



## Preliminary Study on Evaluating the Possibility of Starting a *Holothuria atra* Farm in Point Pedro



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### Abstract

*Holothuria atra* is cultured in a farm in Allaipiddy (AL) area of Jaffna district and value-added products of sea cucumber are produced. Hence, the present study was conducted to study the possibility of starting a *H. atra* farm in the Point Pedro (PP) region in Jaffna district, and compare the environmental parameters with those of Allaipiddy area. Water and soil samples were collected in PP and AL regions to evaluate the probability of starting a farm in PP. Furthermore, a mixed-method approach was used to gather the data in two locations. Primary data in the PP area were collected from 50 fishers by using open-ended semi-structured questionnaires. In addition, a separate survey was carried out in the AL farm. Results of the water quality analysis indicated that the parameters such as pH and temperature did not significantly differ ( $P>0.05$ ) in PP and AL areas, but DO, electrical conductivity, turbidity, TDS, and salinity were significantly higher ( $P<0.05$ ) in PP area than in AL area.

Survey results of the PP area revealed that the average age group of fishers was 25-50 years; 52% of fishermen were engaged in fishing at 4 p.m. and mainly received the credits via relatives (38%). The monthly income of fishers at PP was 50,000-60,000 LKR, and they consumed less than 1kg of fish daily. Sixty-four percent of fishers vend sea cucumbers, which were caught as bycatch with an average price of 12-50 LKR. Nearly 84% of fishers are aware of the sea cucumber culture methods. Economic analysis for the bycatch of sea cucumber for the month of February indicated the generated income of 195,760 LKR as the total value. The major constraints for starting a sea cucumber farm in PP were high wave action and the coral reefs on the sea bed, which prevented initiating a sea cucumber farm in PP. However, it is better to establish a sea cucumber processing plant to develop a sea cucumber industry in the Point Pedro area.

Keywords: Allaipiddy, By-catch, Point Pedro, Processing plant, Sea cucumber

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