

## WEAVING EMPOWERMENT: THE TRANSFORMATIVE ROLE OF SEAWEED FARMING FOR COASTAL WOMEN IN BANGLADESH

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Seaweed farming is emerging as a vital catalyst for socio-economic transformation in coastal Bangladesh, particularly in empowering women from vulnerable communities. This study explores the nuanced roles women play across the seaweed value chain and evaluates the potential of this sector to advance gender equity and coastal resilience. Drawing on recent field data from Cox's Bazar, where seaweed production is practiced mainly through off-bottom long line and net culture, findings reveal that women constitute approximately 70% of active producers and collectors. While the expansion of sub-tidal floating raft culture remains largely male-dominated due to its physical demands and offshore nature, women's engagement is significant in seed inoculation, monitoring, harvesting, washing, drying, and post-harvest handling. Economic analysis highlights encouraging profitability: an average 24 m<sup>2</sup> seaweed plot yields about 63 kg of dry *Gracilaria* over five months, generating a net return of BDT 6,064.66 and a return on investment of 104.59%. Despite limited formal education (52.5% of farmers are illiterate), women's participation has grown steadily, fueled by NGO support, local training, and low capital requirements. Value chain mapping reveals women's dominance in early production and processing stages, although market linkages remain constrained by reliance on middlemen, limited transport, and inadequate post-harvest infrastructure. The marketing system largely channels products from farm gate wholesalers to distant markets like Bandarban, where demand is driven by ethnic communities, limiting broader market penetration. The study concludes that seaweed farming holds transformative potential to empower coastal women economically and socially by providing accessible, climate-resilient livelihoods. Policy recommendations include expanding training tailored for women, improving local processing facilities, and diversifying markets through branding and export strategies. By strengthening women's agency within the value chain and addressing structural barriers, seaweed farming can significantly contribute to Bangladesh's blue economy goals while promoting gender equity and community resilience against climate change.