ECASA WP 3

Annotated sheet for indicators related to the impact of the environment on aquaculture

1- Name of indicator

ED

Embayment degree

Yokoyama, H., Nishimura, A., Inoue, M., 2002. Influence of aquaculture and topographic conditions on the macrobenthos and the sediment in fish farms along the Kumano-nada coast. Bull. Jpn. Soc. Fish. Oceanogr.66 (in Japanese with English abstract).

ED=(L/W)(A/Ds)(B/Dm);

L shortest distance from the bay mouth to the sampling station

W width of the bay mouth

Ds water depth at the sampling station or, if present, the depth of any sill which exists between the sampling station and the bay mouth

Dm the maximum depth at the bay mouth

A mean depth of all the sampling stations

B mean depth of the bay mouths in the study area

2- Related source of pressure

Weather – Storms

3- List of data / parameters required for computation.

Bathymetric data

Topographic data

4- Description of scientific meaning, references

Exposure is an important prerequisite for both adequate and high quality water as well as for removal of wastes. None the less, exposed environments involve more risk of damages due to higher

frequencies of stormy weather conditions. In this context, there is a need for optimisation of the site selection with regard to weather conditions and topography.

The proposed index is an estimation of the openness of the area under consideration, which may classify it in different categories of exposure and subsequently, the potential for the occurrence of extreme weather conditions can be estimated.