GOVERNING THE . COMMONS

The evolution of institutions for collective action

ELINOR OSTROM

Indiana University



Contents

Series editors' preface pa	ge x i
Preface	xiii
CHAPTER 1	
REFLECTIONS ON THE COMMONS	1
Three influential models	2
The tragedy of the commons	2
The prisoner's dilemma game	3
The logic of collective action	5
The metaphorical use of models	7
Current policy prescriptions	8
Leviathan as the "only" way	8
Privatization as the "only" way	12
The "only" way? ,,	13
An alternative solution	15
An empirical alternative	18
Policy prescriptions as metaphors	21
Policies based on metaphors can be harmful	23
A challenge	23
CHAPTER 2	
AN INSTITUTIONAL APPROACH TO THE STUDY OF	
SELF-ORGANIZATION AND SELF-GOVERNANCE IN CPF	₹
SITUATIONS	29
The CPR situation	30
CPRs and resource units	30
Rational appropriators in complex and uncertain situations	33

Contents

Interdependence, independent action, and collective action	38
The theory of the firm	40
The theory of the state	* 41
Three puzzles: supply, commitment, and monitoring *	42
The problem of supply	42
The problem of credible commitment	43
The problem of mutual monitoring	45
Framing inquiry	45
Appropriation and provision problems	46
Multiple levels of analysis	50
Studying institutions in field settings	55
CHAPTER 3	
ANALYZING LONG-ENDURING, SELF-ORGANIZED, A	AND
SELF-GOVERNED CPRs	58
Communal tenure in high mountain meadows and forests	61
Torbel, Switzerland	61
Hirano, Nagaike, and Yamanoka villages in Japan	65
Huerta irrigation institutions	69
Valencia	71
Murcia and Orihuela	76
Alicante	78
Zanjera irrigation communities in the Philippines	82
Similarities among enduring, self-governing CPR institutions	88
Clearly defined boundaries	91
Congruence between appropriation and provision rules and	
local conditions	92
Collective-choice arrangements	93
Monitoring	94
Graduated sanctions	94
Conflict-resolution mechanisms	100
Minimal recognition of rights to organize	101
Nested enterprises	101
CHAPTER 4	
ANALYZING INSTITUTIONAL CHANGE	103
The competitive pumping race.,	104
The setting	104
The logic of the water-rights game	106
The litigation gamdf	111

Contents

The Raymond Basin negotiations	111
The West Basin negotiations	114
The Central Basin litigation	123
Conformance of parties to negotiated settlements	125
The entrepreneurship game	127
Reasons for forming a district to include both basins	130
Reasons against forming a district to include both basins	131
The polycentric public-enterprise game	133
The analysis of institutional supply	136
Incremental, sequential, and self-transforming institutional	
change in a facilitative political regime	137
Reformulating the analysis of institutional change	139
CHAPTER 5	
ANALYZING INSTITUTIONAL FAILURES	
AND FRAGILITIES	143
Two Turkish inshore fisheries with continuing CPR problems	144
California groundwater basins with continuing CPR problems	146
A Sri Lankan fishery	149
Irrigation development projects in Sri Lanka	157
The fragility of Nova Scotian inshore fisheries	173
Lessons to be learned from comparing the cases in this study	178
CHAPTER 6	
A FRAMEWORK FOR ANALYSIS OF SELF-ORGANIZING	
AND SELF-GOVERNING CPRs	182
The problems of supply, credible commitment, and mutual	
monitoring	185
A framework for analyzing institutional choice	192
Evaluating benefits	195
Evaluating costs	198
Evaluating shared norms and other opportunities	205
The process of institutional change	207
Predicting institutional change	210
A challenge to scholarship in the social sciences	214
Notes	217
References	245
Index	271
	-/1