SUMMARY

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The study examined the cost effectiveness of commonly used fishing gears along with different types of fishing nets and devices, mesh size and traditional status of the gears, which are being in use in the beel fisheries of Assam. The study has tried to answer four research questions and two research hypotheses by taking a sample of ten most commonly used fishing gears in 57 numbers of beels of Assam. The study investigated different types of fishing gears and indigenous fishing devices commonly used in the beel fisheries of Assam. It has been found that 37 types of fishing nets and traps, which are categorized in to 8 Classes, is employed mainly for the fishing purposes along with seven indigenous fishing devices. Among the indigenous fishing devices *Katal fishing* has been observed as the most popular practice in the beel of Assam.

The study has investigated the cost effectiveness of ten mostly used fishing gears (*Musarijal, Dolijal, Berjal, Phansijal, Langijal, Khewalijal, Hook and line fishing, Dhenkijal, Horhorijal,* and *Parangijal*) and *Katal fishing* on the basis of certain economic indicators (Capital Turn Over Ratio, Rate of Return, Pay Back Period, Net-benefit Ratio, Benefit- Cost Ratio, Net Present Value, and Internal Rate of Return). Except hook and line fishing all the gears including *Katal fishing* has been found to be economically feasible in most of the beels.

The study also has investigated mesh size of different gears and their level of CPGH in different beels. It has been found that on the basis of mesh size ten types of gill nets, nine types of encircling nets, four types of scooping gears and three types of trawling gears are operated in most of the beels. The study has also investigated the traditional status of fishing gears and found that most of the fishing nets, traps and fishing devices originated locally according to the ecological condition of the beels. Moreover, the migrated fishermen community from the neighbouring country

Bangladesh has introduced different types of fishing nets and traps in the beels of Assam.

The study investigated the level of cost effectiveness of the gears in 55 beels. It has been found that the efficiencies of fishing gears vary across the beels and depends on certain other factors such as availability of fish species, fish density, and hydrological condition of the beels. The study also observed that the recommended mesh size along with the non-recommended mesh size were economically feasible in the beels of Assam and that the larger mesh size was most effective in comparison to the smaller mesh sized nets.

In summary, most of the fishing gears, which have been used in the beels are economically feasible in most of the beel fisheries of Assam. But the levels of cost effectiveness differ across the beels. Therefore, the factors like availability of fish species, fish density, and hydrological conditions of the beels must be considered for the commercial fishing practices.