NOS-H Workshop Series
The advantages and disadvantages of strong user rights in fisheries

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On the impacts of strong user rights in fisheries

Workshop 1
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What are strong user rights in fisheries?

Colloquial

Fishing rights that give users “strong” rights to harvest

“Strong” = cannot be taken away or reduced

More scientific

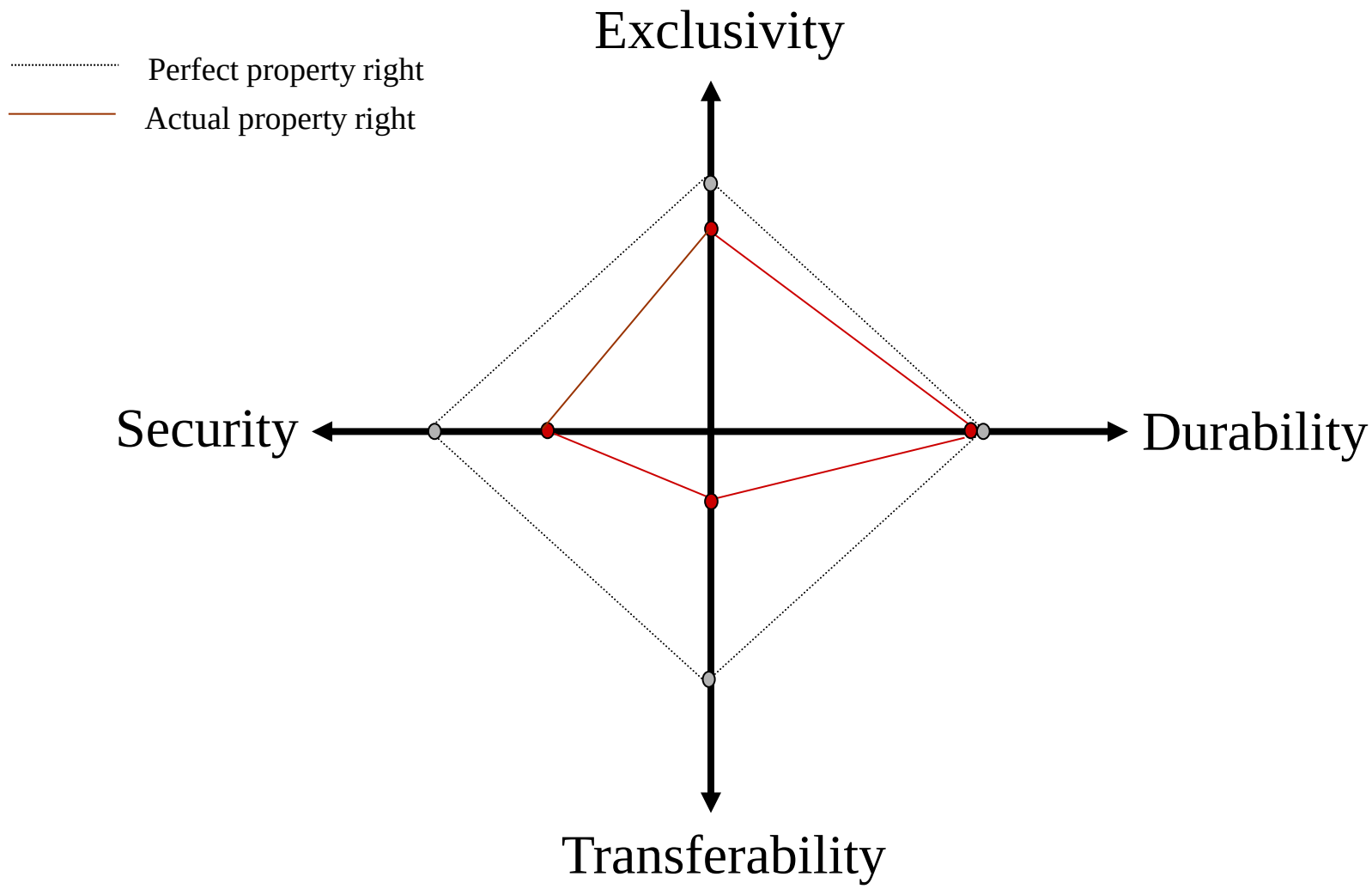
High quality property rights in harvesting

(Score highly on a property rights quality index)

Quality of Property Rights

- Many important attributes
- The following are often quoted
  - Security
  - Exclusivity
  - Durability
  - Transferability

Property rights footprint



The *Q*-measure of Property Rights Quality

$$Q \equiv S^{\alpha} \cdot E^{\beta} \cdot D^{\gamma} \cdot (w_1 \cdot + w_2 \cdot T^{\delta})$$

S=security, E=exclusivity, D=duration, T=transferability

$\alpha, \beta, \gamma, \delta > 0$; $w_1, w_2 > 0$, $w_1 + w_2 = 1$

Note:

(1) S, E, D are essential; T is not

(2) $Q \in [0,1]$

Q-values for common user rights in fisheries

(Assume perfect security & and duration – ideal types)

***Q*-values for certain common user rights in fisheries: Indicative calculations**			
	Exclusivity	Transferability	*Q*-value
(i) Open access, common property	0.001	0	0.06
(ii) Common pool	0.01	0	0.13
(iii) Licences	0.01	1.0	0.22
(iv) TURFs	0.2-1.0	1.0	0.58-1.0
(v) IQs	0.9	0.0	0.58
(vi) ITQs	0.9	1.0	0.97
(vii) Sole owner rights	0.99	1.0	1.0
Security and duration assumed to have value unity			

Impacts of SURFs

Convenient classification*

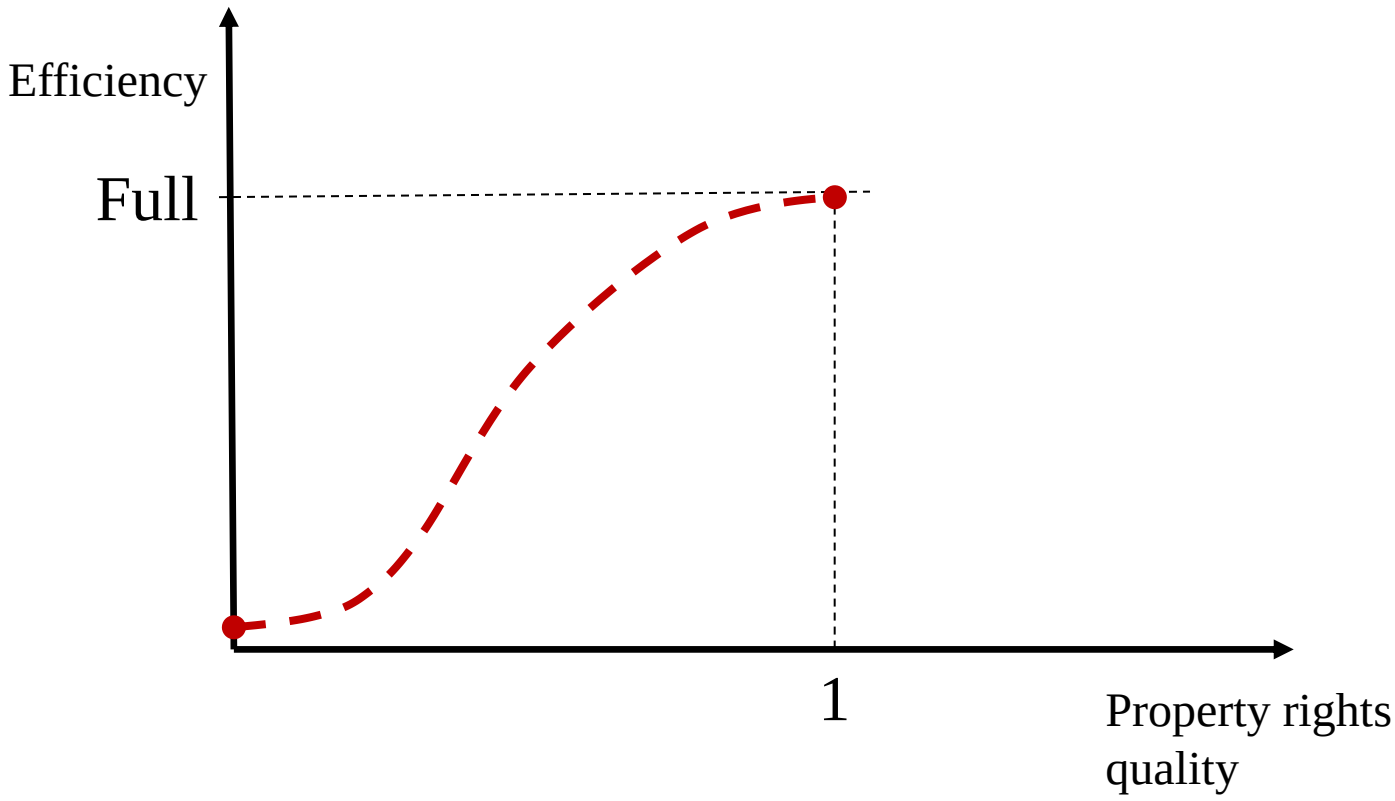
1. Economic
2. Social (including political, cultural etc.)
3. Environmental

* This misses psychological impacts and probably others

Nota bene: All impacts may be economically measured

Economic impacts

Fundamental theorem of property rights



Economic impacts (include)

(i) Reduced fishing effort and use of fishing capital (in mature fisheries and the avoidance of excessive fishing effort and capital use in underdeveloped fisheries)

(ii) Reduced cost of fishing per unit of landings (at each stock level)

(iii) Higher quality and unit value of landings

(iv) Larger commercial fish stocks

(v) Greatly increased profitability in fishing.

(vi) A corresponding increase in the market value of user rights

(vii) Altered distribution of income and wealth

Social impacts (include)

i. Altered structure of the fishing industry
   - Composition of companies (likely fewer & larger)
   - Geographical location (fewer locations)
   - Reduced fishing labour
   - Fewer capital units
   - Higher technology and more specialized capital

This implies

i. Previous skills become obsolete
ii. Altered social culture and social hierarchy
iii. Need for adjustments (labour & social arrangements)

Social impacts (continued)

iii. Increased (overall) flow of economic benefits
- Personal
- Communities (taxes) => education, health benefits

iii. But unequally distributed
- Some (individuals/communities) get most of the initial benefits

iv. Altered power relationships
- Because of altered industry structure, income and social status)

v. Altered economic (social, environmental) evolutionary path

Environmental impacts

i. Larger commercial stocks
ii. Possible long-term tendency toward less biological diversity
   - Ecosystem management
iii. Less incidental environmental impacts
   - Fishery impacts
   - Extraneous pollution
iv. More concern for marine health
   - To the extent it helps fisheries
v. Platform for harmonizing different marine use
   - Transferable user rights in fishing

END

Topics

	No of slides
I. What are strong user rights in fisheries	5
II. Impacts of SURFs	3