

Chorkor smoking kiln - a low cost technology in reducing fish post-harvest losses

Fish is highly perishable with deterioration starting immediately it dies. In Rift valley lakes of Turkana and Baringo, many fishers including traders lack cold storage facilities yet markets of landed fish primarily towns and cities in Kenya are far from the landing sites. Fish smoking and drying are the commonly used methods to prolong fish shelf life, enhance flavor and increase fish utilization by reducing post-harvest losses in those areas. However, despite the use of smoking and drying as preservation methods high fish post-harvest losses (physical and quality losses) are still being recorded due to use of traditional and rudimentary processing equipments (Plate 1 a, b & c).

Kenya Marine and Fisheries Research Institute (KMFRI) as a government research entity that among other roles, gives information on fish quality control, post-harvest management and value addition technologies. Dr. Christopher Aura (Director Freshwater Systems Research), Dr. Cyprian Odoli (Head fish quality control and post-harvest management in FWS directorate and the Station Coordinator, KMFRI Baringo) and other scientists in the directorate have helped in reducing fish postharvest losses by introducing the *Chorkor* smoking kilns along lakes Turkana and Baringo. The introduced kilns are basically “Chorkor-Oven-like” with a combustion chamber together with smoking unit and a set stackable smoking trays as well as an optional shelter house to protect against adverse weather conditions (plate 1d & e).

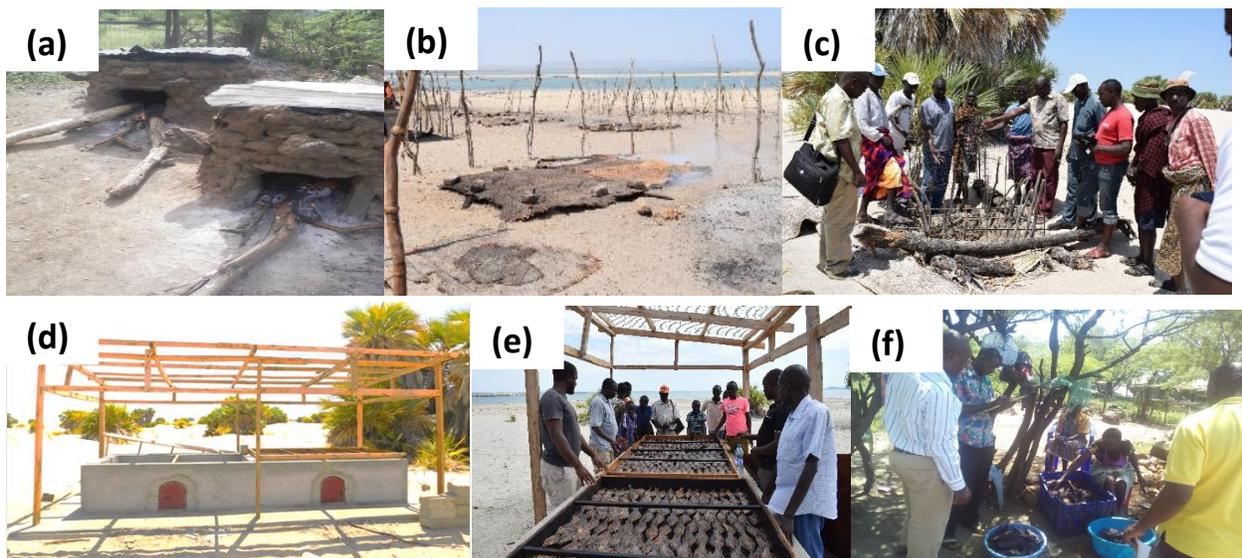


Plate 1. Traditional smoking kilns along lakes Baringo (a) and Turkana (b &c) and introduced Chorkor smoking kilns installed by KMFRI along Lake Turkana (d & E) and Chorkor smoked fish products at Kambi Samaki Baringo (f).

Chorkor smoking kilns have high capacity, are energy efficient (uses less fuel wood) and user friendly hence have proved to be a sustainable technology that can reduce fish post-harvest losses and enhance income, since it is cost effective and safe to use for fish smoking. Along lakes Turkana and Baringo, both youthful and old members of the fisher community have been observed to embrace use of the technology as an improved fish processing method.

In addition, *Chorkor* smoking kilns also produce quality smoked fish products with attributes such as good appearance, improved shelf life and appealing odor when compared to traditional kiln's smoked. KMFRI has up-scaled the technology along lakes Turkana and Baringo which are currently fully utilized and the demand for more is still at large.

Chorkor smoking kiln therefore, remains a technology to be up scaled because of its potential in reducing fish post-harvest losses and enhance income due to its ease of adoption by fisher community.