

Table of Indicators for indiSeas

Minimal list of ecosystem indicators with corresponding management objectives (L: length (cm), i: individual, s: species, N: abundance, B: biomass, Y: catch (tons), D=decline over time, RP = Resource Potential, EF = Ecosystem structure and Functioning, CB=Conservation of Biodiversity, SR = Ecosystem Stability and Resistance to Perturbations. Data for the indicators are derived primarily from fisheries independent surveys and commercial fisheries data.

Indicators	Headline label	Calculation, notations, units	Used for state (S), trend (T)	Expected Trend	Management Objectives	Management Direction
Total biomass of surveyed species	<i>biomass</i>	B (tons)	T	D	RP	Reduction of overall fishing effort and quotas
1/(landings /biomass)	<i>inverse fishing pressure</i>	B/Y retained species	T	D	RP	Reduction of overall fishing effort and quotas
Mean length of fish in the community	<i>fish size</i>	$\bar{L} = \frac{\sum L_i}{N}$ (cm)	S, T	D	EF	Reduction of overall fishing effort. Decrease fishing effort on large fish species
TL landings	<i>trophic level</i>	$\overline{TL}_{land} = \frac{\sum TL_s Y_s}{Y}$	S, T	D	EF	Decrease fishing effort on predator fish species
Proportion of under and moderately exploited stocks	<i>% sustainable stocks</i>	number (under+moderately exploited species)/total no. of stocks considered	S	D	CB	Decrease fishing effort on overexploited fish species. Diversify resource composition
Proportion of predatory fish	<i>% predators</i>	prop predatory fish= B predatory fish/B surveyed	S, T	D	CB	Decrease fishing effort on predator fish species
Mean life span	<i>life span</i>	$= \frac{\sum (age_{max} B_s)}{\sum B_s}$ (years)	S, T	D	SR	Decrease fishing effort on long-living species
1/Coefficient of variation of total biomass	<i>biomass stability</i>	mean(total B for the last 10 years) /sd(total B for the last 10 years)	S	D	SR	