

Project name: MED4EBM - Mediterranean Forum For Applied Ecosystem-Based Management
Application case: EB-ICZM for Aqaba, Jordan
Report type: Indicators
Issued by: Royal Marine Conservation Society of Jordan



Mediterranean Forum For Applied Ecosystem-Based Management



Component	Name	Description	Update Frequency	Data Source	Notes
Aqaba Marine Reserve	% of Landuse of the Marine Reserve	% of Landuse of the Aqaba Marine Reserve on the Total of Protected Area of Jordan.	Annual	ASEZA	
Aquarium	Number of visitors			Aquarium	
Aquarium	Number and species (such as fish and/or coral collected or recover of individuals)		Occasional	Aquarium	
Archaeological sites	Location and surface				
Archaeological sites	Typology				
Birds	Check list				Check with Marine Science Station if there is a monitoring
Camping Area	Waste management				
Camping Area	Surface				
Cnidaria	Jellyfish durign spring bloom	March-April recorded. Matter of concern, data reported to ASEZA (final); data collected by JREDS, industrial operators, N. M. programme and so on.	Occasional and observed.		
Corals	Red Sea Reefcheck Indicators				
Corals	N° of Incident	Size of Damage Level of Damage Source of Damage	Occasional	ASEZA Com. for Coral Status Environmental Police	
Cruise ships	N° and Type of Cruise Ships				
Cruise ships	N° of Cruise Ships Passengers				
Cruise ships	Stats on Passengers Activities				
Cruise ships	Maintenance of Cruise Ships	Refueling Unloading of Waste Etc.			
Crustacea	Chek list				
Crustacea	Presence of key species				

Component	Name	Description	Update Frequency	Data Source	Notes
Diving activities	Industrial Diving Activity	N° of Professional Divers Type of service provided		Social Security System Aqaba Labour Dept.	
Diving Centre	N° of Certified Diving Centers	N° of certified Dive Masters			
Diving Centre	N° of Divers (Users)	Monthly and/or Yearly N° of Divers			
Diving Centre	Night Dive Stats.				
Diving Centre	Number of diving boats			Jordan Maritime committee	
Diving Sites	N° of Sites				
Diving Sites	Type of Sites				
Diving Sites	Artificial Reefs				
Echinodermata	Presence key species	five key species monitored		Reefcheck	
Echinodermata	Number of individuals of key species	five key species monitored		Reefcheck	
Fish	Presence of species				
Fish	Abundance of Key species			Reefcheck	
Fish	Size of the key species			Reefcheck	
Fishing activities	N° of Boats	156 fishing boats		ASEZA Navy Maritime Authority	
Fishing activities	N° of Fishermen			ASEZA Navy Maritime Authority	
Fishing activities	N° of Fishing Licenses			ASEZA Navy Maritime Authority	
Fishing activities	Fishing Gears	Type of different fishing equipments.		ASEZA Navy Maritime Authority	
Fishing activities	Landings by Species		Daily	JREDS	
Five star hotels	Number of visitors	It is needed to check with the owner about data availability			

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Five star hotels	Number of beds/rooms				
Hard Corals	N° of Colonies				
Hard Corals	Status of Colonies				
In the sea	Water use	% of sea water occupied by different type of sea water designation.	Marine Protected Area every Year.	ASEZA	
Industrial sea water	Microbial Level				
Inland	Landuse	% of coastal area occupied by different type of area and/or infrastructures	Terrestrial Protected Area every Year.	ASEZA	
Inland	Fossil reef area				
Macro Algae	Number of species				
Marine mammals	Presence	Dolphins: seasonal visitors, only during spring Exception: blue whale (one observation)		JREDS Reefcheck National Monitoring programme	
Marine Reptiles	Presence			Reefcheck JREDS	
Marine Reptiles	Class age				
Mollusca	Check list				
Mollusca	Presence of key species			Reefcheck JREDS	
Mollusca	Size estimation of key species			Reefcheck	
North area	Air quality	Emissions % of gas Purpose: human health standards. Because the touristic activities and the industrials are close to each other.			
North area	Waste management	Same indicators of ECO-OS software. Examples: Kg of recycled glass Organic waste Metals recycled Recycled plastic	Monthly	Managers of the hotels, resorts, parks and hostels (green key standards). Marina and beaches (the private beach belongs to the hotels) (blue flag standards).	

Component	Name	Description	Update Frequency	Data Source	Notes
Other touristic activities	Number bottom boats	98 glass bottom boats, belonging to one association			
Porifera	Number of Individuals			Reefcheck	
Public Beach	Water quality	National monitoring programme			
Public Beach	Number of fines	Illegal fishing events Illegal practices, such as fire along the beach events Fines	Occasional, in particular during holiday period	Rangers Aqaba Marine Park	
Sea Port	Work force	Referred to different companies involved in the activities related to the sea port.		Dept. of Labour Force Social Defence	
Sea Port	Hazardous waste	Classification Storing Treatment		Port Managing Authority	
Sea Port	Domestic waste	Contractor provides report with weight (Kg and tons) Type of waste Weigth waste		Port Managing Authority	
Sea water	Sea Water Temperature	Data are in °C data coming from 6 different monitoring programs in the Gulf of Aqaba in different locations.	Weekly	ASEZA Monitoring Programs	
Sea water	Chemical/Phisical Parameters	pH Salinity Trasparency DO Conductivity Tides and Currents	Monthly	ASEZA Monitoring Programs	
Sea water	Bio Geo Chemical Parameters	Chlorophil Nutrients	Monthly	ASEZA Monitoring Programs	
Sea water	Total Hydrocarbon		Monthly	ASEZA Monitoring Programs	
Seagrasses	Seagrasses Coverage	Coverage of Halophila stipulacea, Halophila ovalis and Halodule uninervis		Reefcheck National monitoring programme	
South beach	Number of visitors				

Component	Name	Description	Update Frequency	Data Source	Notes
South beach	Water quality				
South beach	Waste management				
Terrestrial Flora	Check list of the main species				Check if there is a map, distribution information or only the check list of the area
Terrestrial mammals	Presence				A check list is needed.
Terrestrial reptiles	Check list				
Water Sports	Number of piece of equipment for each activity		Annually	Maritime commission Dept. of Investment ASEZA	
Zooplankton	Biomass			National monitoring programme	
Zooplankton	Suspended matter				
Zooplankton	Chlorophyll				