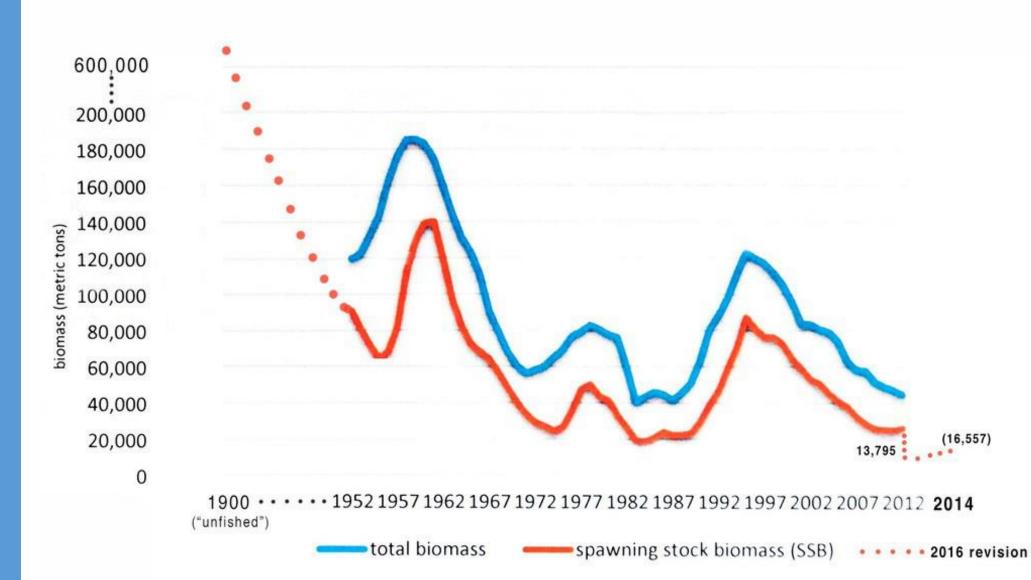
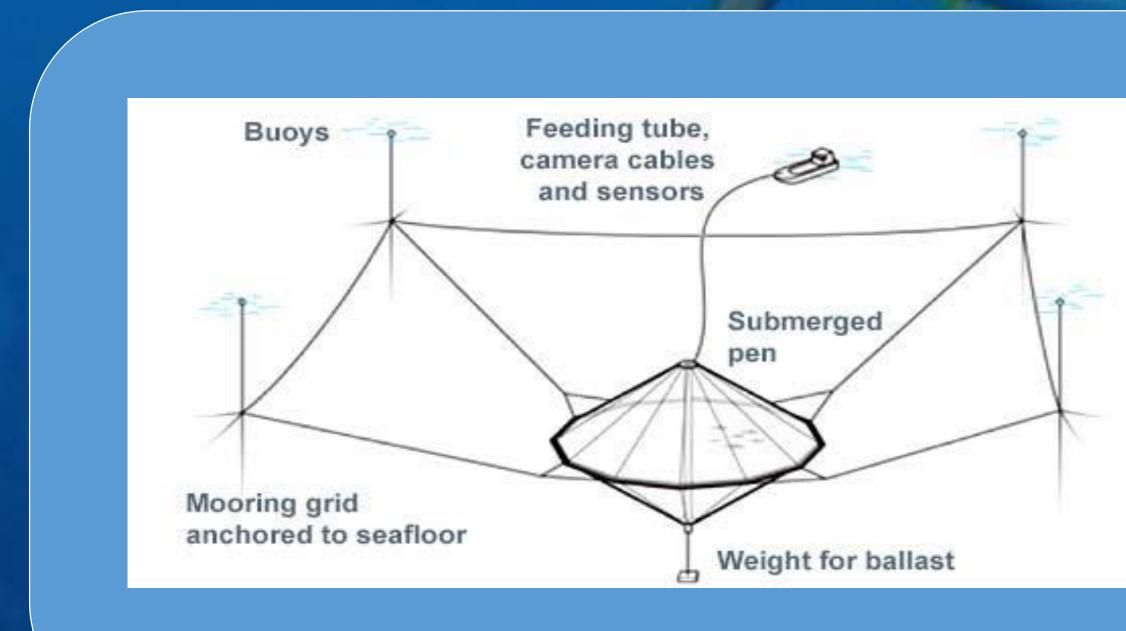


Problem



Yellowfin tuna is being overfished in the South China Sea



Mobile Fishery diagram

References

Cost-benefit analysis of individual fish farms and fry production centers. ().FAO. Gace, L. (2016). Recent advances in submerged open ocean mariculture. (). Las Vegas: InnovaSea Systems, Inc. Gilhooly, R. (2016). Facing extinction: Can the pacific bluefin tuna be saved? The Asia-Pacific Journal, (15) Retrieved from http://apjjf.org/2016/15/Gilhooly.html

Innovative open ocean mariculture
>. Retrieved from http://www.openblue.com/open-ocean-aquaculture Richardson, W. (2010). Fishing for a future | A searsmont entrepreneur's aquaculture innovation is welcomed in foreign waters while the U.S. plays catch up. Retrieved from

http://www.mainebiz.biz/article/20100125/CURRENTEDITION/301259997/fishing-for-a-future-%7C-asearsmont-entrepreneur%27s-aquaculture-innovation-is-welcomed-in-foreign-waters-while-the-us-playscatch-up

Ruell, S.T.Wood plastic composite structural lumber for aquaculture net pens. (). Simpson, S. (2011). The blue food revolution. Scientific American, 304(2) Retrieved from http://www.nature.com/scientificamerican/journal/v304/n2/pdf/scientificamerican0211-54.pdf Yellowfin tuna school
. Retrieved from http://www.dfiles.me/yellowfin-tuna-school.html

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Hatching a Plan for the Future By: Jonathan Lee (ECE), Jackson Towle (RBE), Nick Wright (MAC) **Advisors: Professor Elizabeth Stoddard and Professor Kristen Wobbe**

Goal Identify ways to reduce the decline of yellowfin tuna stocks in the South China

Choosing a Solution

Factors	Weights	Solutions		
		Mobile Hatchery	TURF	Peace Park
Economic	0.25	2	4	
Environmental	0.25	4	4	5
Social	0.5	5		I
Totals:		4	2.5	2

Our Decision

InnovaSea SeaStationTM



1000

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- remaining tuna

Costs

Hatchery: \$100,000 to \$150,000

SeaStation: \$250,000

Fish feed: \$981,000 per year

Removing edible fish from local communities

Considerations

Hire specialists Create artificial breeding stock Find alternative feeding methods Get agricultural subsidies



How it Works

Establish breeding colony • Grow tuna within Hatchery to 30cm • Move 5000 tuna to 4 SeaStations • Release 20% of tuna at 2 years old, harvest

Results

Benefits

Minimal Maintenance

Minimal Environmental Damage

Break even within 20 years

1800 tonnes of yellowfin tuna released

Yellowfin tuna stocks will replenish