



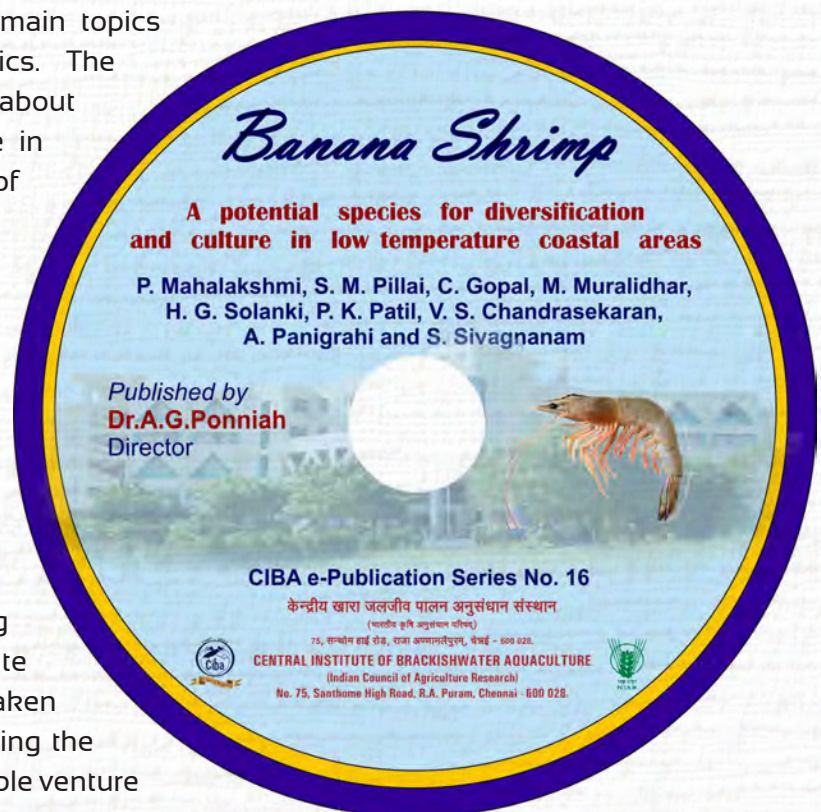
Information and Communication Technology initiatives for brackishwater aquaculture development

Village level ICT initiatives in Gujarat especially for farmers in tribal areas such as Dandi, Surat, Khursad, Mahuvas, Patri and Gandevi etc are almost non-existence. In this existing scenario dissemination of information in aquaculture and allied activities to the tribal and aqua farming community of Gujarat through ICT will helps to faster the information / knowledge empowerment of farming community in aquaculture. For this purpose, under Tribal Sub Plan of CIBA, we have initiated ICT based dissemination system in the form of e-Learning modules in aquaculture.

Today, e-Learning techniques have drastically changed the way of disseminating and sharing of information especially in the field of agriculture and aquaculture through ICT projects, research institutes/organizations, universities, state departments, non-government organization etc.

Based on the overall needs assessment of the tribal farmers (80 nos.) of Navsari district, the asynchronous e-Learning module on banana shrimp was developed in English and Hindi. The module was named as "Banana shrimp: A potential diversified species for culture in low temperature coastal areas". This module contains the main topics on banana shrimp viz., introduction, distribution and biology of banana shrimp, seed production, culture practices, economics and contact address.

In order to narrow the topics, these main topics are subdivided into additional topics. The status of shrimp farming discusses about traditional practices of shrimp culture in West Bengal and Kerala, fluctuations of tiger shrimp production and needs for diversification into different species such as shrimp, crabs and fishes. Species diversification topic provides information about other potential shrimp species such as *L.vannamei*, white shrimp, banana shrimp, ginger shrimp and kuruma shrimp. It also highlights that the banana shrimp has high potential and prospects as export commodity and culture during the winter season because it can tolerate low temperature and can be undertaken as a livelihood activity in otherwise laying the fallow and unutilized ponds as a profitable venture by the farmers.



In addition, during winter season (October to March) in Gujarat, culture of tiger shrimp is not undertaken due to its slow growth. Alternatively banana shrimp culture can be adopted in the existing tiger shrimp ponds without any additional expenditure on capital cost.

CIBA initiatives session highlights the collaborative work of CIBA and NAU for the development of banana shrimp culture at Danti farm in Gujarat. Distribution and biology topic provides information about distribution of banana shrimp in India along its coastal areas. It also highlights the local names of banana shrimp in Tamil, Oriya and Gujarati and biologic aspects of banana shrimp. Details of brooder collection and seed production are also discusses under the seed production topic. Culture practices is subdivided into areas covering pond preparation, stocking of quality of seed, feeding strategy, pond management and harvest. Pond preparation provides information about the different steps such as bleaching, drying, ploughing, eradication of unwanted pests, liming, raising of water, bloom development required before stocking of seeds inside the pond. Feeding strategy highlights the types of feed, feed rate, timings and importance of frequent check try monitoring. Pond management provides information about usage pattern and its application of dolomite, probiotics, vitamin C etc. It also highlights the usage of paddle wheel aerators, monitoring of water and soil quality and sampling method. Harvest topic provides information about details of harvesting steps from draining the pond through the sluice gate to transportation of packed shrimp into processing units in refrigerator vans. Survey economics, total operational cost and net return/profit from the culture of banana shrimp per hectare for 110 days were discussed in the module. This module can be used as a ready reckoner for information about culture practices of banana shrimp by extension personnel, farmers, students and other stakeholders.

The feedback collected from end users, farmers (40 nos.), indicated that the majority of the respondents agreed that they had intension to use the module in future (84%) and the module is useful to deliver accurate and useful information (90%) in the form of simplified version to the tribal/aqua farmers and extension educators for knowledge sharing. So 92% of the respondents agreed that the module is able to assist farmers / extension personnel in learning of brackishwater aquaculture technologies. Around 77% of the respondents revealed that multimedia with animation effects will increase the motivation of the learners. Some of the respondents felt that though the module is free from technical problems, working skill is required to easily return to the closest logical point in the module. Most of the respondents (94.3%) expressed that the continuous efforts are required to improve the awareness about the usage of learning modules and to establish the dissemination system and maintenance mechanism. However, continuous effort is being made to improve the awareness about the usage of ICT tools and to establish the dissemination as well as the dissemination system maintenance mechanism.



“Brackishwater aquaculture for food, employment and prosperity”

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