

Composite fish culture system of Indian and exotic carps competition and compatibility.

Composite fish farming: The technology developed for fish culture in which compatible and non-competing fishes are cultured simultaneously through the utilization of different feeding zones (all the natural niches) from a pond so as to increase the total production from unit area of water is known as composite fish farming and it is the most popular culture technique in the country. Any perennial fresh water pond retaining water depth of 2 m can be used for fish culture purpose. However, the minimum level should not fall below 1 m. Even seasonal ponds can also be utilized for short duration fish culture.

Carp composite culture where compatible carp species, Indian major carps (*Catla catla*; *Labeo rohita* *Cirrhinus mrigala*) and exotic carps (*Ctenopharyngodon idella*, *Hypophthalmichthys molitrix*; *Cyprinus carpio*) are reared together in the same pond was introduced by the Central Inland Fisheries Research Institute during the 1970s. Three strategies can be followed in composite carp fish farming as the first one is the low input or fertilizer based system, practiced mostly in small community ponds, with multiple uses and open access. It requires only low levels of investment. The level of adaption and impact are also low since aquaculture is practiced mostly in community village ponds with multiple uses. These are utilized as common pool resources and it is difficult to adopt all culture practices recommended in the technology.

Species culture in composite fish culture

Species	Feeding habit	Feeding zone
Indian Major Carps (IMCs)		
Catla	Zooplankton feeder	Surface feeder
Rohu	Omnivorous	Column feeder
Mrigal	Detritivorous	Bottom feeder
Exotic carps (ECs)		
Silver carp	Phytoplankton feeder	Surface feeder
Grass carp	Herbivorous	Surface, column and marginal areas
Common carp	Detritivorous/Omnivorous	Bottom feeder