**MESSAGE OF HOPE**

Village women take up to Mussel culture..

A women Self-help Group in Ratnagiri district, a district under National Agriculture Technology Project (NATP) sponsored by the World Bank, has taken up to Mussel farming with the help of local college of fisheries which has trained village women in mussel culture. Returns are increased many fold compared to when women were only gathering naturally produced mussels. Market linkage with hotels at Goa is being explored for greater returns.

10.1 Brackish water farming should be planned for all cultivable species and not for shrimps alone along the coastline i.e. Raigad, Thane, Ratnagiri and Sindhudurg district except Greater Mumbai district areas. There is immense scope to utilize inland water resources as well to produce freshwater prawns, which has enormous demand throughout the state as well overseas. The coastal districts of the state are environmentally equipped to produce and supply the required seed for their cultivation.

10.2 It is recommended to take steps for speeding up shrimp farming in Konkan area, within a period of a decade. The bottleneck at present appears to be in the procedure of allocation of land to prospective cultivators and shortage of capital investment. The State government should take necessary steps to remove these hurdles, particularly in view of the immense benefit in future. It may be possible to raise the capital from various sources such as NCDC, inclusion of the earthworks of the infrastructure in Employment Guarantee Scheme etc. Shrimp seed hatcheries must be established in each coastal district so as to provide benefit to all the districts.

10.3 It is recommended that establishment of backyard hatcheries of production capacity 1-5 million shrimp seed be encouraged in fisheries cooperative sector. State Government may initiate a ‘Sea ranching’ programme for the next decade and undertake artificial stocking of shrimp seed in 30 major estuaries in the State by involving the concerned fisheries cooperative societies to produce shrimp seed through backyard hatcheries. However, since estuarine waters contain mangroves which provide rich breeding and feeding grounds for shrimps, prawns and many varieties of fish, and are thus fundamental to the livelihoods of traditional fishing communities, sea ranching programmes should not destroy such mangroves and chemical/microbial pollution of coastal rivers/streams/estuaries and physical encroachment on mangrove sites should be prevented by the state. Where already
degraded, special mangrove restoration programmes should be undertaken wherever possible.

10.4 State government should initiate a crab farming programme of developing suitable brackish water land in the next decade. Model demonstration units of crab farming should be established in the coastal districts by the state government. Crab seed hatcheries should also be established in the coastal districts in collaboration with state agricultural university of the coastal region.

10.5 State government may consider enhancing Jitada production in the coastal and inland region by establishing Jitada seed hatchery and seed bank to supply fish seed in northern part of the Konkan region of Maharashtra.

10.6 State government should undertake steps for development of Mussel and Oyster farming in the coastal area. A separate land / water body leasing policy be formulated for bivalve farming. A pilot bivalve hatchery should be established by the state government in collaboration with Dr.BSKKV, Dapoli.

10.7 State government may undertake a programme of establishing freshwater prawn seed units in the coastal region of the State and set up backyard hatcheries in the next decade. Prawn cultivation should be on already saline land and not be done by flooding non-saline coastal lands.

10.8 Small ornamental fish breeding and culture unit at yard scale level should be encouraged.

10.9 Quality control should be the key to all the activities mentioned above. In view of the potential development of coastal aquaculture during the next decade, state government should undertake steps for creation of post-harvest infrastructure. Cold storage units need to be built up in the vicinity of marine shrimp farm. State government should establish a pilot plant for depuration of bivalve harvest so that the export market can be made available for the produce.

10.10 Research programme on development of packaging techniques for value added fish products needs to be strengthened. A training centre for conducting training programme on value added fish and shell fish products from low cost fish also needs to be established. Automation in fish processing plants needs to be encouraged.

10.11 In order to retain the freshness of fish and enhance its market price, the Government may provide refrigerated cargo on hire basis to the fishermen co-operative societies. To meet future requirement, feed mill plants also need to be set up in a phased manner.
Coastal aquaculture should be an integrated culture programme rather than a capture programme prevailing at present. Establishment of hatcheries, post-harvest infrastructure and marketing set up including establishment of ancillary units like one for fish pickle should be ingredients of such integrated approach. Involvement of NGOs should be explored while promoting aquaculture. Care should be taken that no damage is incurred to the ecological balance in coastal regions and existing mangroves are protected while promoting coastal aquaculture.