Impact of Environmental Changes on Farmed Seaweed and Farmers: The case of Songosongo Island, Tanzania. *Journal of Applied Phycology*, 26:2135-2141

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Abstract
Tanzania, like many other countries where eucheumatoid seaweeds are farmed, is experiencing die-off of *Kappaphycus alvarezii*. Farming is failing in many cultivation sites in shallow intertidal areas where it used to grow well. Production has fallen dramatically, and in some areas, hardly any seaweed is produced any longer. This study was carried out in Songo Songo Island, southern Tanzania, one of the most affected areas, during February–May 2009.Water temperature averaged 35.7±2.4 °C, higher than what had been observed in seaweed farms in other areas in Tanzania. Salinity was normal seawater at 34.7±0.5 ppt. In the abandoned farming sites, signs of ice-ice, epiphytic *Neosiphonia* and "dark spots" were observed on the seaweed. Fouling was also observed. Seaweed production decreased from 423.9 t worth US$82,000 in 2003 to 26 t in 2008 worth only US$4,500, and 28 t in 2012 worth US$4,300. Number of farmers was highest (809) during the production peak in 2003 then decreased to 320 in 2008. The number of fishing vessels decreased with an increase in number of farmers and seaweed production and increased when the number of farmers and seaweed production fell. Thus, high-surface water temperatures coupled with fouling, epiphytism, and ice-ice disease signs have caused dramatic decrease in seaweed production in Songo Songo. The onetime lucrative seaweed farming activity in Songo Songo Island of Tanzania has been reduced to almost standstill.