



# BIOGAS FROM MARINE BIOMASS

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## Chile

9000 Km of sea coast



Seaweeds: 87 chlorophytas  
103 pheophytas  
298 Rodophytas



Chasca, *Gelidium lingulatum*

Chascón, *Lessonia nigrescens*

Huiro, *Macrocystis integrifolia*

Cochayuyo, *Durvillea antarctica*



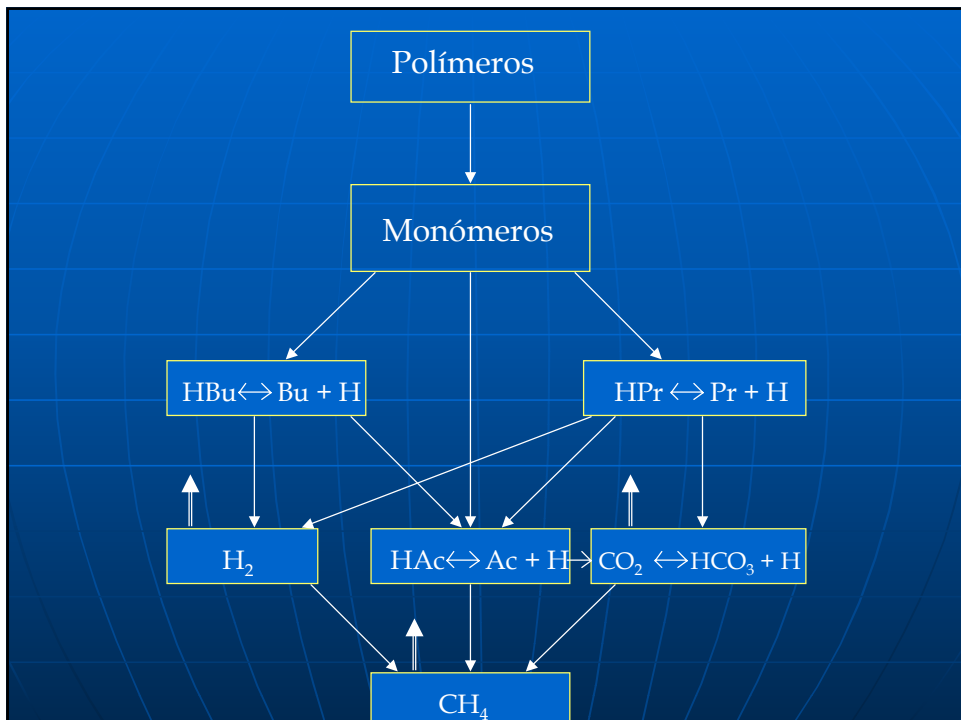
22 % of the labor force  
in fishery industry

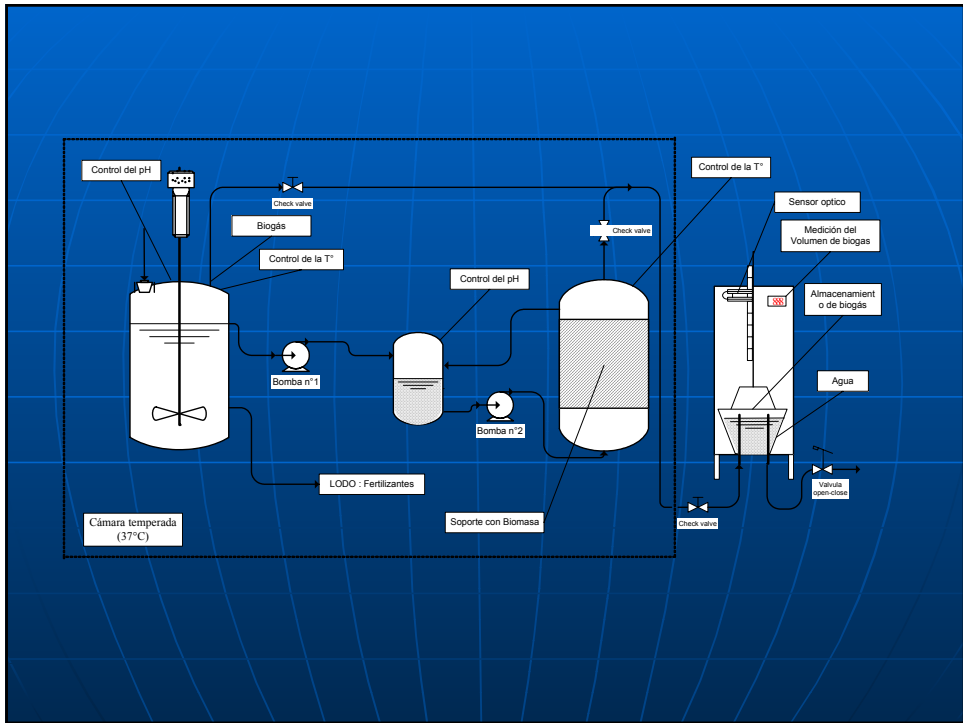
# Biogas production from seaweeds

Seaweed : mainly agar, carrageen, alginates

Low lignin content

	% p/p
Carbon	35,6
Nitrogen	2.96
Sulphur	3.52
Hydrogen	2.96

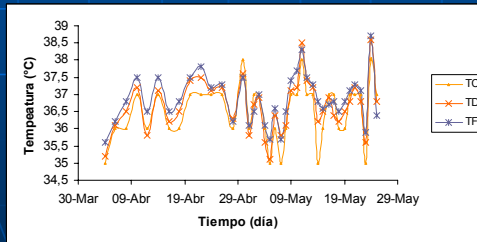
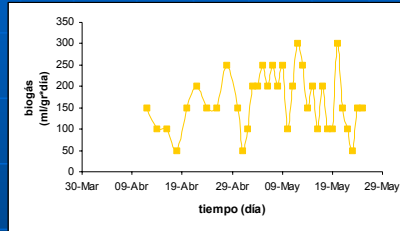




## Experimental Set-up



## Biogas production (ml/g sw)



## Temperature variation

## Conclusions

- Preliminary results shows a maximum yield of 300 (mL/g) under non optimal conditions.
- 300 (m<sup>3</sup>/ton) (65 % methane)  
=>1760 KWh /ton of seaweed
- This system could be used for bioenergy generation in small coastal communities

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