

Risk analysis is an objective, systematic, standardized and defensible method of assessing the likelihood of negative consequences occurring due to a proposed action or activity and the likely magnitude of those consequences, or, simply put, it is "science-based decision-making". Risk analysis has mainly been applied in assessing risks to society and the environment posed by hazards created by or associated with aquaculture development, e.g. risks of environmental degradation; introduction and spread of pathogens, pests and invasive species; genetic impacts; unsafe foods; and negative social and economic impacts. Risk analysis provides insights and assists in making decisions that will help avoid such negative impacts and allows aquaculture development to proceed in a more socially and environmentally responsible manner. An integrated approach to risk analysis will assist the aquaculture sector in reducing risks to successful operations from both internal and external hazards and can similarly contribute to protect the environment, society and other resource users from adverse and often unpredicted impacts. This could lead to improved profitability and sustainability of the sector, while at the same time improving the public's perception of aquaculture as a responsible, sustainable and environmentally-friendly activity.

