

BUCEFALOS- BIUe ConcEpt For A Low nutrient/CarbOn system – regional aqua resource management



Expedient	LIFE11 ENV/SE/000839	Date	01-SEP-2012 to 31-AUG 2015	Location	Sydsverige
Contact	Rasmus Fredriksson		rasmus.frediksson@malmo.se		
Coordinator	Skane Renional Council				
Consortium	Municipality of Malmö Municipality of Trelleborg.				
Objective	The BUCEFALOS project's overall objective is to demonstrate a holistic approach to regional coordination for sustainable resource management of aquatic biomass. This project will demonstrate innovative methodologies and technological applications for cultivating and harvesting mussels. It will also restore wetlands and establish algae cultivation sites with a view to cleaning freshwater and providing efficient yields of biomass for biogas.				
Expected results	<ul style="list-style-type: none"> • set of tools, models and operation strategies for a regional co-ordination for sustainable resource management of aquatic biomass (GIS tool, reports); • A full-scale mussel cultivation site in the Baltic Sea; • A full-scale harvester for mussel cultivations around submerged artificial constructions; • 2-5 full-scale wetlands for water remediation and biogas production; • 2-5 full-scale algae farms for water remediation and biogas production; and • A full-scale biogas plant for biogas production from aquatic biomass. • Expected achievements within the project period (in brackets, ongoing achievements after the project has ended): • A 12.5-tonne reduction in phosphorus levels (6.25 tonnes/yr); • A 155-tonne reduction in nitrogen levels (77.5 tonnes/yr); • An 800-tonne reduction in CO2 emissions as a result of biomass growth in the wetlands and algae cultivation sites (400 tonnes/yr); • A 1 442-tonne reduction in CO2 emissions from replacing fossil fuels with biogas (721 tonnes/yr); and • It is forecast that the project's plant in Trelleborg will be able to generate 401 500 Nm3/yr of biogas and produce 2.71 Gwh/yr of renewable energy. 				