

ORL-EE&P-04**International Collaborations in Aquaculture Development of Nepal: The Role of AIT, Thailand**

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The culture of aquatic animals has a long tradition in Asia. The oldest written history of aquaculture dates back to 475 BC with the 'Treatise in Fish Culture' by Fan Li. There are mentions about it in Kautilya's *Arthashastra* (Economics) which is often referred in Indian sub-continent around 300 BC. Although from the tomb paintings indicated that ancient Egyptians practiced fish farming 2500 BC constructing ponds and tanks, some scholars think fish farming existed with rice paddies about 10,000 years ago. Rice and fish have been an important part of Asian livelihoods. Asian societies are well-known as "Rice-Fish Societies". Fish farming might have a long history in Nepal as well, because some historical evidences of having fish ponds, fish statues, arts and crafts (*Matsya* Avatar is the first avatar) exist in century old religious temples and palace complexes (*Matsya*). However, this sector was lagging far behind for long until recently. Average fish consumption remained one of the lowest as compared to other Asian countries. Nonetheless, after 2010, it has started growing rapidly due to the efforts made by the government, and many other public/private and international organizations.

Asian Institute of Technology (AIT) Bangkok, Thailand is one of them which has played a crucial role in terms of education, training, research and outreach activities. At AIT, a specialized aquaculture program was established in early 1980s with an initial support from the Department of International Development (DfID, formerly ODA) of UK. Later on other development partners; namely, USAID (Pond dynamics/Collaborative research support programs/), EU (Tilapia breeding, and seed production), SIDA (Aqua-Outreach program), DANIDA (curriculum development) etc. joined to help support and further develop the programmes realizing the importance of aquatic resources and possible consequences of declining natural fish stock. As for other countries, AIT has produced at least 13 experts with higher degree education (7 MSc, 1 Diploma and 5 PhDs) for this sector. More than 20 persons have been trained in various aspects related to the farming of pangasius, tilapia, and general aquaculture. Among them, participants were for Pangasius breeding, nursing and grow-out farming. Except one person, all the graduates and trained persons are working in Nepal and contributing to this sector. More than 20 other professionals have joined 2-3 day long study tour programs. More importantly, several outreach projects were launched in collaboration.

The very first project was initiated in 2000 to promote small-scale aquaculture involving women in Chitwan (Kathar), then expanded to Nawalparasi (Kawasoti). The project was popularly known as Women in aquaculture (WiA) which supported about 300 women during 2000-2004. The project was funded by a German NGO. In continuation, Giant freshwater prawn (*Macrobrachium rosenbergii*) was introduced during 2004-2007 with the support of Canadian Cooperation Office (CCO) in Kathmandu. After these successes in Terai plains, small-scale aquaculture was tested in mid-hills; Lamjung, Gorkha and Nawalparasi (Dedhgaon). Over 100 farmers were supported to dig new ponds and was funded by Aquaculture without Frontiers (AwF), UK. These projects gave a lot of valuable lessons which were used while designing and implementing several other projects in Nepal like, a series of USAID projects (AquaFish-CRSP, AquaFish Innovation Lab); tilapia hatchery technology transfer with NARC and CAARP and so on. Aquaculture education was upgraded with two EU-funded projects, namely, curriculum development (2005-2008) and Aqua-Internship program (2007-2010). The first project assisted teachers to improve courses and teaching methods by providing opportunities to interact with the teachers of Bangladesh, Cambodia, Thailand, Vietnam and Europe. While the second EU project supported 12 MSc students to join aqua-internship programs in addition to providing teachers to visit field for updating knowledge. There are many advances happening in aquaculture in Thailand and SE Asia e.g. breeding, nursing and grow-out farming of tilapia, pangasius, hybrid catfish, freshwater prawn, snakehead, eel, frog, freshwater pearl (mussel). More collaborative efforts could help further develop and widen the horizon of aquaculture. The sector requires more skillful human resource and consideration to post-harvest handling, processing, food safety, transportation, storage/cold chain, equipment supplies/accessories, and good business environment.