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# SUSTAINABLE FISH FEED: A COMPREHENSIVE LIFE CYCLE ANALYSIS

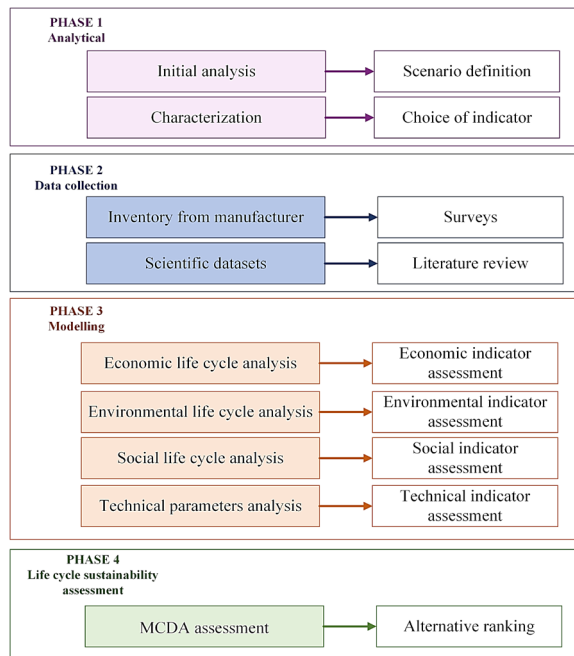
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**Abstract** – The concept of sustainability is used as an interpretation in terms of three dimensions – environmental, economic, and social dimensional balance. Several methodologies and tools have been developed to enable sustainability assessment in different sectors and different scales. To assess sustainability, it is necessary to clearly define the system and its elements and to select the appropriate indicators. Each method has advantages and disadvantages, but combining several methods can help overcome a weakness. The aquaculture sector continues to grow all over the world, and therefore, to reduce the impact of the sector, it is necessary to evaluate reasonable alternatives. The aim of the study is to evaluate several fish feed compositions according to environmental parameters using life cycle analysis (LCA), for economic parameters using life cycle costs (LCC), for social parameters using social life cycle analysis (SLCA), as well as comparing technical parameters. The result is an evaluation of fish feed considering several dimensions, to benefit the fish from this feed, as well as to reduce the impact on the environment from the production of feed.

**Keywords** – *Environmental assessment; economic assessment; social assessment; technical assessment*



Phases of sustainable fish feed evaluation.