



ŠTO NAM PRUŽA OBALNI
EKOSUSTAV?

Geografija | Biologija | Materinski jezik



BETONIZACIJA
(ARTIFICIJALIZACIJA)
OBALE



PEDAGOŠKI SADRŽAJ (KLJUČNI POJMOVI):

- Usluge ekosustava
- Pitanja litorizacije
- Utjecaji ljudskih aktivnosti
- Zaštićena prirodna područja

POTREBNO PREDZNAJJE:

Znanje o uslugama ekosustava (definicija na web stranicama FAO).

ISHODI UČENJA/KOMPETENCIJE:



UČENICI ĆE MOĆI:

- Promatrati i razumjeti koncept usluga obalnih ekosustava
- Utvrditi četiri vrste usluga koje pružaju ekosustavi: pružanje usluga, regulatorne, podupiruće i kulturne usluge
- Čitati karte i prikupljati prostorne podatke
- Shvatiti važnost očuvanja morskih i obalnih resursa
- Kritički promišljati o problematici
















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PRIPREMA

-  #1: Odabrati jedno ili više obalnih geografskih područja, uključujući područja ljudske aktivnosti (gradovi, luke) i zaštićena područja (prirodni rezervati, zaštićene lagune, područja Natura 2000, morski parkovi itd.)
-  #2: Isprintati geografsku kartu odabranog područja.

PROVEDBA

-  #1: Učitelj upoznaje učenike s osnovnim konceptima urbanizacije i artifizijalizacije obale uz pomoć O1 dokumenta. Za objašnjavanje pojma *usluge ekosustava* može se poslužiti definicijom na poveznici 1. Ukazuje na popis usluga ekosustava (poveznica 2).
-  #2: Učenici se dijele na skupine, svaka skupina dobiva kartu. Zadatak svake skupine je odrediti i popisati pritiske ljudskih aktivnosti i zaštićena prirodna područja na određenom zemljopisnom području.
-  #3: Učenici u skupinama pretražuju Internet i popisuju usluge ekosustava koje pruža zaštićeno prirodno područje.
-  #4: U raspravi učenici trebaju utvrditi koja od ovih usluga može biti korisna u borbi protiv prethodno utvrđenih pritisaka ljudskih aktivnosti.
-  #5: Svaka skupina izrađuje prezentaciju / plakat kako bi izložila svoja istraživanja o uslugama ekosustava u odabranom području.

- Vrsta aktivnosti  Istraživanje, rasprava
- Ciljana skupina  Od 12 godina
- Mjesto izvođenja  Učionica
- Potrebni materijali  Detaljna karta područja
- Trajanje aktivnosti  Provedba: 2 - 4 sata
- Autor  CPIE Bastia U Marinu
Nije potrebna autorizacija
- Poveznice  [link 1] <http://www.fao.org/ecosystem-services-biodiversity/fr/>
[link 2] <http://www.fao.org/ecosystem-services-biodiversity/background/provisioningservices/fr/>
- Bilješke autora  Ova se aktivnost može provesti nakon aktivnosti „Otkrivanje luke i ljudskih aktivnosti“ u poglavlju *Ekonomija mora*.



Departament de Sostenibilitat i Medi Ambient
Consell de Mallorca





Coastline
Artificialization

Worksheet

Which goods and services are provided by coastline ecosystem ?



Supply and sampling services

- Fish resources for professional fishing
- Waterfowl and birds for hunting
- Biomass for grazing
 - Shellfish (professional fishing)*
 - Shellfish farming (clams, oysters)*
 - Fish farming*
- Regulation of water flow
- Other materials for direct use or processing



Regulation and maintenance services

- Self-purification and water filtration
- Nursery and habitat
 - Bank retention against erosion
 - Regulation of the microclimate
 - Fixation and decomposition of accumulated organic debris
- Regulation of floods and protection of inland lands against storms, salinity, urbanism



Cultural and social services

- Local identity
- Historical and cultural site
- Landscape value
- Aesthetic value of rare and remarkable species
- Amateur fishing and shellfish collection*
- Non-motorized water sports*
- Observations of birds
- Equestrian ride
- Support for the campsite
 - Bike ride
- Walking, hiking and running
 - Boat trip and excursion*
- Source of artistic inspiration
- Educational value
- Opportunities for scientific research
- Sense of well-being and tranquility

* : Potential services of a lagoon

Categories	Ecosystem services	Definition
Supply and sampling services	Fish resources for professional fishing	Fish supply for human consumption and favourable conditions to grow them.
	Waterfowl and birds for hunting	Game supply for hunting, hunters exercise on the study area.
	Biomass for grazing	Pasture provision for sheep and cattle.
	Shellfish fishing (professional use)*	Shellfish supply for professional use (potential for lagoon)
	Shellfish farming (clams, oysters)*	Rich and arable land provision.
	Fish farming*	(Potential) conditions for clams and oysters growing.
	Water flow regulation	(Potential) conditions for the professional exploitation of farmed fish.
	Other materials for direct use or processing	Regulation of the water flow by draining plain waters and the exchanges with the sea.
Fish resources for professional fishing	Materials supply such as driftwood or salicorne.	
Categories	Ecosystem services	Definition
Services Regulation and maintenance services	Self-purification and water filtration	Natural processes of degradation of water pollutants, especially thanks to the herbarium.
	Nursery and habitat	Maintaining key habitats that act as nurseries, spawning grounds or migratory routes.
	Bank retention against erosion	Plain sediment storage and resistance to soil erosion and uprooting.
	Regulation of the microclimate	Influence of the coastal vegetation and the lagoon on the air humidity (thermoregulation role).
	Fixation and decomposition of accumulated organic debris	Natural cyclical processes of organic matter decomposition.
	Regulation of floods and protection of inland lands against storms, salinity, urbanism	Natural protection of the coastal zone against flooding, buffer effect.
Categories	Ecosystem services	Definition
Cultural et social services	Local identity	The site has its history and is linked to certain traditions such as fishing.
	Historical and cultural site	For centuries the lagoon has been coveted by people.
	Landscape value	Exaltation of senses and emotions by landscapes, habitats and species.
	Aesthetic value of rare and remarkable species	Typical lagoon species, such as the salicornia, and rare species, such as the African tamarisk.
	Amateur fishing and shellfish collection*	Recreational fishing (not allowed in lagoon).
	Non-motorized water sports*	Canoe rides, for example.
	Birds observations	Wetland of major importance for the passage and parking of shorebirds: 250 identified.
	Equestrian ride	2 equestrian centres in the study area.
	Support for the campsite	3 campsites in the study area.
	Bike ride	Peripheral areas used for cycling.
	Walking, hiking and running	Possibilities all around the lagoon, especially in the Fornacina Park.
	Boat trip and excursion*	Forbidden on the reserve waters.