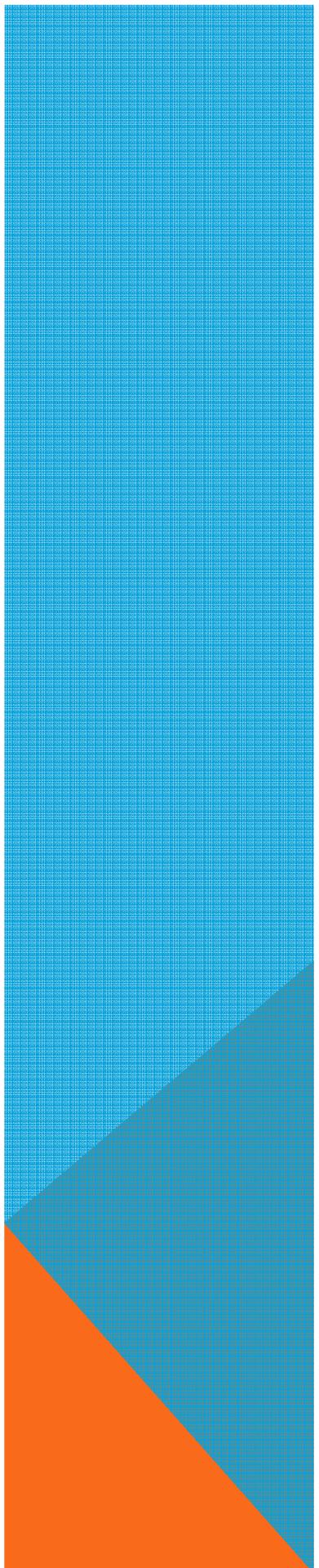


OSTROM'S LEGACIES: A CRITICAL APPRECIATION AND REVISIONIST VIEW

EDUARDO ARARAL
NATIONAL UNIVERSITY OF SINGAPORE





ADVICE FOR PHD STUDENTS

1. Where do you get your research questions?

- Gold mining
- Zeitgeist
- $1 + 1 = 3$
- Challenge convention
- Aha and so what? Big vs. small theory
- Practical questions: differentiation?

2. What methods do you use?

- Its the question!
- Carpenter's tool box (lab, nat ex, econ, GT, GIS, ABM, RTC, HIA, AN, etc.)
- Intuition
- Description, prediction and prescription? Carpenter's tool box (lab, nat ex, econ, GT, GIS, ABM, RTC, HIA, AN, etc.)

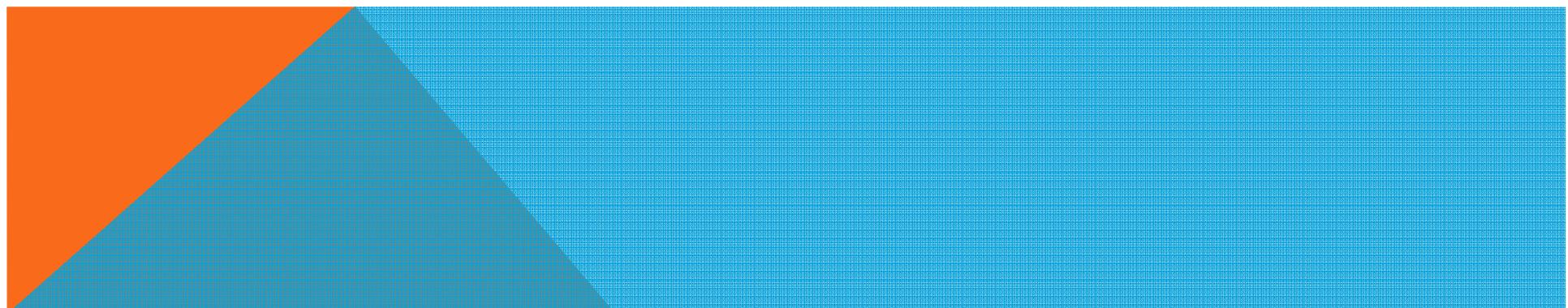
Horse barn / Engage the phenomena / 10K

Its an Ergodic world!

QUESTIONS

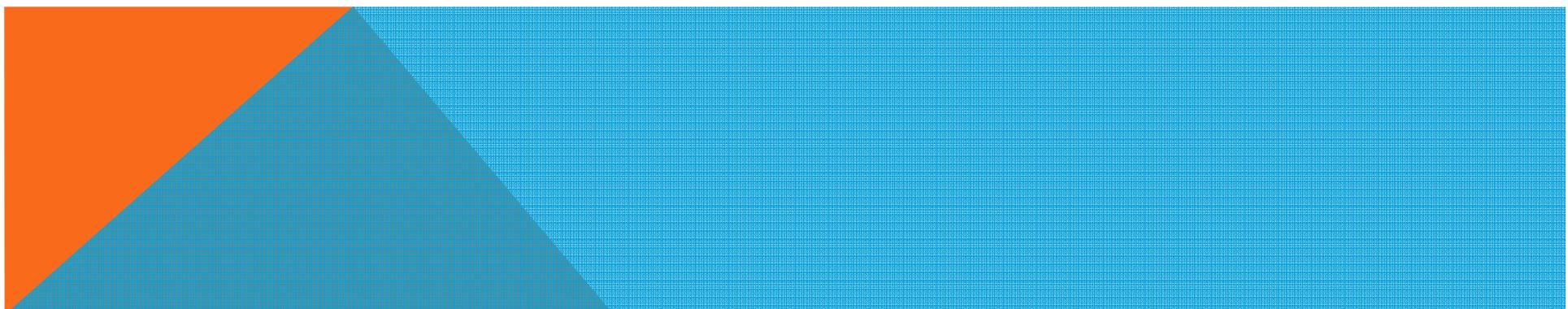
Can we generalize Ostrom's institutional design principles for long-lived commons?

How justified is Ostrom's critique of privatization as a solution to the tragedy of the commons?



MY CLAIMS

1. Studies generalizing Ostrom's design principles are flawed
2. Ostrom is justified for her critique of the Leviathan solution to the tragedy of commons
3.but a rethinking is needed of her critique of private property rights and markets.



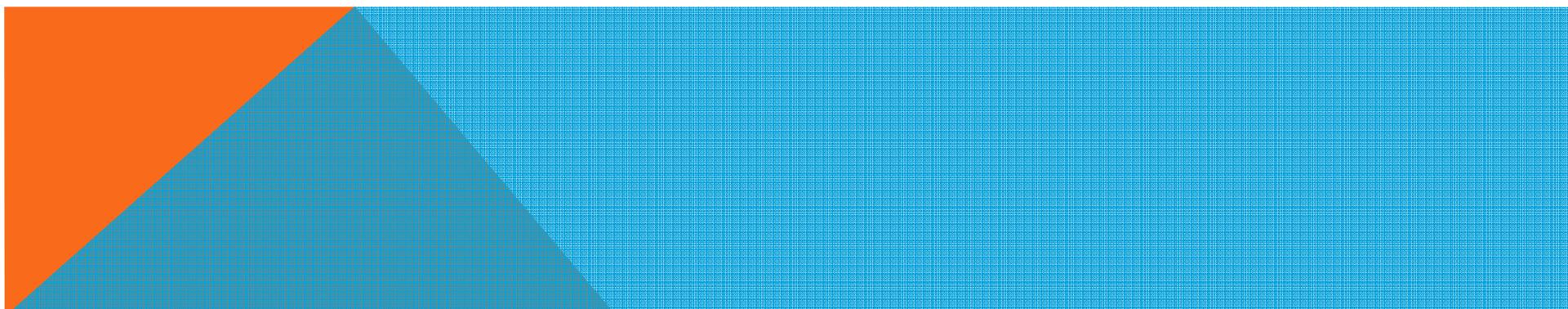
THE COMMONS DEBATE

Hardin (1968) – common property resources (atmosphere, oceans, forests, pasture, water resources, wildlife, urban commons) → Tragedy of the commons

- Solution: privatization or centralized state control

Ostrom (1991)

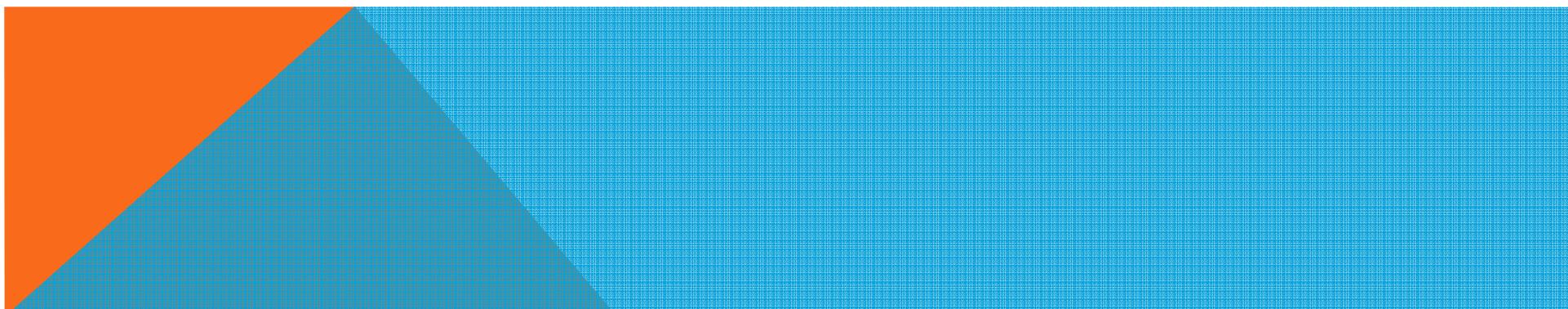
- critiqued privatization and leviathan solutions.
- Resource users can bargain with each other to design institutions to govern the commons without need for privatization or centralized government control.



OSTROM'S 15 EXAMPLES OF COMMONS

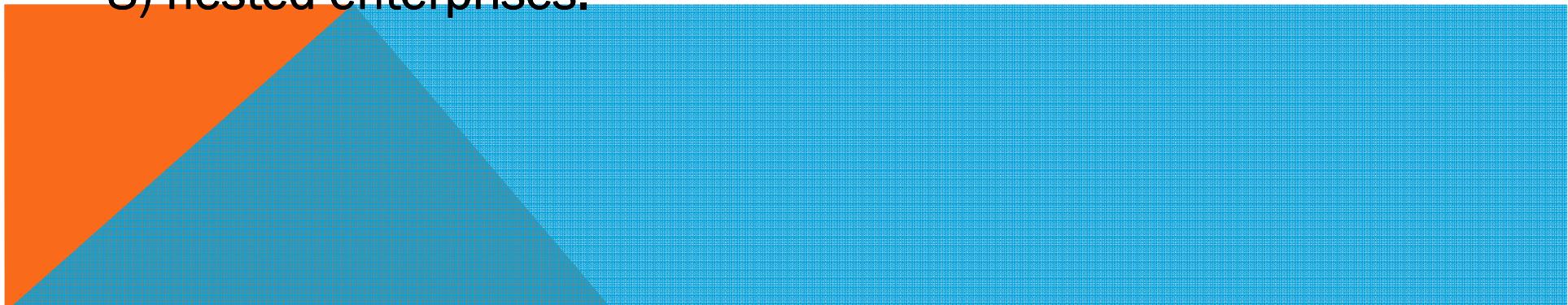
- Swiss meadows
- Japanese mountain meadows
- Irrigation societies Philippines and Spain
- Underground water in California
- Fisheries in Turkey and Sri Lanka

- Divided into successful/ robust / fragile cases

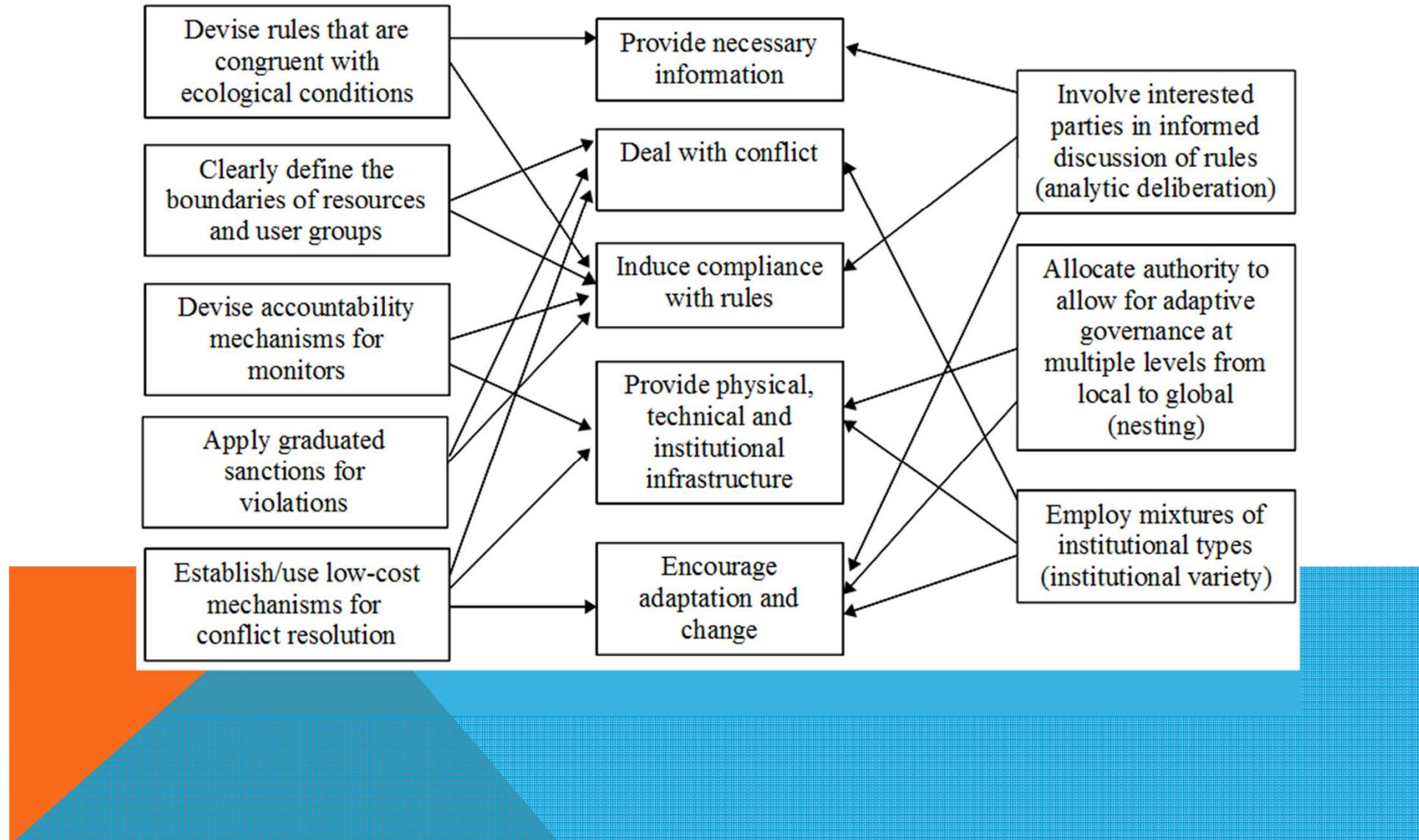


OSTROM'S DESIGN PRINCIPLES

- 1) well-defined boundaries;
- 2) congruence between appropriation and provision rules and local conditions;
- 3) collective-choice arrangements;
- 4) monitoring;
- 5) graduated sanctions;
- 6) low cost conflict-resolution mechanisms;
- 7) minimum recognition of rights; and
- 8) nested enterprises.



OSTROM'S COMPLEX MECHANISMS

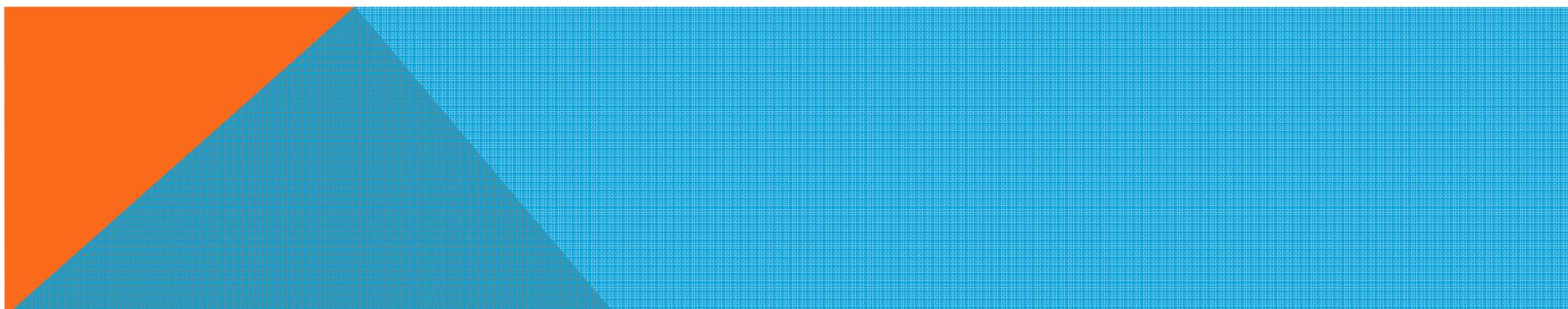


STUDIES ON OSTROM'S DESIGN PRINCIPLES

COX ET AL, (2010)

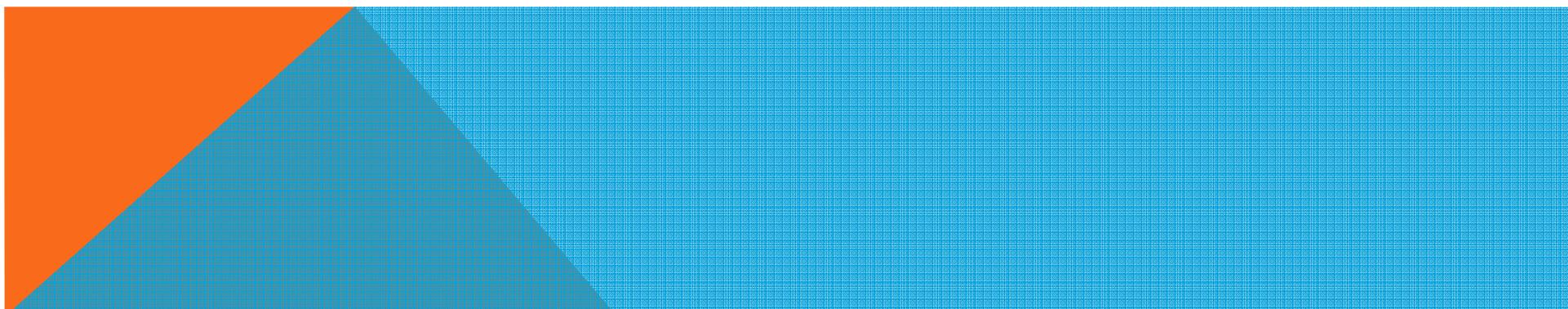
168 case studies (irrigation, fisheries,
ground/surface water,

Many design principles have statistically
significant effects on outcomes of the
commons and by implication has some
external validity.



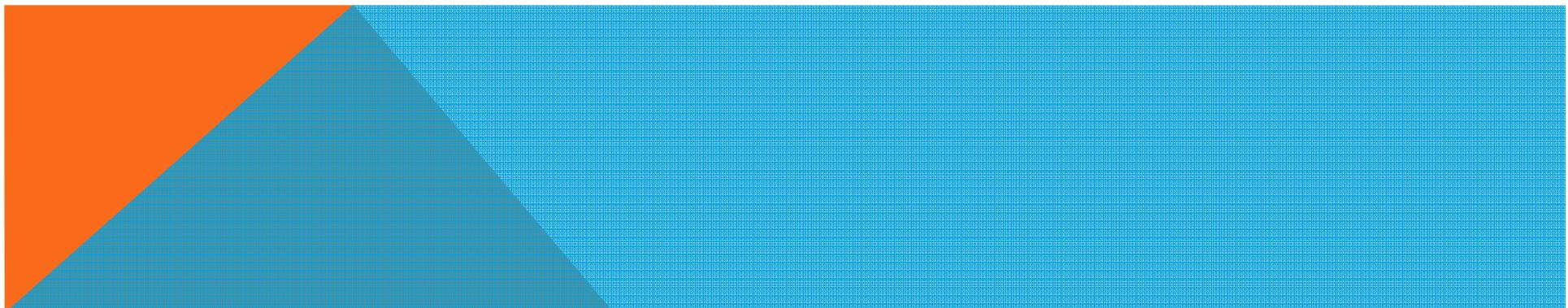
STUDIES GENERALIZING OSTROM'S DESIGN PRINCIPLES ARE FLAWED

- Confirmatory bias / halo effect
- Specification / identification problems
- Multi collinearity
- Selection bias
- Endogeneity



Q# 2: IS OSTROM JUSTIFIED ON HER CRITIQUE OF PRIVATE PROPERTY TO GOVERN THE COMMONS?

“(Ostrom) has challenged the conventional wisdom that *common property* is poorly managed and should be either regulated by central authorities or privatized.” - **Nobel Prize Citation**

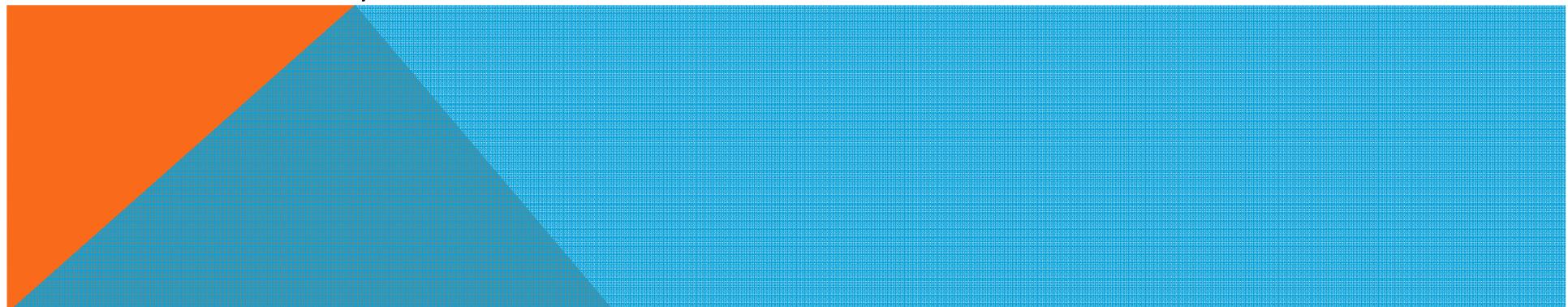


COMMON PROPERTY VS. PRIVATE PROPERTY

	Excludable	Non-excludable
Rivalrous	Private goods	Commons
Non-rivalrous	Club goods	Public goods

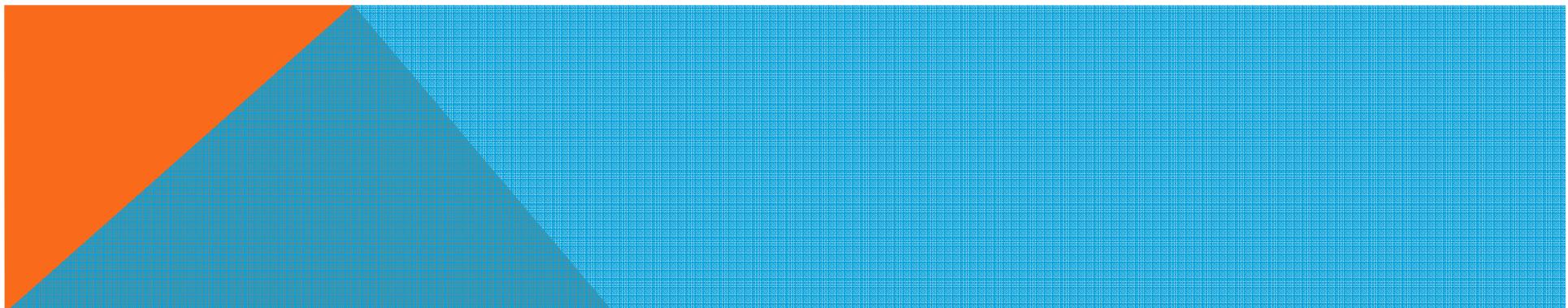
Source: Ostrom and Ostrom, 1977

EXCLUDABLE: RIGHTS ARE DEFINED, UNITIZED, MONITORED, ENFORCED, TRADED



OSTROM'S CRITIQUE OF PRIVATE PROPERTY

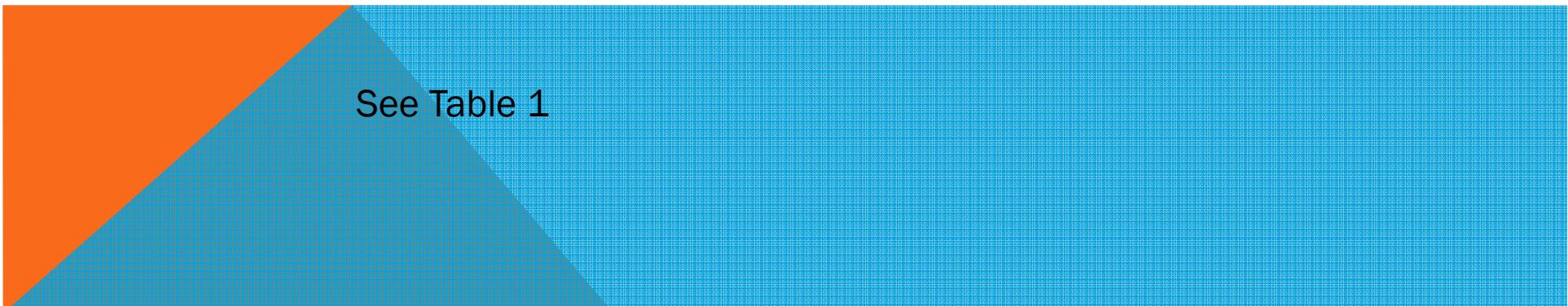
“...even when particular rights are unitized, quantified and salable, the resource system is still likely to be owned in common rather than individually.”



MY ARGUMENT

SUCCESSFUL EXAMPLES BY OSTRÖM ARE ACTUALLY
**PRIVATE PROPERTY, NOT OPEN ACCES COMMON
PROPERTY → CONSISTENT WITH EXPECTATIONS OF
STANDARD MODEL**

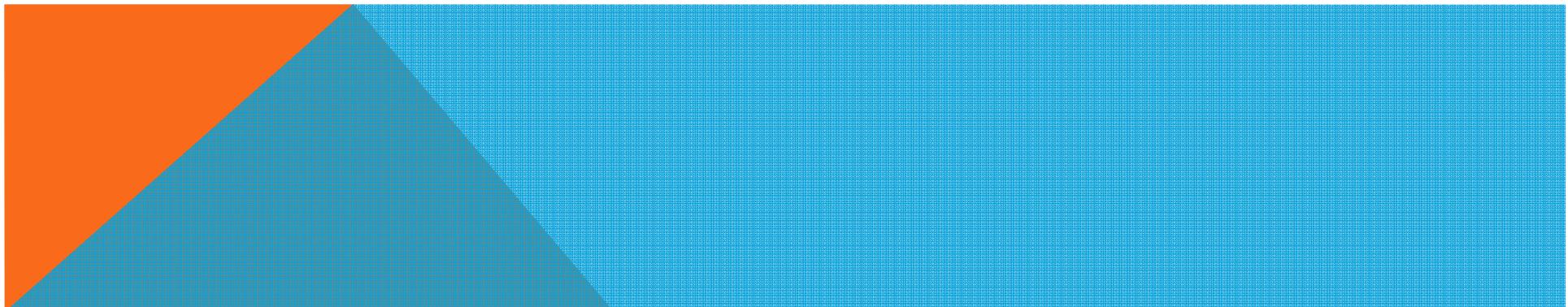
UNSUCCESSFUL EXAMPLES (GROUND WATER,
FISHERIES) ARE COMMON PROPERTY → CONSISTENT
WITH EXPECTATIONS OF STANDARD MODEL



See Table 1

FINALLY → OSTRÖM'S DESIGN PRINCIPLES → PRIVATE PROPERTY

- 1) well-defined boundaries;
- 2) congruence between appropriation and provision rules and local conditions;
- 3) collective-choice arrangements;
- 4) monitoring;
- 5) graduated sanctions;
- 6) low cost conflict-resolution mechanisms;
- 7) minimum recognition of rights; and



.....FINALLY, WHAT ABOUT COLLECTIVE ACTION PROBLEMS IN THESE PRIVATE PROPERTY?

- supply of institutions,
- credible commitment and
- problem of mutual monitoring

- **STANDARD MODEL:** As value of resource increases, there will be a demand for institutions to protect them.
- rights owners will find ways to supply institutions (through self-regulation, private policing or by demanding external protection) to capture benefits

