

Improvement of the living standards of rural communities in Kenya through *Artemia* production in coastal saltworks

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Artemia (Crustacea), also known as brine shrimp, are typical inhabitants of extreme hypersaline environments and hence can be produced together with salt. Besides being the biggest salt producer in Eastern Africa, Kenya has not concentrated on the *Artemia* cum salt production. This is despite the fact that salt-*Artemia* integration helps improve salt quantity and quality while generating an additional source of income. About 30 years ago (1984 to 1986), KMFI studied the potential of *Artemia* production in saltworks in Malindi, Kenya through the ABOS Project. The project proved that there is an untapped potential of producing *Artemia* locally. Kenya depends entirely on import of expensive *Artemia* cysts for shrimp and fish larviculture, from abroad. In 2010, a project aimed at assessing how to improve the living conditions of rural communities in the Kenyan coast by pond production of *Artemia* cysts and biomass in the locally available salt production systems commenced. The pilot site is located at Mnarani, an artisanal salt farm in Kadzuhoni village 20km North of Malindi town. The project targeted rural communities in coastal Kenya with the overall objective of building their capacity for *Artemia* production in existing salt production systems and application in local aquaculture initiatives to raise their socio-economic status by offering alternative livelihoods. It also helped to build capacity of local institutions to develop sustainable and environmentally sound models of *Artemia* pond production and application of locally produced *Artemia* in emerging aquaculture initiatives. Local community development centres, which have already developed very extensive aquaculture initiatives for the benefit of rural communities, were targeted for demonstration of project activities. Creating practical and theoretical expertise for the community and KMFI through trainings has solved the lack of expertise problems. The communities within the salt belt have responded positively to the integrated *Artemia* production and several groups are already pursuing their own initiatives for *Artemia*/fish/salt production. It is expected that once the commercial salt farms take up the initiative of commercialising *Artemia* cysts and biomass as they do with salt then aquaculture development will be boosted and hence impacting more livelihoods positively. Several challenges that were encountered at the beginning of the project which include, eutrophication, predation and access to sea water have been addressed. However, land tenure and unstable weather conditions are still a challenge to beat.

Key words:

Brine shrimp, pond production, rural communities, aquaculture development.