# Socio economic surveys

#### Fisher interviews

- Nb of fishers (per type)
- Time spent fishing
- Catch per trip by species
- Freq of trips/seasonality
- Fishing method
- Nb and type of boats/HP
- Type of gears
- Type of fish fished
- Costs incurred by fishing activity
- Preservation of catch
- Location of fishing grounds
- Use of catch
- Price/species
- Increase/decrease of catch
- Perception of sizes of fishes
- Species (observations/catch composition)
- Perception of return of fishes
- Area of no-take/managed zones relative to national objectives
- Questions informed by national objectives
- Nb of offenders and nb of infringement cases
- Use of destructive fishing methods
- Penalties/fines for management undertakings (breaching rules)
- Where offences occur
- Level of implementation of planned activities
- Frequency of patrols
- Fishing of undersize fishes/in protected areas/etc...
- Awareness / understanding of management plan/actions and regulations
- Questions related to limits in management plan
- Perception of trends in no-take zone and outside
- Local knowledge on status of quality of the habitat

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## Household interviews

- Nb of households/ Nb of people in households
- Income from fishing activities / income sources
- Expenditure (type, amount)

- Social obligations
- Assets
- Occupation
- Land based sources of threats (agriculture, piggeries, aquaculture, waste, develop, reclamations)
- Use of habitats (mangrove for firewood)
- Frequency and volume of fish consumption
- Nb of ciguatera cases
- Nb of species and locations known to be related to intoxication
- Seasonality of intoxications
- Traditional remedies for ciguatera

## **Creel/landing surveys**

- Freq of trips/seasonality
- Nb of fishers
- Use of catch (sales/gift and destination)
- Price/species(paid to fisher)
- Location of catch(fishing ground)
- Catch per trip by species (nb/weight)
- Time spent fishing
- Fishing method/gears
- Sizes
- Fishing method/gears
- Costs (fuel, maintenance, gears)
- Expected income from catch

## Market surveys (middlemen/sellers)

- Number of marketing days
- Number of market places
- Daily volume sells/prices per species
- Number of sellers
- Location of catch (village, area fished)
- Weights/lengths by species
- Species composition
- Time spent fishing
- Biological subsampling (otoliths, gonads, maturity)
- Sizes
- Berried females
- Banned, prohibited species
- Location of catch
- Volume of catch
- Fishing gears (spear mark, bladder)

#### **Underwater surveys**

**Species** 

Estimated Sizes/lengths/numbers

Locations

Condition of habitat types

**Indicator species** 

Health of fishes

Likely sources of threats (sewage, waste, physical damage)

Bleaching, diseases, live/dead corals

Die off of seagrass

Invasive species

**COTS** outbreaks

Turbidity, sedimentation, \*C

Salinity

% coverage

Types of species/indicator species

Evidence of damage

## Buyer and export permits/fishing and export licensing/fisher logbooks

Number of permits/type of fishing

From logbooks:

- Freq of trips/
- seasonality
- Catch per trip by species
- Nb of fishers
- (part type)
- Use of catch (sales/gift and destination)
- Price/species
- (paid to fisher)
- Type of fishing

Fishing method/gears

Volumes (quotas)

Sizes (size limits)

Fishing location

**Prohibited species** 

Volume and value of export by species from export permits

CITES permits: species and quantities

Source and destination of exported commodities

Licenced companies

## **Enforcement records (report of infringement**

Number of infringements
Where infringement occurred
Type of infringements
Penalties & fines
Illegal exports
Confiscated exports