

ECASA indicator

Name	Multiplier indicators of dependency
DPSIR class	Impact
ECASA sub-group	Socio-economy (livelihood security)
ECASA code	MULT
Proposed by participant	2- CEMARE, University of Portsmouth, United Kingdom
Definition, computation, Data sources and relevant studies	<p>Mega Pesca (1999). Regional socio-economic studies on employment and the level of dependency on fishing. Coordination and Consolidation study Lot 23, Commission of the European Communities. The report gives multiplier indicators of dependency on aquaculture (and fishing) for EU countries and regions, along with a description of the methodology used to derive them.</p> <p>Scottish Executive, Input-Output Tables and Multipliers for Scotland. Data for 2001 and previous years (back to 1998) are published, including estimates of the income and employment multipliers for Scottish fish farming</p>
Summary, scientific meaning, implementation	<p>Multiplier effects define the total economic activity supported directly and indirectly by one industry or sector. In this context they can be used to determine the dependency of particular regions on aquaculture. If multiplier effects are large it implies that changes in the output of aquaculture may induce correspondingly large (i.e. 'multiplied') changes in the output and employment of other sectors, which is clearly a matter of policy concern in regions of high unemployment. If the objective is livelihood security, it is employment multipliers and income multipliers that are most relevant. Calculating these is complex, and normally involves an input-output model of the whole regional economy of which aquaculture is one component. Such models are routinely constructed for the Scottish economy, and it is therefore possible to derive multiplier effects of fish farming within the regional economy. Other European countries normally produce national input-output tables, and these can in some circumstances be adjusted (using the GRIT technique) with local data so as to measure the dependency of particular regions on fishing or aquaculture.</p>
Range of validity	
Species concerned (fishes/molluscs)	
Related type of aquaculture	
Relevant environments for this indicator	
Geographic scale	
Direct relevance to objectives	
Clarity in design.	
Realistic collection or development costs	
High quality and reliability	
Appropriate spatial and temporal scale	
Obvious significance	