Kelp farming: Can we sustainably harvest the ocean's "superfood"?

Climate change is affecting global communities with unprecedented challenges relating to food insecurity, health crises, biodiversity collapse, and water quality deterioration. As our world population continues to increase, the added strain on both natural and artificial systems will exacerbate these challenges, leading to potentially catastrophic global events such as famine, droughts, disease spread, and economic collapse. In recent years, increasing interest and research has been placed on kelp farming as a possible sustainable and environmentally friendly source of healthy food, fertilizer, and cosmetics. Not only would kelp farms create jobs for coastal communities, additional environmental benefits such as excess nutrient absorption, atmospheric carbon sequestration, and healthy living environments for other marine life forms are possible. However, kelp farming is not without controversy in that some environmental researchers fear that unregulated kelp farming may actually impose negative effects on the environment by altering water chemistry, diminishing the amount of light available for other marine plants and organisms, and increasing the risk of attracting invasive species.

Overall, the development of sustainable kelp harvesting and understanding its risks may be important for maintaining the health of marine ecosystems, mitigating climate change, supporting local economies, and ensuring a sustainable food source for generations to come.