The impact of collective use rights on share contracts: the case of the Extractive Artisanal Regime (RAE) in Chilean hake fisheries

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ONLINE APPENDIX

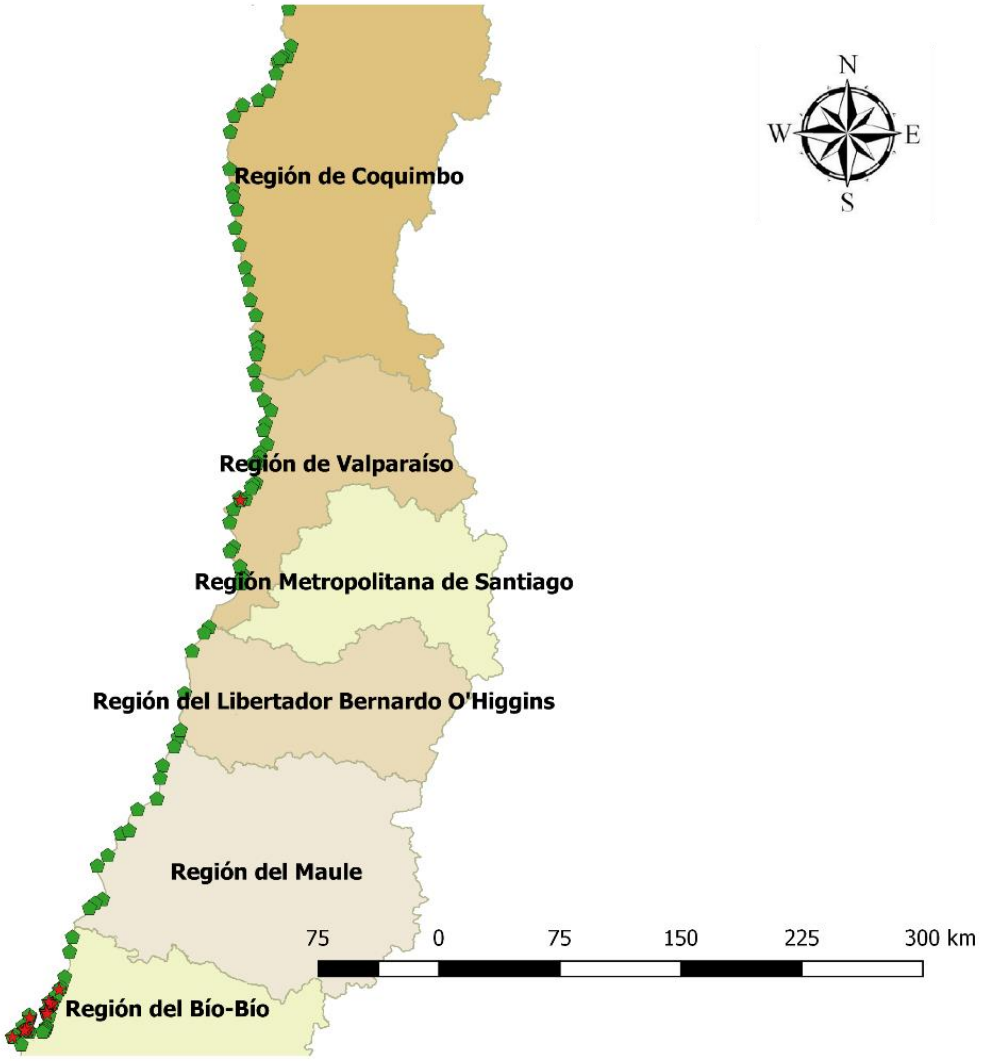

Figure A1. Fishing coves in study area in Chile.
Note: Red dots are treated fishing coves or under RAE by organization.

Table A1. Estimates of the share contract decisions under RAE by organization and RAE by area after the switching regression model for Chilean hake (*Merluccius gayi gayi*) artisanal fisheries for neighboring regions

Variables	Share contract decisions	
	(1) RAE by organization	(2) RAE by area
Vessel owner's characteristics		
Age[2]	-0.00105	9.04e-05
	(0.00253)	(0.00171)
Education[2]	-0.000246	0.00314
	(0.00497)	(0.00272)
Experience[2]	0.000122	0.000612
	(0.00251)	(0.00140)
Another occupation[1]	-0.0214	-0.0167
	(0.0439)	(0.0217)
Vessel's characteristics		
Small oar boat[1]	0.00409	-0.00626
	(0.0295)	(0.0723)
Wood vessel[1]	0.0321	0.0828
	(0.0680)	(0.0557)
Echo sounder[1]	-0.0244	-0.00291
	(0.0562)	(0.0183)
Crew size[3]	0.0177*	-0.0227
	(0.0102)	(0.0148)
Technological and activity characteristics		
Purse-seine net[1]	0.0291	0.0126
	(0.0346)	(0.0873)
Drift-net fishing[1]	-0.0149	-0.0302
	(0.0736)	(0.167)
Climate shock[1]	0.0568*	-0.0251
	(0.0307)	(0.0204)
Fishing settlement characteristics		
Total landings 2007[4]	0.000297	6.27e-06
	(0.000576)	(1.92e-05)
Unemployment rate[5]	0.170	3.574***
	(0.996)	(0.575)
Rural[1]	0.0391	-0.0105
Log pseudolikelihood	176.37	
Wald chi2	22.22	
Number of vessel owners	177	208

Notes: Robust standard errors in parentheses. *** p<0.01, * p<0.1. Std: standard deviation. [1] dummies; [2] in years; [3] number of persons; [4] in tons; [5] proportion.

Table A2. Estimates of RAE per organization treatment at the fishing community for Chilean hake (*Merluccius gayi gayi*) artisanal fisheries for neighboring regions

RAE Regime	**Difference between counterfactual and expected share**
ATE	0.189***
	(0.010)
RAE by area	-0.027***
	(0.006)
RAE by organization	0.328***
	(0.0143)
Number of vessel owners	385

Notes: Robust standard errors in parentheses. *** p<0.01.

Table A3. Two-sample t test with equal variances for equipment shares

RAE Regime	Difference between treatment and control
All regions	
Treated	1.14
Controls	1.25
Difference	0.11
Neighboring regions	
Treated	1.21
Control	0.02
Difference	1.19***

*** p<0.01.

Table A4. Estimates of the log of crew income under RAE by organization and RAE by area after the switching regression model for Chilean hake (*Merluccius gayi gayi*) artisanal fisheries

Variables	Share contract decisions	
	(1) RAE by organization	(2) RAE by area
Vessel owner's characteristics		
Age[2]	-0.0146	0.00238
	(0.0213)	(0.00897)
Education[2]	0.0687	0.0185
	(0.0445)	(0.0202)
Experience[2]	0.00786	-0.00126
	(0.0203)	(0.00736)
Another occupation[1]	-0.148	-0.0140
	(0.352)	(0.141)
Vessel's characteristics		
Small oar boat[1]	-0.137	-0.232
	(0.269)	(0.356)
Small motor boat[1]	0.0505	0.180
	(0.304)	(0.320)
Launch (length<12 m)[1]	0.381	0.117
	(0.374)	(0.311)
Wood vessel[1]	-0.0325	0.448**
	(0.472)	(0.213)
Echo sounder[1]	-0.241	-0.0883
	(0.365)	(0.123)
Crew size[3]	0.108*	-0.159***
	(0.0630)	(0.0609)
Technological and activity characteristics		
Purse-seine net[1]	1.552*	-0.528
	(0.830)	(0.581)
Drift-net fishing[1]	1.131	-0.425
	(0.726)	(0.586)
Climate shock[1]	-0.0689	-0.380***
	(0.215)	(0.127)
Fishing settlement characteristics		
Total landings 2007[4]	0.00498	-0.000135
	(0.00503)	(0.000141)
Unemployment rate[5]	-9.622	1.590
	(9.626)	(2.676)
Rural[1]	-0.435	-0.278
Constant	11.27***	11.51***
	(1.702)	(0.838)
Log pseudo likelihood	-725.12	
Wald χ^2	39.75	
Number of vessel owners	130	390

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Std: standard deviation. [1] dummies; [2] in years; [3] number of persons; [4] in tons; [5] proportion.

Table A5. Estimates of RAE per organization treatment at the fishing community for Chilean hake (*Merluccius gayi gayi*) artisanal fisheries as using the log of crew incomes

RAE Regime	**Difference between counterfactual and expected share**
ATE	2.044***
	(0.103)
RAE by area	-0.117*
	(0.060)
RAE by organization	2.686***
	(0.120)
Number of vessel owners	520

Notes: Robust standard errors in parentheses. *** p<0.01, * p<0.1.