

| Socio Economic surveys  | Frequency of survey | Coverage | Who does monitoring | Who does analysis of data | How often to review management / link back to management questions | Other |
|---|---------------------|----------|---------------------|---------------------------|--|-------|
| <b>Equipment/method:</b><br>Forms, clipboards, fish IDs, posters, surveyor ID, camera, transport, safety eqpt, measurement tape, stationary |                     |          |                     |                           | After the data analysis and reporting (before the next resurvey)   |       |

|  |  |
|--|--|
| Nb and type of boats/HP<br>Costs (fuel, boats, HP)   |  |
| Freq, type and details of offences and offenders of destructive/illegal fishing methods<br>Penalties/fines for management undertakings (breaching rules) |  |
| Where offences occur<br>Level of implementation of planned activities in mngrt plan  |  |
| Frequency of patrols<br>Awareness /understanding of management plan/actions and regulations  |  |
| Perception of trends in no-take zone and outside<br>Local knowledge on status of quality of the habitat  |  |
| Level of fisheries resources used for social obligations<br>Date   |  |

| <b>Creef/landing surveys</b>  | <b>Frequency</b> | <b>Coverage</b> | <b>Who does monitoring</b> | <b>Who does analysis of data</b> | <b>How often to review management / link back to management questions</b> | <b>Other</b> |
|---|------------------|-----------------|----------------------------|----------------------------------|---|--------------|
| <b>Equipment/method:</b><br><br>Forms, clipboards, fish IDs, posters, surveyor ID, camera, transport, safety eqpt, measurement tape, stationary, scale, measuring board |                  |                 |                            |                                  |   |              |

| <b>Market surveys (group 1)</b>   | <b>Frequency</b>                  | <b>Coverage</b>   | <b>Who does monitoring</b>            | <b>Who does analysis of data</b>                                       | <b>How often to review management / link back to management questions</b> | <b>Other</b> |
|---|-----------------------------------|---|---------------------------------------|--|---|--------------|
| <b>Equipment/method:</b><br><br>Forms, clipboards, fish IDs, posters, surveyor ID, camera, transport, safety eqpt, measurement tape, stationary, scale, measuring board<br><br>dissecting kit, cooler, preservatives, microscope, sampling jars, otolith processing kit   |                                   |   |                                       |  |   |              |
| Species composition/ Weights/lengths/pieces by species / Sizes<br>Daily volume sales/prices per species<br>Nb pieces/kg or bags<br>Number of marketing days<br>Number of market places<br>Number of sellers<br><br>Berried females<br><br>Banned, prohibited species<br>Banned fishing methods/gears (spear mark, bladder damage) | 3-4 days /week                    | 80-100% of markets in the country                             | Fisheries officers, NGOs, Communities | Fisheries officers, NGOs   | Annually  |              |
| Date<br>Is seller the fisher => If yes ask effort questions<br>Time spent fishing<br>Volume of catch per fisher<br>Location of catch (village, area fished)<br><br>Biological subsampling (otoliths, gonads, maturity)  | >=1 /week<br>For 1-2 year/species | Depending on remoteness of market places<br>30 pieces/species | Fisheries officers, NGOs              | Fisheries officers, NGOs, with capacity building/universities/research | Annually  |              |

| <b>Market surveys (group 2)</b>   | <b>Frequency</b> | <b>Coverage</b>  | <b>Who does monitoring</b> | <b>Who does analysis of data</b> | <b>How often to review management / link back to management questions</b> | <b>Other</b> |
|---|------------------|--|----------------------------|----------------------------------|---|--------------|
| <b>Equipment/method: scale/measuring tape/forms/clipboards/stationary/transport/ID card</b> <p>Species composition/ Weights/lengths/pieces by species / Sizes<br/>           Daily volume sales/prices per species<br/>           Biological subsampling (otoliths, gonads, maturity)<br/>           Nb pieces/kg or bags<br/>           Number of marketing days<br/>           Number of market places<br/>           Number of sellers<br/>           Berried females<br/>           Banned, prohibited species<br/>           Banned fishing methods/gears (spear mark, bladder damage)</p> <p>Date<br/>           Is seller the fisher =&gt; If yes ask effort questions<br/>           Time spent fishing<br/>           Volume of catch per fisher<br/>           Location of catch (village, area fished)</p> | Weekly           | Points of Sale<br>(Markets (100%)/RS<br>Ds/Hotels /Restaura<br>nts/Super<br>markets (30%)) | Fisheries                  | Fisheries                        | 2-3 Years   |              |

| <b>Underwater surveys</b>   | <b>Frequency</b>   | <b>Coverage</b>  | <b>Who does monitoring</b>            | <b>Who does analysis of data</b>   | <b>How often to review management / link back to management questions</b> | <b>Other</b> |
|---|--|--|---------------------------------------|--|---|--------------|
| <b>Equipment/method:</b> forms/clipboards/measuring tapes/underwater cameras/GPS/boats/dive gears/insurance | <p>Types of species/indicator species/invasive species/COTS =&gt; estimated sizes/lengths/numbers</p> <p>Condition of habitat types/ Bleaching, diseases, live/dead corals/% coverage</p> <p>Turbidity, Sedimentation</p> <p>Behaviour(Spawning Aggregations)</p> <p>Survey Date</p> <p>Time and Tide</p> <p>Sites\GPS locations</p> | Annually for fast growing species/heavily targeted sp./habitat | Managed /no take zones (30% of sites) | Fisheries/ Environment/Others (communities dependent on their resources) | After survey if needed  |              |

| <b>Field surveys</b>   | <b>Frequency</b>  | <b>Coverage</b>                                   | <b>Who does monitoring</b>     | <b>Who does analysis of data</b>                       | <b>How often to review management / link back to management questions</b> | <b>Other</b> |
|--|---|---|--------------------------------|--|---|--------------|
| <b>Equipment/method: Water quality meters/lab equipments</b> |   |   |                                |  |   |              |
| Sedimentation,* C, Salinity, water quality                   | Variable aim for annually   | Known points sources/critical habitats Broadscale | Fisheries/ Environment /others | Fisheries/ Environment /others (dependin g on Country) | Opportunistically or min 5 years  |              |
| Ground truthing of habitats                                  | One off (e.g. after cyclones/mapping)<br>Or after multiple years (e.g. every 5 yrs) |   |                                |  |   |              |

| <b>Permits /Licensing</b>   | <b>Frequency</b>           | <b>Coverage</b>                 | <b>Who does monitoring</b>     | <b>Who does analysis of data</b>  | <b>How often to review management / link back to management questions</b> | <b>Other</b> |
|---|----------------------------|---------------------------------|--------------------------------|-----------------------------------|---|--------------|
| <b>Equipment/method: stationary/computers (database)</b>  |                            |                                 |                                |                                   |   |              |
| Number of boats/permits by fisheries/ Licensed companies  | Annually                   | 100% Nation wide Points of exit | Fisheries/ Trade org.          | Fisheries/ Fisheries/ Environment | Annually (min)  |              |
| Source and destination(consignee) of exported commodities<br>Volume (quotas) and value of export by species from export permits | Daily (when shipment goes) |                                 | Fisheries/ Custom/E nvironment |                                   | 2-3 Years   |              |
| <b>Use of catch (sales/gift and destination)</b>  |                            |                                 |                                |                                   |   |              |
| Prohibited species  | Daily                      |                                 |                                |                                   |   |              |
| CITES form permits: species and quantities  | Daily                      |                                 |                                |                                   |   |              |
| Shipping methods/packing<br>Number of pieces per package/coolers  |                            |                                 |                                |                                   |   |              |

| <b>Commercial/Processing Catch Logbooks</b>            | <b>Frequency</b> | <b>Coverage</b>   | <b>Who does monitoring</b>      | <b>Who does analysis of data</b> | <b>How often to review management / link back to management questions</b> | <b>Other</b> |
|--|------------------|-------------------|---------------------------------|----------------------------------|---|--------------|
| <b>Equipment/method: logbooks/stationary/transport</b> |                  |                   |                                 |                                  |   |              |
| Catch per trip by species, Sizes (size limits)         | Every trip       | All fishing boats | Fisherman/Processor (recording) | Fisheries                        | 2-3 years   |              |
| Fishing location                                       |                  |                   |                                 |                                  |   |              |
| Type of fishing/Fishing method/gears                   |                  |                   |                                 |                                  |   |              |
| Price/species(paid to fisher)                          |                  |                   |                                 |                                  |   |              |
| Freq of trips/seasonality                              |                  |                   |                                 |                                  |   |              |
| Nb of fishers  |                  |                   |                                 |                                  |   |              |

| <b>Enforcement</b>   | <b>Frequency</b>          | <b>Coverage</b>        | <b>Who does monitoring</b> | <b>Who does analysis of data</b> | <b>How often to review management / link back to management questions</b> | <b>Other</b> |
|--|---------------------------|------------------------|----------------------------|----------------------------------|---|--------------|
| <b>Equipment/method: stationary/transport/ID cards/insurance</b> |                           |                        |                            |                                  |   |              |
| Number of infringements (is it a repeat/previous offender)       | Every day (Opportunistic) | Export: Points of exit | Fisheries /Customs         | Fisheries                        | Annually  |              |
| Type of infringements (illegal fishing, invalid/expired license) |                           |                        |                            |                                  |   |              |
| Where infringement occurred                                      |                           |                        |                            |                                  |   |              |
| Penalties, fines, banishment, confiscation                       |                           |                        |                            |                                  |   |              |
| Illegal catch and exports  |                           |                        |                            |                                  |   |              |
| • Value/quantity   |                           |                        |                            |                                  |   |              |
| • Offender (name/age/gender/origin)                              |                           |                        |                            |                                  |   |              |
| • Offender's motivation  |                           |                        |                            |                                  |   |              |
| • Destination  |                           |                        |                            |                                  |   |              |
| Number of pieces per package/coolers Date/time                   |                           |                        |                            |                                  |   |              |
| Spot checks (day a week at random points of sale)                |                           | Random Points of sale  | Fisheries                  | Fisheries                        | Annually  |              |
|  |                           |                        |                            |                                  |   |              |