**WHY CARE**

...and why now

One-off landers to a sustainable ecosystem... How?

1. Ecosystems require interdependence. Ability to provide a service requires coordination design.
2. Waiting for the need vs. Designing mechanisms: distribute the cost of infrastructure and reduce the cost of access.
3. Like with ISRU engineering: high level concepts aren’t enough. Need implementation details.
4. "Doing things differently this time"... takes time.

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**THE GOODS MATRIX IN ECONOMICS APPLIED TO LUNAR RESOURCES**

**LOW EXCLUDABILITY**

- Public Good
- Common Pool

- Vacuum
- Incident Solar
- Dust Mitigation
- Moon as a Whole

**NON RIVALROUS**

- Retro-Reflectors
- Commercial Prospecting Data

**RIVALROUS**

- Landing Pads
- Water Ice & Rare Earth
- Rare Earth Metals
- Peaks of Eternal Light
- Rover
- Habitats

- Toll Good
- Private Good

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**SCENARIOS**

1. A government invests a great deal to identify a minable ice deposit. Do they get priority access rights? For how long? What size? Are they compelled to share access? Allowed to sell products? What standards or interfaces?
2. Several small private actors wish to invest in a power station together and charge for access to others. Can they limit access? With what authority?

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**VOCABULARY**

**GOOD TYPES IN ECONOMICS [3]**

"Excludable": the degree to which it is possible to prevent others from accessing the resource.

"Rivalrous": the degree to which one actor’s use of the resource competes with another’s.

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**BUNDLES OF RIGHTS [2]**

PROPERTY REGIMES ≡ PRIVATE PROPERTY

**Step 1: Constitutional Action**: Designing the decision making process.

**Step 2: Collective Choice rights**: Using the decision making process.

- Decisions about (a) Exclusion, (b) Management and (c) Alienation

**Step 3: Operational rights**: the results of the decision making process

- (a) Access and (b) Withdrawal

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**Credits & References**