

Integrated water resource management and aquaculture for equitable and sustainable livelihoods in East-Africa

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Aquaculture is the fastest growing food-production industry. It all started in Asia, especially in China, but it was only in the last 3 to 4 decades that spectacular growth took place with a progressive increase in the contribution of aquaculture to global seafood needs from less than 10 percent in the 1970s to about 50 percent of what we consume now. This trend will continue as demands increase and fisheries stocks are exploited near or greater than maximum sustainable yields. Calculations based on present per capita consumption and estimated population size 10 years from now reveal that aquaculture will have to provide more than 25 percent more on an annual basis within the next decade. When considering the available global resources for food extraction or production, it is clear that land for crops and pasture will come under serious pressure. It should be clear that aquaculture is expected to expand very significantly. However, can this all be achieved following our current expertise and experience? Can it be accomplished without causing environmental risks or human health problems? The answer is yes but only when we adopt new approaches when addressing sustainability issues. In future aquaculture developments we must embrace ecological principles and reconsider the monoculture approaches that we have increasingly introduced with the modern forms of business aquaculture.