

# **Coco de mer - the true value**

**BSC environmental science thesis**

**SIF Symposium**

**Mariette Dine**

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# Introduction and Rationale

## WHY CHOOSE THIS TOPIC

- ▶ Forests are an important socio-economic contributor, providing;
  - Employment
  - Genetic resources
  - Ecosystem services (water shed management..e.t.c)

### Biodiversity and economic activity in the Seychelles

Biodiversity depletion and degradation are major environmental issues – both because of their direct impacts on ecosystems and because these ecosystems provide a wide range of goods and services to biodiversity.

Biodiversity provides a wide range of goods and services. (including fisheries, tourism, and recreation) depend on the raw materials provided by biological resources. Human and industrial production and consumption also indirectly rely on the ecological services that they provide as a sink for wastes and residues and in the way they provide to beaches and the environment. Biodiversity of the Seychelles has an intrinsic value, and global tourism and recreation provide a wide range of economic activities. Some of these are not known and their value of biodiversity is not known.

Coco de mer forest

What is the estimated value of the coco de mer species?

**USE VALUES:** What can be consumed directly or indirectly?

**NON-USE VALUES:** What are the identified aesthetic values attached to it i.e.

- > education awareness
- > beauty
- > part of our Sey ID

Why the coco de mer species?

- Poaching and over exploitation



# Aims of thesis

**Aim** → Valuation at a species level, and to assess if that value is reflected in the opinion of the Seychellois people.

## **Objectives**

- I. Identify values and place a monetary value to it
- II. Estimate total economic value (TEV) of the species
- III. To estimate the cost of poaching

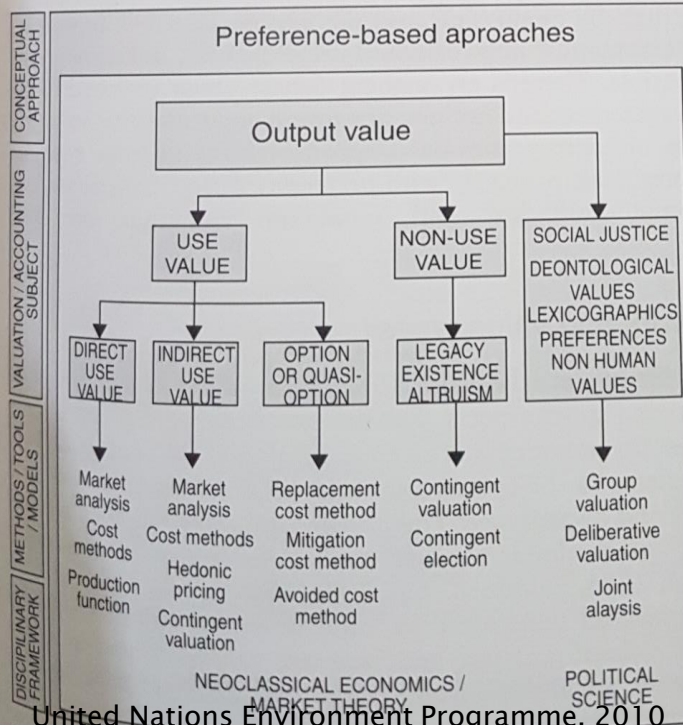
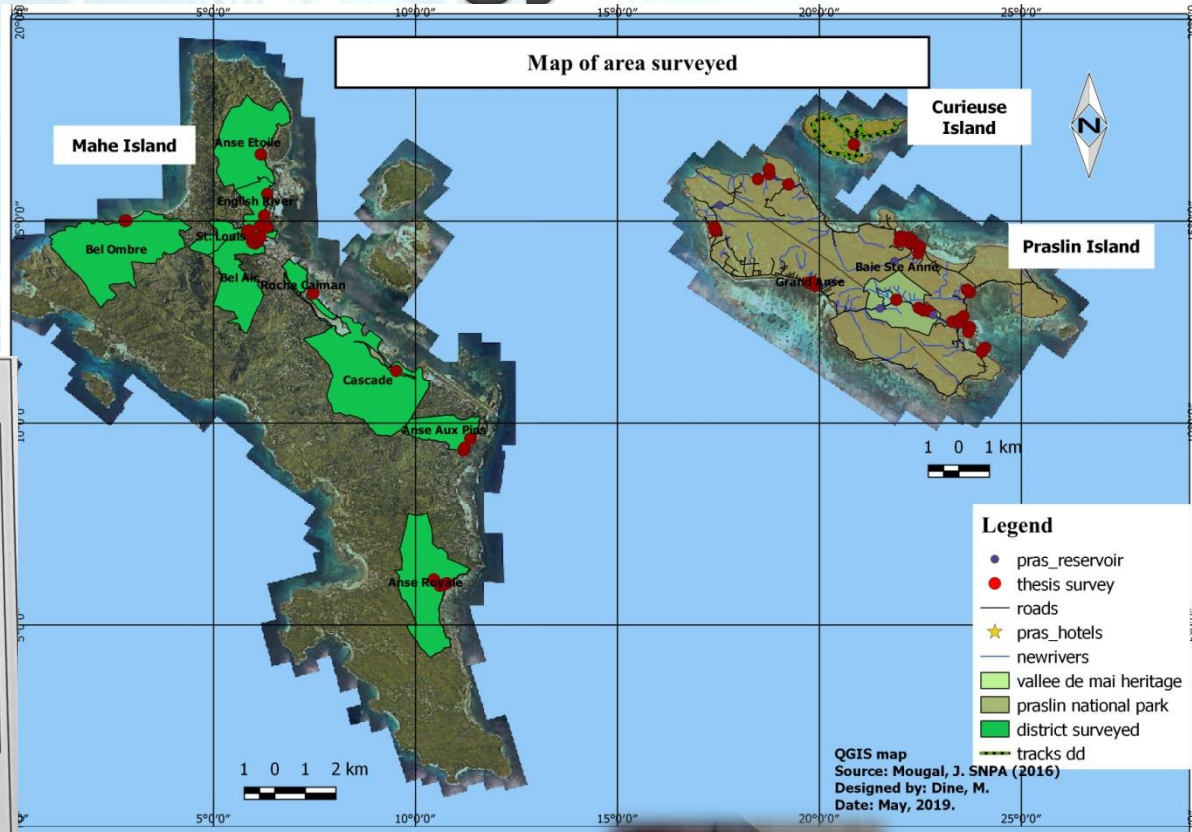
## ○ **Hypothesis**

1. Seychellois are unaware of the various benefits gained from coco de mer except the direct finances from the fruit
2. Seychellois value coco de mer more for its' direct use than its' aesthetic value
3. Poaching has an impact on the market value of coco de mer

# Methodology

## Data collection

- ▶ Interviews
- ▶ Survey
- ▶ Secondary data
- ▶ Price observations



Photos by: Dine, M. 2019

United Nations Environment Programme, 2010  
Figure 5.1 Approaches for the estimation of nature's values  
Source: Drafted from Gómez-Baggethun and de Groot (2010) (in press)



# Data analysis

- ▶ Primary data: Summarized all survey data
- ▶ Compiled all secondary data from different sources and made averages

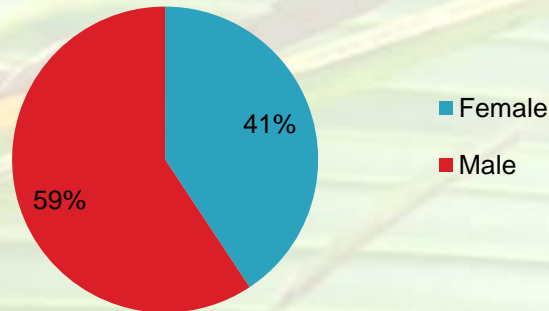
Value → 1 nut + hidden costs → 6 nuts/tree



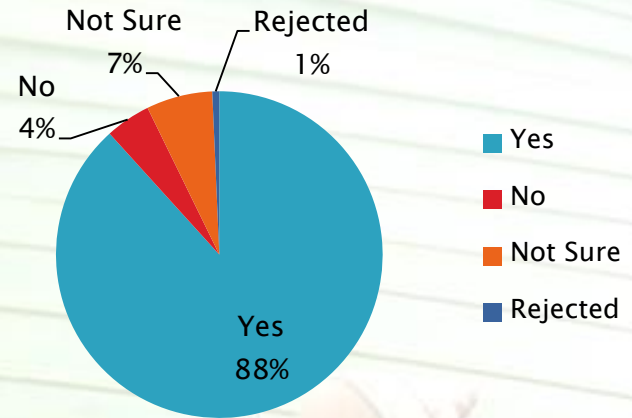
- ▶ Non-use value = Bequest value + Existence value
- ▶ Total economic value (TEV) = use value (UV) + non use value (NUV)

# Preliminary results

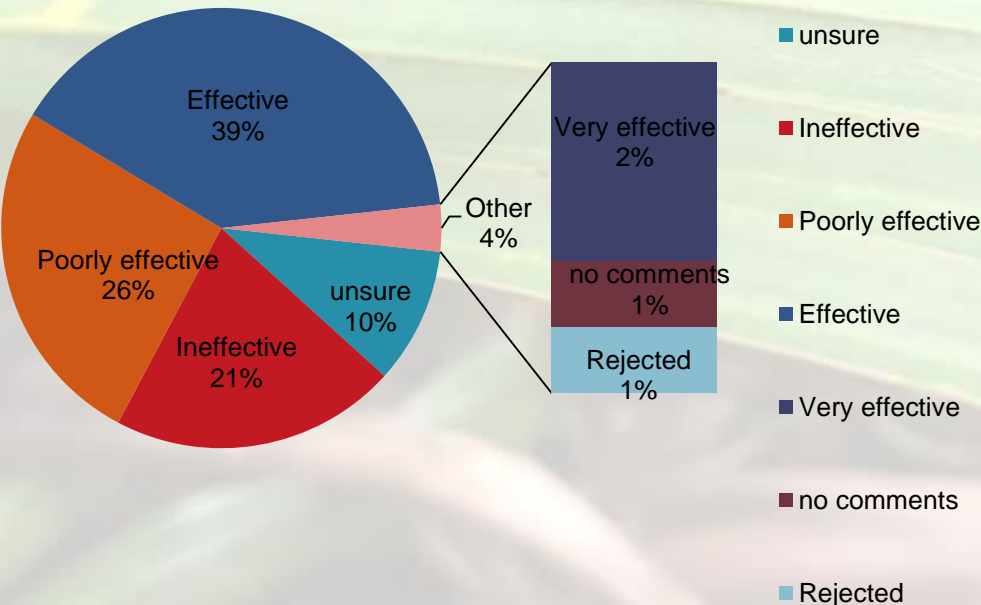
## Total surveyed



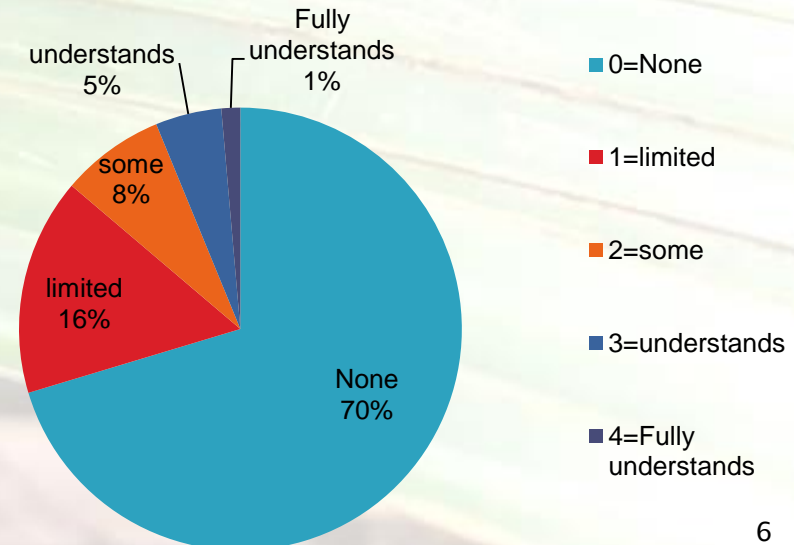
## Respondents awareness of coco de mer products



## Respondents opinion on the effectiveness of the laws and policies on coco de mer



## Respondents understanding of ecosystem services

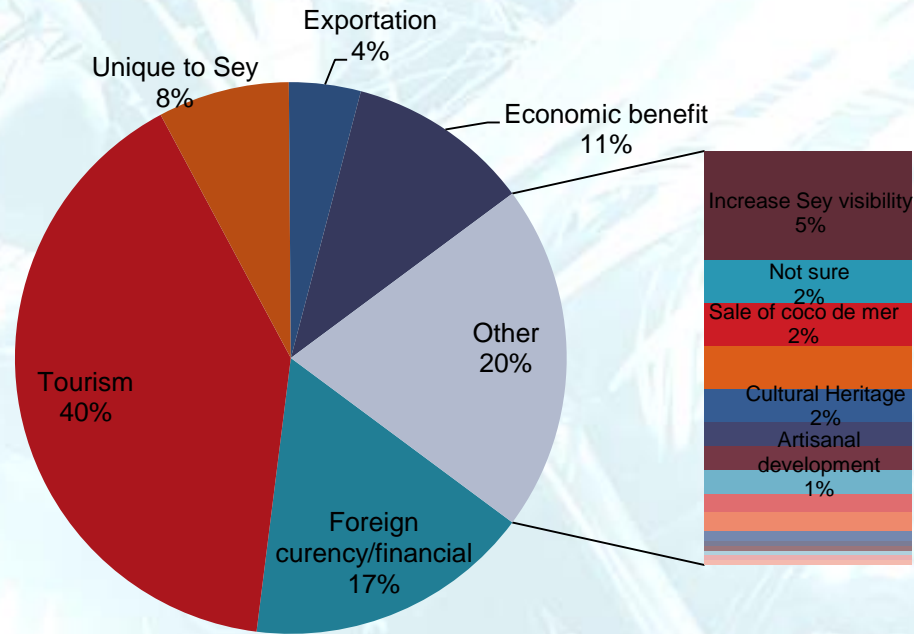
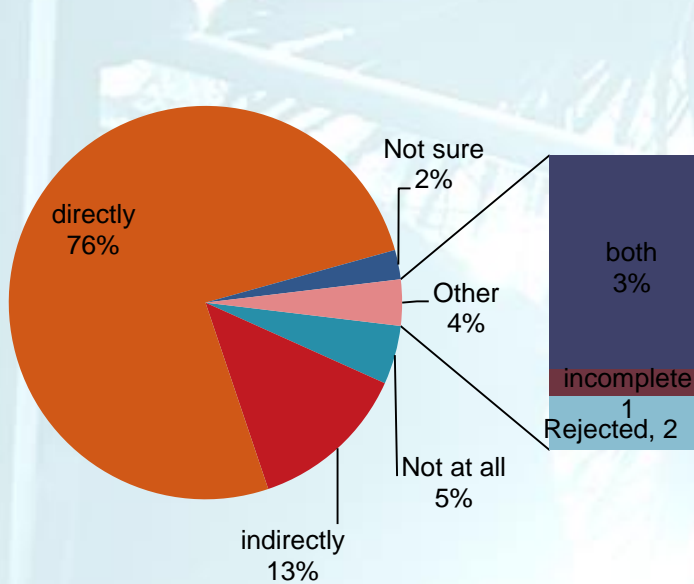


# Preliminary results

## Identified benefits gained from the species

Respondents opinion on how the species benefits the country

Mentioned benefits gained from the species



- Not at all
- directly
- both
- Rejected
- indirectly
- Not sure
- incomplete survey

- Foreign currency/financial
- Unique to Sey
- Economic benefit
- Not sure
- NA
- Artisanal development
- Aesthetic Beauty
- part of sey ID

- Tourism
- Exportation
- Increase Sey visibility
- Sale of coco de mer
- Cultural Heritage
- Don't see the benefits
- provide jobs
- Science and education



# Which has more monetary value palm/nut

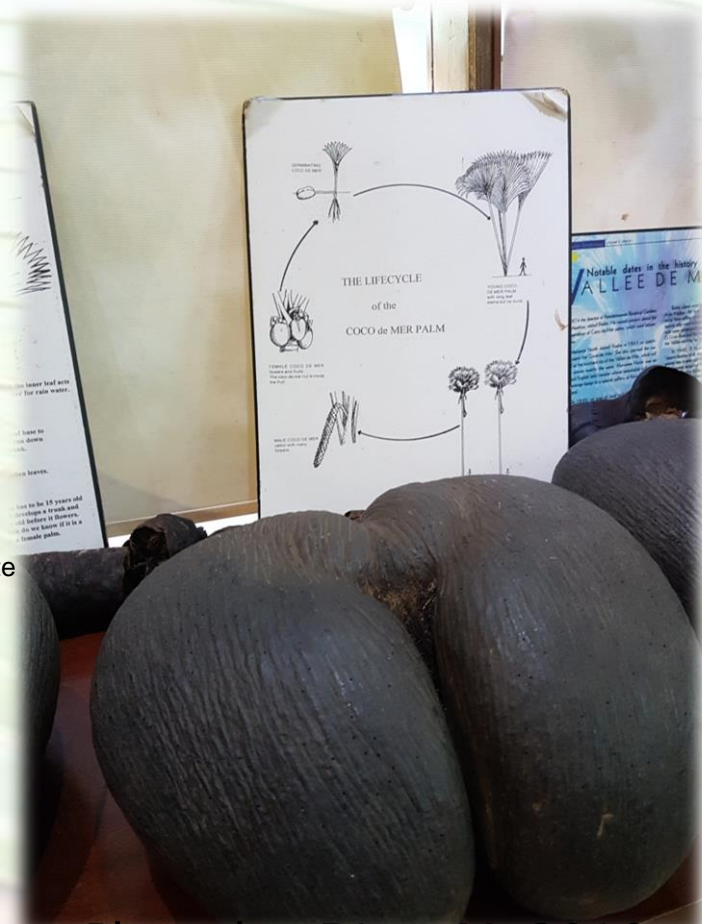
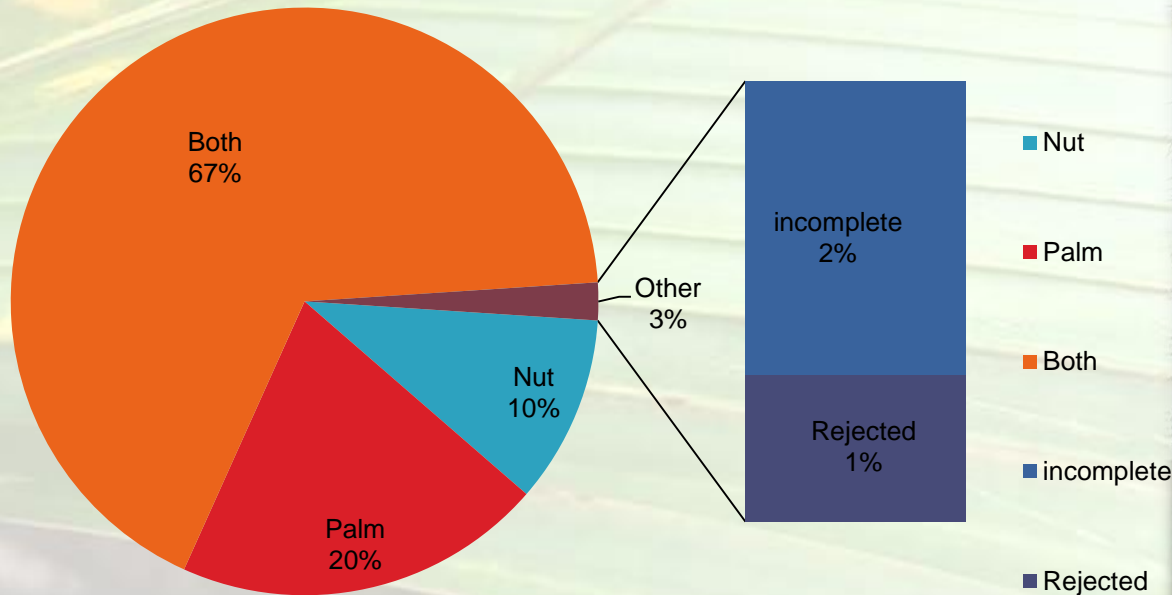
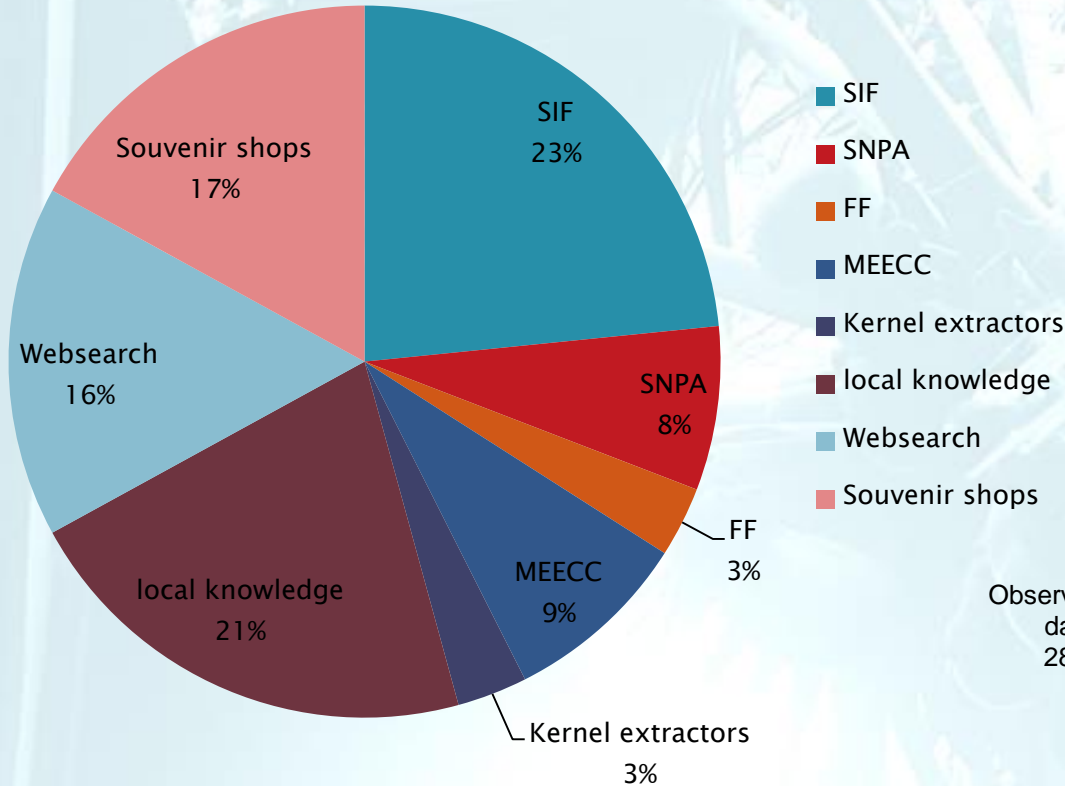


Photo by: Dine, M. 2019

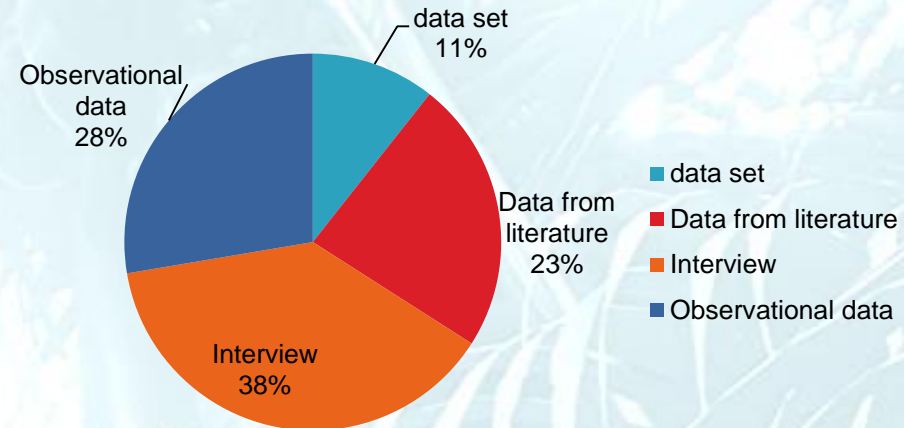


# Secondary data

## Secondary data Sources



## Types of Secondary data



# Estimated total economic value (TEV)?



**Economic value of coco de mer in Seychelles (\$)**  
 (Sey eco-assessment, 1997)

- **\$19,967.25**
- (SCR272,000)



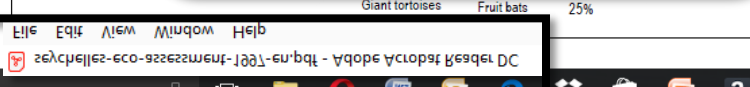
**Estimated TEV of a protected species (\$)**  
 (Potential consequence of plant extinction in the United States..., 1985)

- **\$3.248 billion**
- (SCR44,245,256,031.28)

R 1.46 billion  
 Tourism 54%

**Estimated TEV of coco de mer species (\$)**

- **~\$27.11 million**
- (SCR369,393,967.32)





# Estimated total economic value (TEV)?

Species->1060 nuts/yr+ NUV\*6 yrs

Use Value

SCR56.8 million

(Non Use Value \*2246 trees)\*6

SCR 51 million

6 nuts/tree

Use Value

SCR321,530.76

Non Use Value

SCR23,052.91

UV

One nut

SCR53,588.46

1060 nuts/yr

SCR56.8 million

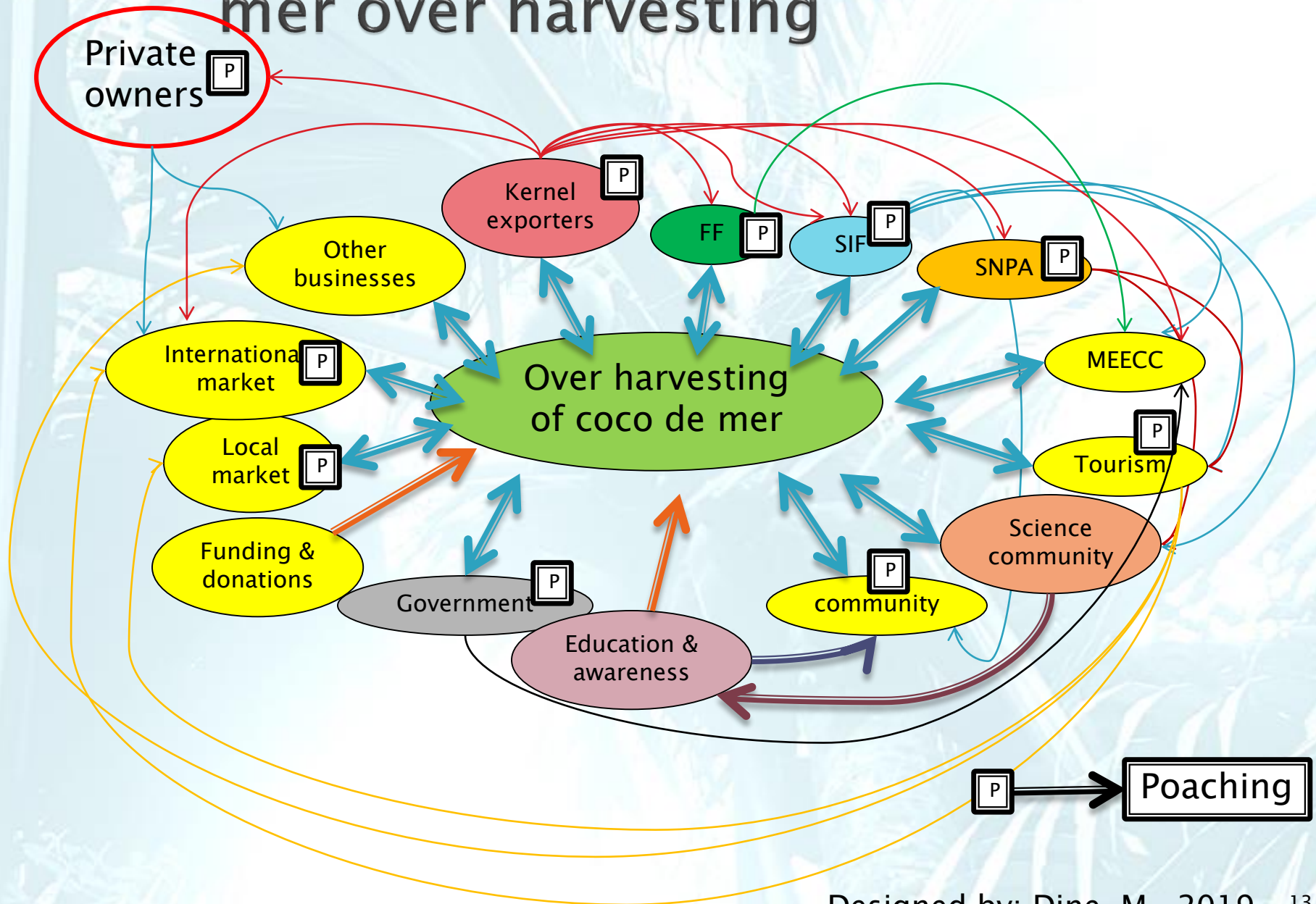
# Economic contribution of coco de mer



Photo by :Dine, M. 2019



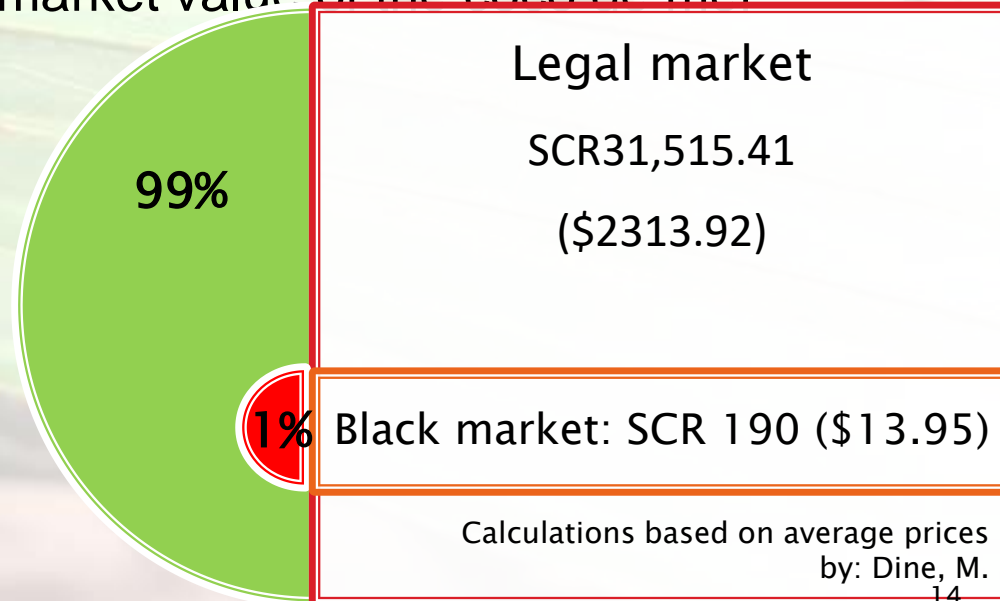
# Net-mapping the issue of coco de mer over harvesting



# conclusion

## ◦ Hypothesis

1. Seychellois are **unaware** of the various benefits gained from coco de mer except the direct finances from the fruit . **FALSE**
2. Seychellois value coco de mer more for its' direct use than its' aesthetic value. **FALSE**
3. Poaching has an impact on the market value of the coco de mer  
**(NEED MORE RESEARCH)**







# THANK YOU

