A Gender and Development (GAD) study was conducted to determine the profile of seaweed producers and the patterns of gender participation in seaweed production and marketing activities. This was aimed at identifying the potential role of gender-sensitive interventions as a strategy in upgrading the seaweed industry in the Davao region, Philippines. Data were gathered using a survey questionnaire from 171 respondents covering the barangays of Sta. Cruz and Digos City. Results of the study showed that seaweed production was a family-based venture. A higher percentage of the men respondents (48-87%) prepared the sites and planting materials, maintained the farms and harvested the seaweed product. The women (33-42%) only assisted in the procurement of the seaweed materials for planting. In seaweed marketing, the women had greater participation in contacting buyers, negotiating prices with the buyers and collecting payments (50-64%). Overall, men’s and women’s roles in seaweed production and marketing differ significantly (p<0.05).