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“Solidarity in a competing world —
fair use of resources”

Integration of Aquaculture into Egyptian Smallholder Farming Systems: Practical Solution of Fish Farming Seasonality

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Abstract

As the world faces the huge task of feeding a growing population through more cost-effective farming methods, much can be learned from the experience of thousands of fishers and farmers in Egypt. Scaling up their successes is vital if the world's poor are to have access to the fish they count on. Integrating aquaculture into small-scale farming in Egypt enabled millions to improve their lives and help build a better future for generations to come. Aquaculture is the fastest-growing method of food production, and is providing about half of all fish consumed worldwide. In Egypt as one of the developing countries, there is considerable potential for growth of sustainable aquaculture that suite challenges faced by small-scale farmers. Fish production on Egyptian smallholdings is generally limited by the quantity and quality of inputs to the pond. The seasonality of farm activities results in lower growth rates and yield. This work introduced new farming activities as a potential for improving production and yield through modifications of production schedules to accommodate other farming activities. Limited material inputs among farming system enterprises in Egypt can be better allocated by considering seasonality and adapting the pond and fish farming technology to the farming system. This work is focusing on technology that maximises fish production by adoption of integrated aquaculture by Egyptian smallholder agriculture/aquaculture projects. Farming Systems Research in Egypt is cautiously working to identify opportunities for system improvement for it to be worth supporting as a development intervention. It is essential to mention that water use in small-scale fish farming is quite efficient, as Egyptian farmers learn about and apply water-management strategies that optimise the recycling of pond water to irrigate staple crops and vegetables. This research has revealed that during winter period, small-scale farms integrated into traditional farming operations and become more productive than farms on which integrated aquaculture is not practised.

Keywords: Aquaculture, Egypt, food security, integration, livelihood, nutrition, poverty eradication