

INTRODUCTION

In Sudan, aquaculture has been recognized long time ago by the government as potential area of interest. However, most of the focus was given to freshwater aquaculture and this is limited to extensive tilapia culture in the vicinity of Khartoum, the capital. The existing tilapia farms are small and use minimal inputs. The only marine aquaculture practice is oyster, *Pinctada margaritifera*, culture in the northern Red Sea coast which was initiated in 1979. Now there are more than 70 small family farms operating at Mohamed Goal and Dongonab Bay, North of Port Sudan. In general, the inadequate planning and financing are the major impediments to aquaculture development in the country. Despite the prevailing lack of local experience and knowledge to date on marine shrimp farming, there has been continuing interest from the private sector to invest in this domain (Yousif et al., 2002). The development of coastal shrimp aquaculture in Sudan could be the right approach to develop the vast unutilized salty coastal flats. Since there is no demand in the local market, the shrimp aquaculture output could be utterly export oriented. In May 1996 a Canadian Fishery Consultants conducted a comprehensive feasibility study for an integrated fisheries and aquaculture project at Port Sudan. The estimated project cost is US \$ 168 million and includes 3,000 hectares of semi-intensive shrimp grow-out ponds, shrimp hatchery, 60,000 metric tons feed mill, shrimp processing/freezing facilities, tuna landing and cannery facilities and other supporting infrastructure. For some reasons this ambitious project failed to materialize.

The first commercial shrimp farming in Sudan was initiated by Baabood Company in 2002. The total farm area is 20 ha and it is located 40 km south of Portsudan on the Red Sea coast. *P. monodon* and *P. indicus*, are spawned in the hatchery using the technique of unilateral

eyestalk ablation of females to achieve ovarian maturation and spawning. Formulated feed is imported from Saudi Arabia. Under the hyper-saline condition of the Red Sea coast (46 ppt), the grow-out period to marketable size (50 g) is about 6-7 months.

Objectives of the study

The present study was designed to assess and document some operation in the first commercial shrimp farming in the Sudanese Red Sea coast and its possible effect on future expansion of this practice in the country. Also, the study aimed at discussing the major impacts associated with such expansion as well as the necessary measures needed for responsible shrimp farming along the Red Sea coast.