

Overview of Cage Aquaculture Practices, Benefits and Challenges on Africa Waters Bodies

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Abstract : Cage aquaculture is highly preferred due to higher production per unit volume of water, lower costs of investment, and simpler routine farm management procedures compared to pond systems. In the 1980s, cage culture was first used on a trial basis in sub-Saharan Africa. Over the past 20 years, a small number of prosperous freshwater cage culture operations have started to emerge in Egypt, Rwanda, Kenya, Uganda, Tanzania, Ghana, Malawi, Zambia and Zimbabwe. Brackish and marine cage culture also offers a lot of potential, although this subsector hasn't seen any significant commercial growth to date. In 2019, 263 cage aquaculture installations on the African inland waters on 18 water bodies within eight countries with an estimated 20,114 cages were reported. The lakes Victoria, Kariba, Volta, and River Volta, which together account for 82.9% of all cage aquaculture installations regarded as sub-Saharan Africa's principal cage aquaculture regions (Fig 1). Except few small-scale trials with North African catfish (*Clarias gariepinus*), almost all farms in Sub-Saharan Africa and Egypt grow Nile tilapia (*Oreochromis niloticus*). More than 247,398 tonnes of fish are produced yearly from ten African countries through cage aquaculture. The expansion of cage culture in Africa provides job opportunities for both skilled and unskilled workers, nutritious food and foreign currency. The escaping non-native strains of tilapia in Lake Volta and the occurrence of a risky Tilapia lake virus (syncytial hepatitis), which has the potential to wipe out entire populations in both wild and farmed Nile tilapia on Lake Victoria, are threats coming with the expansion of cage aquaculture in Africa. In addition, the installations of 138 cage aquacultures were found in contrary to best cage culture practices. To sustain cage aquaculture development and maintain harmony with other water uses, developers must strictly abide by best practices. Hence, the exclusion of protected areas and small lakes (average depth 5 m or less) should be done, as well an Environmental Impact Assessment should be conducted before establishing the cage farms.

Keywords : Africa, cage aquaculture, production, threats

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