

MRSF-09

Techno-Economic performance of Spiny Lobster Mariculture in Tropical Sea Cages along Gujarat, Northwest Coast, India

Suresh Kumar Mojjada*, Divu D., Swathi Lekshmi P.S., Mayur S. Tade, Aarsha S., Bobby Ignatius, Suresh V. V. R., A. Gopalakrishnan

ICAR-Central Marine Fisheries Research Institute, Kochi, Kerala, India

*Corresponding author: suresh.mojjada@icar.gov.in

Abstract

The rising demand for spiny lobsters globally has sparked interest in mariculture, especially capture-based mariculture (CBM) practiced by coastal communities. In our empirical analysis, peer-reviewed published data has been synthesized and used to assess the economic interactions of CBM of spiny lobster in open sea cages. Financial, biological, and technical cost structures were assessed for viability of the culture system. The enterprise was estimated to generate USD \$3,605.04 in revenue annually. The Net Present Value (NPV) was determined to be USD \$1,226.17, with an Internal Rate of Return (IRR) of up to 33%. A net profit sensitivity test was undertaken, demonstrating that cage production capacity versus harvest ratio significantly influences profit sensitivity. In contrast, the impact of seed and feed costs on the profitability of lobster culture was comparatively lower. However, sole dependency on natural seeds is setback and making entire farming enterprise more vulnerable. Upon the results, a few cultivation strategies have been developed for CBM to be profitable and present study could help in developing adapting management plans for successful lobster farming enterprise.

Keywords: Spiny Lobster, capture-based mariculture (CBM), sustainability, economic performance, sensitivity