

# Exploratory figures for CNHS

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6/3/2020

Notes for Mike:

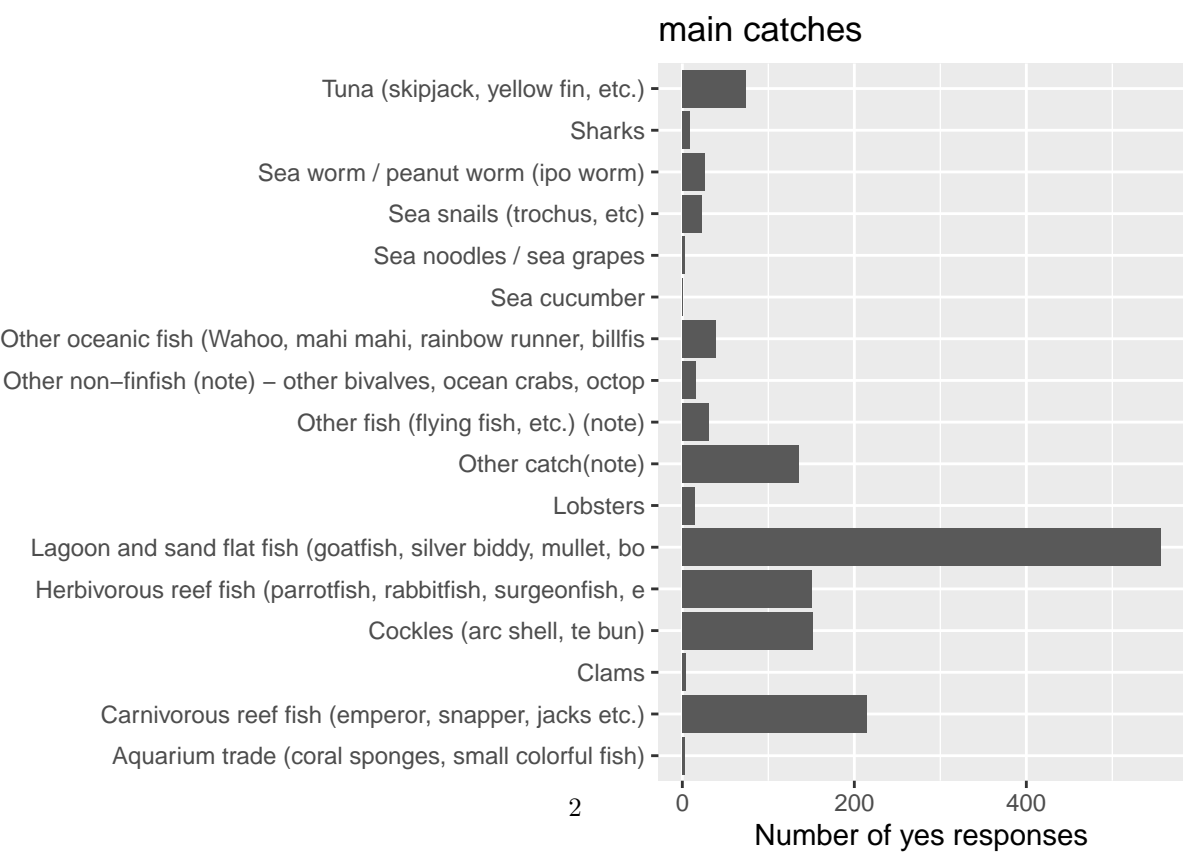
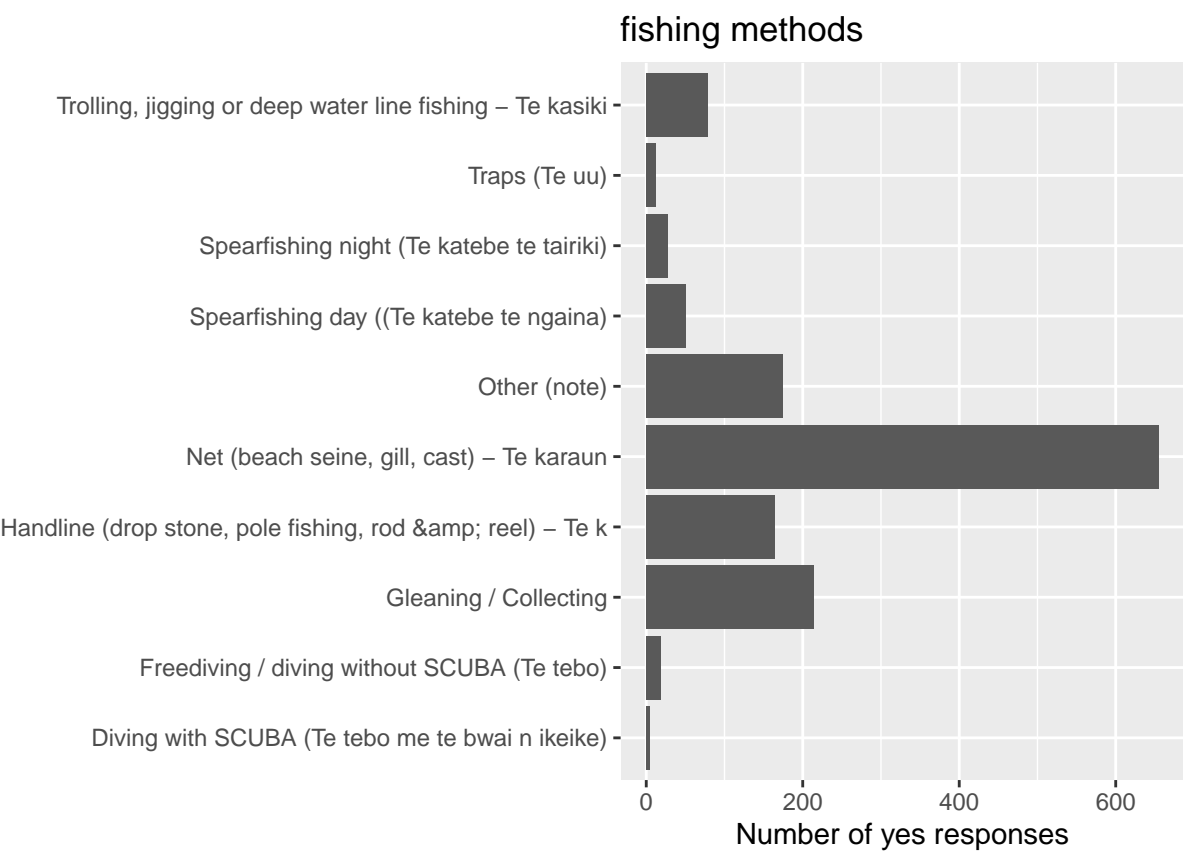
- Where is the market availability data that we had in the last iteration?
- [name of product]\_roster is the availability data
- What is the meaning of NA in the multiselect variable columns?
- “.” and “.a” in STATA both mean missing. Refer to Mike’s May 27 email for example (and to check for consistency with R)
- Why does VRS have household info and anemia info?
- Why are these output as different files (vrs, market, etc. each broken into multiple separate files)
- It is easiest to have the fewest number possible
- Are they going to translate the HIES iKiribati responses?
- Variable labels are cut off (how do we get the full answers back?) see: var\_labels
- How to standardize units when none is given (e.g., question == Travel time outside boundary in outsideRoster dataset includes “12”, “3”, “30 minutes”, “1 hour”, etc)
- Is a response of “zero” the same as blank response?

Suggested path forward:

1. Write out tidy versions of each data set and share csv
2. Write functions to visualize each question type:
  - Multi- and single-select, produce bar chart
  - Integer, produce bar chart
  - Continuous, produce histogram and (TBD: box and whisker)
  - Free response, compile unique answers with unique IDs for translation, question, island, possibly role
3. Loop through data and produce pdf of all plots
4. TBD: Start to creat summaries by village/island

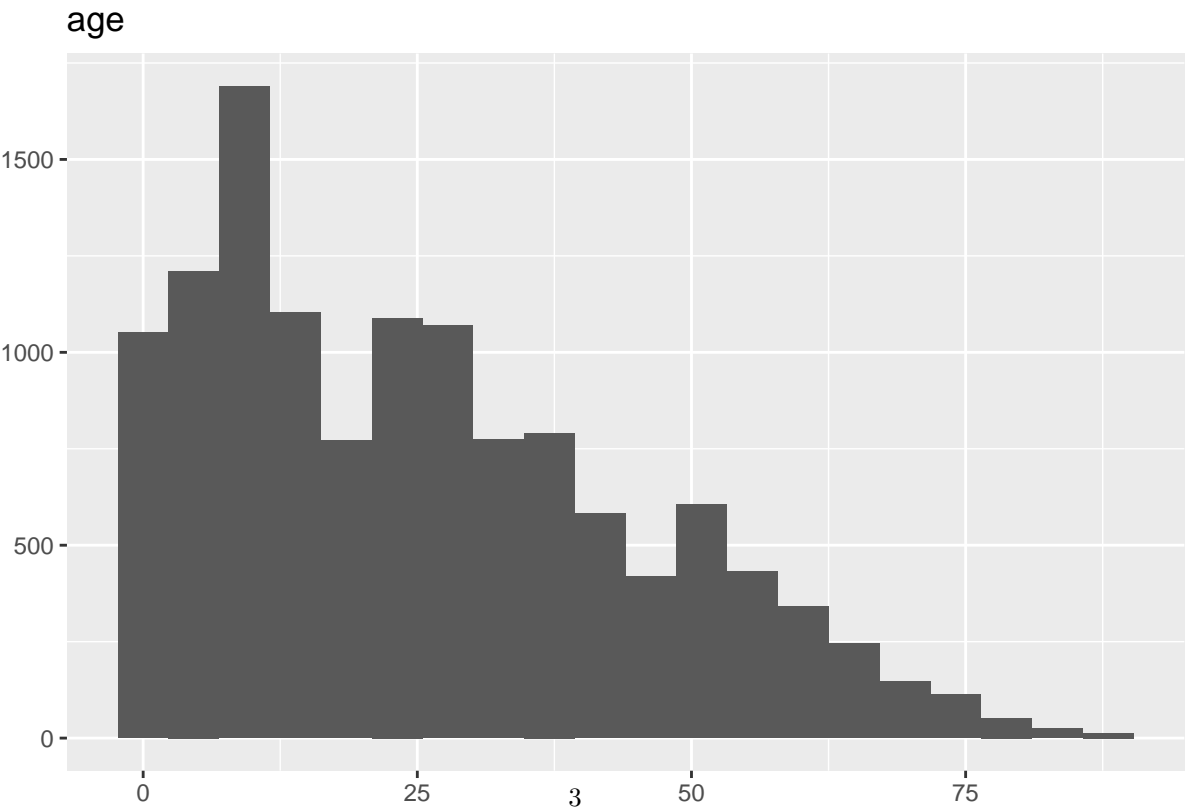
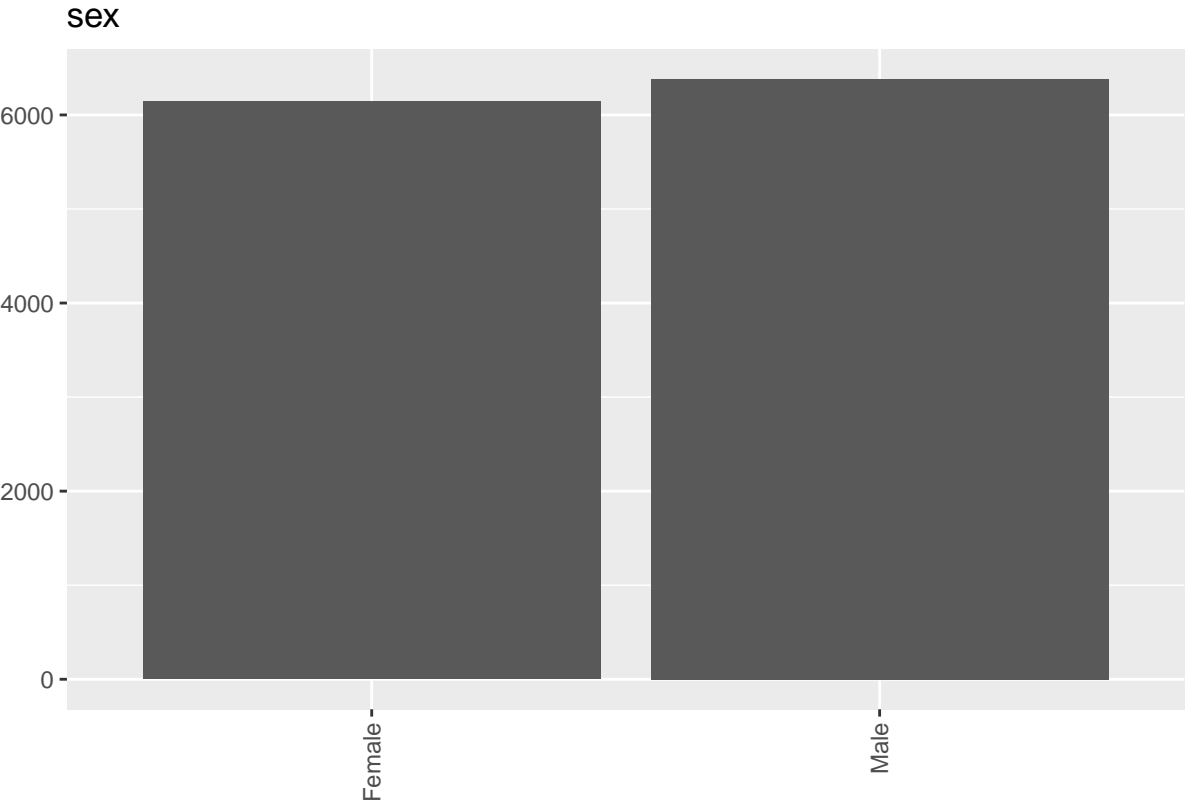
Fisheries data

Multi-response questions

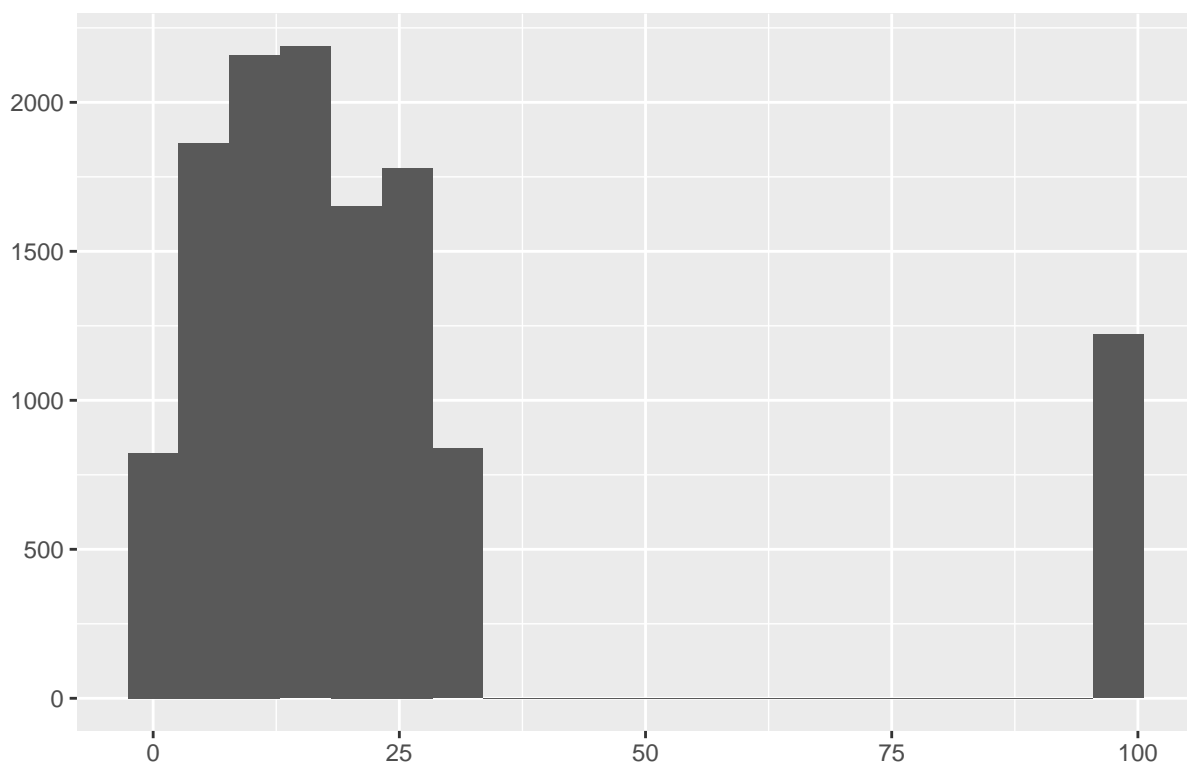


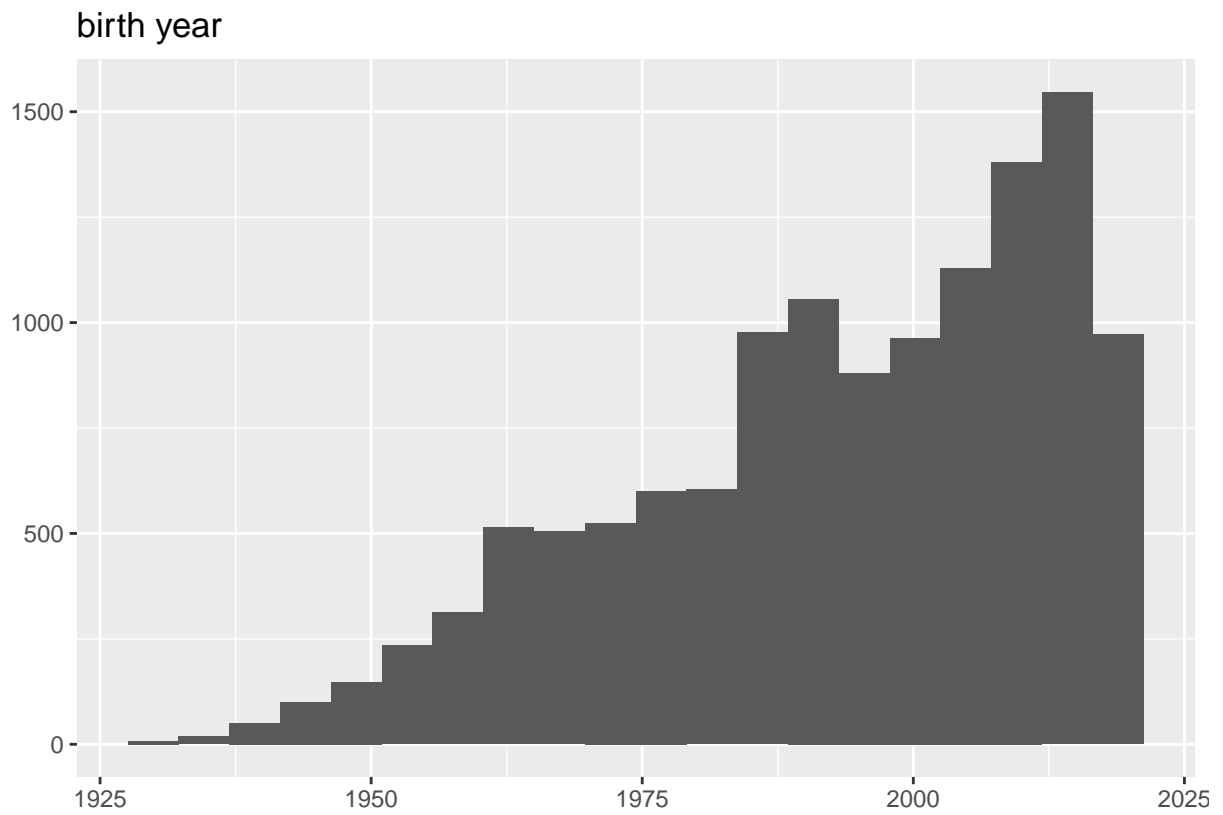
Fisheries continued...

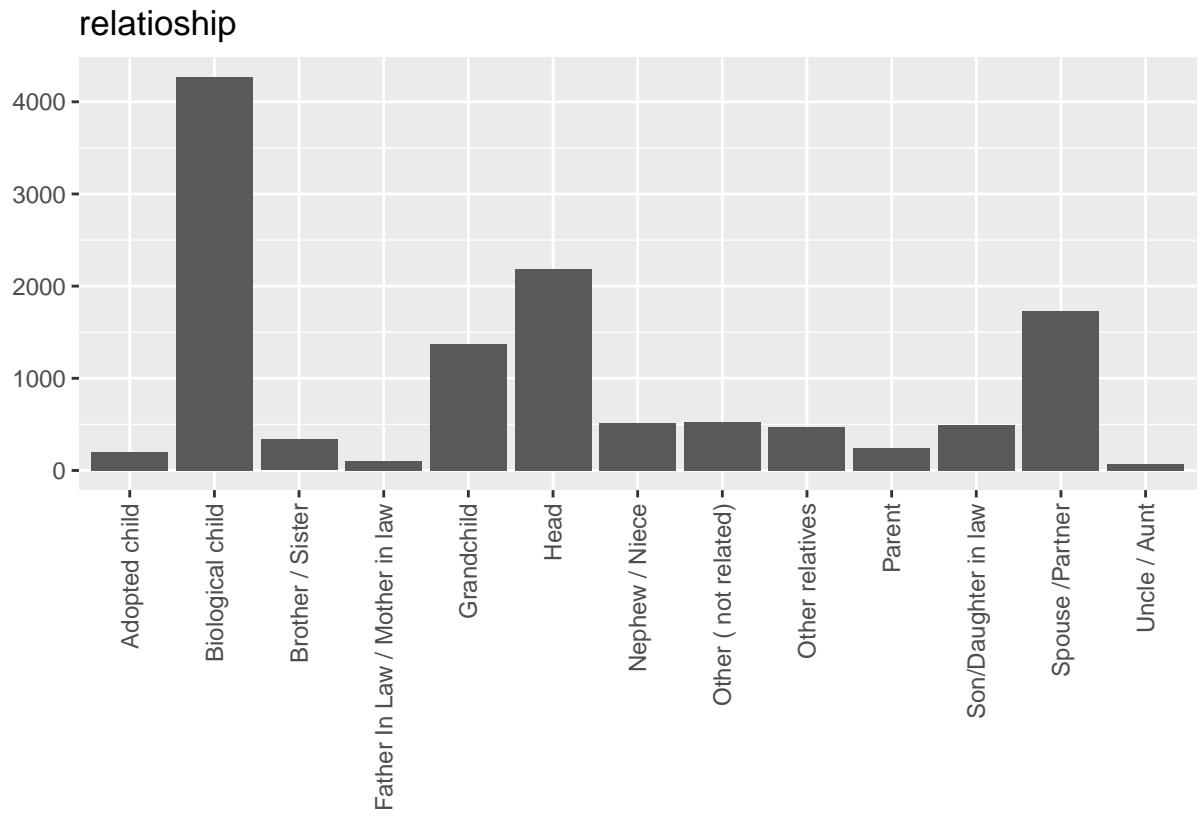
Single response questions

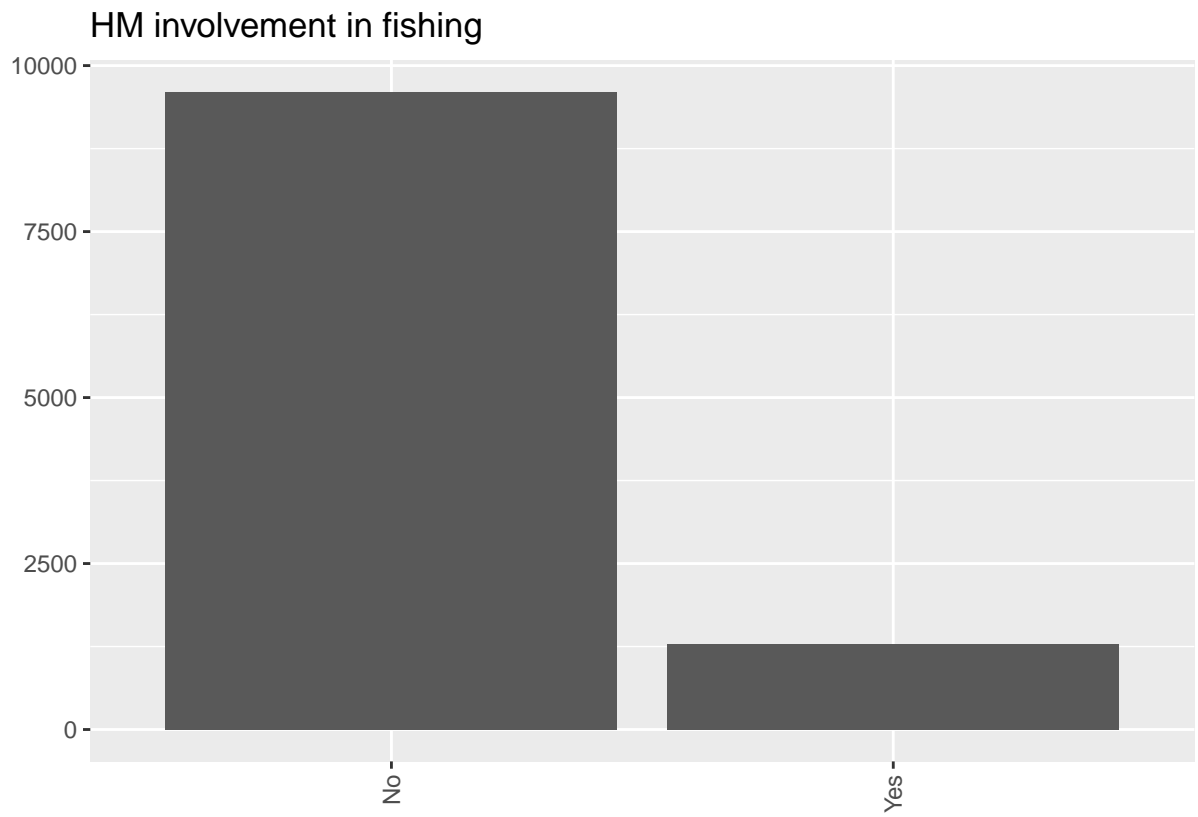


birth day

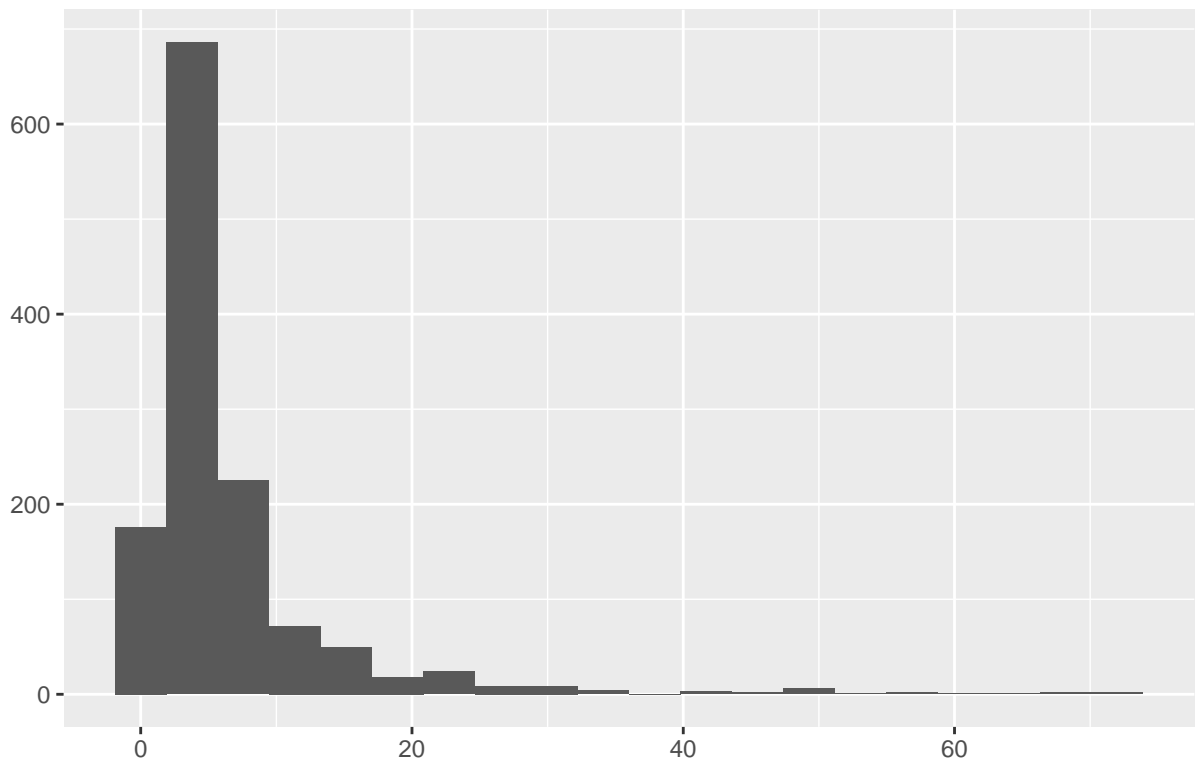






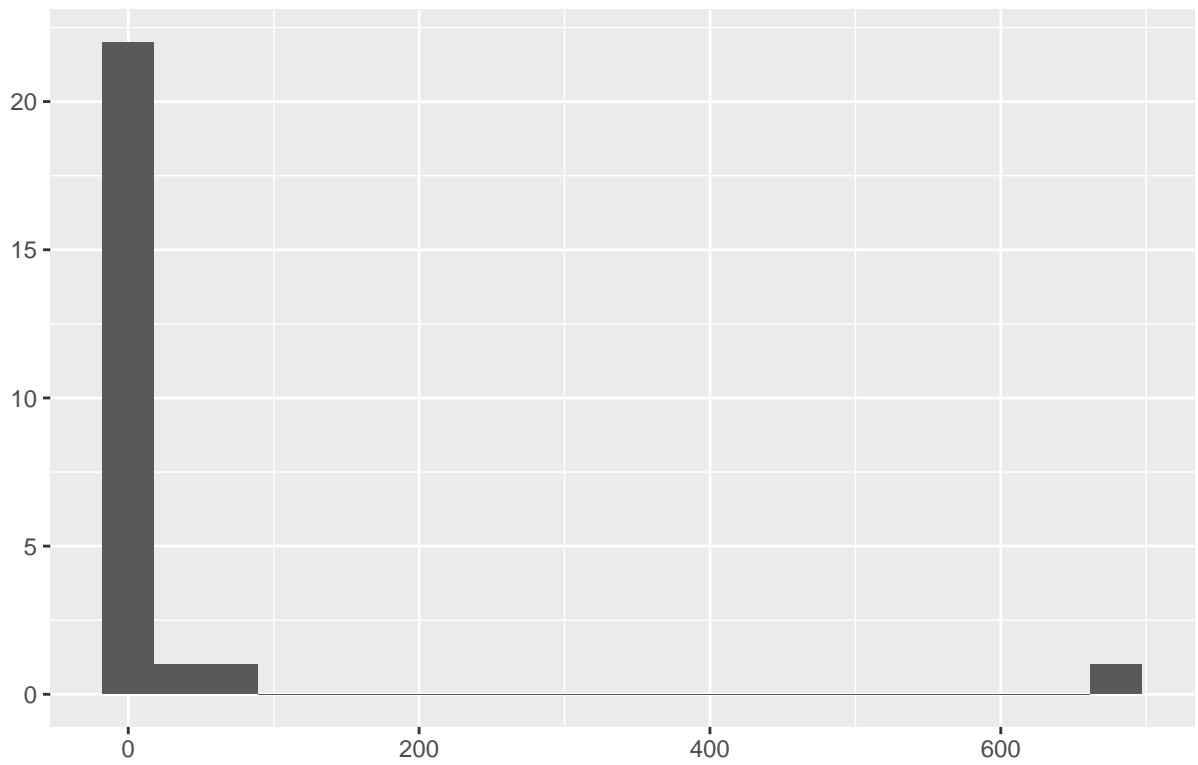


hours spent in fishing or hunting (7days)

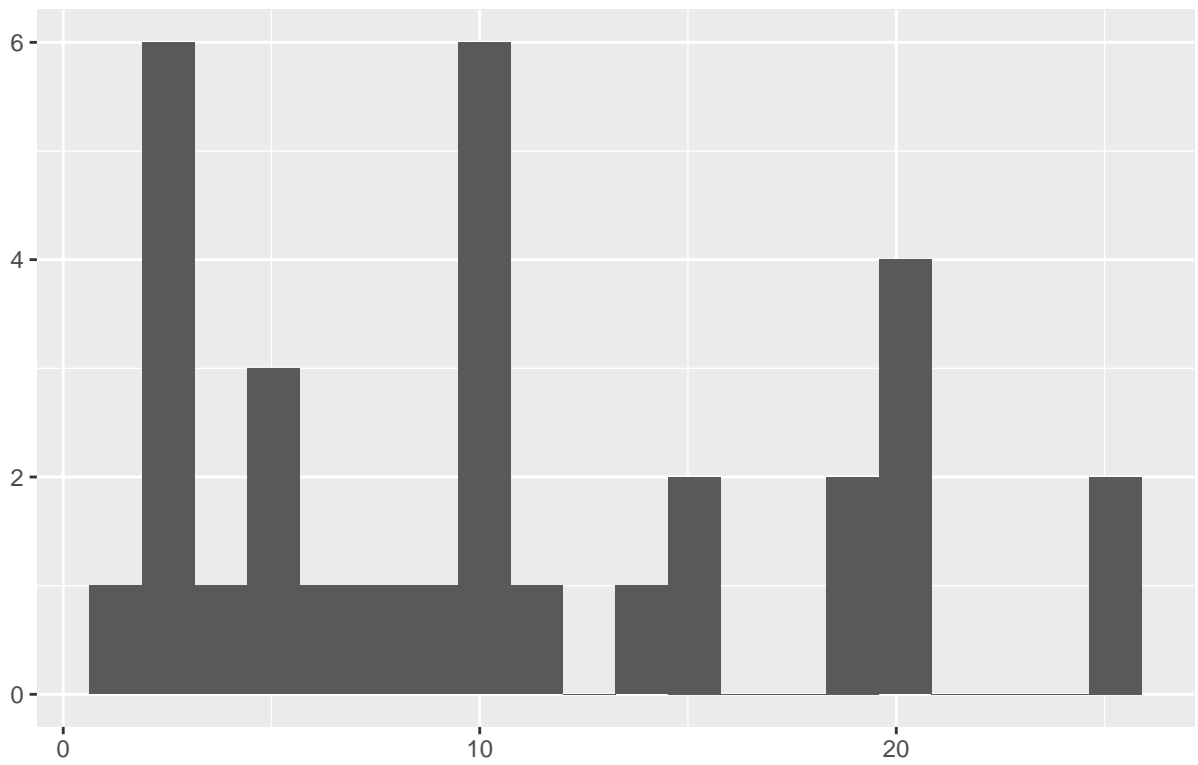




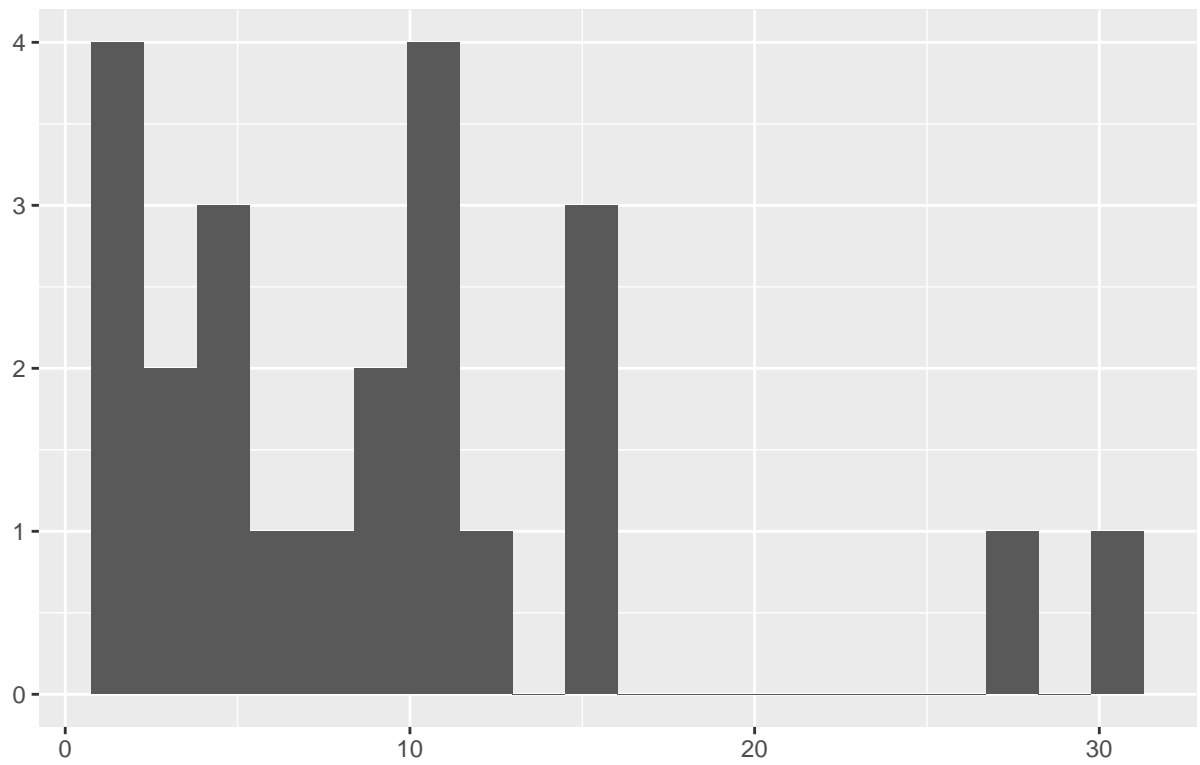
amounts spent for bait (7 days) (zeroes removed; n = 1268)



amounts spent for fishing gear (7 days) (zeroes removed; n = 1261)

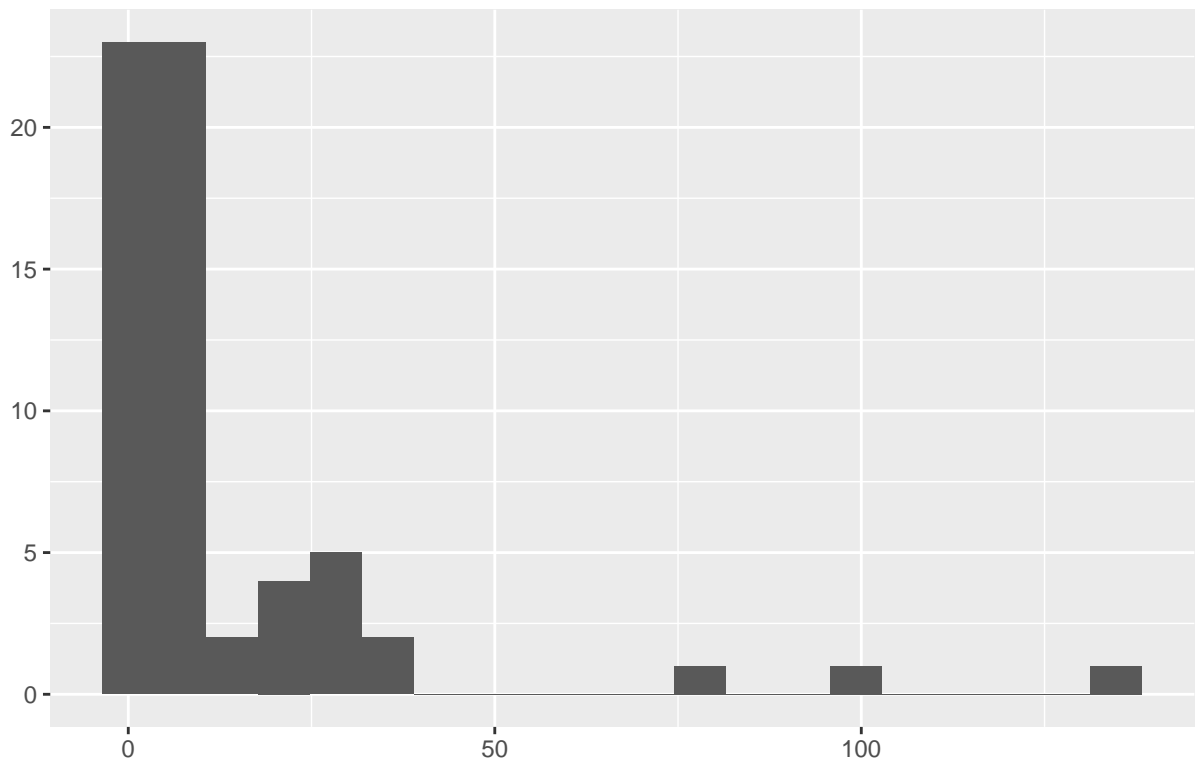


amounts spent for ice (7 days) (zeroes removed; n = 1270)

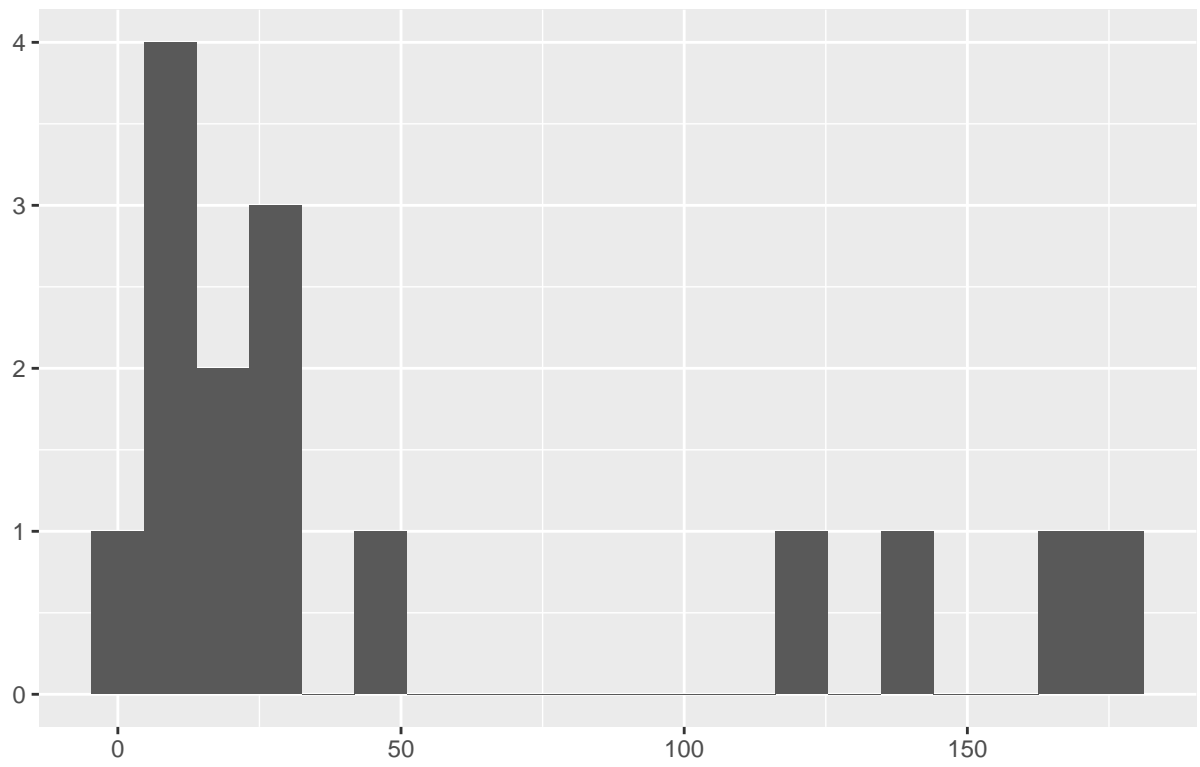




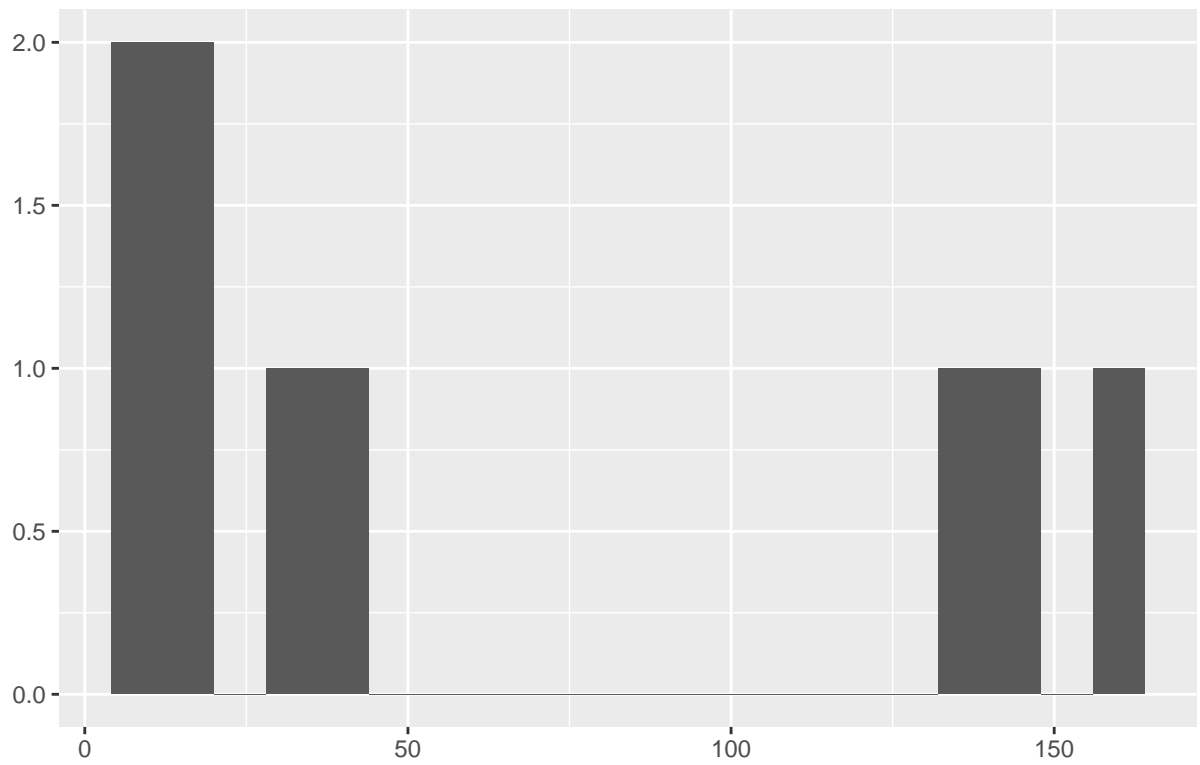
amounts spent for other (7 days) (zeroes removed; n = 1231)



amounts spent for spearguns (1 year) (zeroes removed; n = 1278)

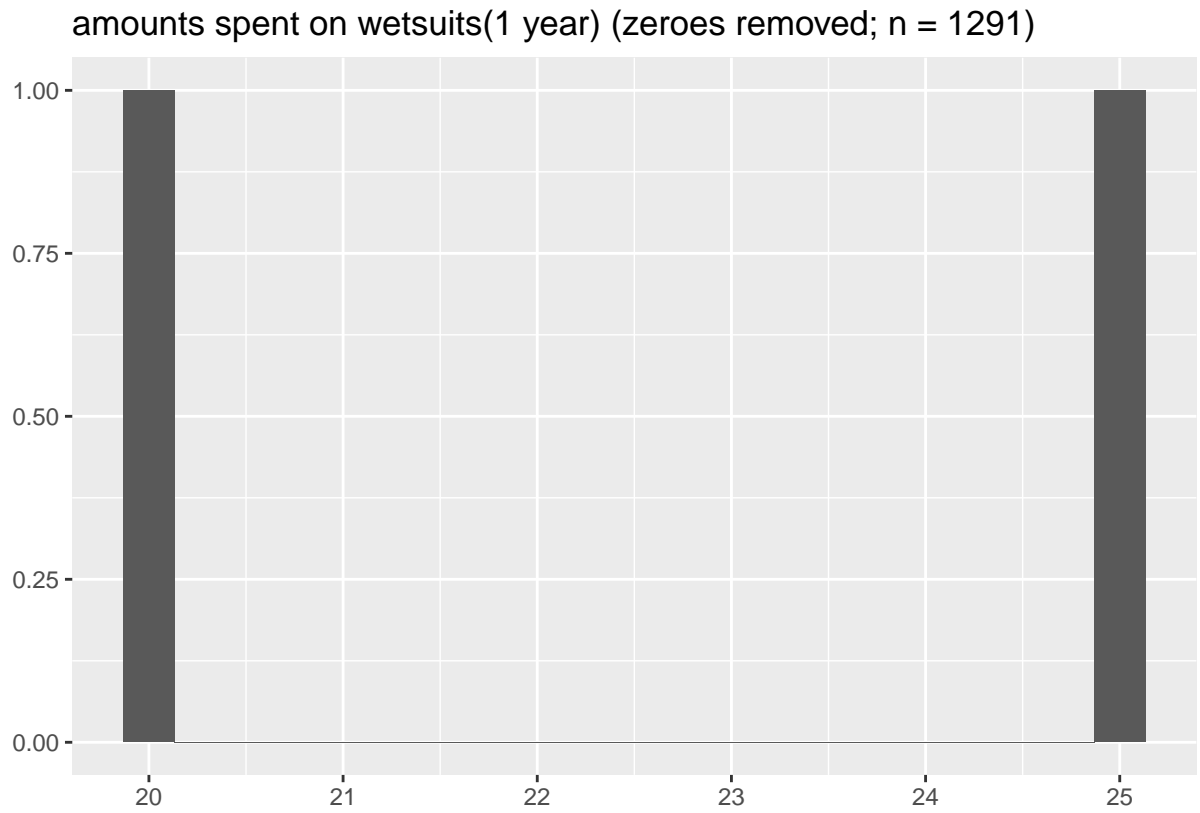


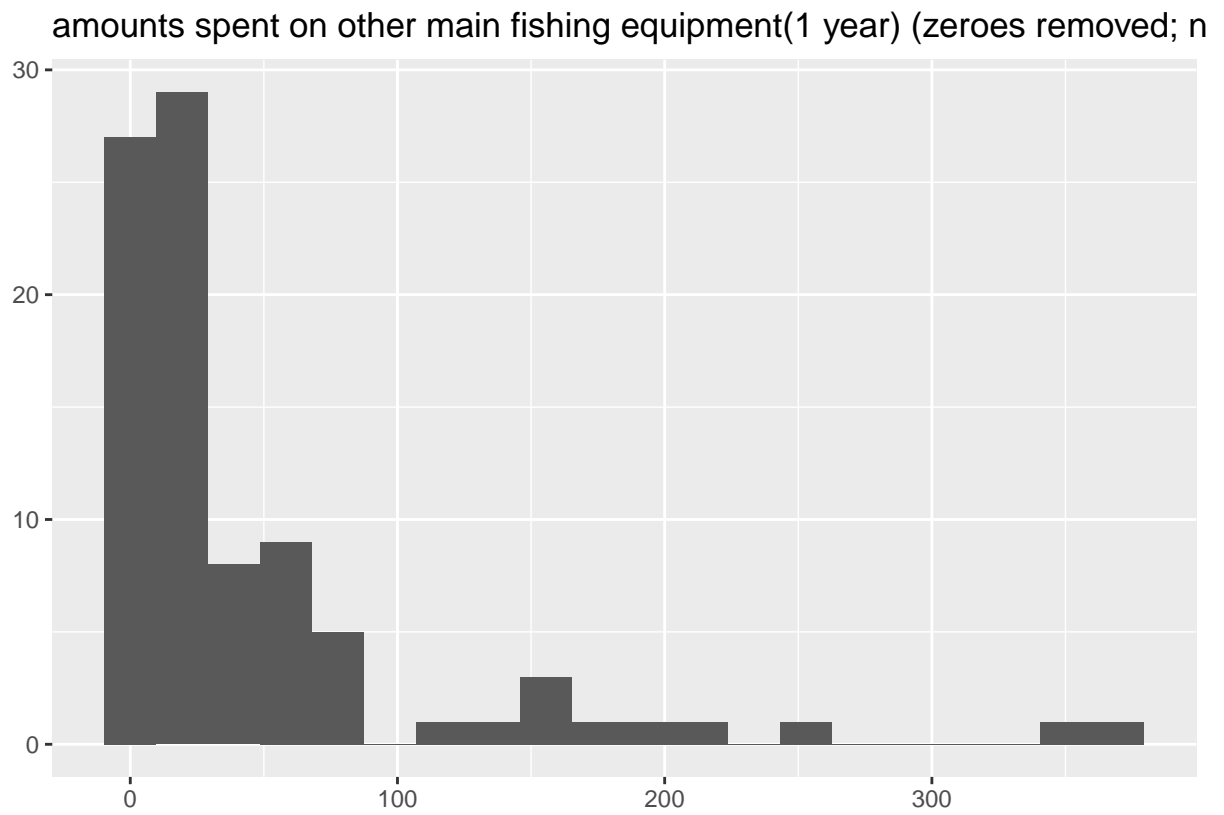
amounts spent on fishing rods(1 year) (zeroes removed; n = 1284)

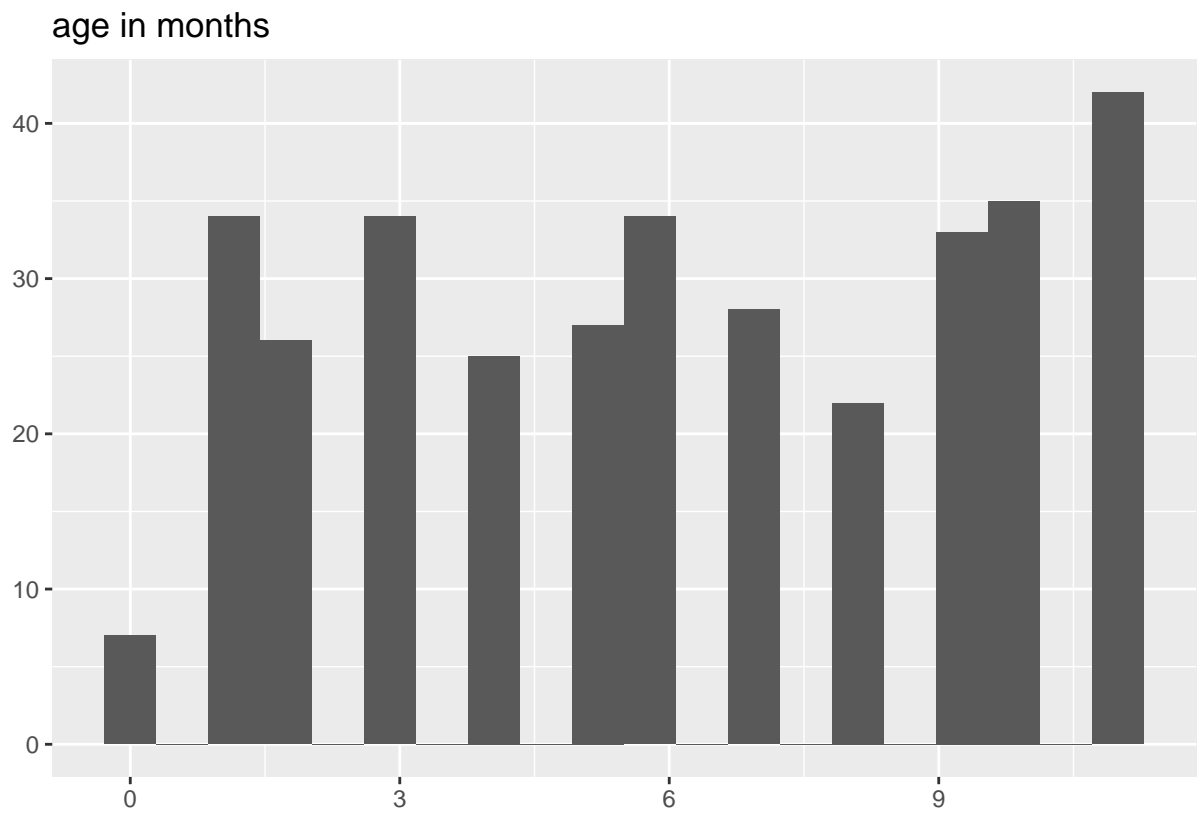








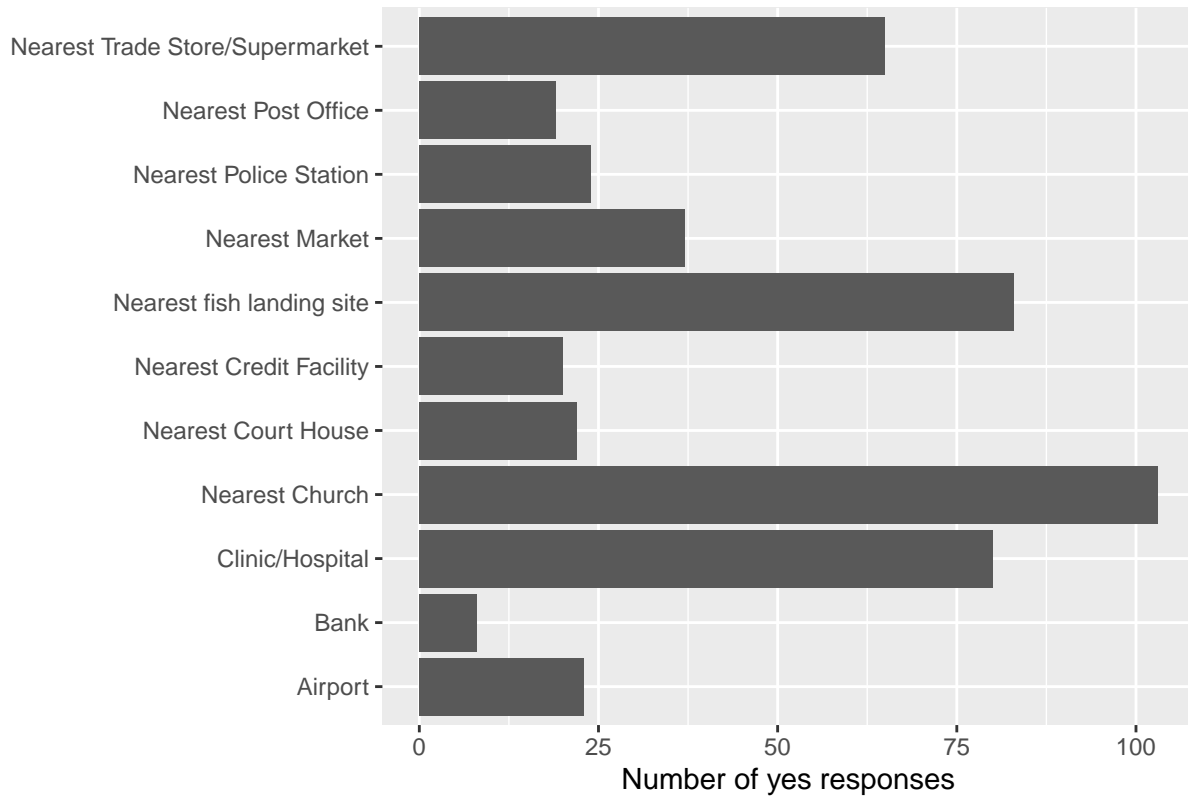




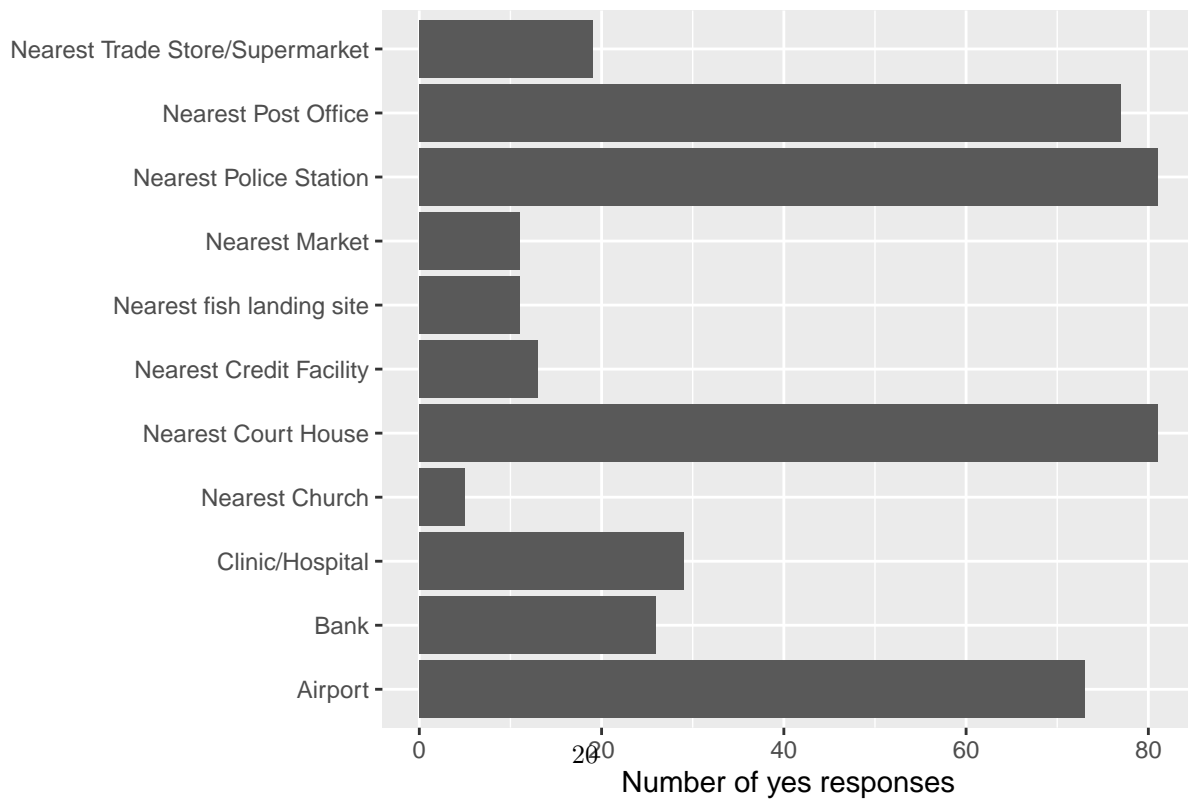
## VRS Data

### *Multi-response questions*

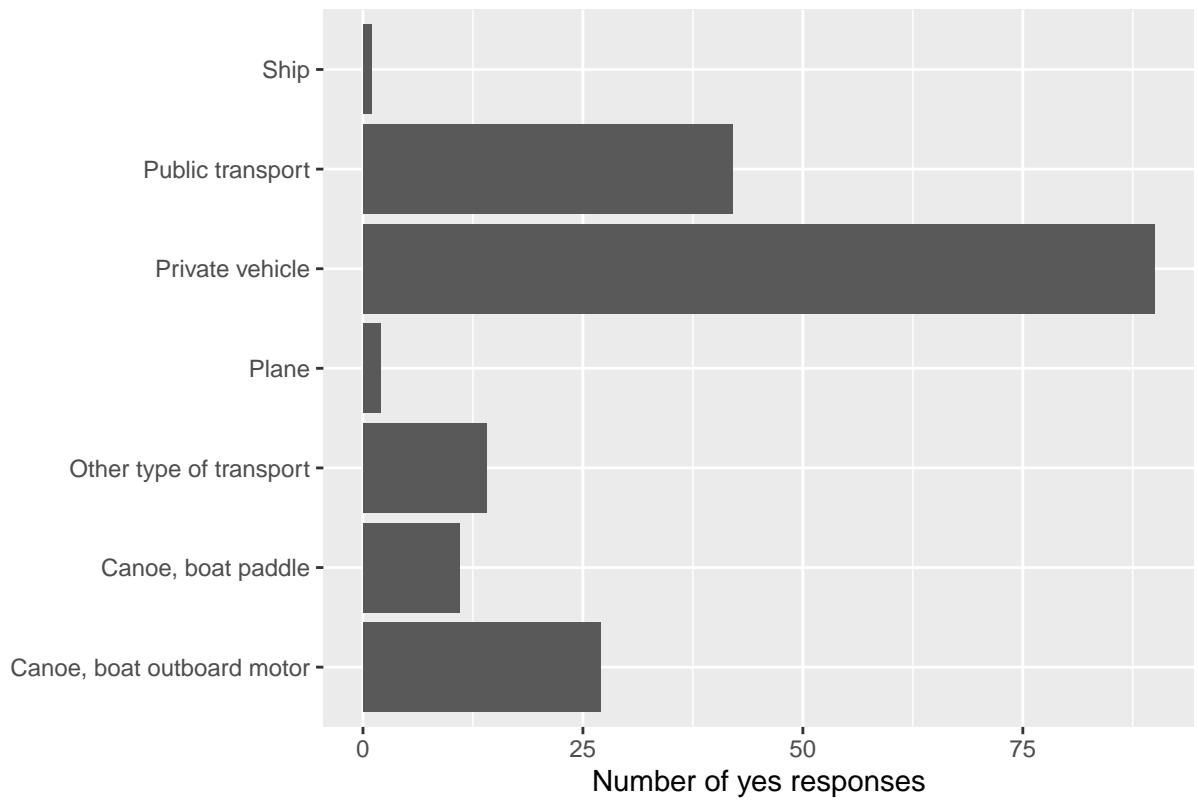
#### Entity within the village boundary



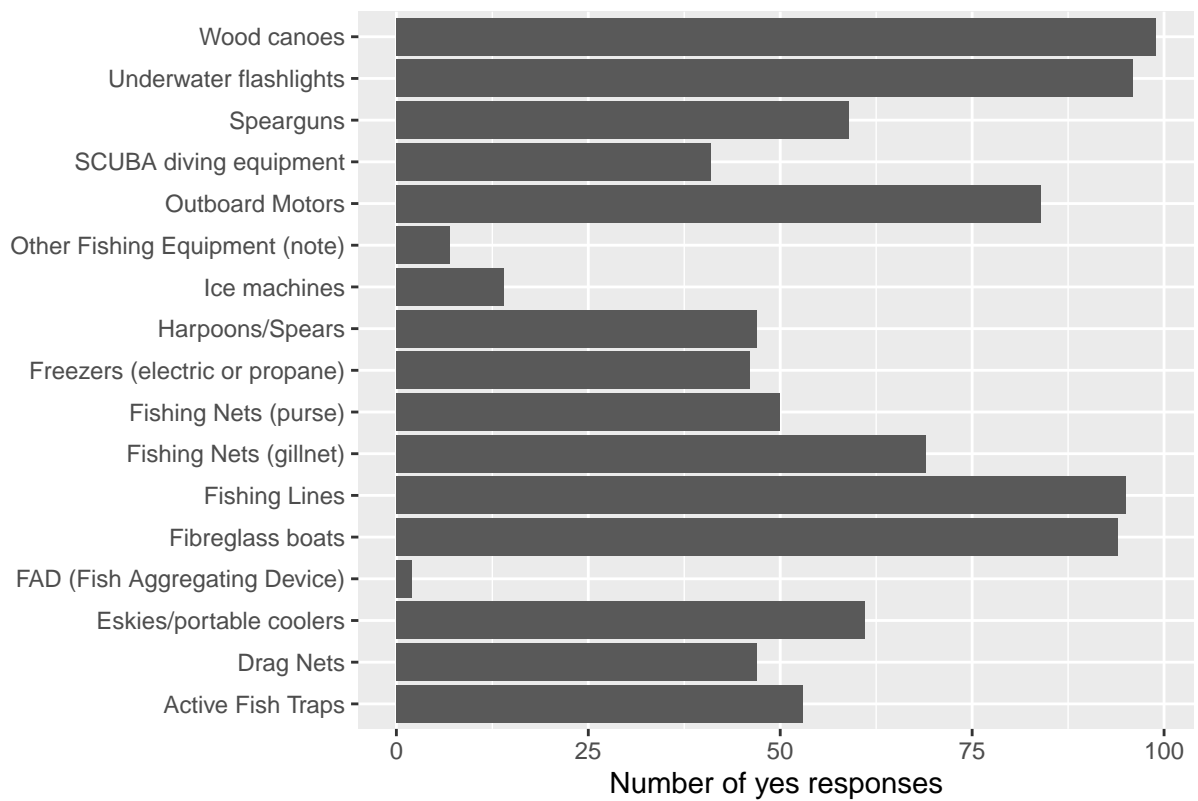
#### Entity outside the village boundary

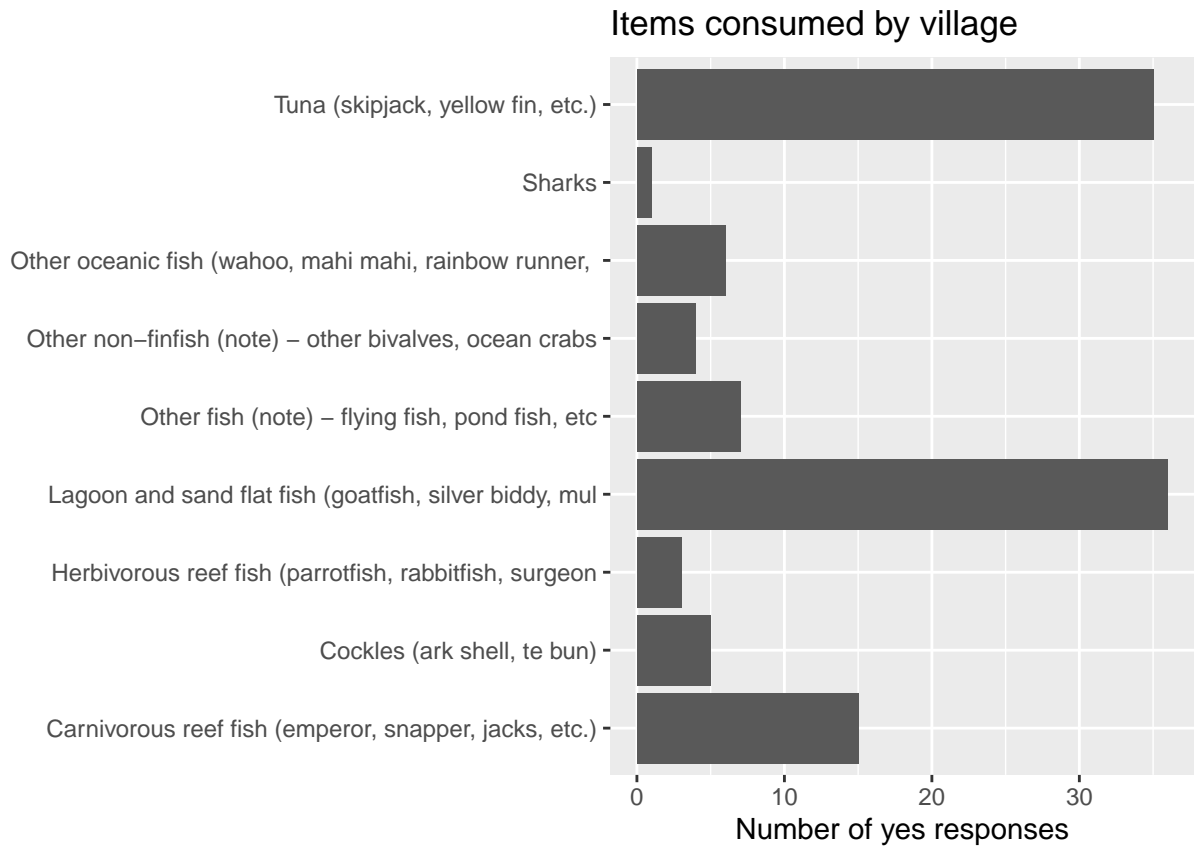


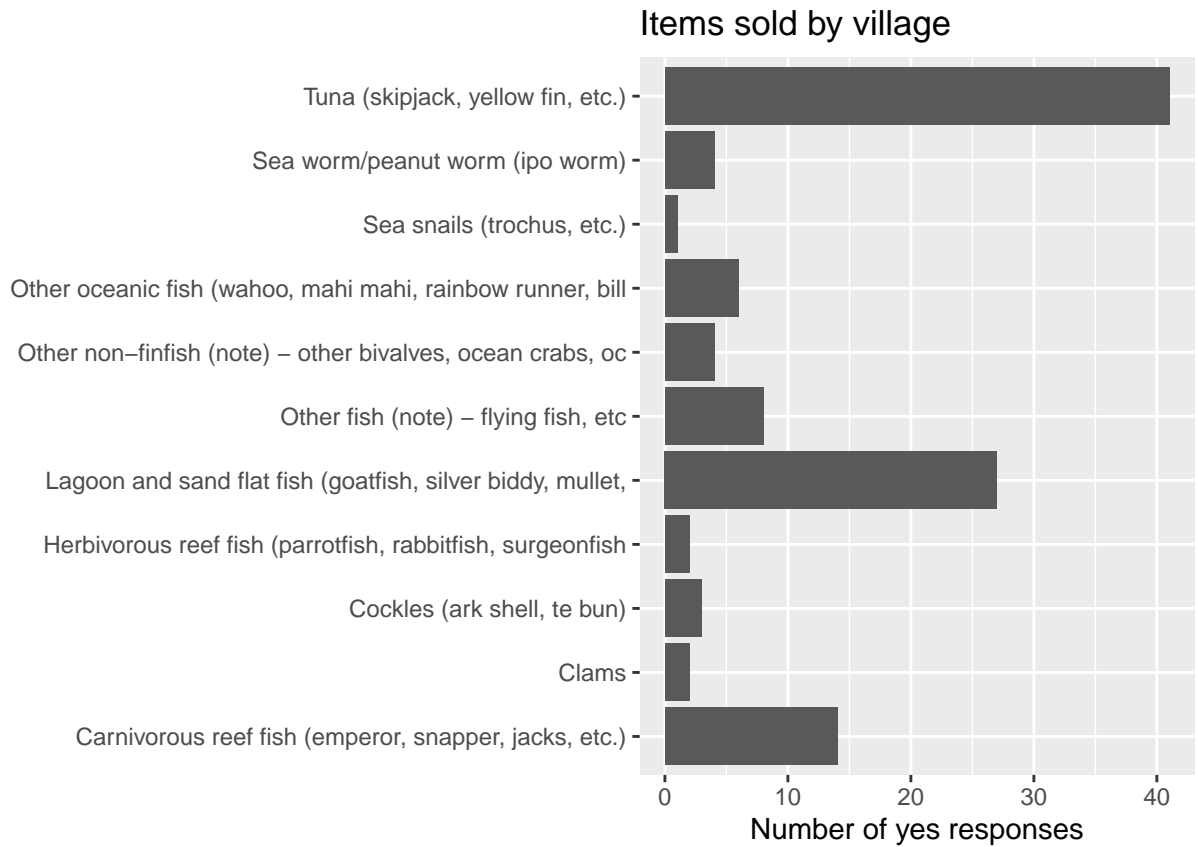
### Transport regularly available



## List of fishing assets

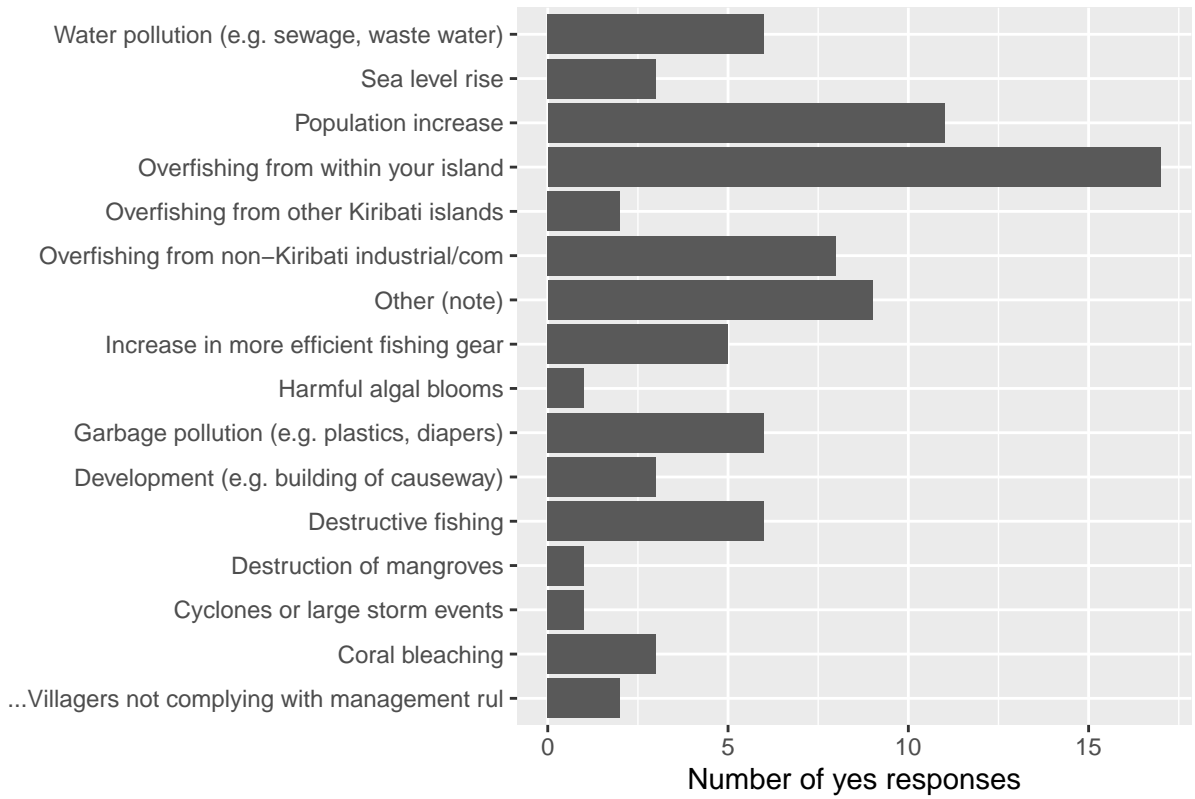


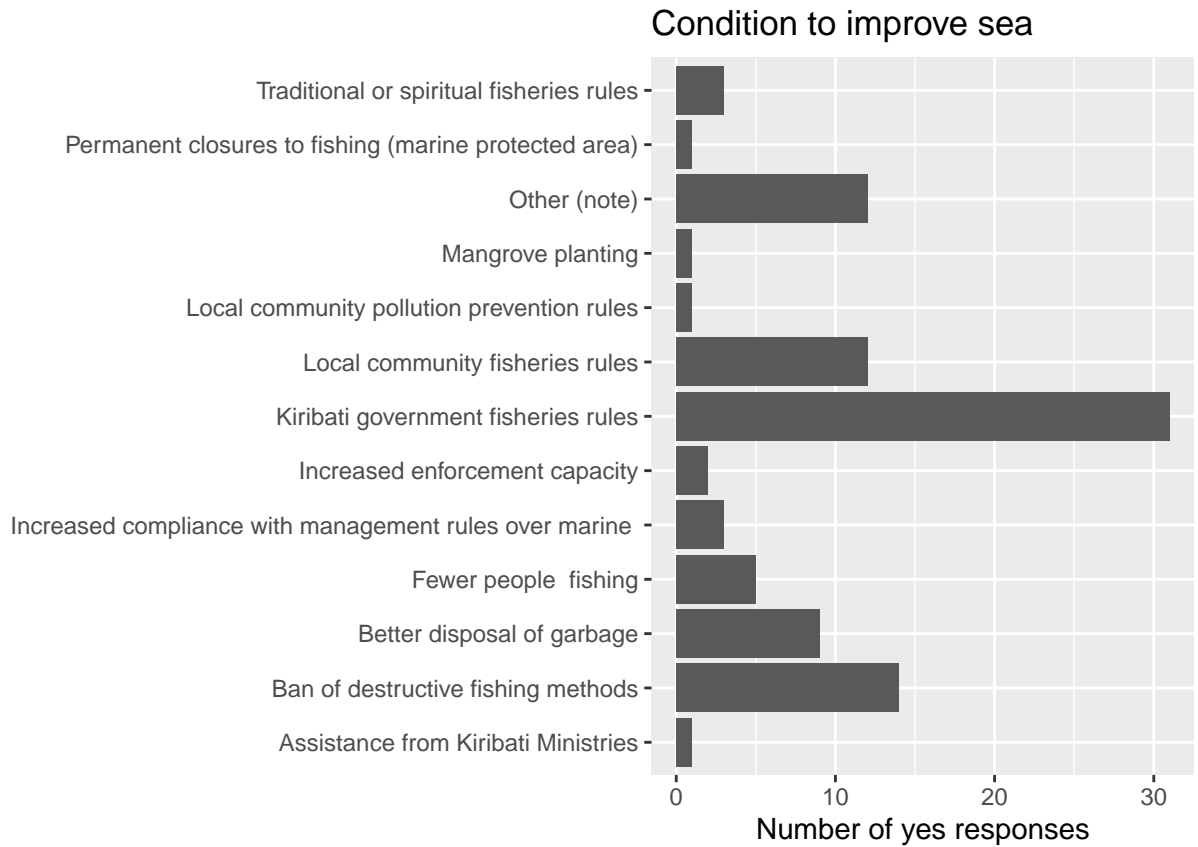


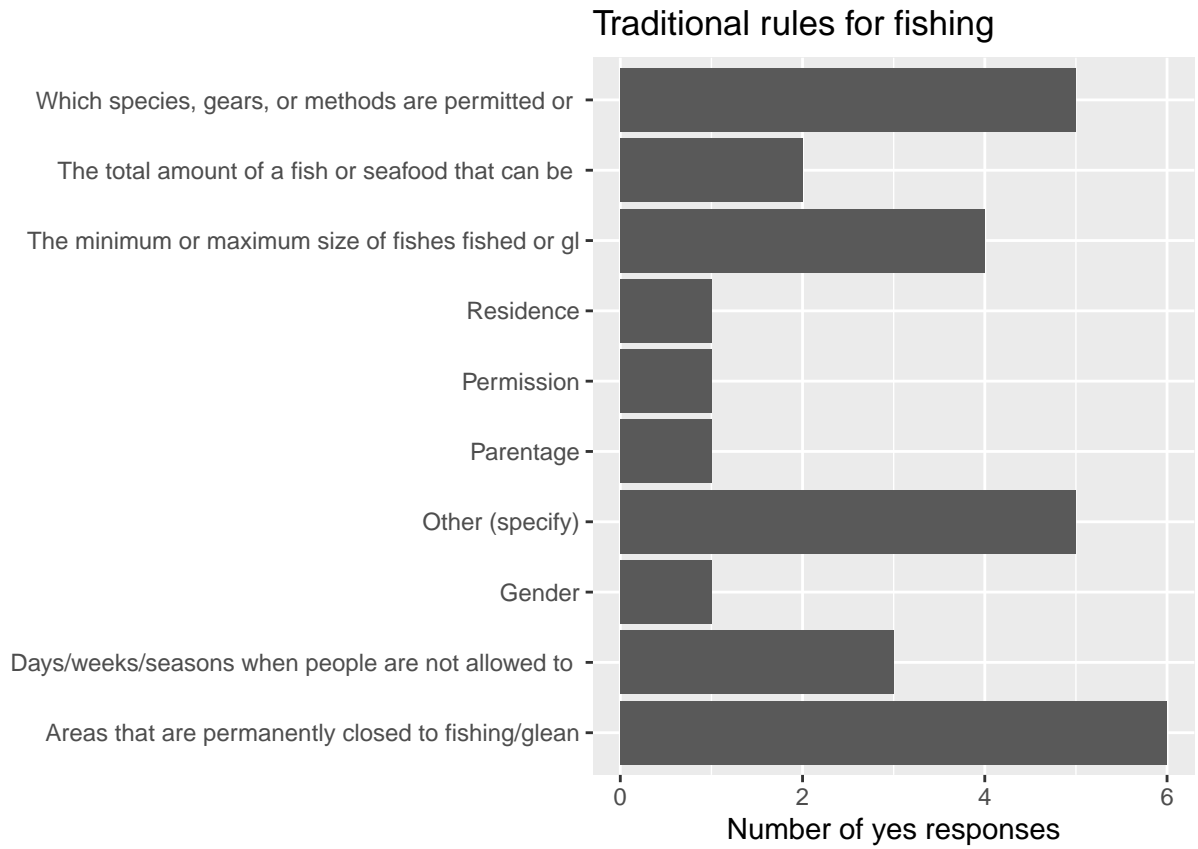




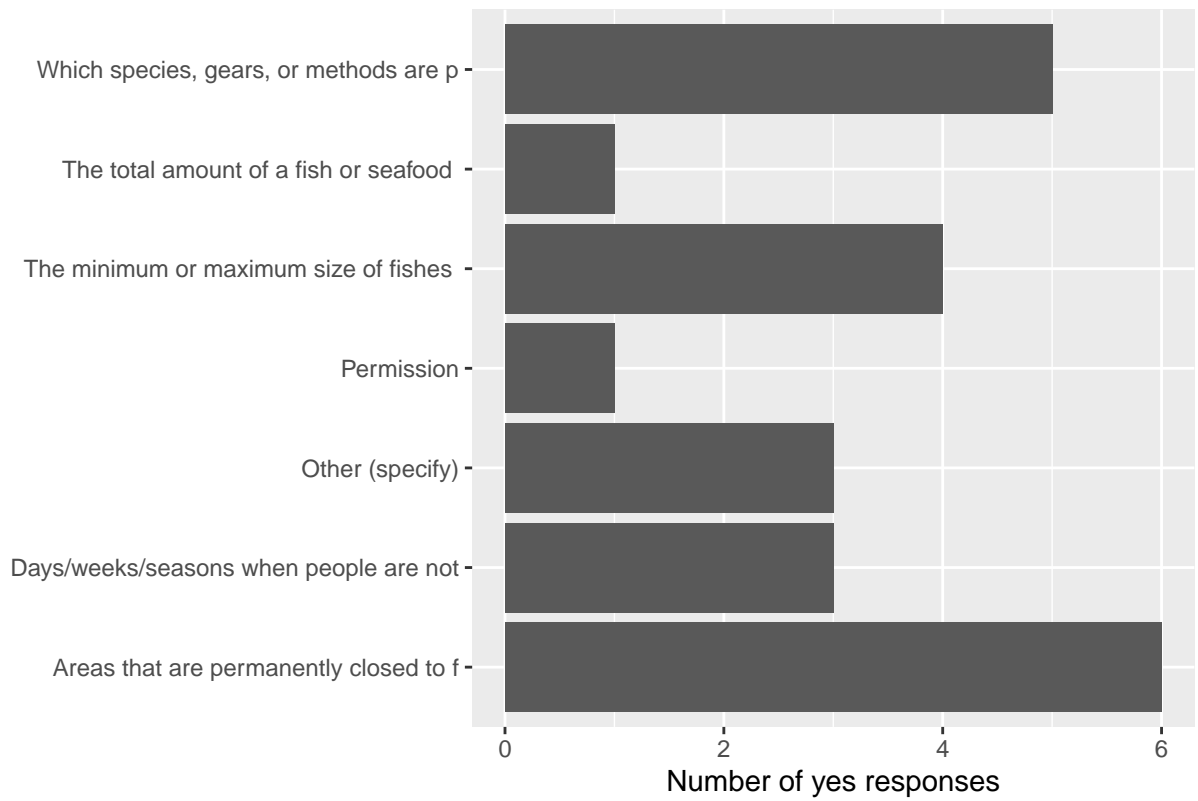
## Reason for decline in sea condition



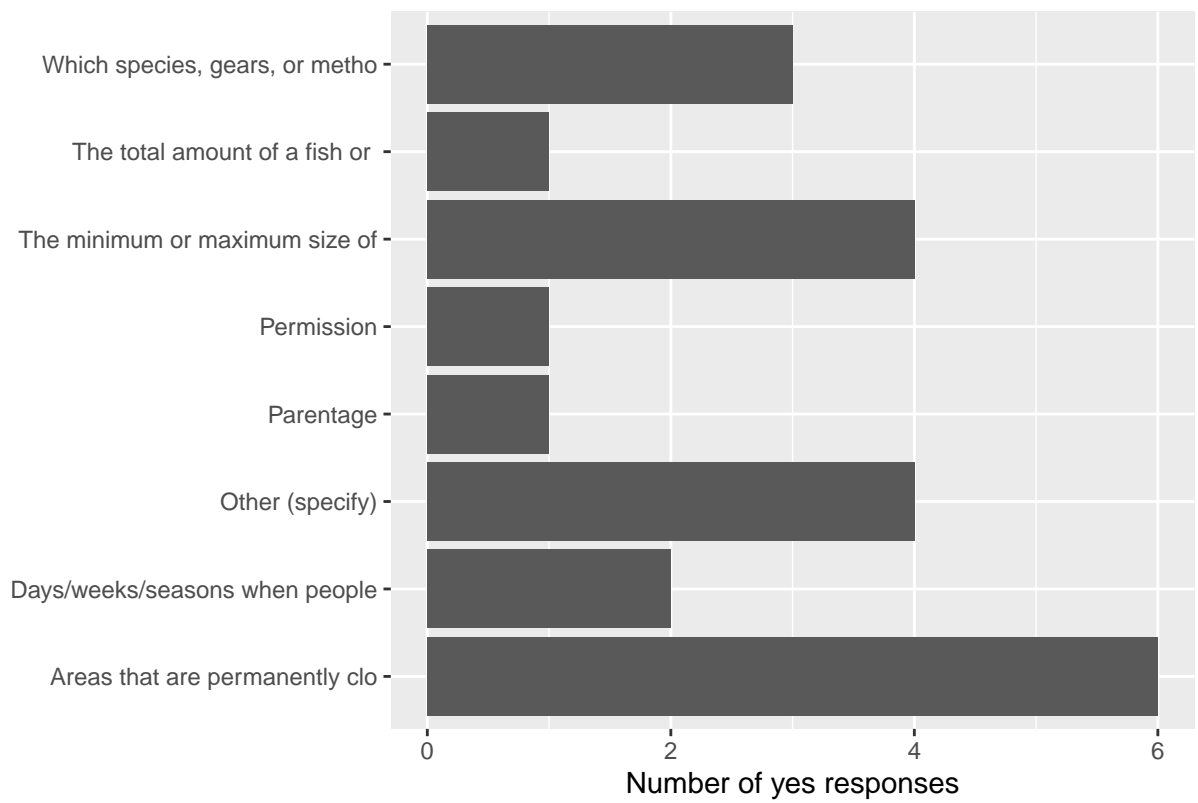


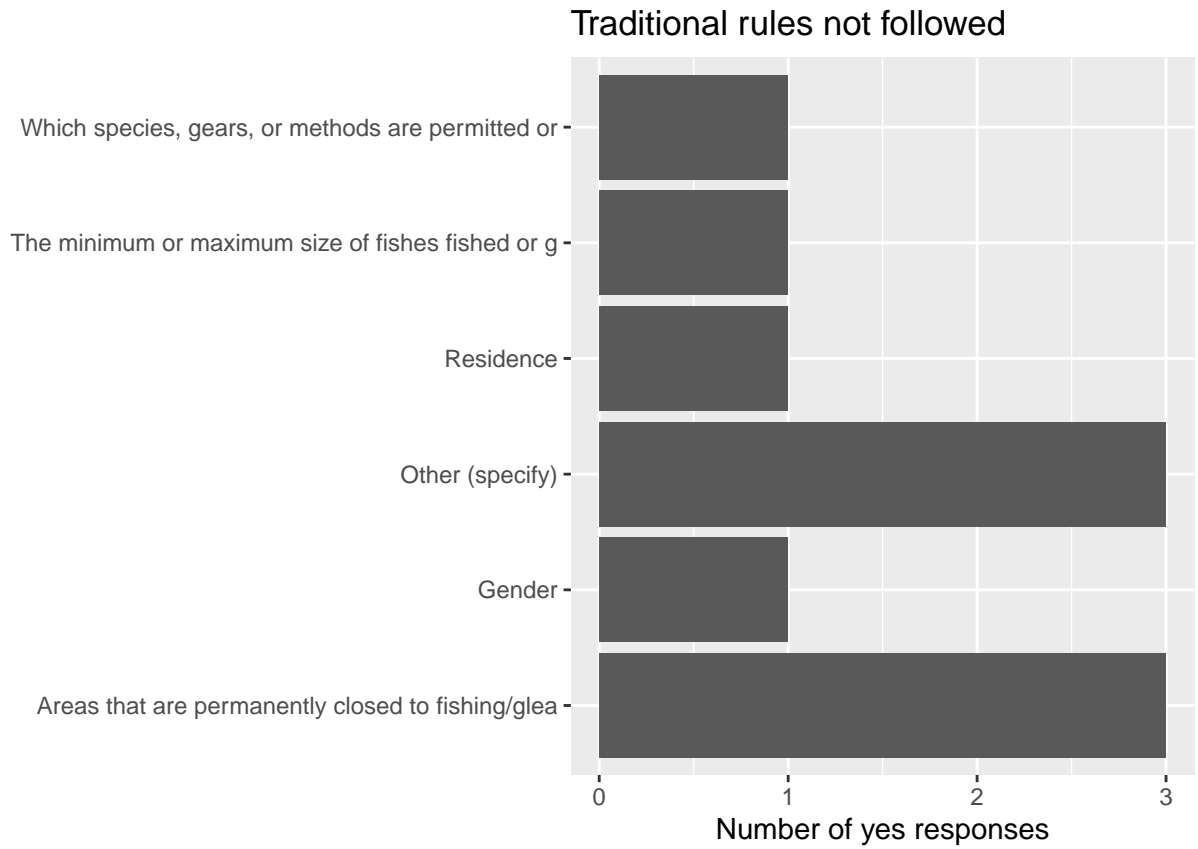


### Important traditional rule to access fish

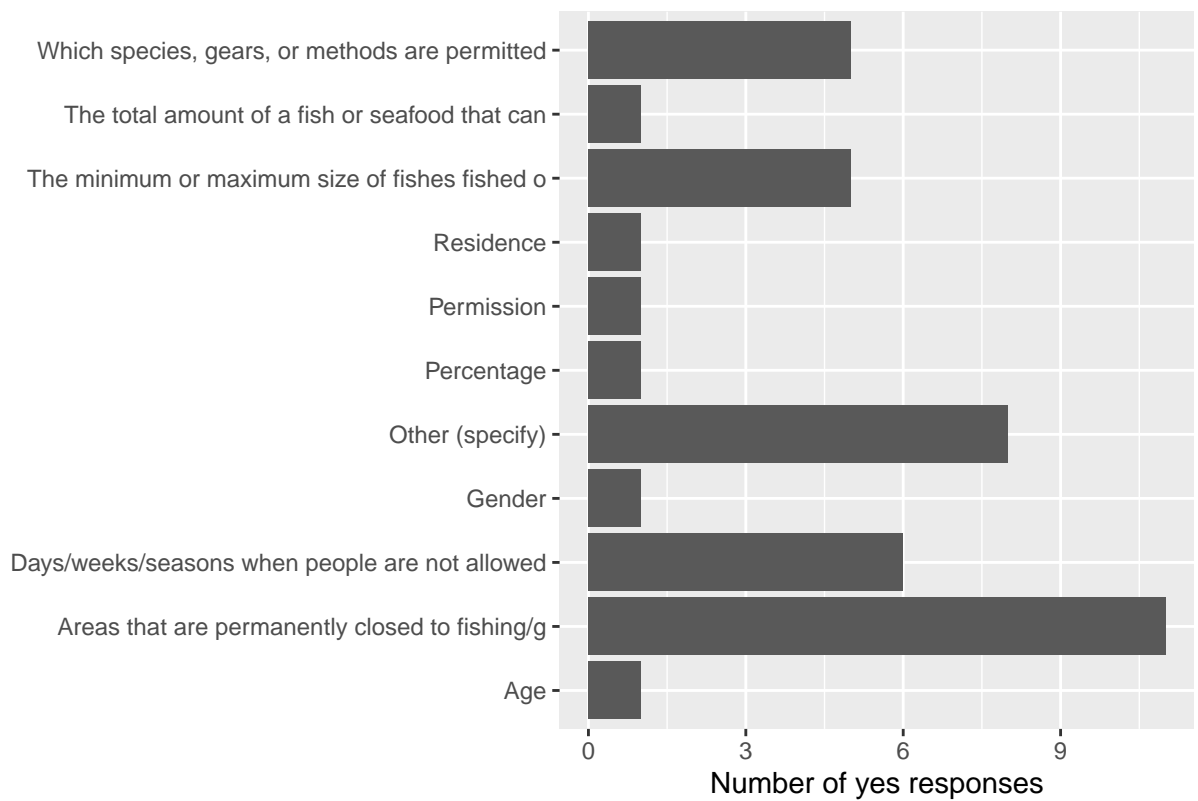


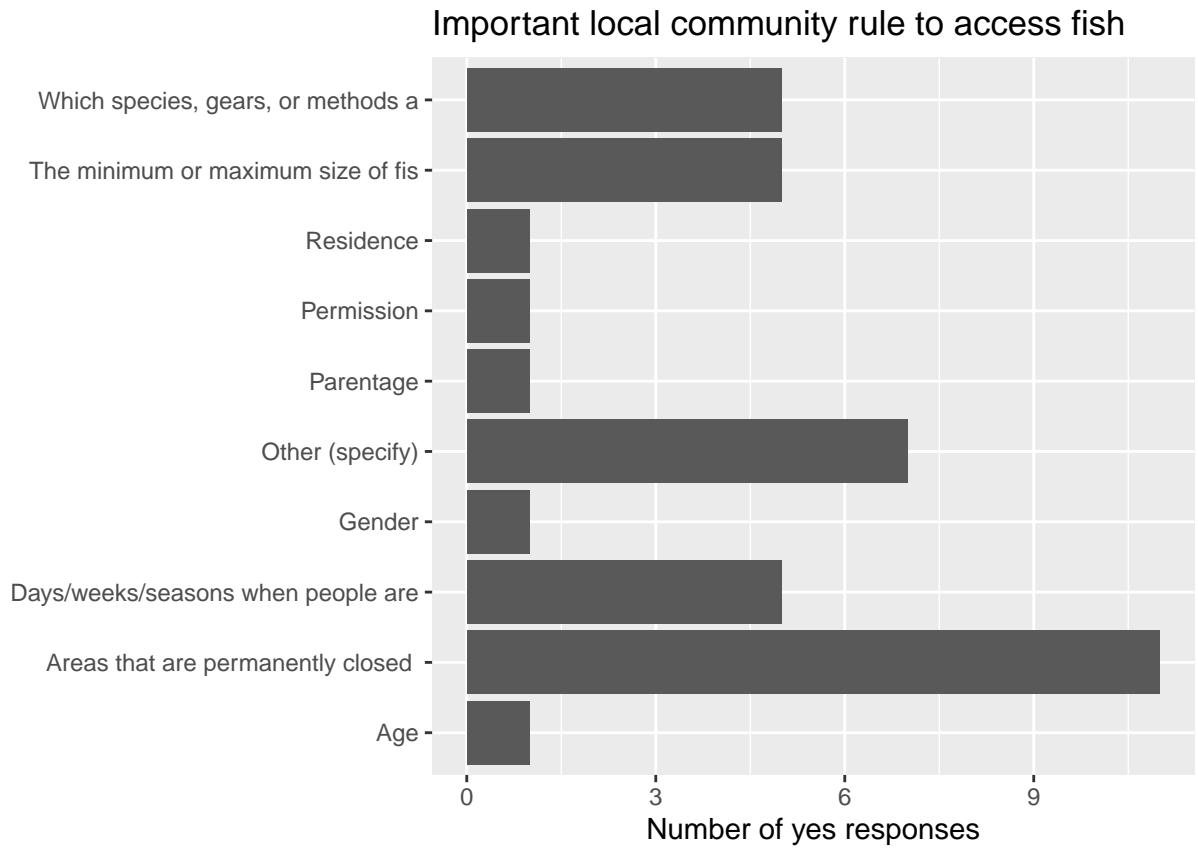
### Important traditional rule to maintain fish stock





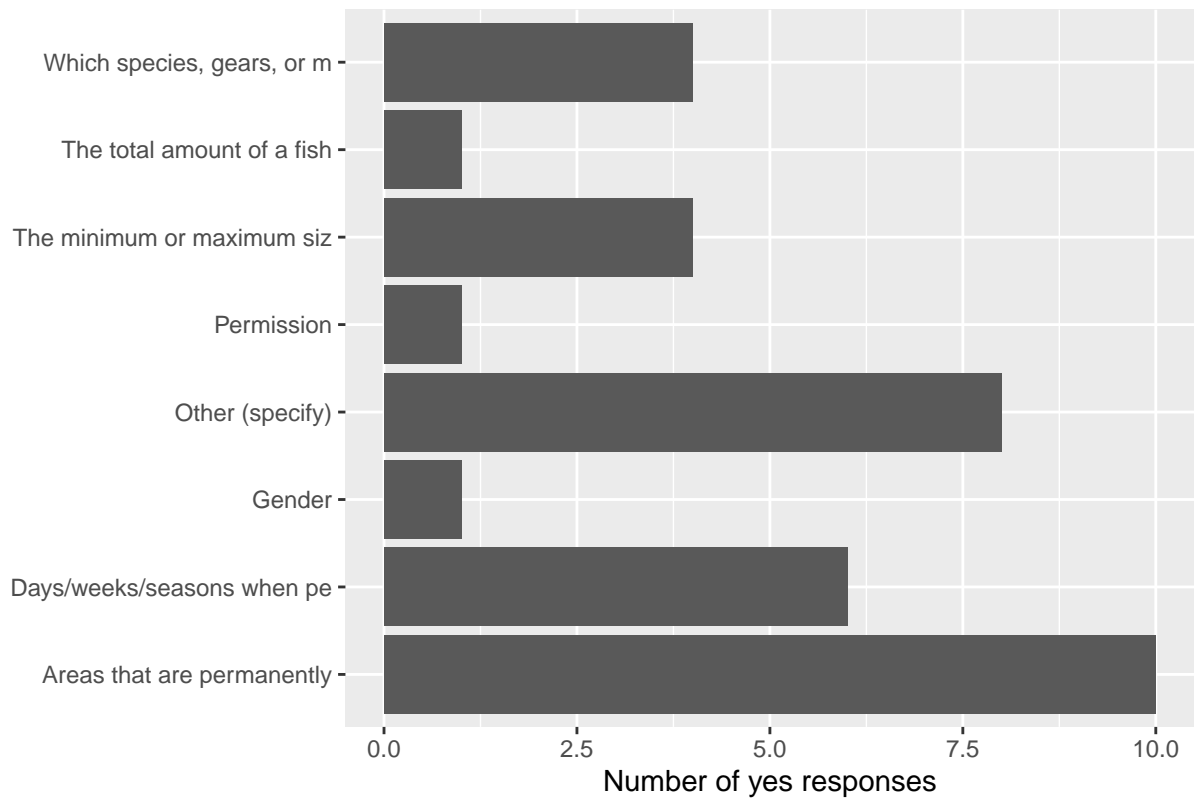
### Local community rules for fishing

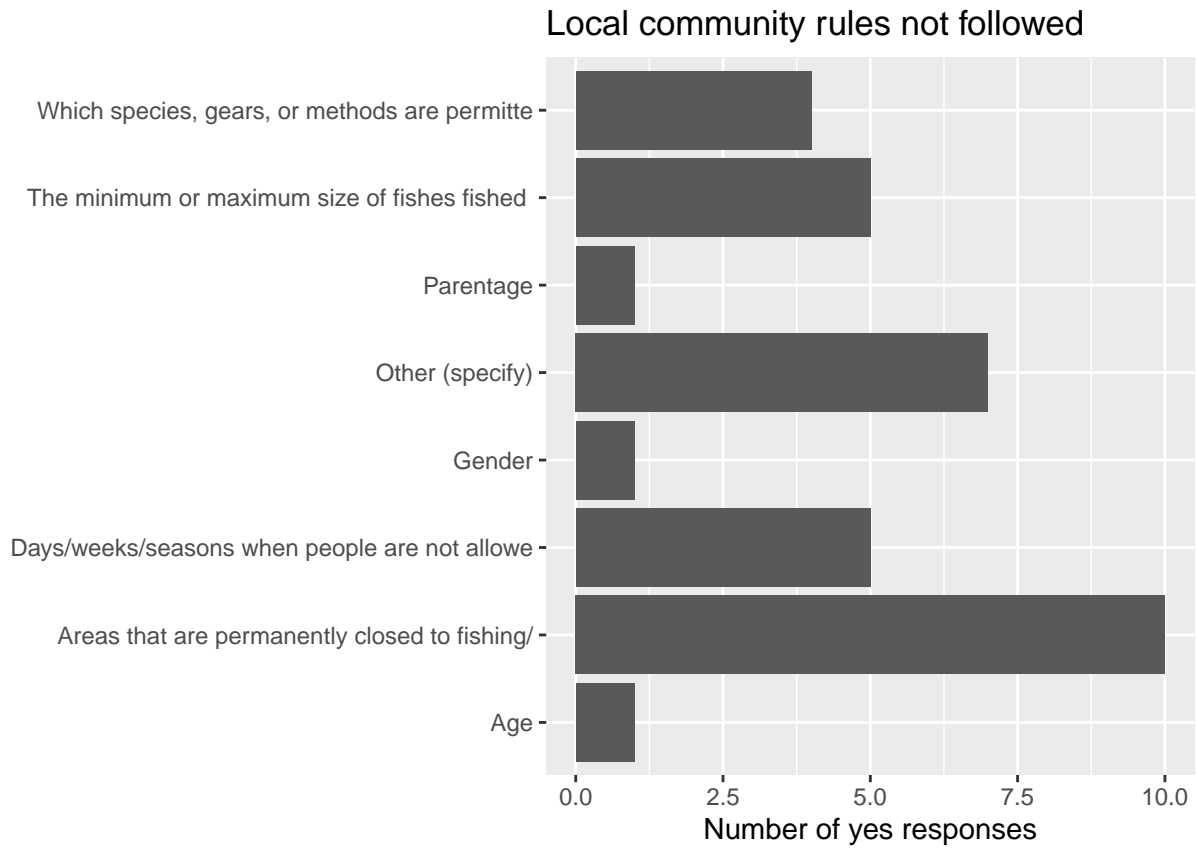


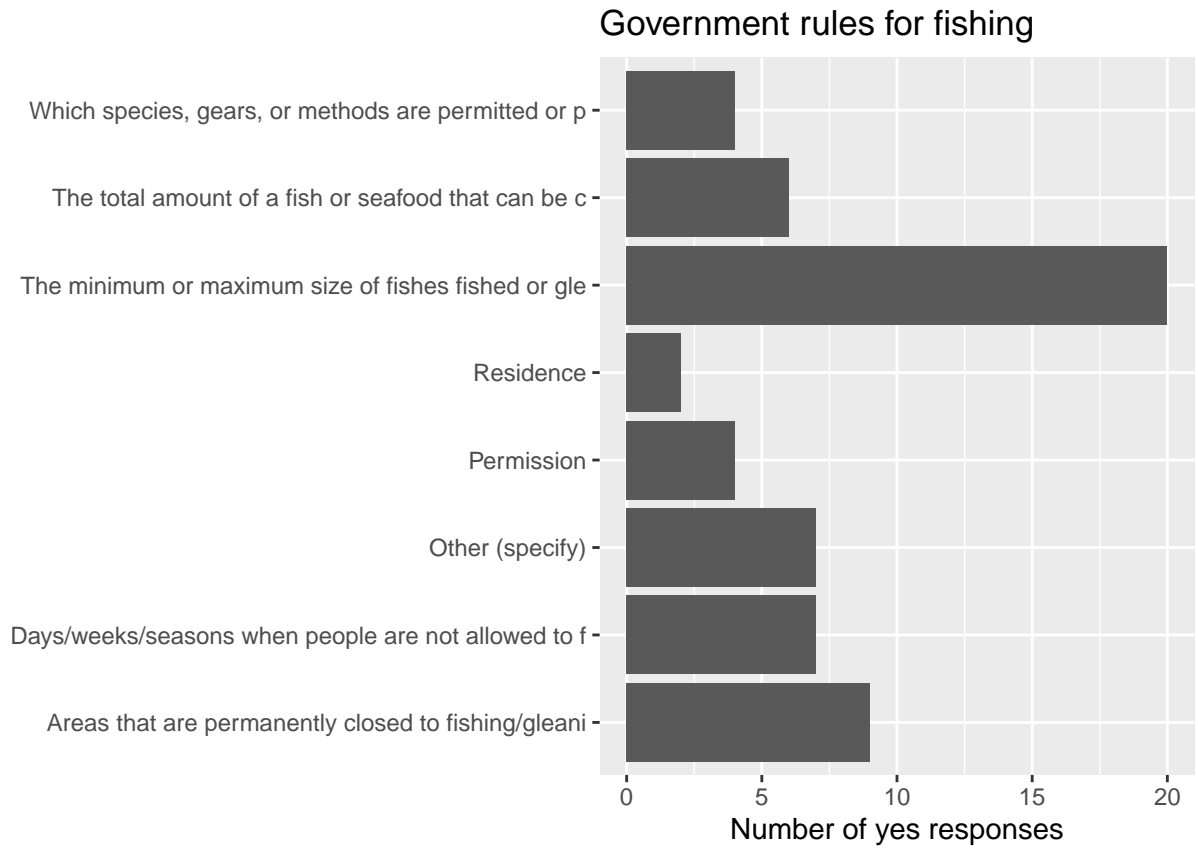


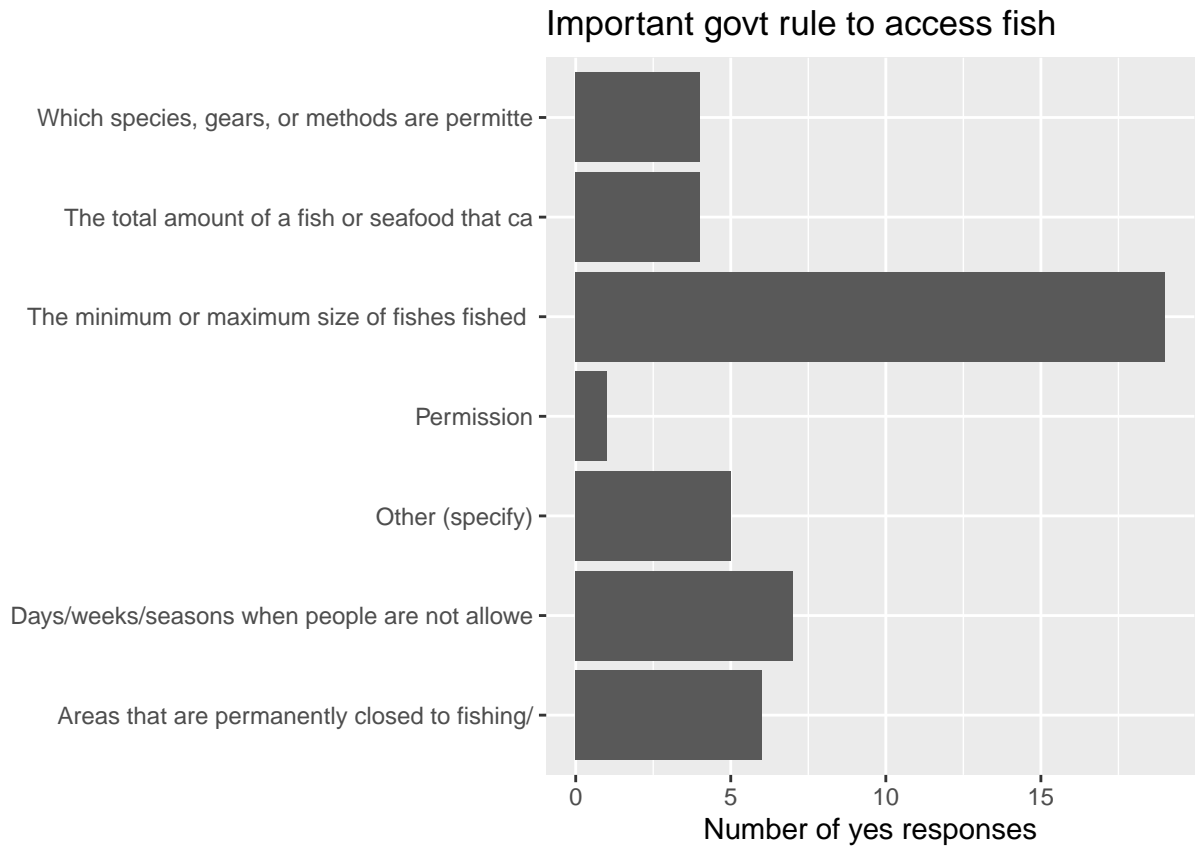


### Important local community rule to maintain fish stock

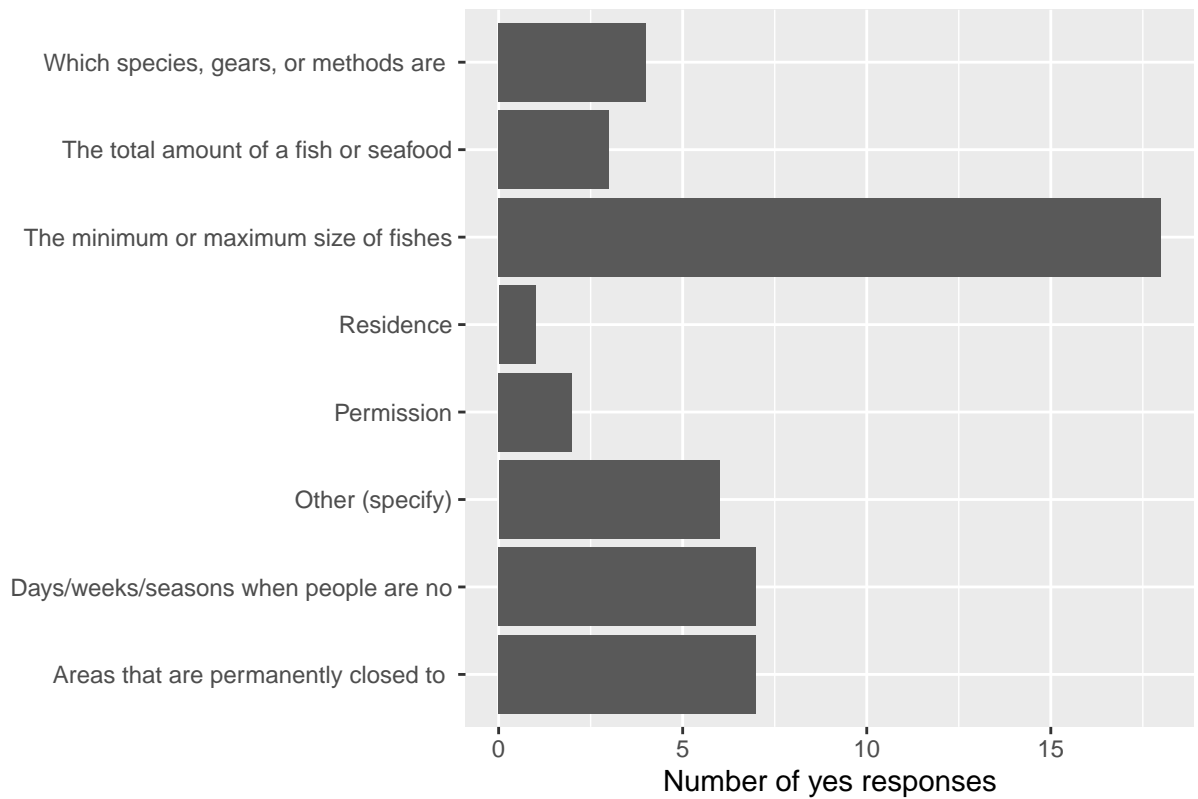




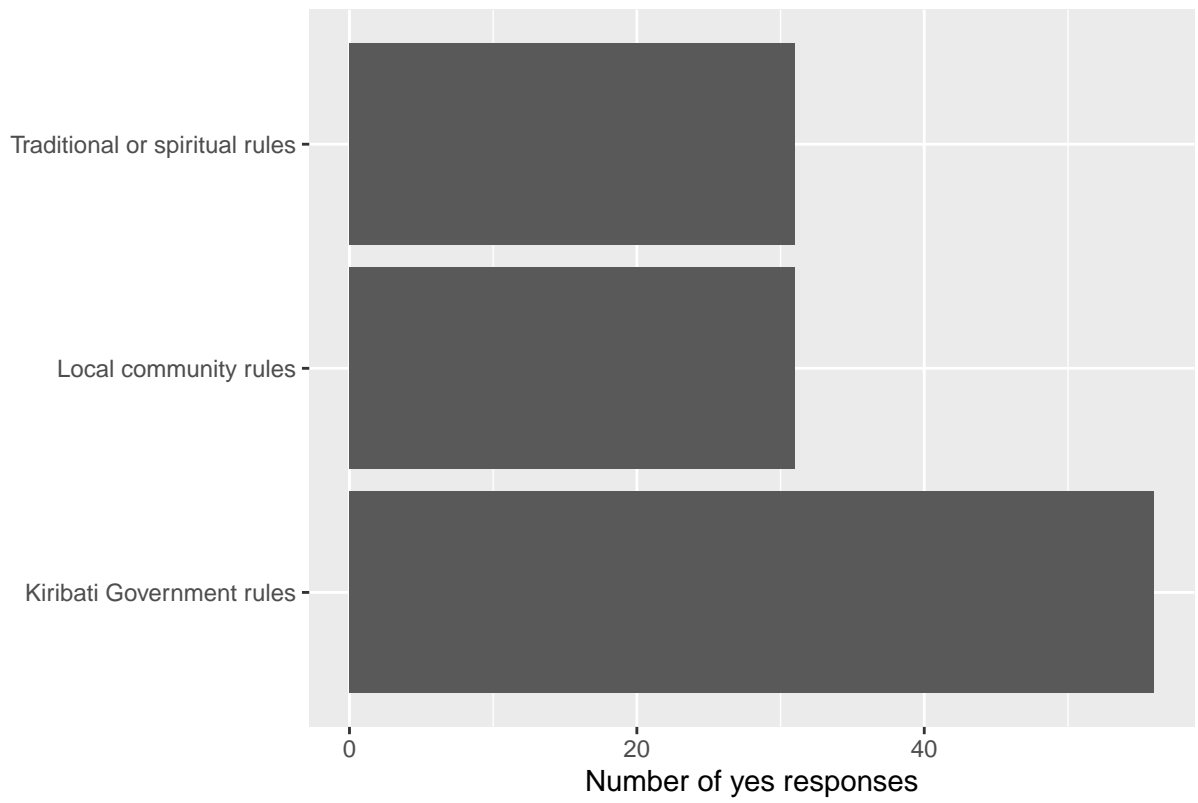




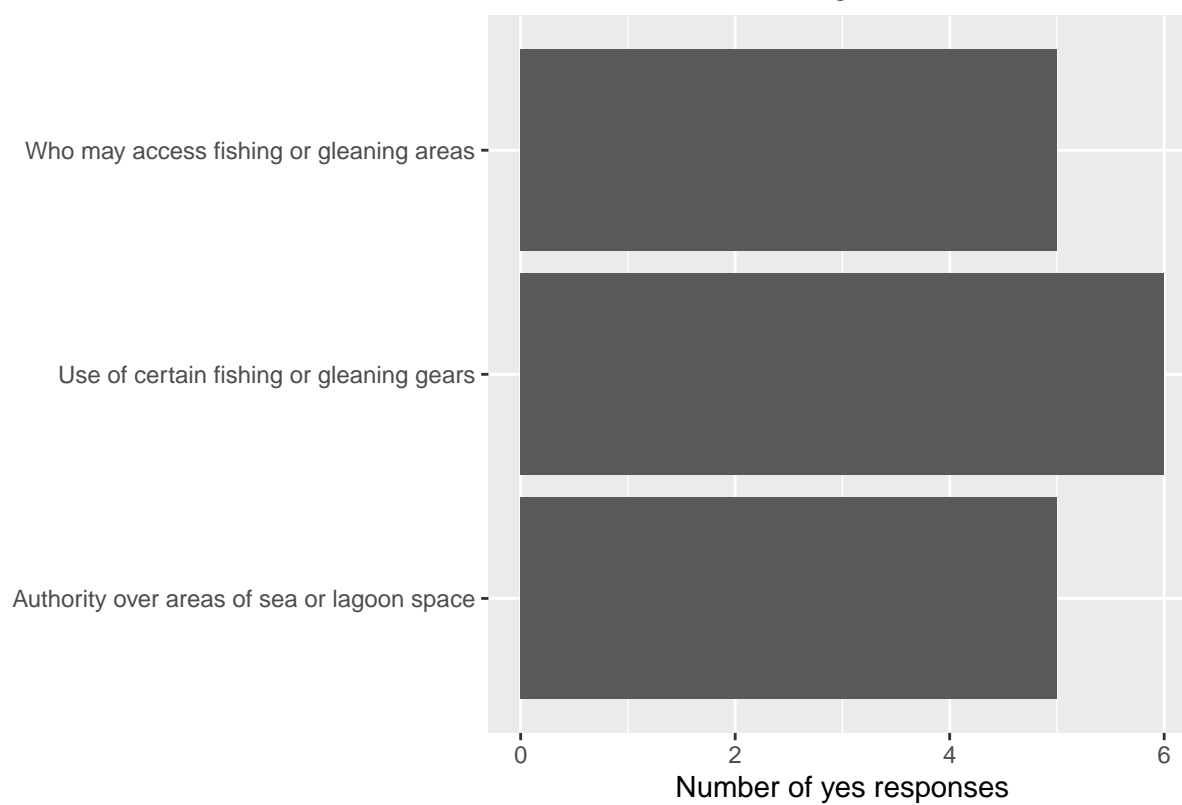
### Important govt rule to maintain fish stock

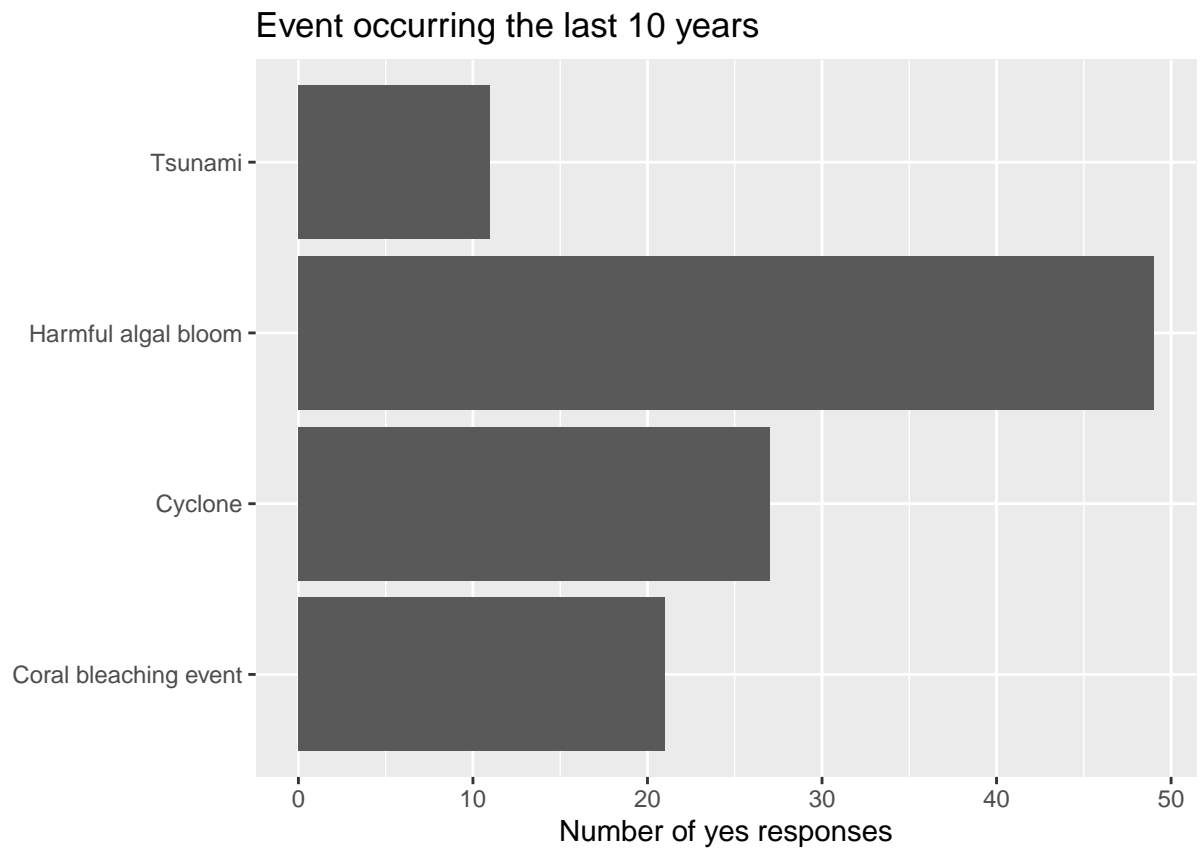


### Penalties for not adhering to rules

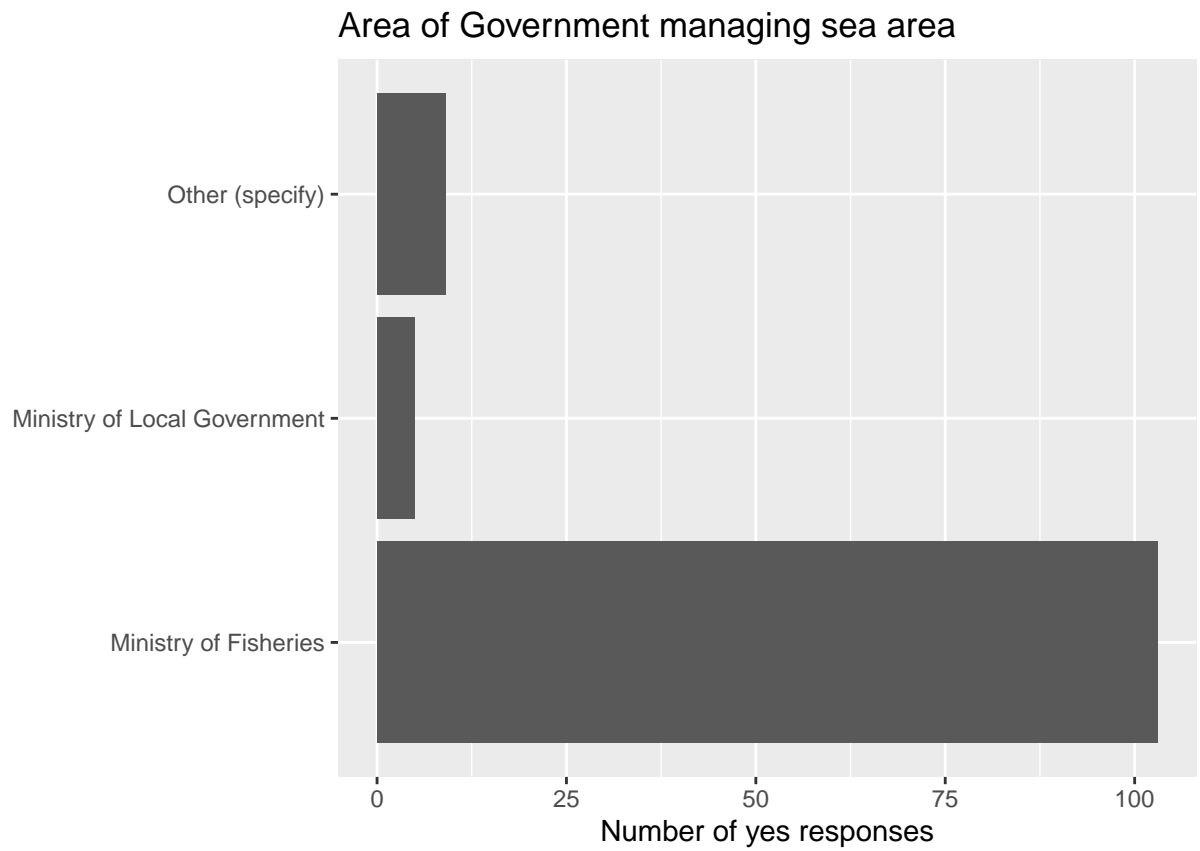


### Conflicts between villages

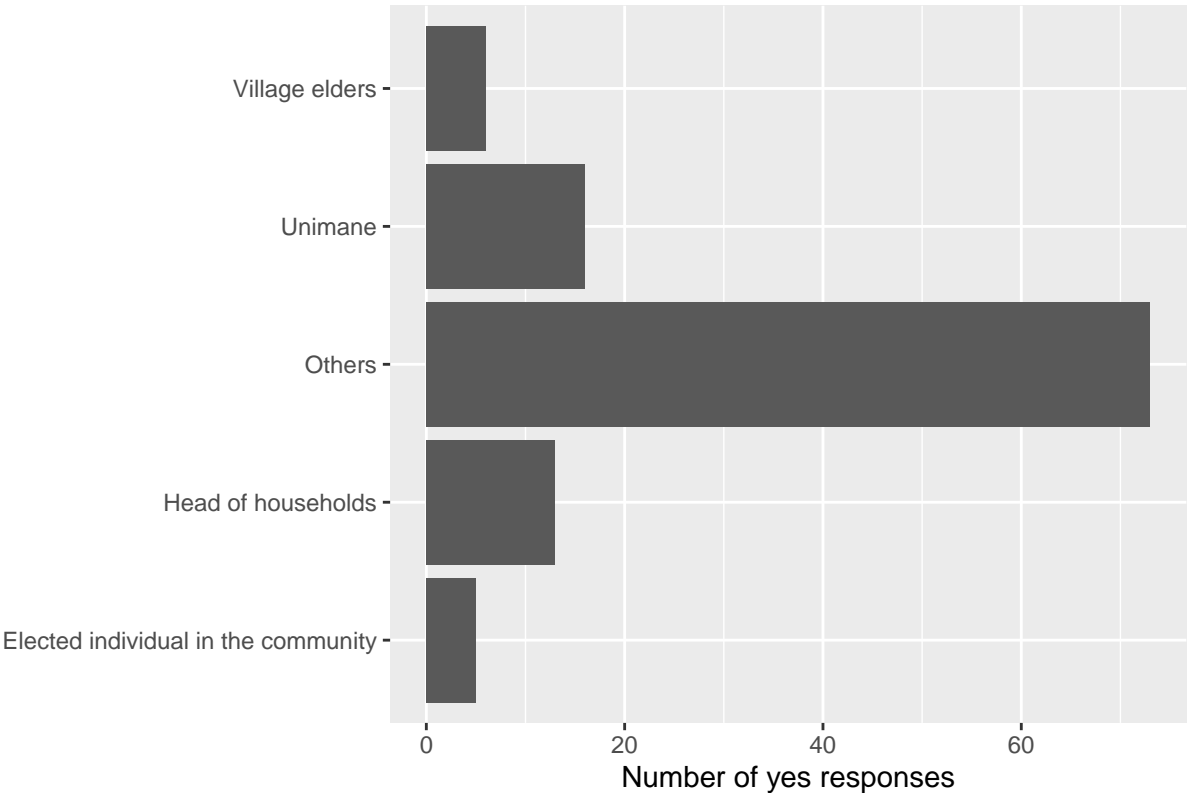


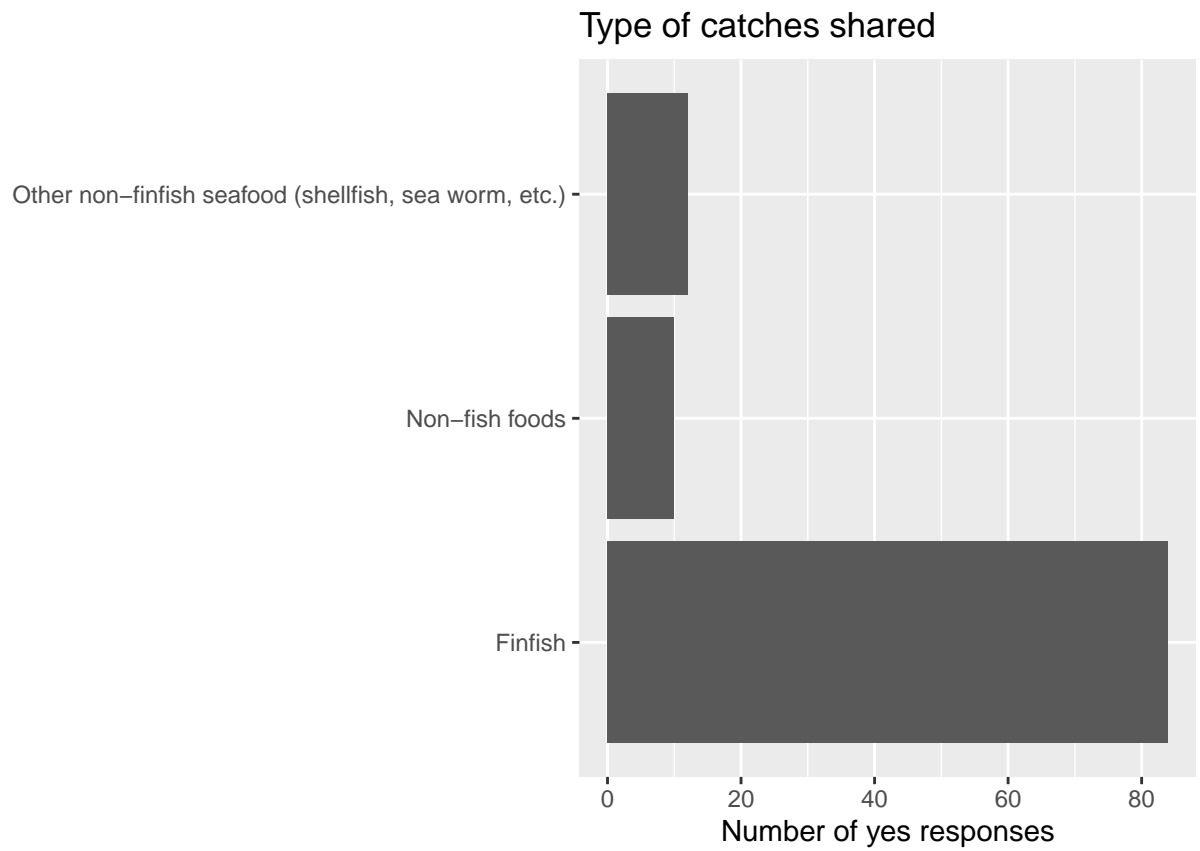


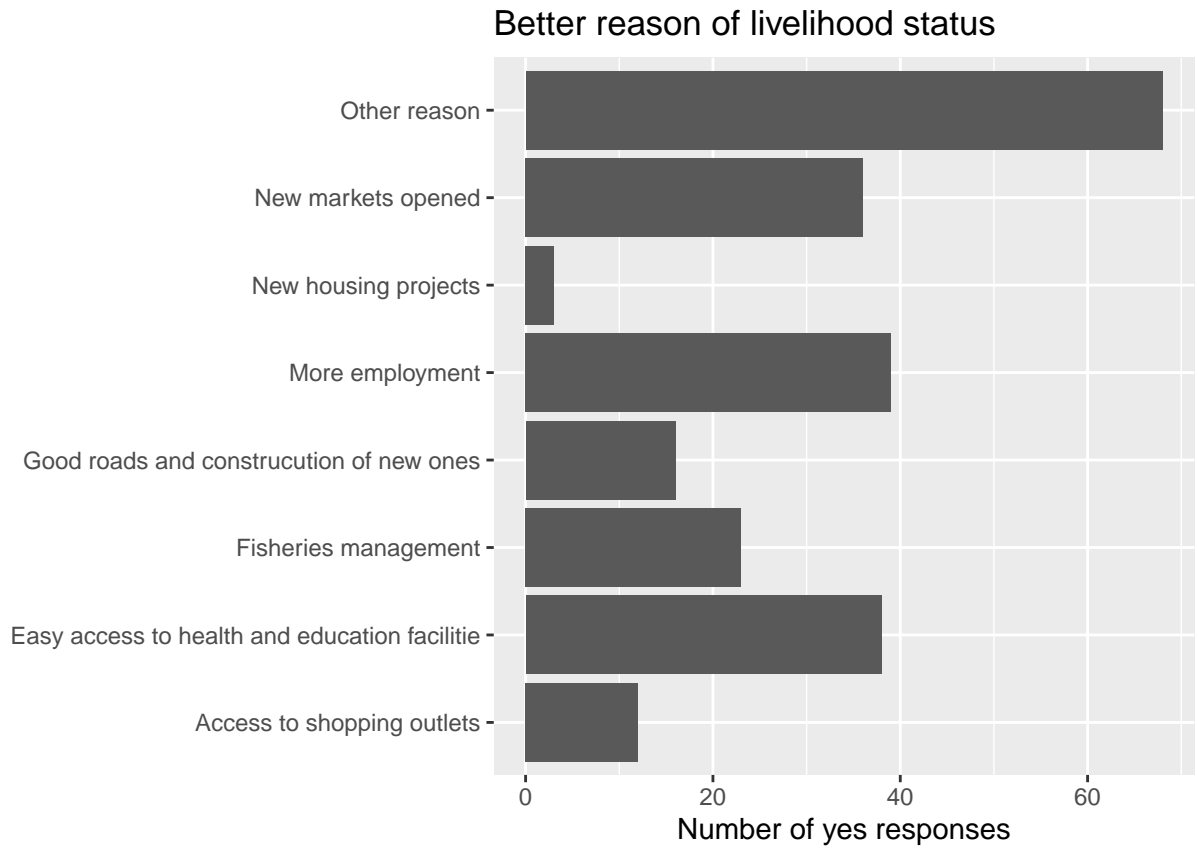




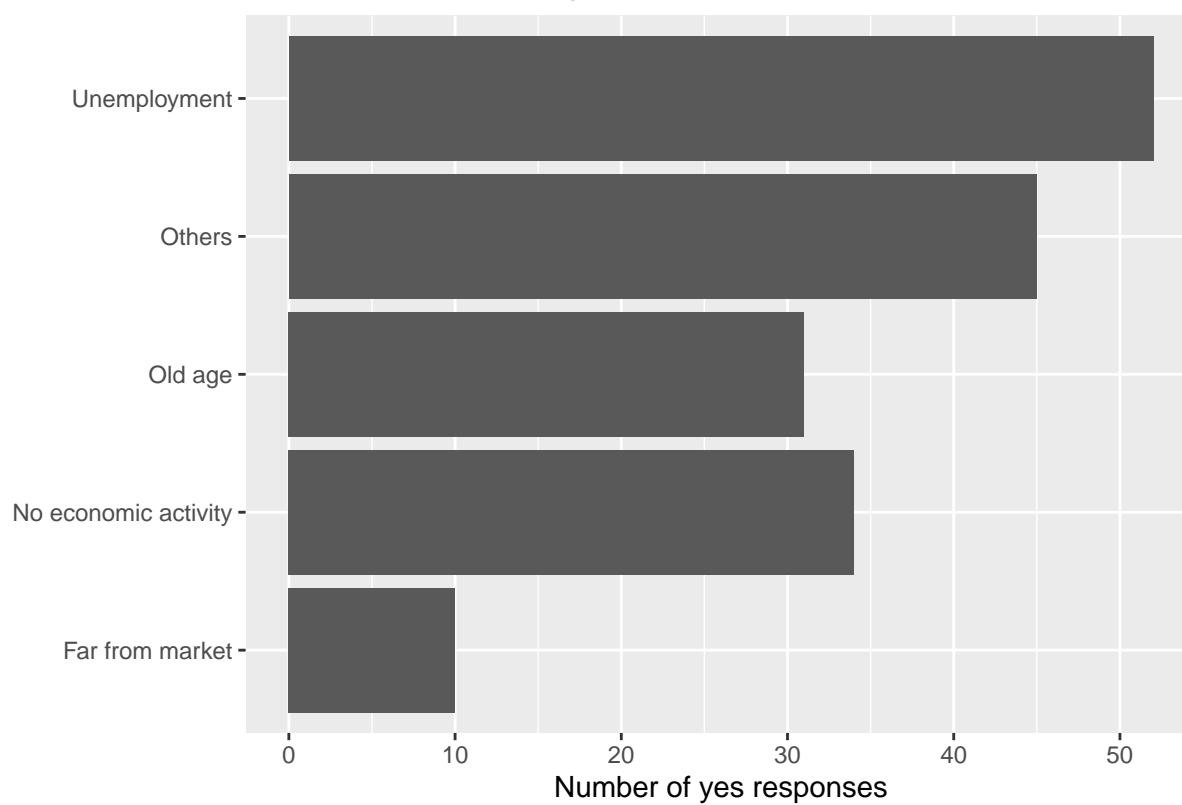
Person managing the sea area

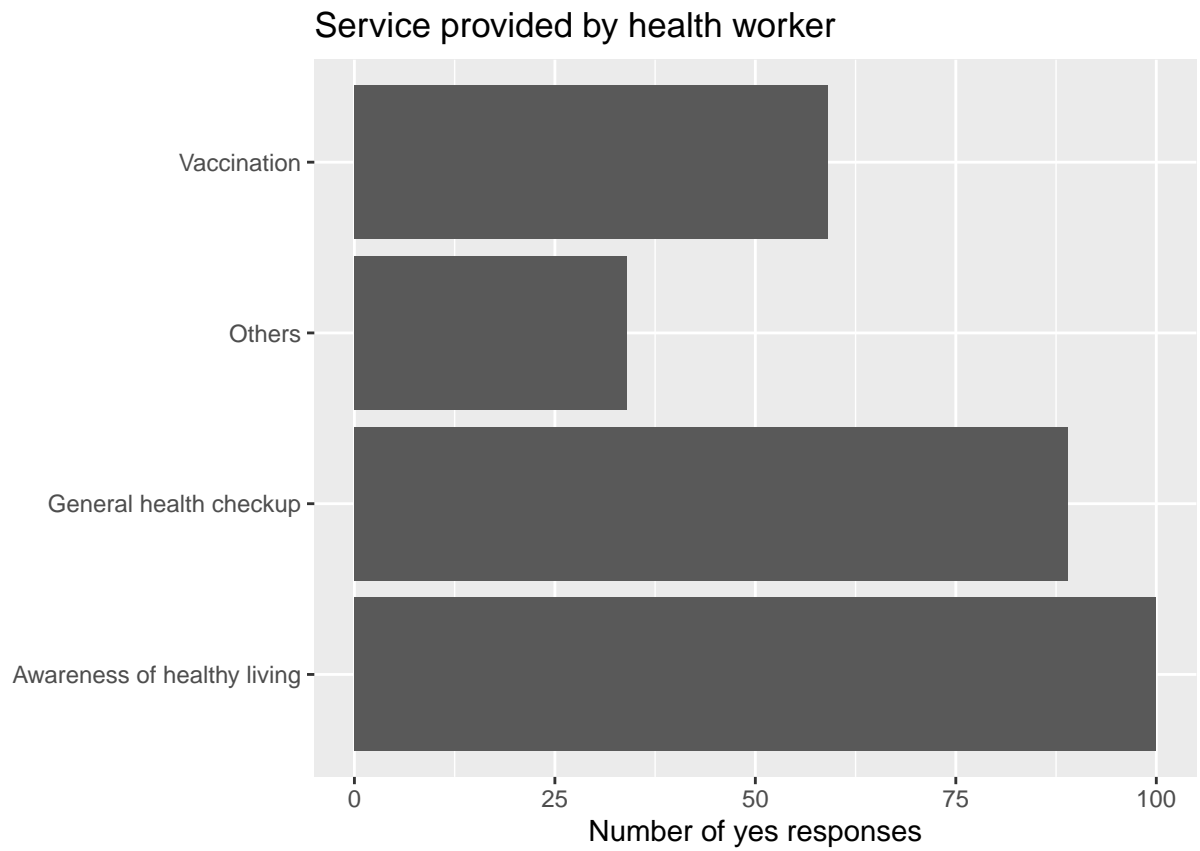


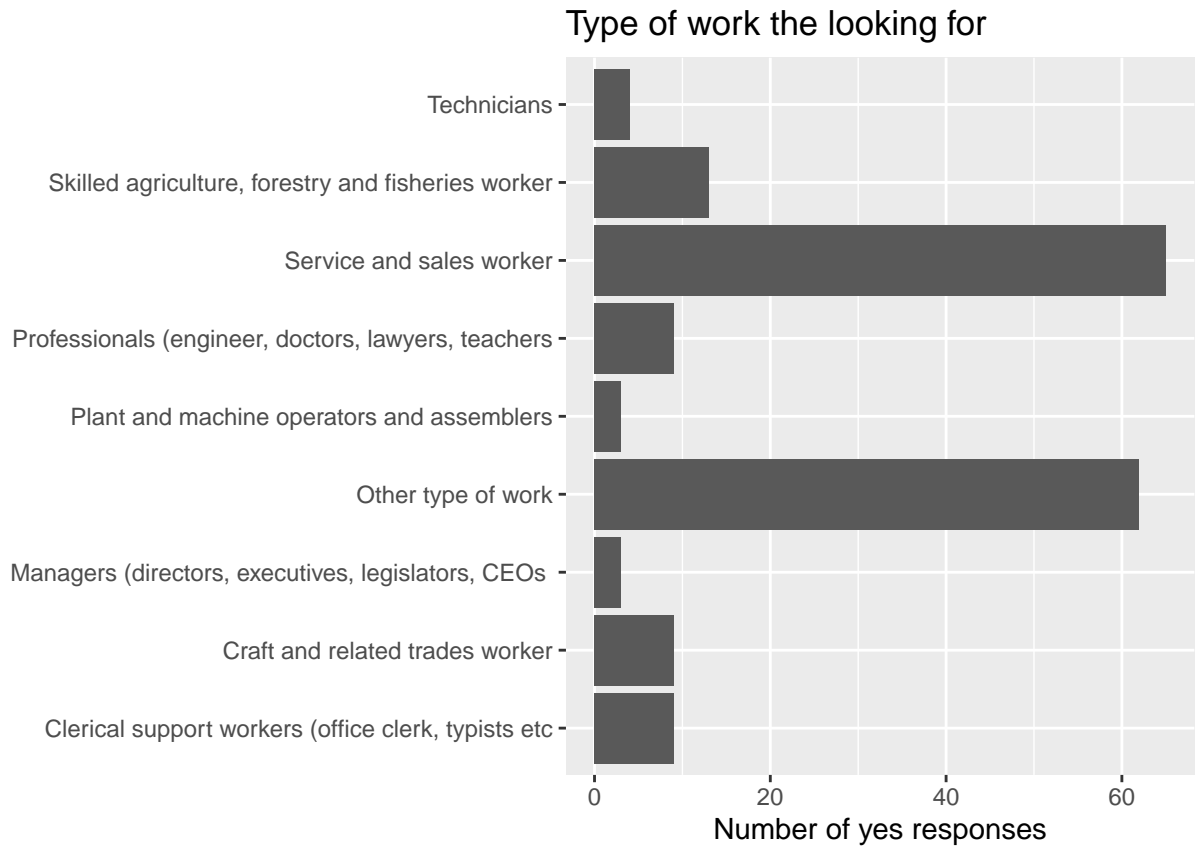


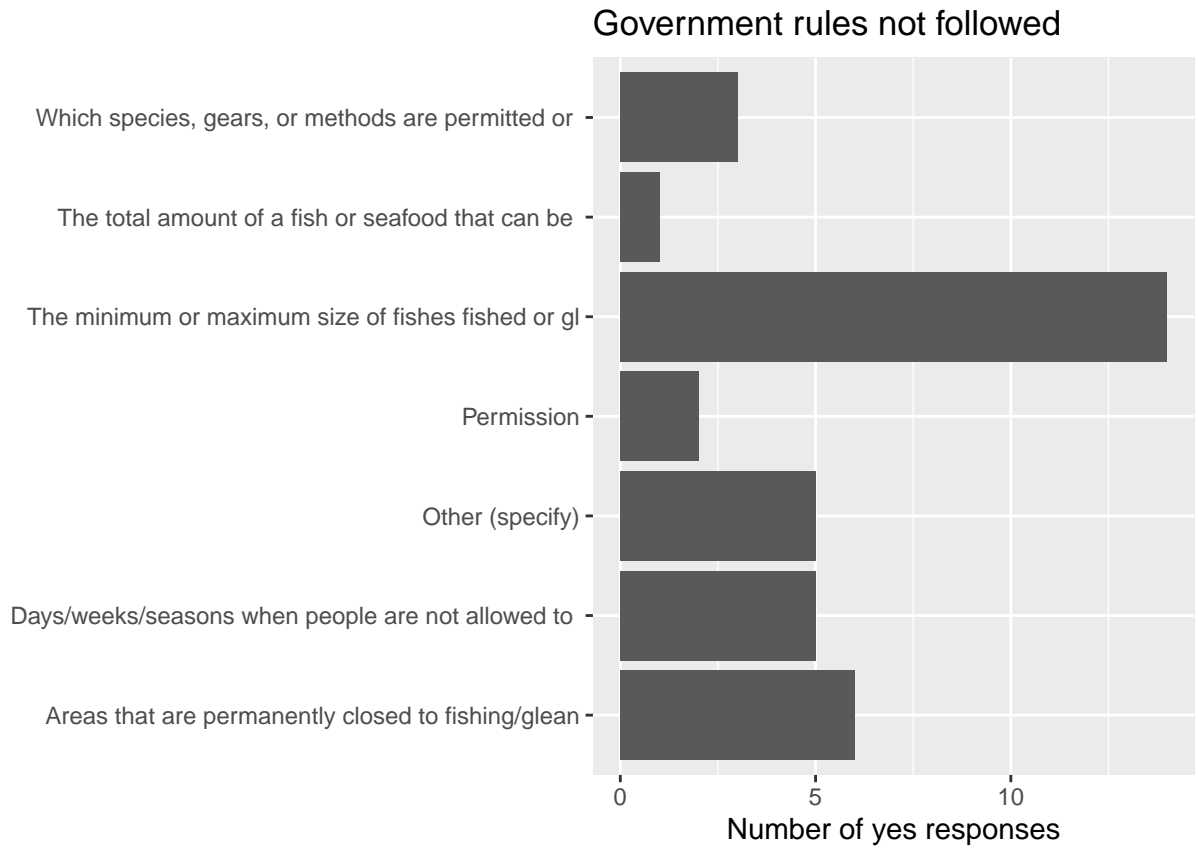


### Factors contribute to poor

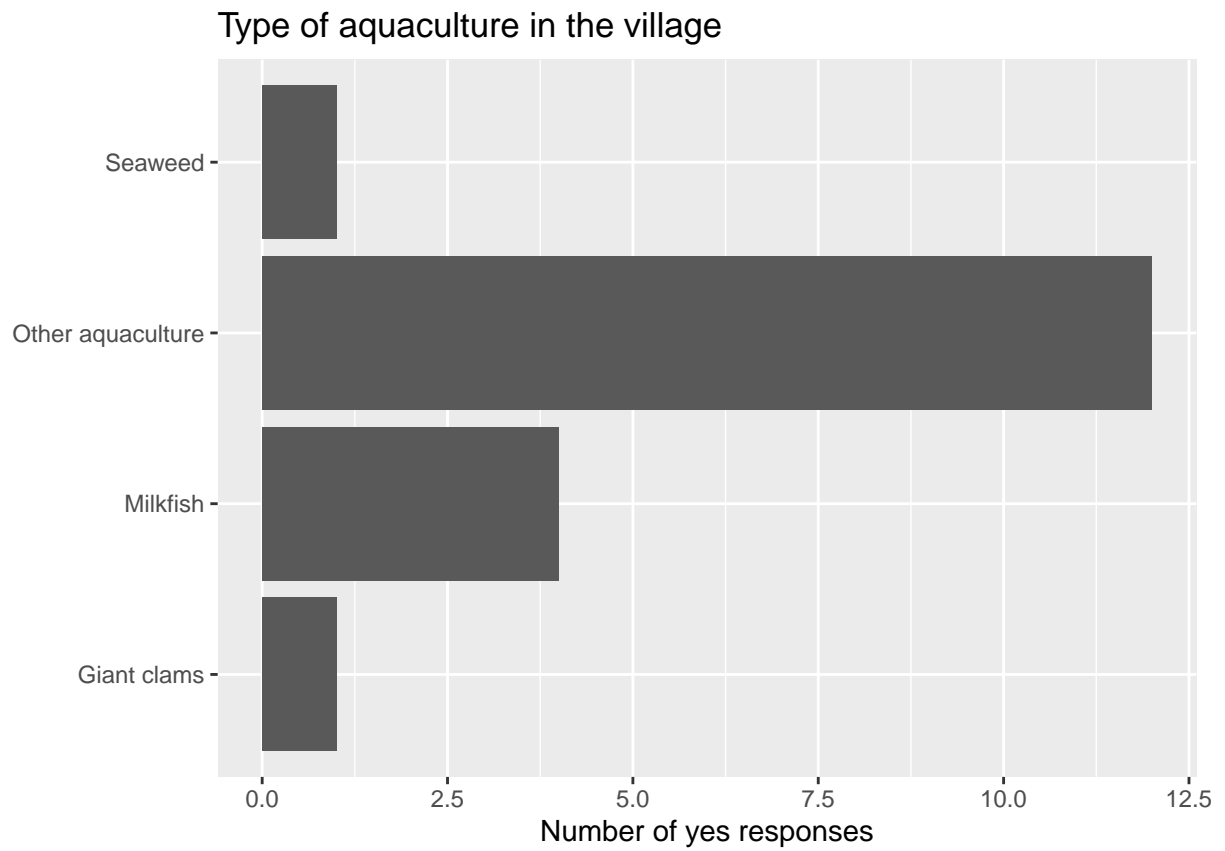


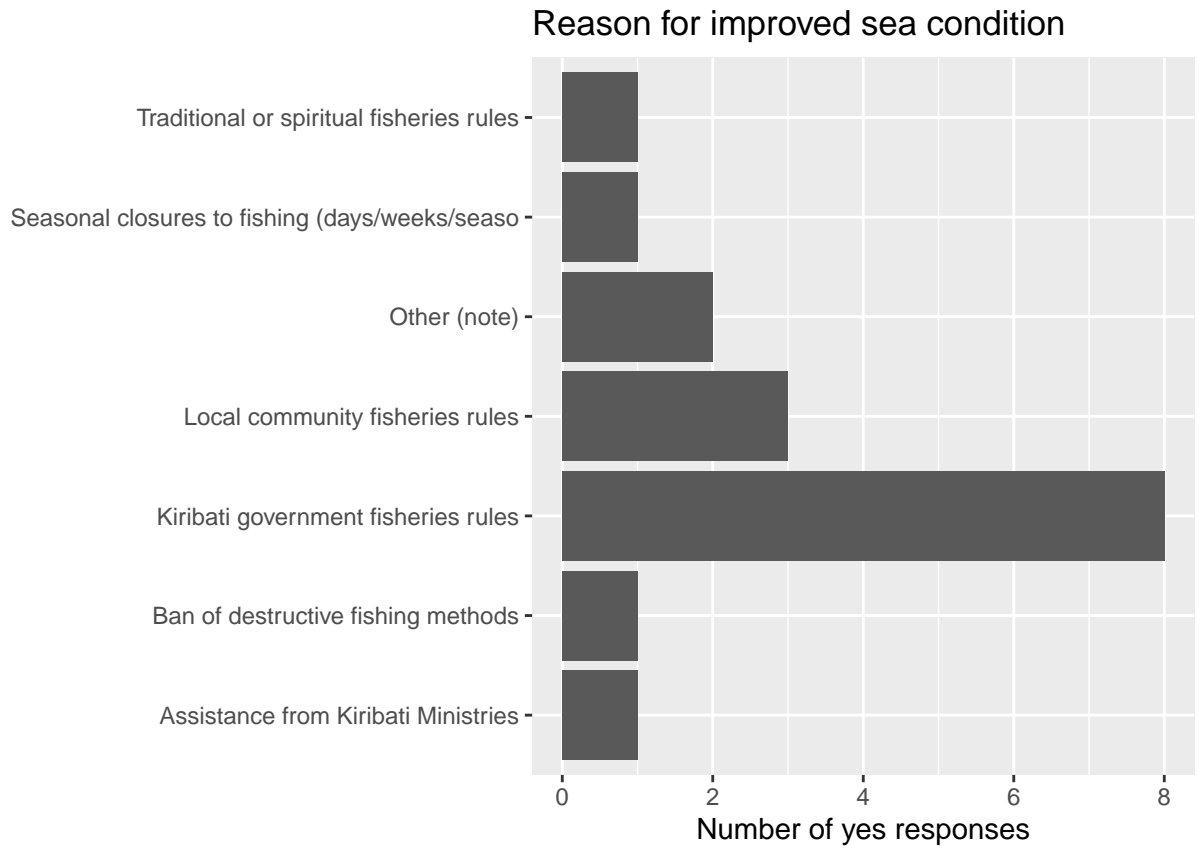


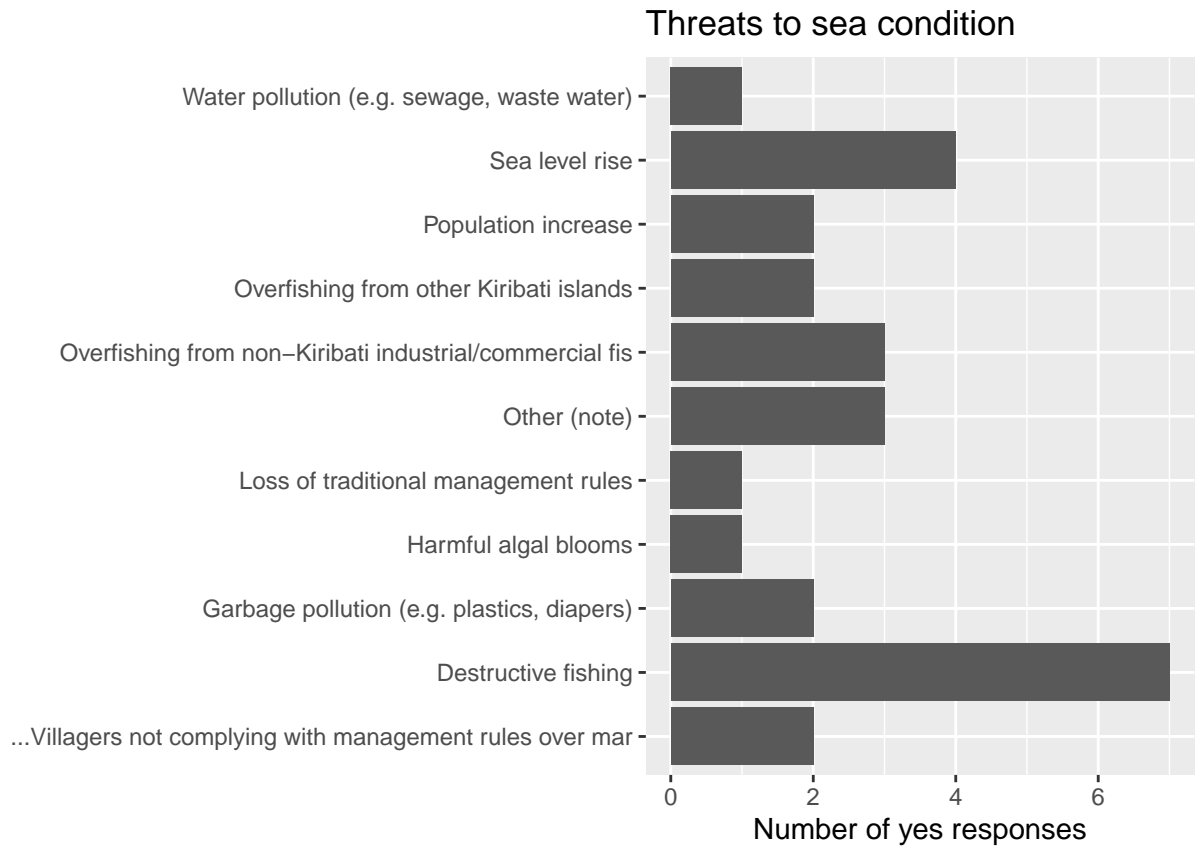


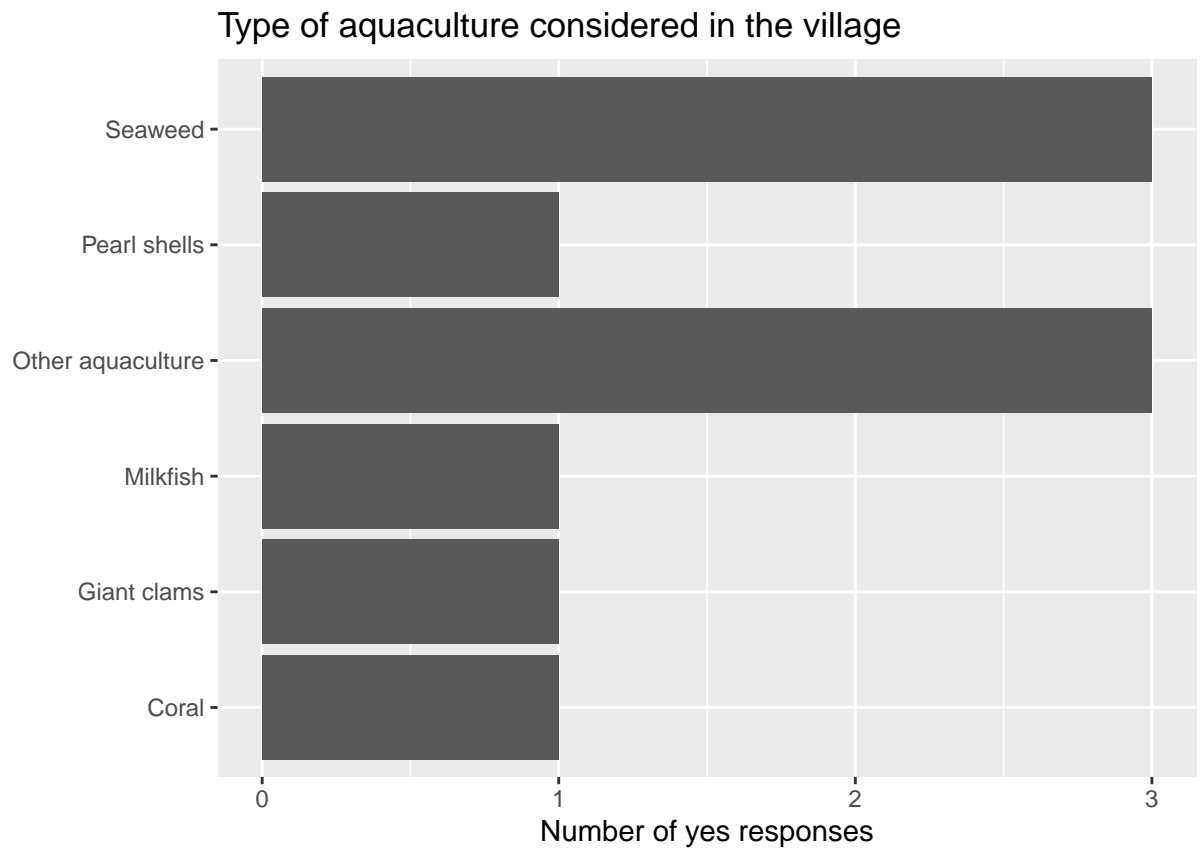


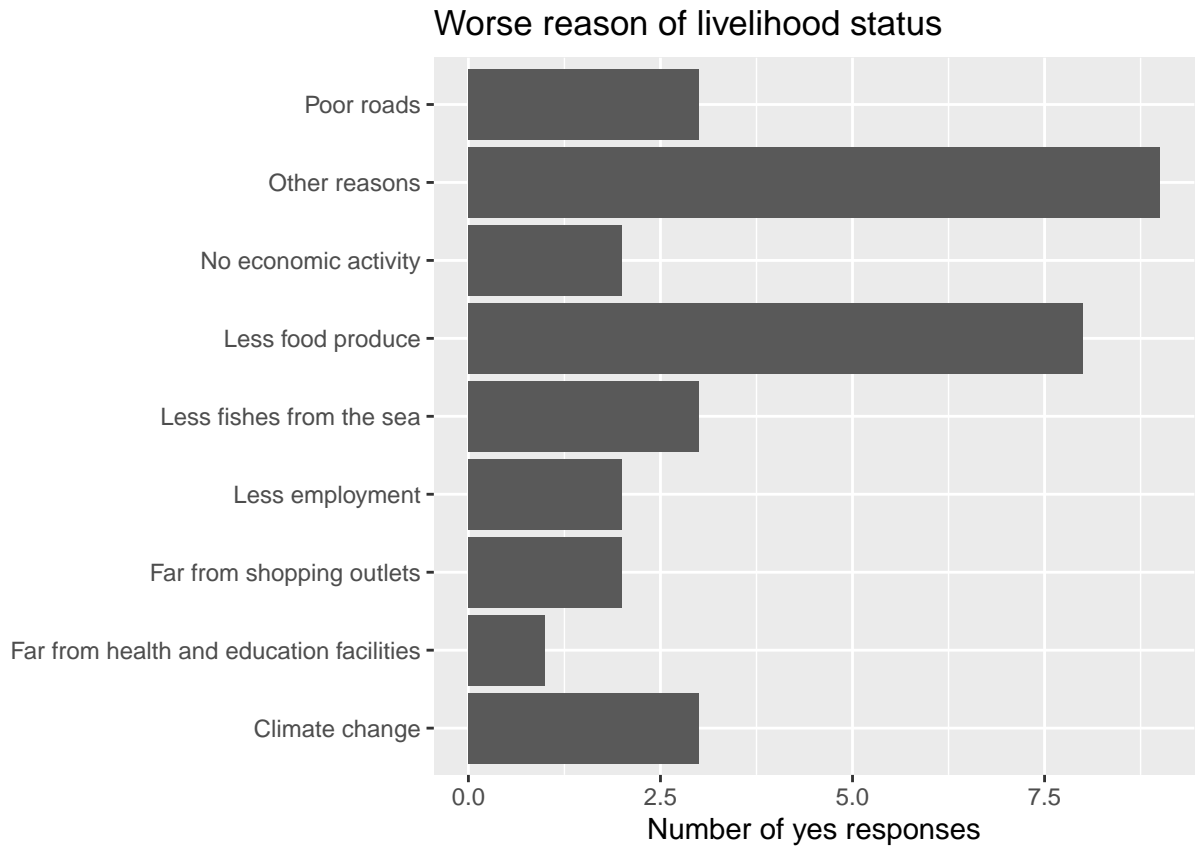








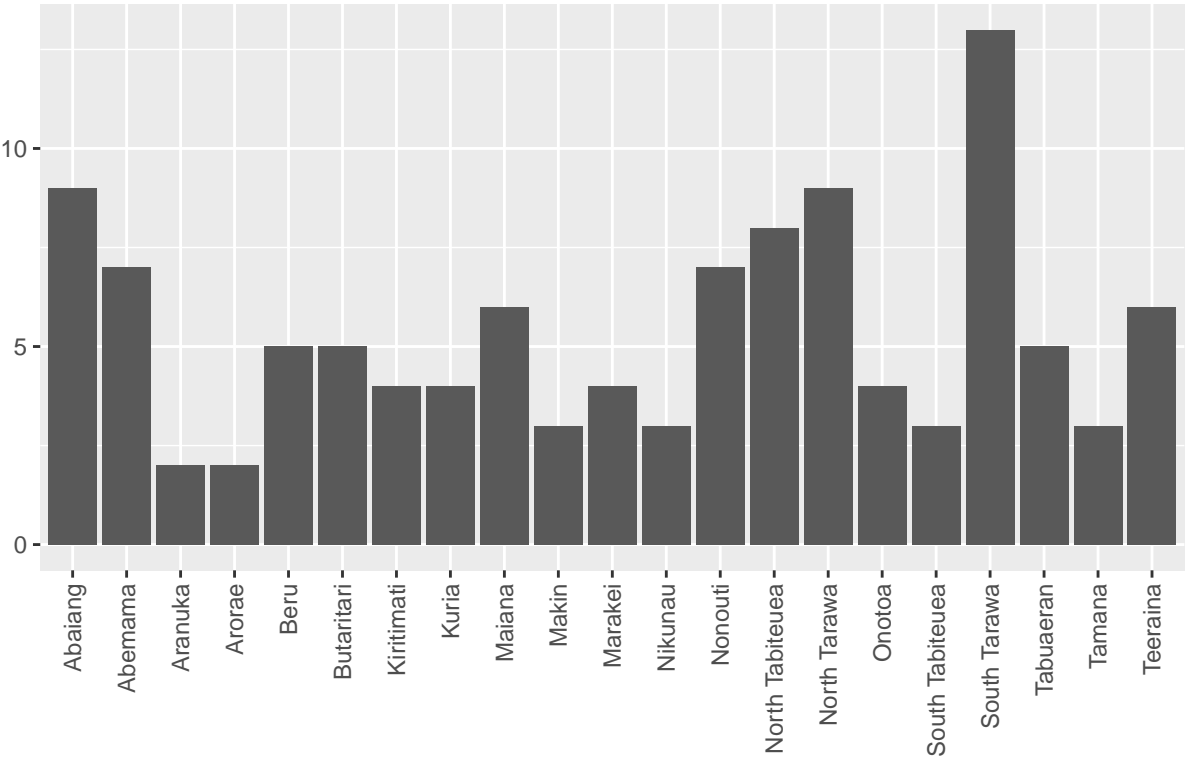




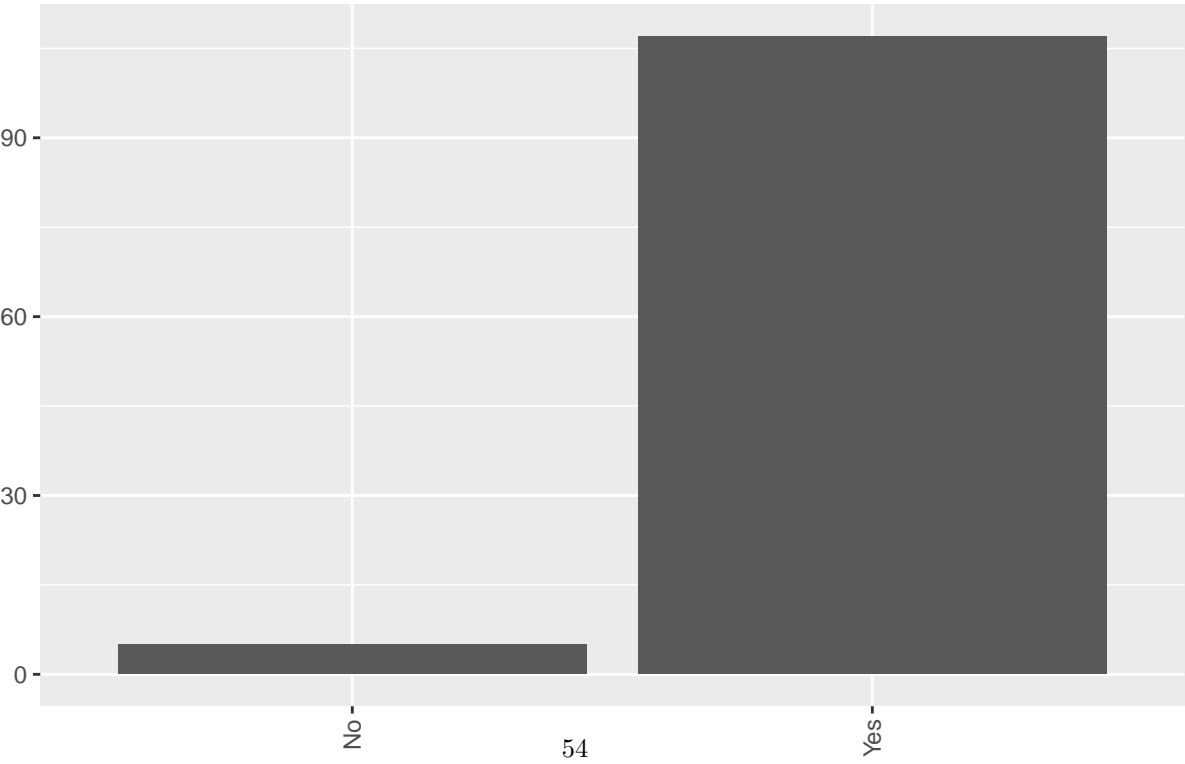
VRS continued...

Single response questions

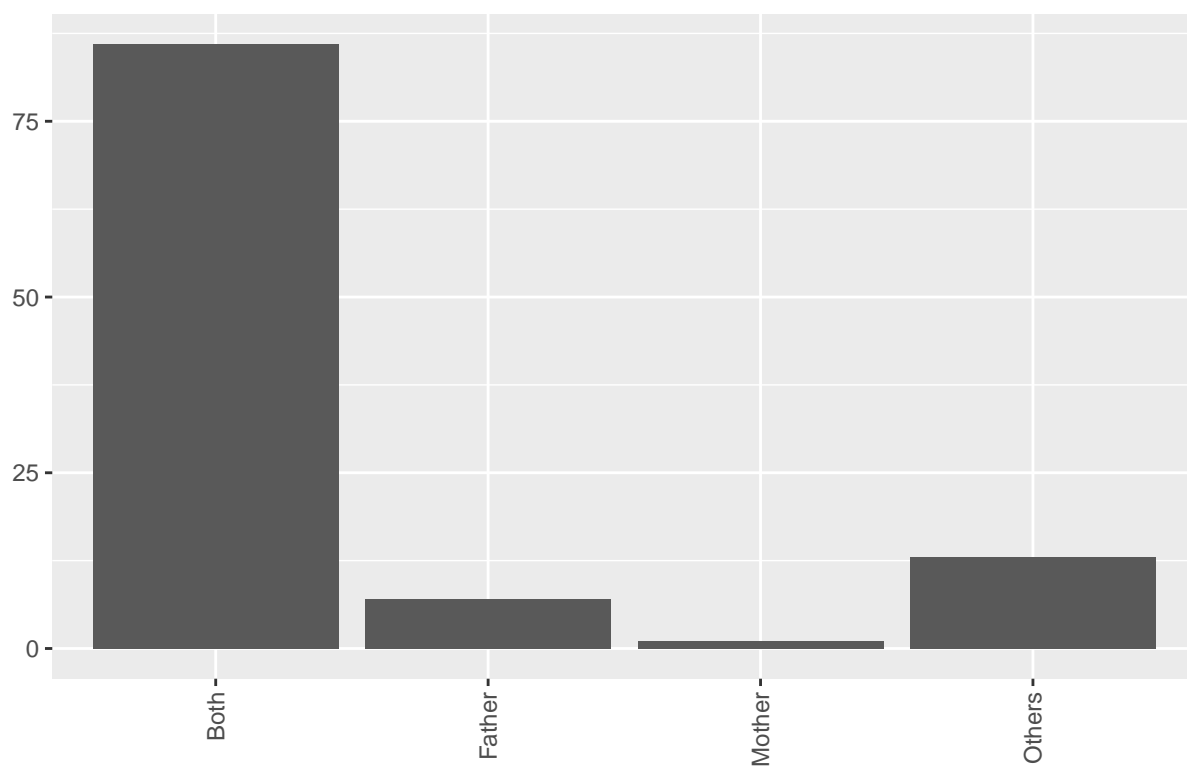
VRS Island

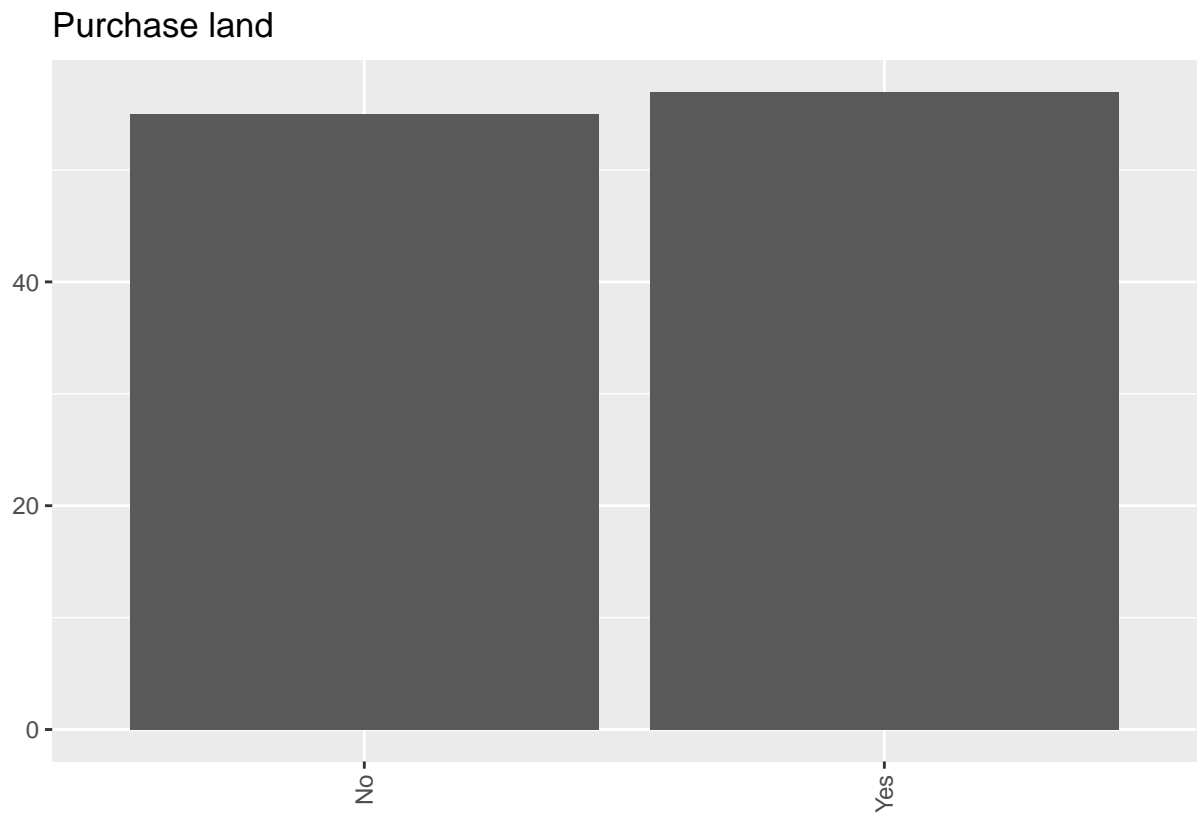


Inherit land



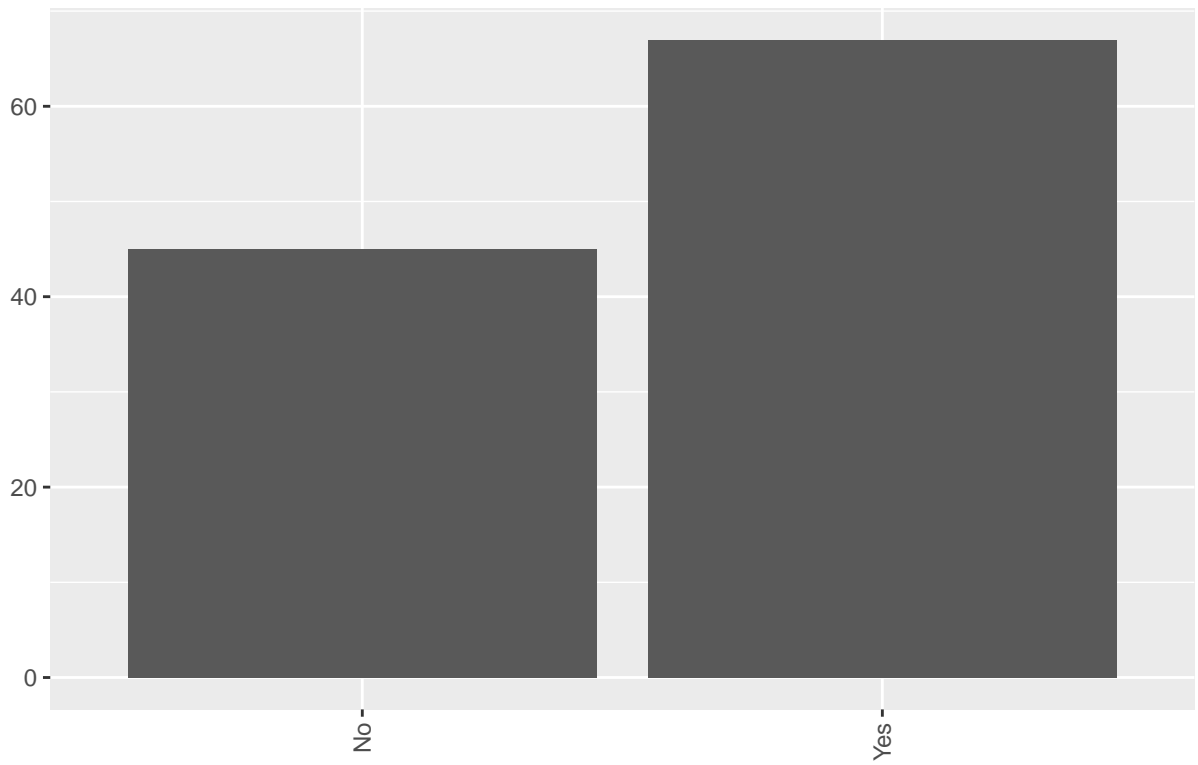
Inherit land from who



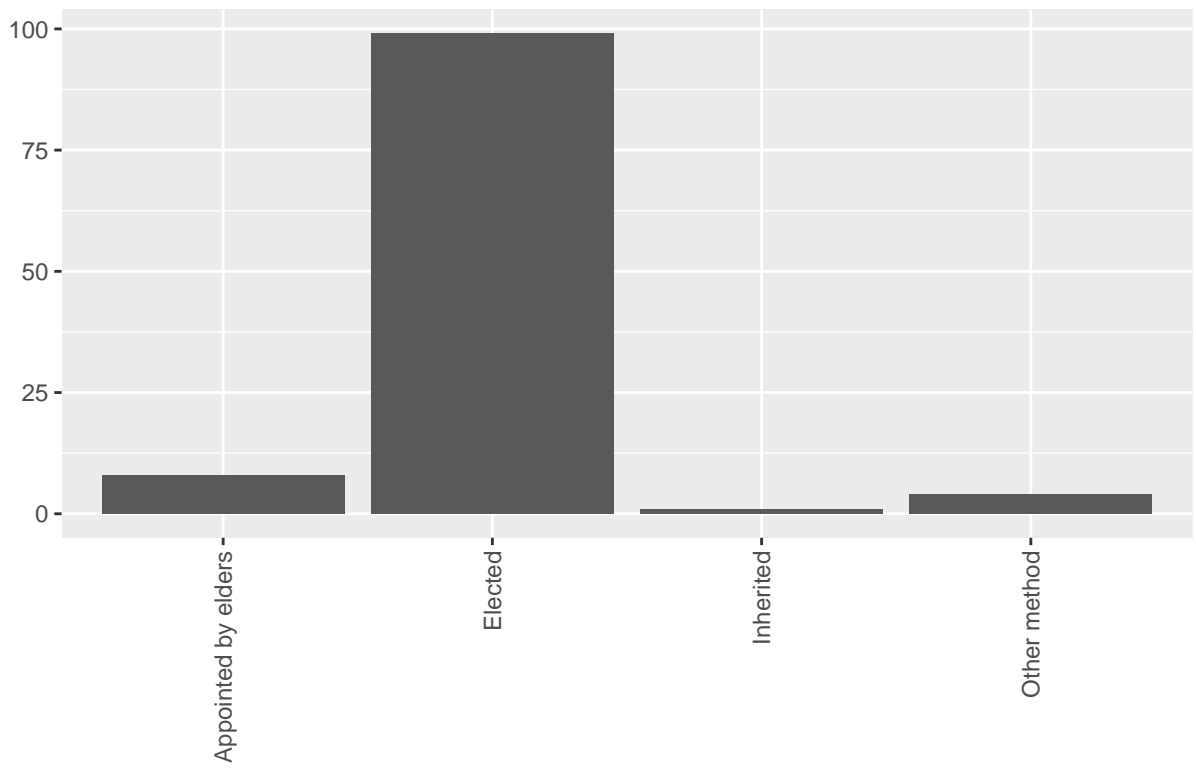




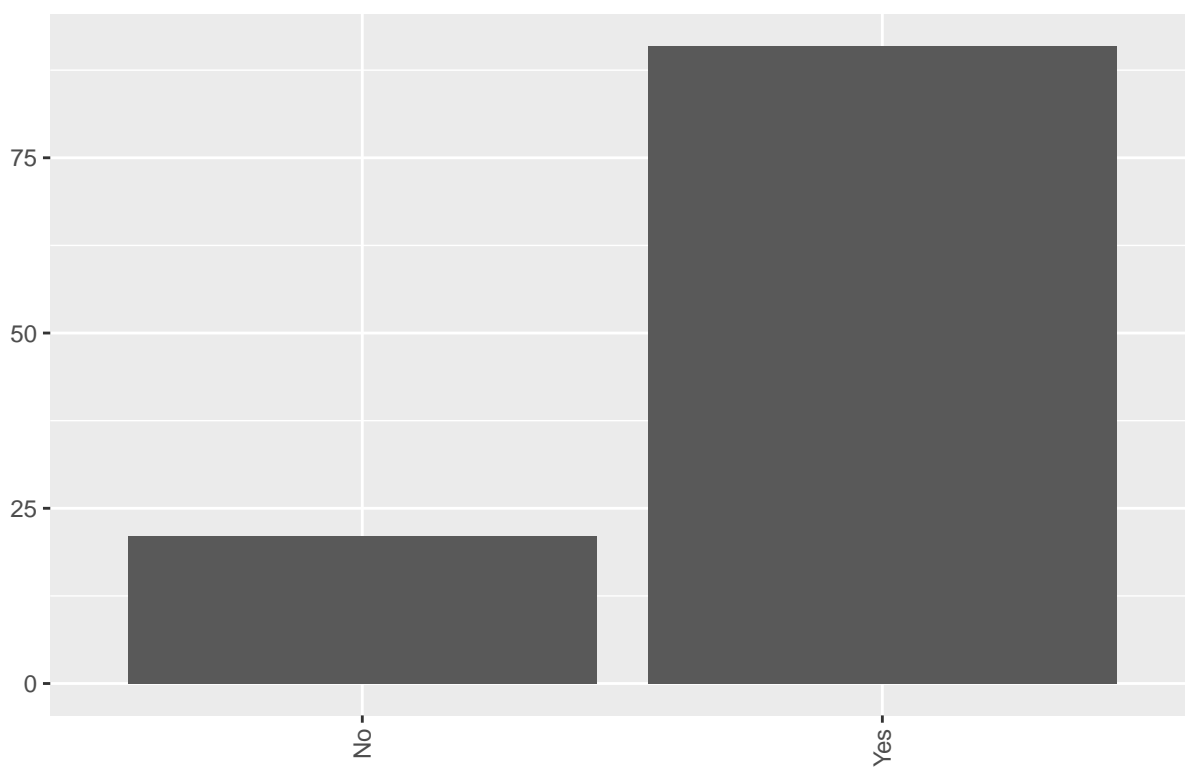
## Sell land

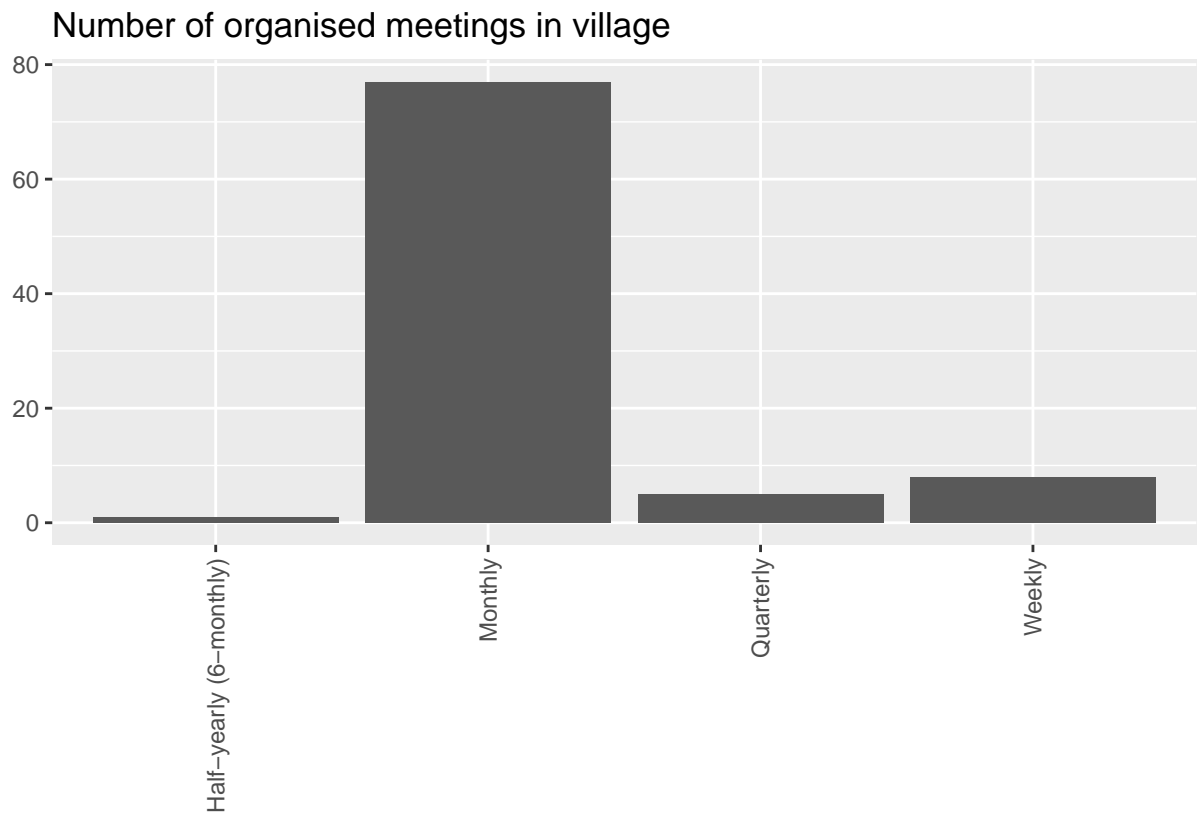


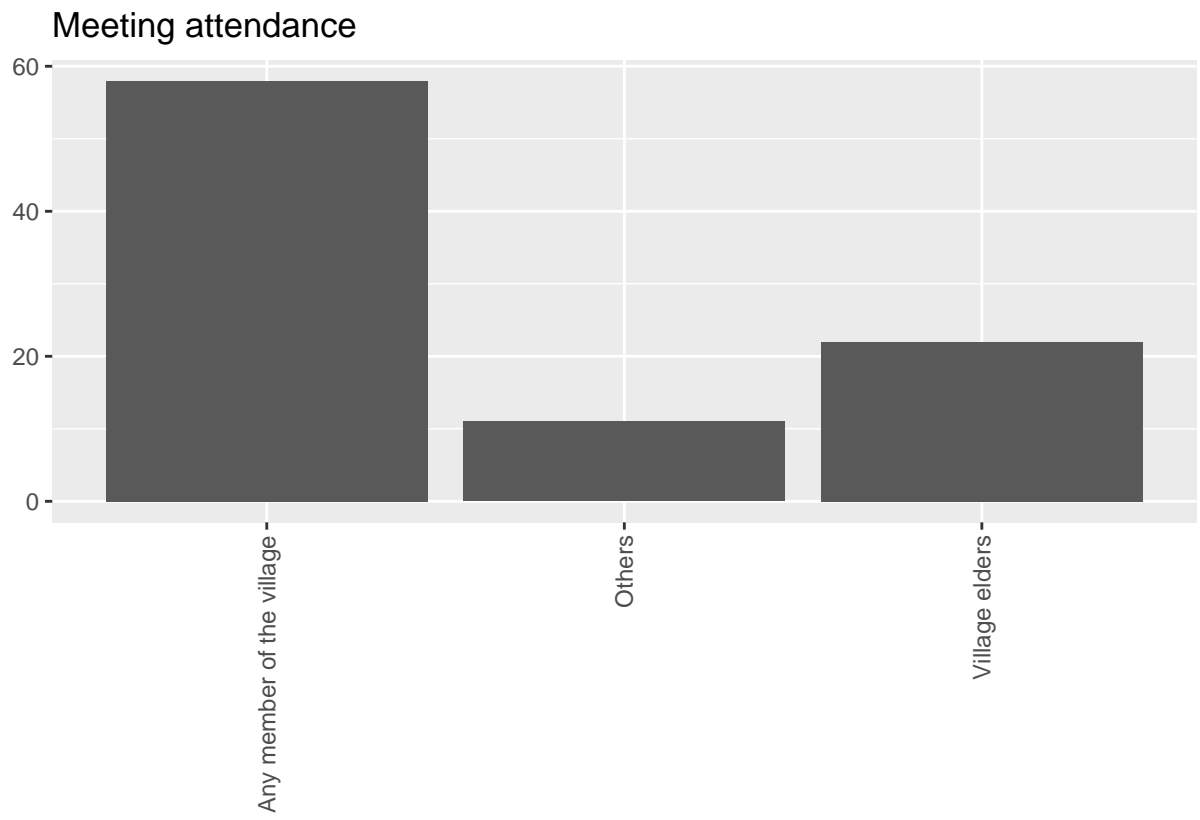
How leader is chosen

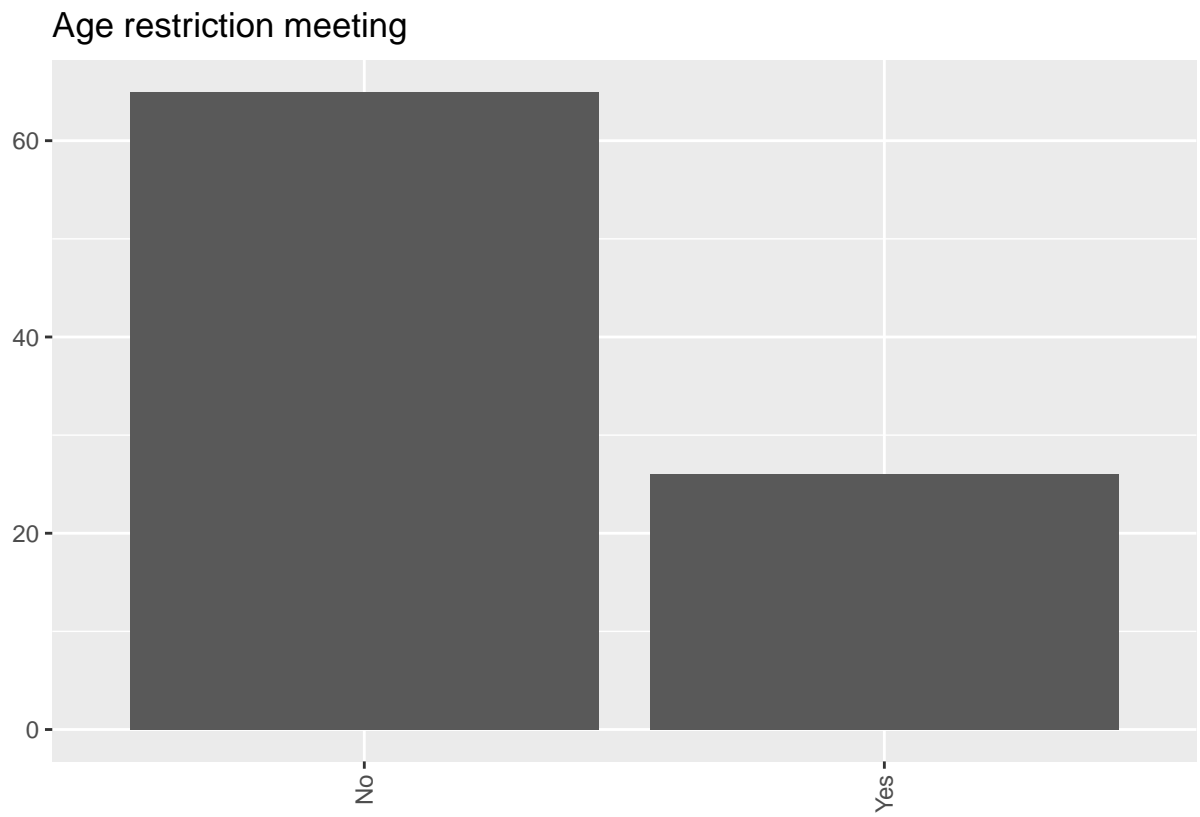


Organised meetings in village

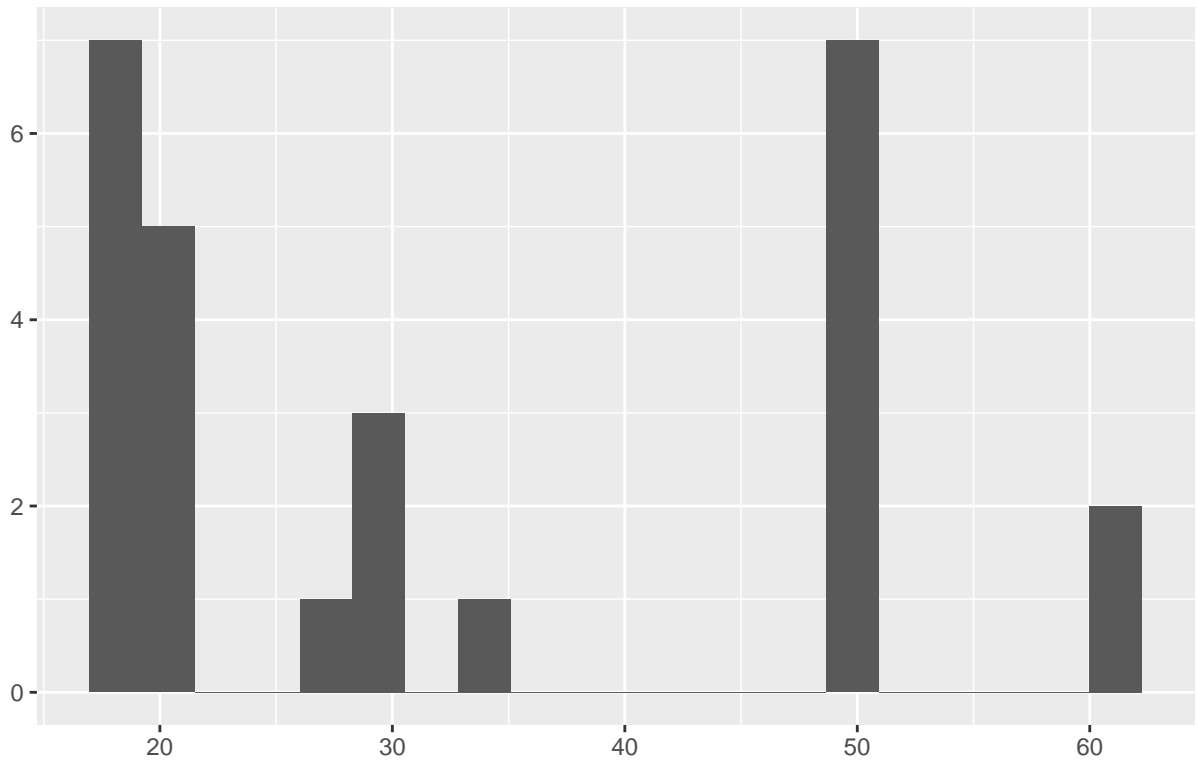




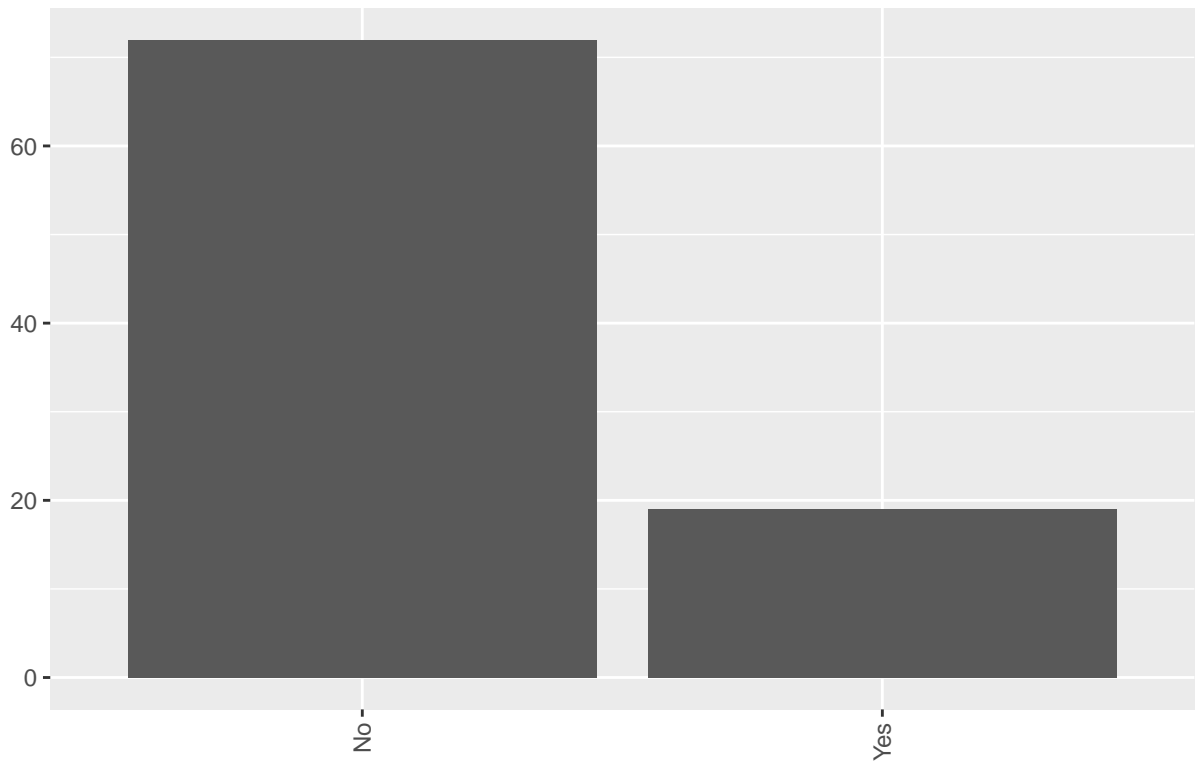




Age restriction to meeting

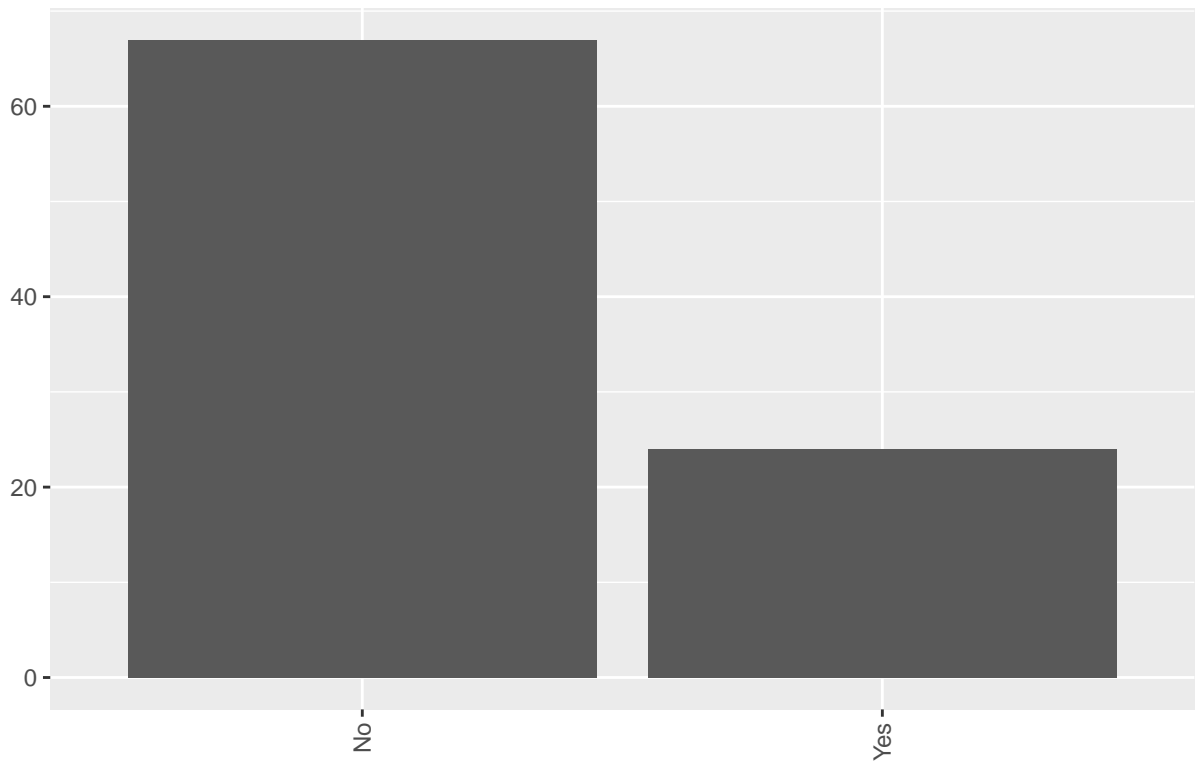


Gender restriction meeting

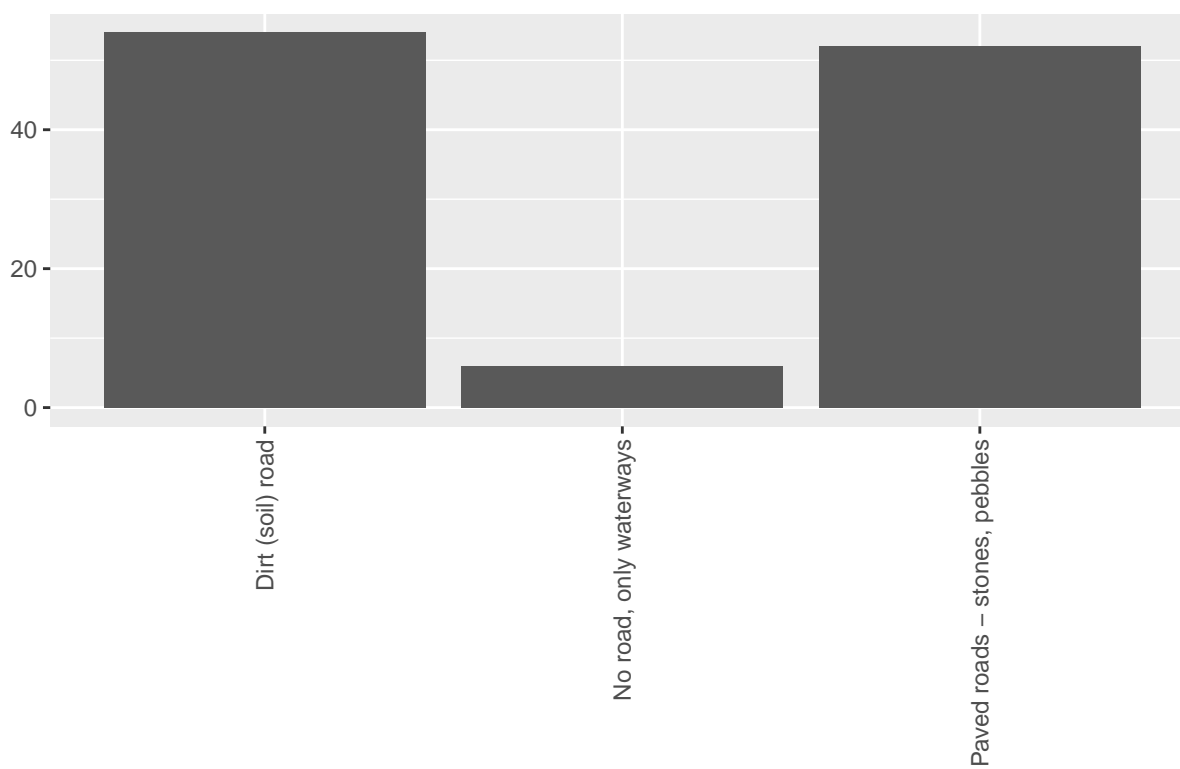




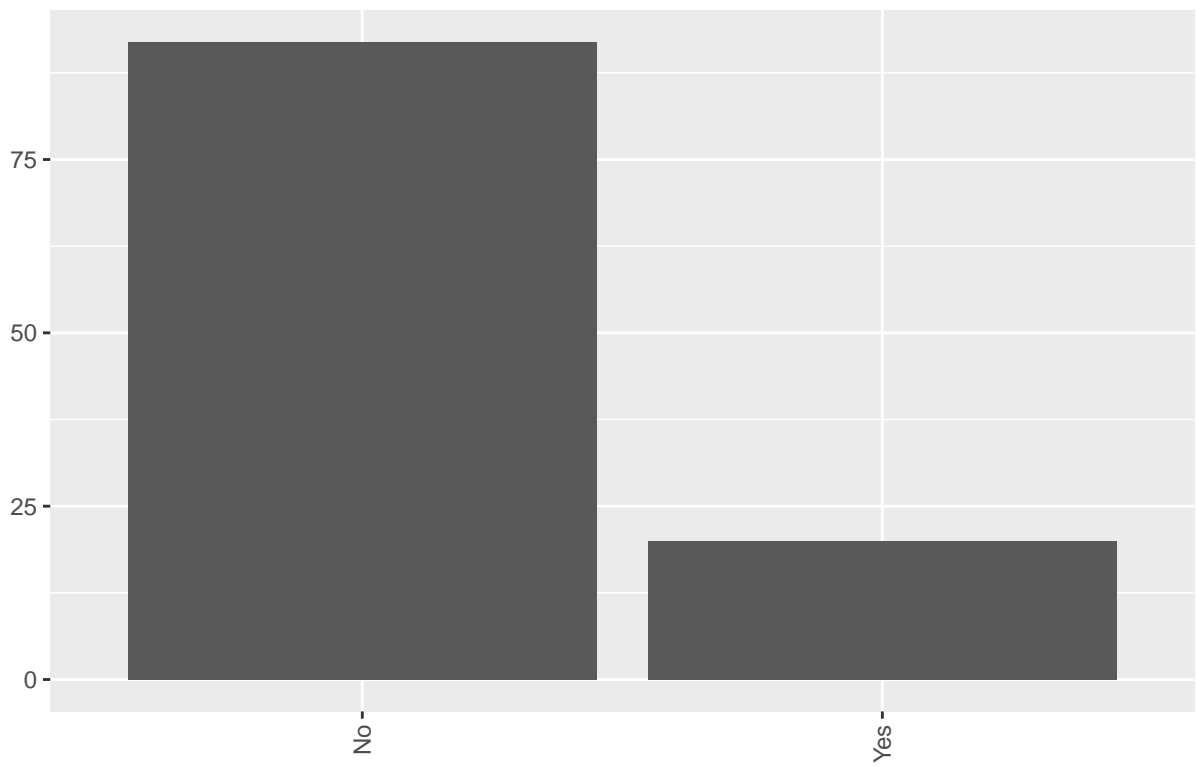
Residential restriction meeting

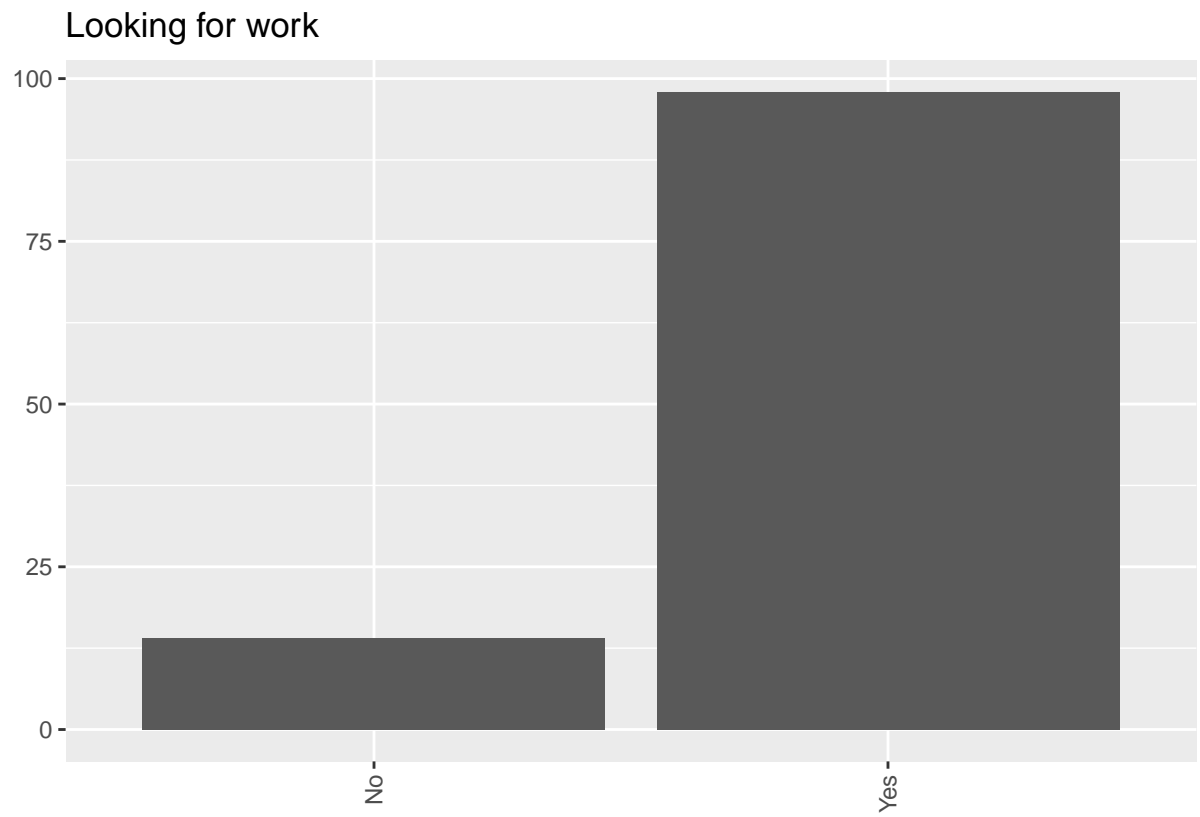


Type of road surface

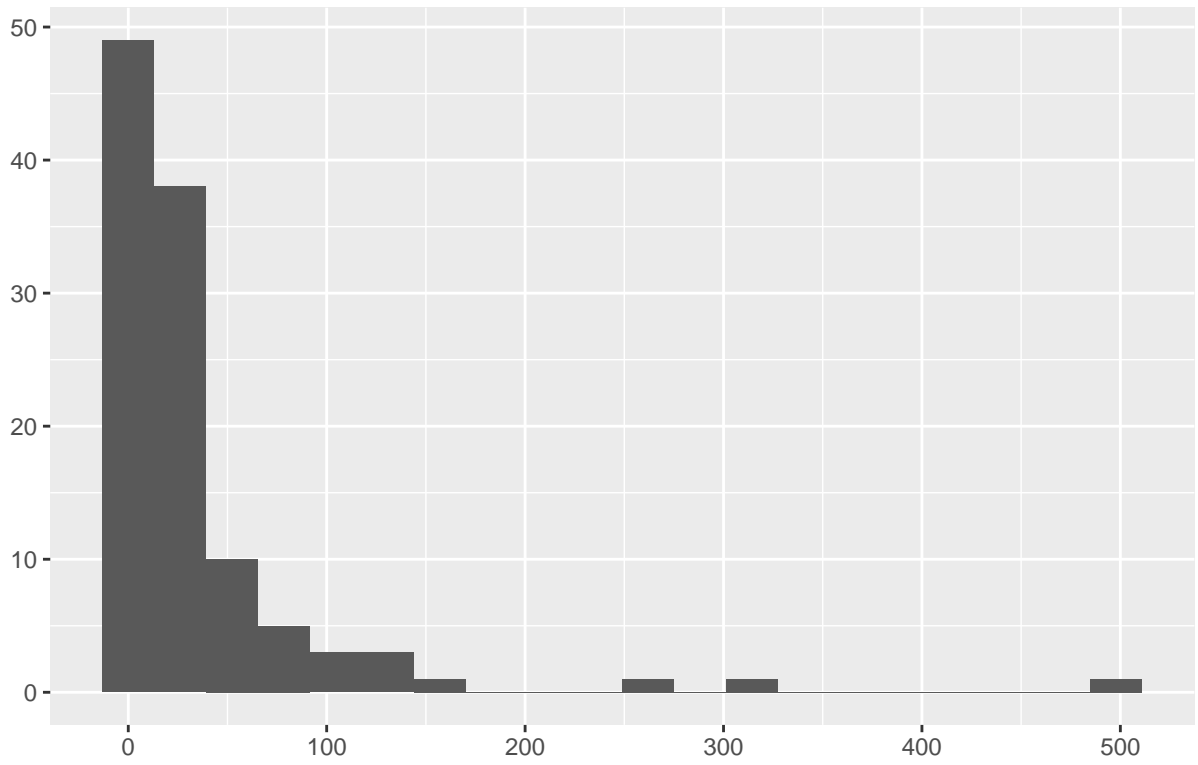


Boat transportation

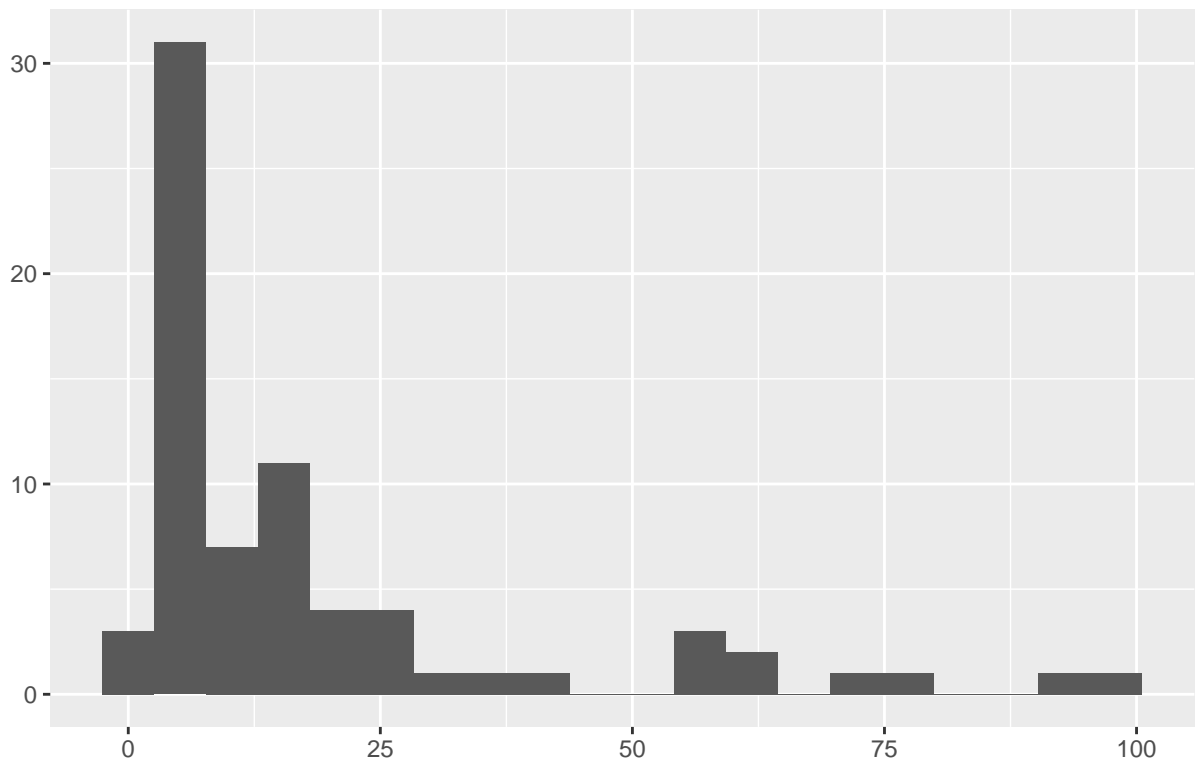


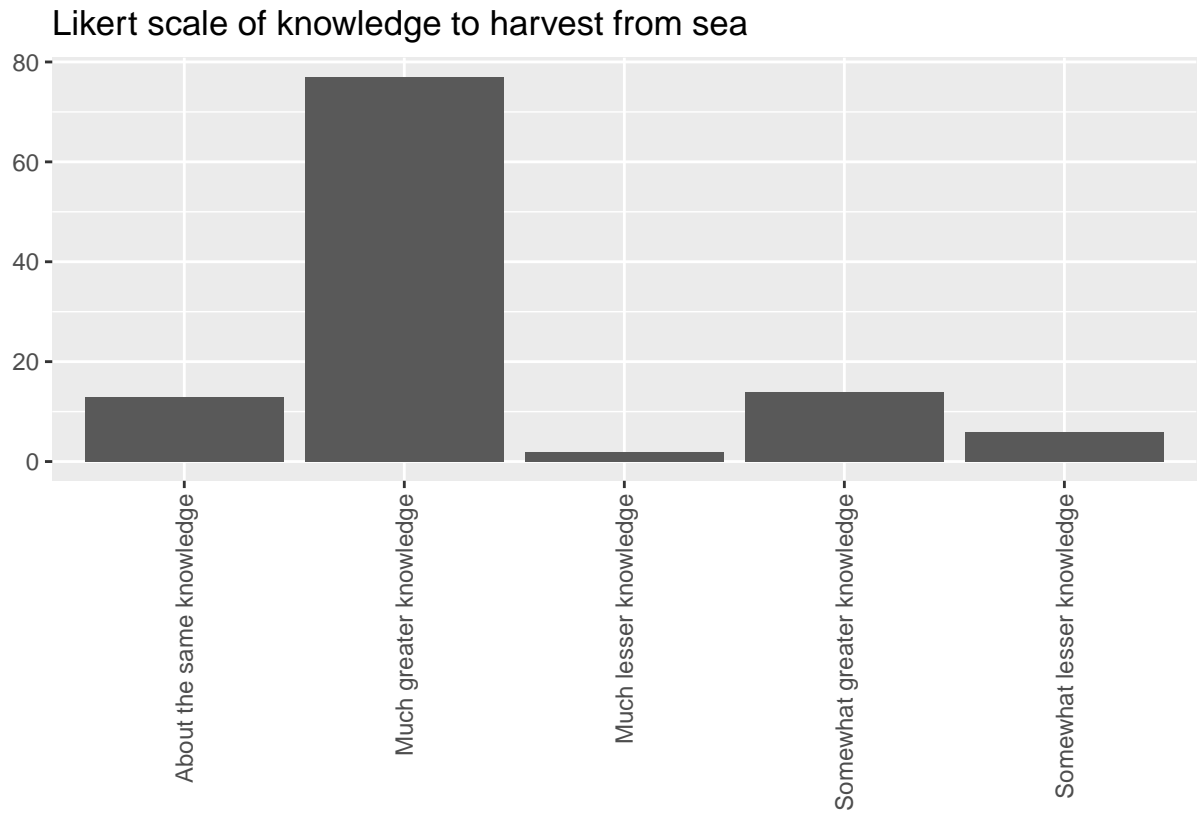


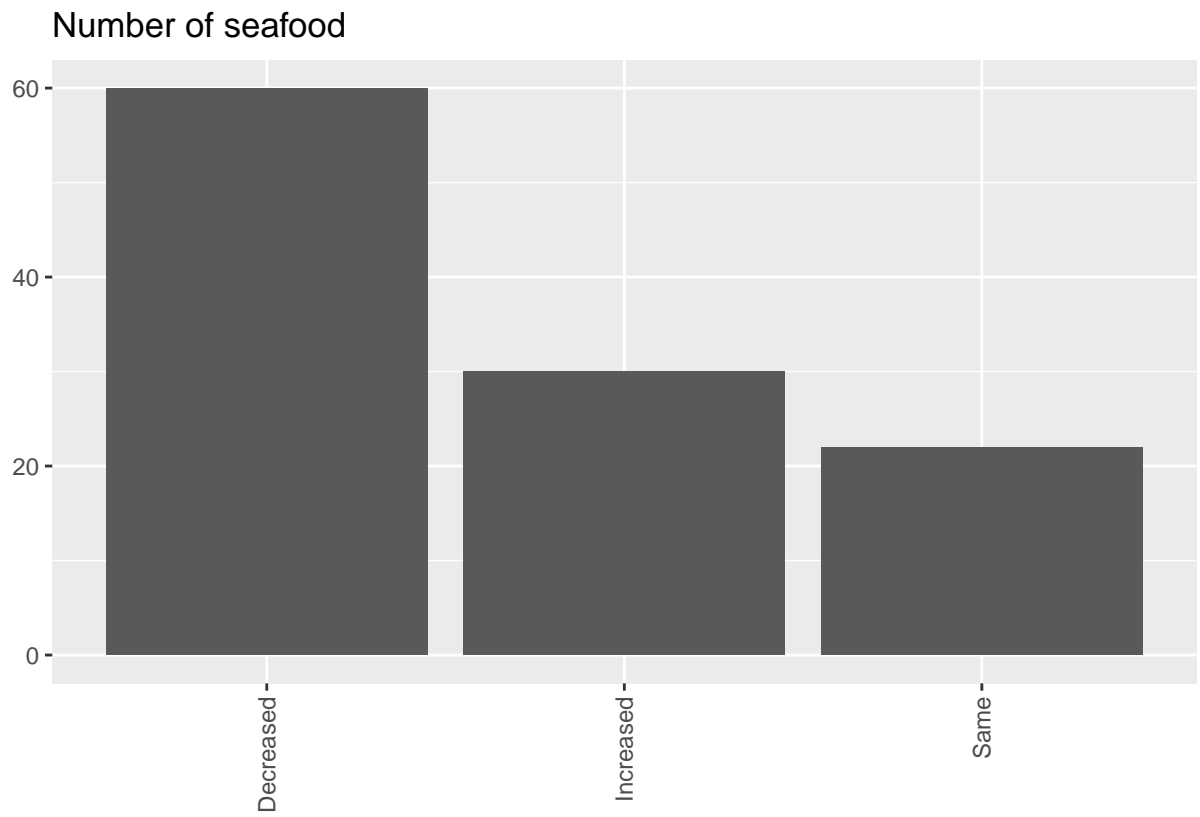
Number of people harvest from sea



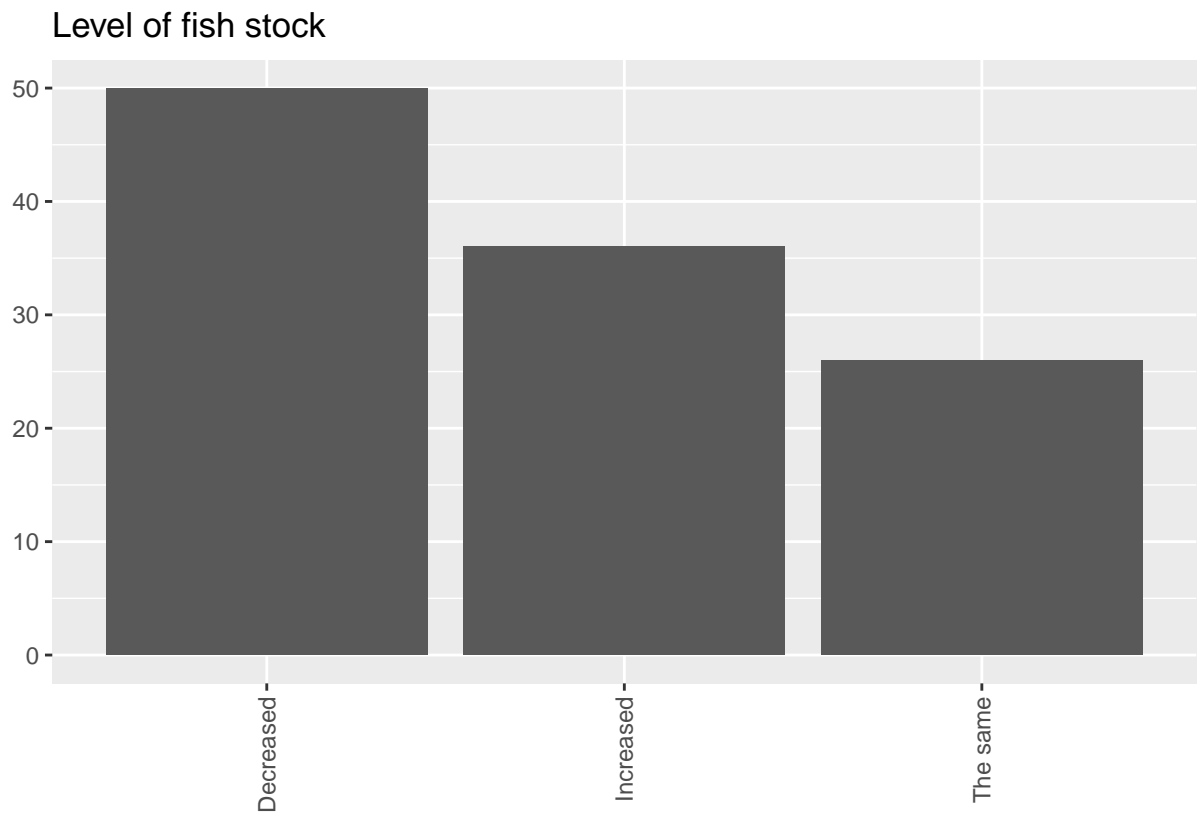
Number of women harvesting from sea (zeroes removed; n = 40)



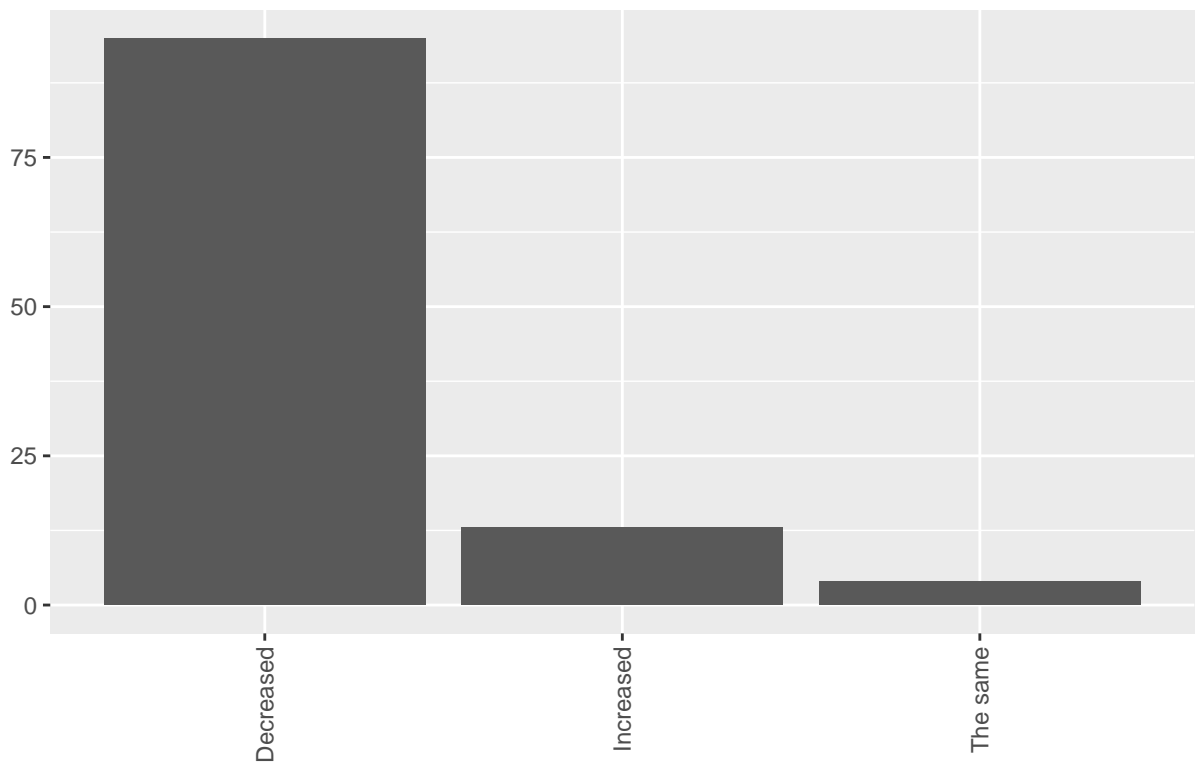




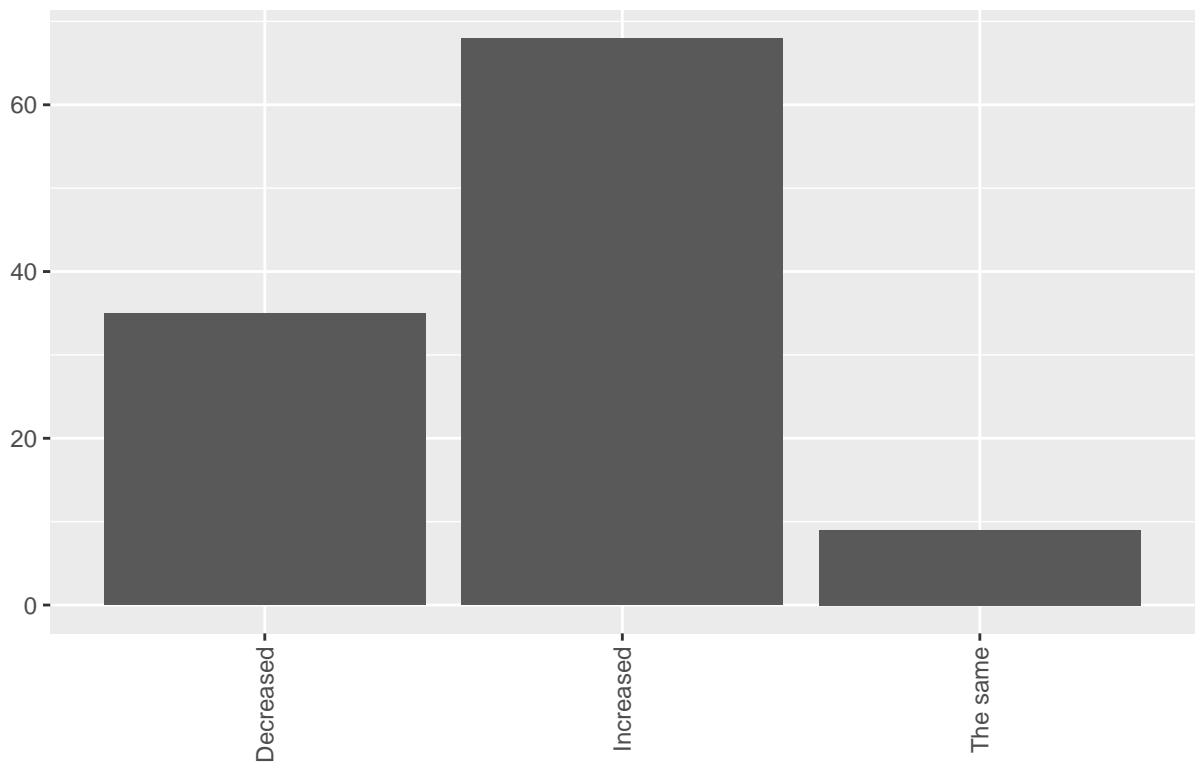




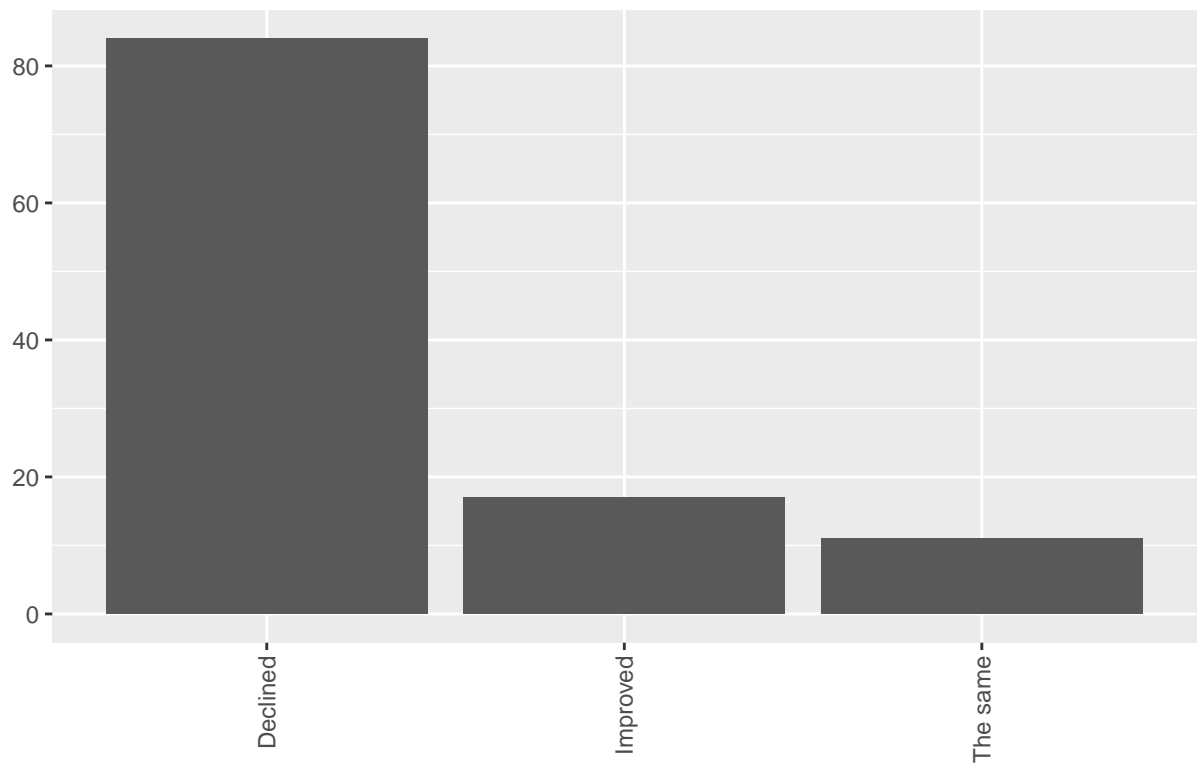
Level of shark stock



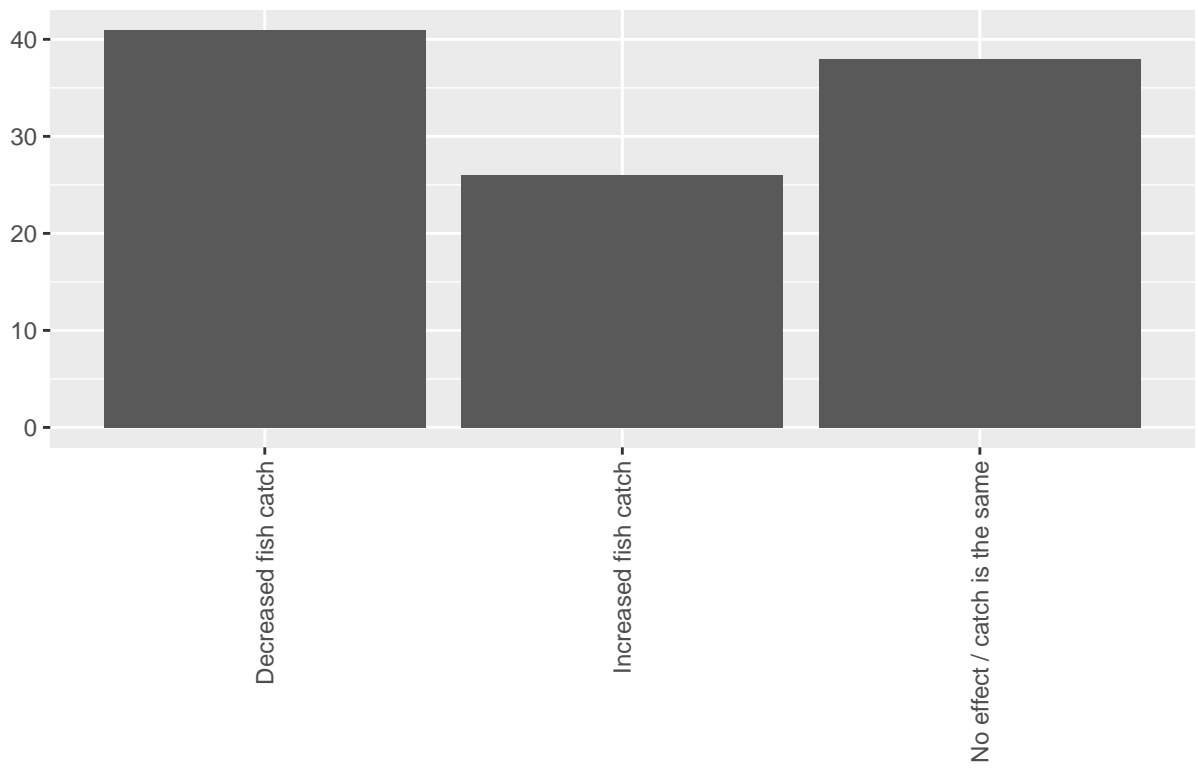
Consumption of ocean foods



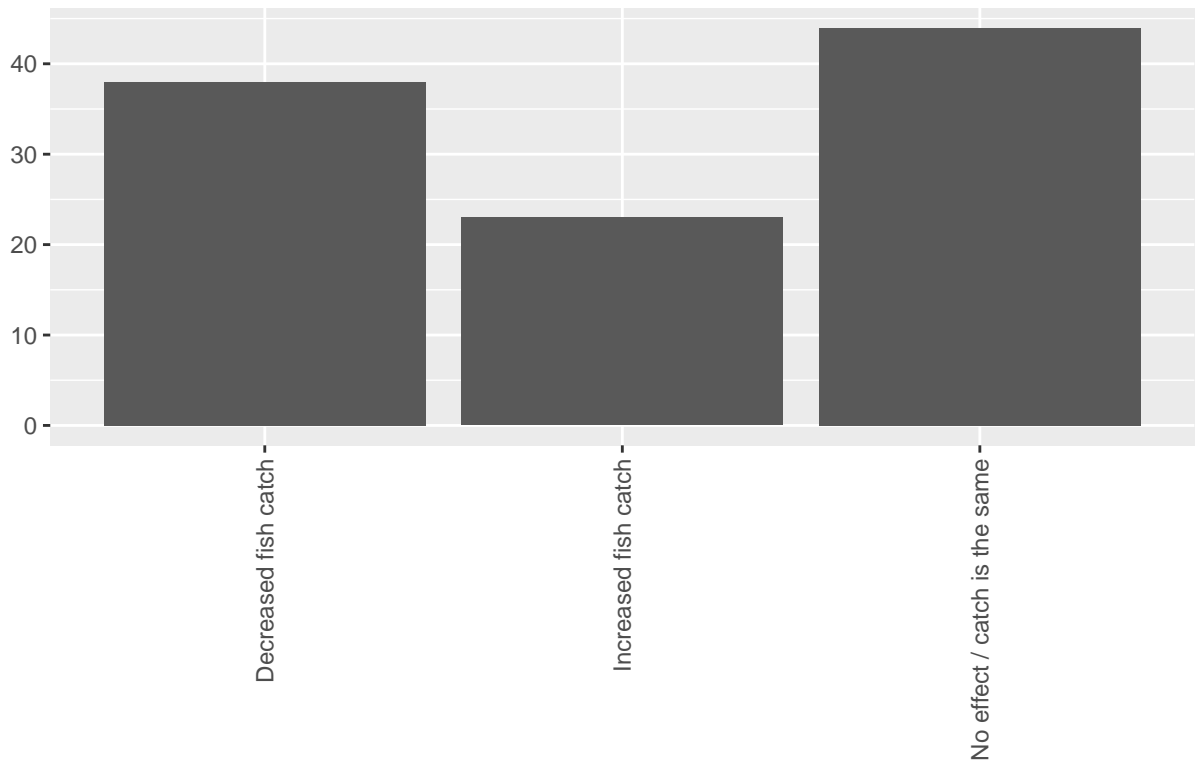
Physical condition of sea



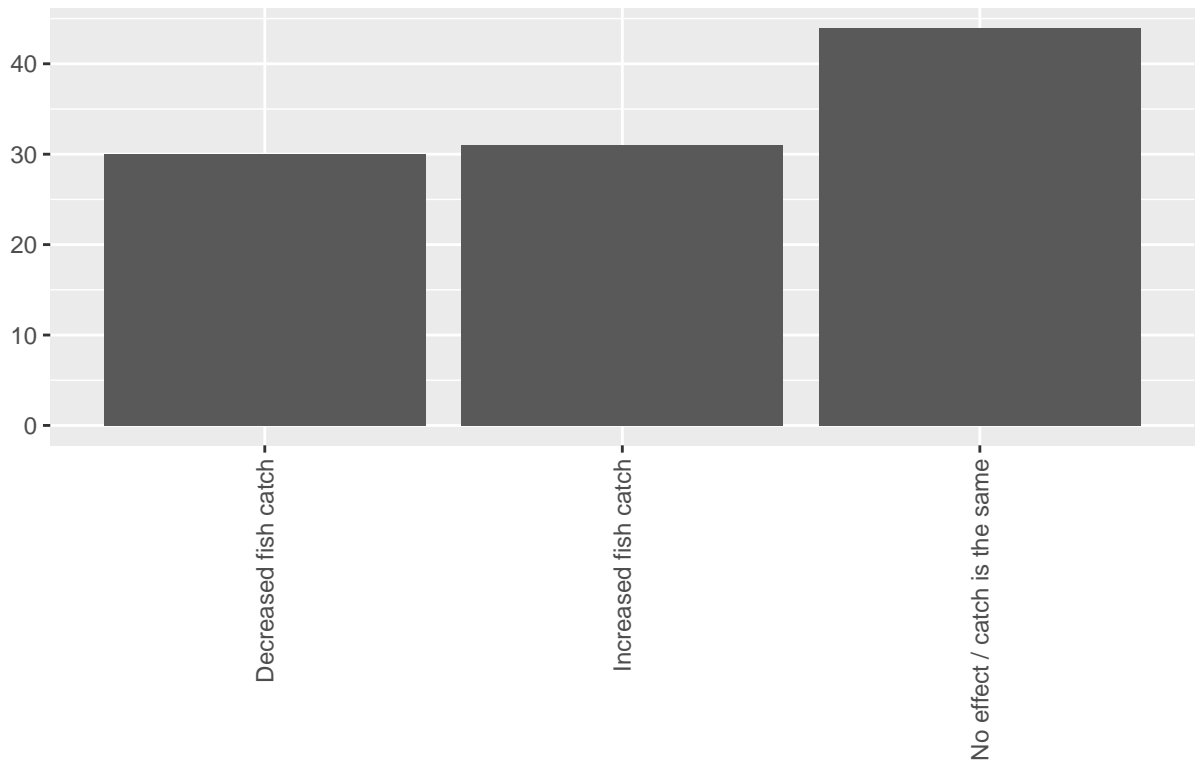
Local restriction on fish catch



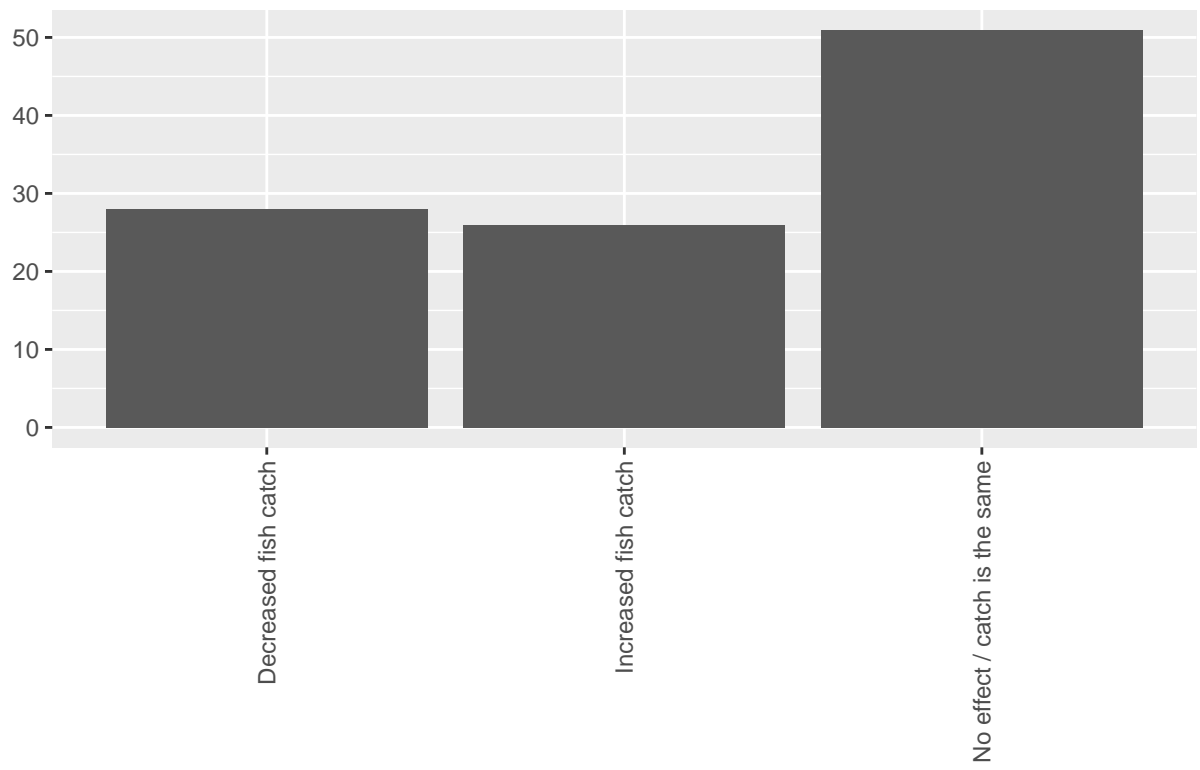
### Fishing restriction on composition of non finfish



Effect of fishing restriction on fish

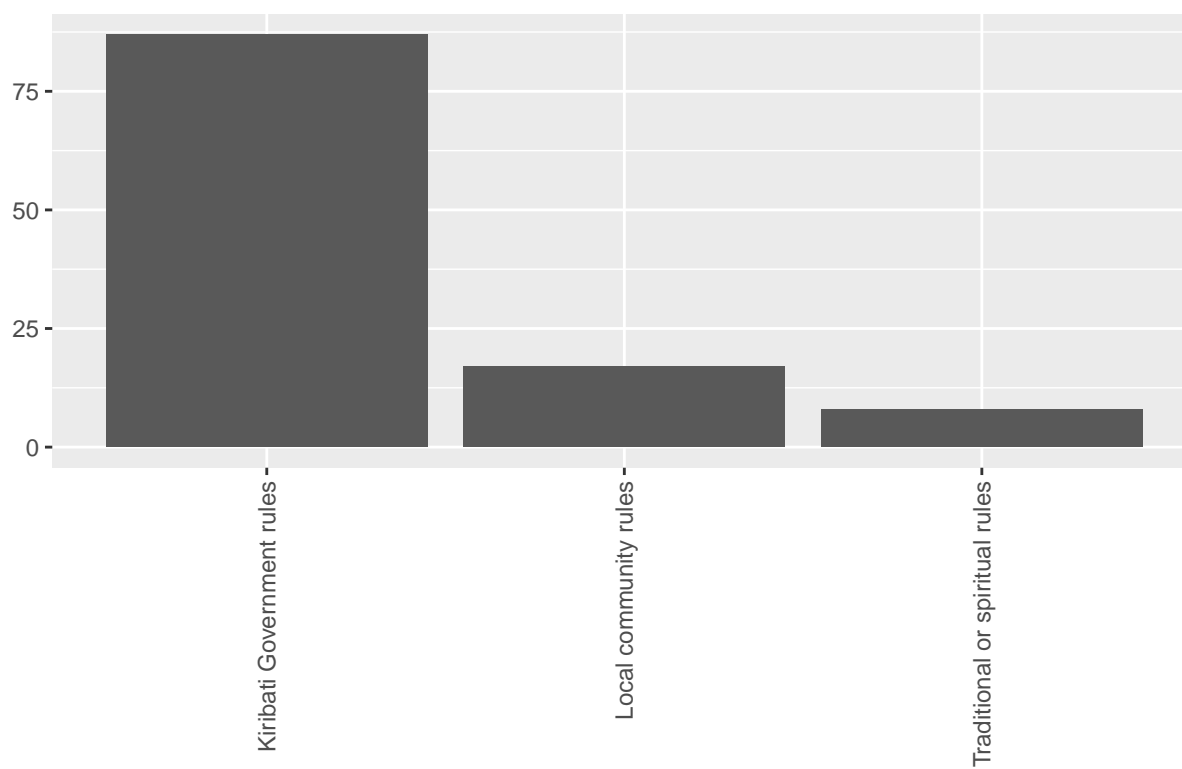


Effect of fishing restriction on non-fish

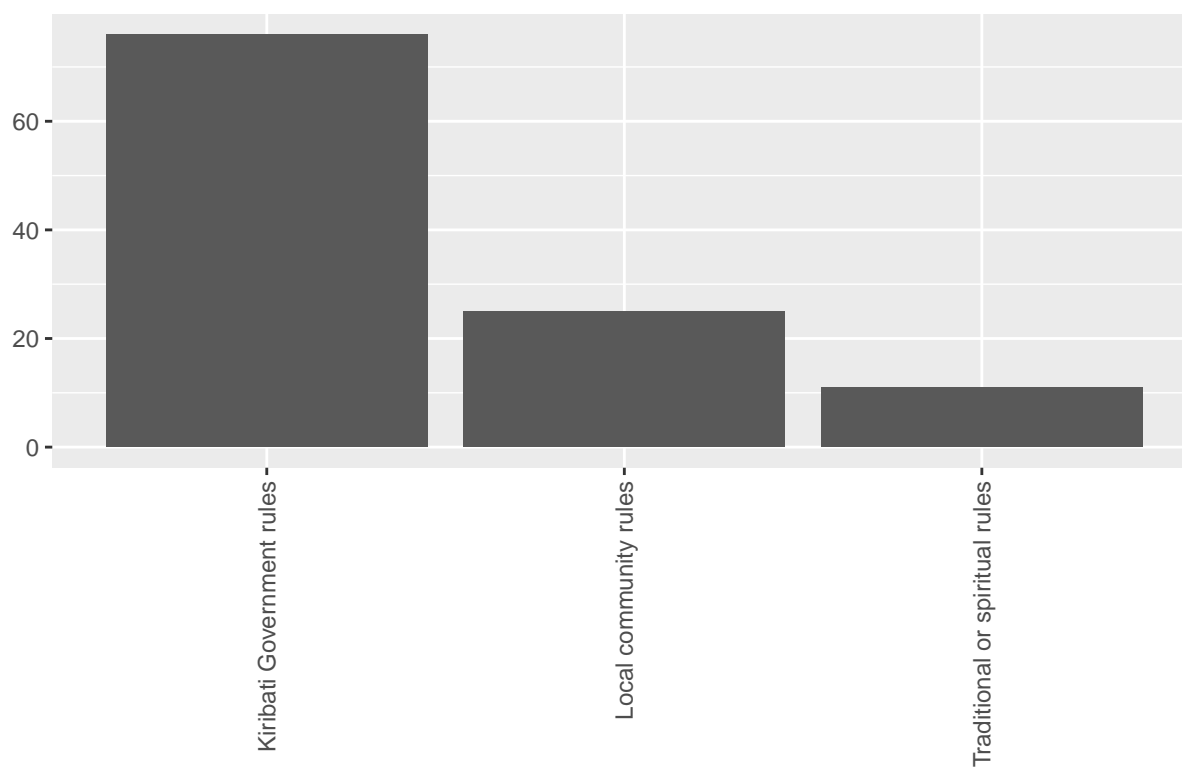




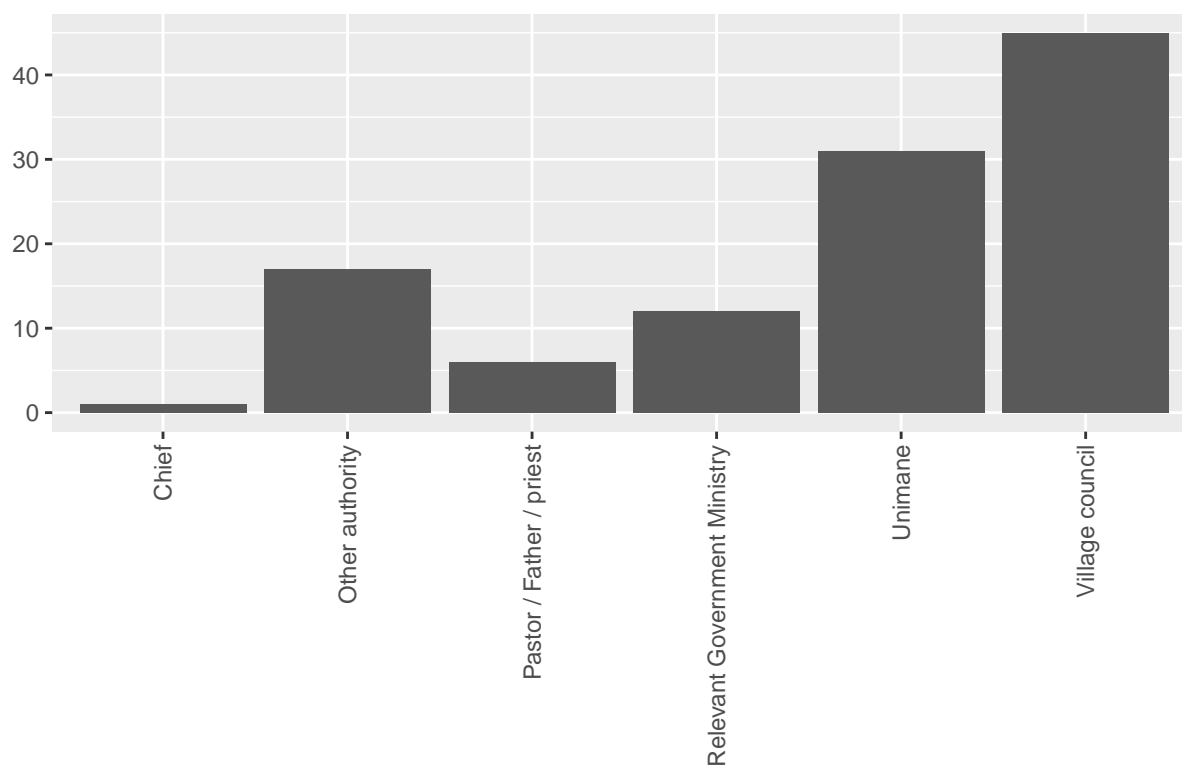
Most important rule to maintain fish stock



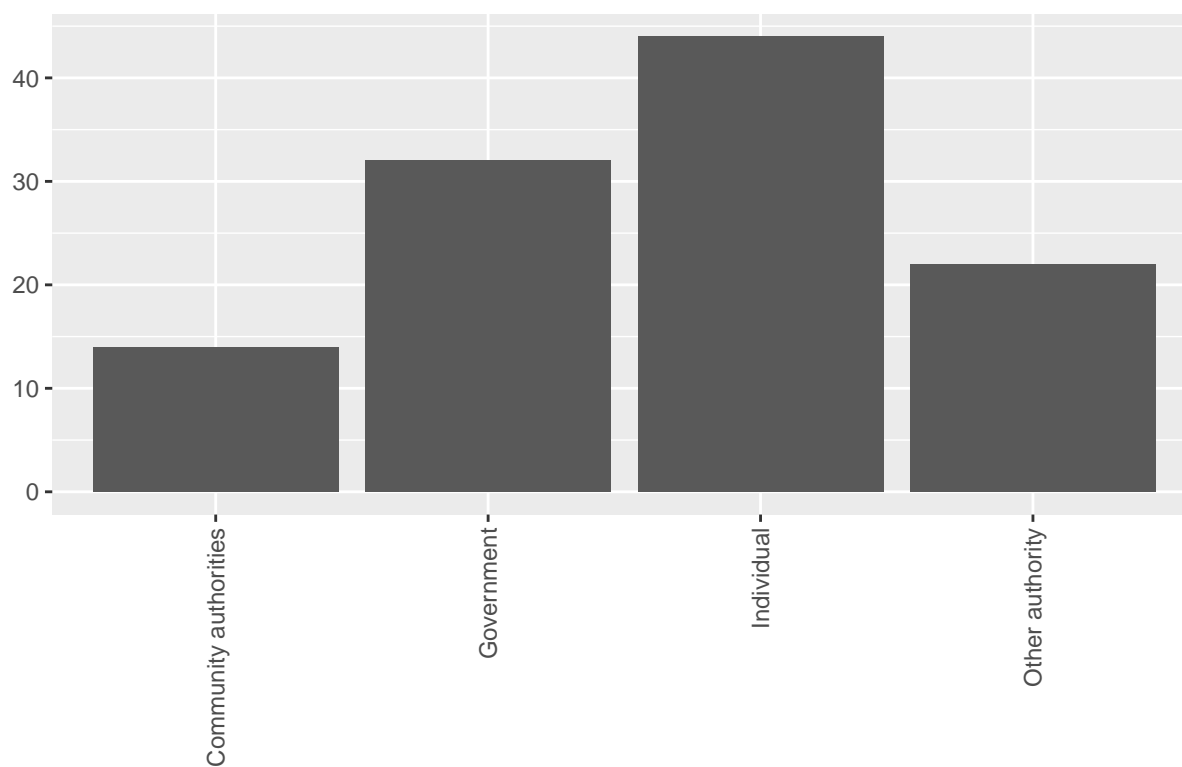
Most important rule for access to fish



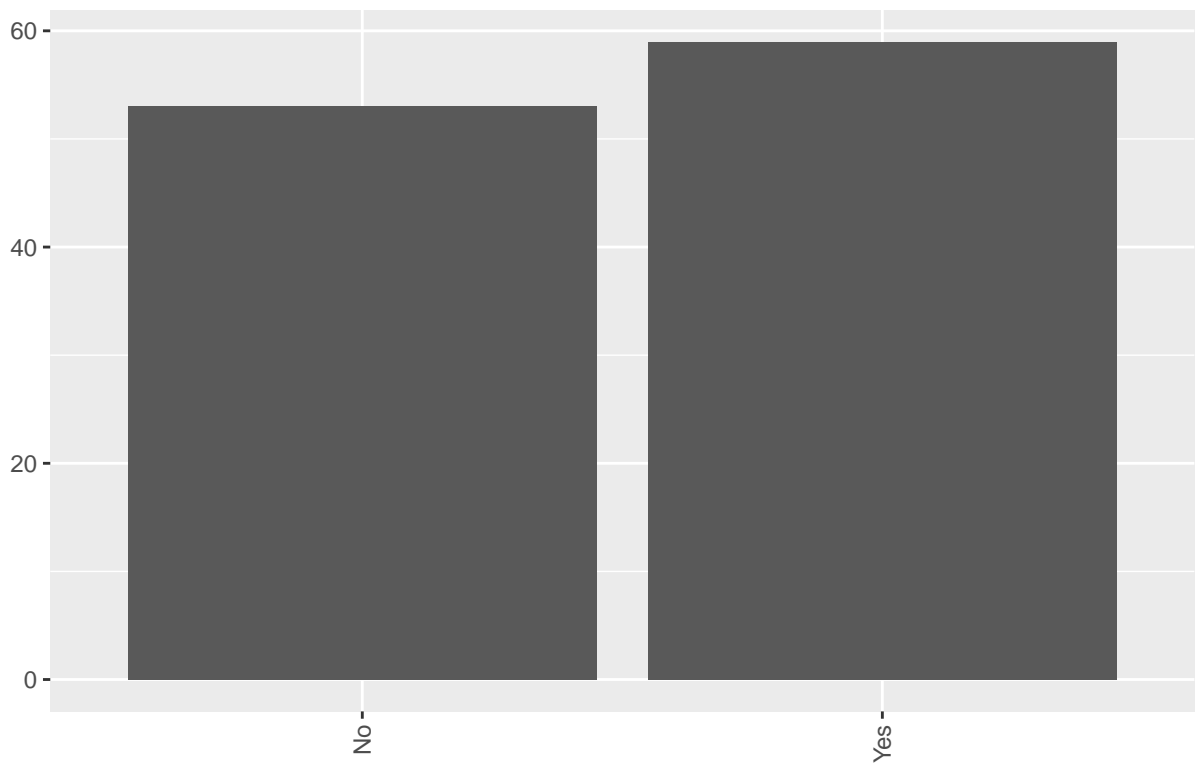
Authority responsible for dispute



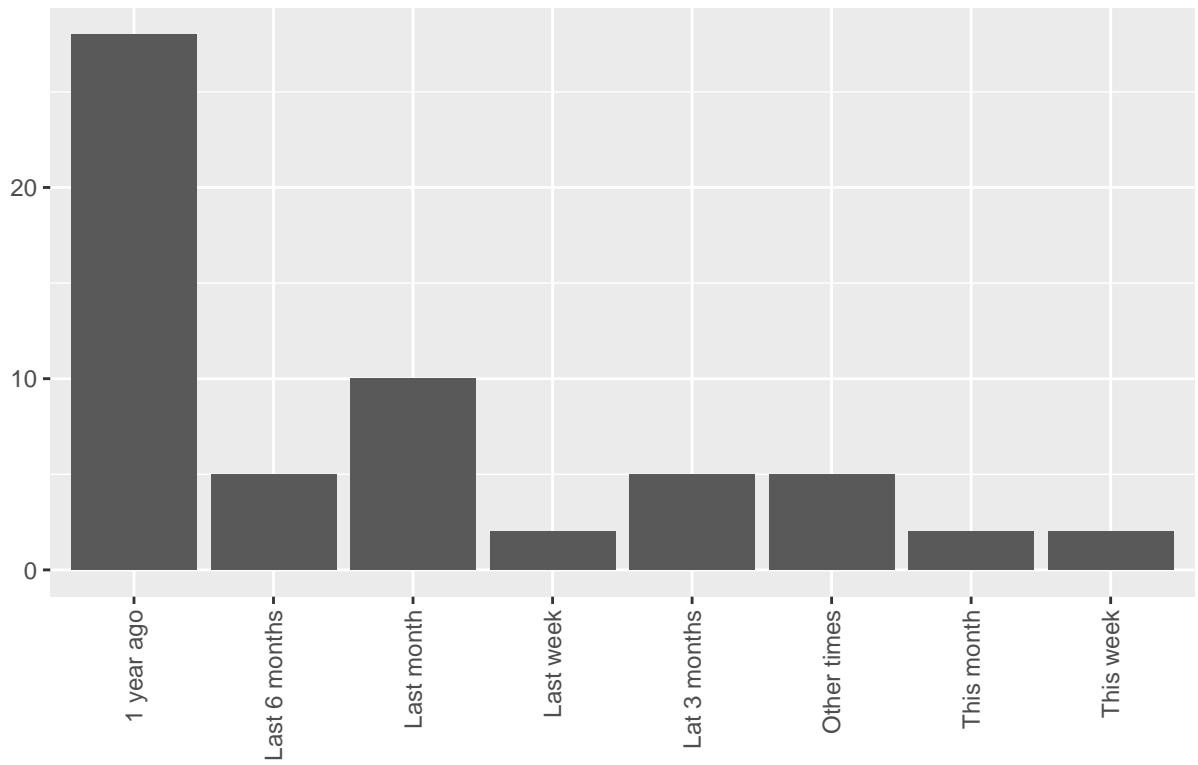
Authority influencing fishing activities



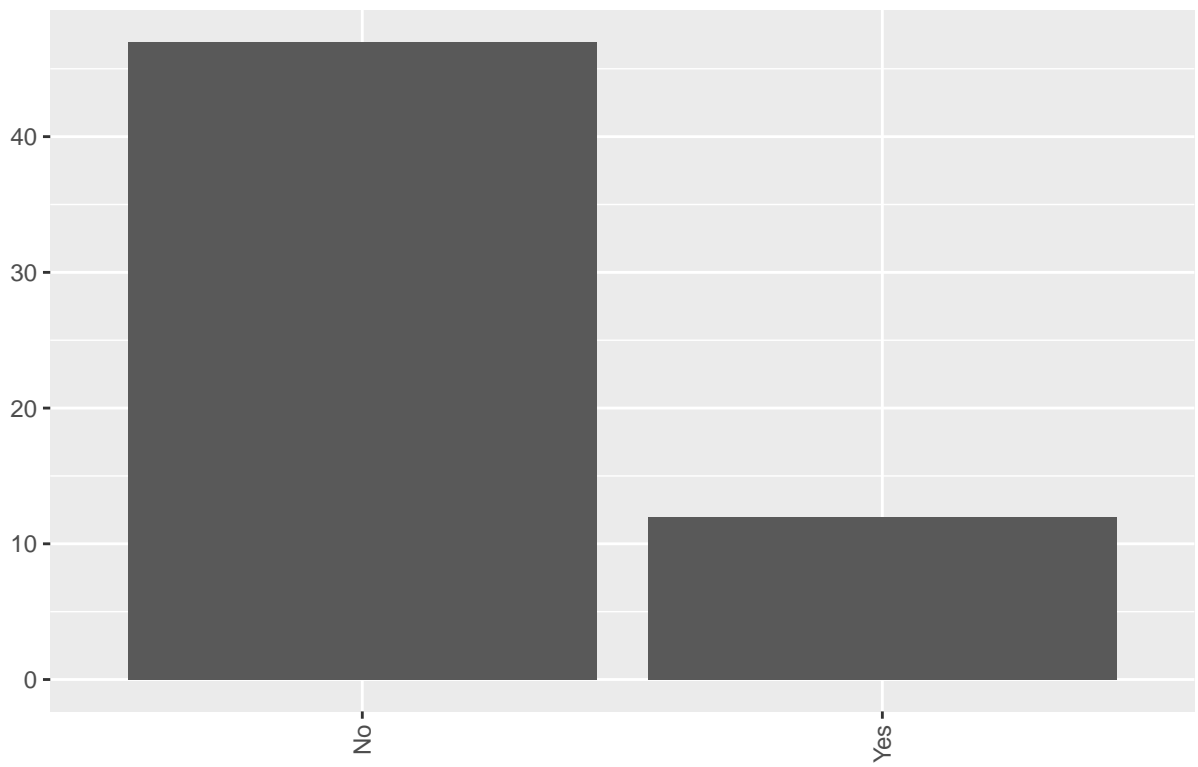
Awareness about CBFM



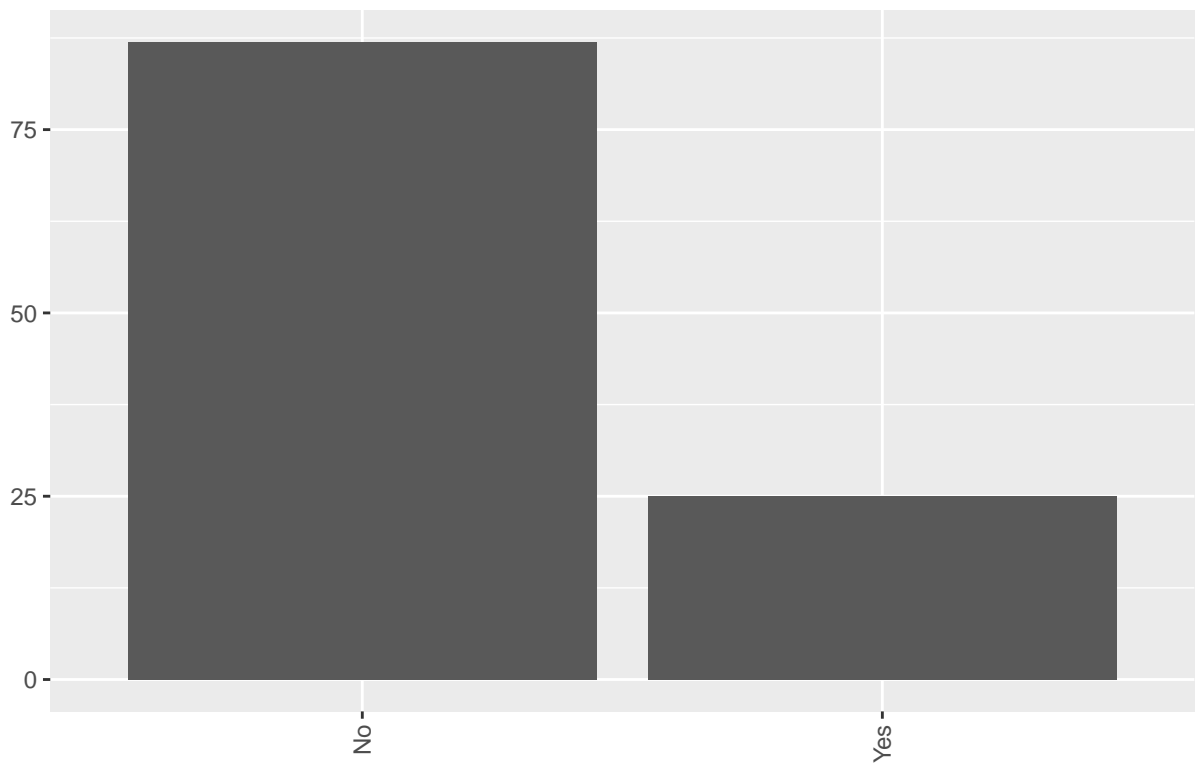
Last visit about CBFM



## Implement CBFM

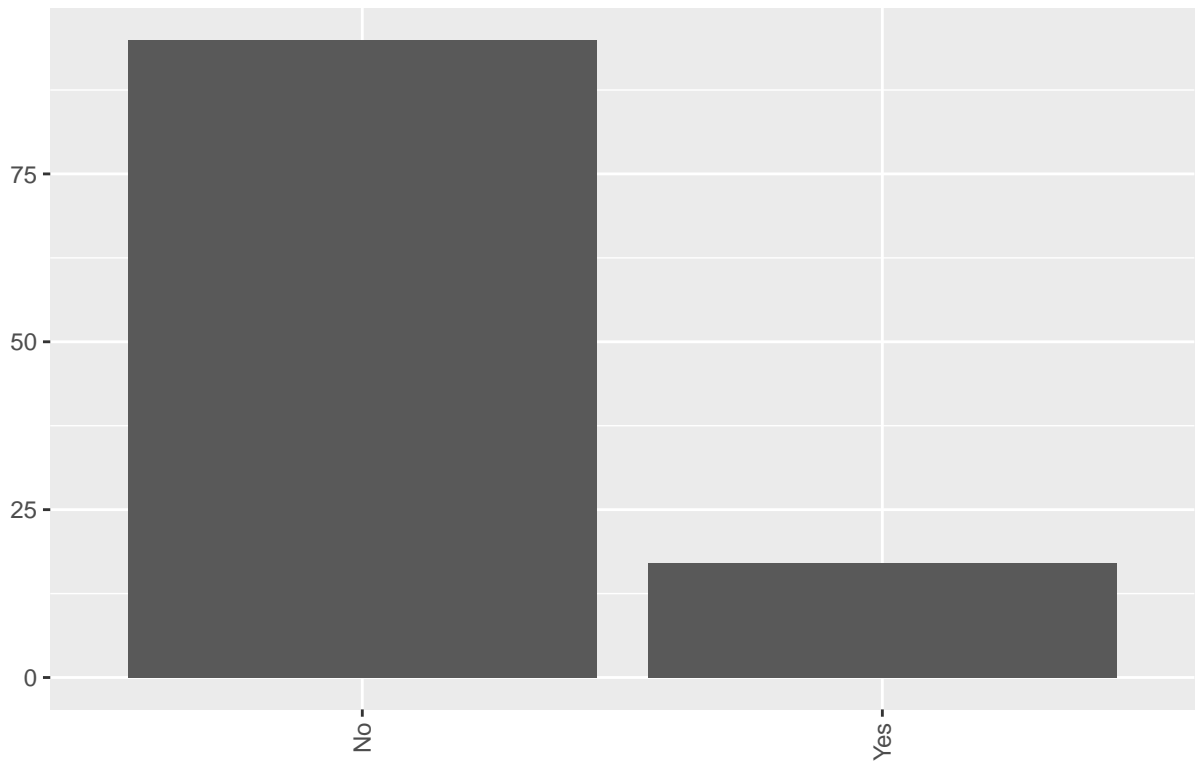


### New village rule

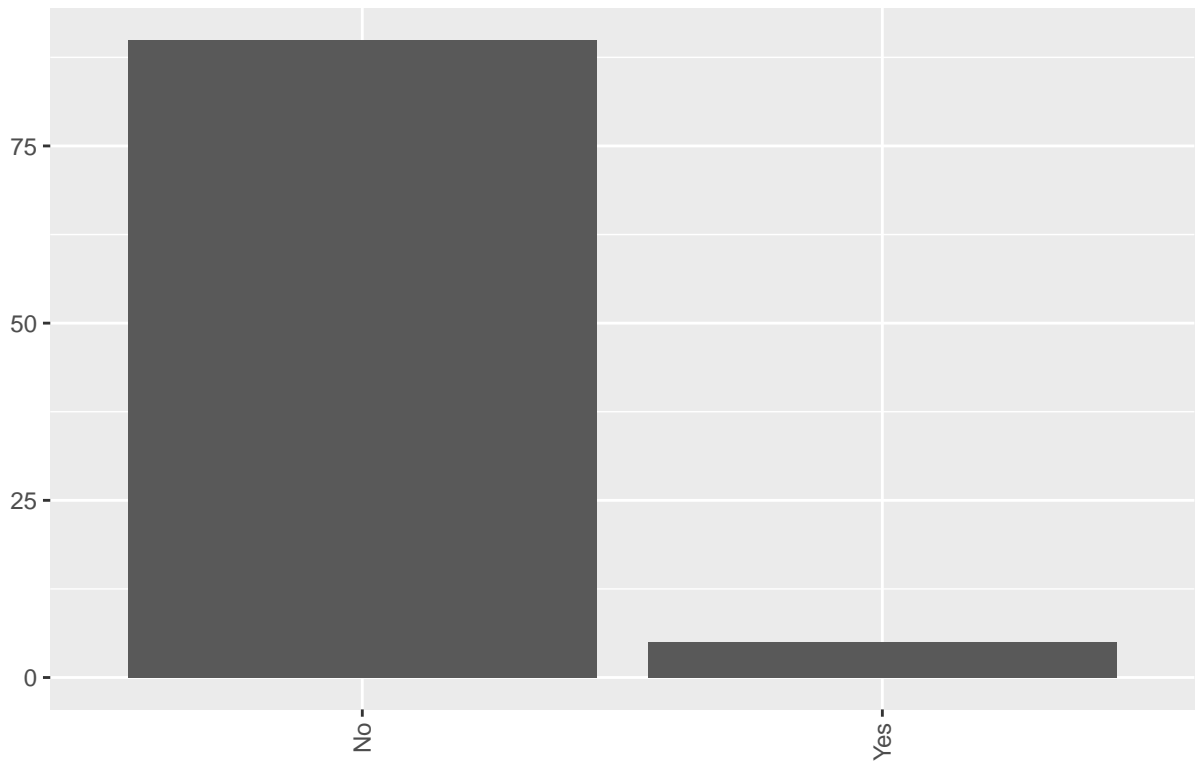


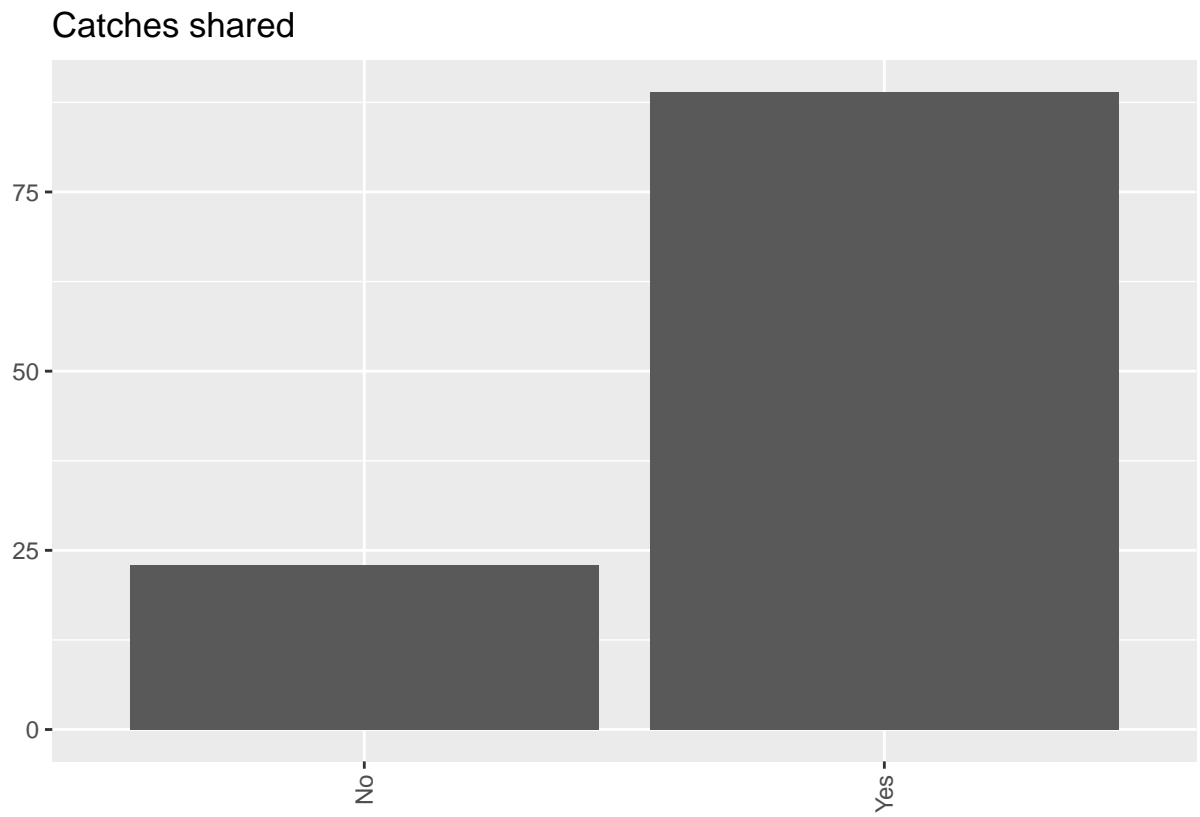


Aquaculture in the village

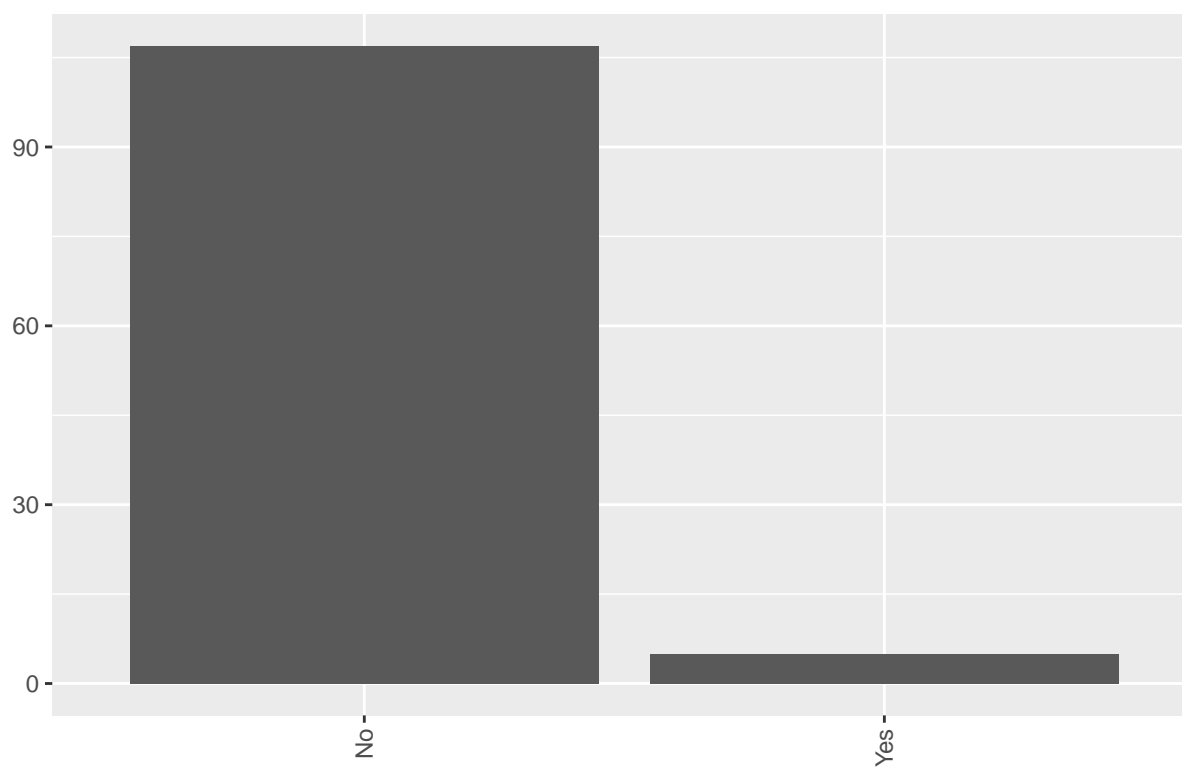


### Considering aquaculture in the village

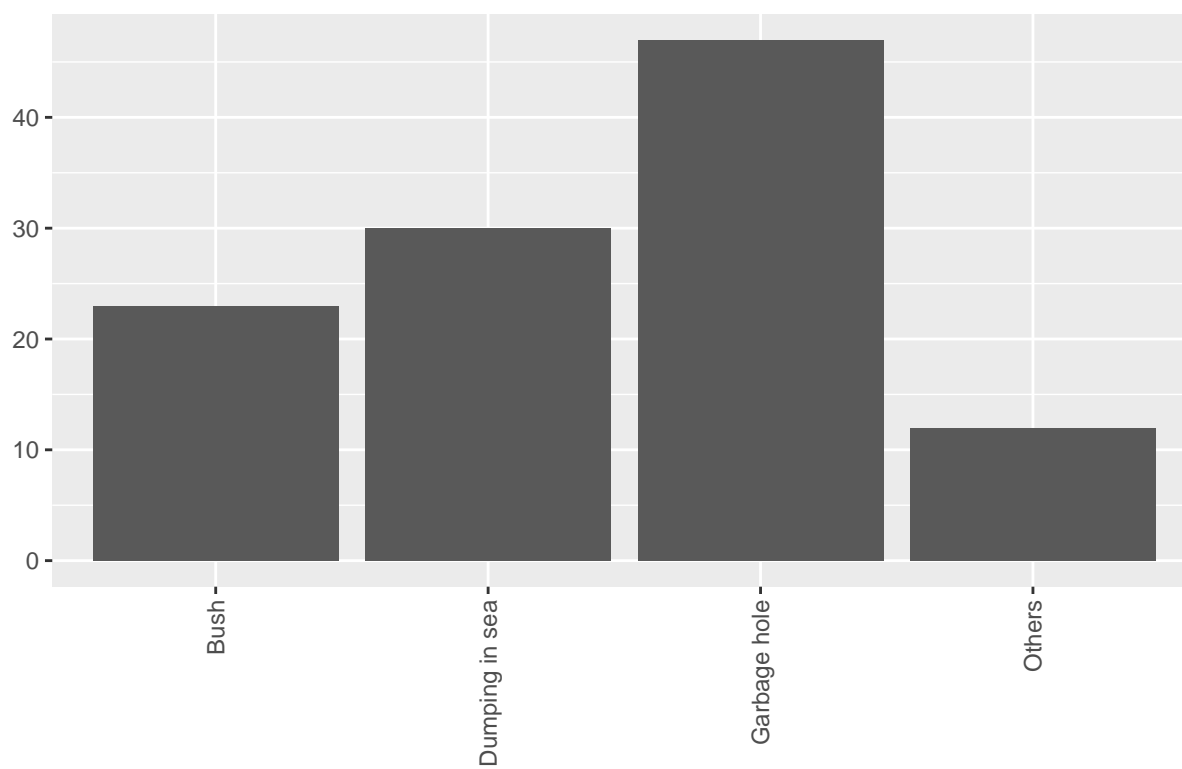




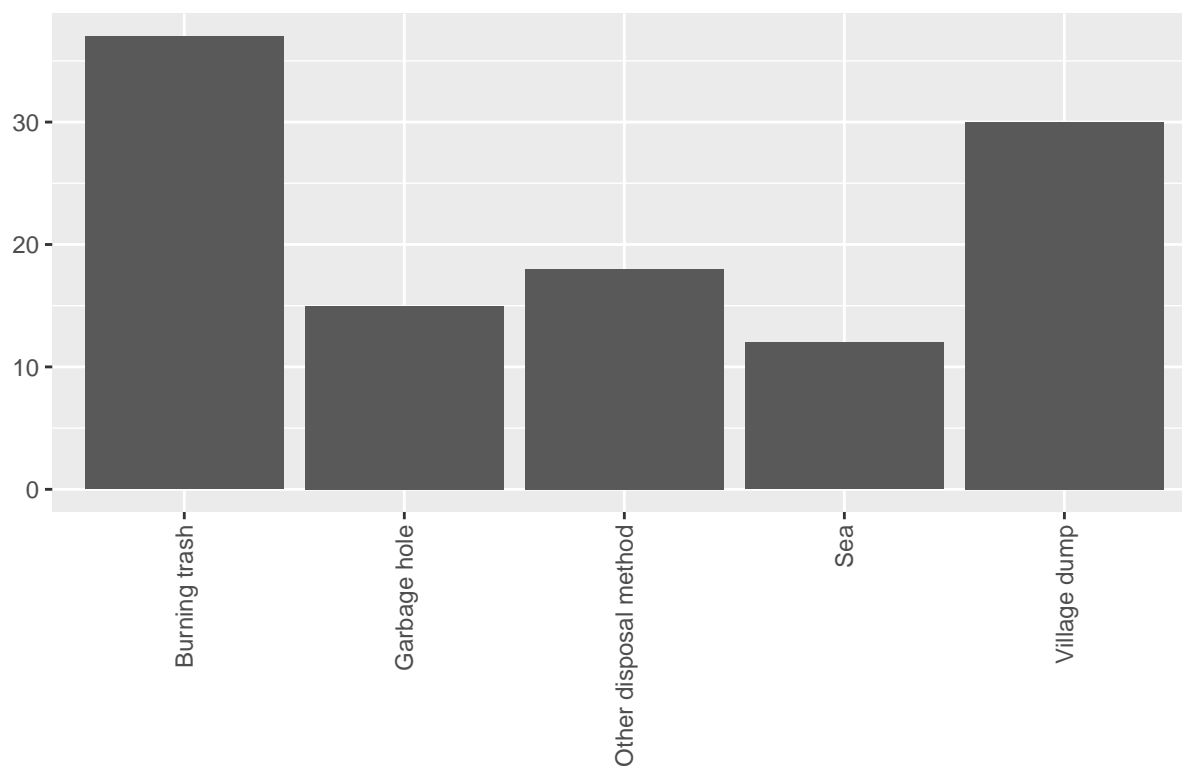
Disposal through sewerage channel



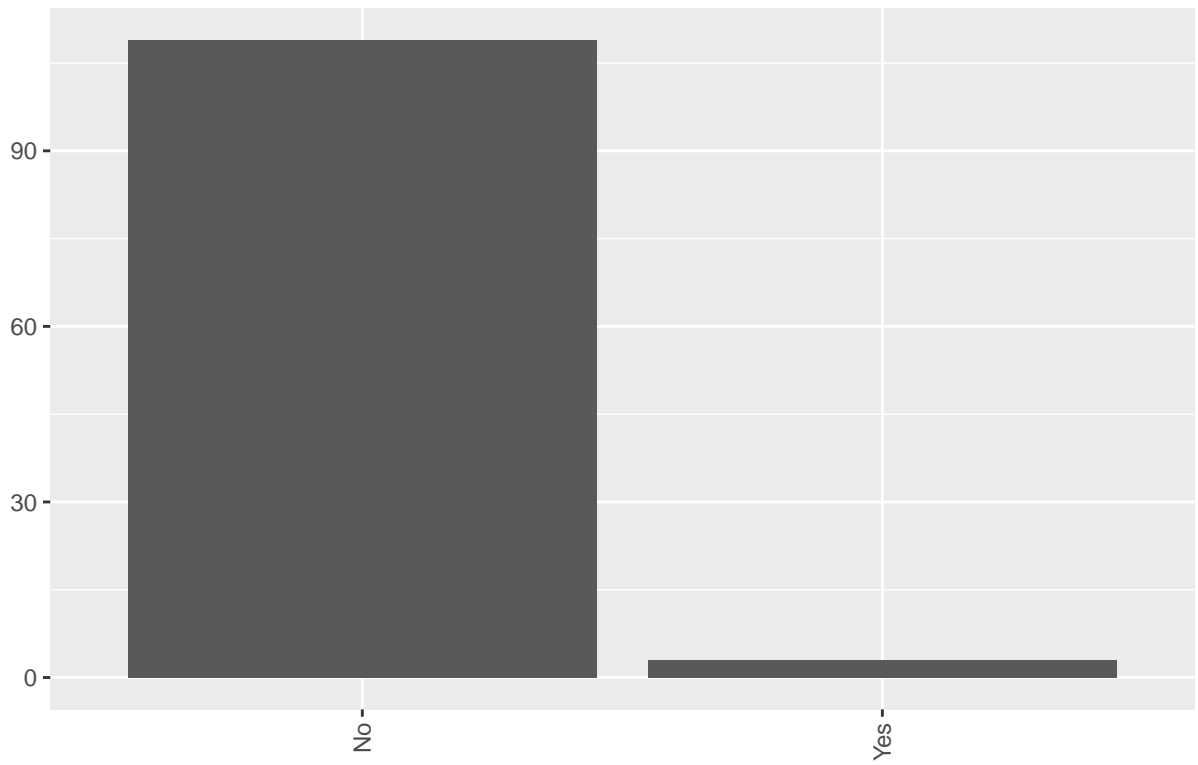
Method of disposing waste water



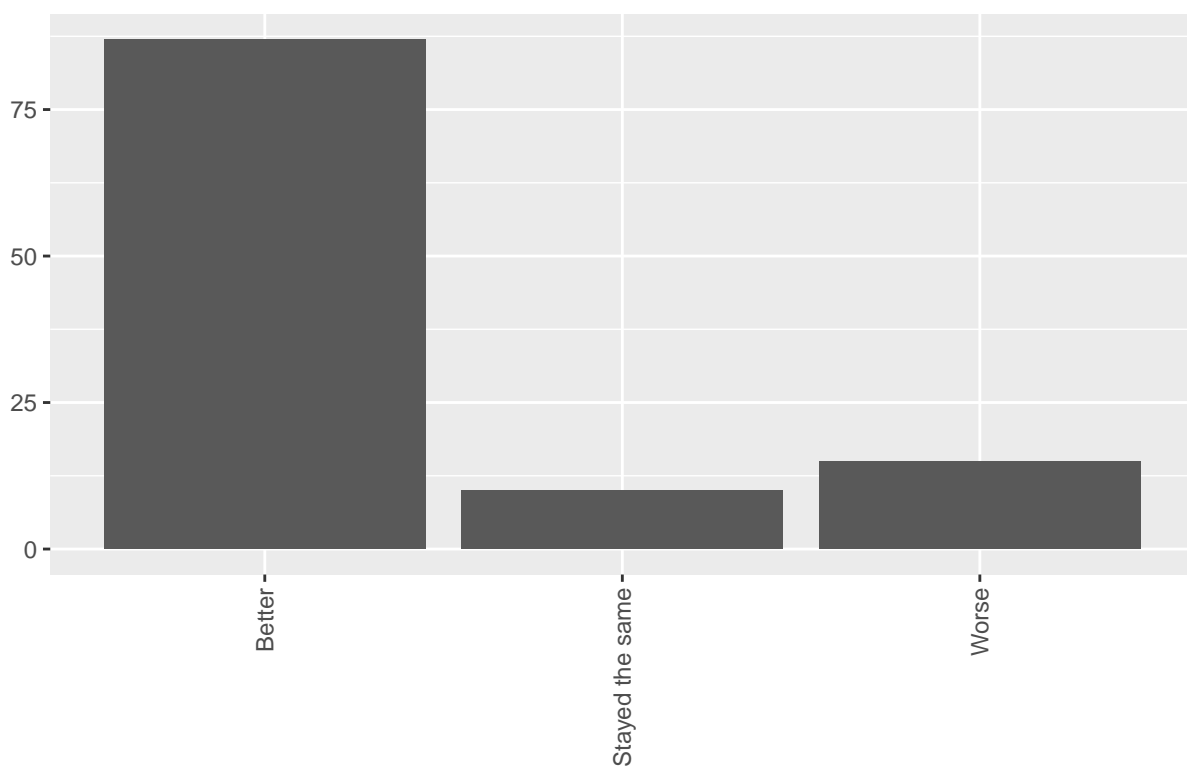
Method of disposing garbage



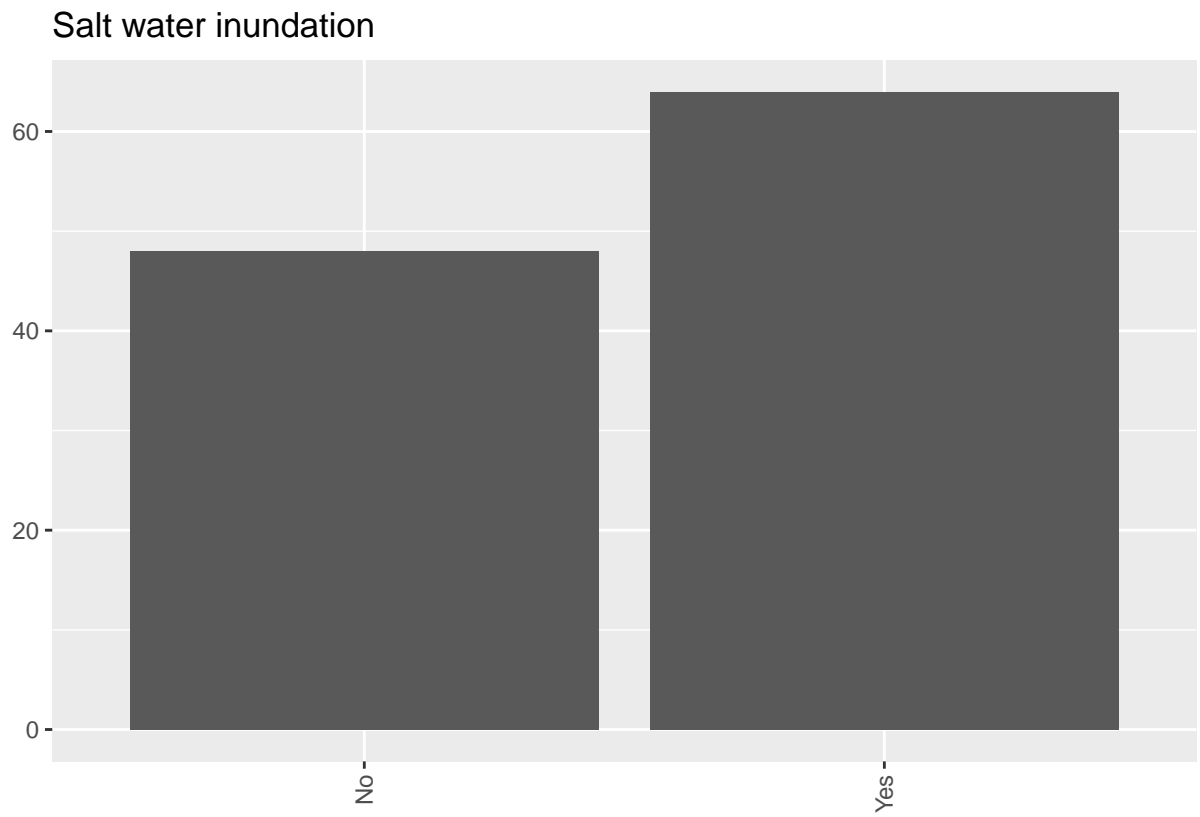
Fee for garbage collection



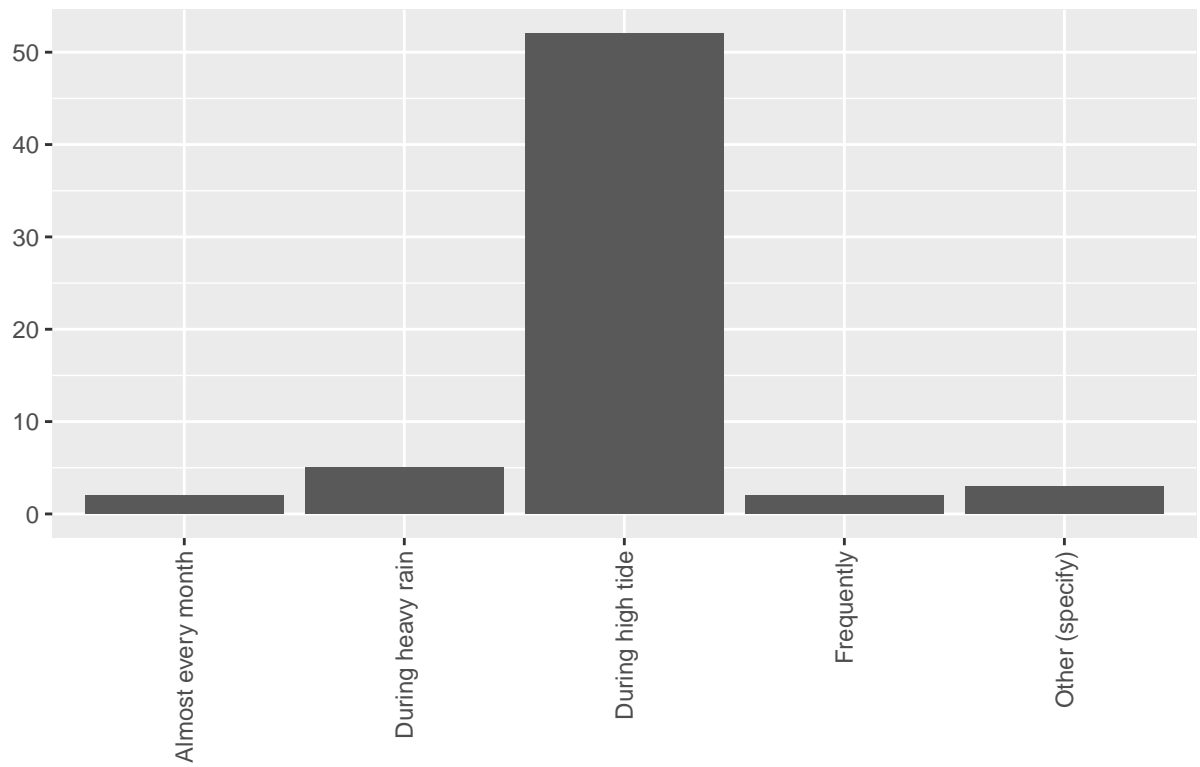
Livelihood of people



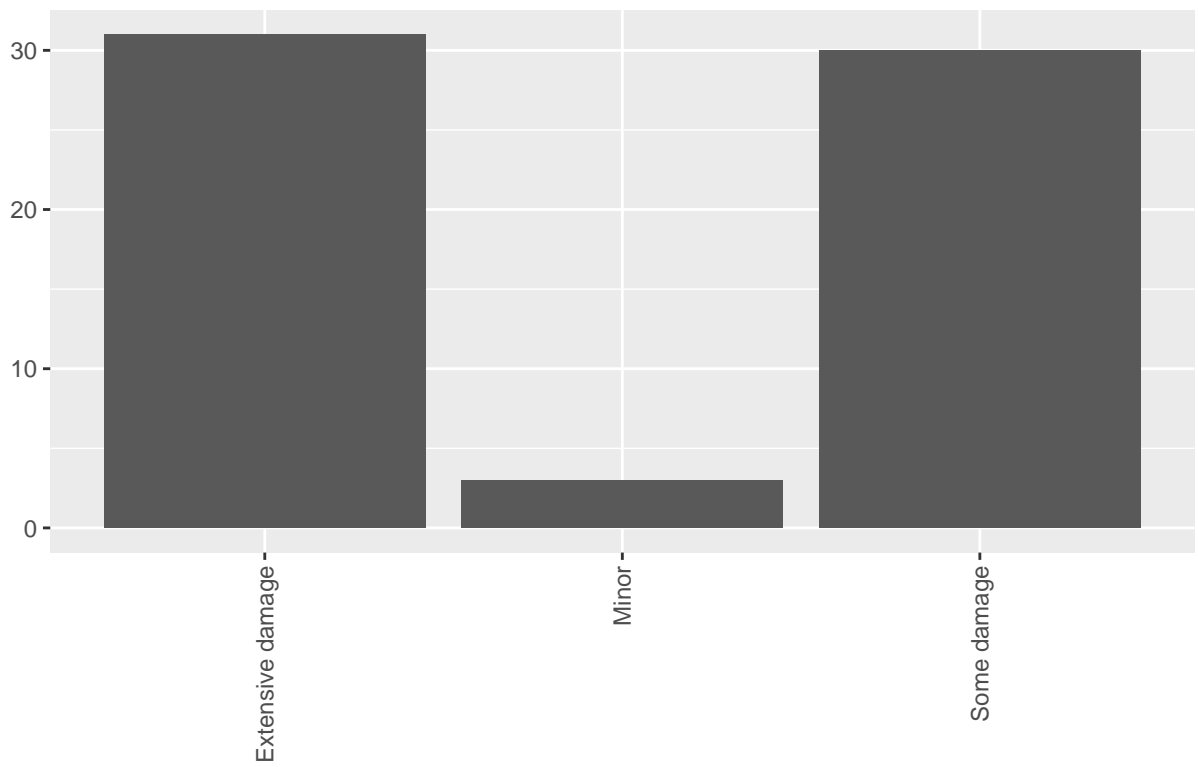


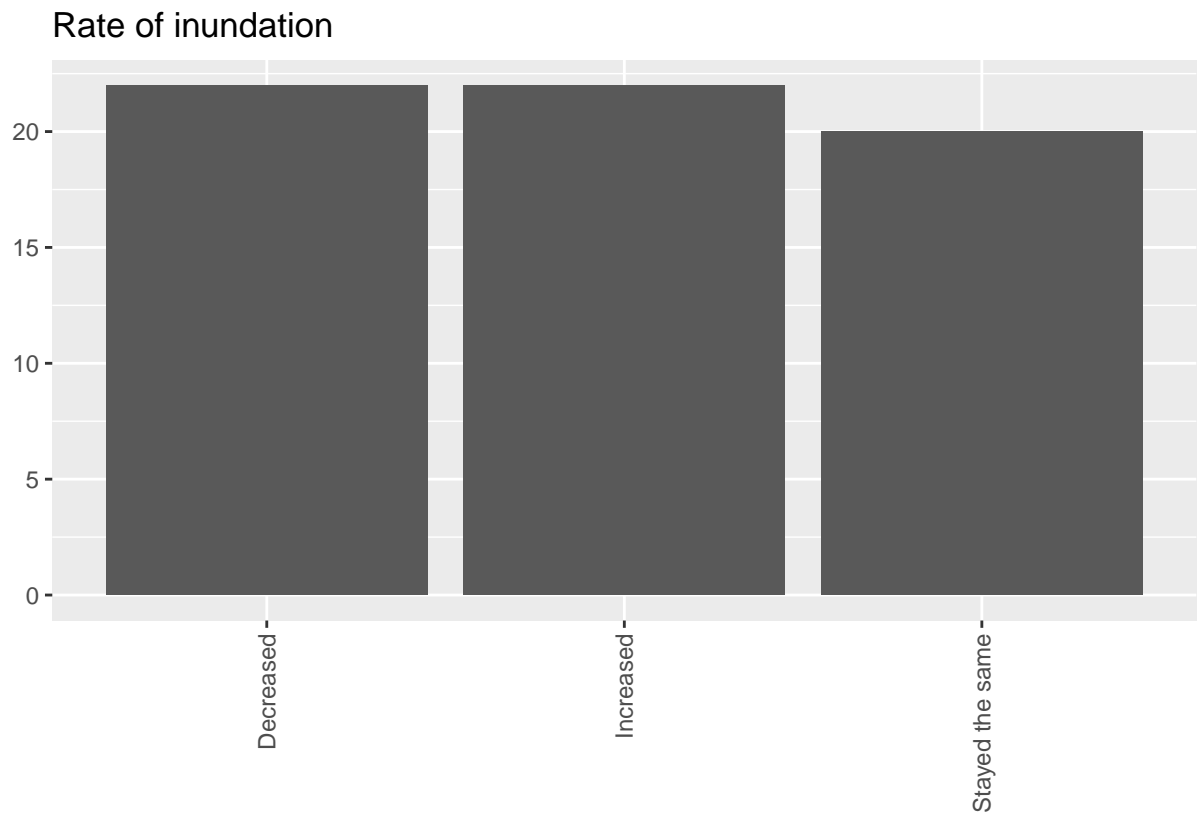


Frequency of inundation

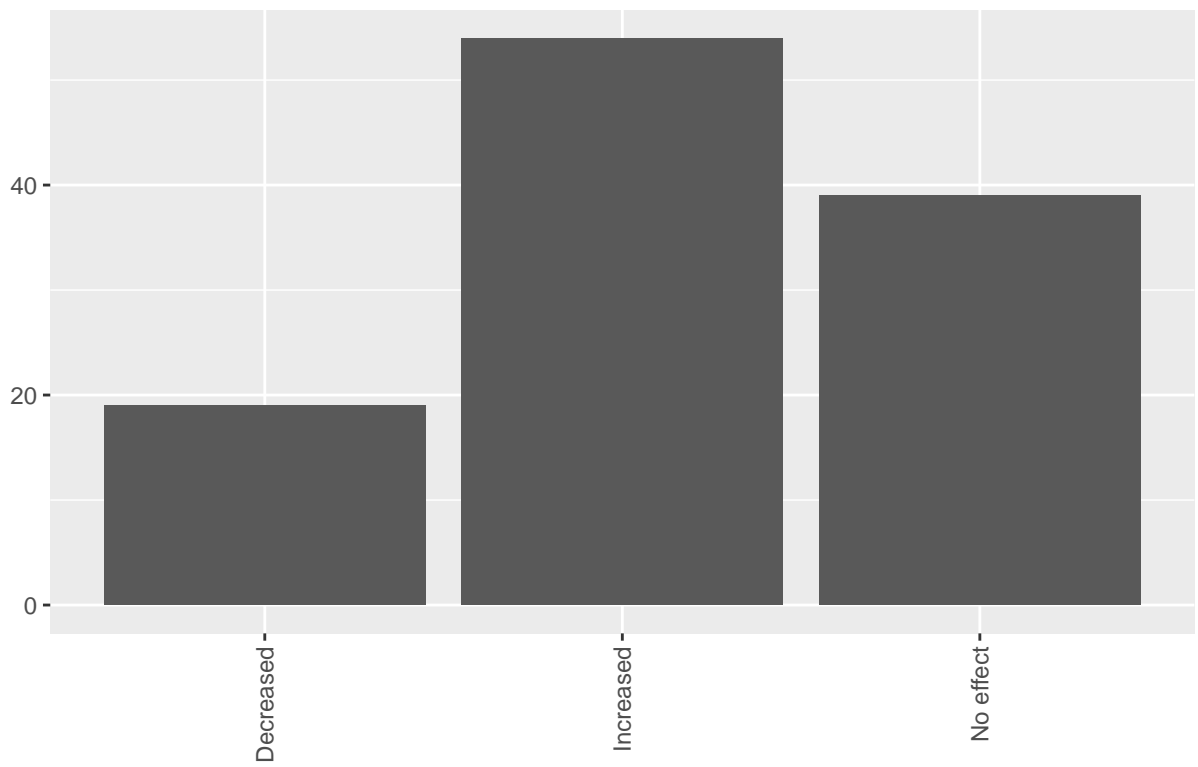


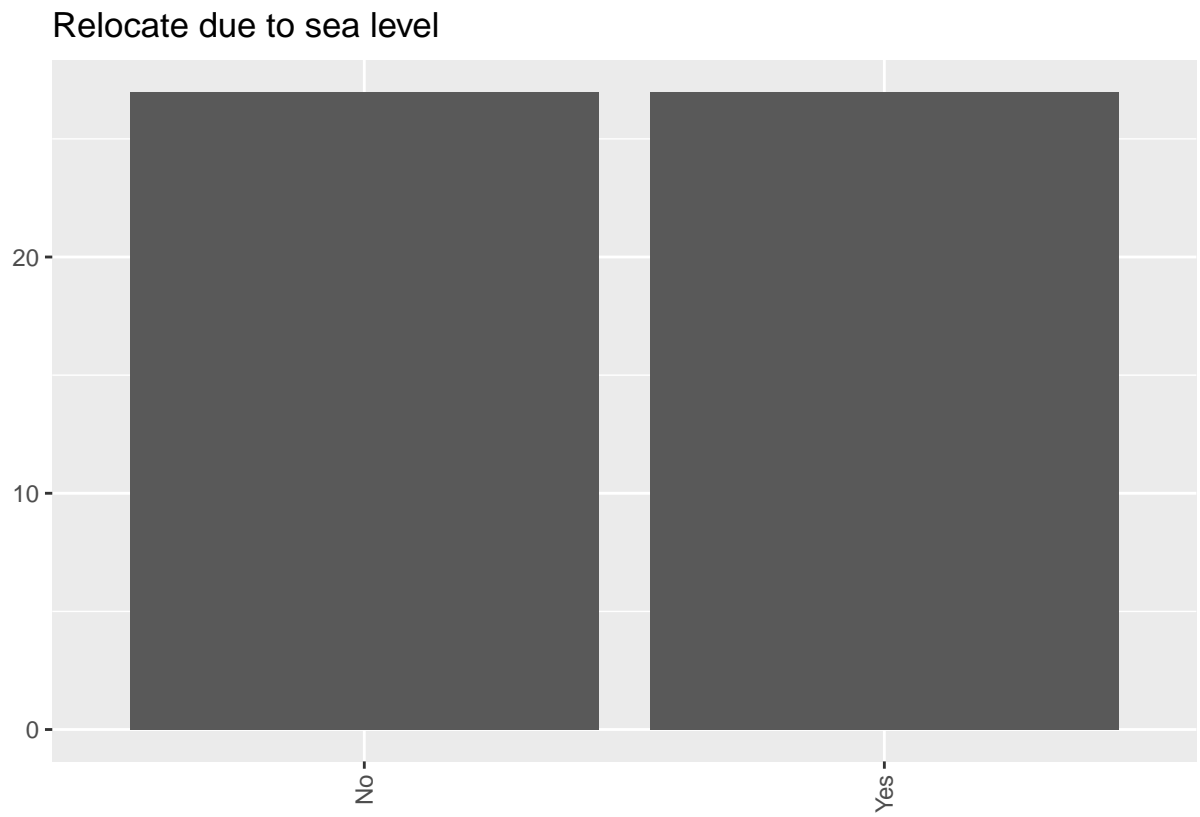
Extent of damage due to inundation

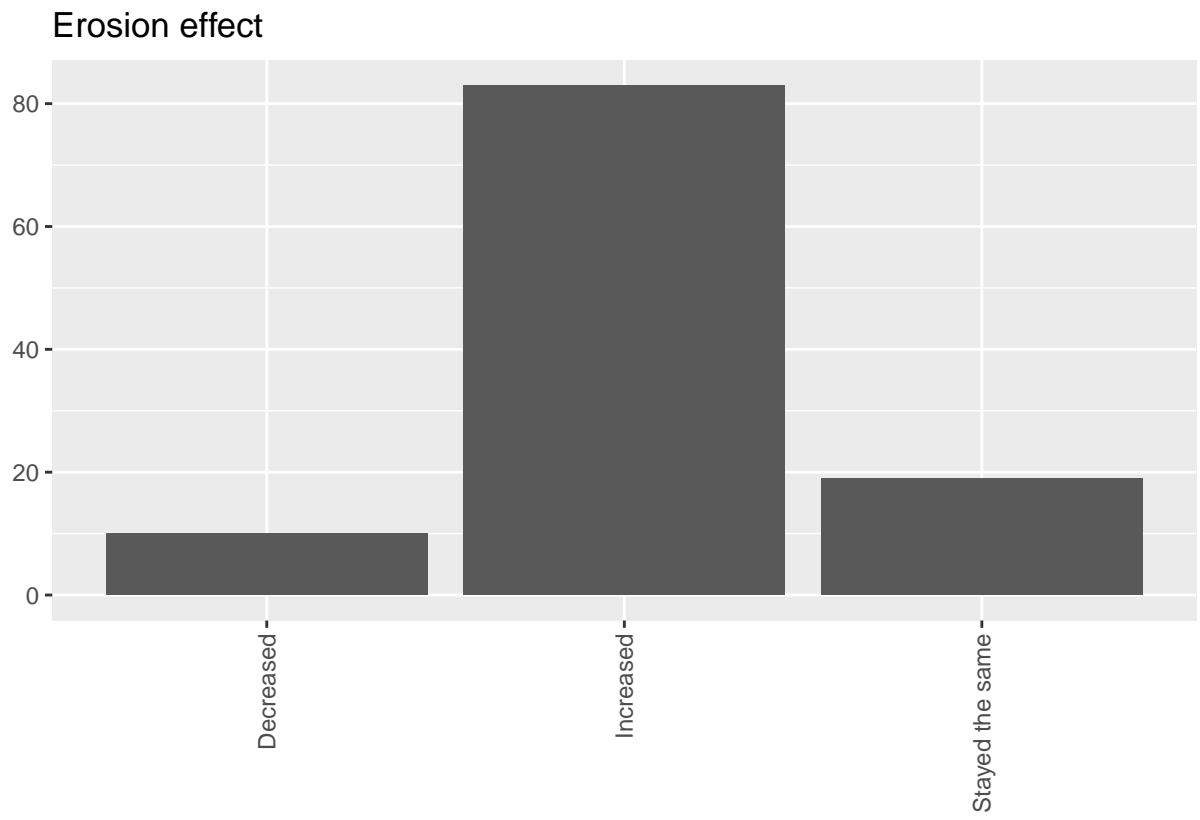




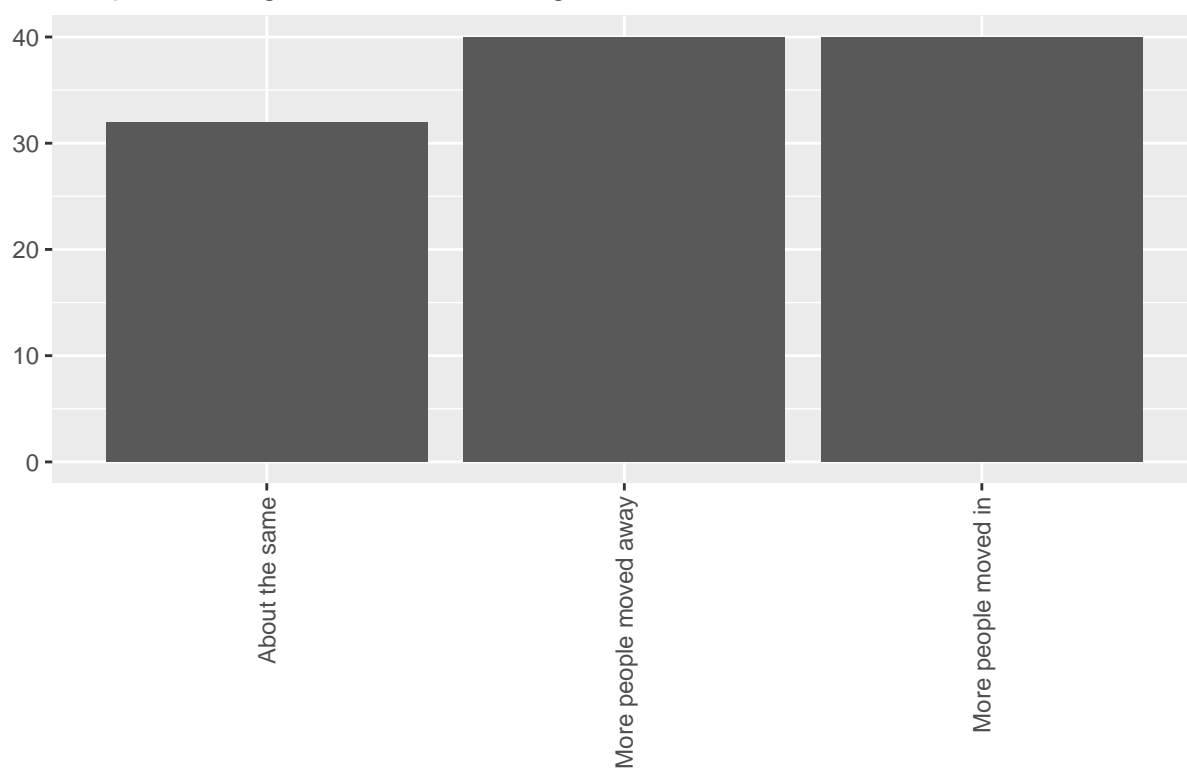
Effect of sea level





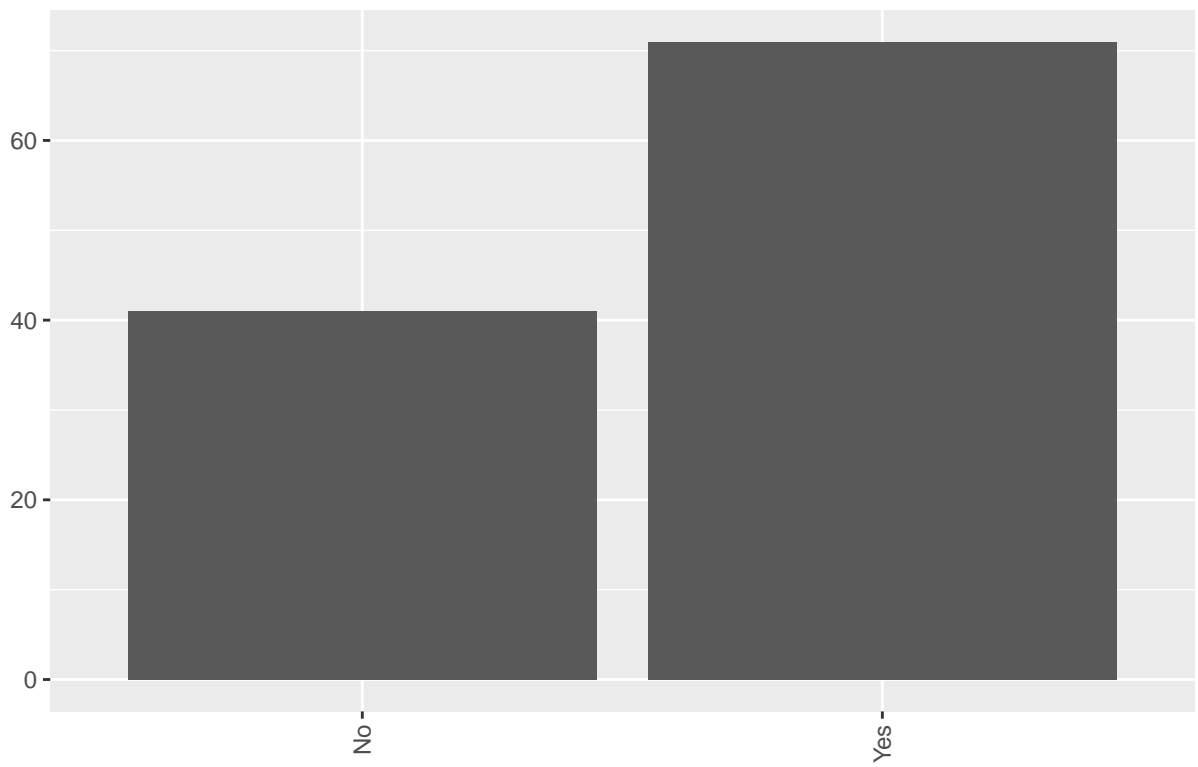


People moving in and out of village

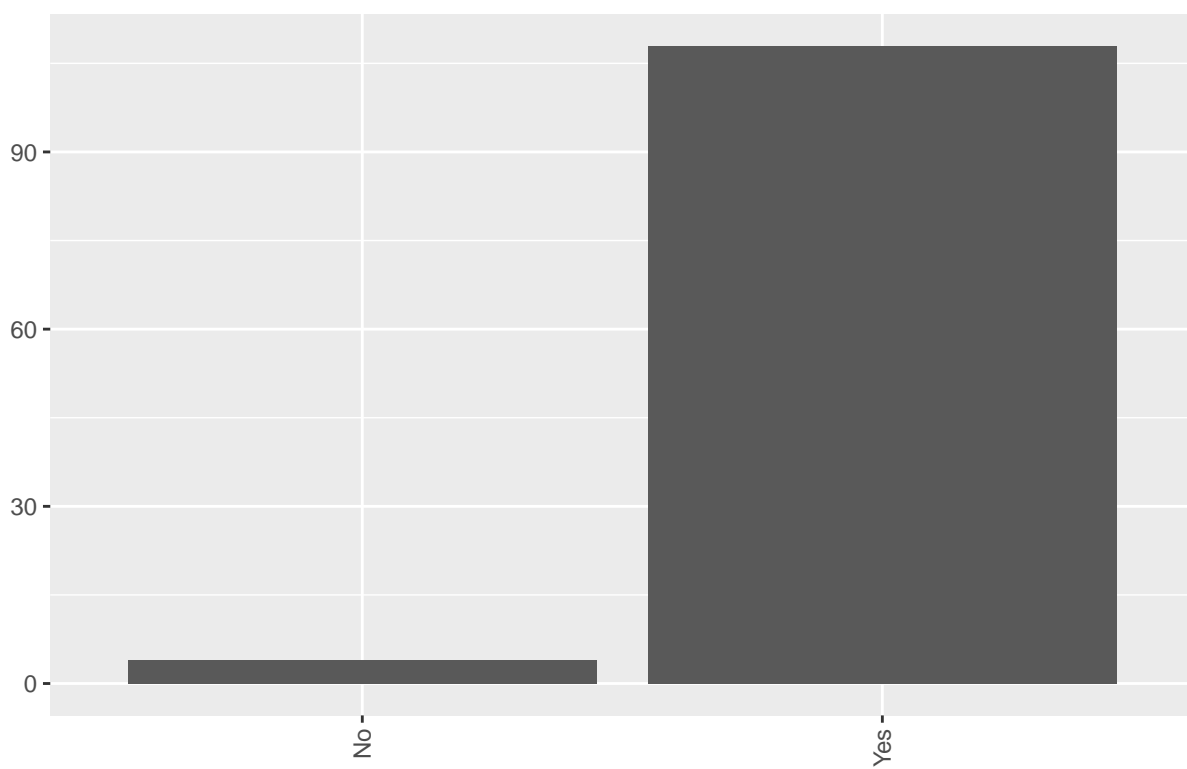




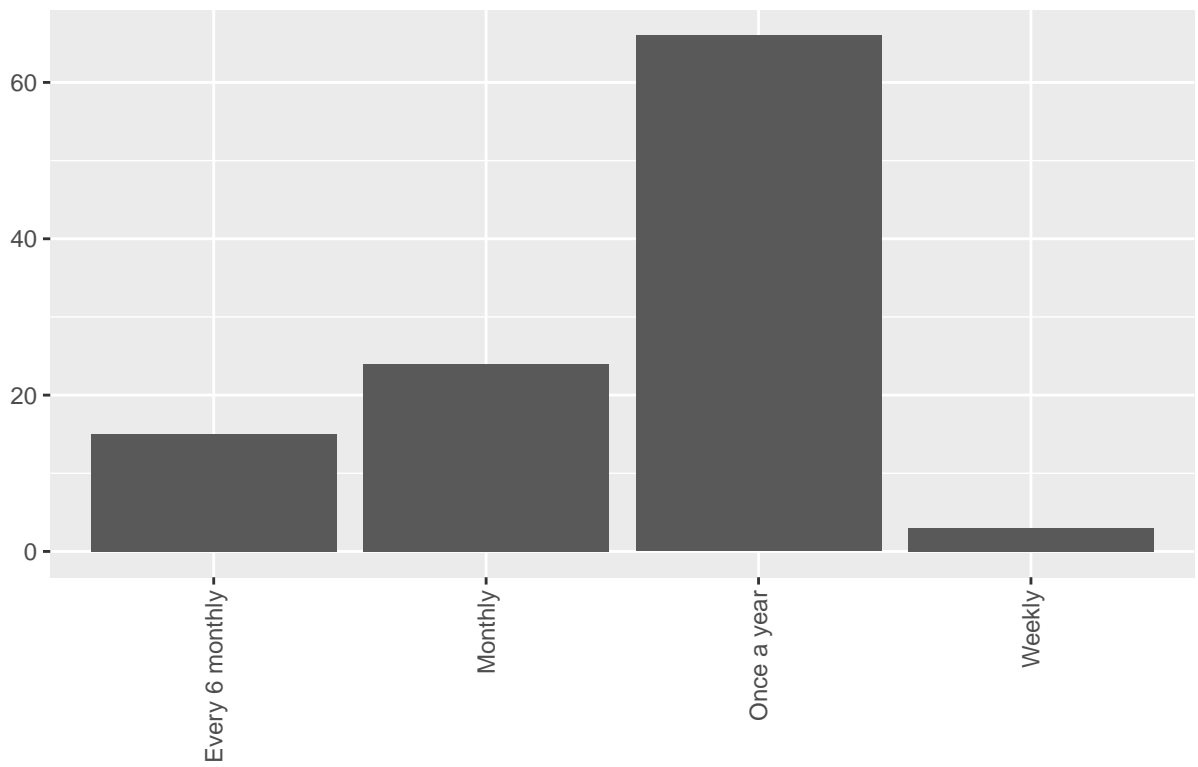
Village sponsored health program

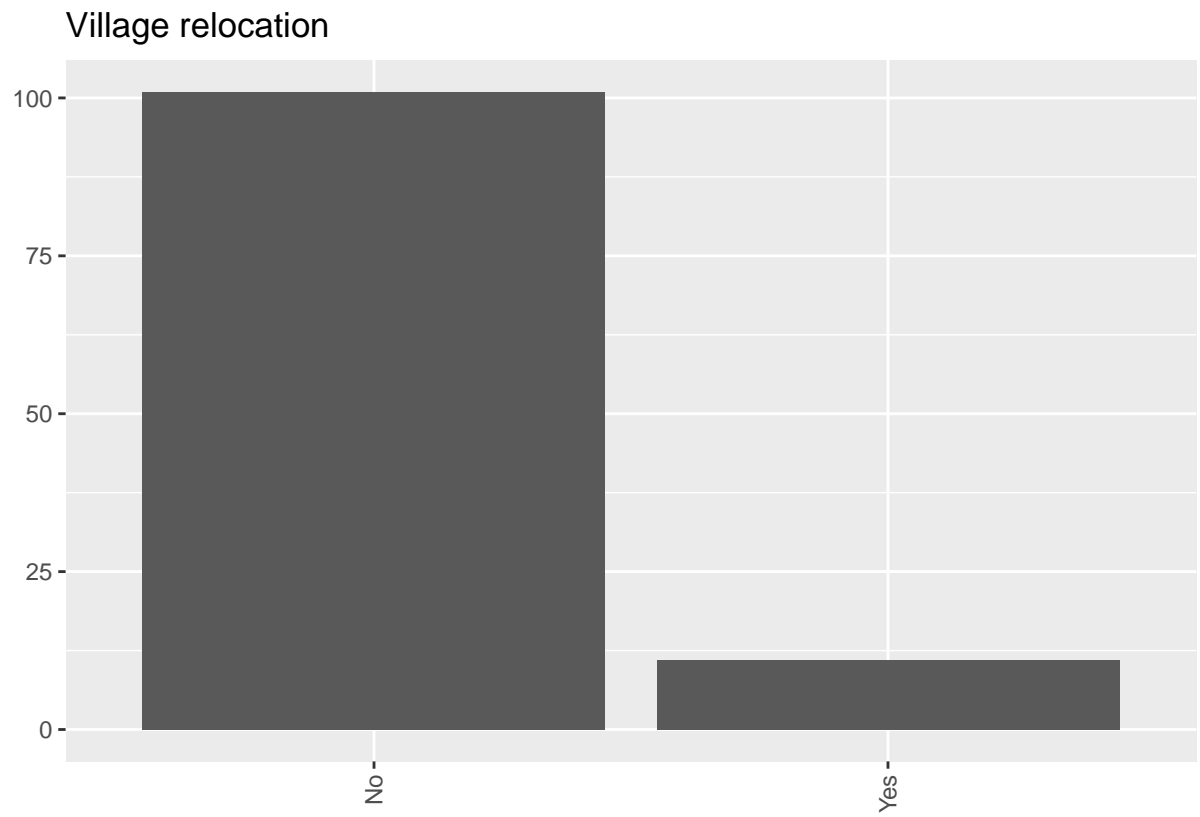


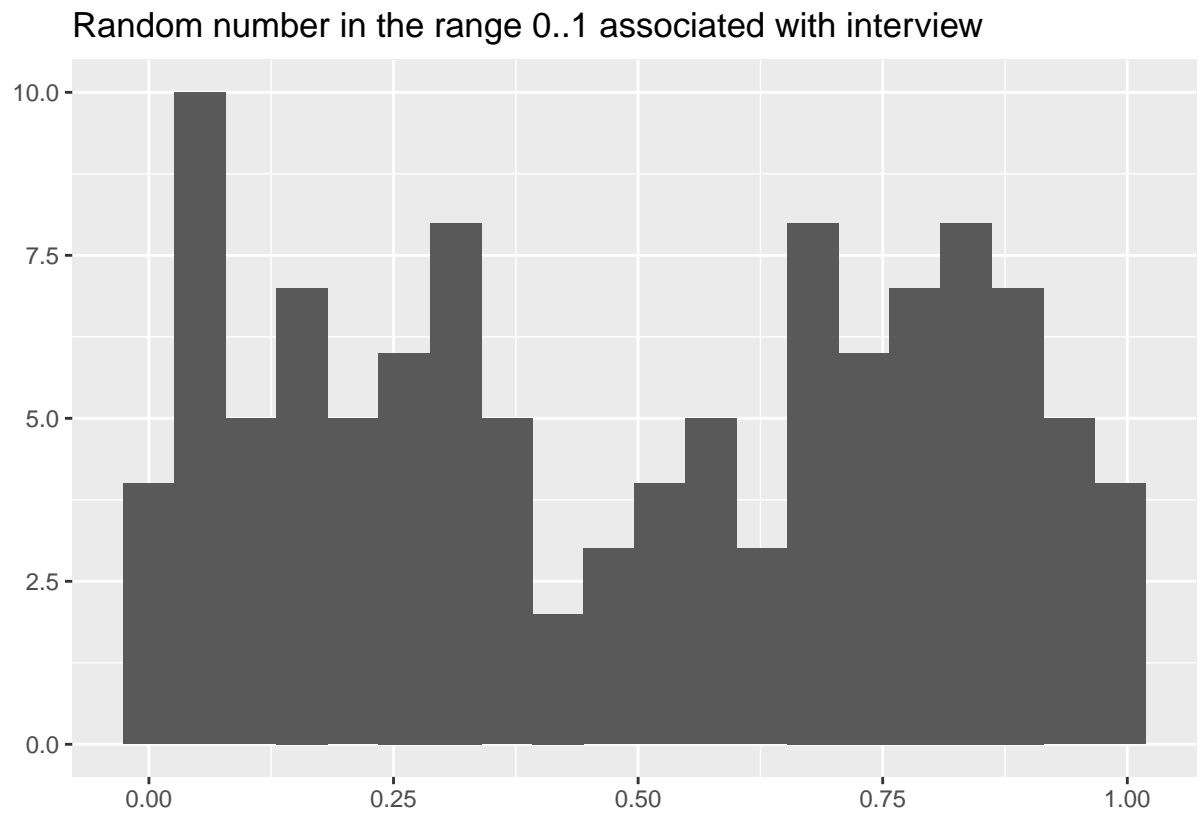
Health worker visiting village

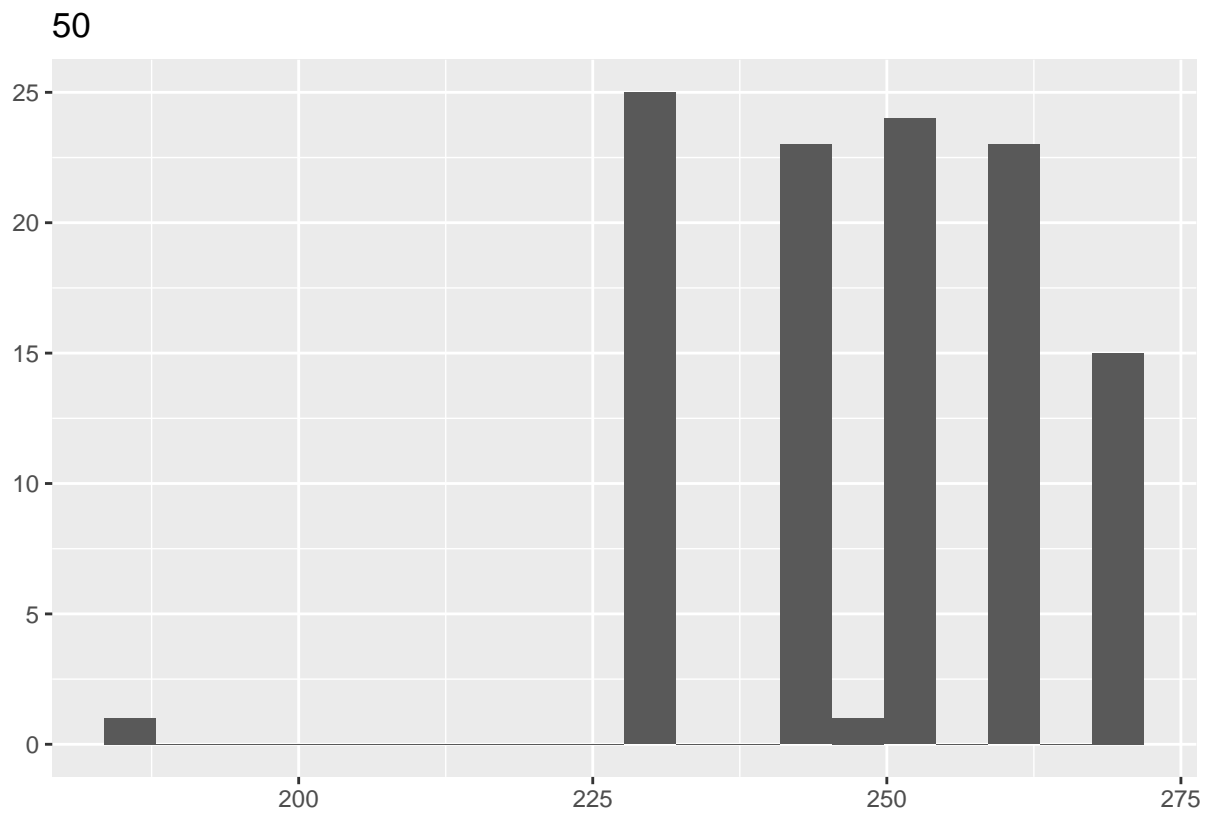


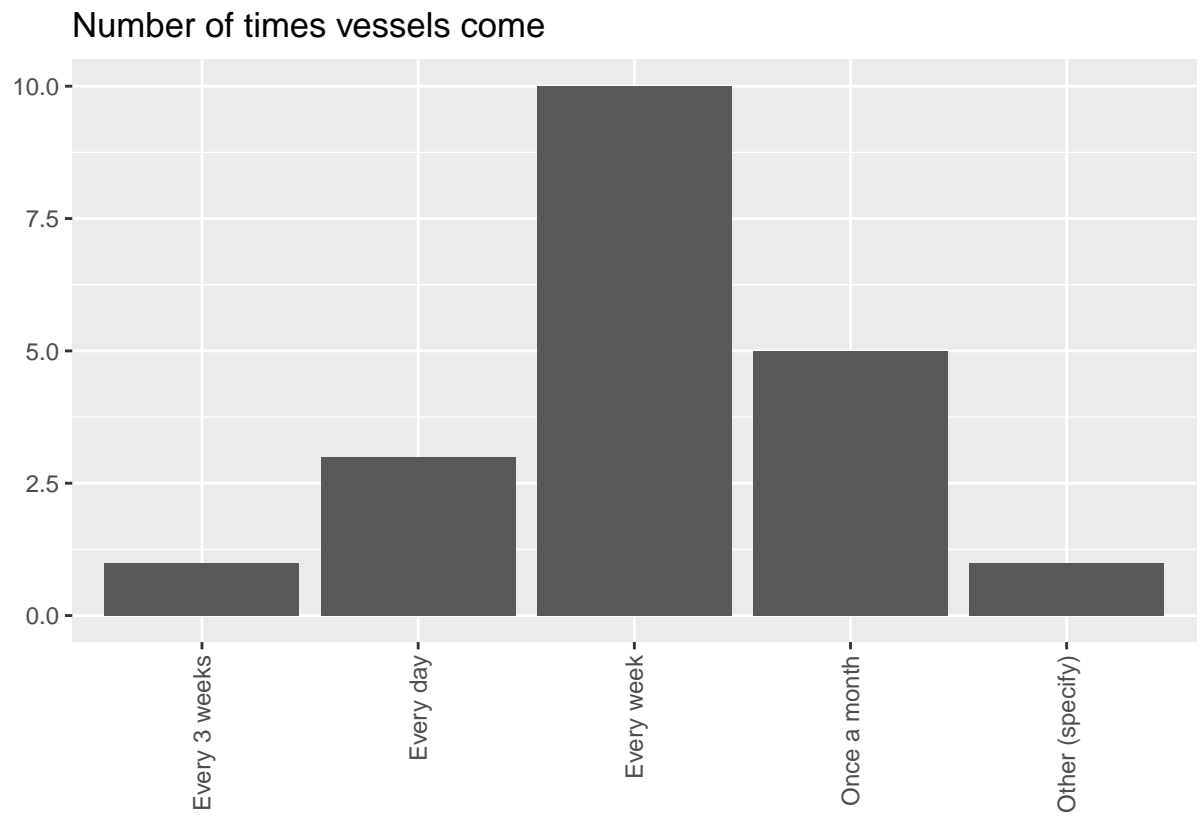
Number of visits by health worker



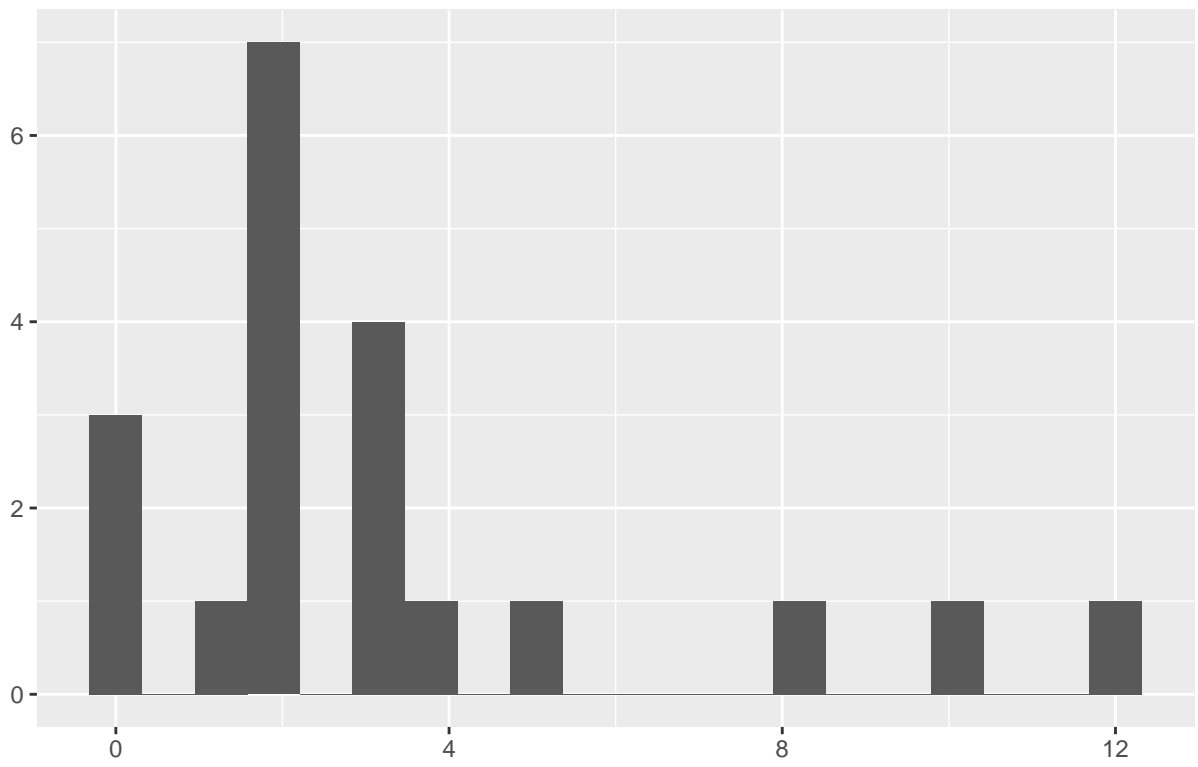






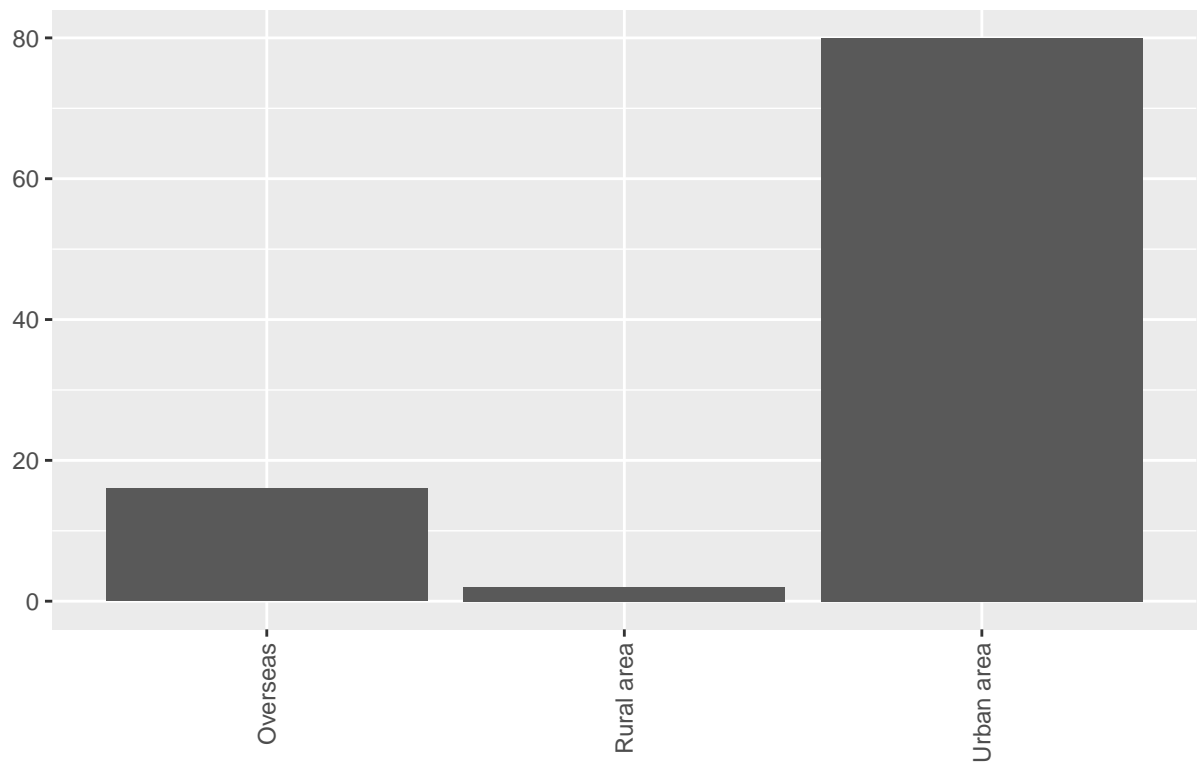


Restriction of boat travel

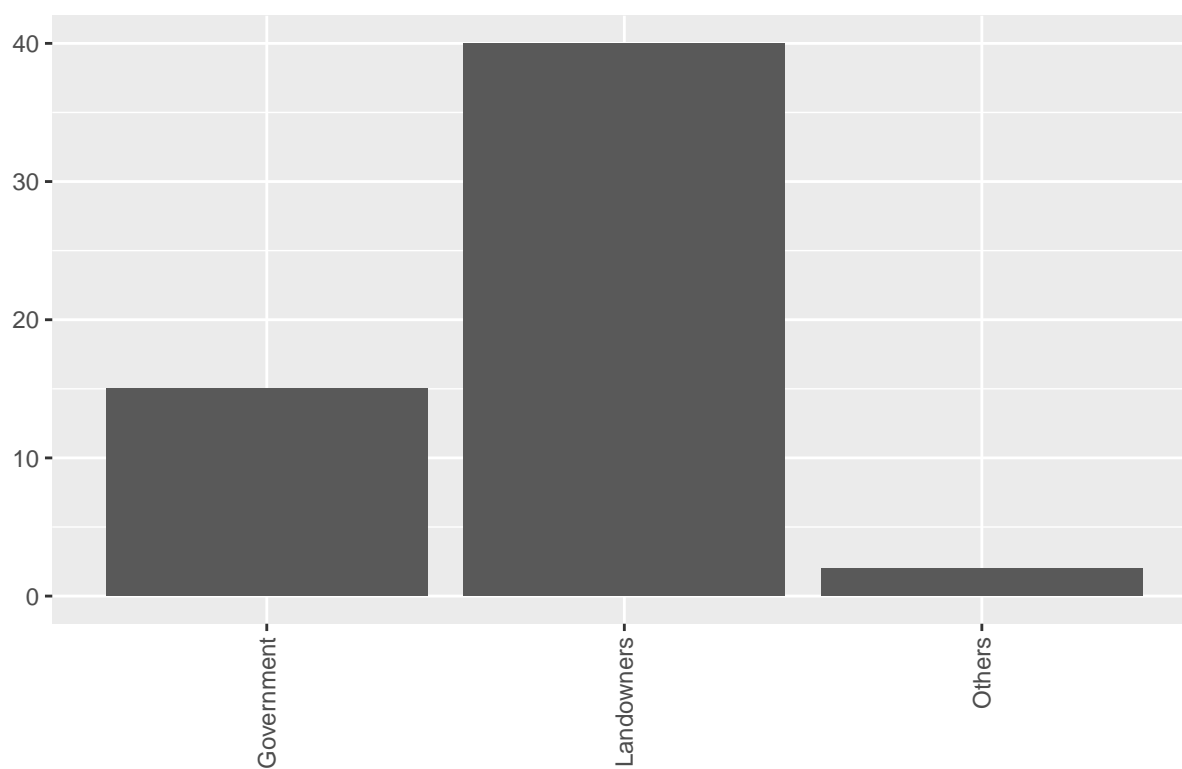




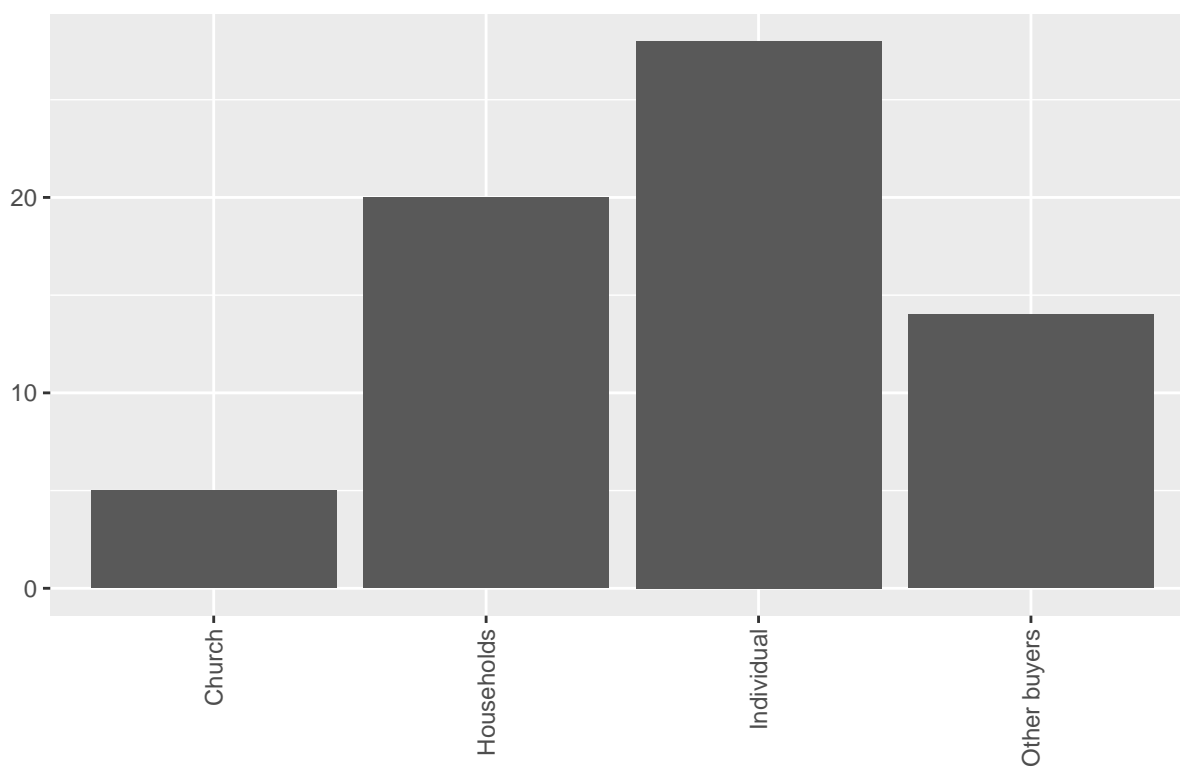
Place of looking for work



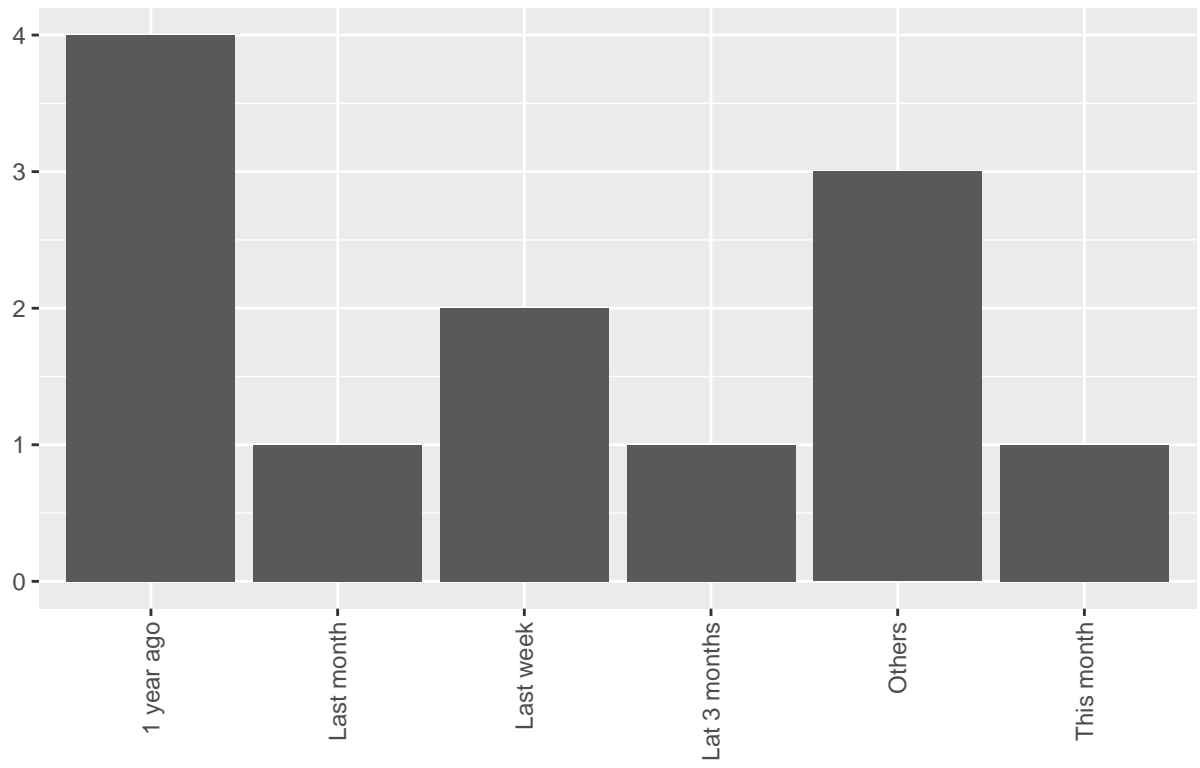
Purchase land from who



Sell land to who



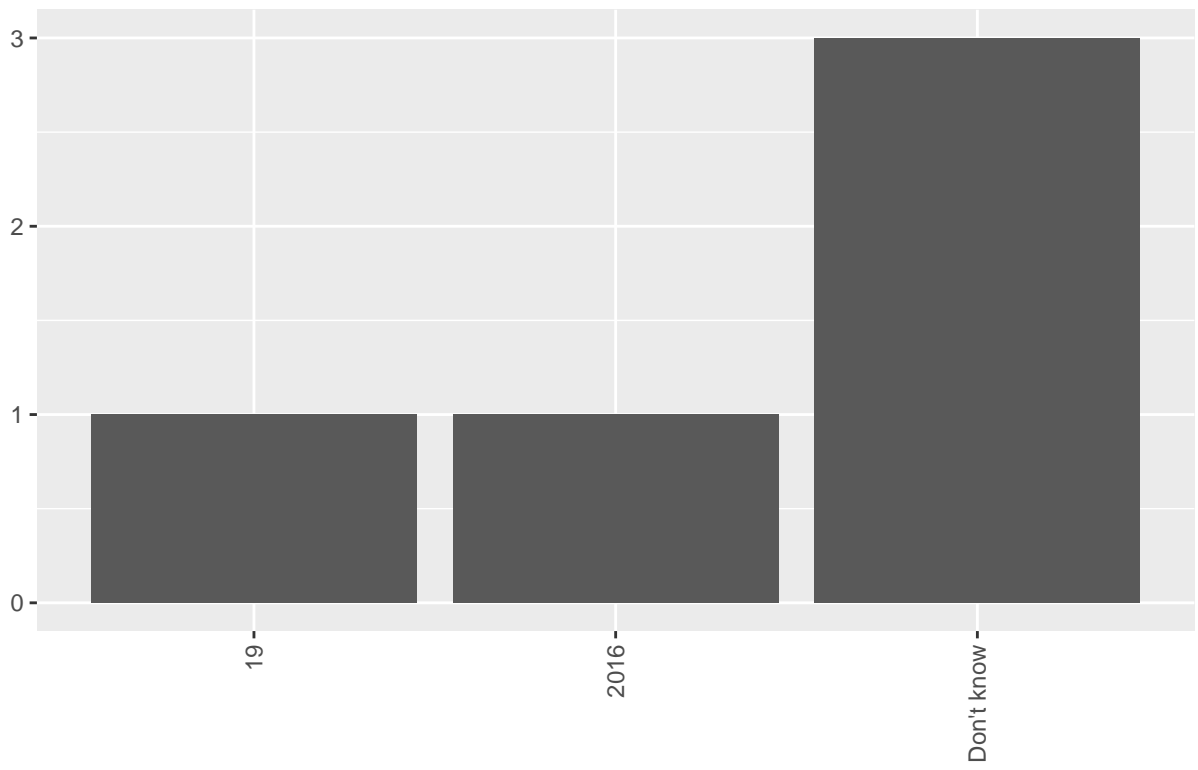
Time of CBFM implementation



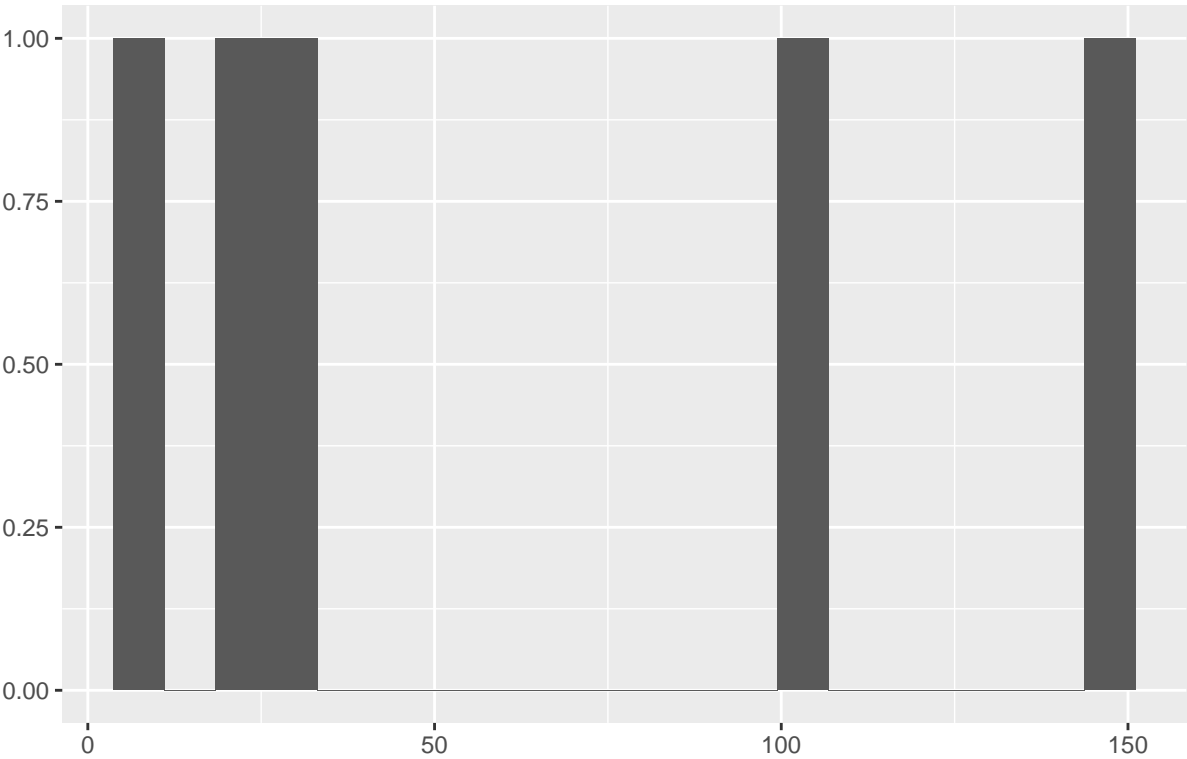
## Catches due to FAD



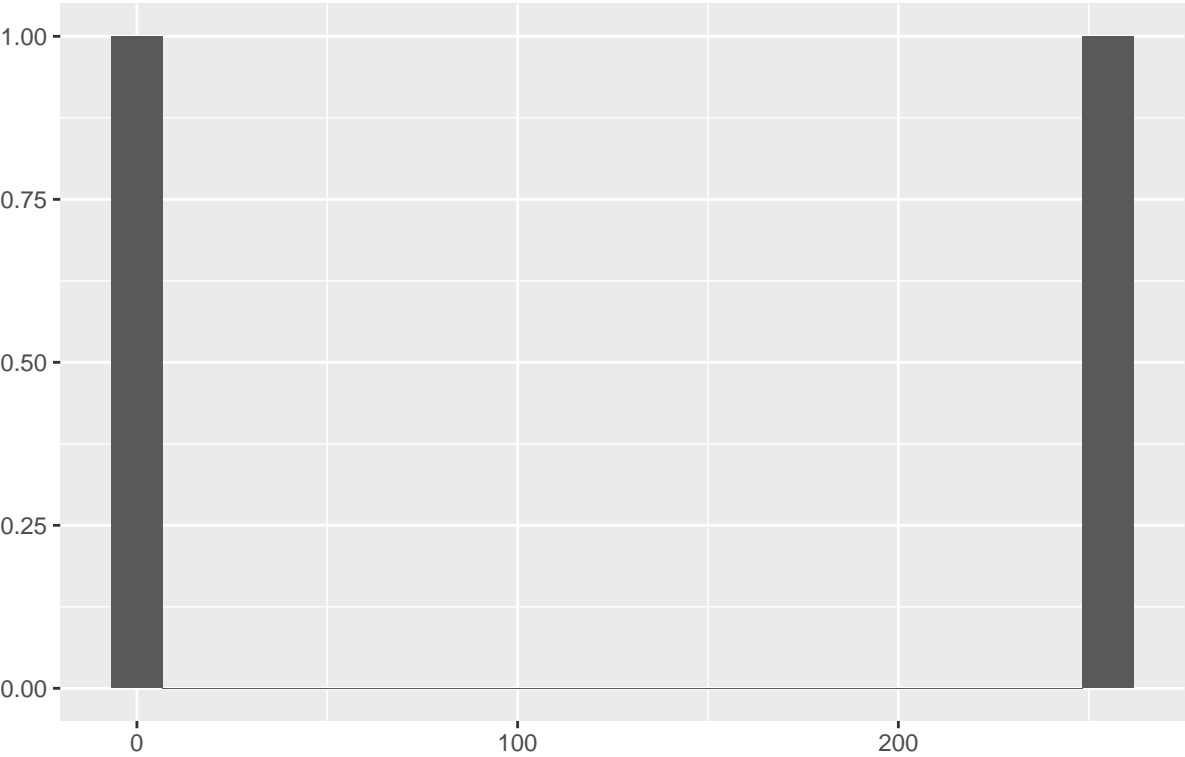
Year sewerage channel was introduced



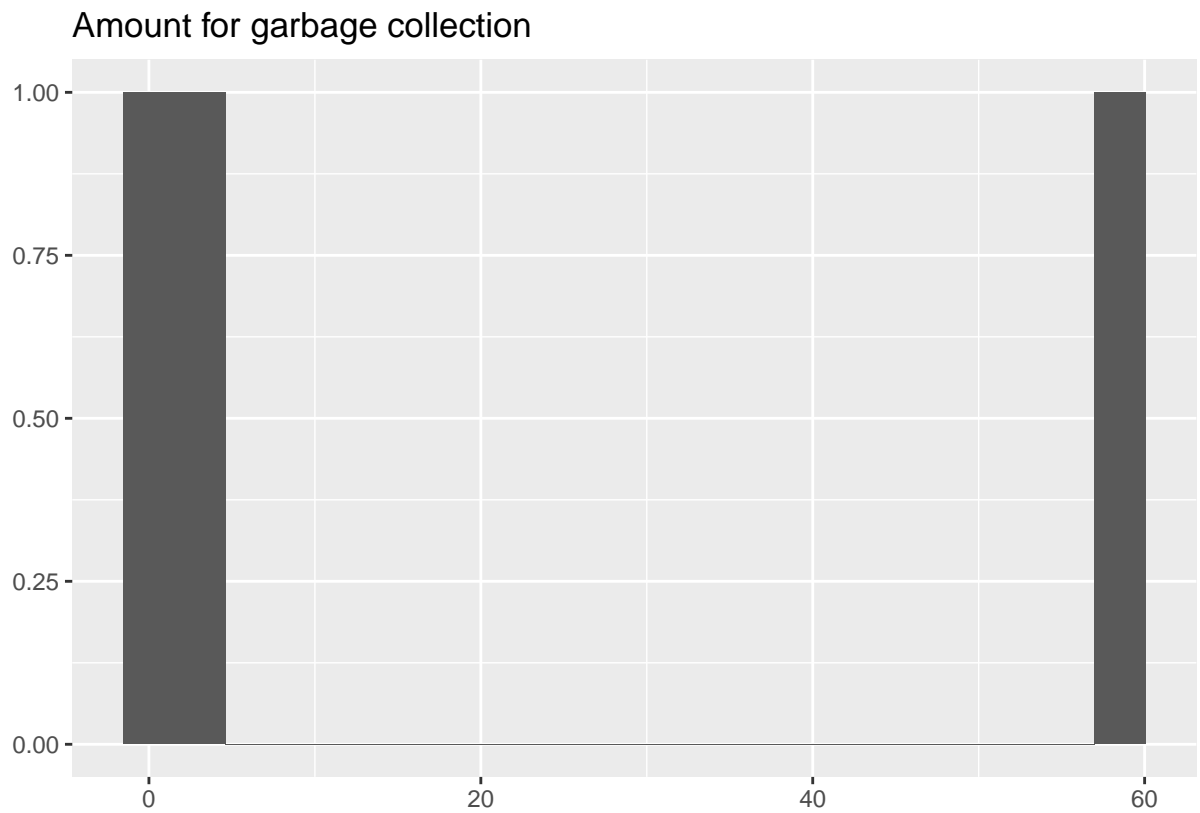
Cost to connect to sewerage system



Fee for connected to sewerage system (zeroes removed; n = 3)



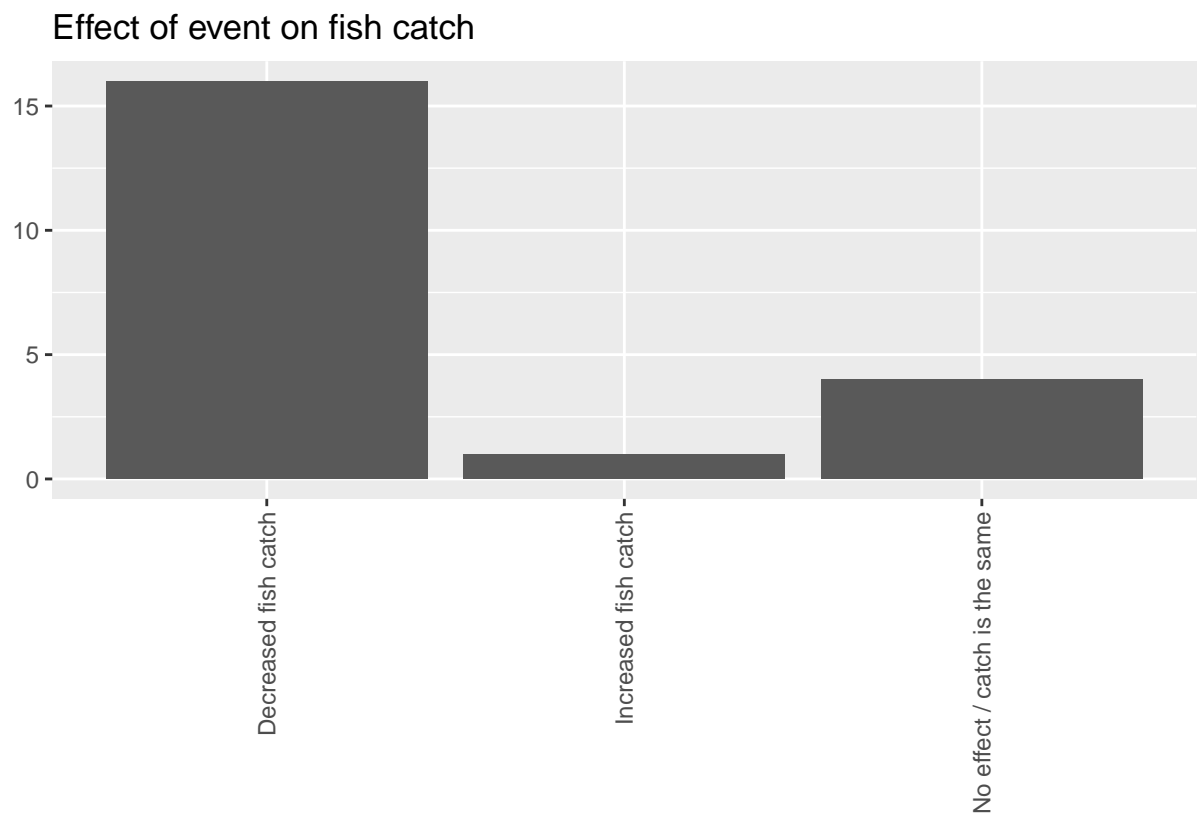
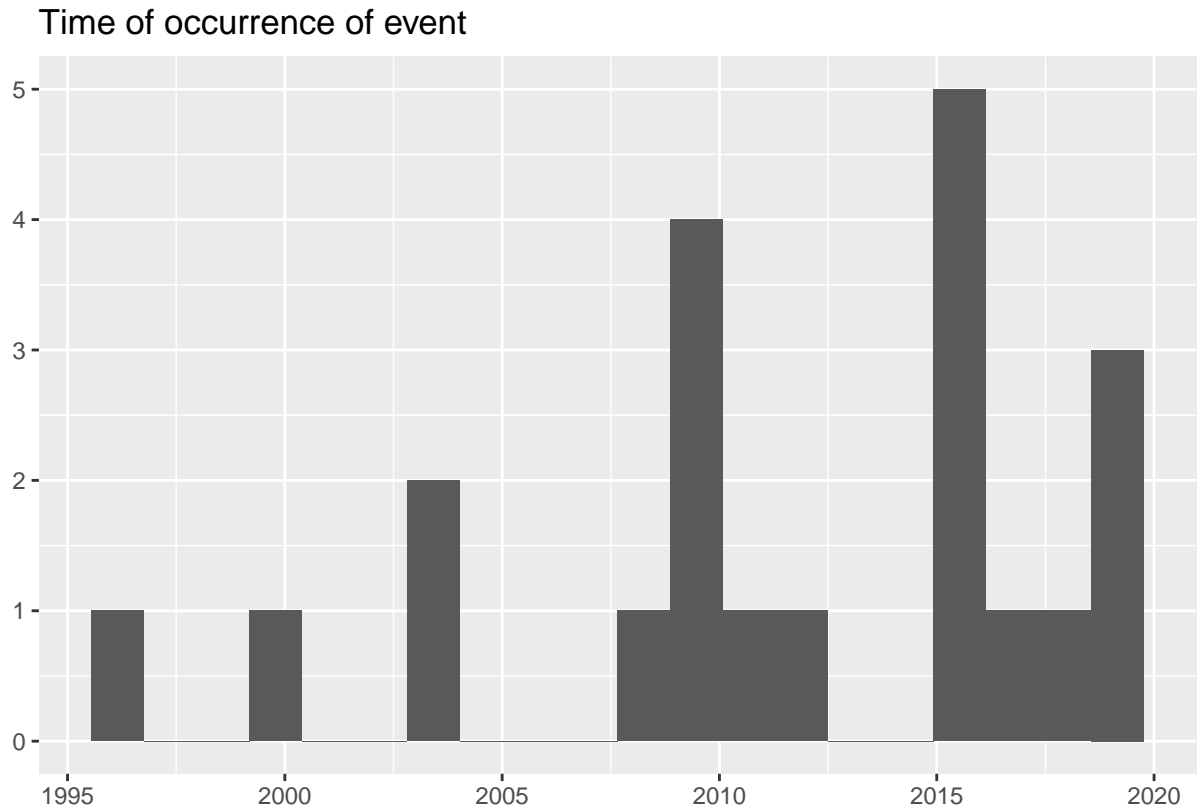




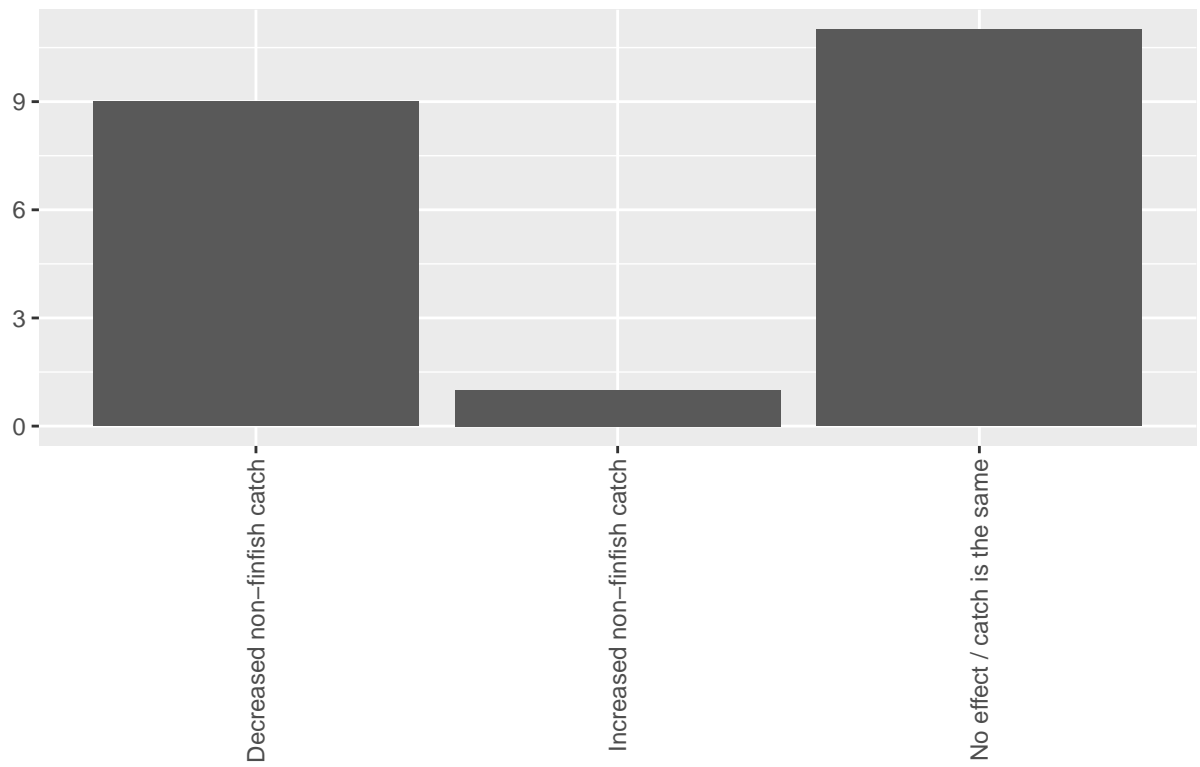
### Event Roster Data: List of events

```
## # A tibble: 4 x 1
##   event_roster__id
##   <chr>
## 1 Coral bleaching event
## 2 Cyclone
## 3 Harmful algal bloom
## 4 Tsunami
```

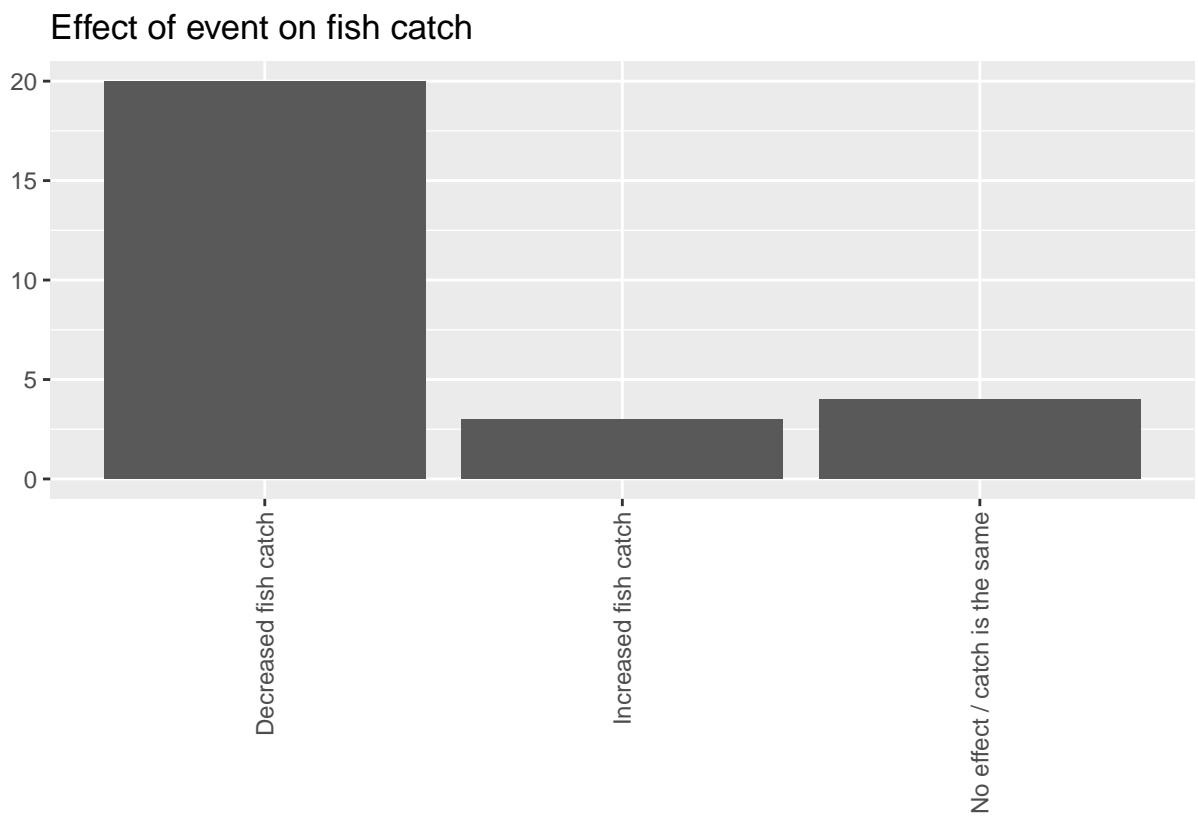
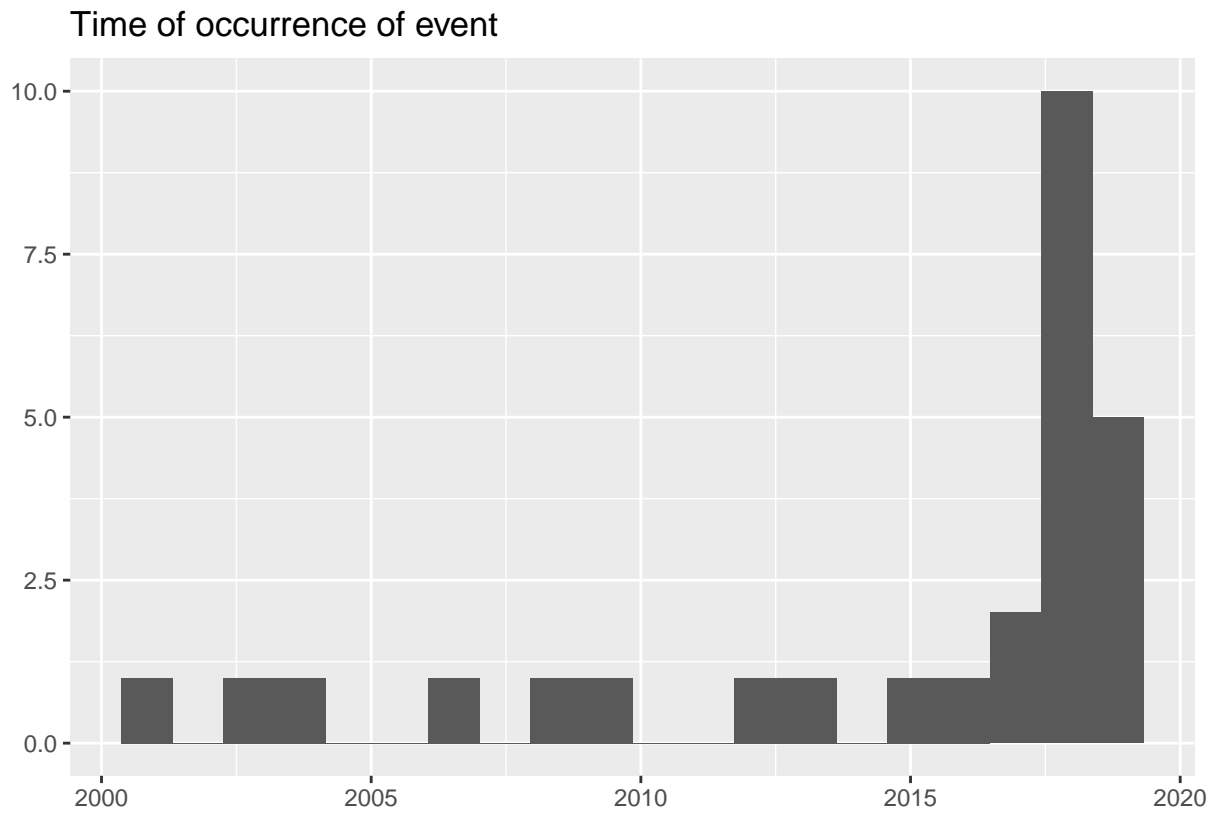
*Event: Coral bleaching*



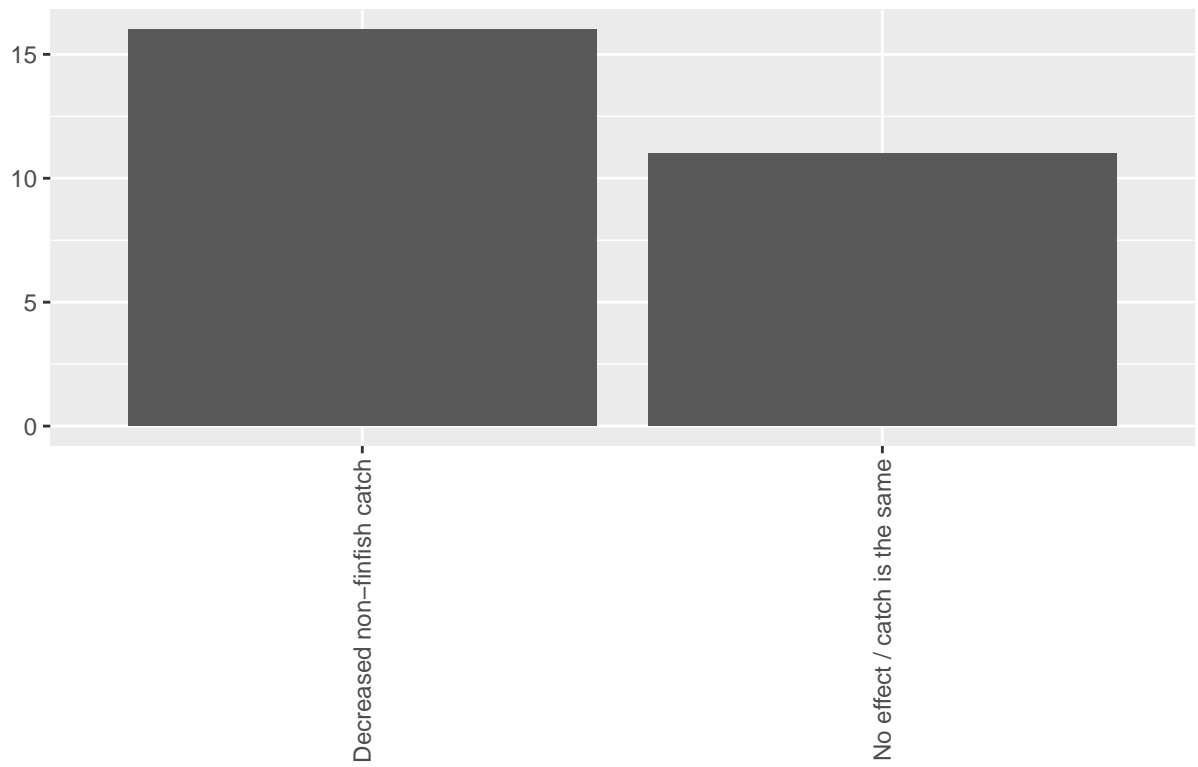
Effect of event on non-finfish catch



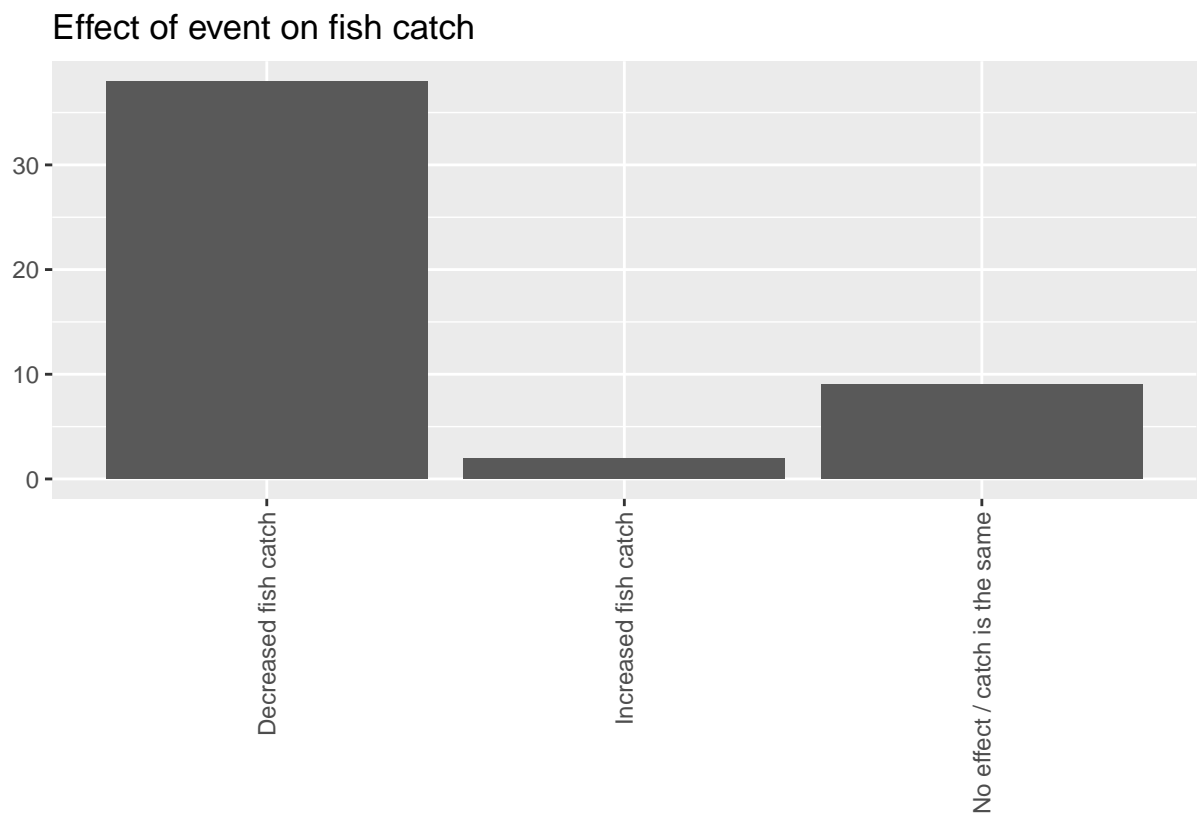
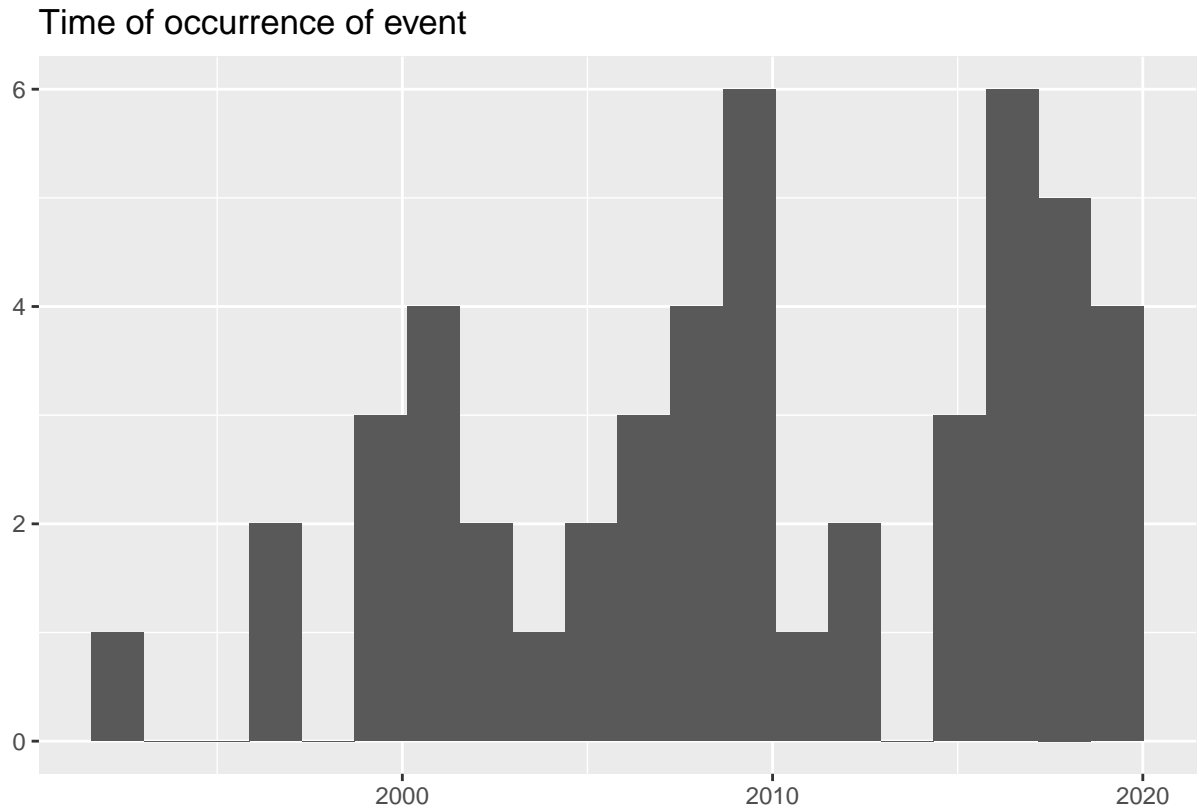
***Event: Cyclone***



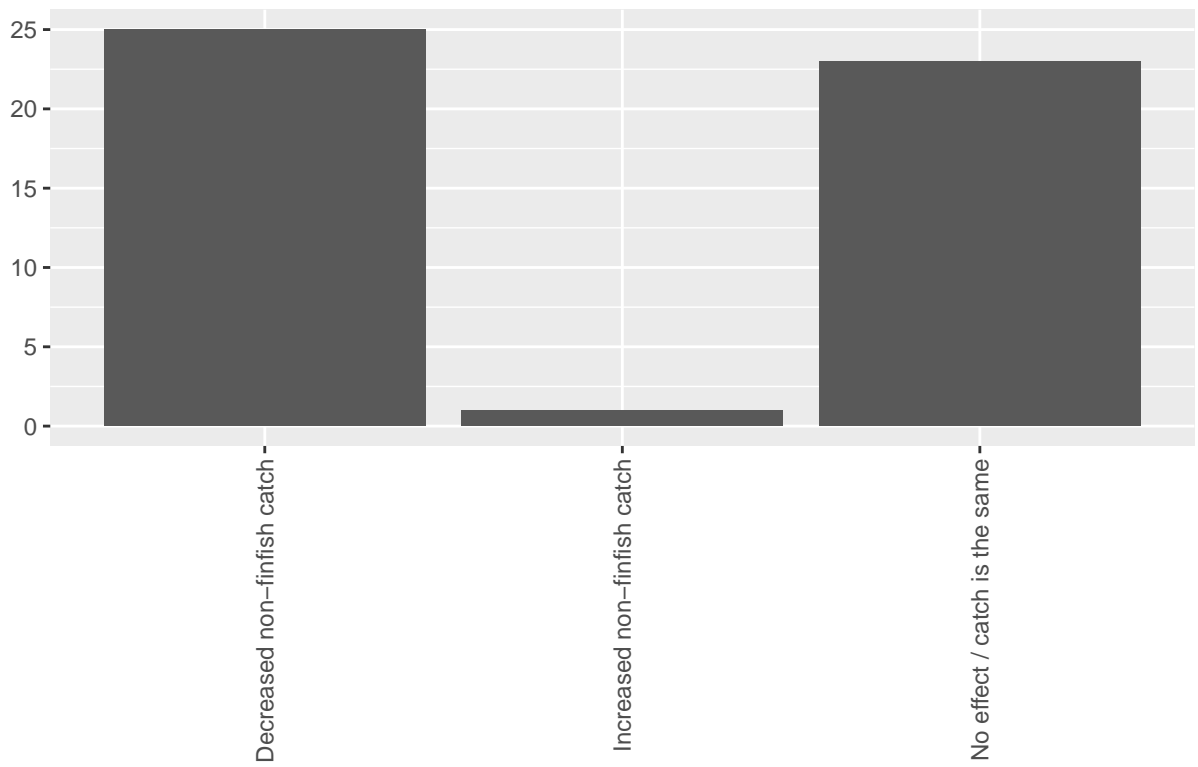
Effect of event on non-finfish catch



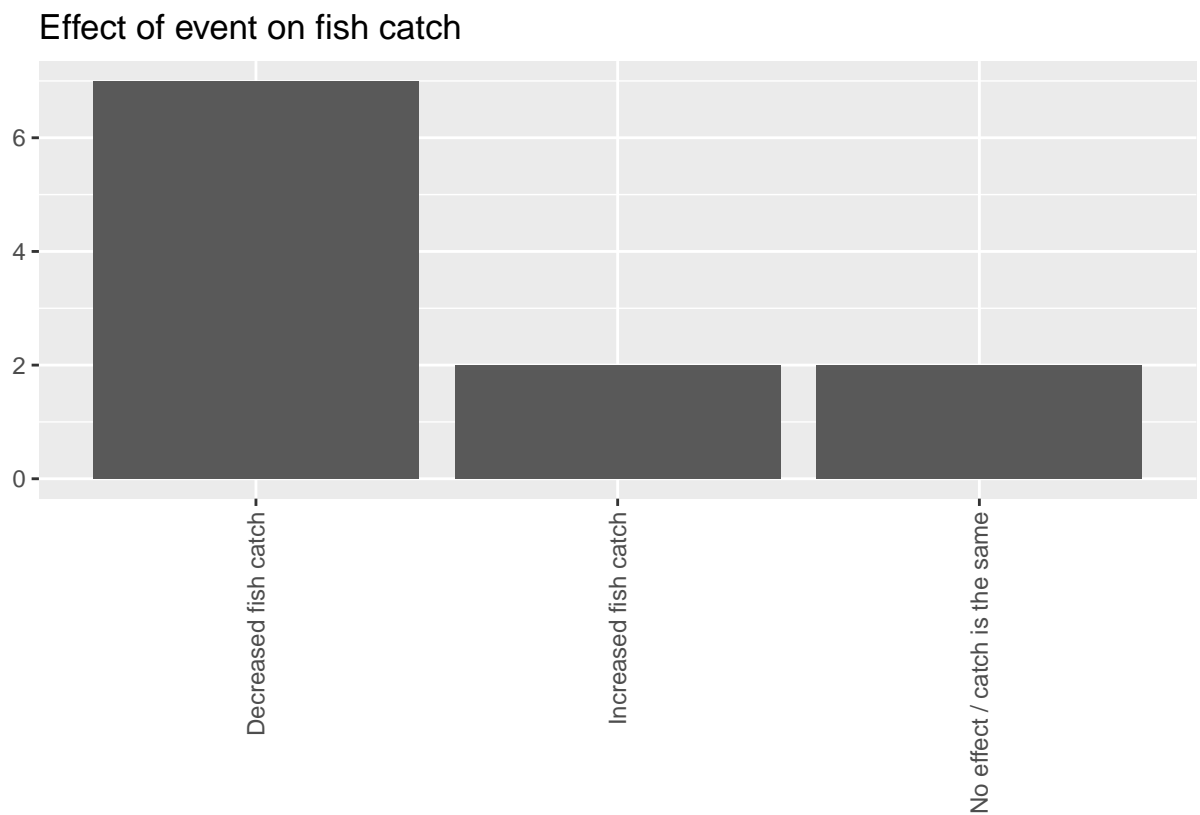
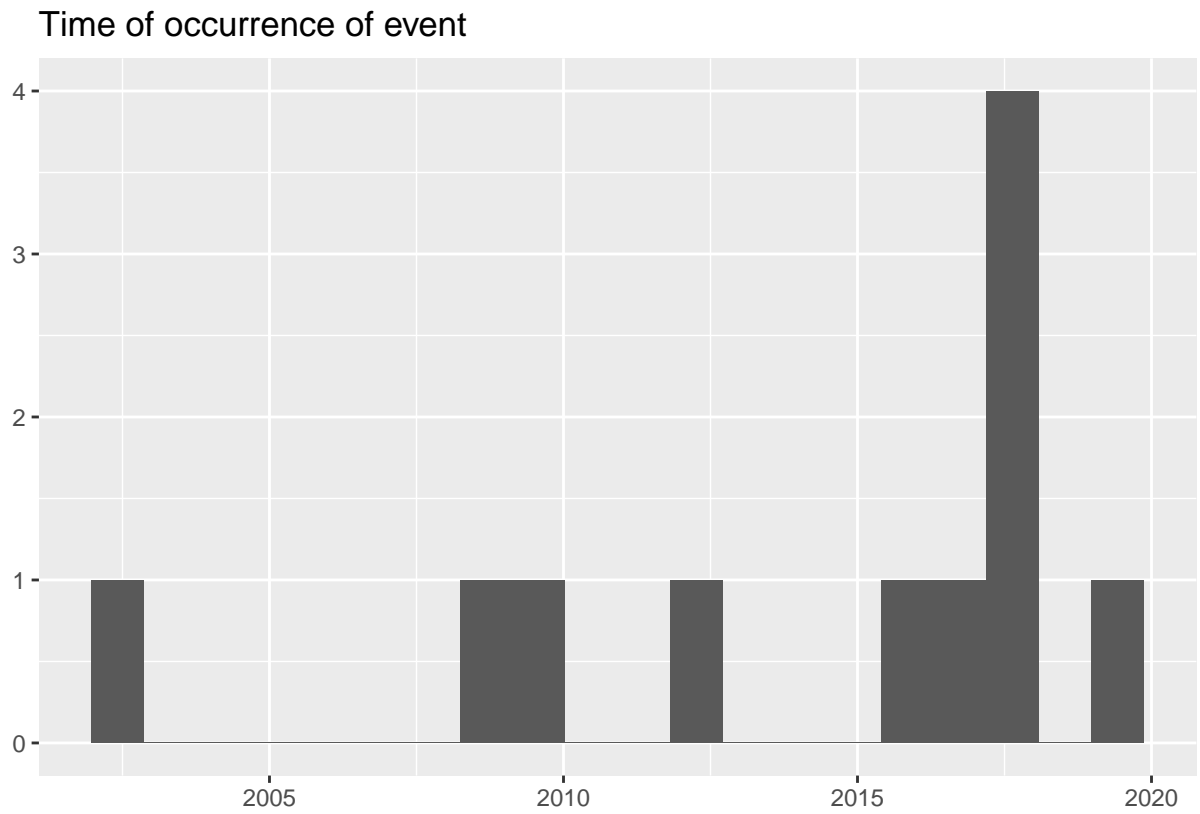
*Event: Harmful algal bloom*



Effect of event on non-finfish catch

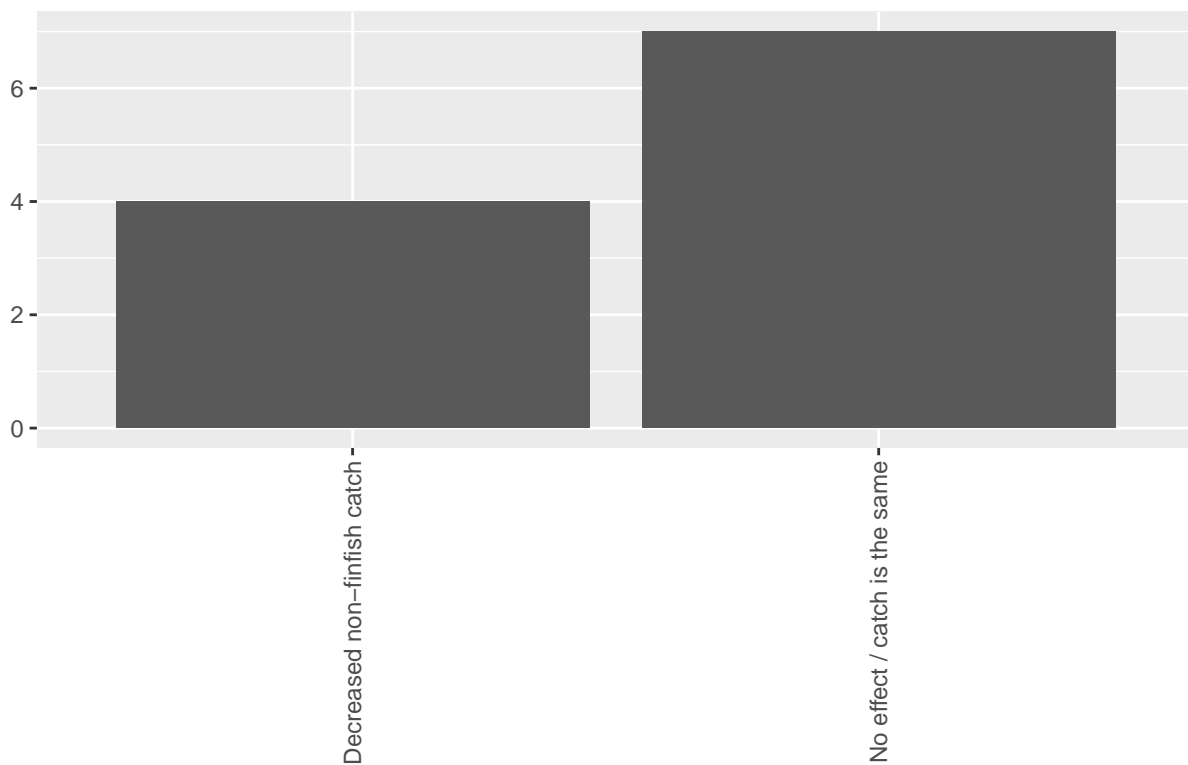


***Event: Tsunami***





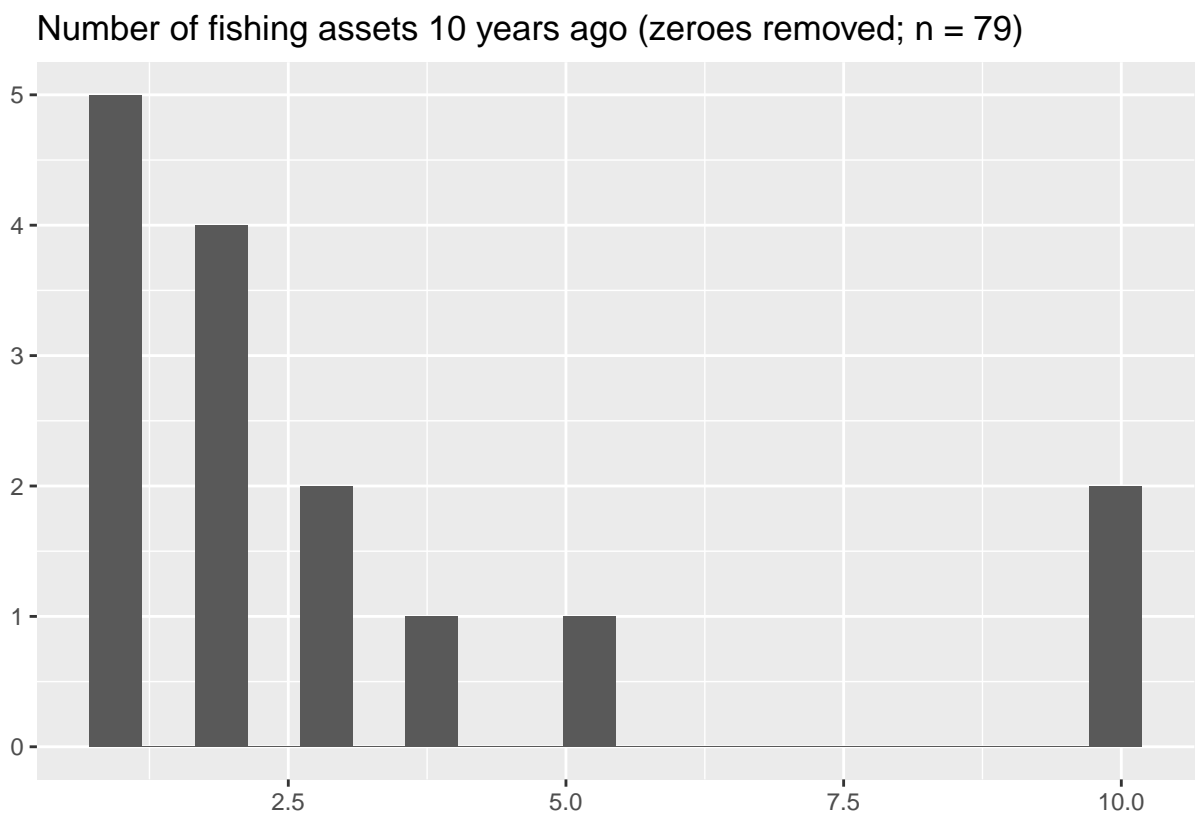
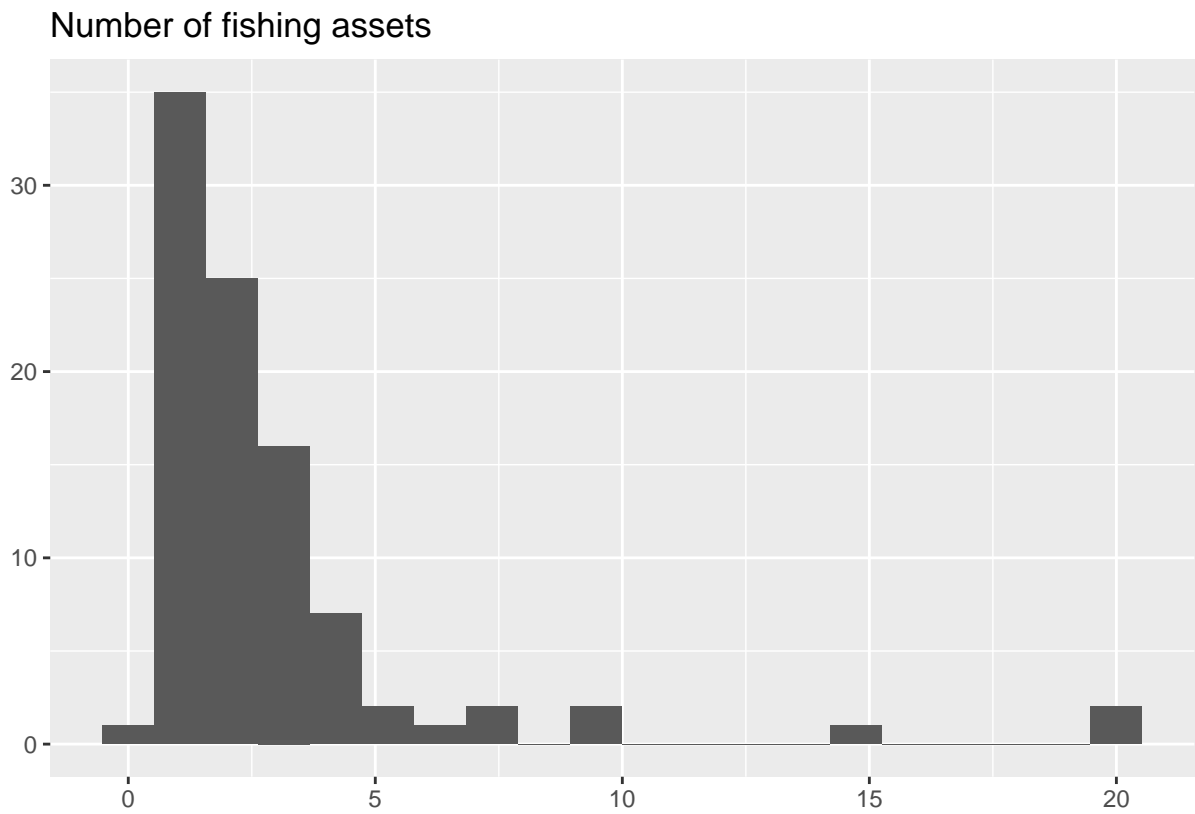
## Effect of event on non-finish catch



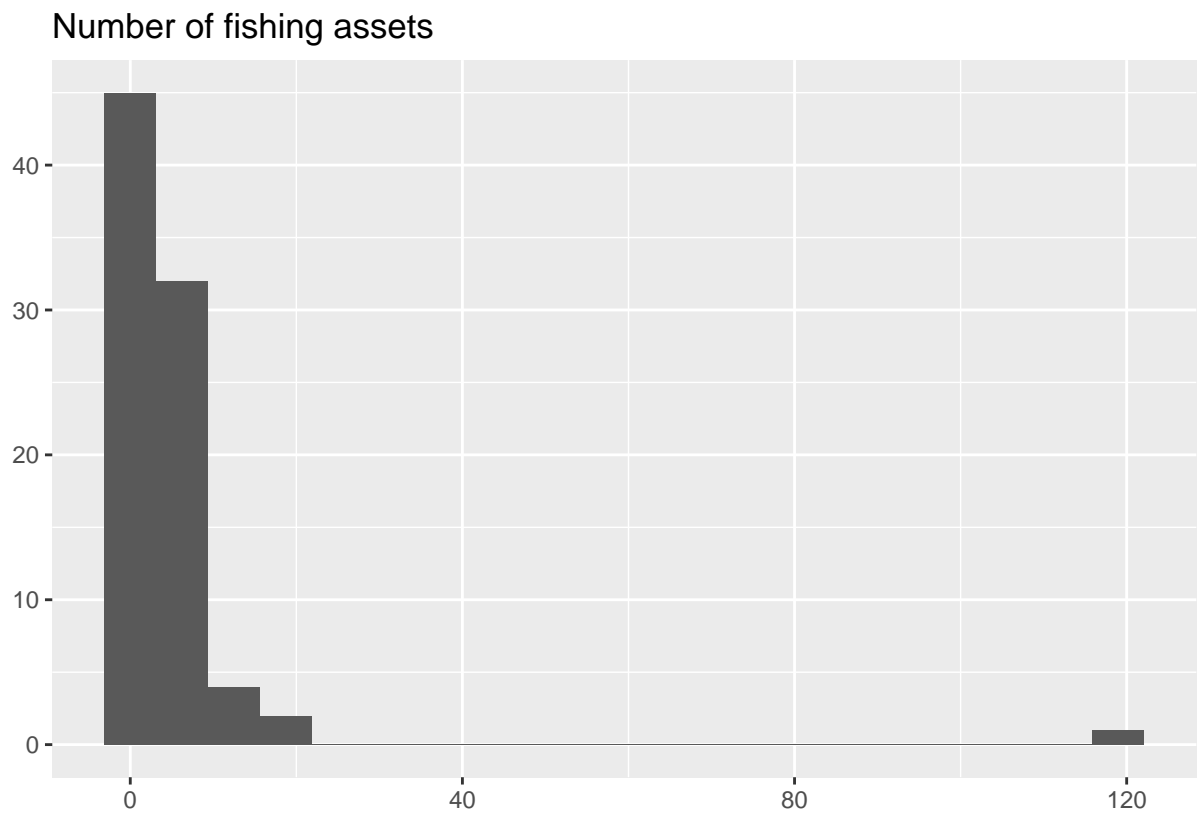
## Fish Roster Data: List of fish assets

```
## # A tibble: 17 x 1
##   fish_asset_roster__id
##   <chr>
## 1 Fibreglass boats
## 2 Outboard Motors
## 3 Fishing Nets (gillnet)
## 4 Spearguns
## 5 Fishing Lines
## 6 Active Fish Traps
## 7 Underwater flashlights
## 8 Wood canoes
## 9 Eskies/portable coolers
## 10 SCUBA diving equipment
## 11 Freezers (electric or propane)
## 12 Ice machines
## 13 Fishing Nets (purse)
## 14 Drag Nets
## 15 Harpoons/Spears
## 16 Other Fishing Equipment (note)
## 17 FAD (Fish Aggregating Device)
```

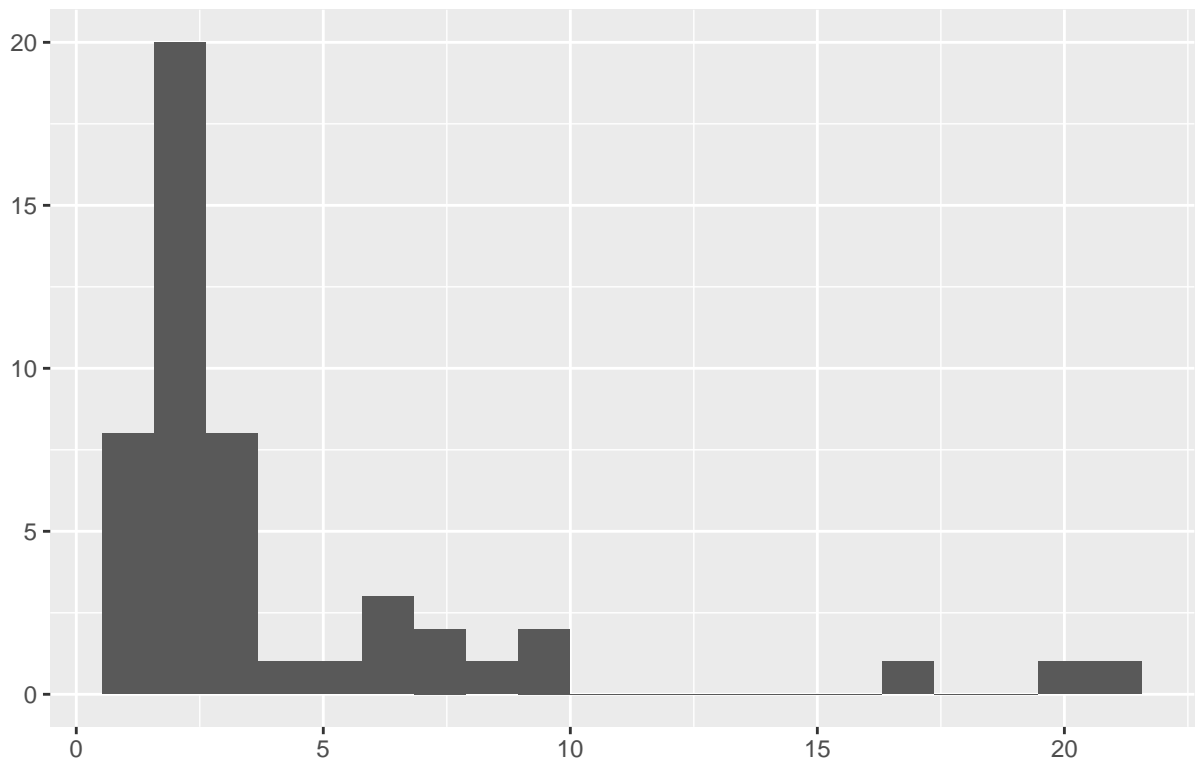
*Asset: Fibreglass boats*



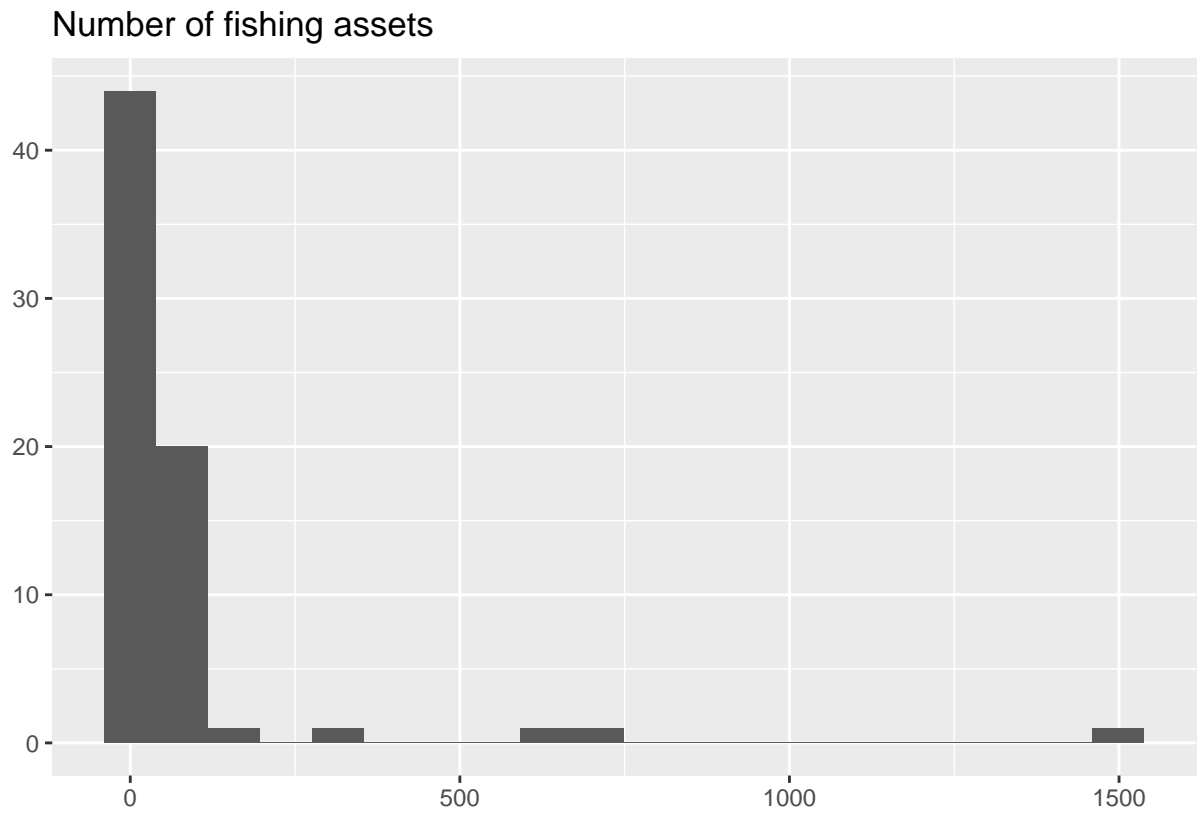
## Asset: Outboard Motors



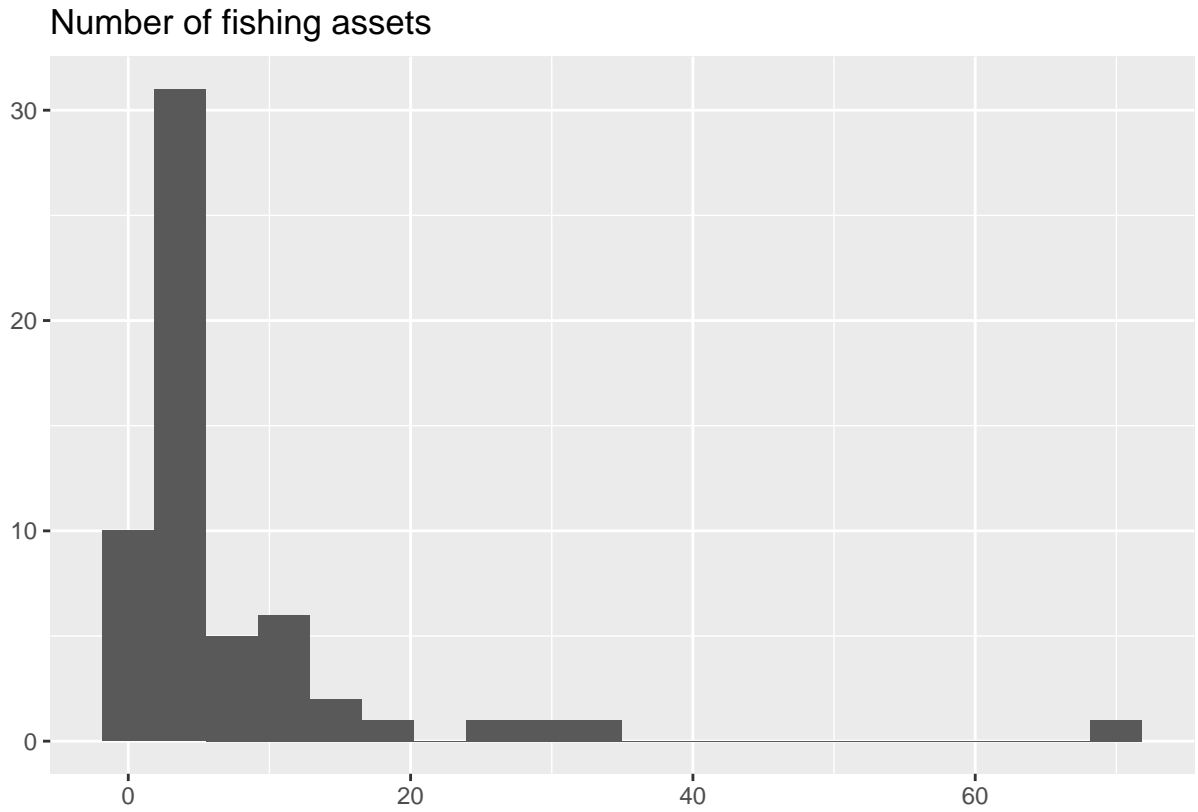
Number of fishing assets 10 years ago (zeroes removed; n = 35)



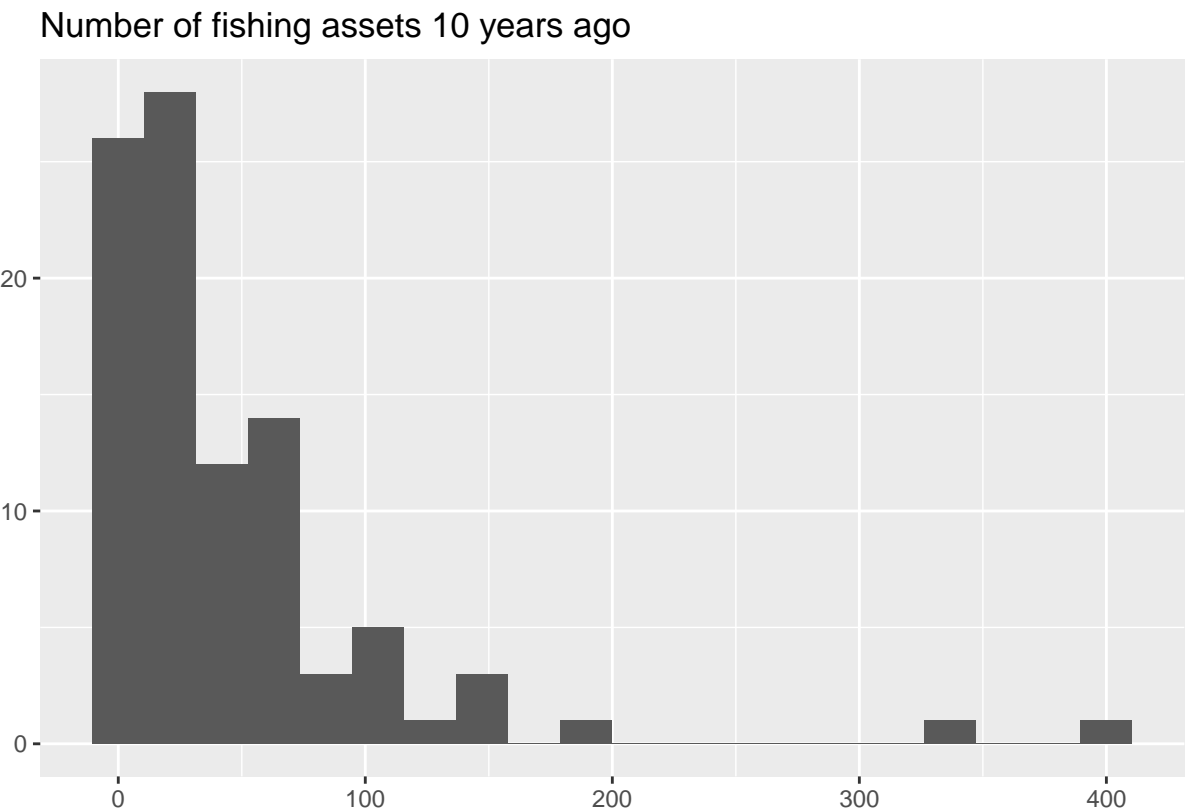
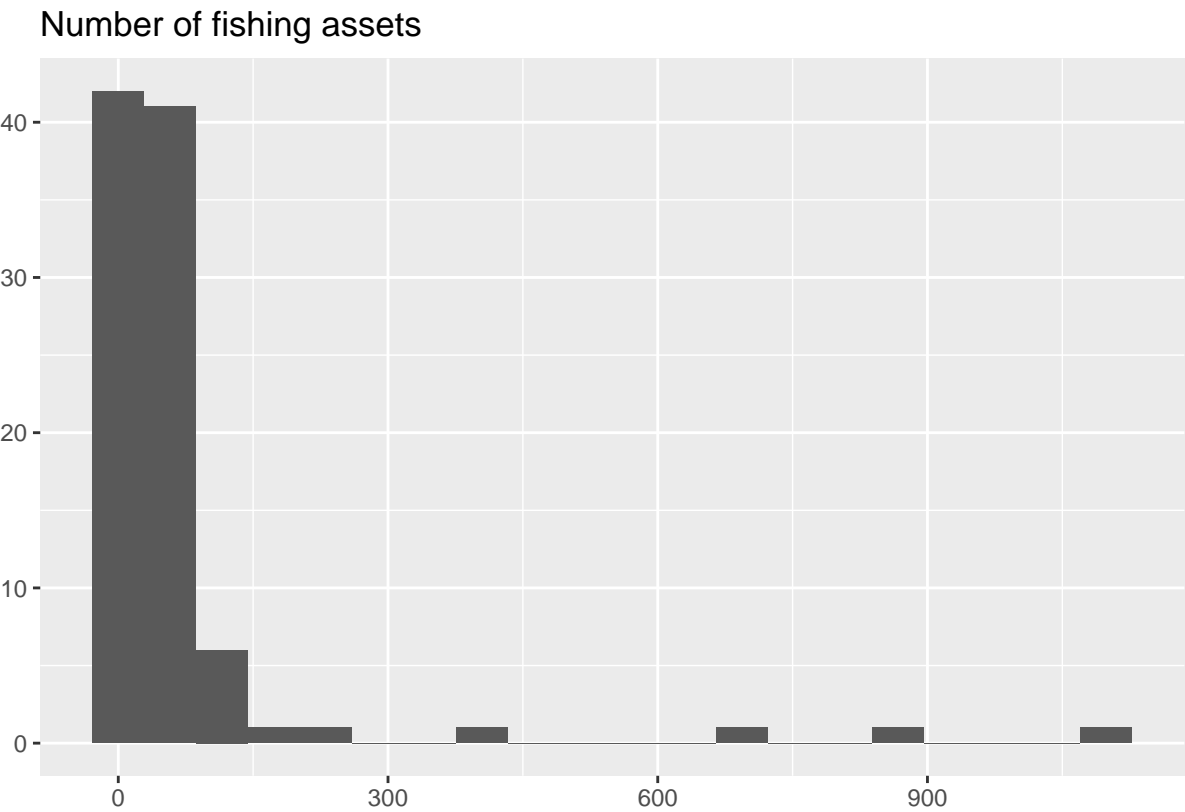
***Asset: Fishing Nets (gillnet)***



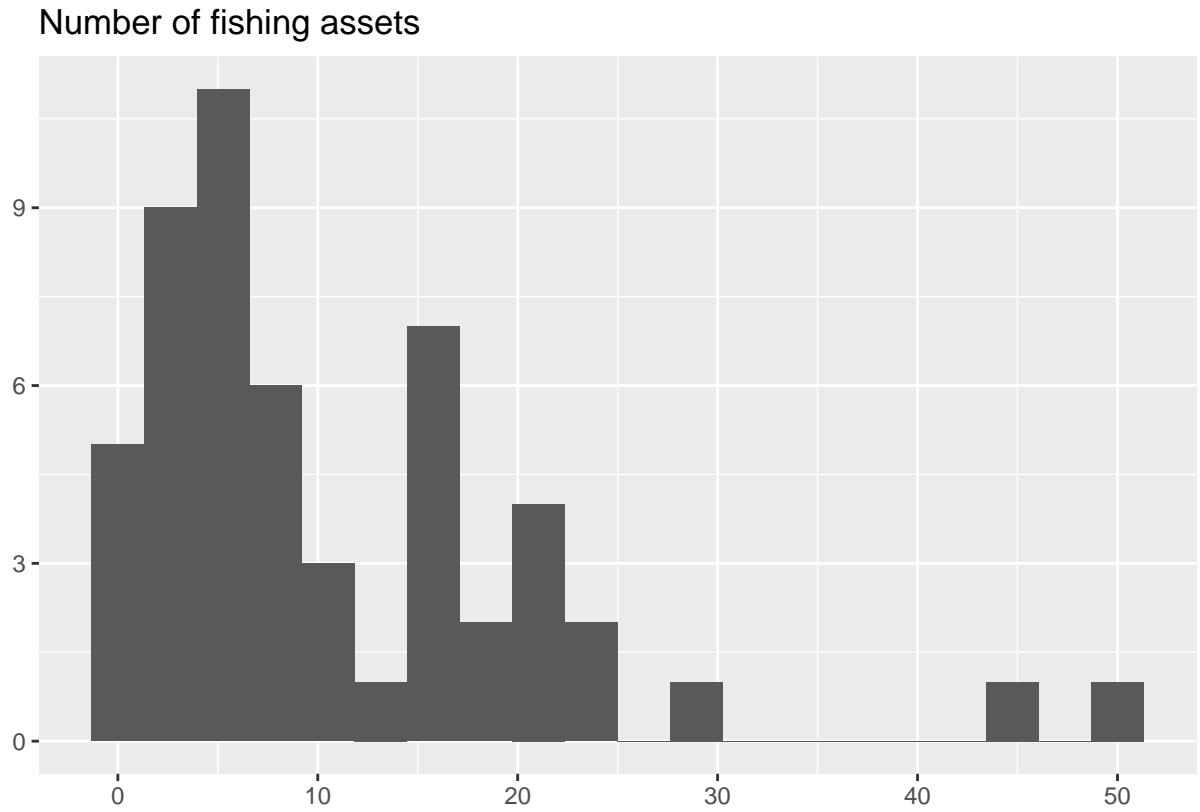
*Asset: Spearguns*



*Asset: Fishing Lines*

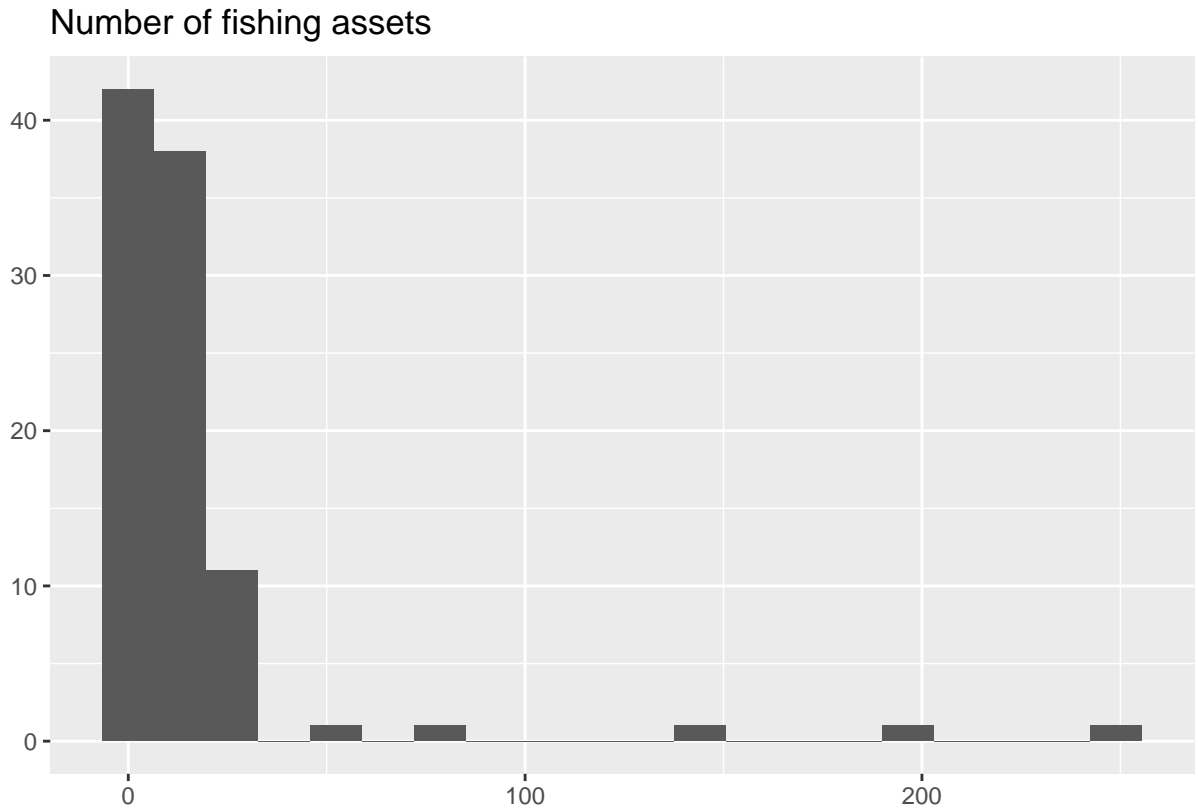


*Asset: Active Fish Traps*

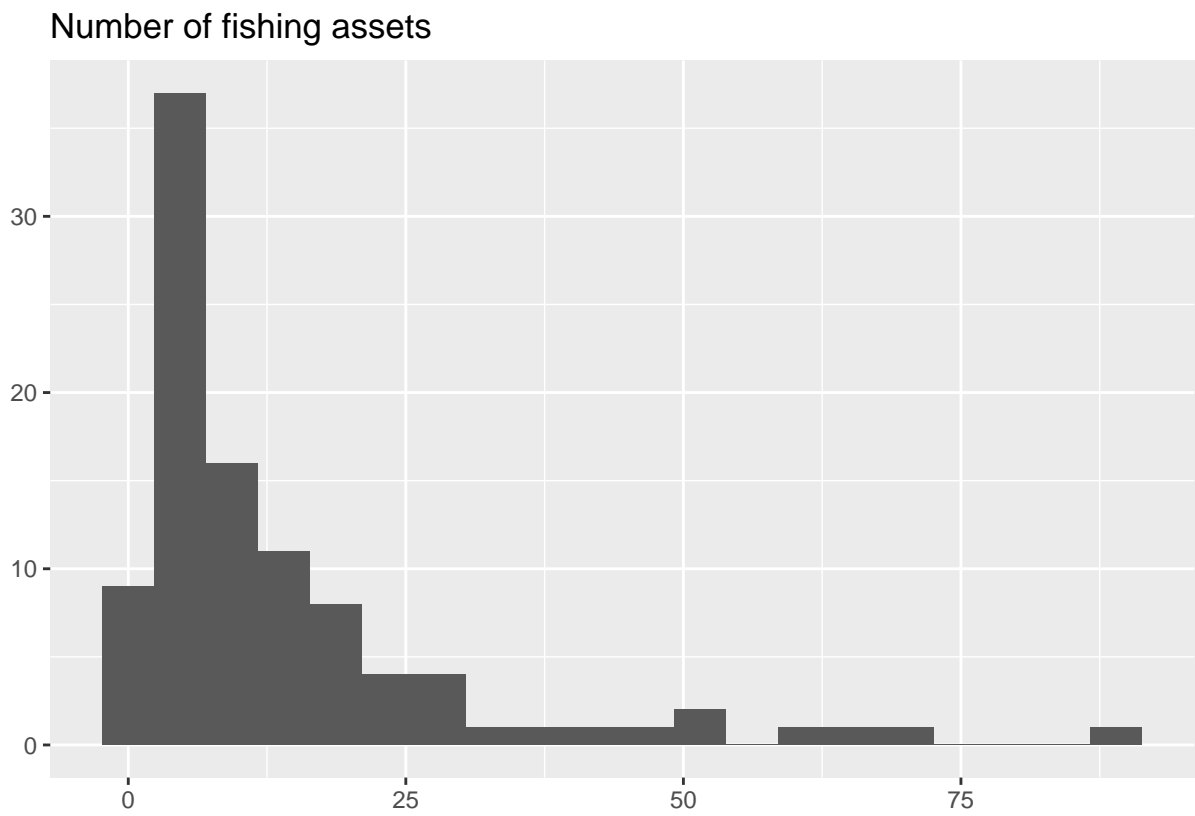




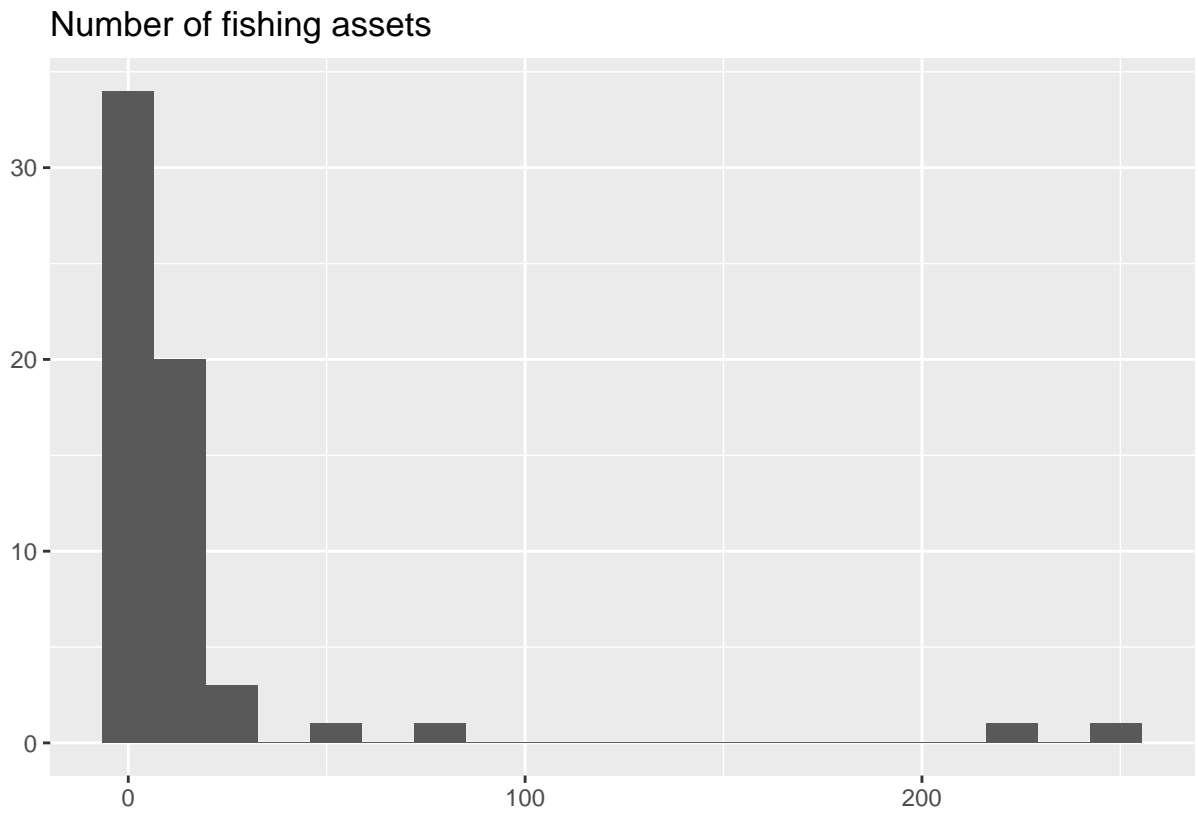
*Asset: Underwater flashlights*



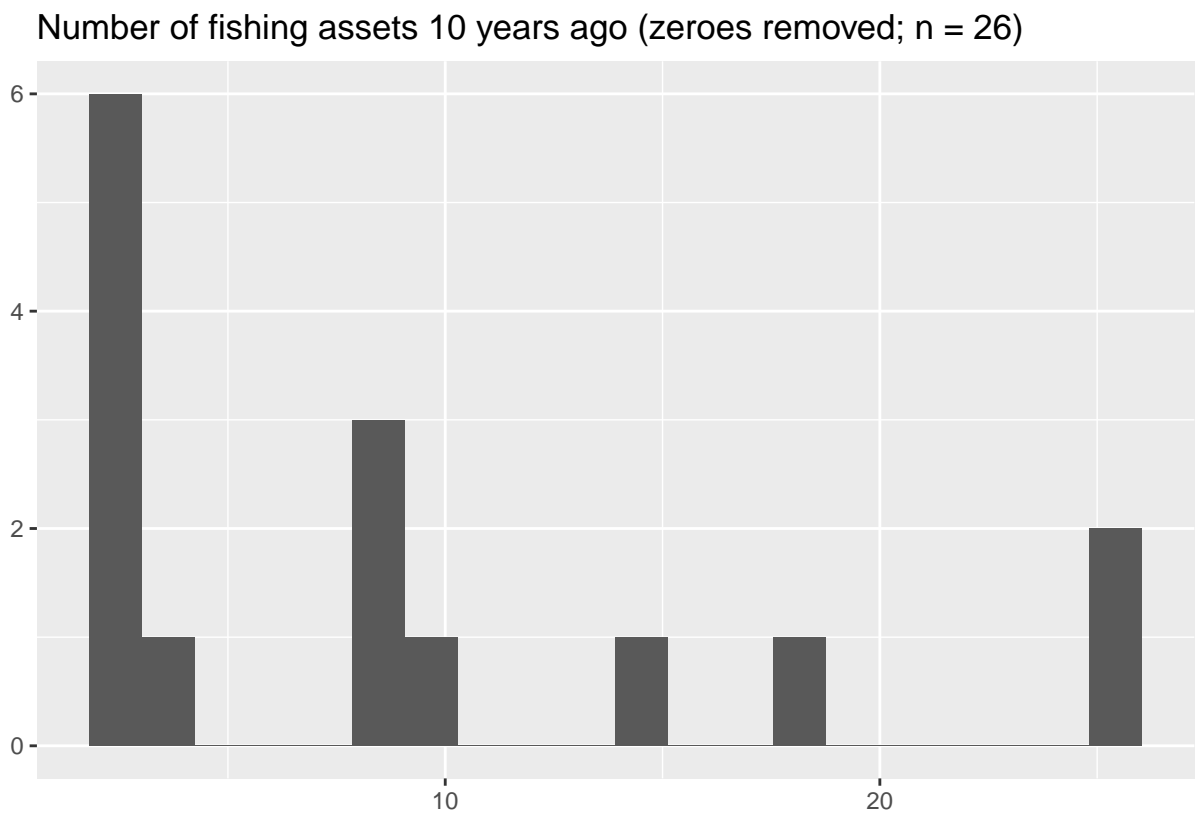
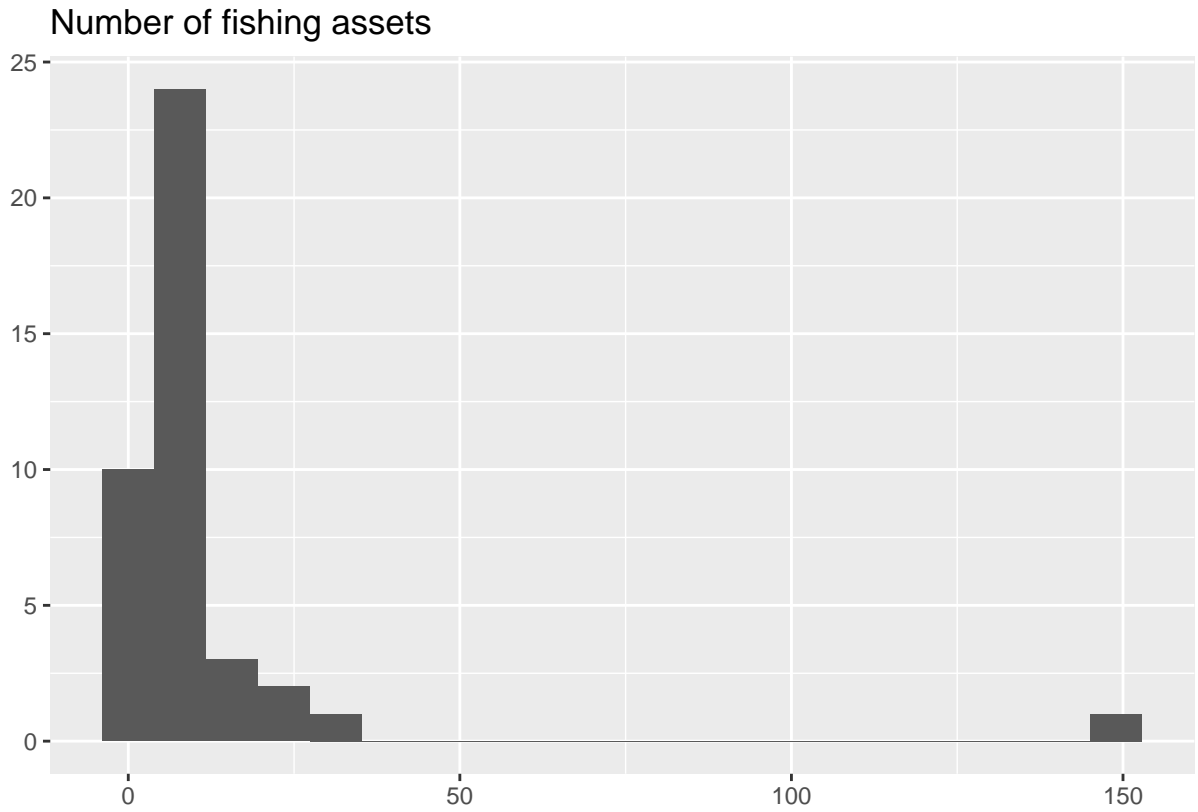
*Asset: Wood canoes*



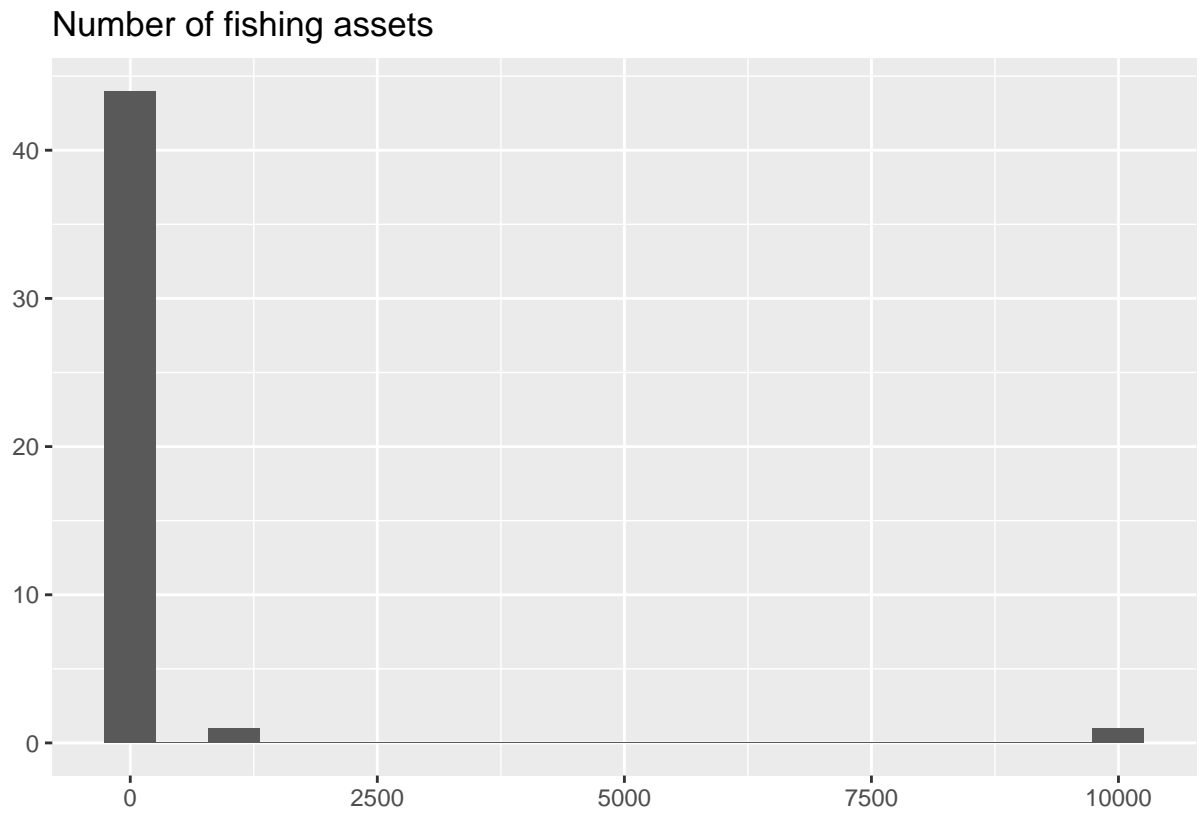
*Asset: Eskies/portable coolers*



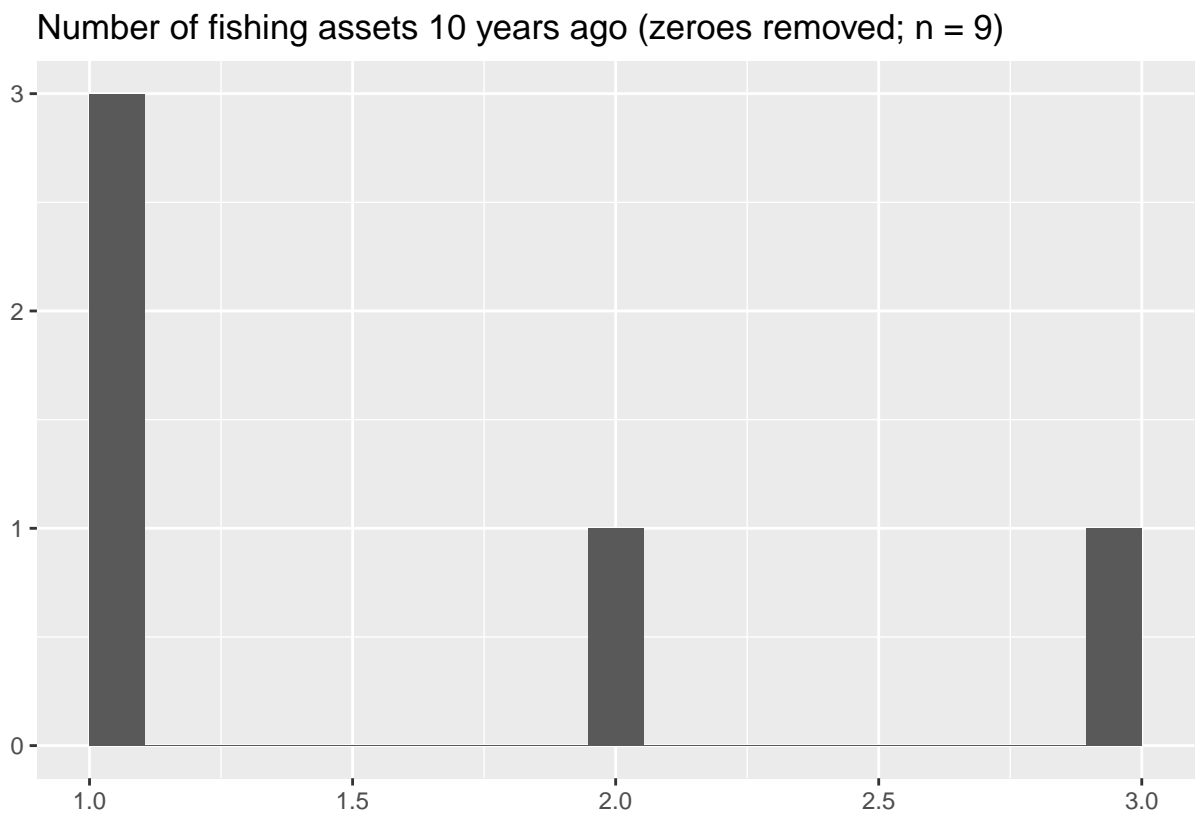
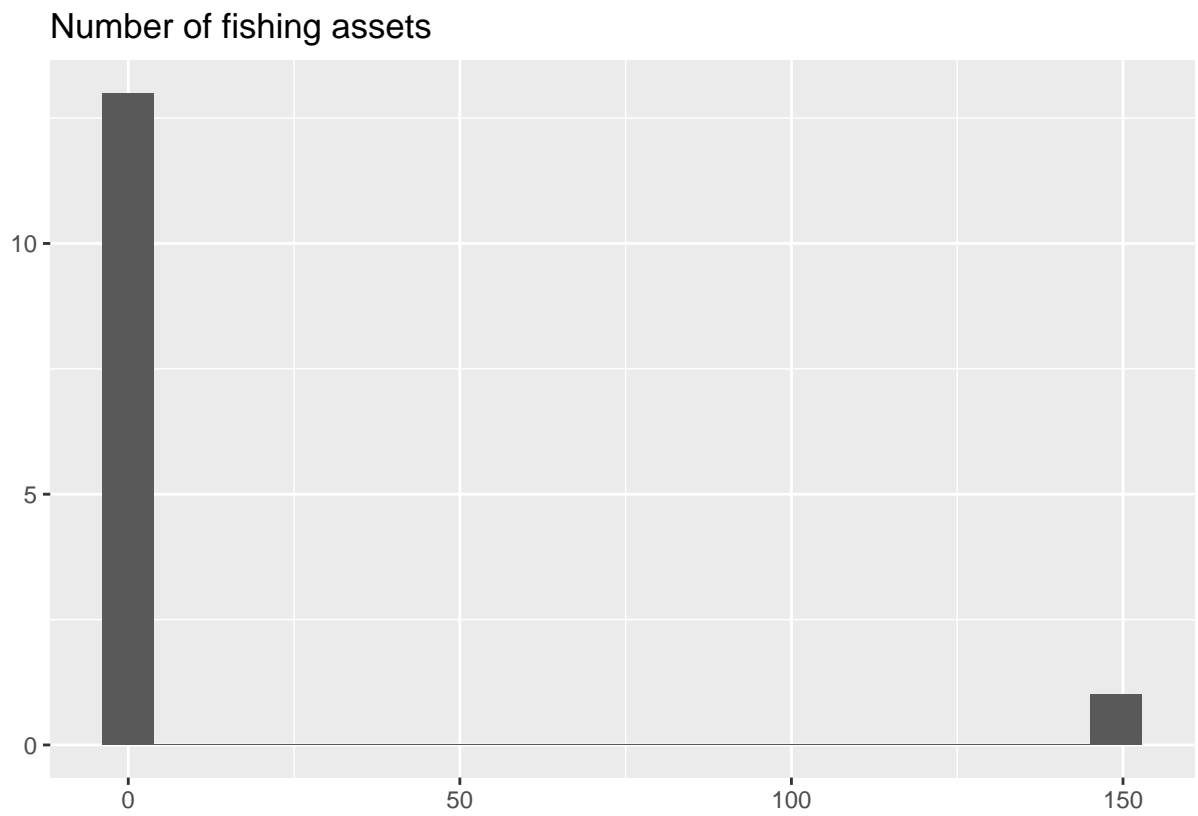
*Asset: SCUBA diving equipment*



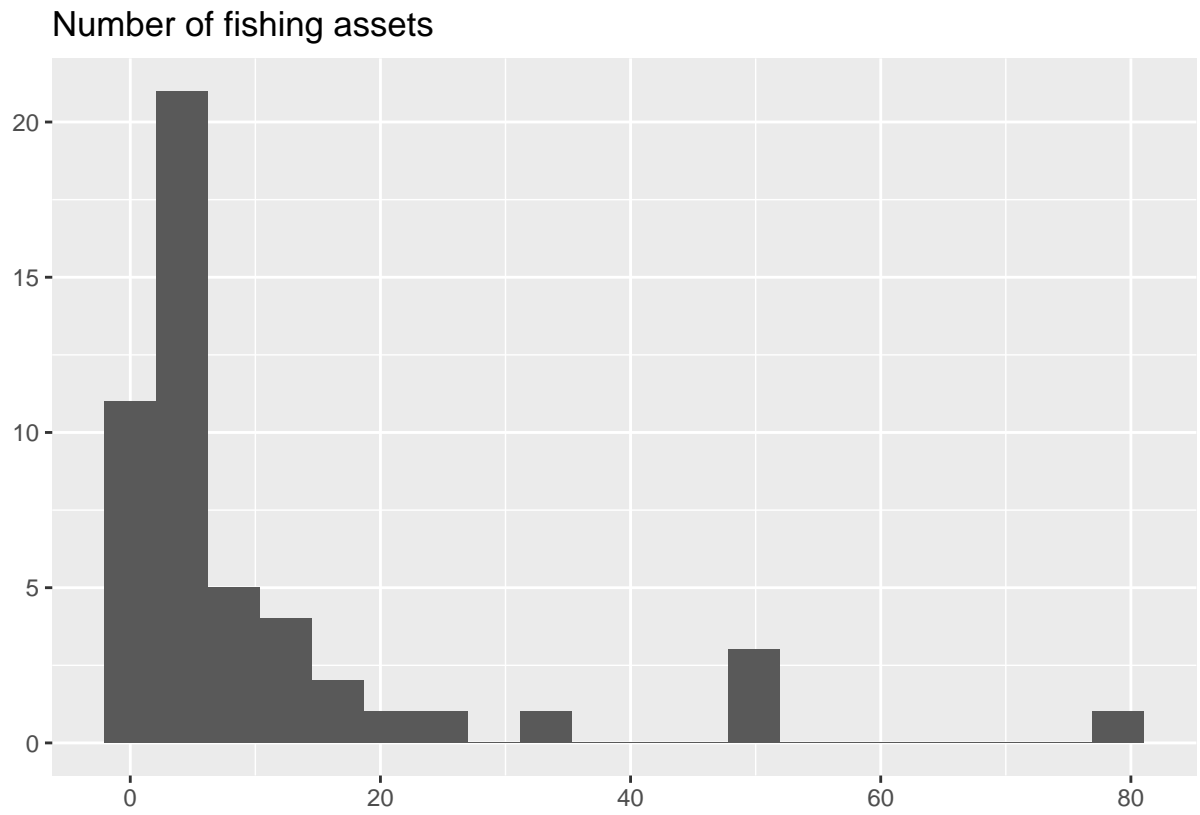
*Asset: Freezers (electric or propane)*



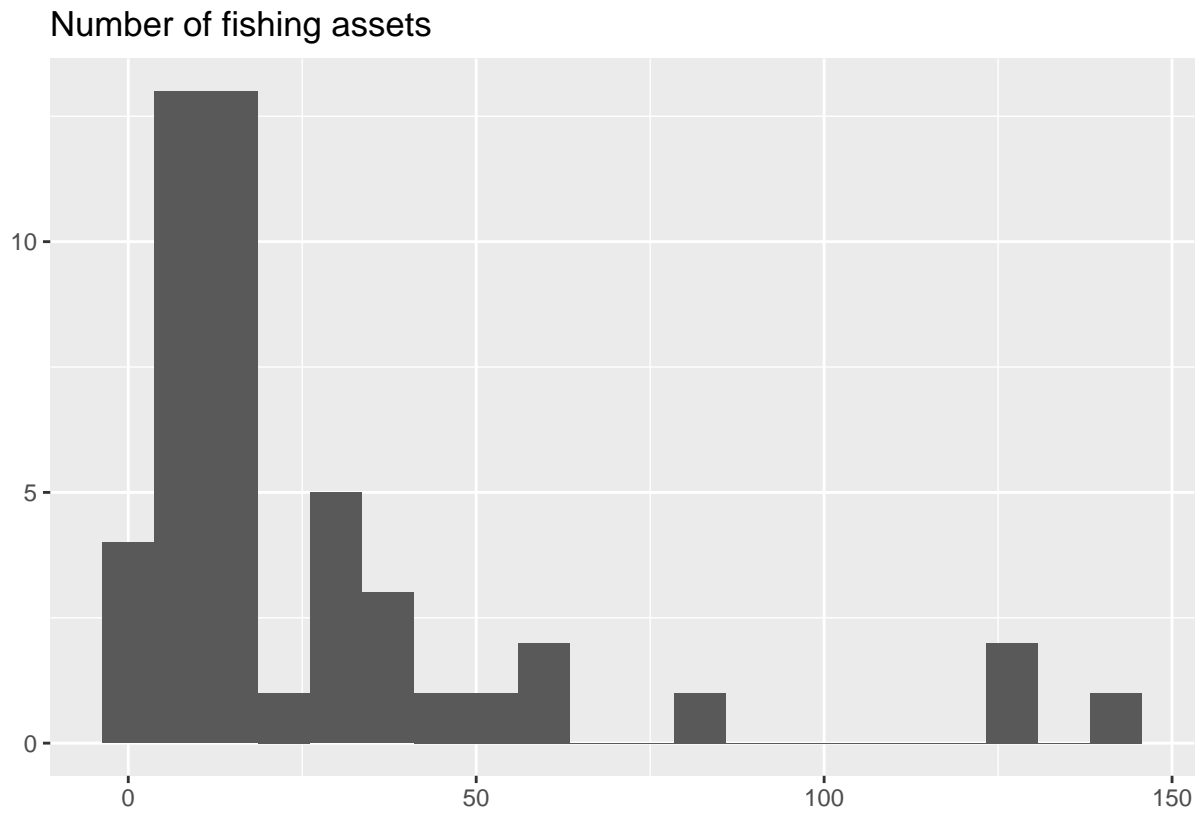
*Asset: Ice machines*



***Asset: Fishing Nets (purse)***

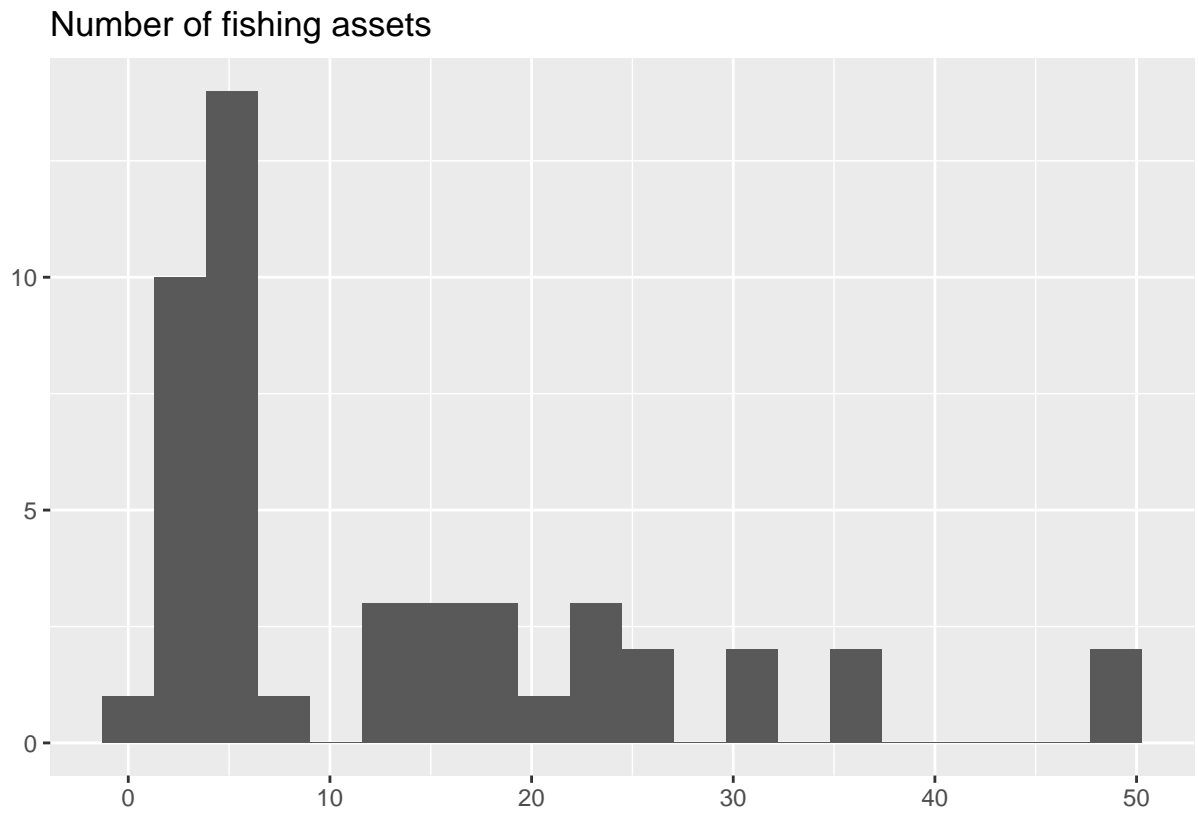


*Asset: Drag Nets*

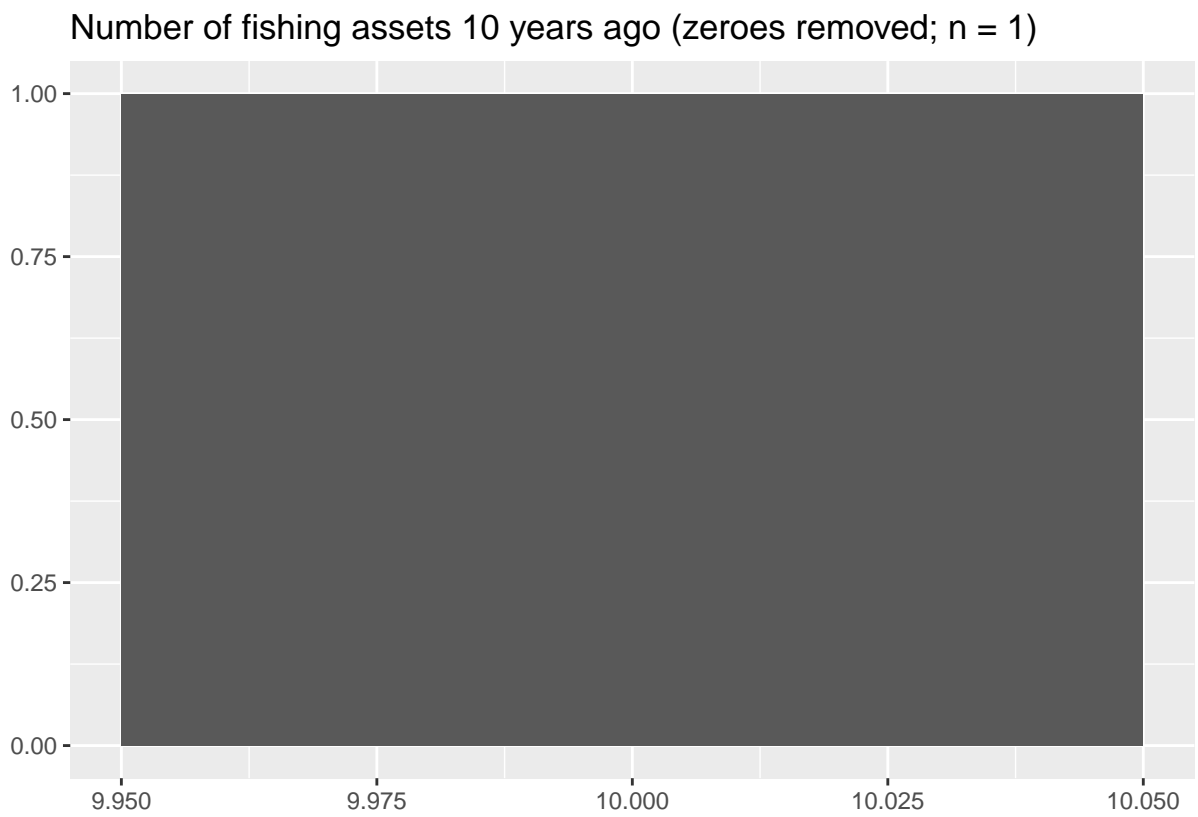
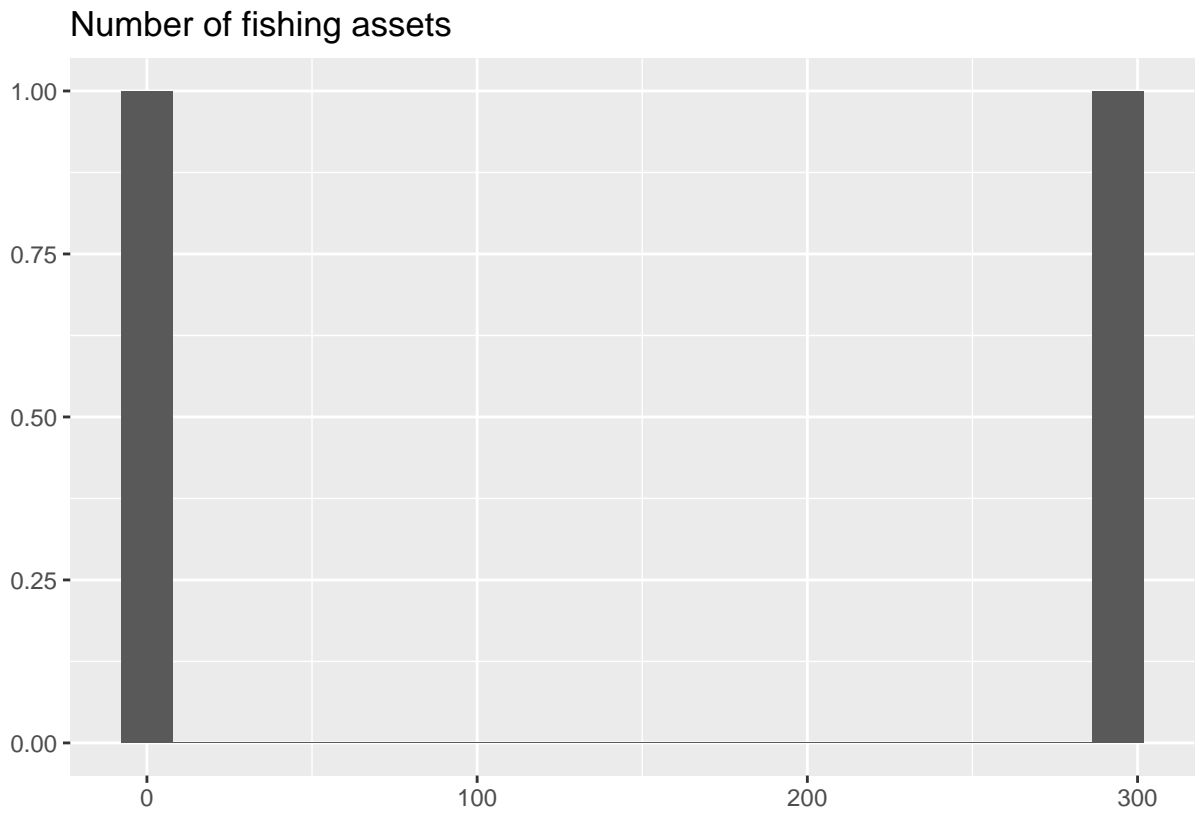




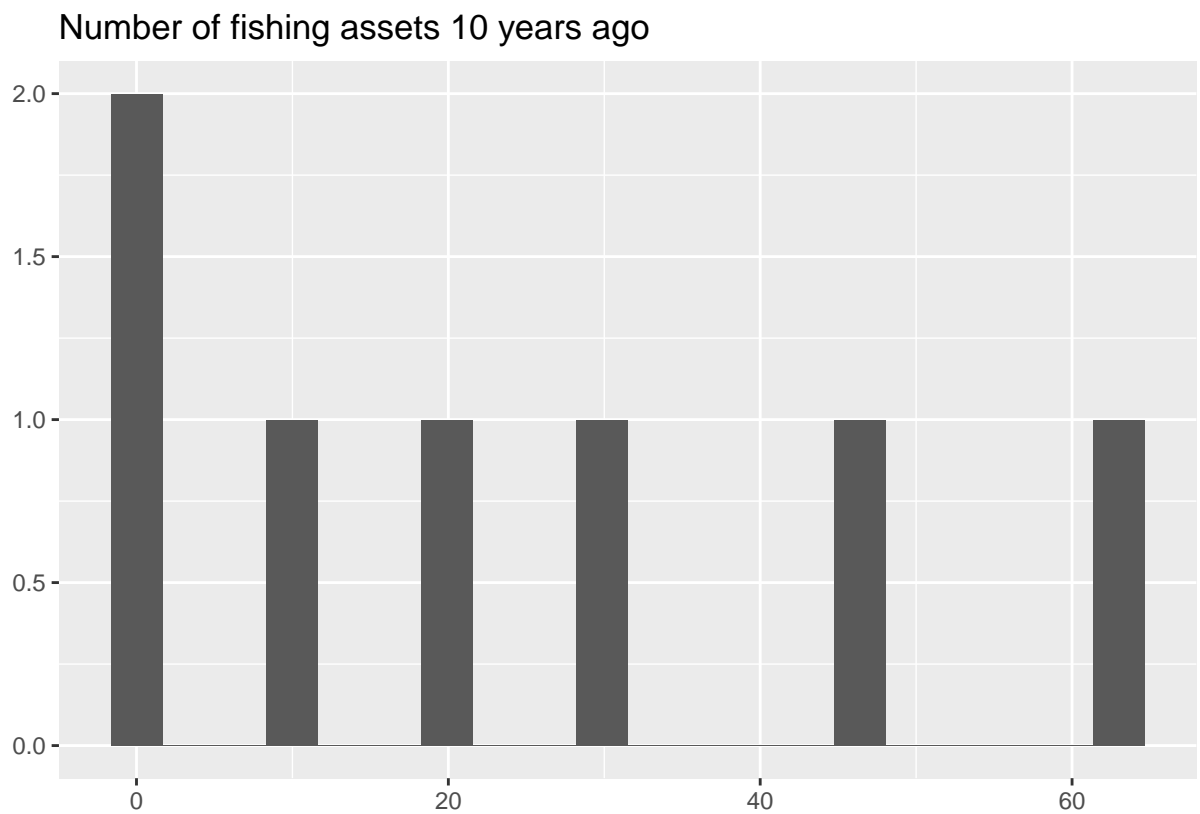
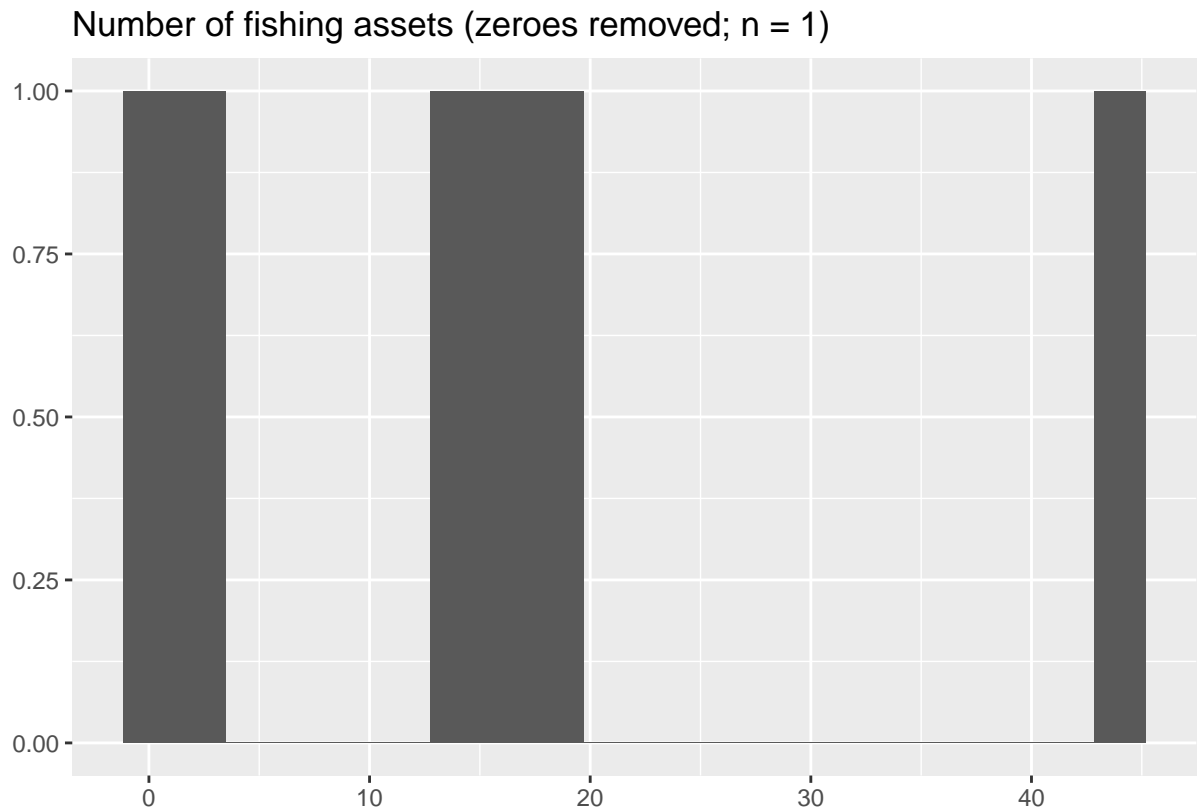
*Asset: Harpoons/Spears*



*Asset: FAD (Fish Aggregating Device)*



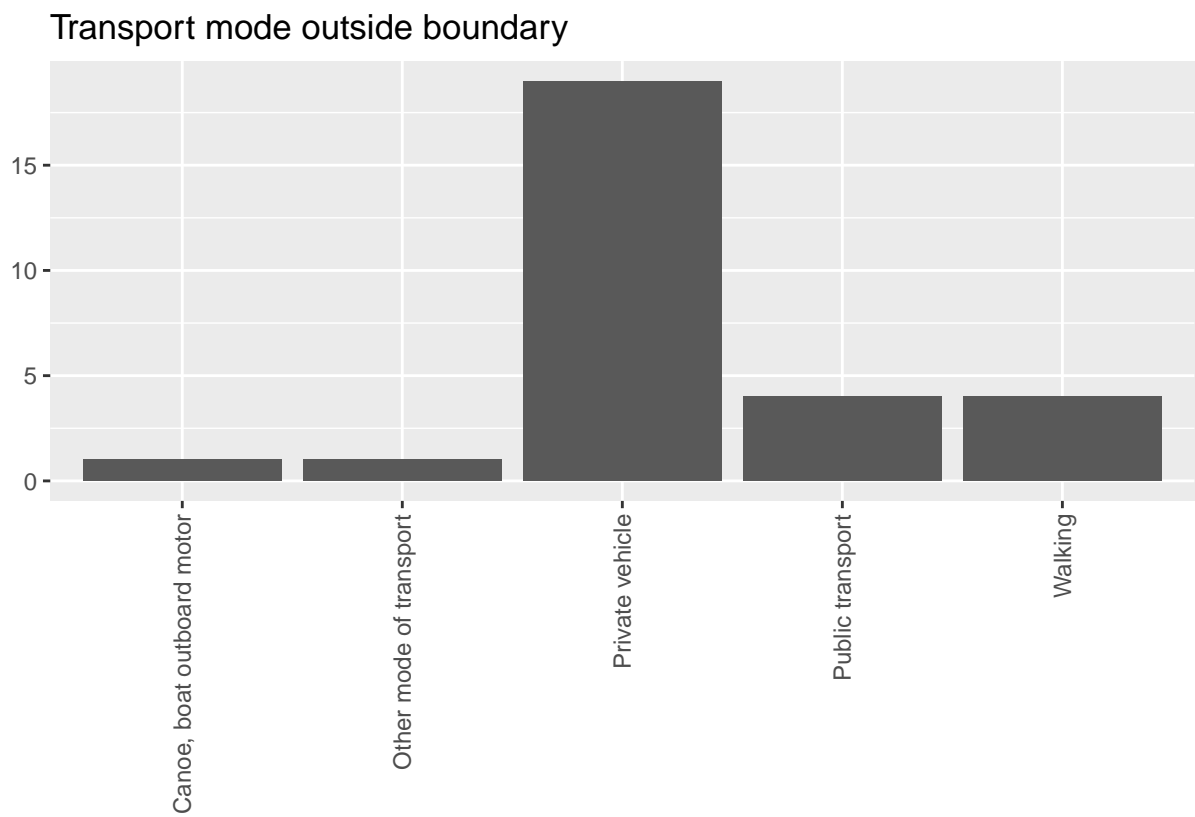
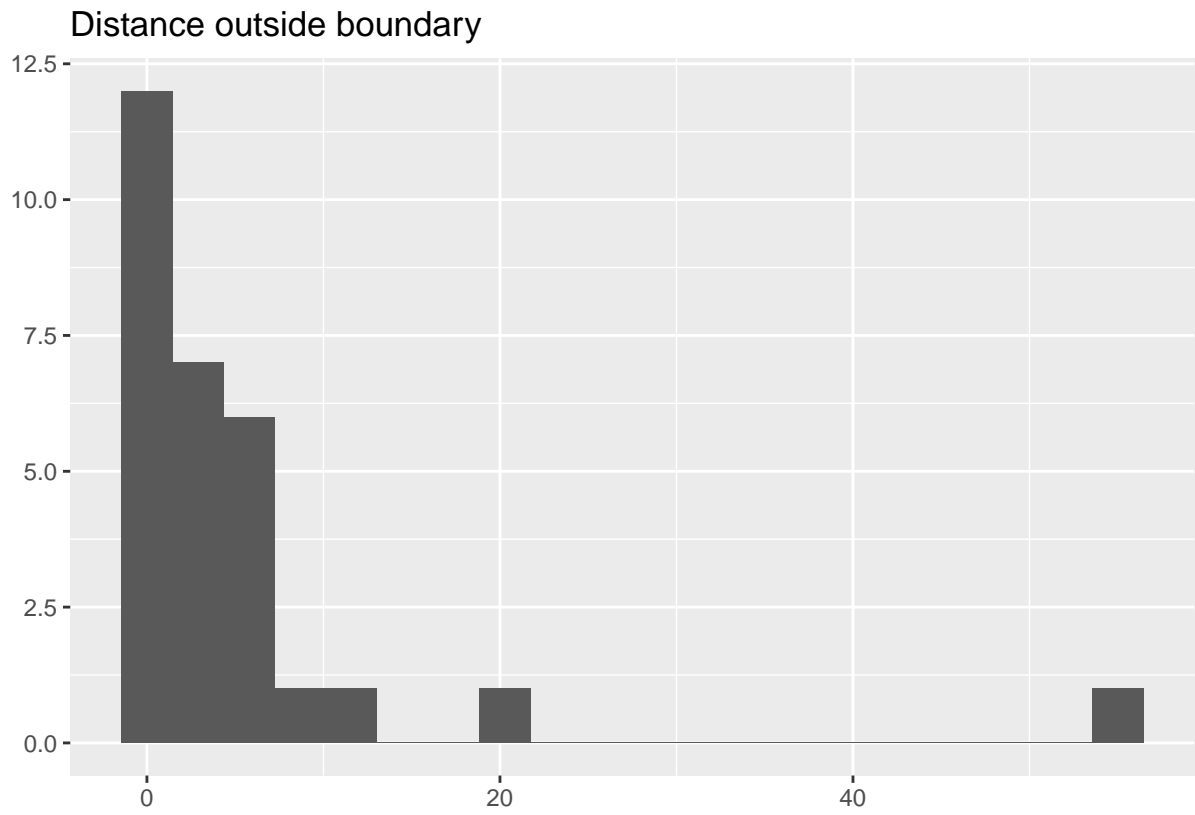
*Asset: Other Fishing Equipment (note)*



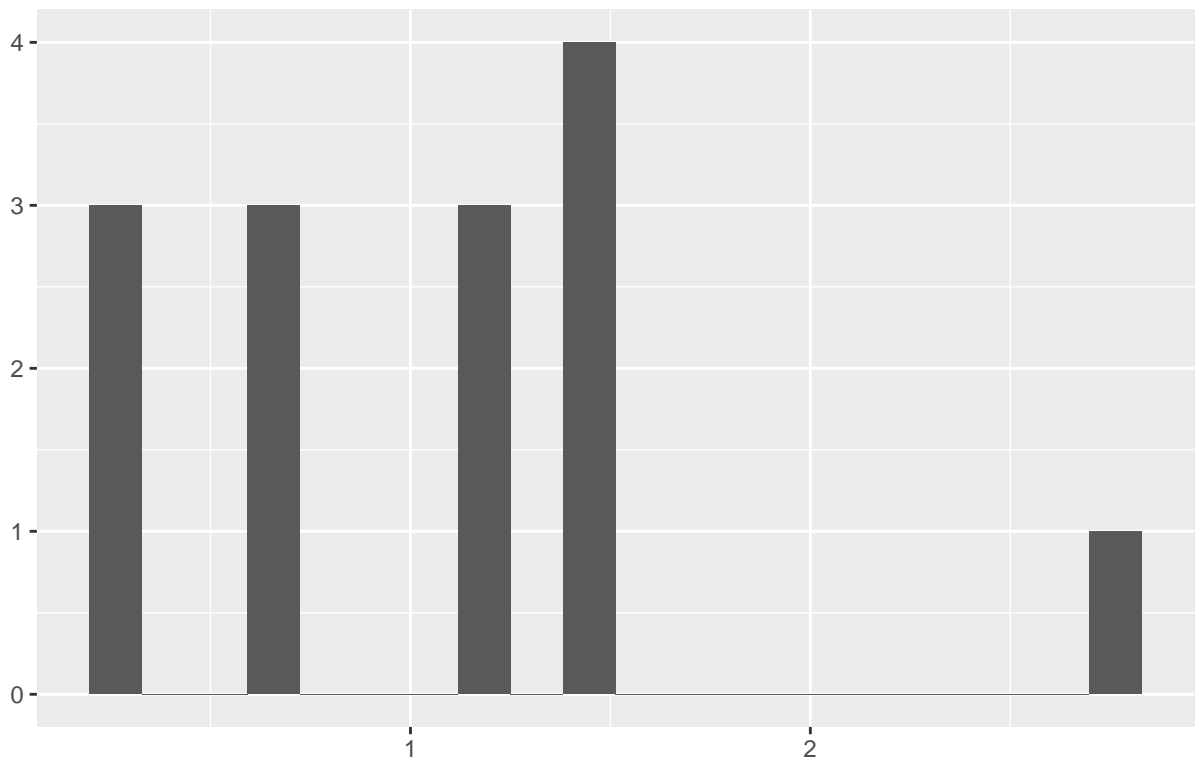
## Outside Roster Data: List of outside assets

```
## # A tibble: 11 x 1
##   outside_roster__id
##   <chr>
## 1 Clinic/Hospital
## 2 Bank
## 3 Nearest Market
## 4 Nearest Post Office
## 5 Nearest Credit Facility
## 6 Nearest Police Station
## 7 Nearest Court House
## 8 Airport
## 9 Nearest Trade Store/Supermarket
## 10 Nearest fish landing site
## 11 Nearest Church
```

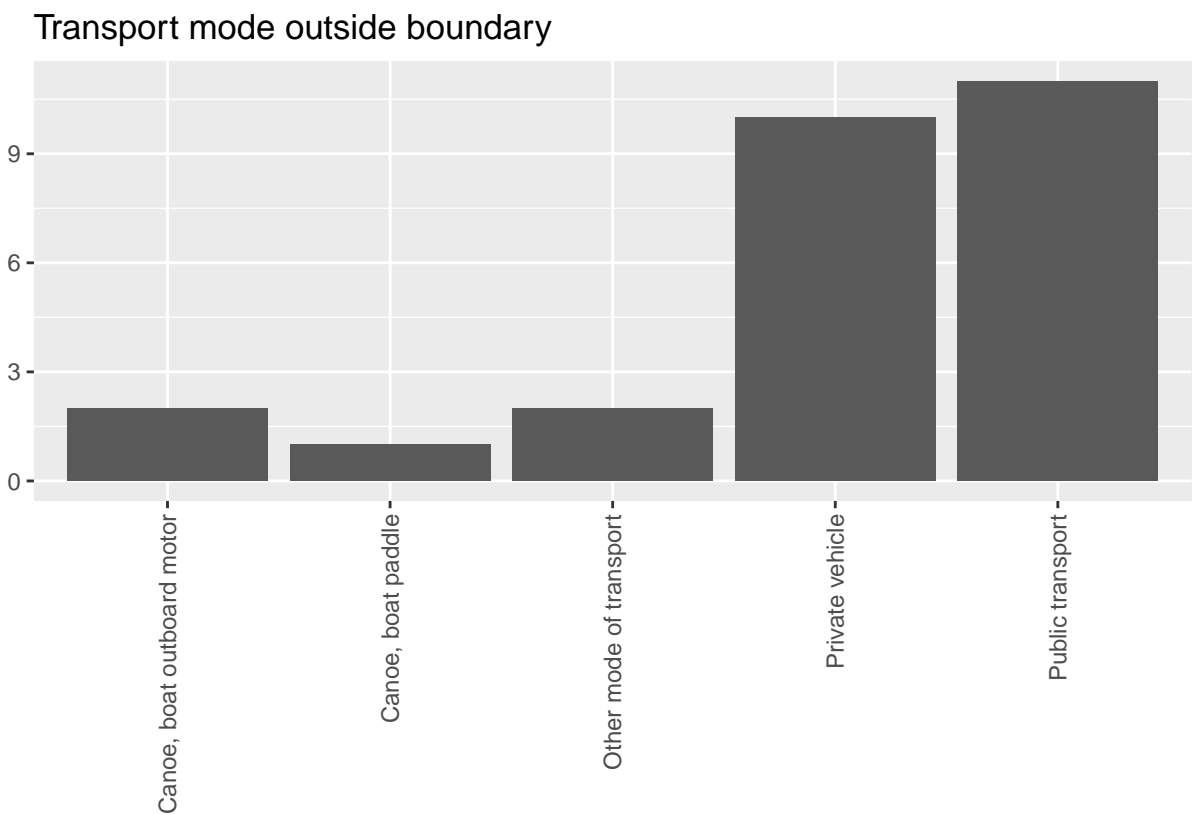
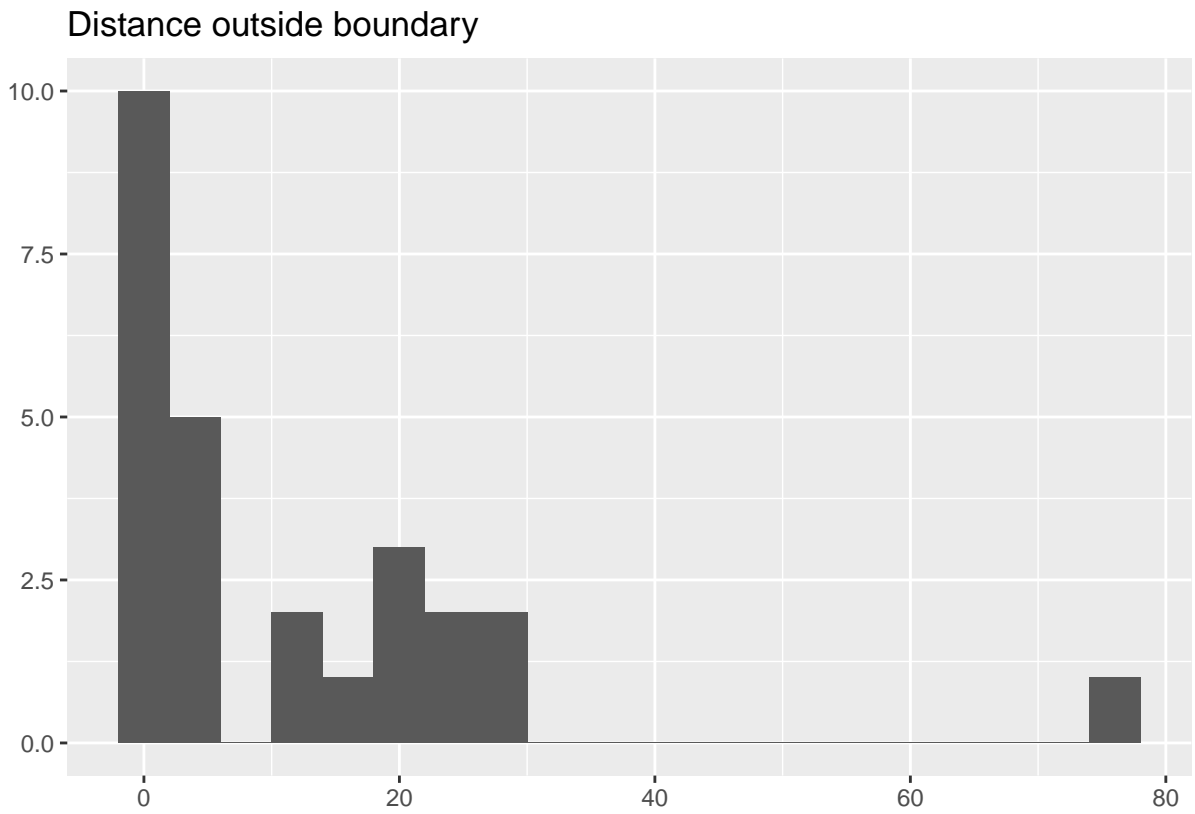
*Asset: Clinic/Hospital*



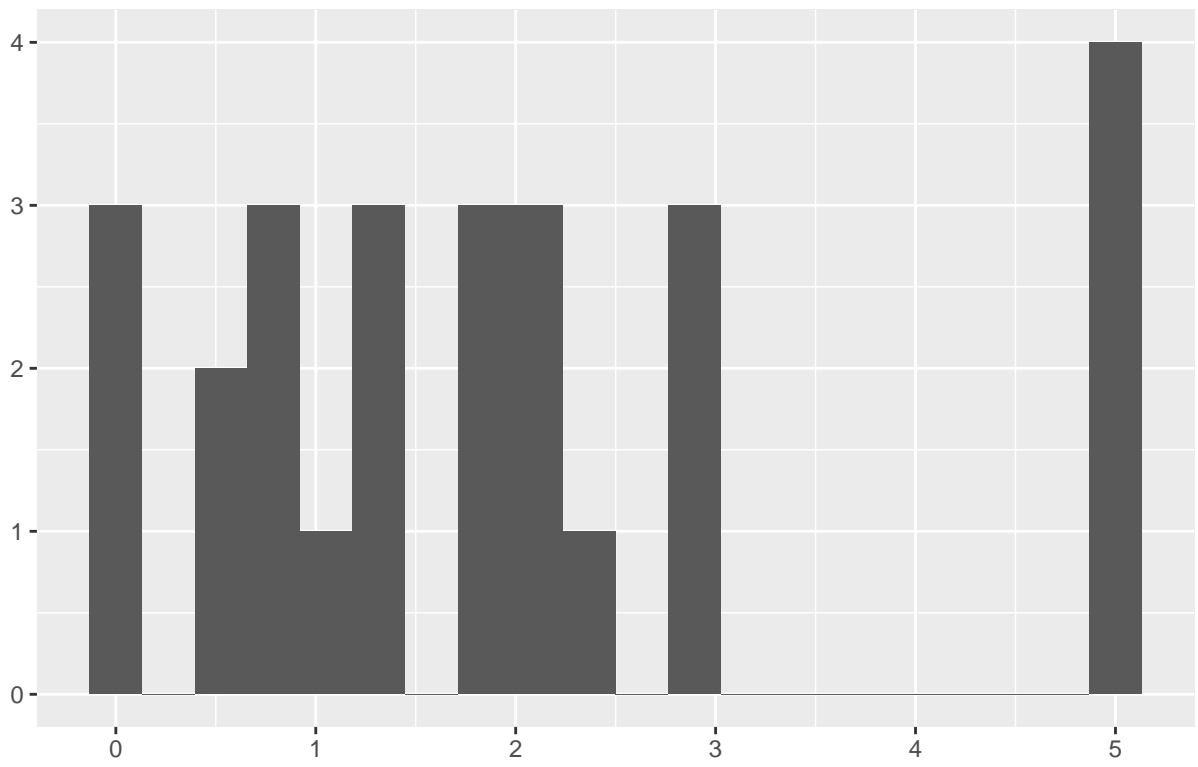
Transport cost outside boundary (zeroes removed; n = 15)



*Asset: Bank*

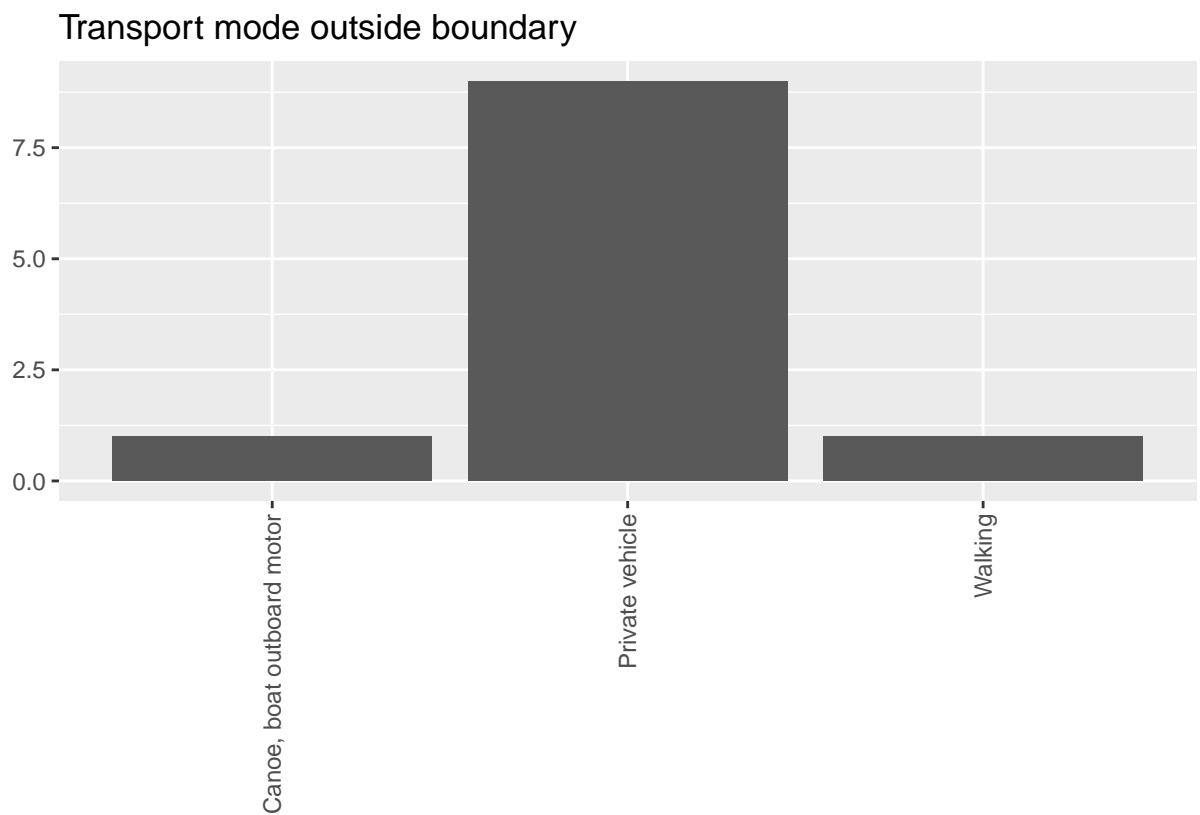
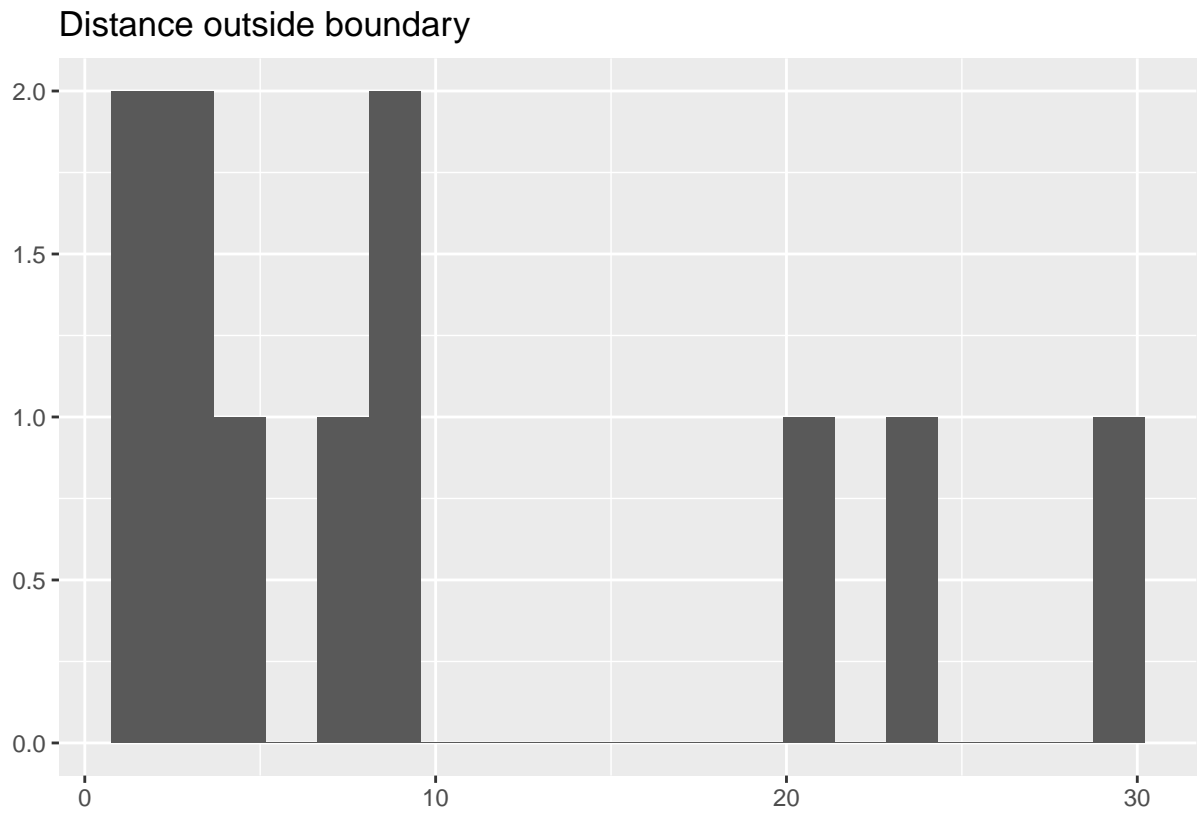


Transport cost outside boundary

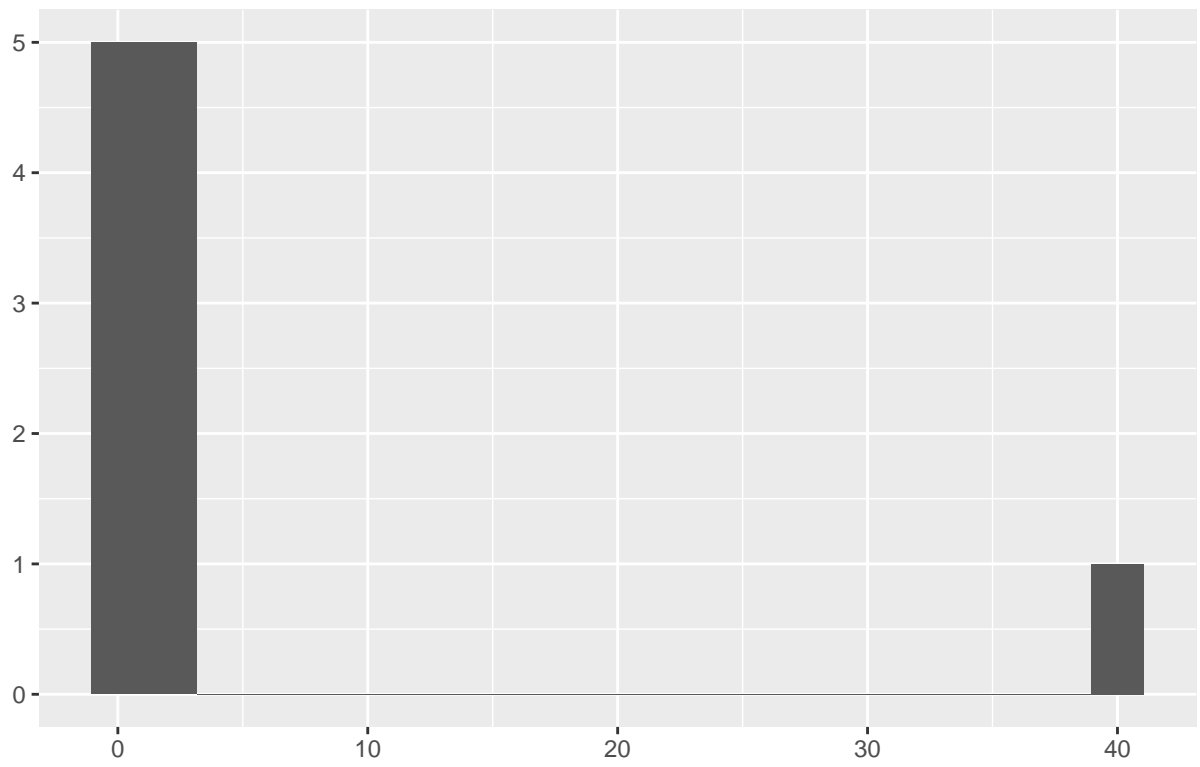




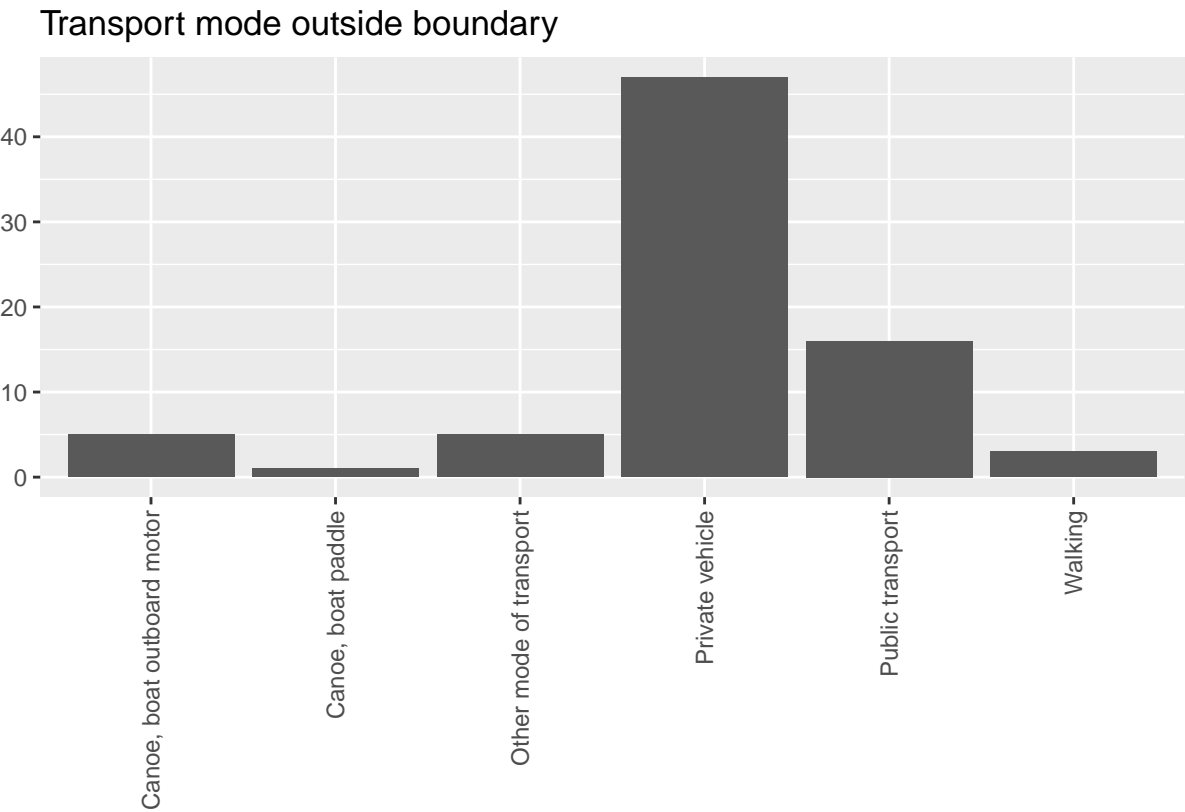
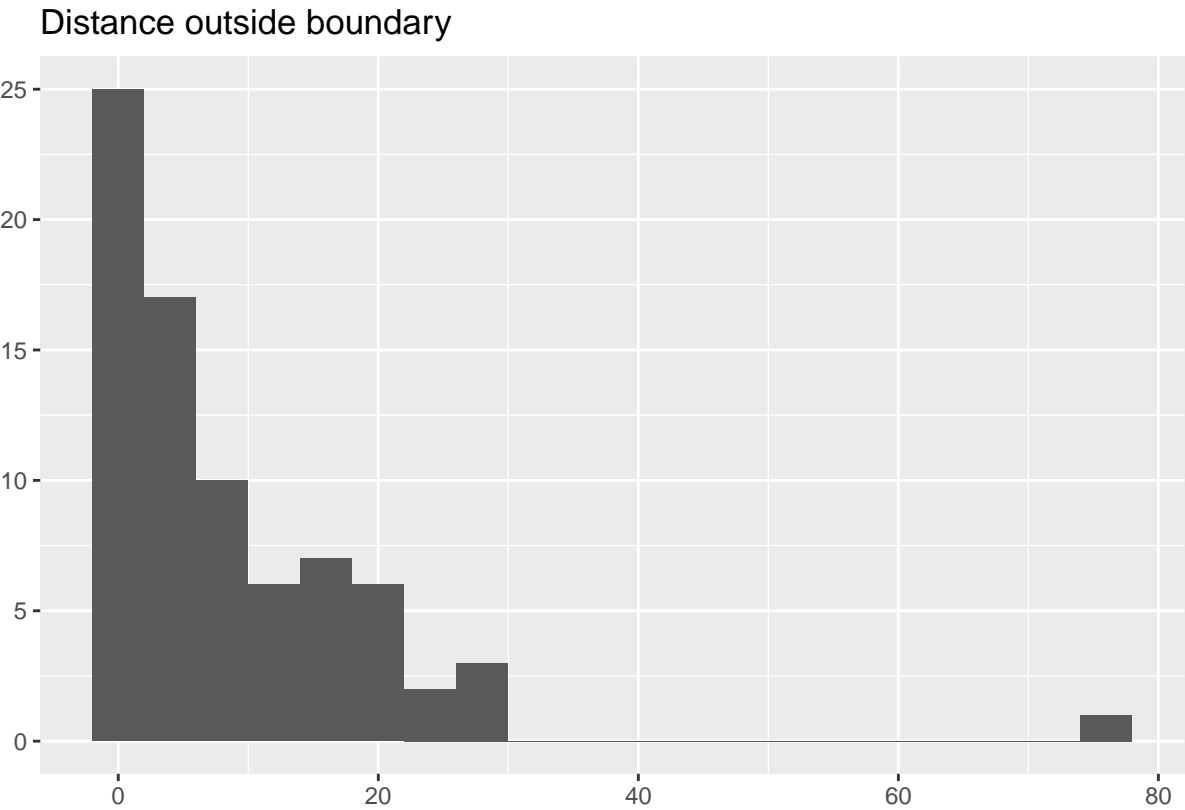
*Asset: Nearest Market*



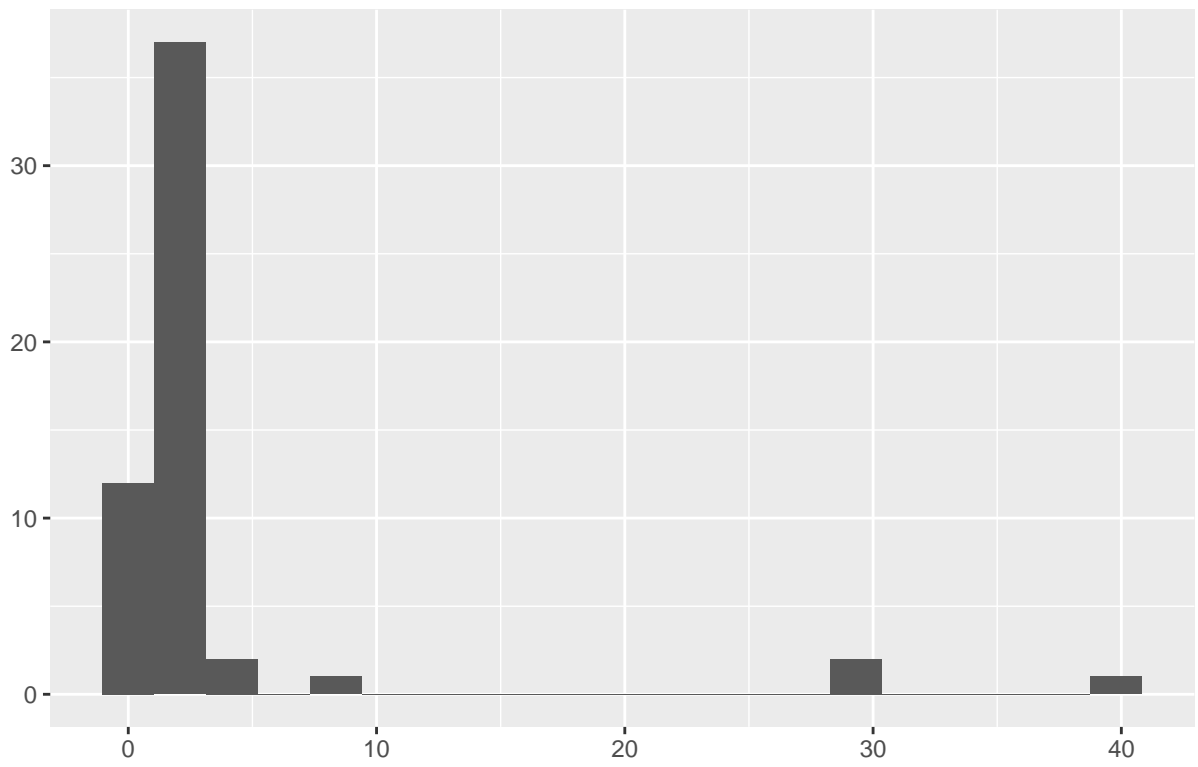
Transport cost outside boundary



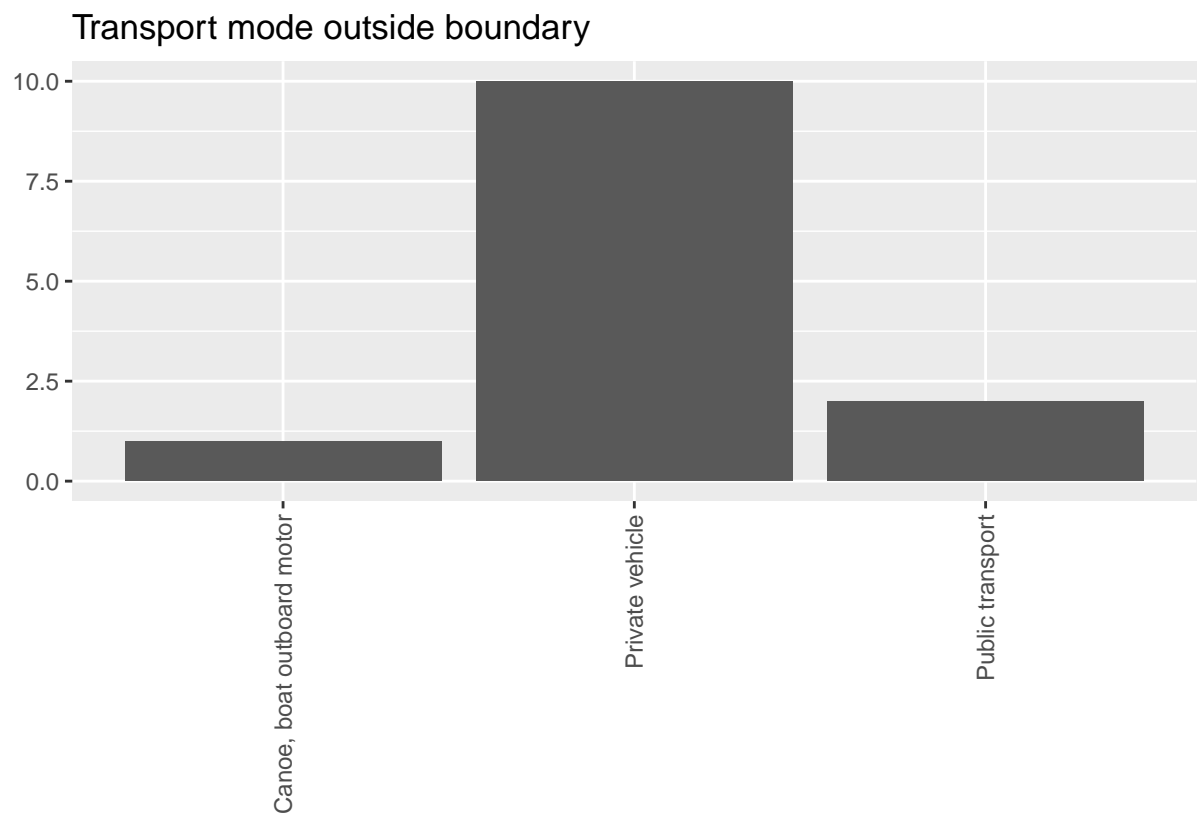
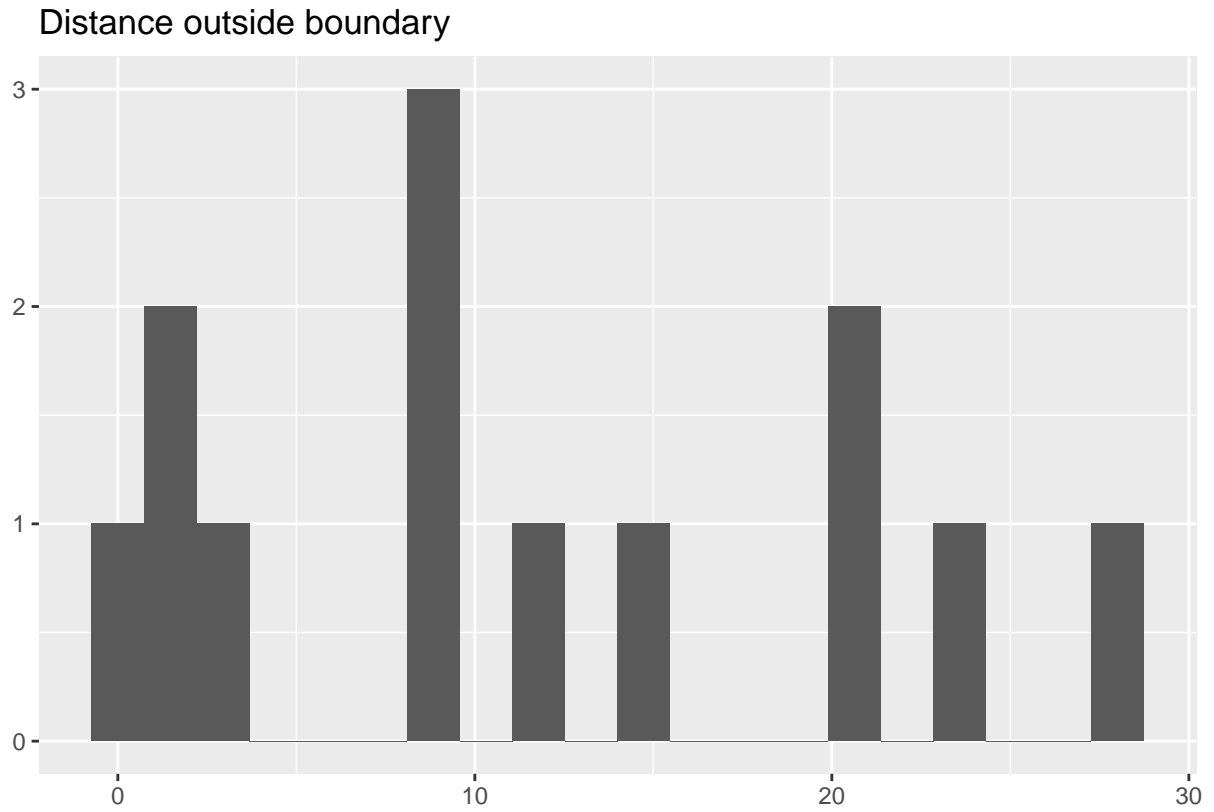
*Asset: Nearest Post Office*



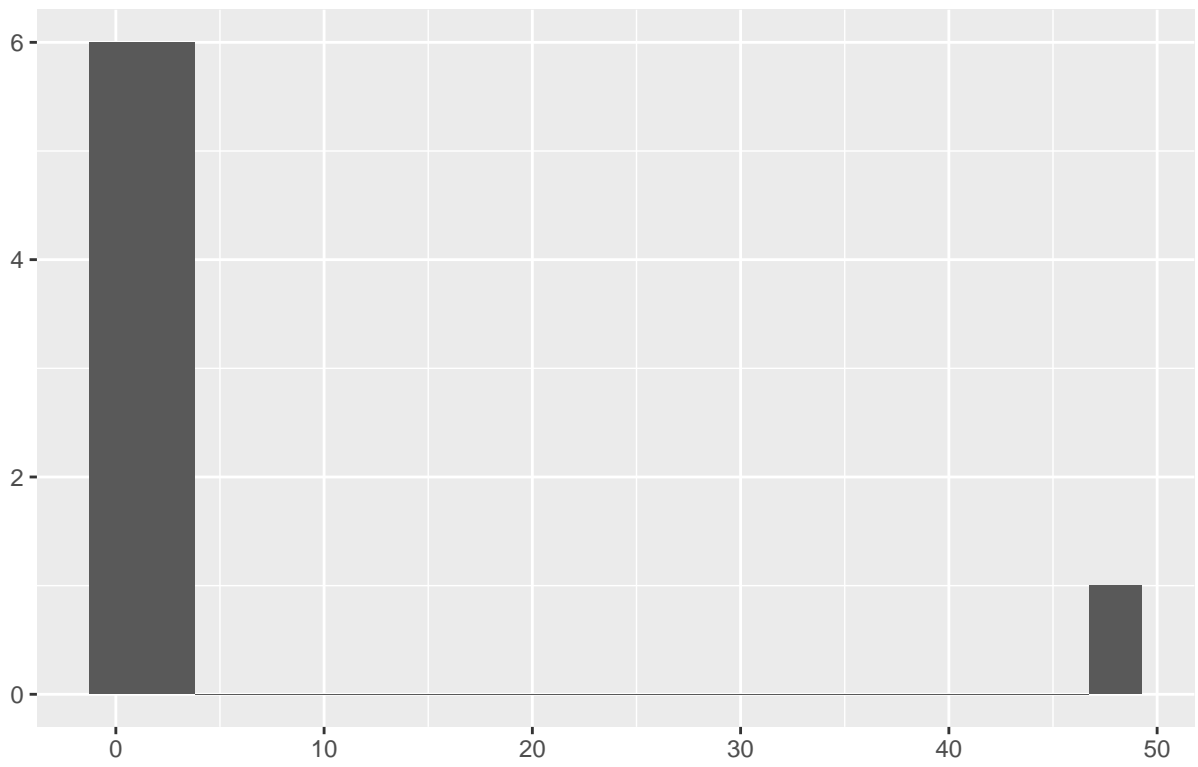
Transport cost outside boundary (zeroes removed; n = 22)



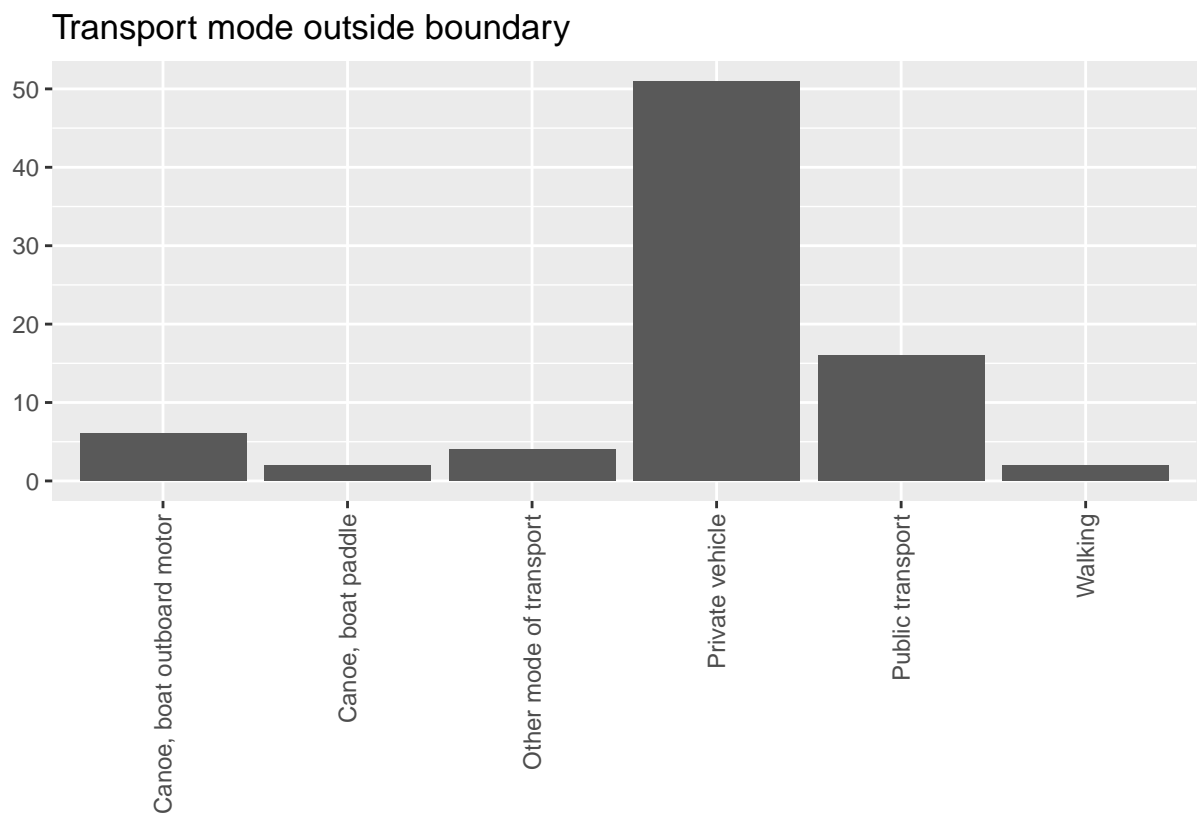
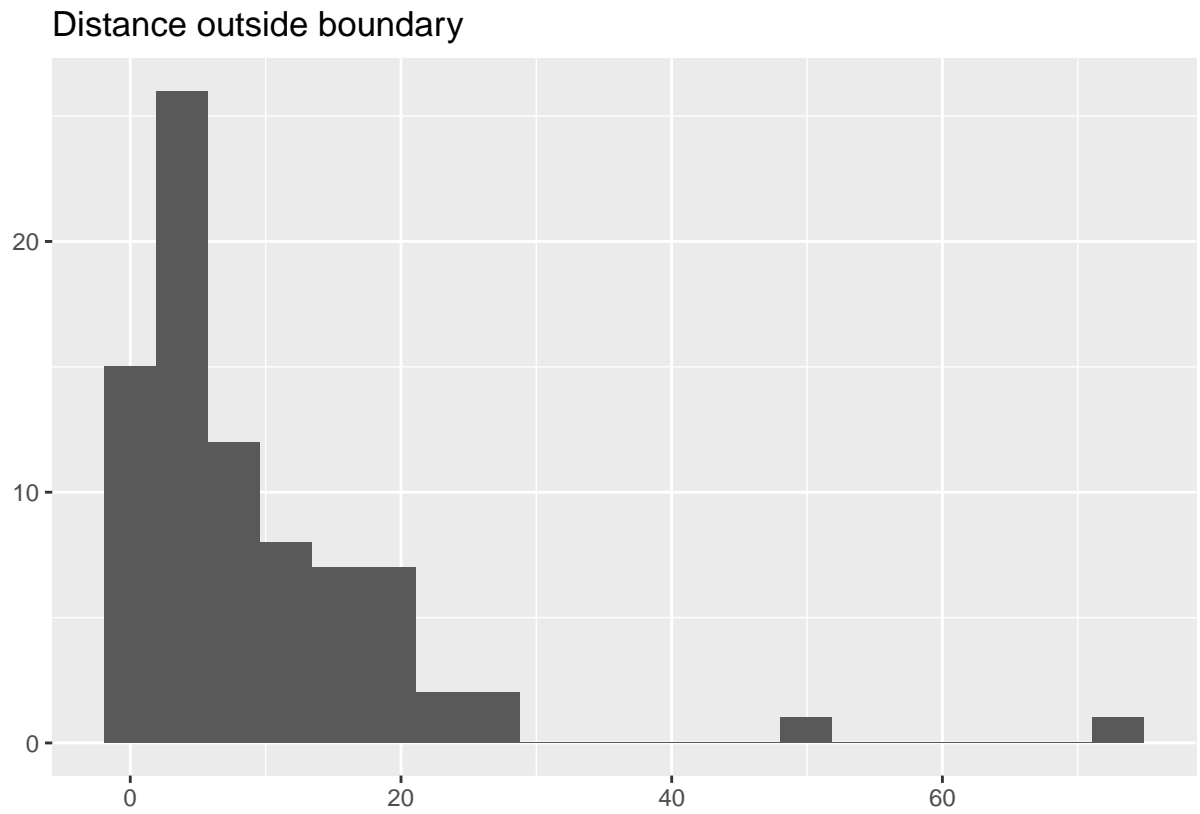
*Asset: Nearest Credit Facility*



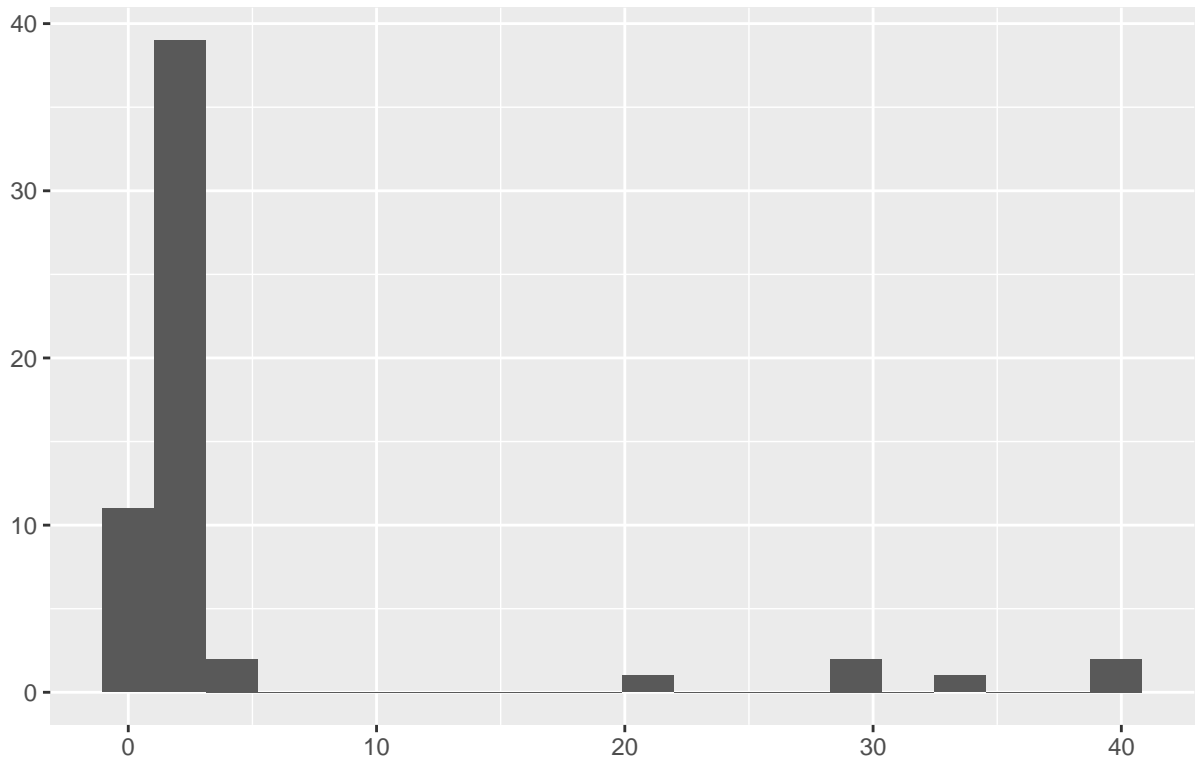
Transport cost outside boundary



*Asset: Nearest Police Station*

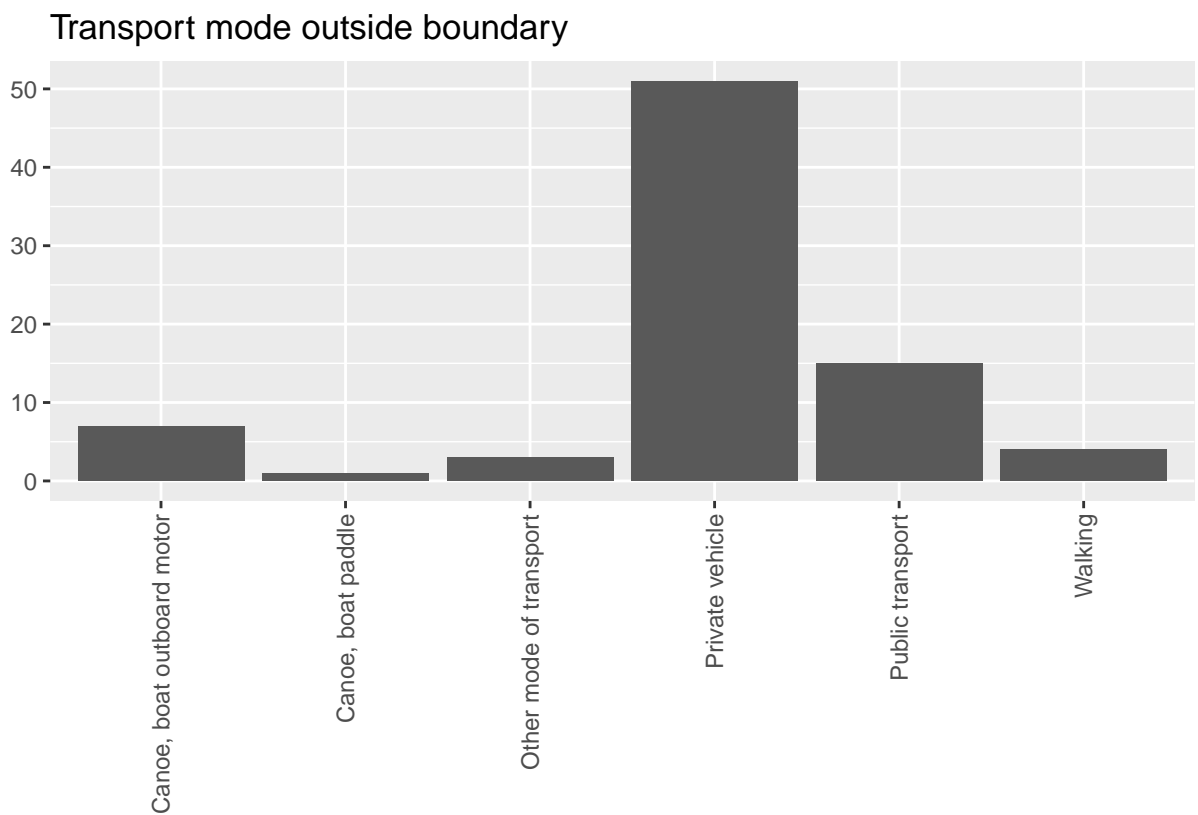
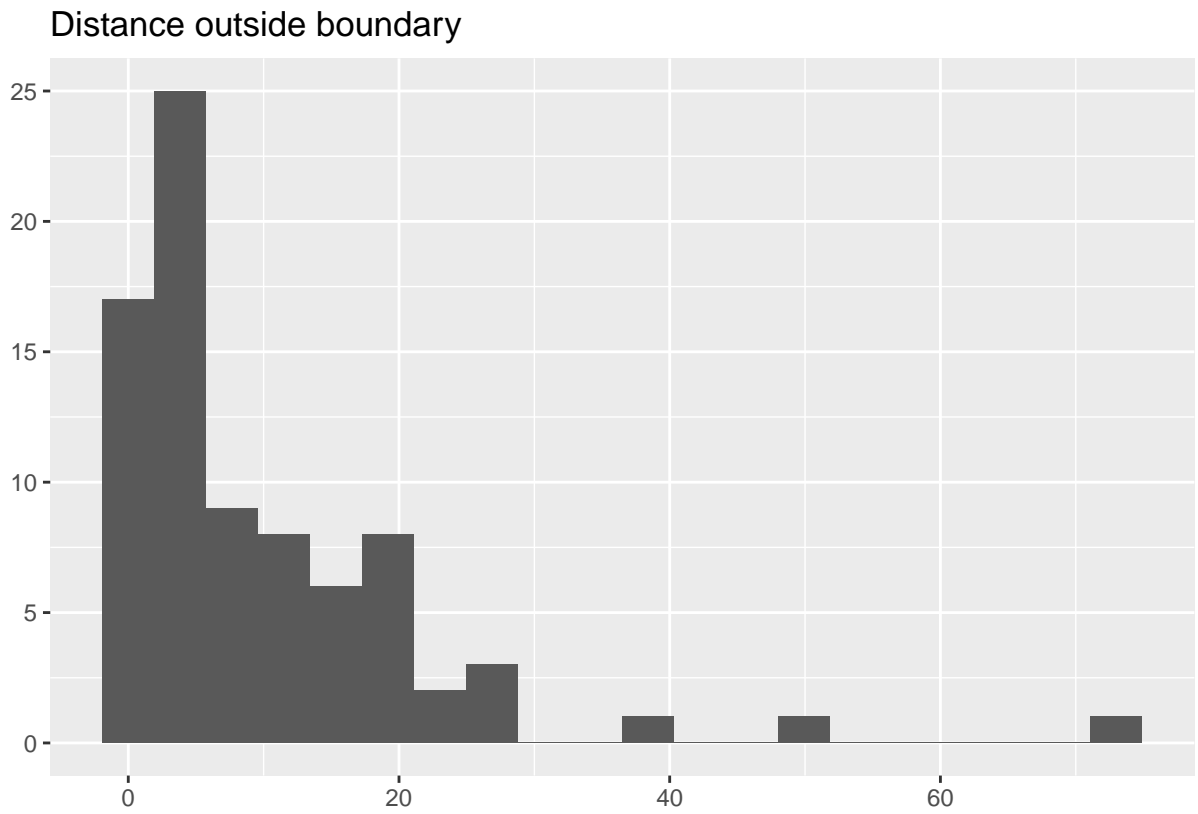


Transport cost outside boundary (zeroes removed; n = 23)

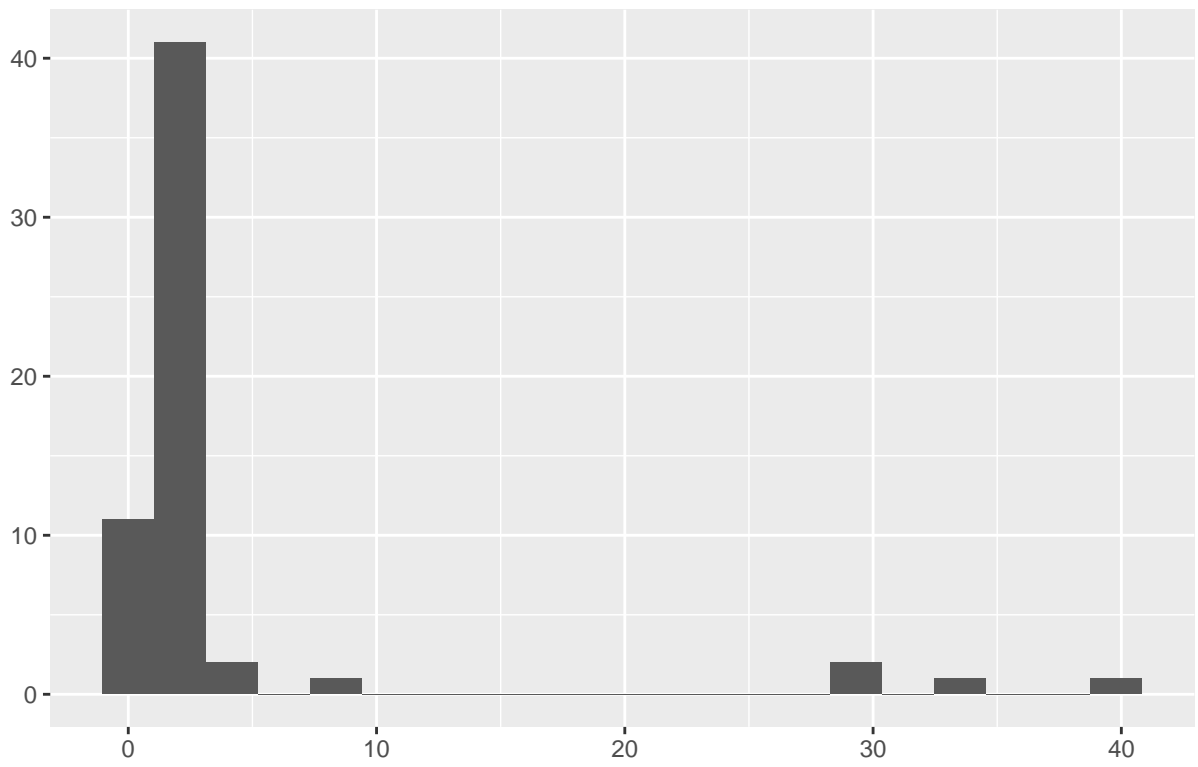




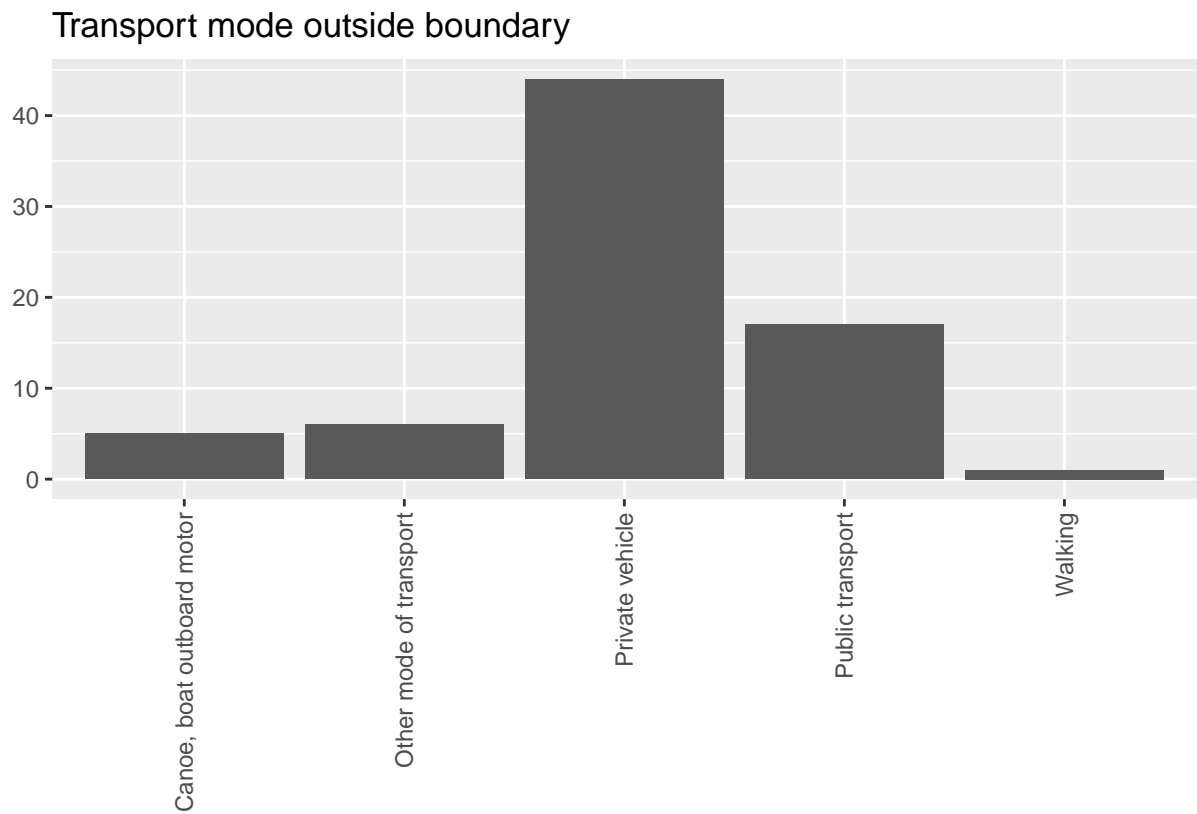
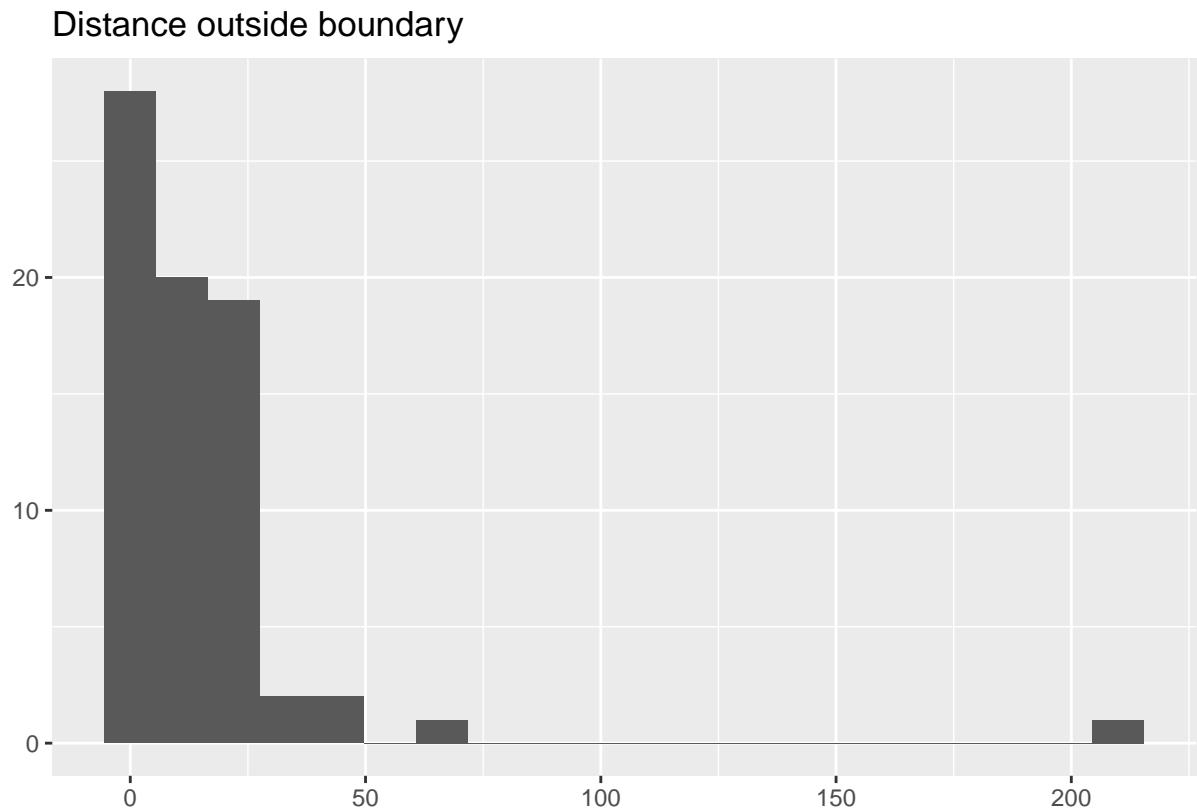
*Asset: Nearest Court House*

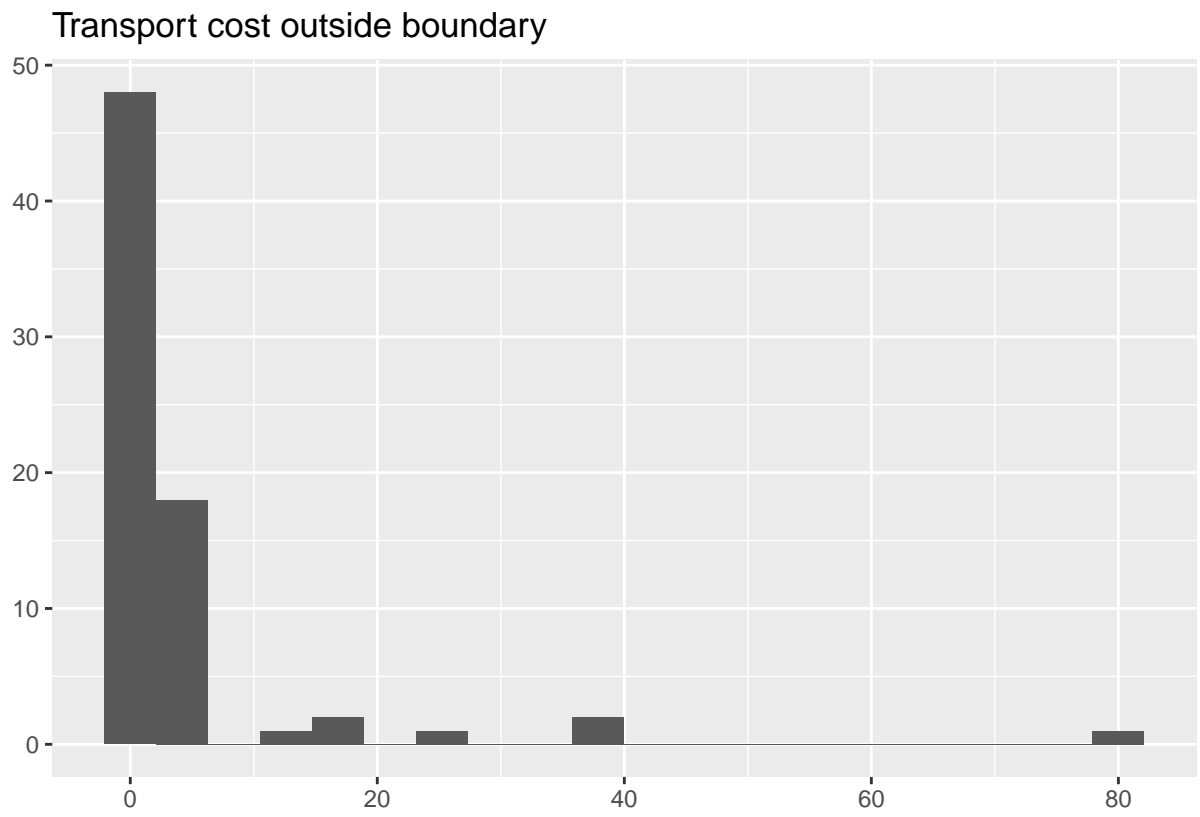


Transport cost outside boundary (zeroes removed; n = 22)

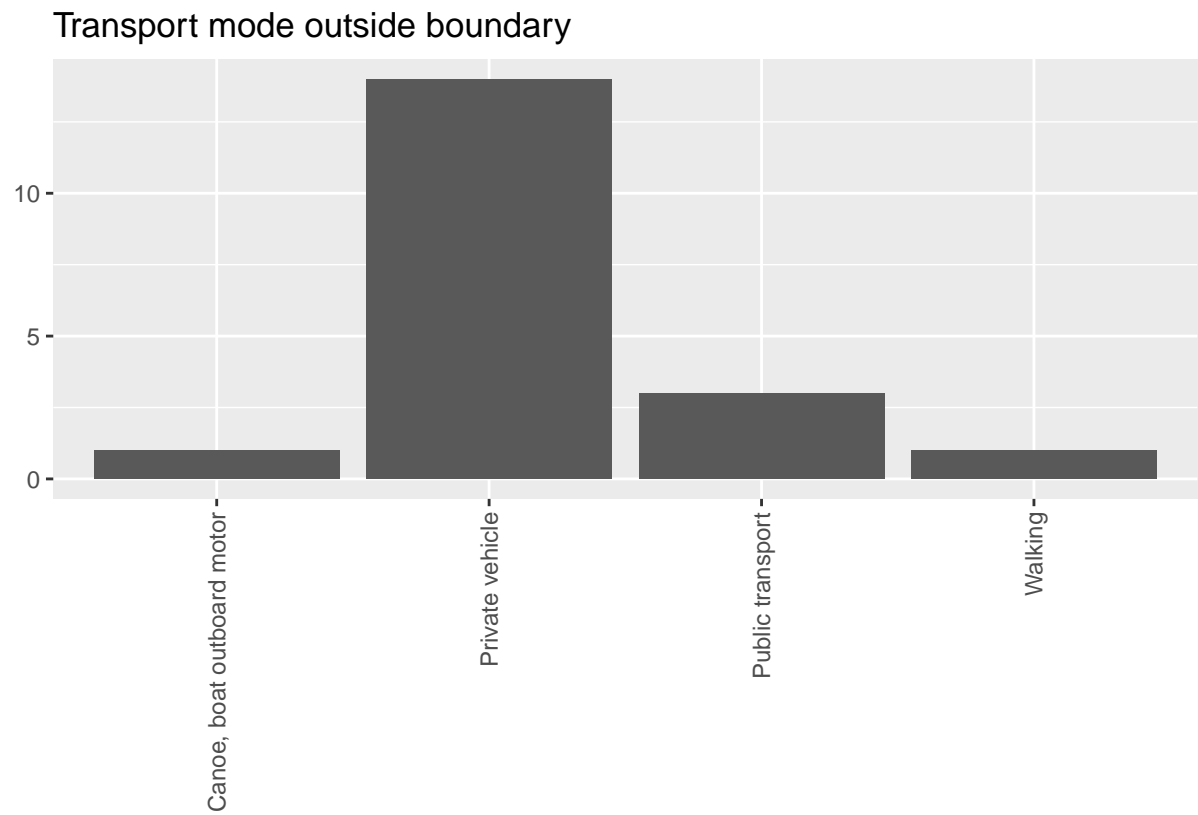
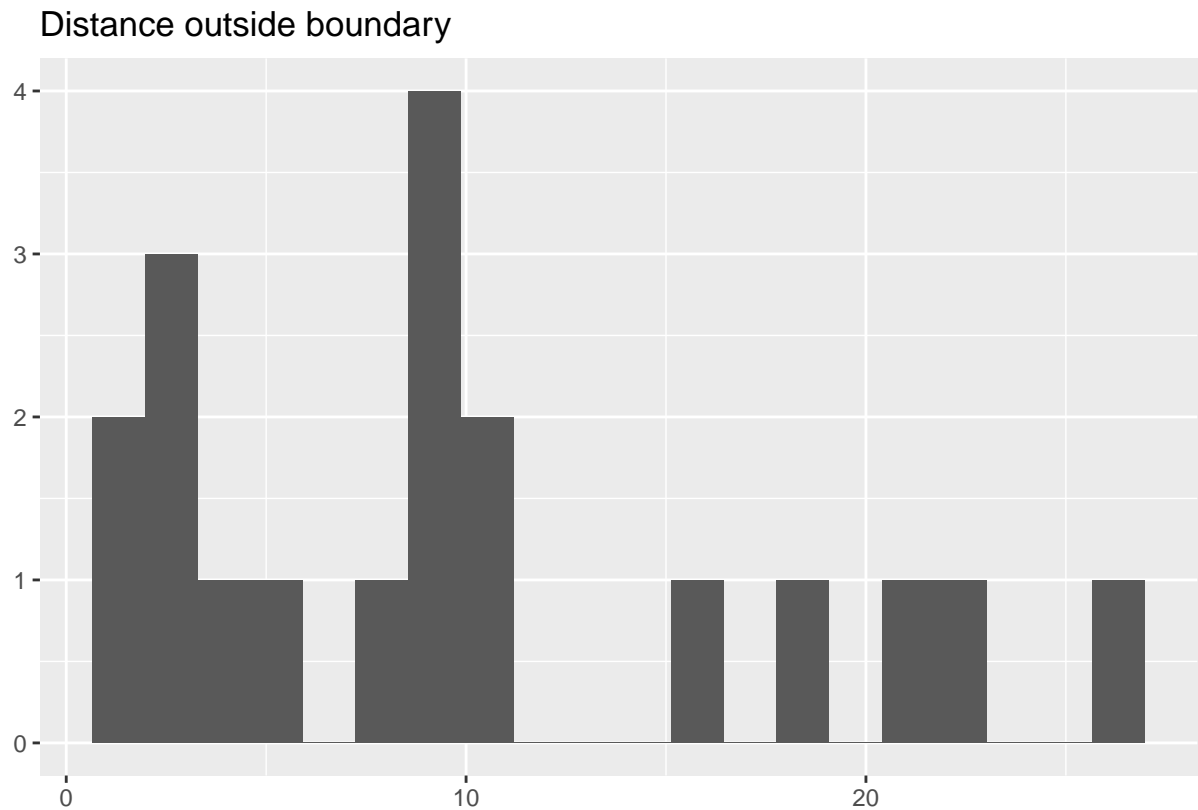


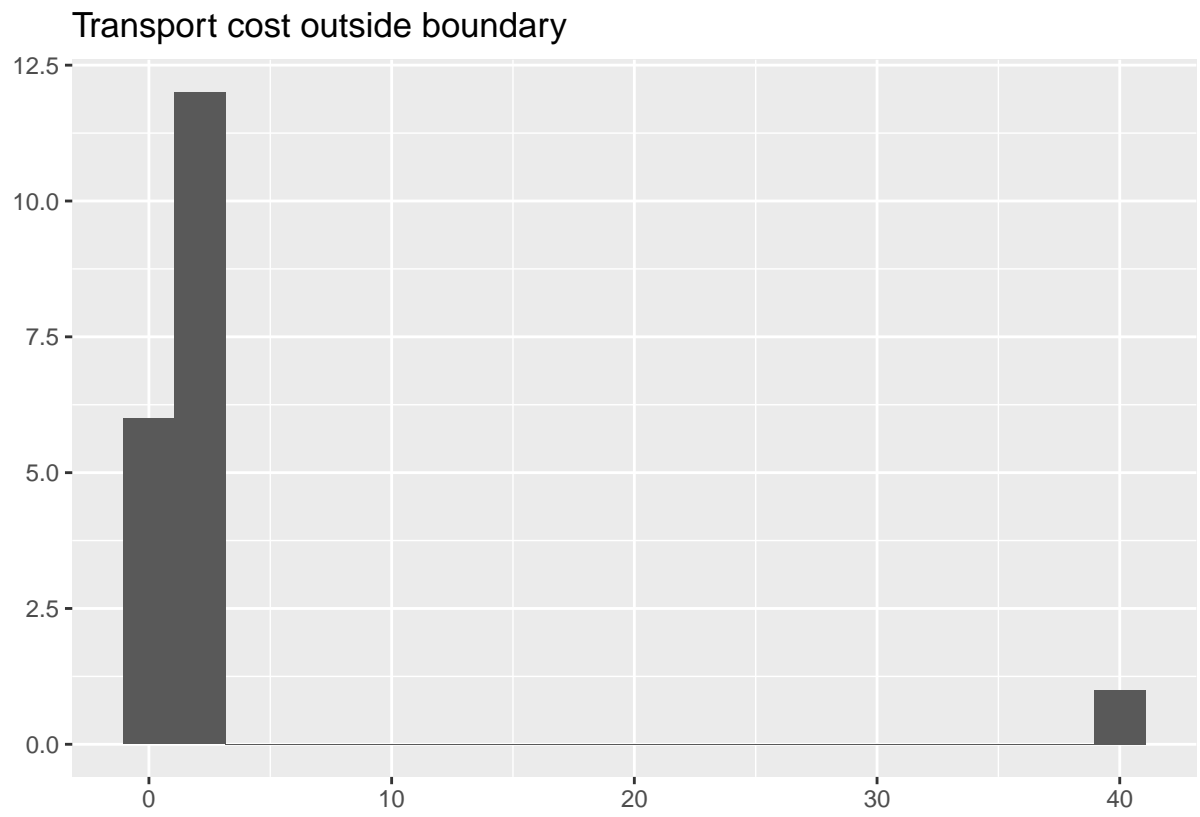
*Asset: Airport*



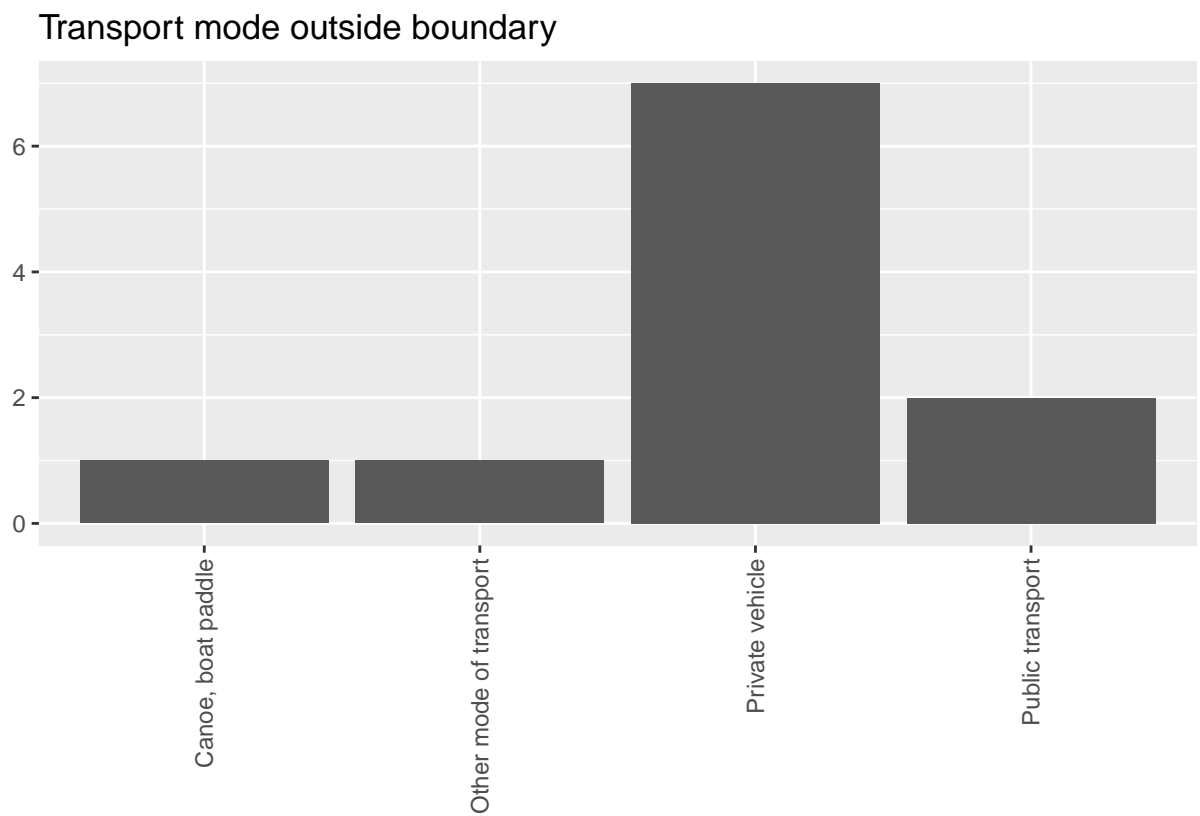
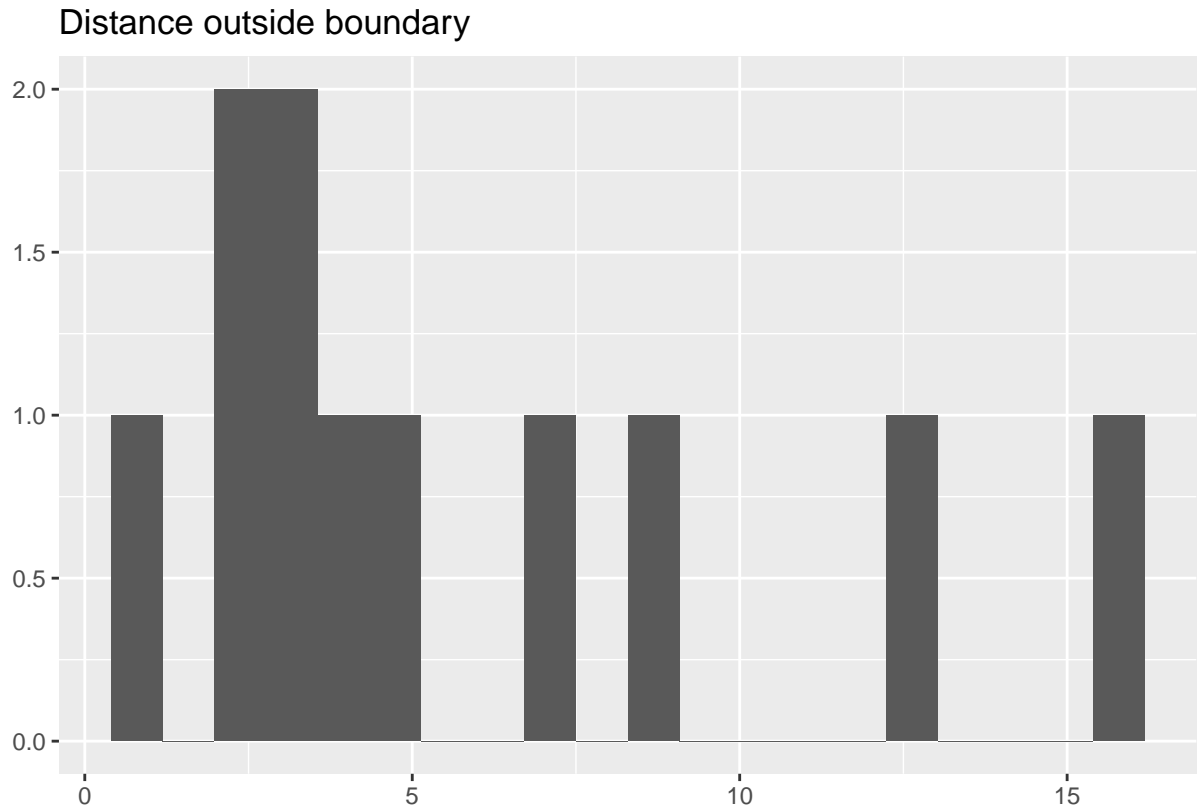


*Asset: Nearest Trade Store/Supermarket*

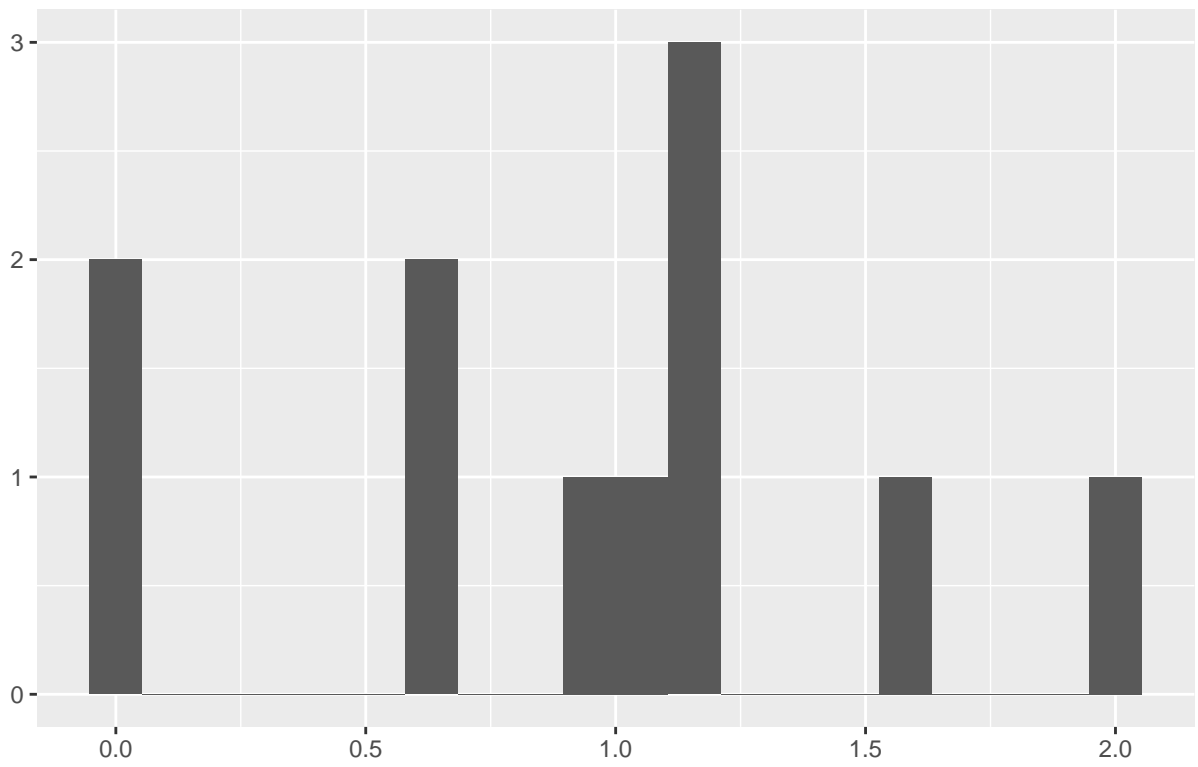




*Asset: Nearest fish landing site*

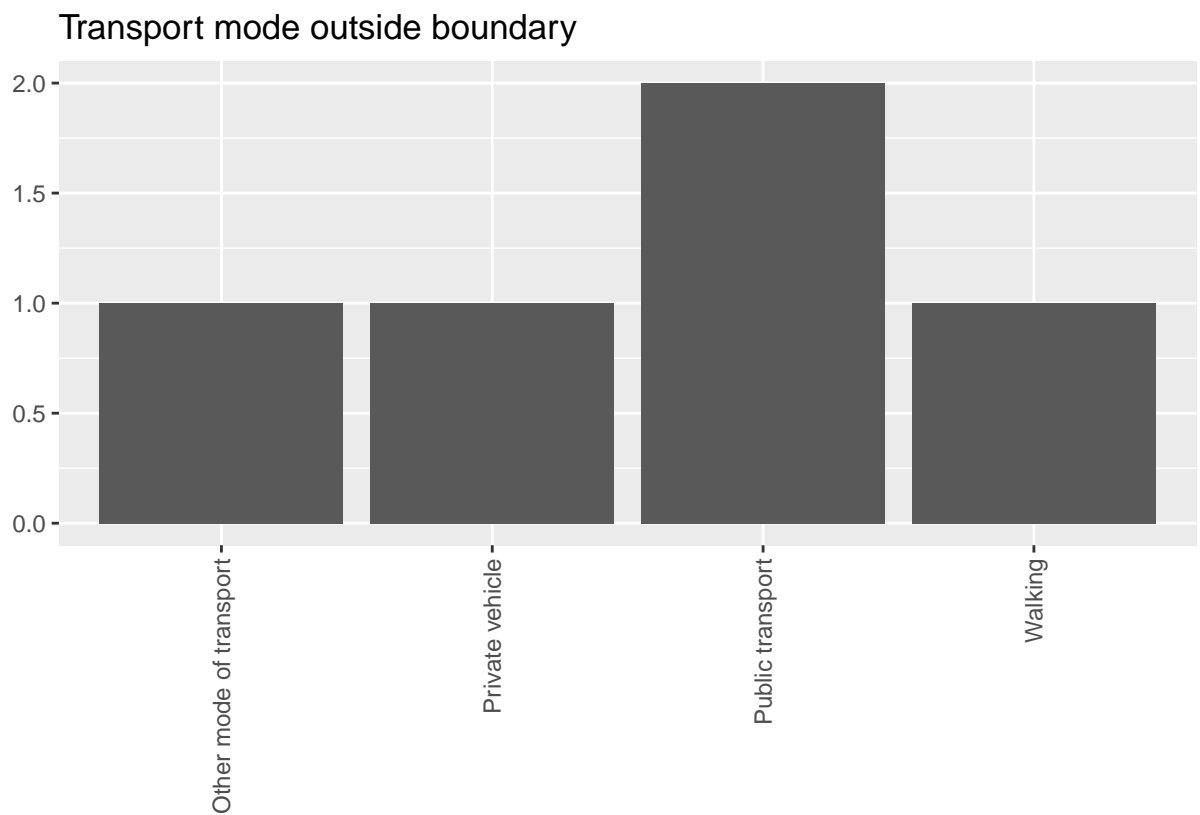
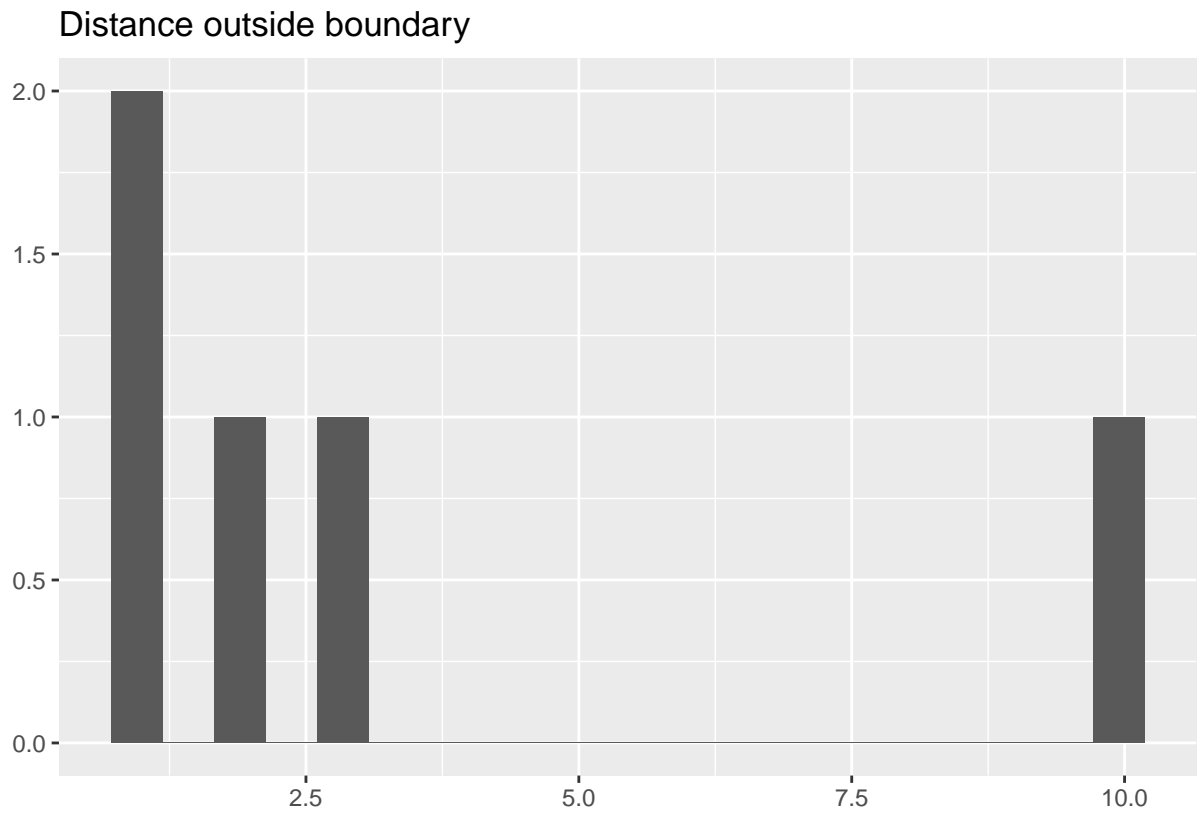


Transport cost outside boundary

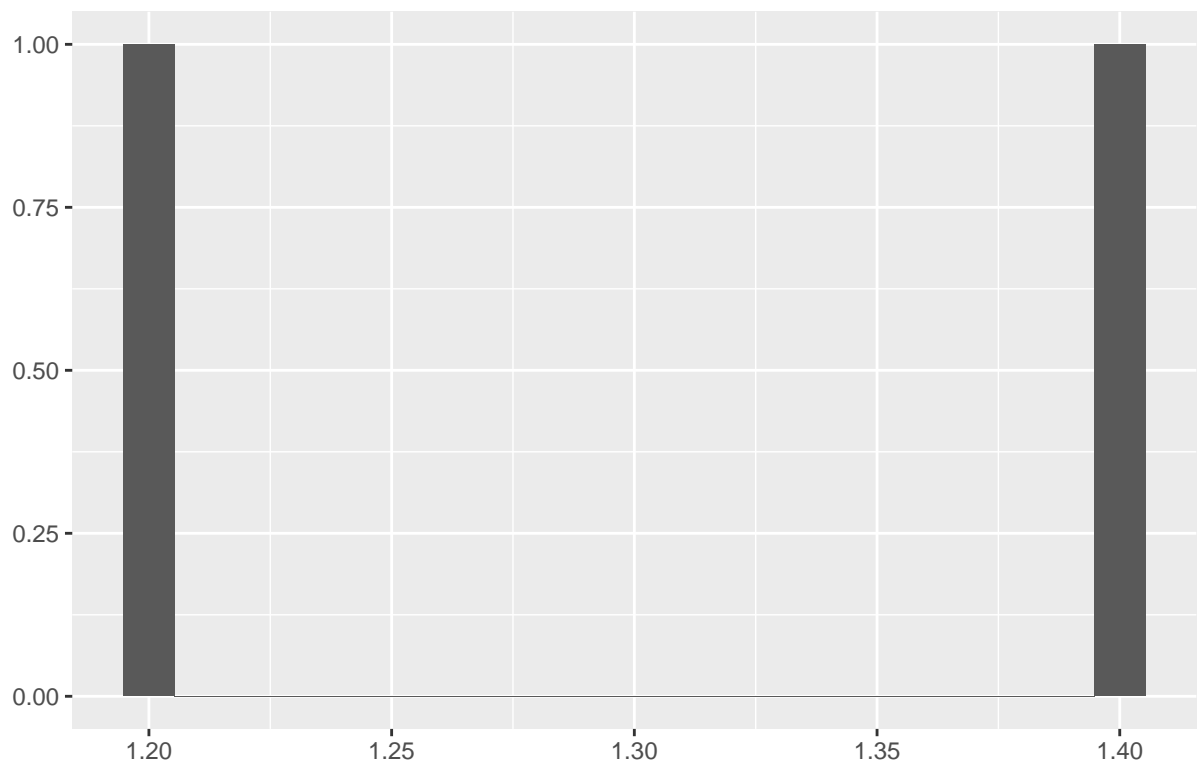




*Asset: Nearest Church*



Transport cost outside boundary (zeroes removed; n = 3)

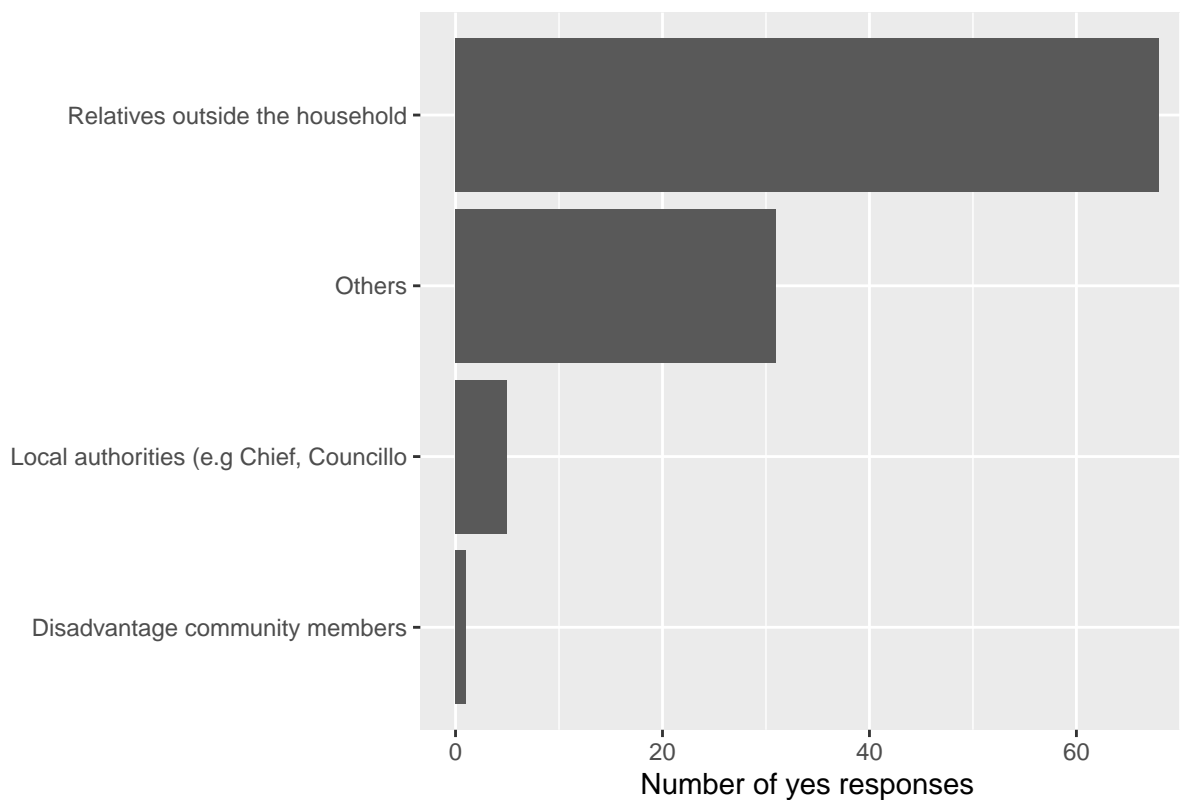


### Share Roster Data: List of events

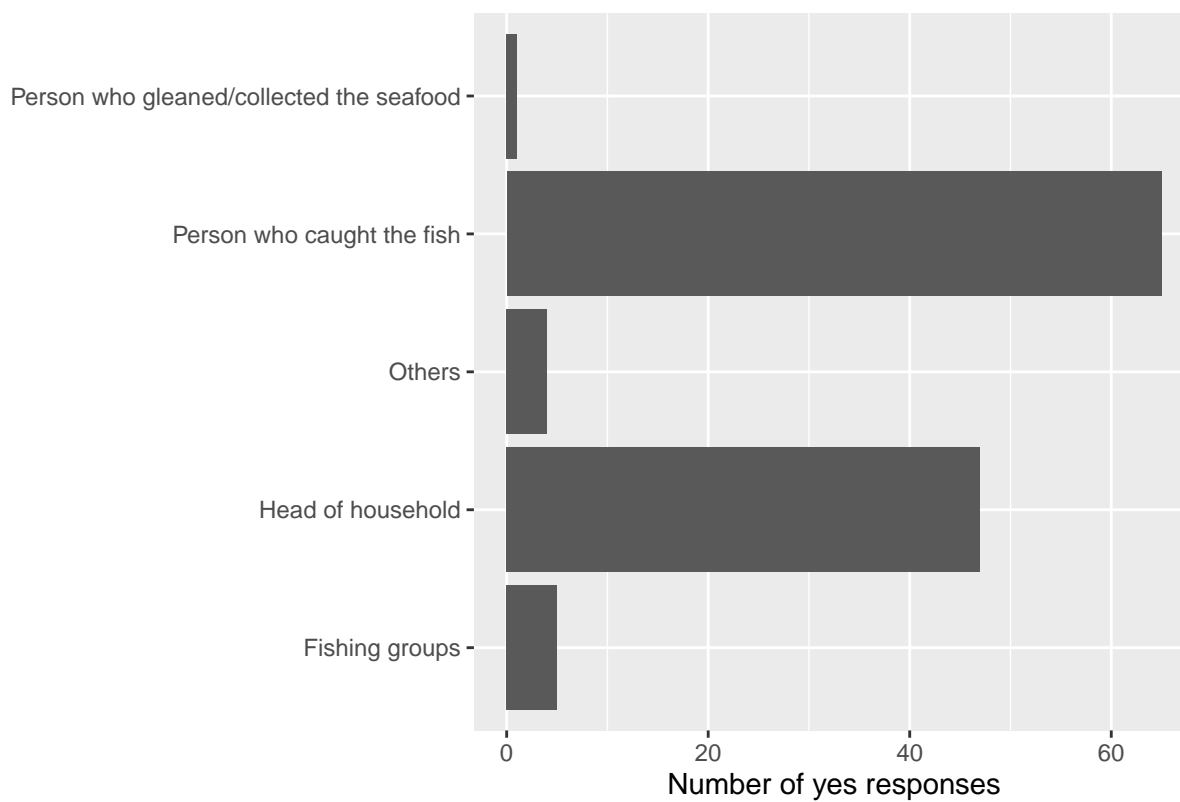
```
## # A tibble: 3 x 1
##   share_roster__id
##   <chr>
## 1 Finfish
## 2 Other non-finish seafood (shellfish, sea worm, etc.)
## 3 Non-fish foods
```

*Asset: Finfish*

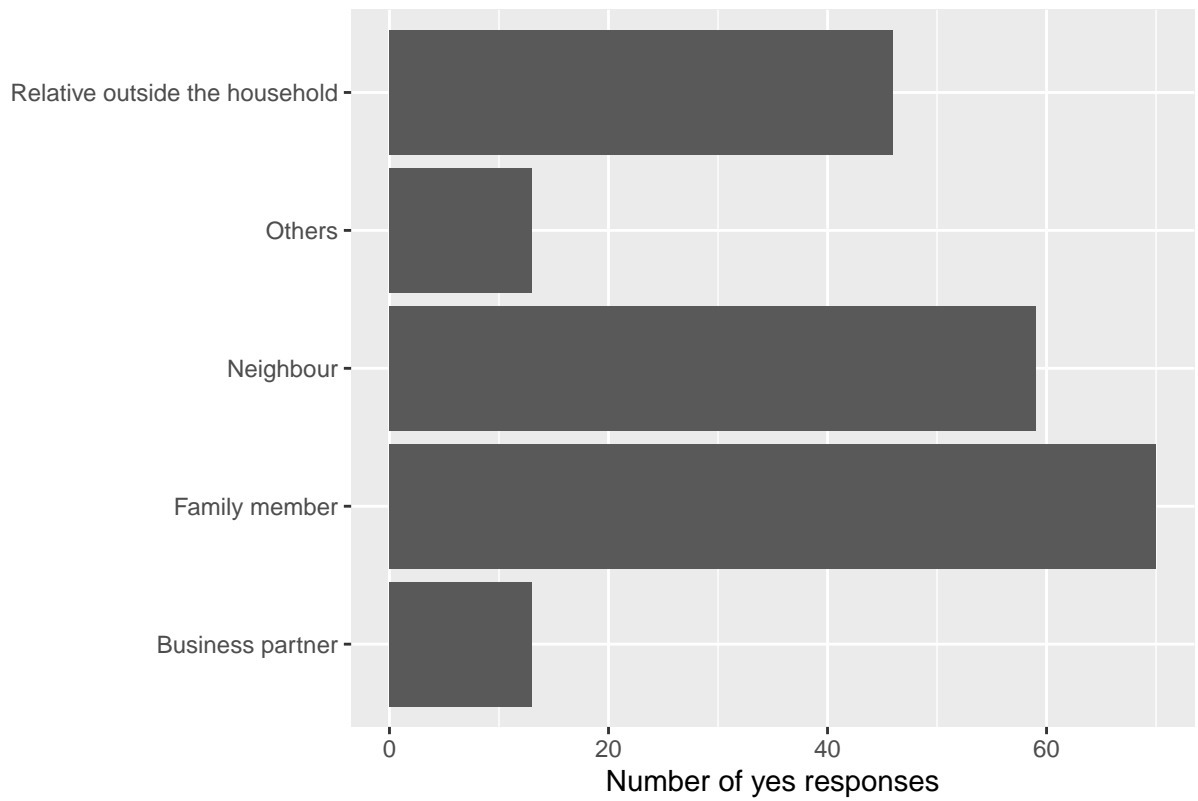
### Who receives from the sharing of catches



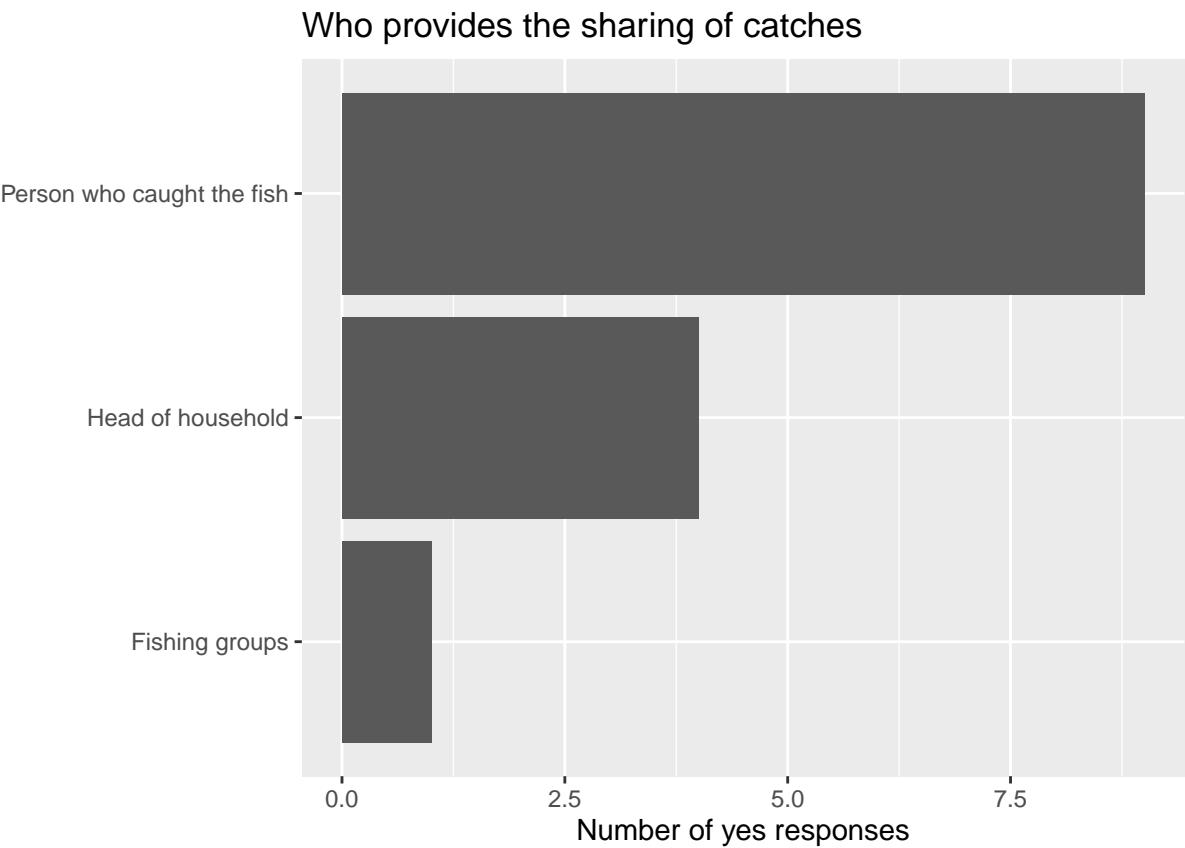
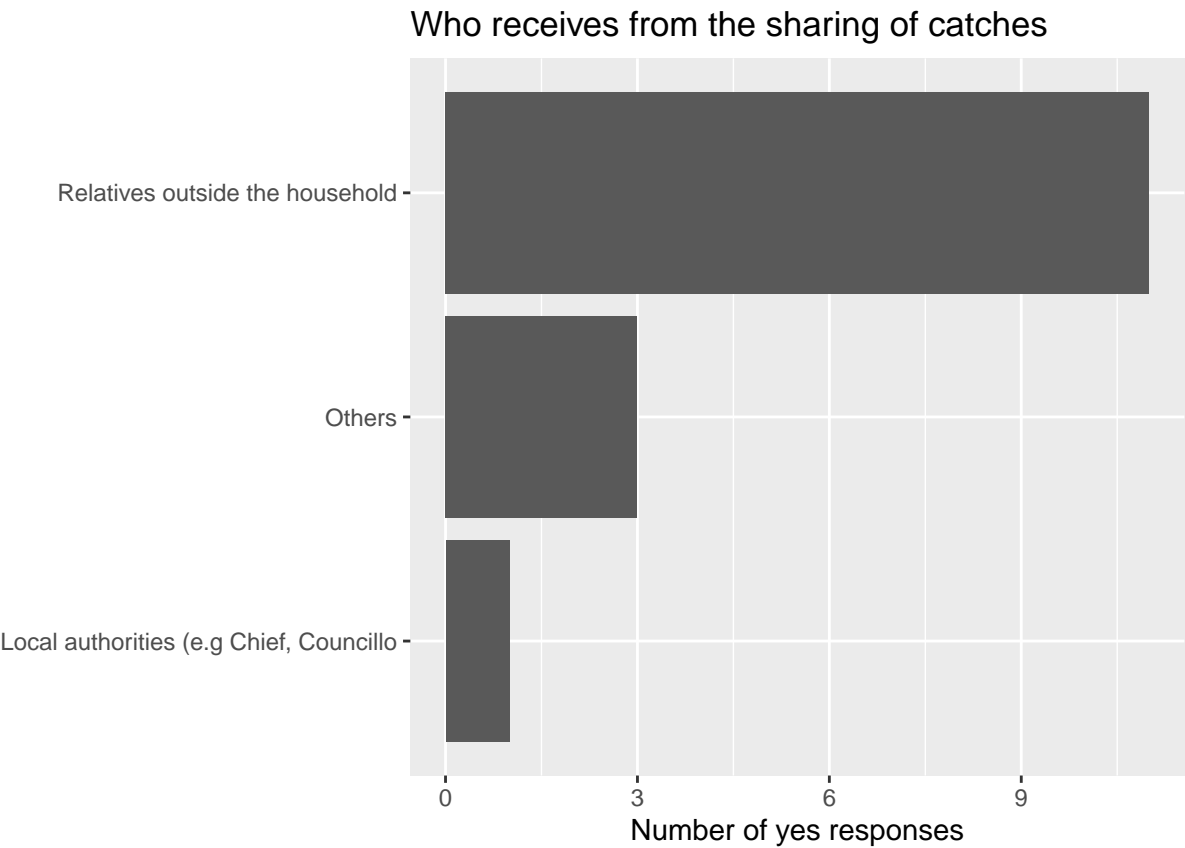
### Who provides the sharing of catches



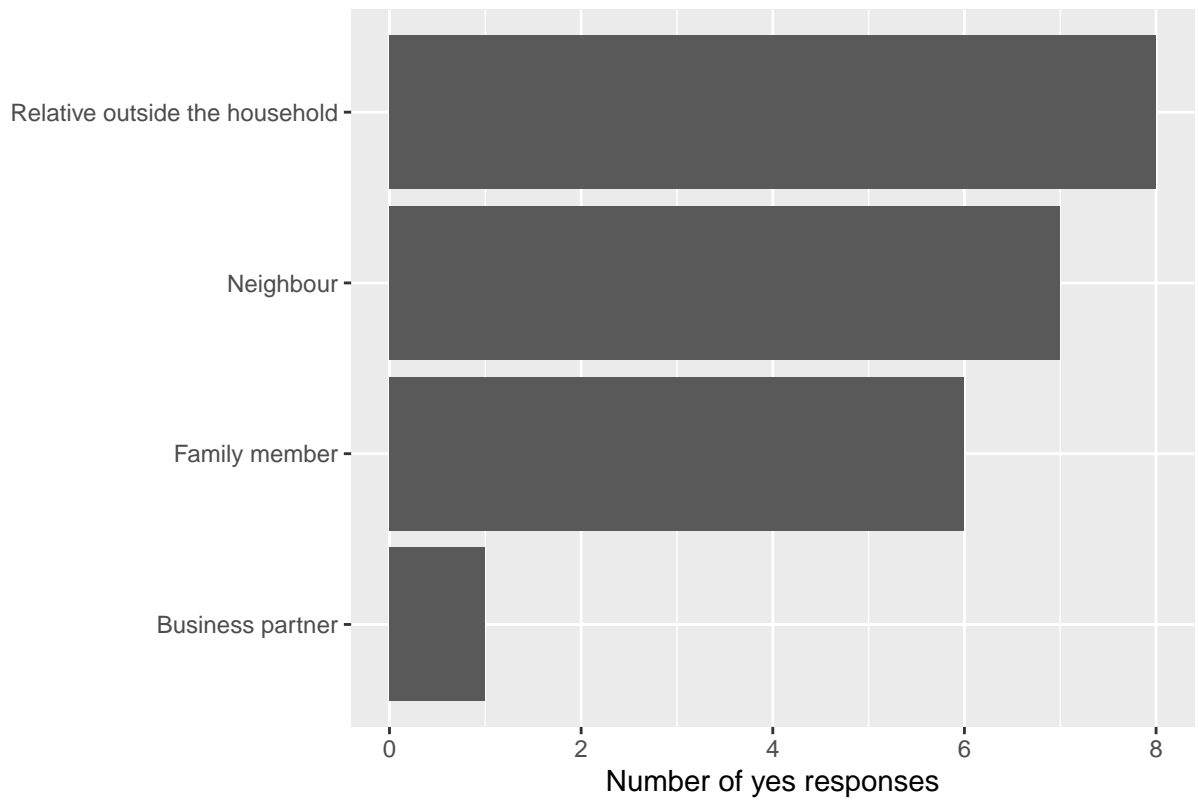
Relationship between givers and receivers



*Asset: Other non-fish seafood (shellfish, sea worm, etc.)*

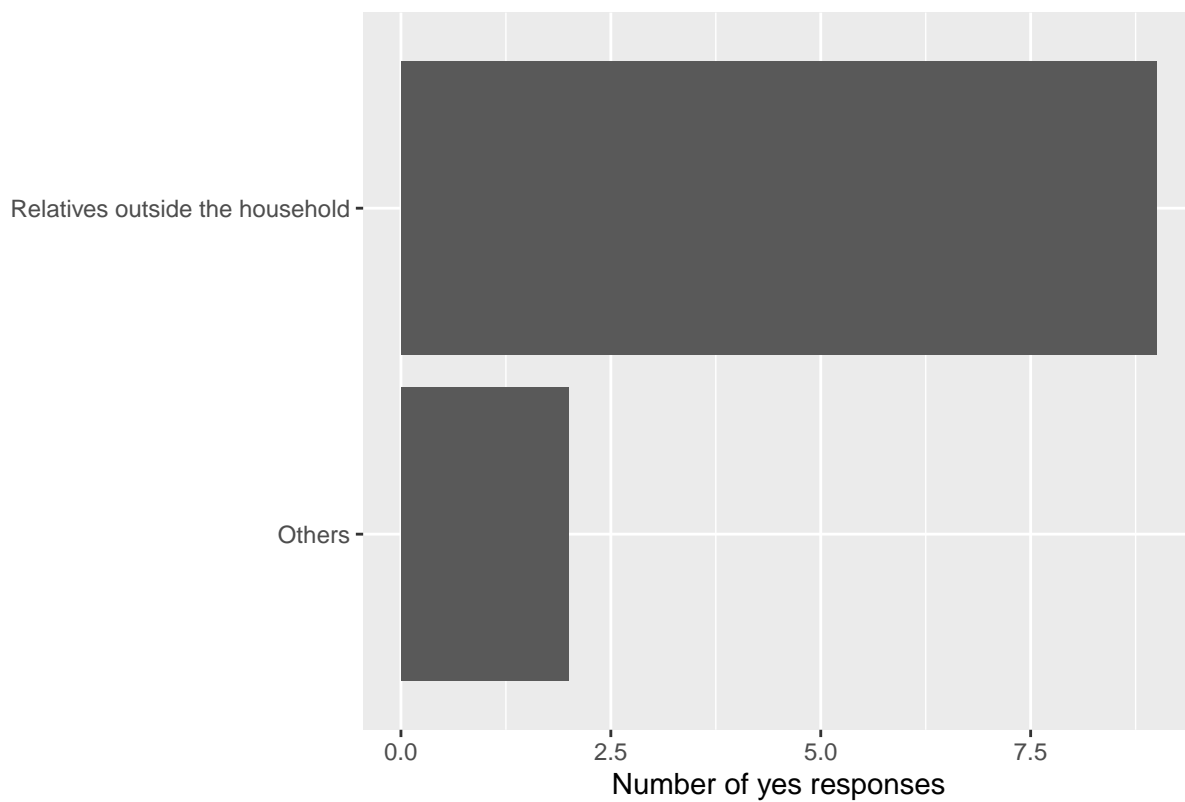


Relationship between givers and receivers

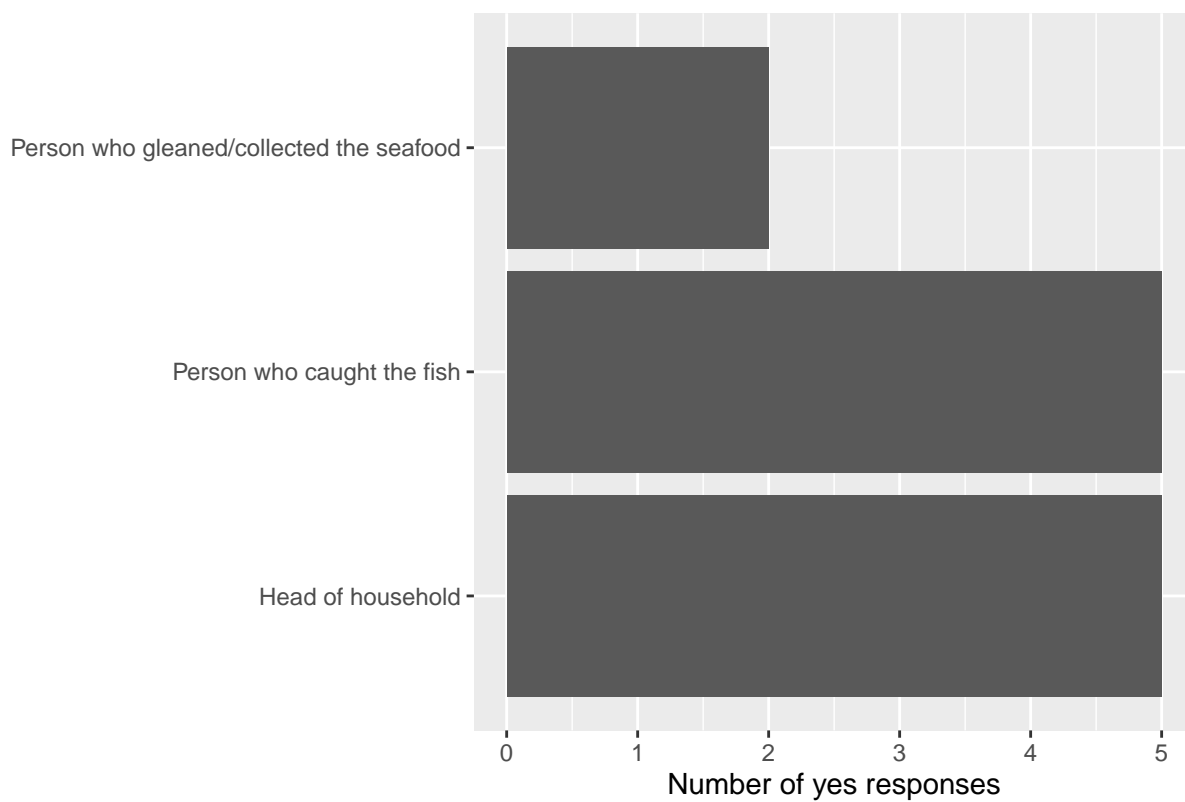


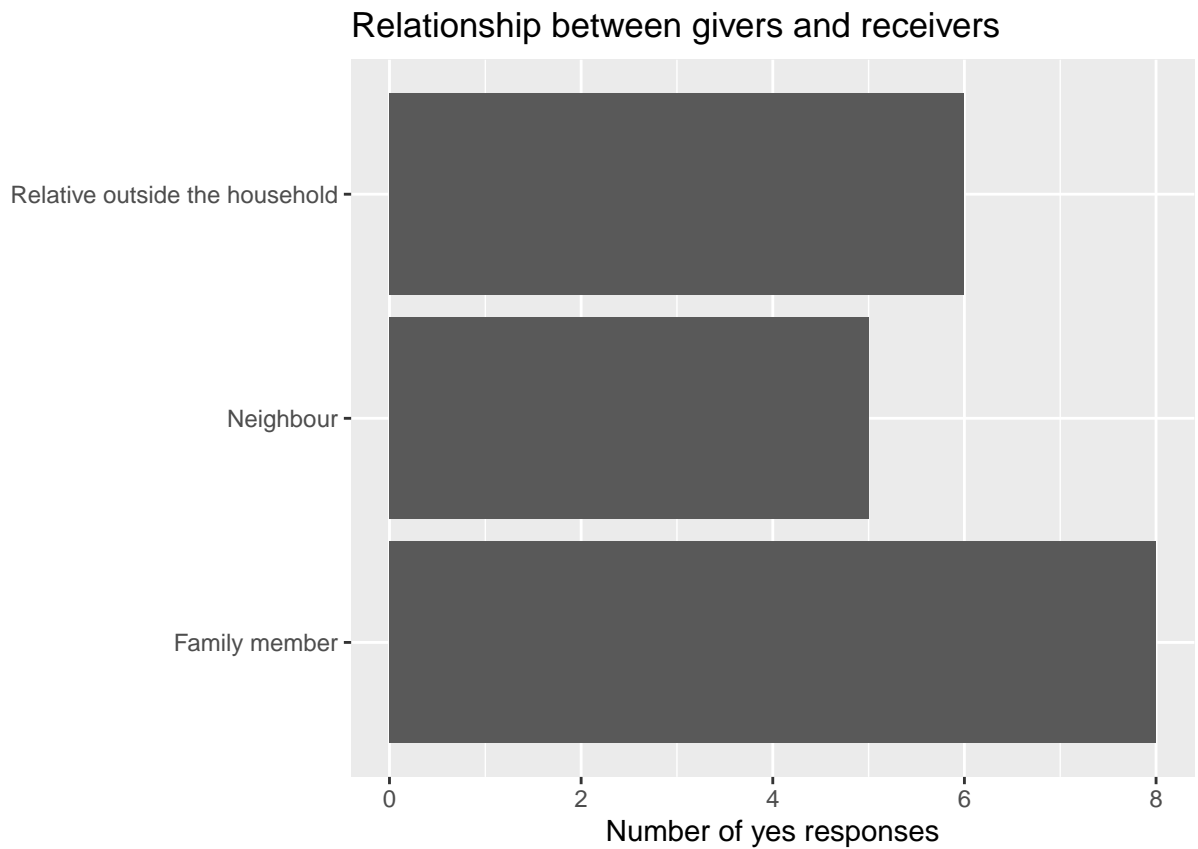
*Asset: Non-fish foods*

Who receives from the sharing of catches



Who provides the sharing of catches



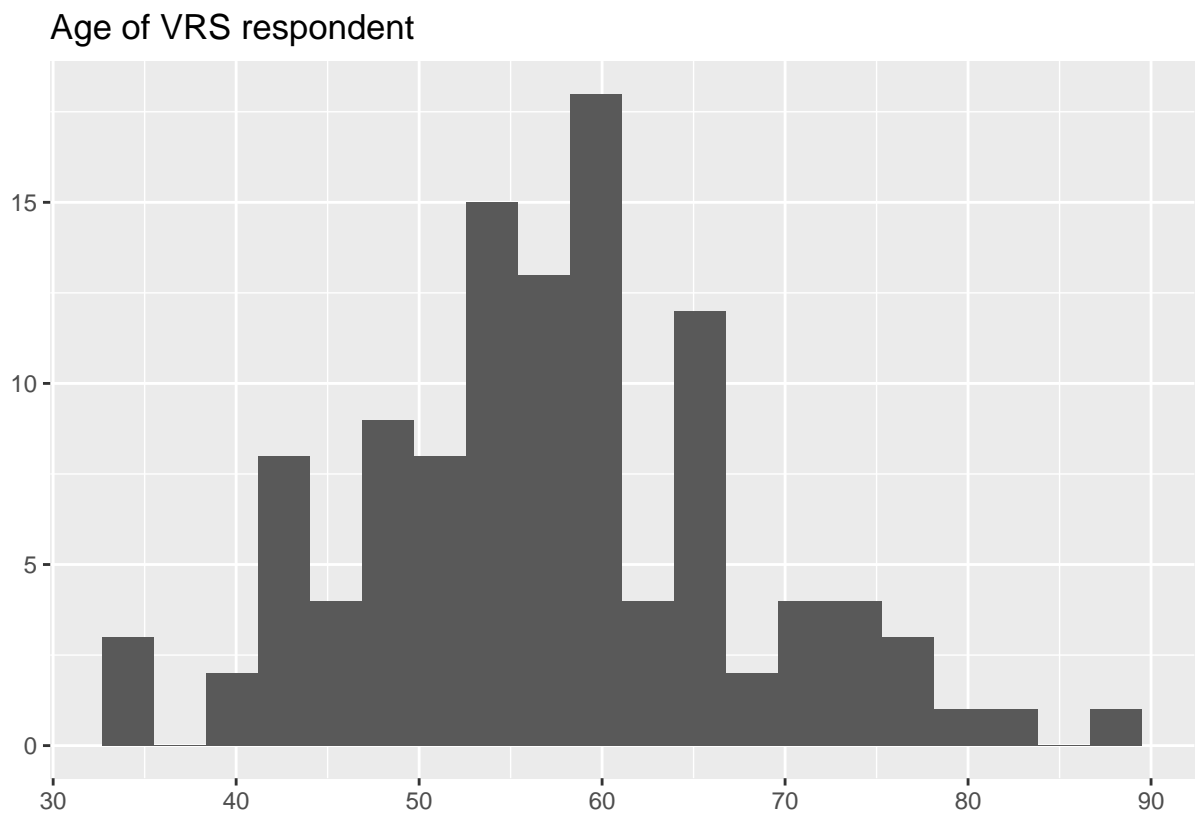
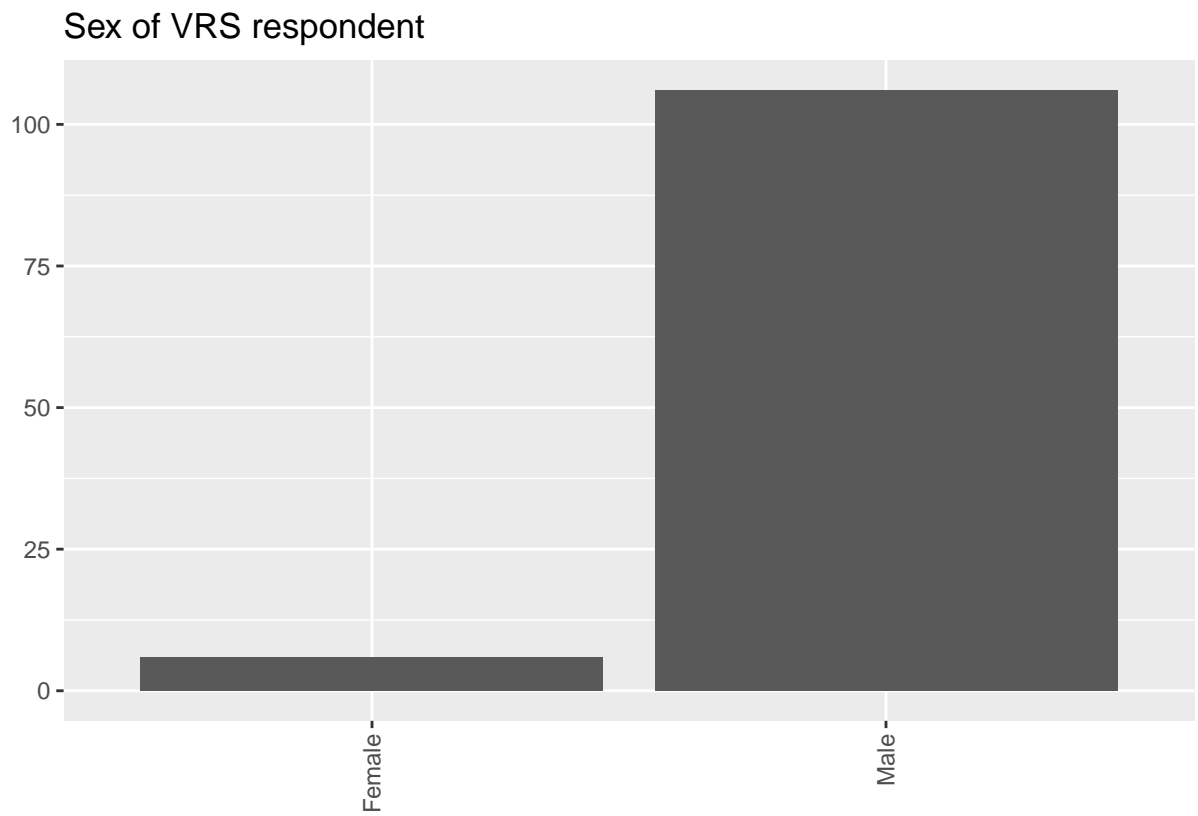


#### VRS Roster Data: List of events

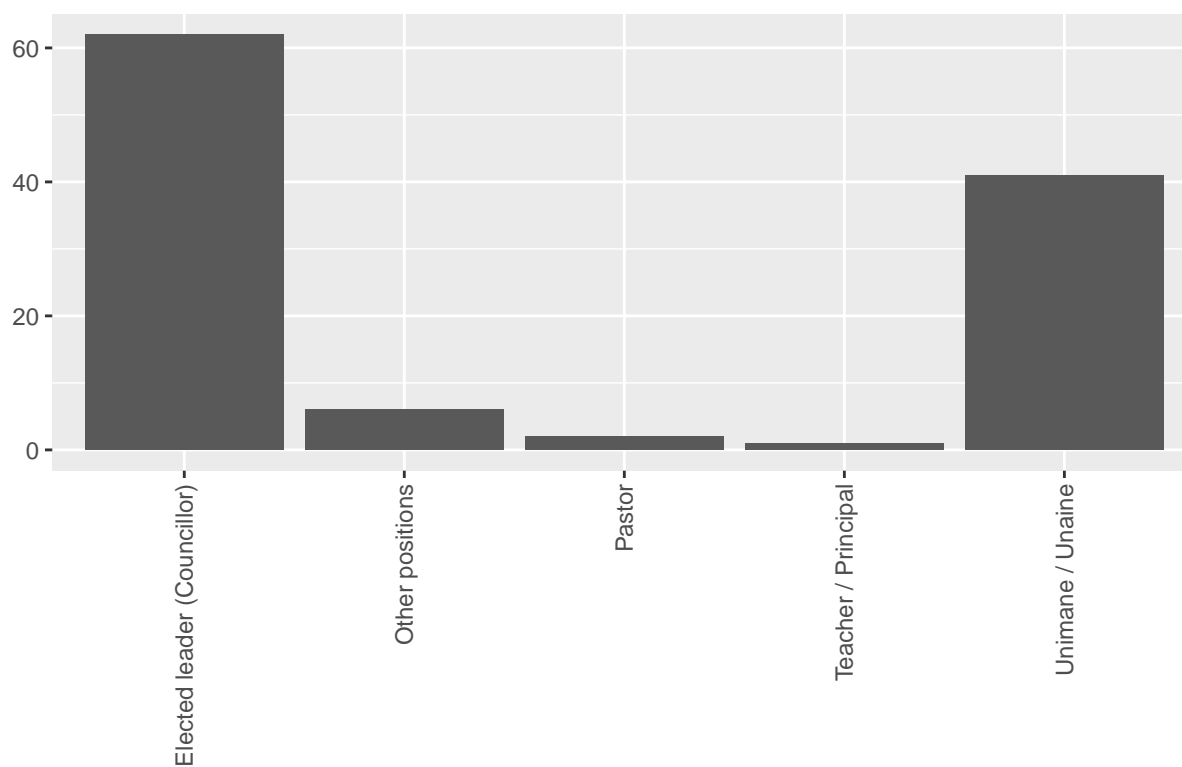
```
## # A tibble: 2 x 1
##   vrs_roster__id
##   <chr>
## 1 1
## 2 2
```



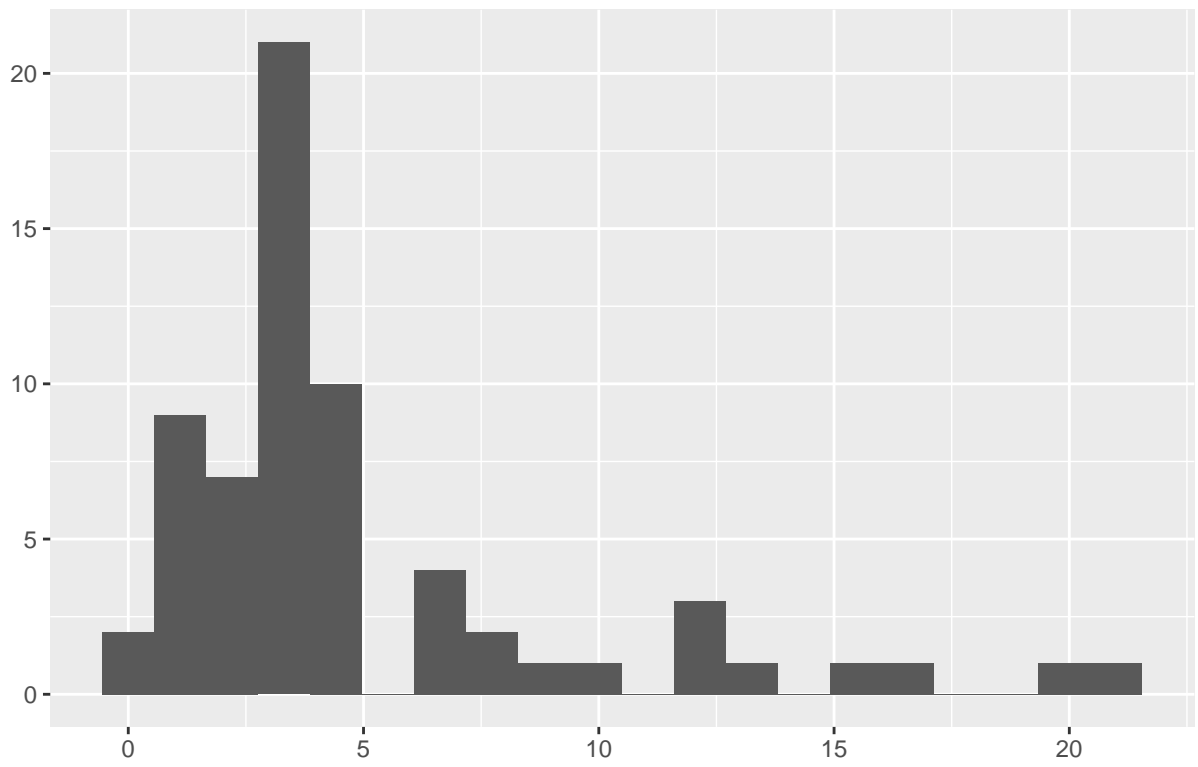
***VRS Roster: 1***

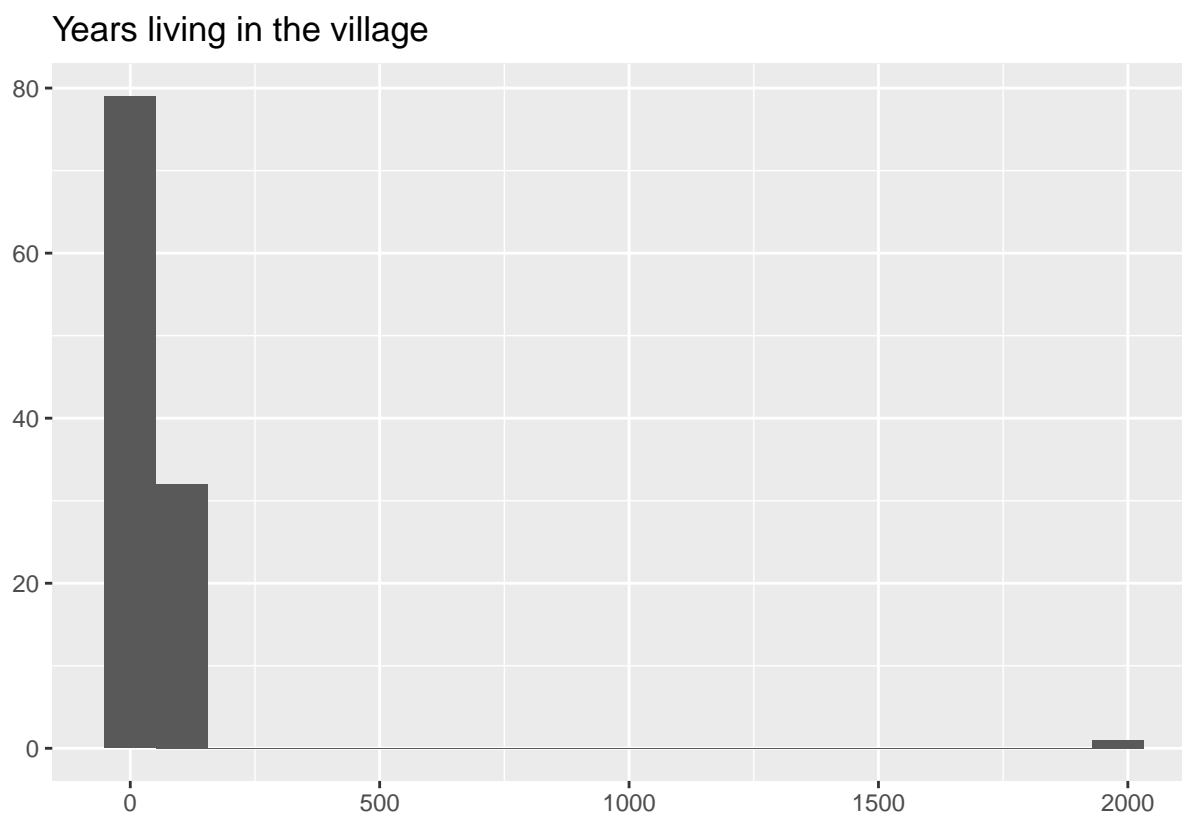


Position of the respondent



Number of years in the position





## VRS Roster: 2

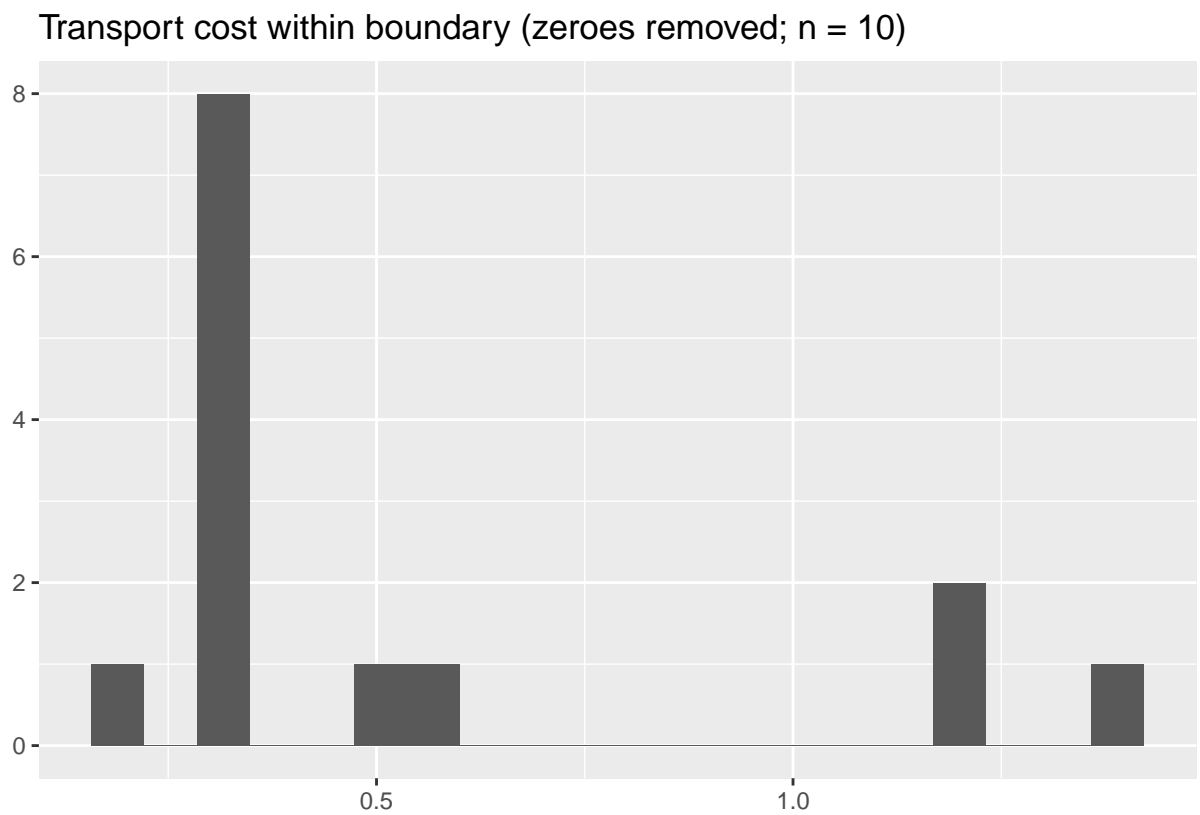
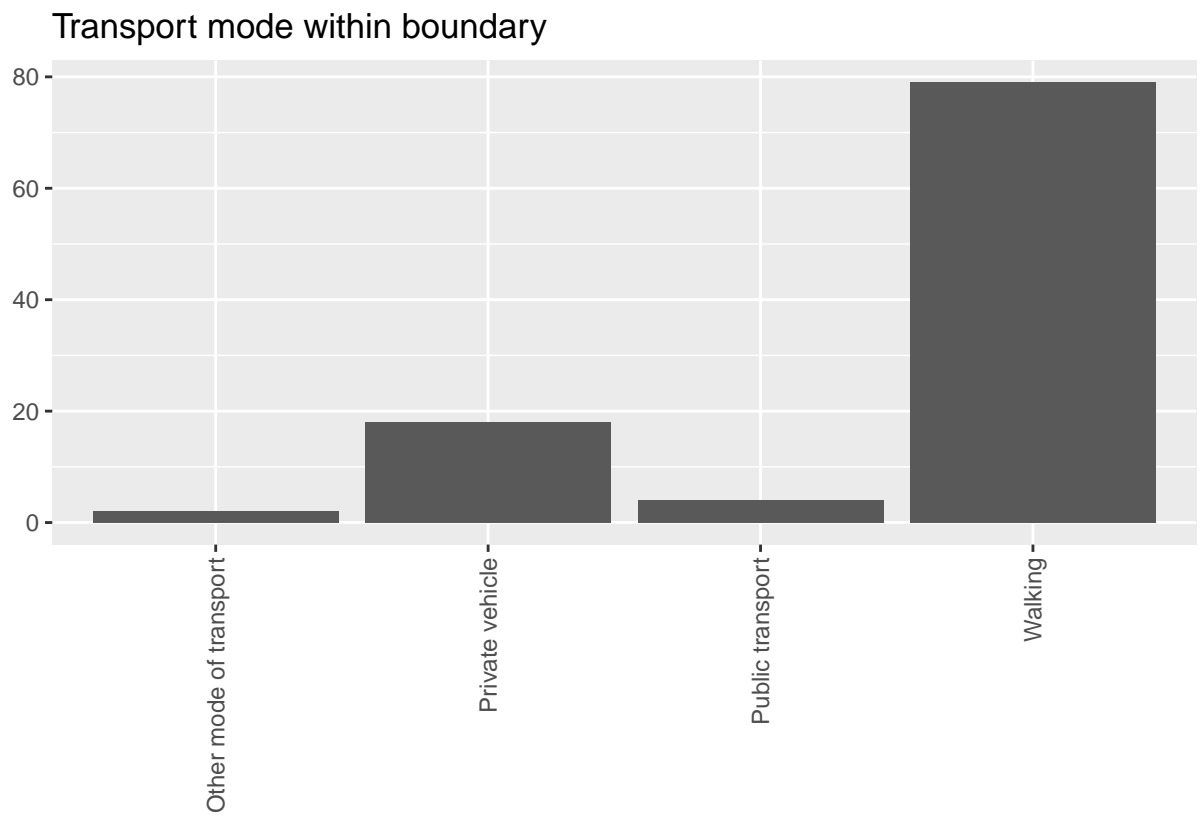
Note: only contains one individual with the following characteristics

```
## # A tibble: 5 x 6
##   interview__key interview__id vrs_roster__id respondent_names response question
##   <chr>          <chr>          <chr>          <chr>          <chr>    <chr>
## 1 25-11-36-51    b8777fe7e091~ 2              Kaiea Tibwere  Male    Sex of ~
## 2 25-11-36-51    b8777fe7e091~ 2              Kaiea Tibwere  59      Age of ~
## 3 25-11-36-51    b8777fe7e091~ 2              Kaiea Tibwere  Elected~ Positio~
## 4 25-11-36-51    b8777fe7e091~ 2              Kaiea Tibwere  4        Number ~
## 5 25-11-36-51    b8777fe7e091~ 2              Kaiea Tibwere  34       Years l~
```

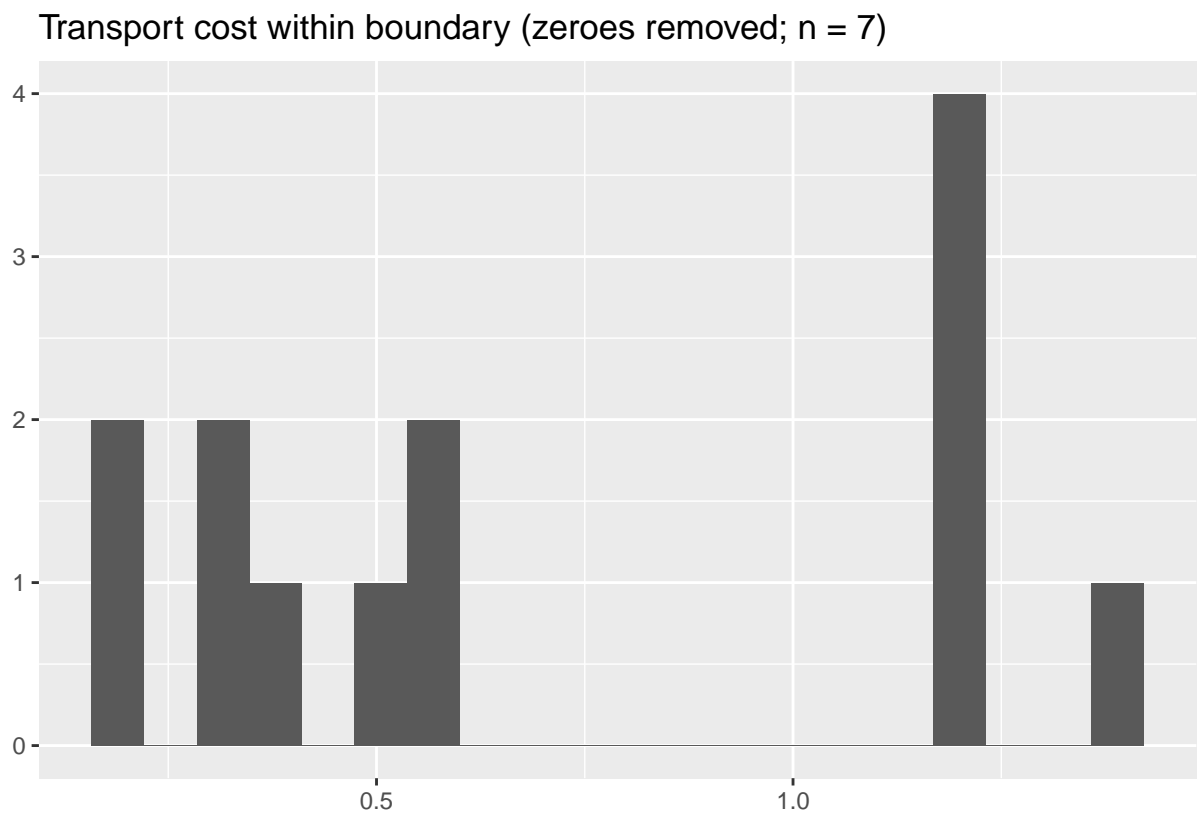
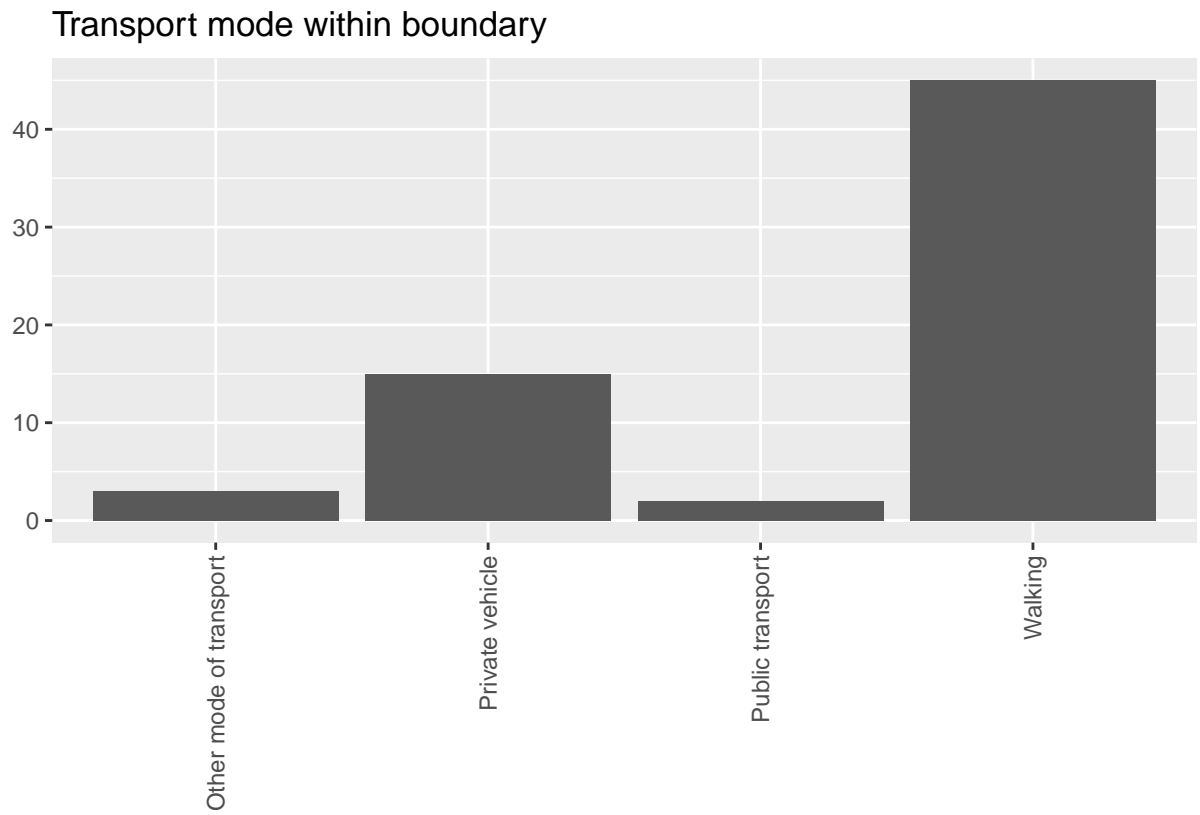
```
## # A tibble: 11 x 1
##   within_roster__id
##   <chr>
## 1 Nearest Church
## 2 Nearest Trade Store/Supermarket
## 3 Airport
## 4 Clinic/Hospital
## 5 Nearest fish landing site
## 6 Nearest Credit Facility
## 7 Nearest Market
## 8 Nearest Post Office
## 9 Nearest Police Station
```

## 10 Nearest Court House  
## 11 Bank

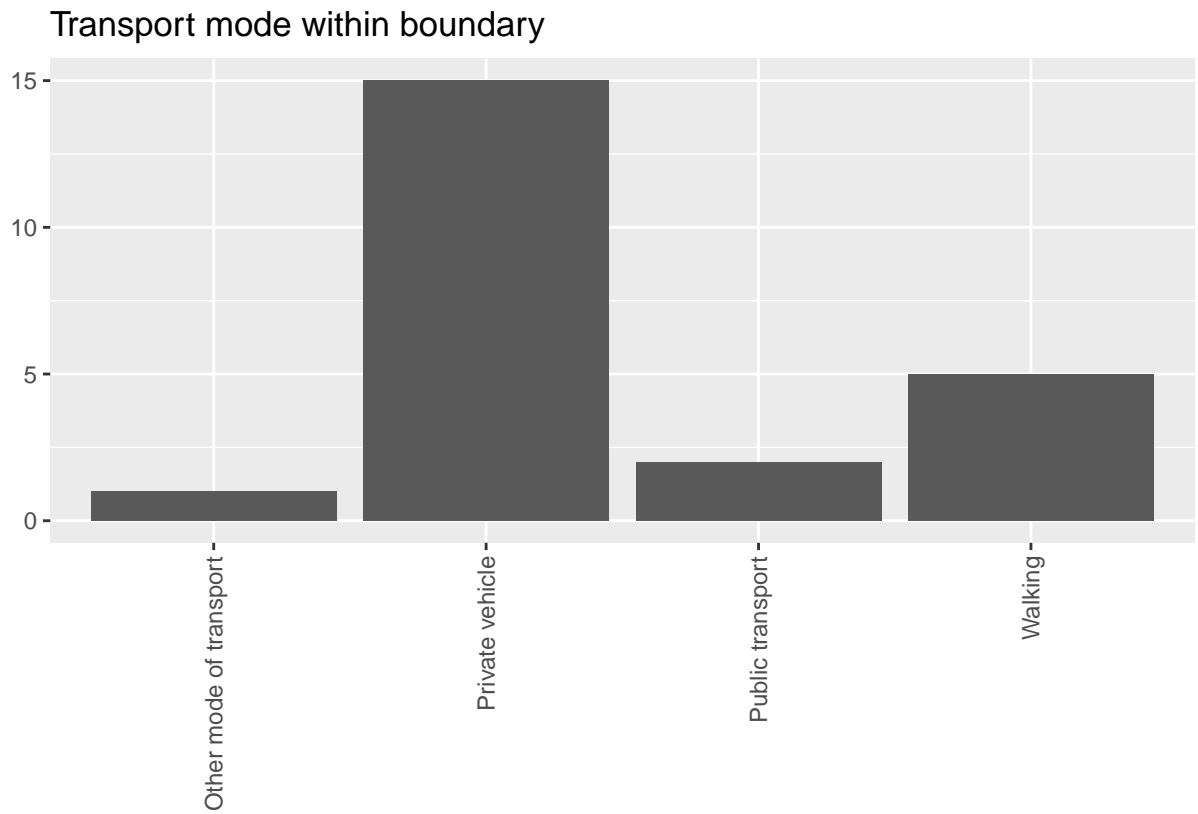
*Asset: Nearest Church*



*Asset: Nearest Trade Store/Supermarket*

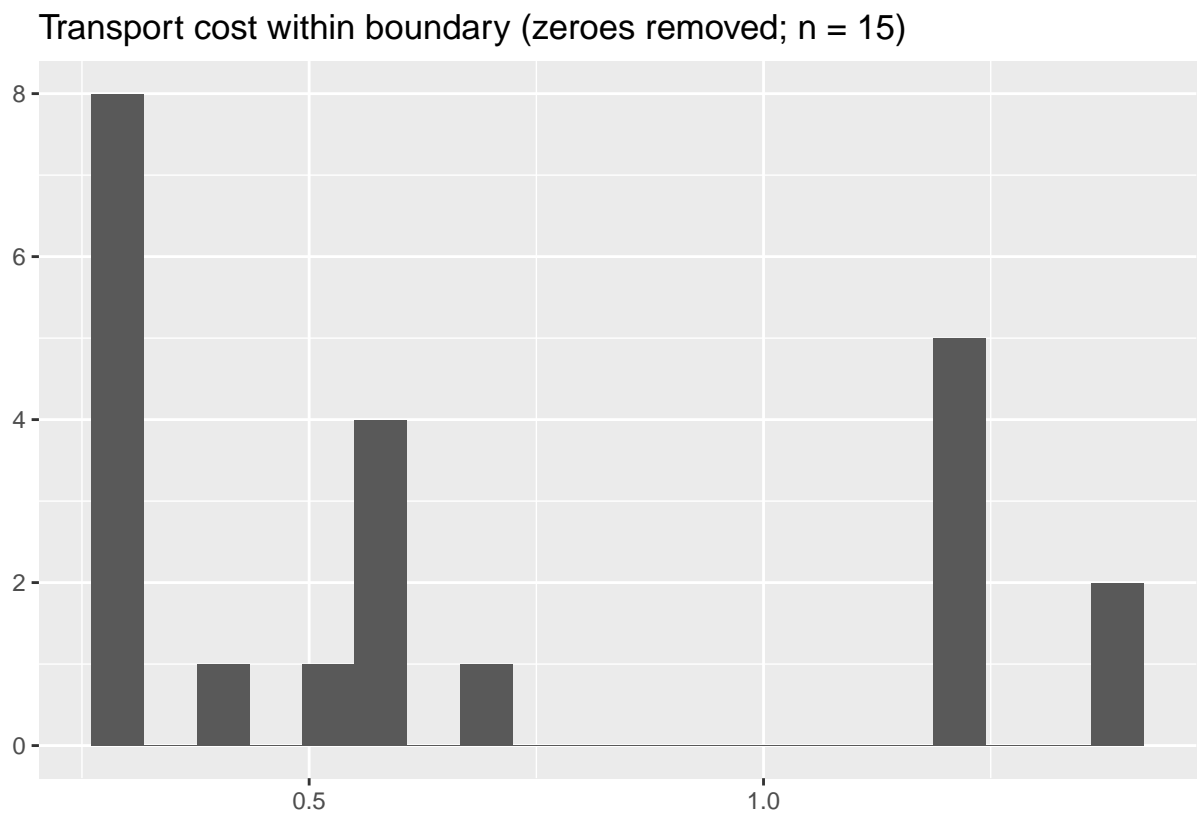
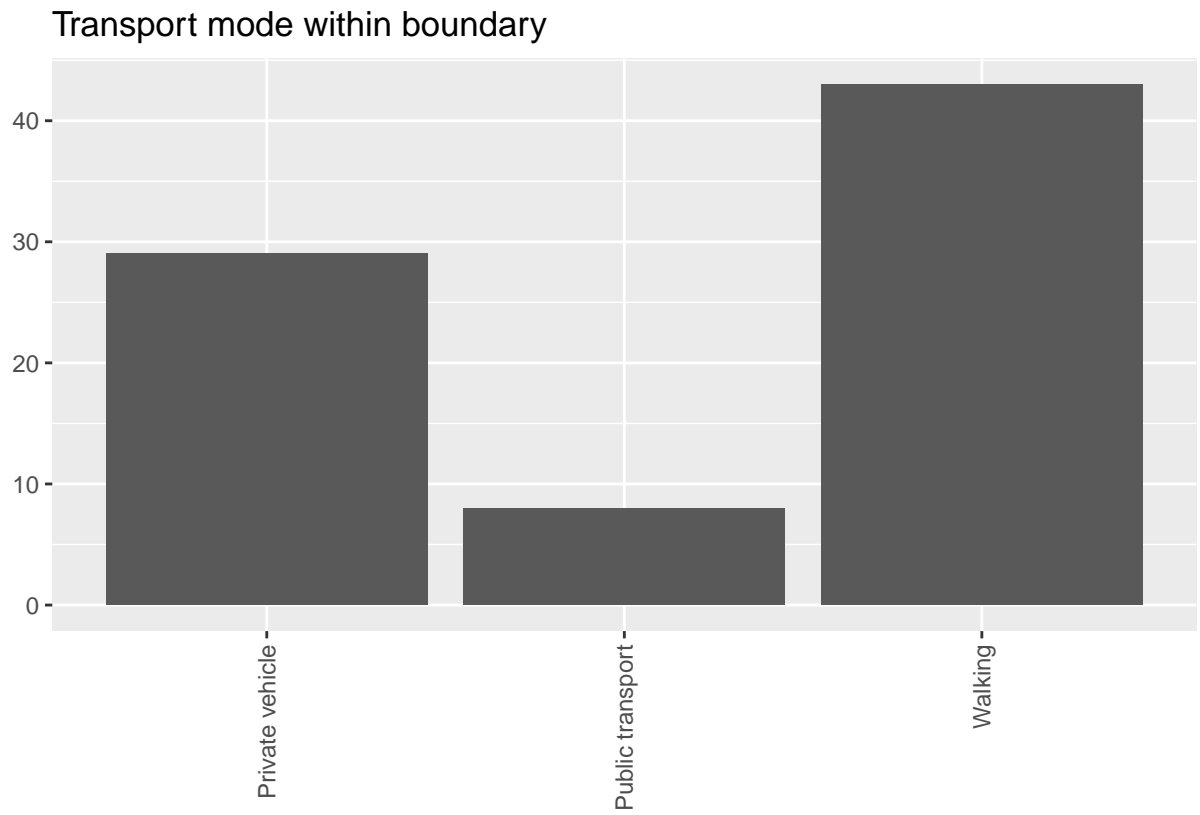


*Asset: Airport*

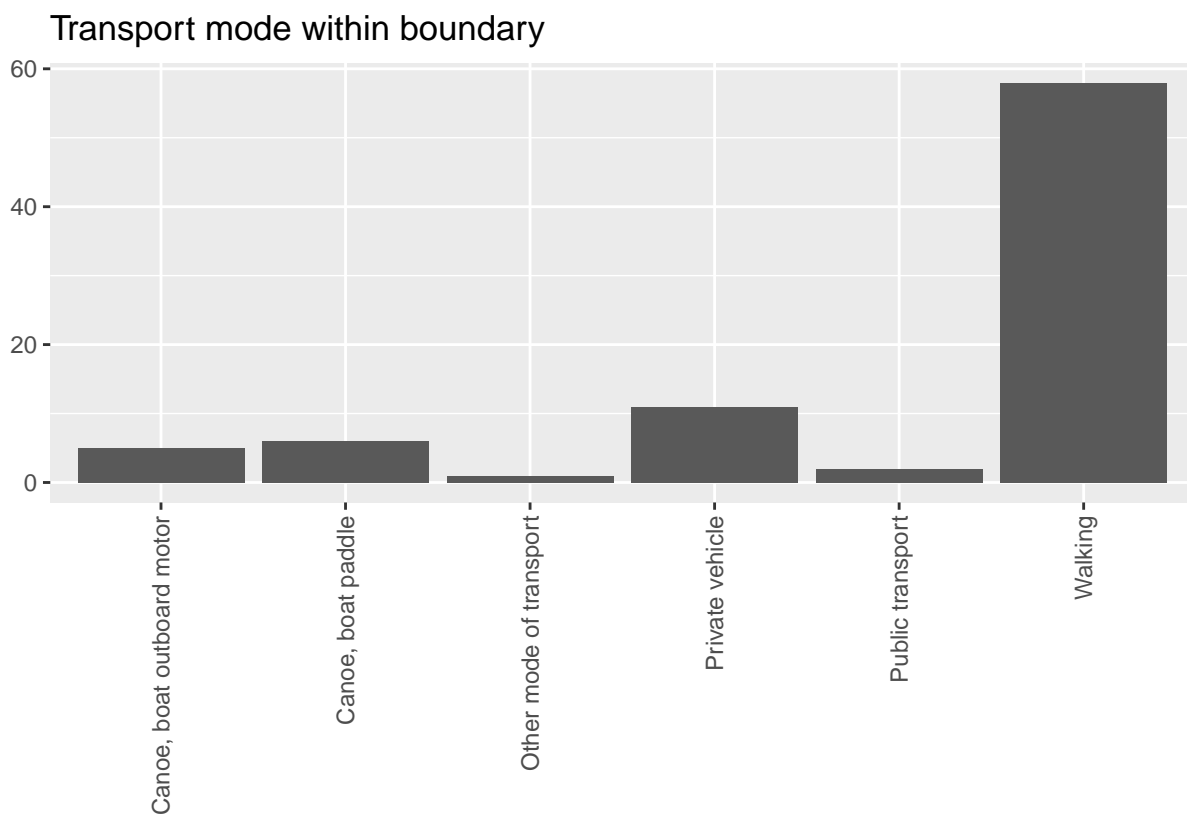




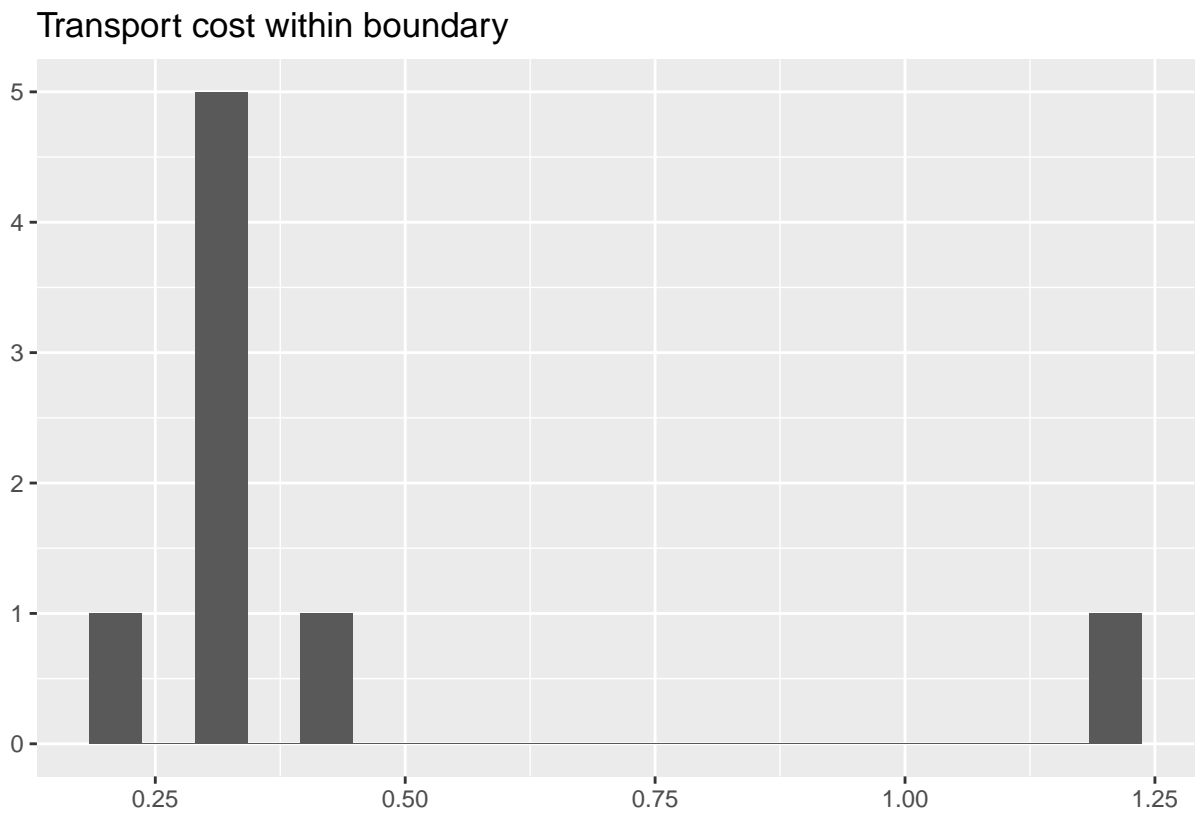
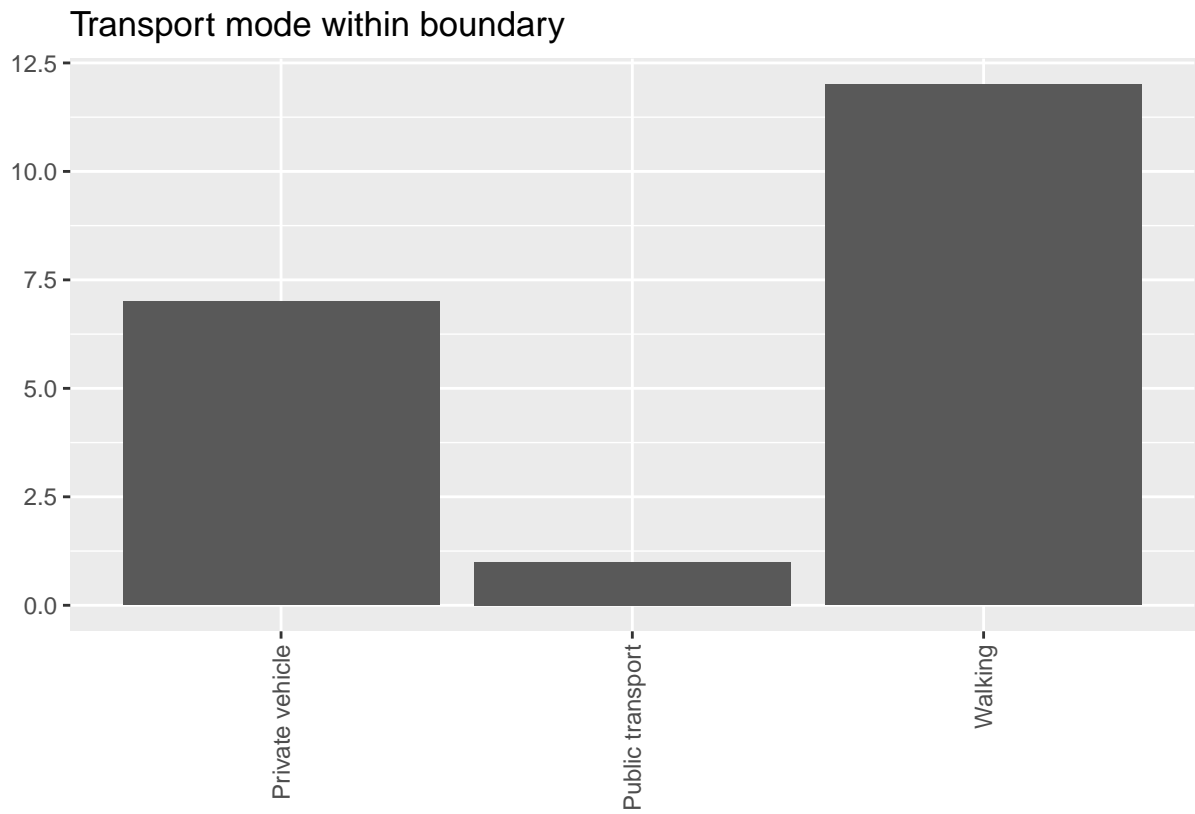
*Asset: Clinic/Hospital*



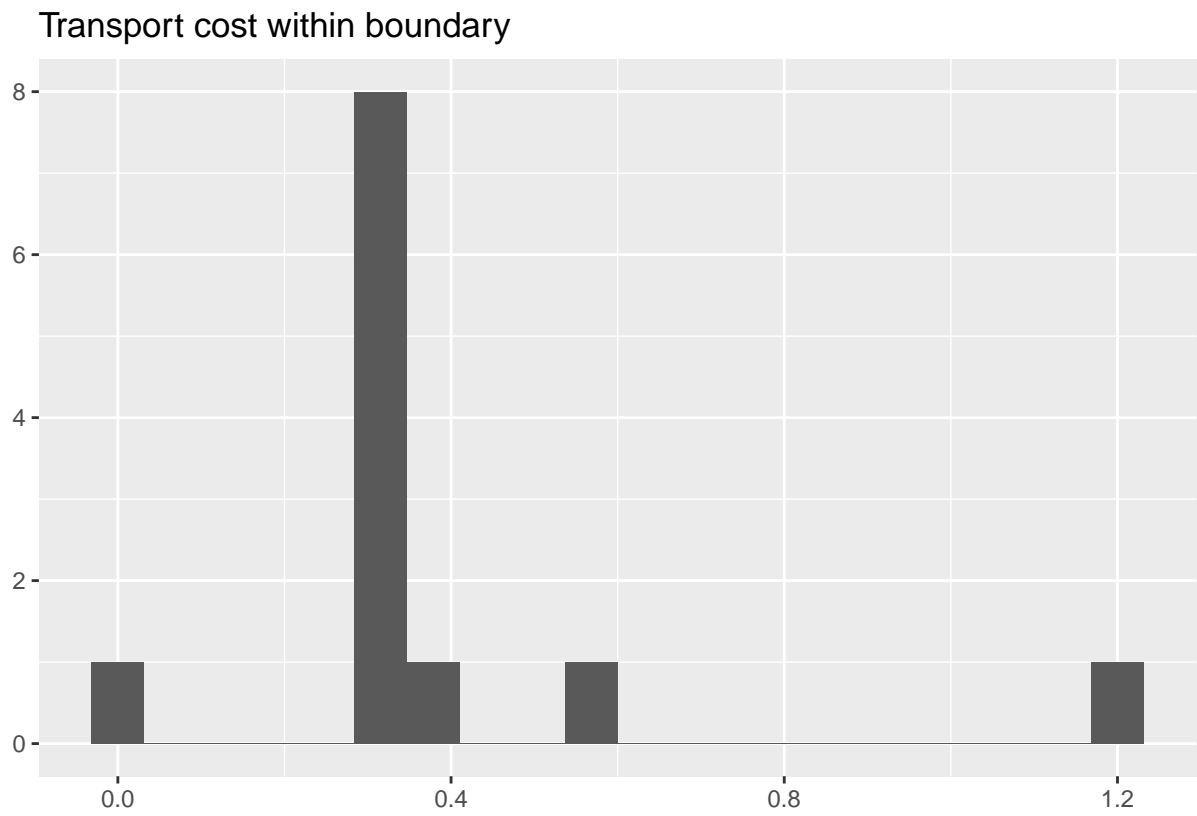
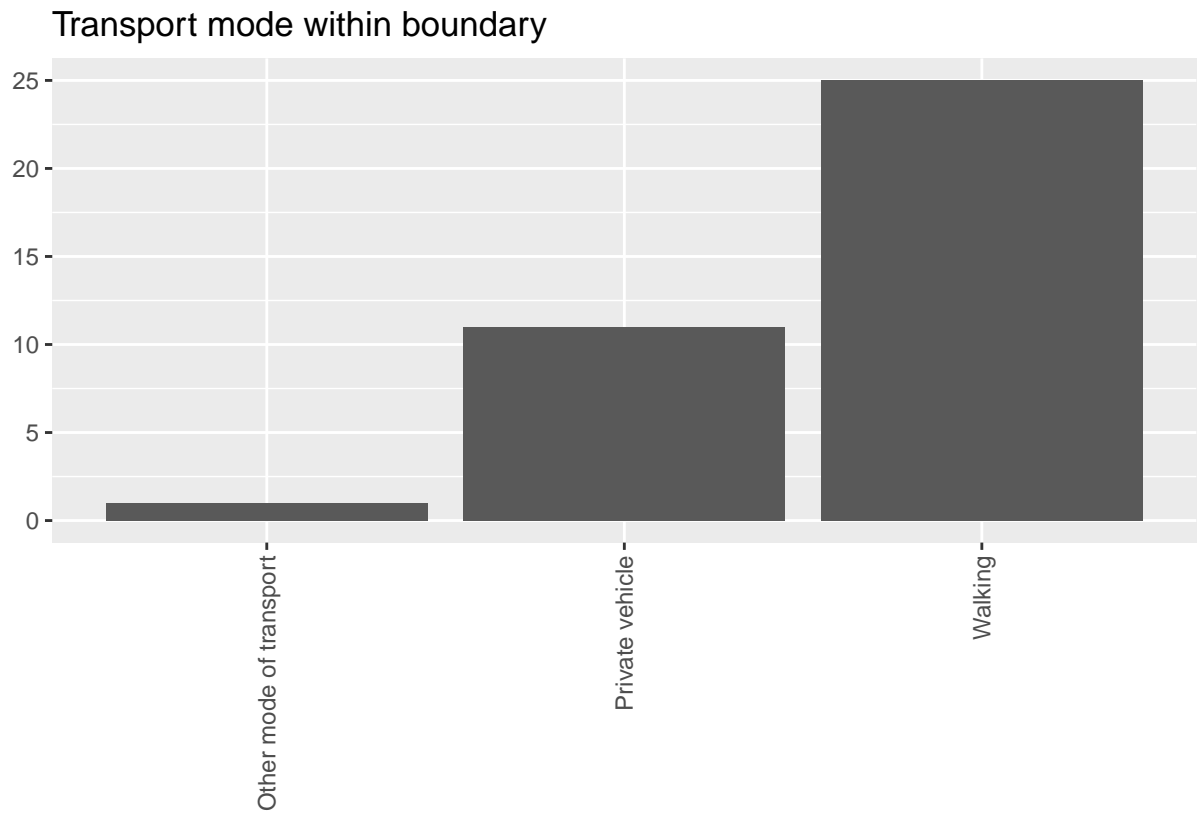
*Asset: Nearest fish landing site*



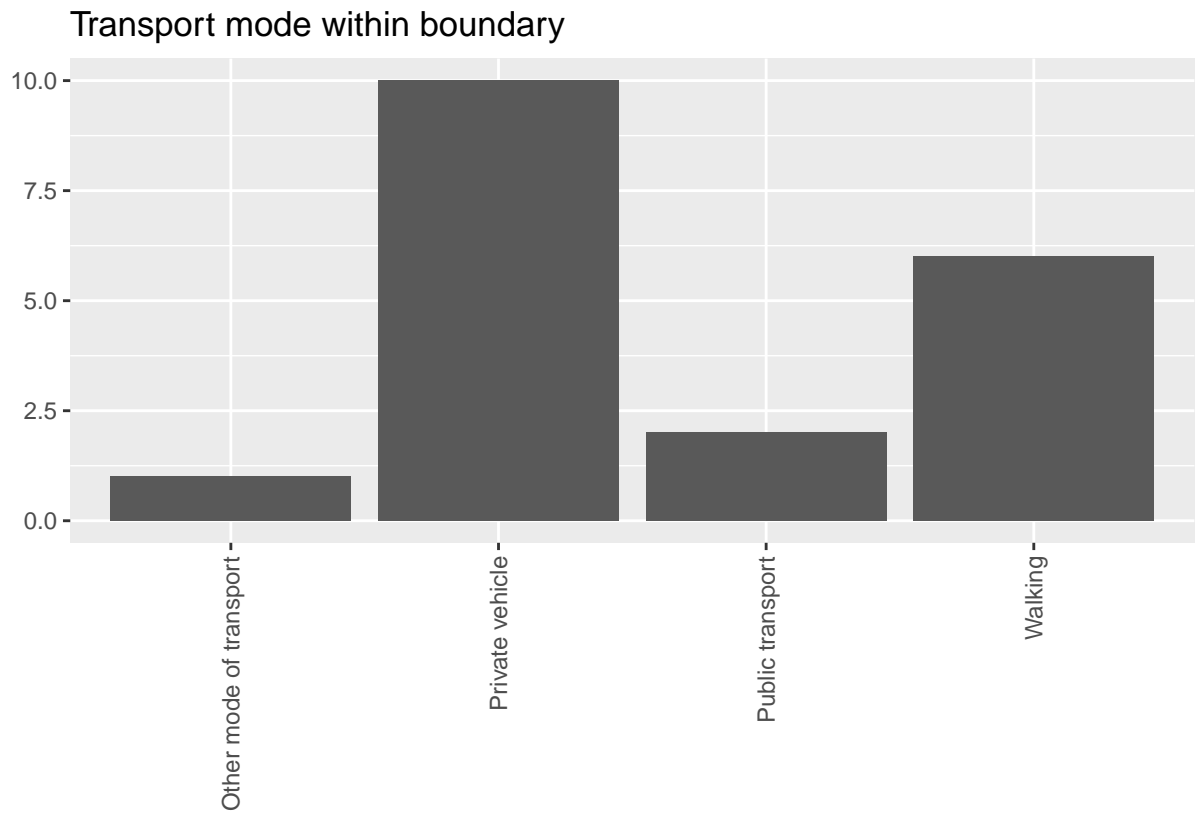
*Asset: Nearest Credit Facility*



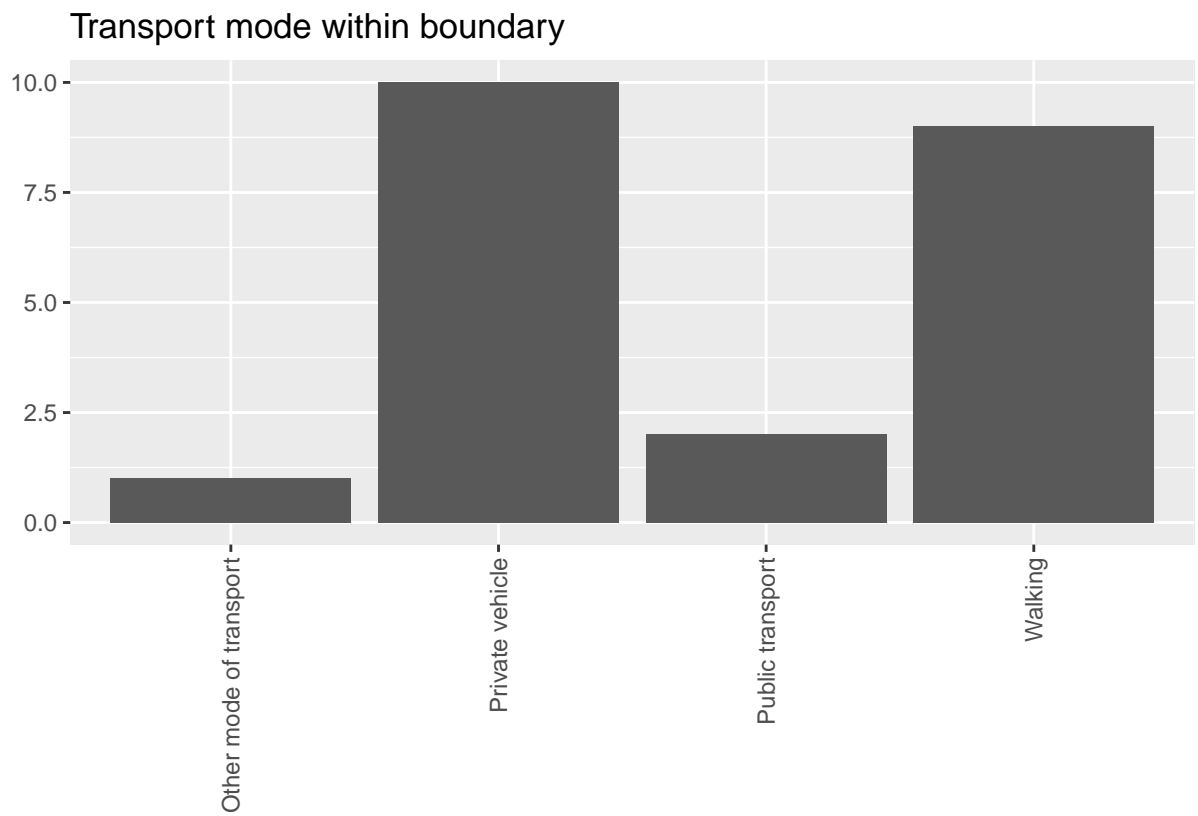
Asset: Nearest Market



*Asset: Nearest Post Office*



*Asset: Nearest Court House*



Asset: Bank

