

ASEAN CRITERIA FOR NATIONAL MARINE PROTECTED AREAS

Social criteria

1. *Social acceptance* – the degree to which the support of local people is assured. Every effort should be made to canvass local support. When an area is already protected by local tradition or practice, it should be encouraged, and the area should receive a higher rating. An ‘official’ protected area designation may not be necessary to ensure government recognition of the area if local support is high.
2. *Public safety* – the degree to which the creation of a MPA may diminish pollution or other disease agents that contribute to public safety.
3. *Recreation* – the degree to which the area is, or could be, used for recreation. Sites that provide the local community the opportunity to use, enjoy and learn about their local natural environment should rate highly for this criterion.
4. *Culture* – the religious, historic, artistic or other cultural value of the site. Natural areas that also contain important cultural features should be given high rating as their protection may help to maintain the integrity of the adjacent ecosystem.
5. *Aesthetics* – a seascape, landscape, or other area of exceptional scenic beauty. Natural areas that also contain features of natural beauty should be given higher rating since the safeguarding of such features often requires that the integrity of adjacent coastal and marine systems be maintained. However, where species diversity and the biological conservation value are low, such areas retain a high value for recreation and tourism.
6. *Conflicts of interest* – the degree to which area protection would affect the activities of local residents. If the area is to be used for recreation purposes, for example, the site should not be a major fishing area and

should have few dependent fishermen. In some instances, careful zoning can minimize such conflicts.

7. *Accessibility* – the ease of access across both land and sea. Areas to be used by visitors, students, researchers and fishermen must be accessible to them. The more accessibility, the greater the value; but the greater the level of use, the greater the likelihood of conflicting interests and the greater the impact of users. Accessibility weighs high for MPAs with predominantly social objectives, fairly high for those with economic goals and low for those meeting ecological criteria.
8. *Research, Education and Public Awareness* – the degree to which an area represents various ecological characteristics and can serve for research and demonstration of scientific methods. Areas that clearly demonstrate different habitat types and ecological relationships and are sufficiently large both to serve conservation and to accommodate teaching and public awareness should receive a higher rating. An area which serve as a ‘control site’ or bench mark for scientific research or ecological monitoring programme should receive also a higher rating.
9. *Conflict and compatibility* – the degree to which an area may help to resolve conflicts between natural resource values and human activities, or the degree to which compatibilities between them may be enhanced. If an area can be used to exemplify the resolution of conflicts in the region, it should receive a higher rating.

Economic criteria

1. *Importance to economic species* – the degree to which certain commercially important species depend on the area. Reefs, estuaries or wetlands, for example, may be critical habitats for certain species that breed, rest, shelter or feed there, and that form the basis of local fisheries in adjacent areas. Such habitats need management to support

the exploited stocks. Consideration should be given to the dependence of fishermen and the size of the fishery yield.

2. *Nature of threats* – the extent to which changes in use patterns threaten the overall value to people. Habitats may be threatened directly by destructive practices, such as fishing with explosives and certain bottom trawls, or by overexploitation of resources. Areas traditionally harvested by local fishermen become important to manage. The numbers of fishermen on these grounds may increase, bringing extra pressure to bear on stocks and habitats. Even if the numbers do not change, the capture methods that yield more catches per unit effort may replace the traditional capture methods. The stocks of some species may not be capable of withstanding such increased exploitation of their breeding population. In this way whole species have disappeared from fishing grounds or have become exceedingly rare.
3. *Direct and indirect economic benefits* – the degree to which protection will affect the local economy in the long term. Those that have obvious positive effects such as tourism that are compatible with conservation should have higher rating.

Ecological criteria

1. *Diversity* – the variety or richness of ecosystems, habitats, communities and species. Areas having the greatest variety should receive higher ratings. However, this criterion may not apply to simplified ecosystems, such as some pioneer or climax communities, or areas subject to disruptive forces, such as shores exposed to high-energy wave action.
2. *Naturalness* – the lack of disturbance or degradation. Degraded systems will have little value for fisheries or tourism and will make little biological contribution. A high degree of naturalness scores highly.

3. *Dependency* – the degree to which a species depends on an area, or the degree to which an ecosystem depends on ecological process, or to a valuable species or ecosystem, it should have a higher rating.
4. *Representativeness* – the degree to which an area represents a habitat type, ecological process, biological community, physiographical feature or other natural characteristic. If a habitat of a particular type has not been protected, it should have a high rating.
5. *Uniqueness* – whether an area is ‘one of a kind’. Habitats of endangered species occurring only in one area are an example. The interest in uniqueness may extend beyond country borders, assuming regional or international significance. To keep visitor impact low, tourism may be prohibited but limited research and education permitted. Unique sites should always have a high rating.
6. *Integrity* – the degree to which the area is a functional unit – an effective, self-sustaining ecological entity. The more ecologically self-contained the area, the more likely it is that its values can be effectively protected, and so a higher rating should be given to such areas. To receive a rating, the area must be large enough to function as an ecological unit.
7. *Productivity* – the degree to which productive processes within the area contribute benefits to species or to humans. Productive areas that contribute most to sustain ecosystems should receive a high rating. Exceptions are eutrophic areas where high productivity may have a deleterious effect.
8. *Vulnerability* – the degree to which an area is susceptible to degradation by natural events or the activities of people. Biotic communities associated with coastal habitats may have a low tolerance to changes in environmental conditions or they may exist close to the limits of their tolerance. The area that suffers such natural stresses as storms or prolonged emersion, or additional stresses such as pollution


and poor water quality should receive high rating. Protection may at least partially recover the area from stresses, or else the area may be totally destroyed.

Regional criteria

1. *Transboundary implication* – the degree to which the area play a role in nutrients, materials or support for species (especially migratory ones) to the region as a whole. Both ecological processes and natural resources are often shared among nations, so areas contributing to the maintenance of species or ecosystems beyond national boundaries should have higher ratings.
2. *Regional representativeness* – the degree to which the area represents a characteristic of the region, whether a physical, geological or ecological feature.

Pragmatic criteria

1. *Urgency* – the degree to which immediate action must be taken, lest values within the area be transformed or lost. Lack of urgency should not necessarily be given a lower rating since it is often best, and less costly, to protect well in advance of the threat.
2. *Size* – which and how much of the various habitats need to be included in the protected area. Size should be large enough to ensure effective protection of the area.
3. *Degree of threat* – present and potential threats from direct exploitation and development projects. The further the protected area is from potential sources of pollution, the better are the survival prospects of species and communities.
4. *Practicality* – the feasibility of implementing a management programme. A site that satisfies many criteria, but cannot be practically managed would receive a lower rating.

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5. *Opportunism* – the degree to the existing or future opportunity may justify establishing or expansion of an MPA.
 6. *Availability* – the degree to which the area is available for acquisition or can be managed satisfactorily by agreement with the owners. The site that can be easily acquired should have high rating.
 7. *Restorability* – the degree to which the area may be returned to its former natural state. Areas that can increase in productivity or value to important species and processes should receive higher ratings.