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Knowledge needs in assessing the potential contribution of seaweed to world food provisioning

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The study of seaweed as a novel food source is gaining traction worldwide. To understand its potential, we conducted a literature review using the Food Systems Approach. Our objective was to uncover opportunities, constraints and knowledge needs required to fulfil the potential of seaweed for contributing to food security. Identified knowledge needs especially concerned optimizing , upscaling and environmental sustainability. In addition, the seaweed value chain and markets still require further understanding in order to optimally develop seaweed's food security potential. Based on our review of literature, the future potential of seaweed production is probably highest in terms of improved food quality, but modest in terms of food quantity. To assess the quantitative potential of seaweed a new approach will be required. Science and industry are making progress in solving technical issues, but understanding of social and economic factors of decision making in the value chain remains a constraint to making seaweed products market-ready. More research attention is called for on these issues in order help smooth the way towards realizing the food potential that seaweeds represent.

Keywords: Food Security, opportunities, constraints, seaweed, knowledge needs