

### Potential of Vietnam seaweed biomass production for biofuel

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To assess the production potential of Vietnam seaweed biomass for bioenergy, we have conducted field surveys along the coast of Vietnam from 2009 to 2011 searching for the species with high biomass and carbohydrate content. The results showed 40 species having high biomass from 36.5 to 600g (dw)/m<sup>2</sup> and carbohydrate content greater than 50% (dw). However, from the cultivation experiments in laboratory and in nature, only six species have high growth rate from 4.7 to 9.7%/day. Of these, green seaweeds: *Chaetomorpha linum*, *Cladophora socialis*, *Ulva torta* and red seaweeds: *Kappaphycus alvarezii*, *K.striatum*, *Euchema denticulatum* can suitably grow in coastal ponds conditions and in open ocean conditions, respectively. Initially, the cultivation models for large scale culture of green seaweeds in land-based ponds with productivity of 25–37 dry ton/ha/yr and red seaweeds in floating rafts with productivity of 15–18 ton/ha/yr have been established. According to preliminary assessments, in the coast of Vietnam an area of 538,000 ha could be planned to cultivate green seaweeds and red seaweeds, corresponding to 2.5 million ton for biofuel.