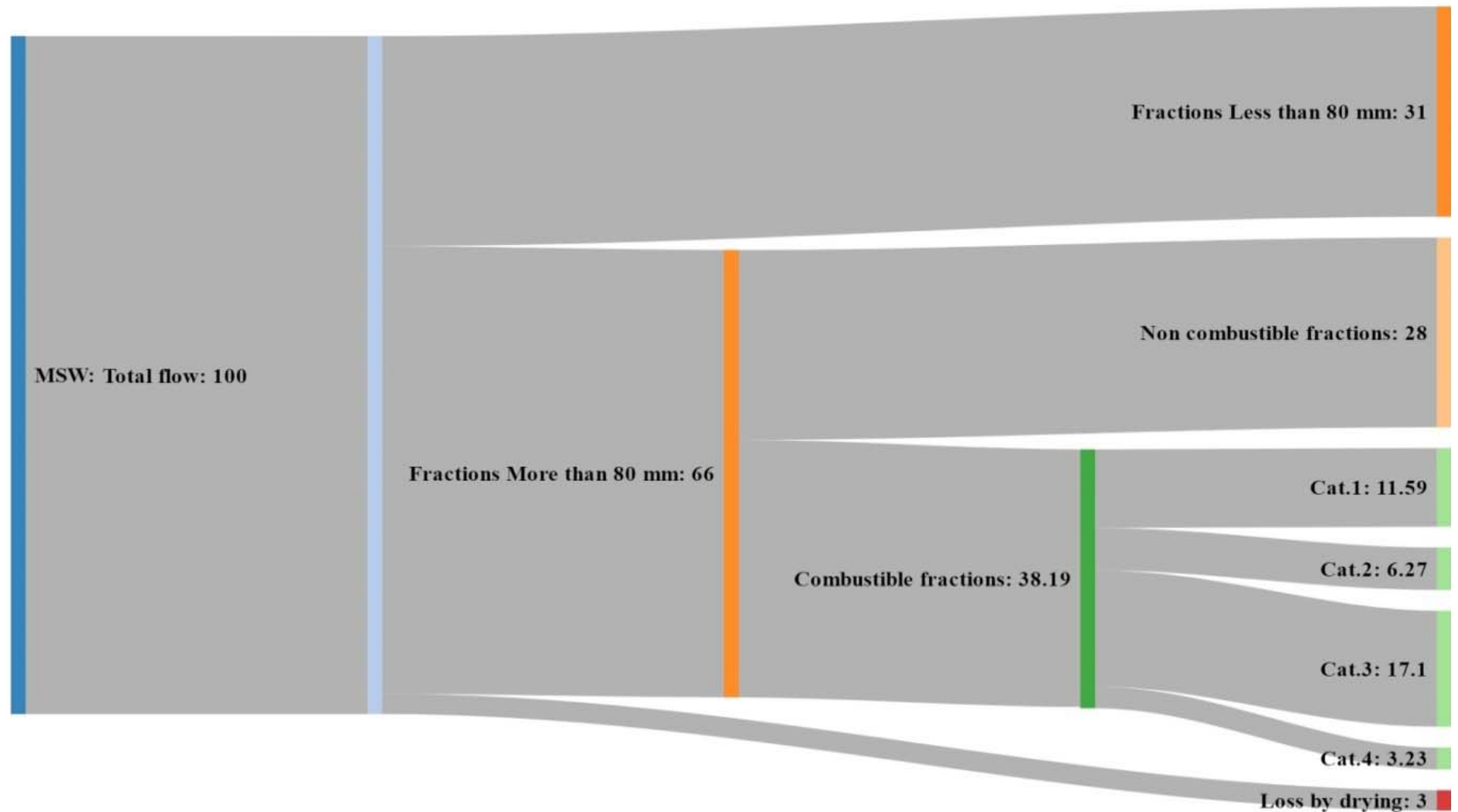
Can you engage in a waste sorting project?	 <p>51,61 Yes 48,38 No</p>
What is the number of fractions that you can sort?	 <p>99 2 fractions 1 3 fractions</p>



Communes

- 2 Communes / 8 who knows the law on waste in Morocco
- 1 commune / 8 which delegates collection to the private sector
- 6 communes adopts the door a door and 2 communes use the two modes
- No selective collection for all communes
- No ideas about SRF

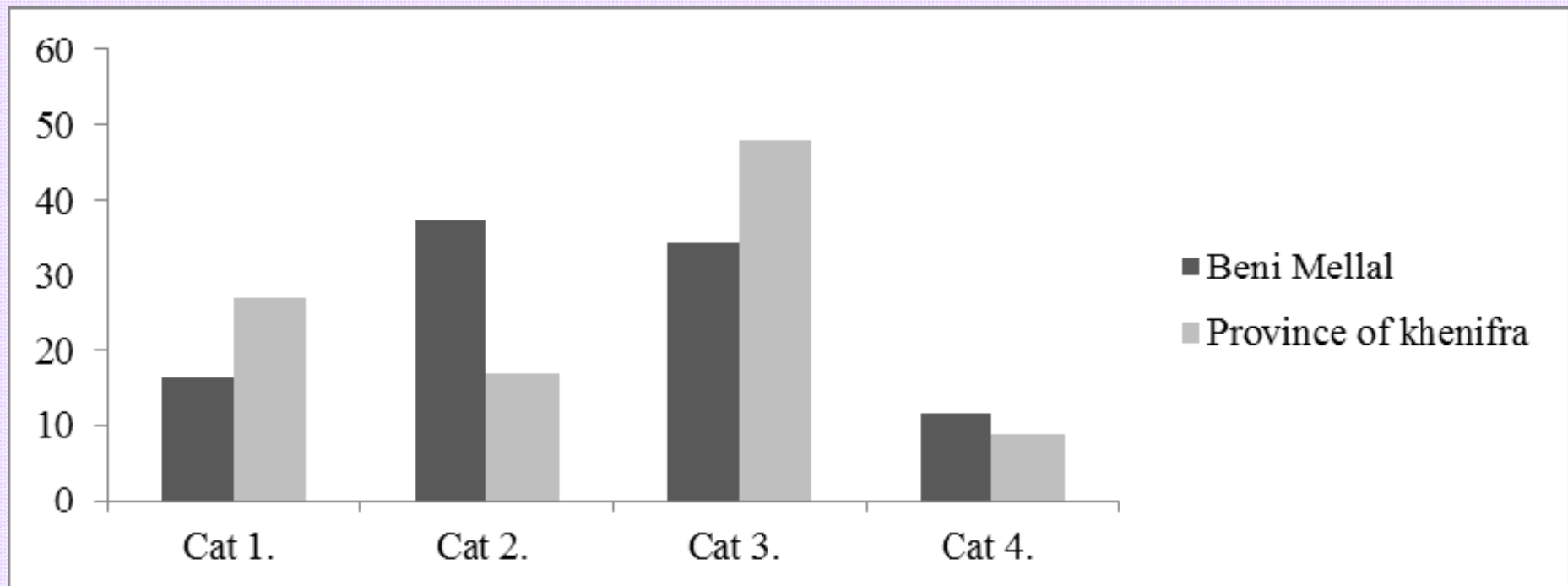
Characterization results



Discussion

- The results of the population survey show that people are in need of awareness despite the small awareness they have
- On the other hand half of the respondents are ready to sort at source in two fractions
- The municipalities in their turn do not have enough consciousness about the management of waste
- The results of the waste characterization show that the fuel fraction has 38% initial flux

Comparison of the results of this study with those we have already done in city of Beni Mellal in summer times (figure 7) showed that waste is almost similar for paper, textiles and wood. On the other hand, this study showed that the plastics knew a decrease in amount : thanks to the stop of production and using plastic bags in Morocco since June 2016



Conclusion

It can therefore be shown that SRF production can be considered as a sustainable solution of MSW in the study area. In addition, the population has shown their interest to contribute to sorting waste into two fractions. Hence, the municipalities can organize itself with the associations to distribute two garbage cans per house, one for combustible fraction and the second for non-combustible fractions.

ευχαριστώ για την προσοχή σας

