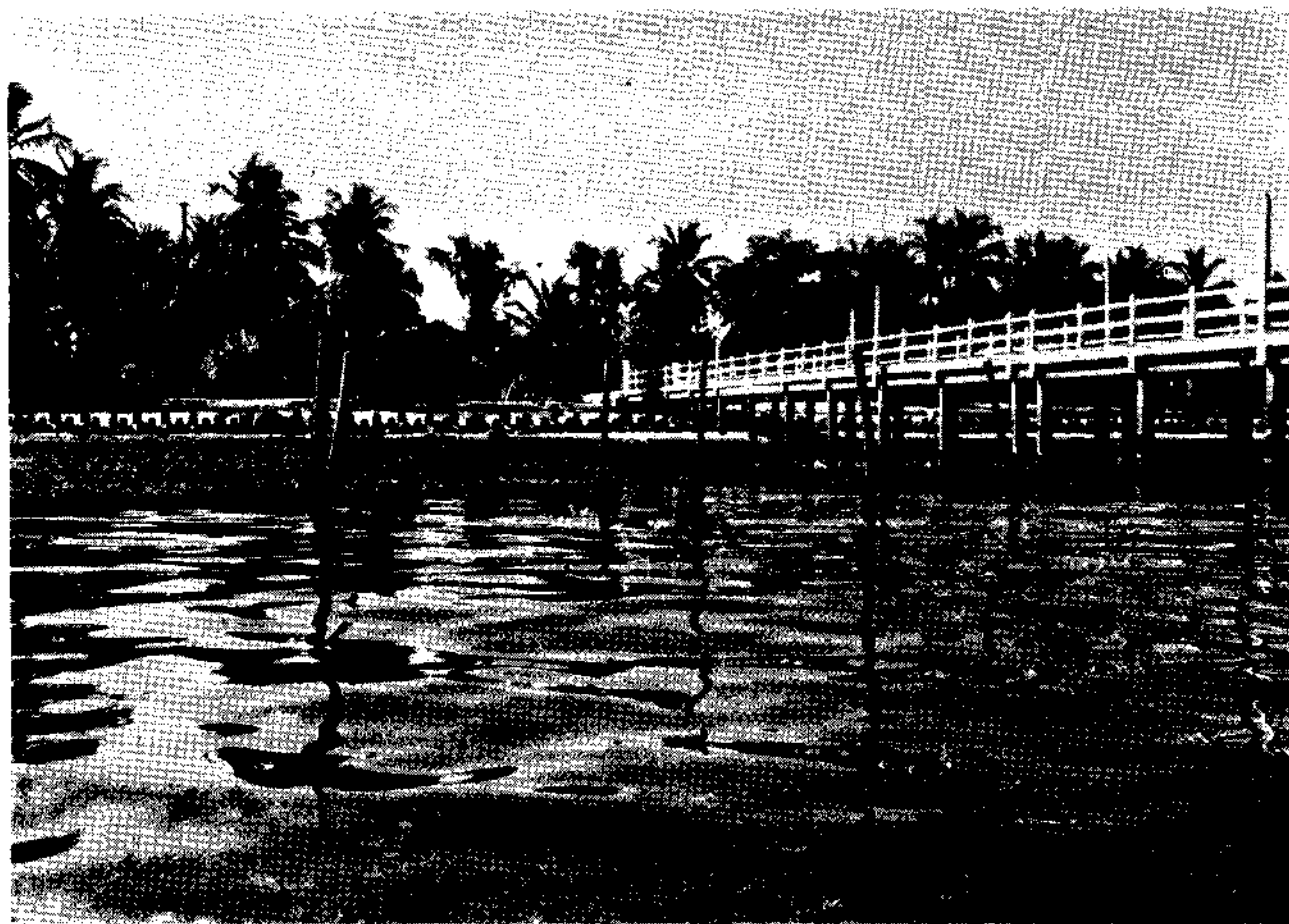


## Experimental Cultivation of Seaweed *Gracilaria edulis* at Minicoy



Seaweed culture site near Minicoy Fisheries Jetty during low tide

**CMFRI has developed technologies for culture of seaweeds in coastal areas in view of its commercial importance. The technology has already been extended for the cultivation of *Gracilaria edulis* in Mandapam. Recently the Institute has explored the possibility of cultivating *Gelidiella acerosa* and *Gracilaria edulis* in the lagoon at Minicoy, which yielded encouraging results.**

**I**N India seaweeds are used for the production of phytochemicals namely agar-agar and sodium alginate. The red seaweeds *Gelidiella acerosa*, *Gracilaria edulis* and *G. crassa* are used as raw material for agar-agar and brown seaweeds *Sargassum* and *Turbinaria* for sodium

alginate. As there is paucity of raw material for manufacture of agar-agar, attempts are being made by the Central Marine Fisheries Research Institute and

---

Fragments of *Gracilaria edulis* introduced in the twist of coir rope in 2 x 2 m size net.

---



various other organisations to cultivate the agar yielding species at different places using various techniques. The Central Marine Fisheries Research Institute has developed suitable technology for the commercial scale cultivation of *G. edulis* in the nearshore areas of Mandapam. Recently attempt was made for the first time by CMFRI to explore the possibility of cultivating *Gelidiella acerosa* and *Gracilaria edulis* in the lagoon at Minicoy Island (Lakshadweep). The plants of *G. acerosa* growing at Minicoy were used as seed material. As *G. edulis* is not

available at Minicoy, it was collected from Mandapam area and also from Kavaratti Island (Lakshadweep) and transported to Minicoy in live condition by better water management during March-June 90.

The seed material of *G. acerosa* and *G. edulis* were introduced on 2 x 2 m size coir rope nets and 1" thick long line

coir ropes at four culture sites in the lagoon namely helipad, light house, Fisheries jetty and Navodaya school area where the depth ranged from 30 to 180 cm during the spring tides. *G. acerosa* was also cultured on coral stones. Among these two species, *G. edulis* showed encouraging results near Fisheries jetty and light house area and the seedlings reached harvestable size within 45 or 60 days growth. This may be attributed to the clarity of water, low sediments and less epiphytic growth in these two locations.



---

< 15 days growth of *G. edulis* in coir rope net of 2 x 2m size.

---

The harvest was made with the help of knife and by hand picking. The remnants of the plants on the nets and long line



30 days growth of *G. edulis* in 2 x 2 m size coir rope net

coir ropes after first harvest were allowed to grow further and second harvest was made after another 60 days growth. A part of the harvested material was again utilised as seed material for culture and it also attained harvestable size in 60 days growth. The maximum yield of crop obtained from these experiments was 7.0 fold

increase over the quantity of seed material introduced during 60 days growth. The results obtained from this experimental field culture of *G. edulis* shows the high potential for the successful cultivation of this agar yielding seaweed in the lagoon of Minicoy. These experimental studies were carried out by Dr. N. Kaliaperumal and his team.



30 days growth of *G. edulis* in long line coir rope.