

ORL-AAQ-05**Past and Present of the Propagation and Pond Culture of Carps in Nepal**

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In Nepal the development of modern pond culture of carps started in the 1950's. Since this culture system has been the backbone of fish culture production of the country. First, selected temple pools and village ponds were used as pilot fish ponds. This time imported fingerlings of common carp and Indian major carps were stocked. Later in the 1960's and early 1970's government pond fish farms were constructed which itself provided employment (Figure 1). The prime production objectives of these fish farms were to supply both fish seed and large fish for consumption. By 1970's when Chinese major carps were also introduced, the propagation techniques and technologies of all that time cultured seven carp species were successfully adapted. Parallel to the development of reliable national fish seed supply of carps, the first pond polyculture technologies of table fish production were also elaborated and practiced in the growing number of fish farms. By today there are reliable and proven extensively applied technologies of the propagation and pond culture of carps in Nepal. Consequently, since decades there have been available a wide range of production choices for both small household ponds and large commercial ponds. The pond polyculture options, determined by the combinations and proportions of the different carps i.e., common carp, Chinese major carps (silver, bighead and grass carps), Indian major carps (catla, rohu and mrigal), Carp-SIS and other additional species such as pangasius, tilapia and African catfish are also well elaborated now.



Figure 1. Construction of large fish ponds in the 1960's.

In the light of past and present practices, this paper discusses the most determining technical characteristics of both the propagation and pond culture techniques and technologies of carps. Firstly, species-wise propagation options are discussed and reviewed, together with the inventory of nursery (advanced fry rearing) and fingerling production choices. Secondly, all carp polyculture techniques and technologies used, are presented and reviewed, including the range of attainable results of polyculture compiled from the different combinations and proportion of carps cultured in Nepal. The technicalities of both propagation and pond culture of carps, discussed in this paper are selected and presented to be useful both for the users (farmers) and for the developer (researchers) of new techniques and technologies. In addition to the technicalities, a short review of past and present methods and practices of extension and field trainings are also discussed in this paper.



Figure 2. Partial harvest of carp polyculture in a household pond in the 2010's.

The recommendation of this paper is that all, successfully used past and present propagation and pond polyculture techniques and technologies of carps should be known as choices at hand to be selected in case the physical, financial and social conditions are favourable (Figure 2). Therefore, in the same time extension and training should be considered equally important component of field results. This is to guaranty that fish farmers in general and carps' producers in particular can successfully adjust to the constantly changing physical, economic and social environment in which they should produce fish.