

Using Catchment Collectives to achieve Water Quality Outcomes: Insight from a Leading-edge Approach in the Hawke's Bay Region (TANK)

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Presenters:

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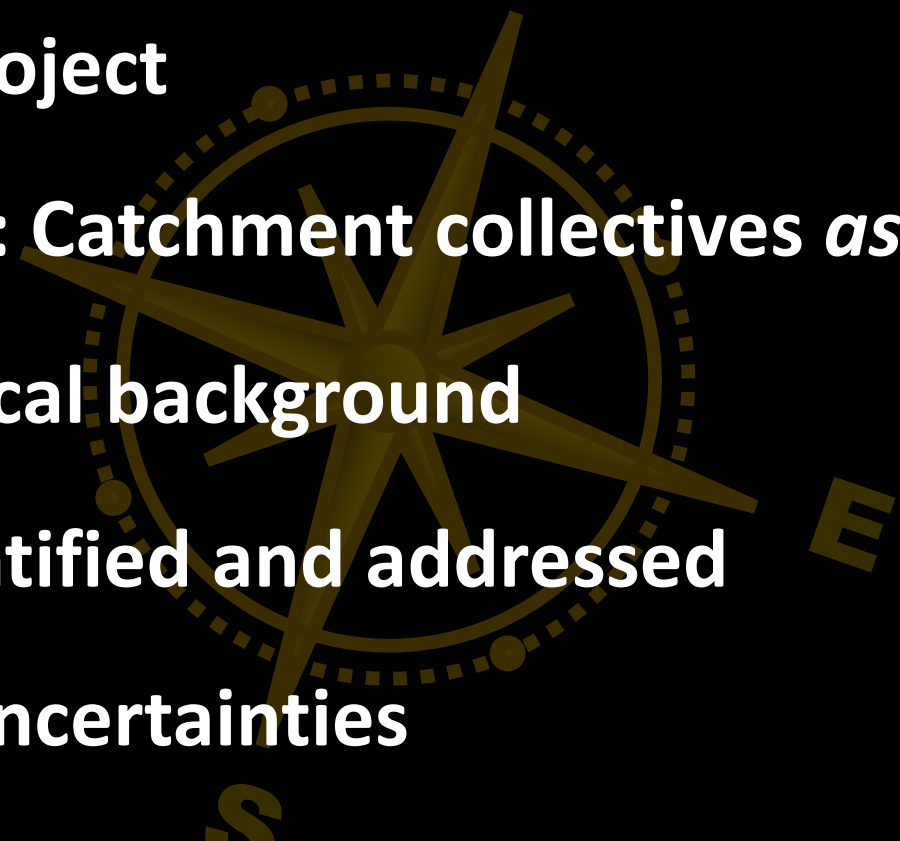
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1. What are these *Catchment Collectives*?
 2. About the project
 3. The solution: Catchment collectives *as a plan rule*
 4. The theoretical background
 5. Barriers identified and addressed
 6. Remaining uncertainties
 7. Summary & questions

What are these
Catchment Collectives?

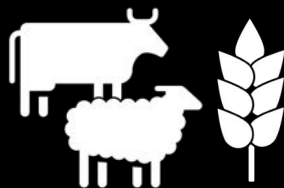


The Tūtaekurī, Ahuriri, Ngaruroro & Karamū (TANK) catchments:

- Contain highly valued rivers, aquifers, lakes & wetlands,
- Discharge to highly valued estuaries (Waitangi & Ahuriri)



85%



40%



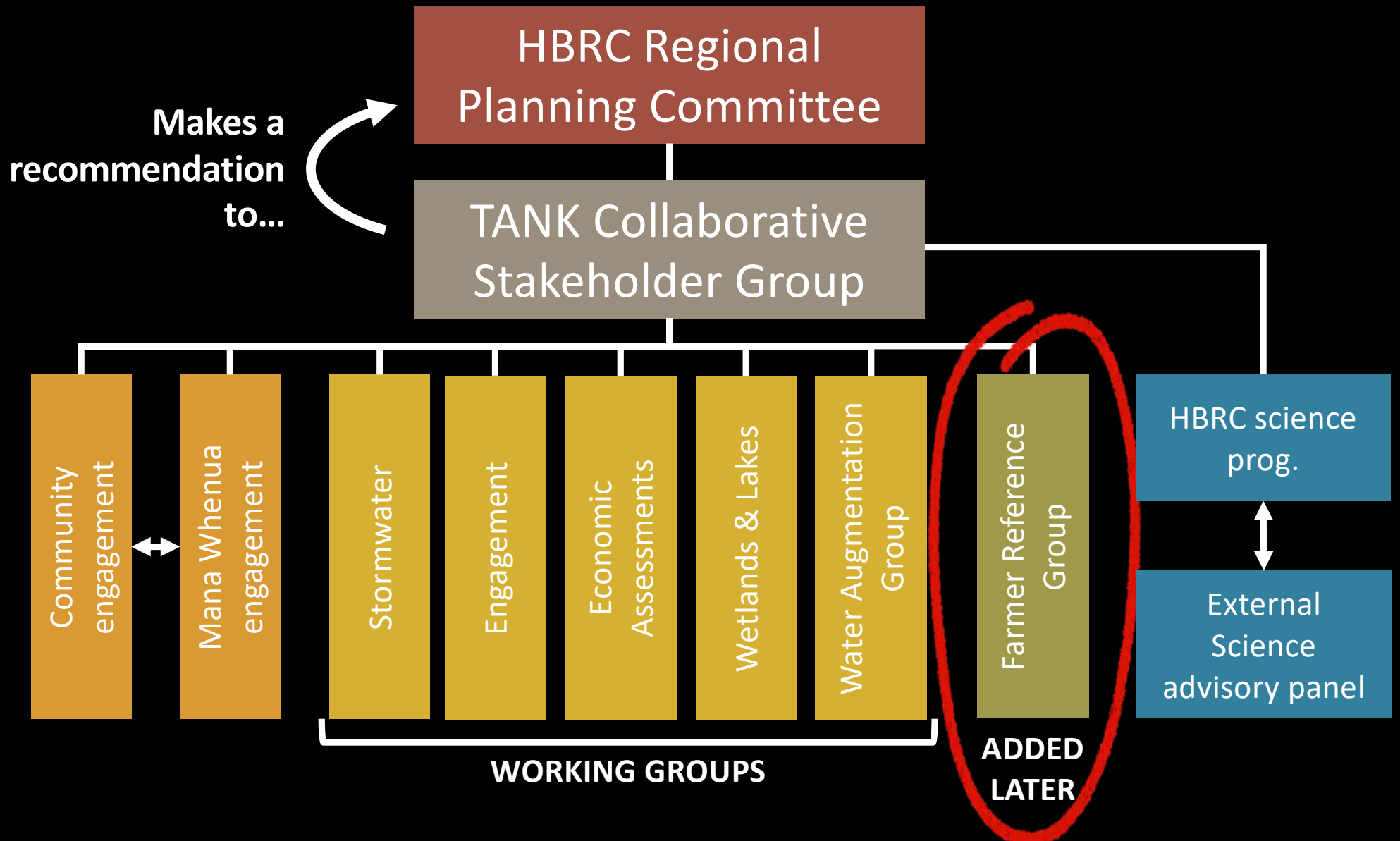
90%



TANK – Collaborative Stakeholder Group

“To enable present and future generations to gain the greatest social, economic, recreational and cultural benefits from our water resources within an environmentally sustainable framework.”





Farmers wanted to:



- Limit the cumulative effects of farming
- Be flexible and innovative with solutions
- Meet water quality objectives
- Give the wider community confidence that water quality objectives would be met

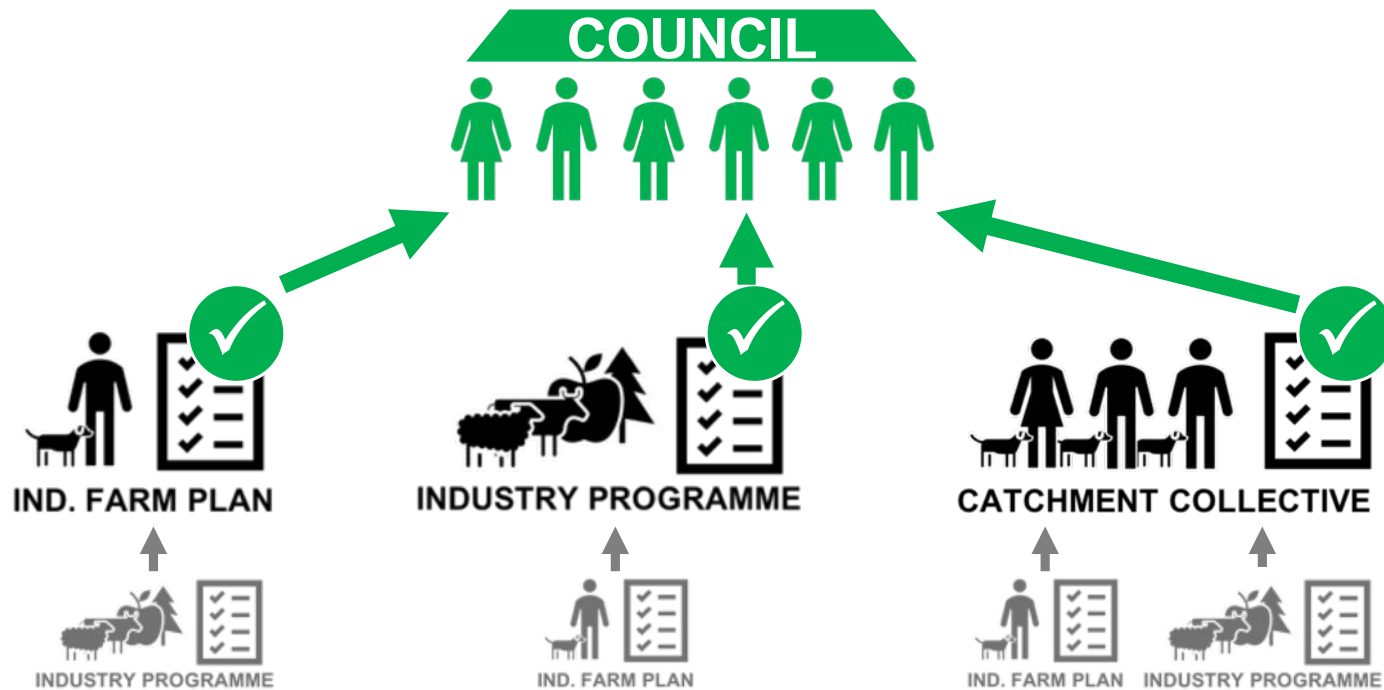
Solution

Desire to *own solutions* and not have mitigations *prescribed*.

Therefore, three *mechanisms* to address freshwater quality objectives were proposed, rather than specific *mitigations*:

- **Individual Farm Plans**
- **Industry Programmes**
- **Catchment Collectives**

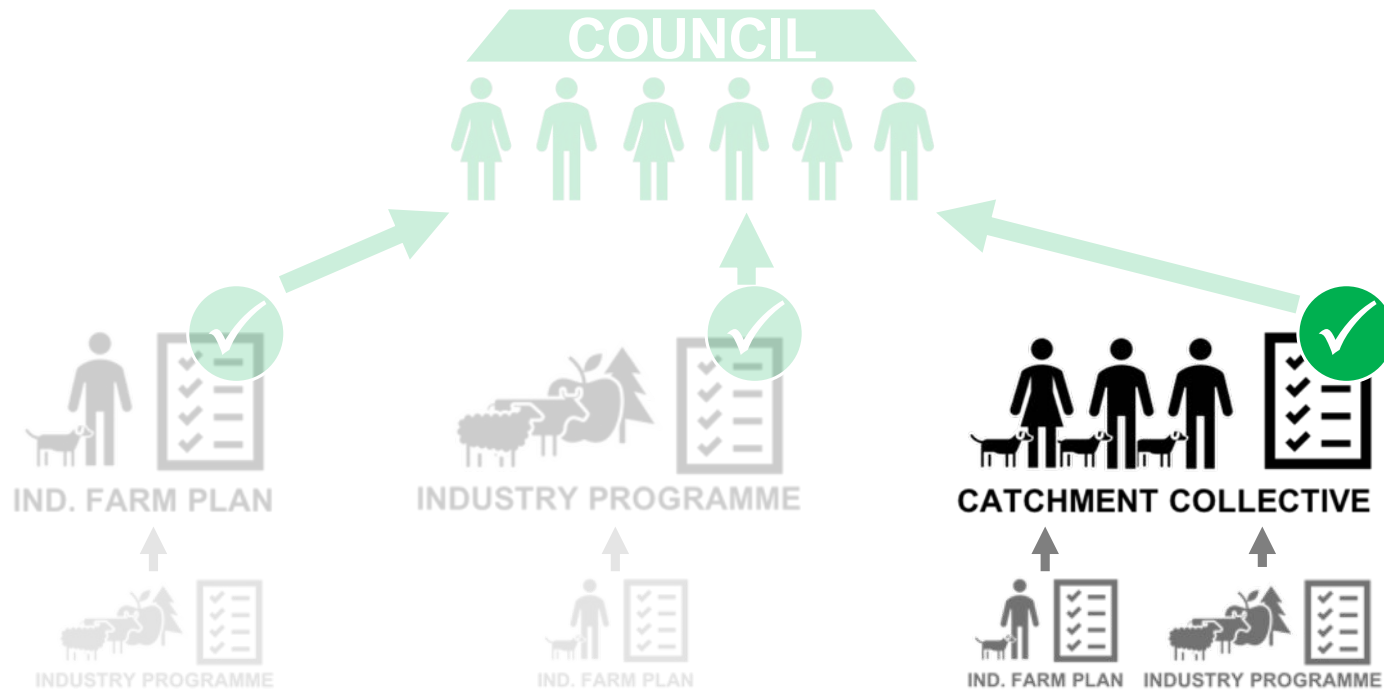
Unanimous support from TANK Stakeholder Group (April 2018)



Could have a Farm Plan signed off by Council & an Industry Programme not signed-off by Council

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Could be in a Catchment Collective that is signed off by Council & a farm plan or Industry Programme that is not signed-off by Council.



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To understand these
Catchment Collectives,
we first review a bit of
behavioural economic theory.

Because it's all about behaviour...

***Can users be easily excluded
from the resource?***

**Not
Excludable**

Excludable

Diminishable

Not Diminishable

Private resource

e.g. cars,
consumer goods,
mineral reserves

Club resource

e.g. subscription based services,
website subscriptions,
Sky TV

Common pool resources

e.g. freshwater resources,
fisheries,
communal forests

Public resource

e.g. wind resources,
sunlight,
radio frequencies

Adapted from Ostrom (1990)



"The Tragedy of the Commons"

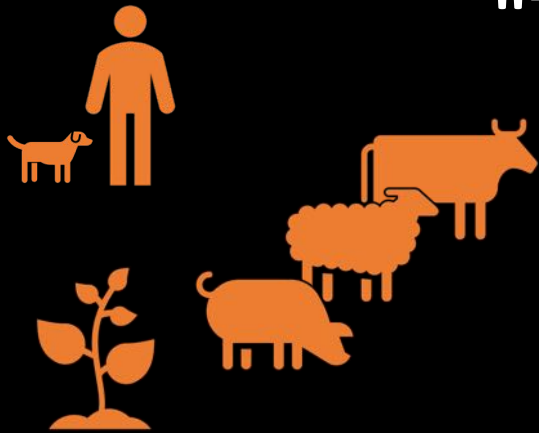
Garrett Hardin (1968)

A ***commons***: a natural resource shared by many individuals.

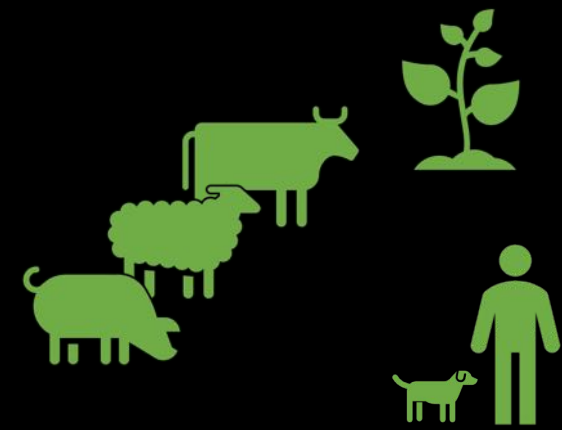
The ***tragedy***: in the absence of regulation, individuals tend to exploit the ***commons*** to their own advantage, typically without limit. Resulting in the exploitation and degradation of the ***common resource....***

"The Tragedy of the Commons"

Example: water quality

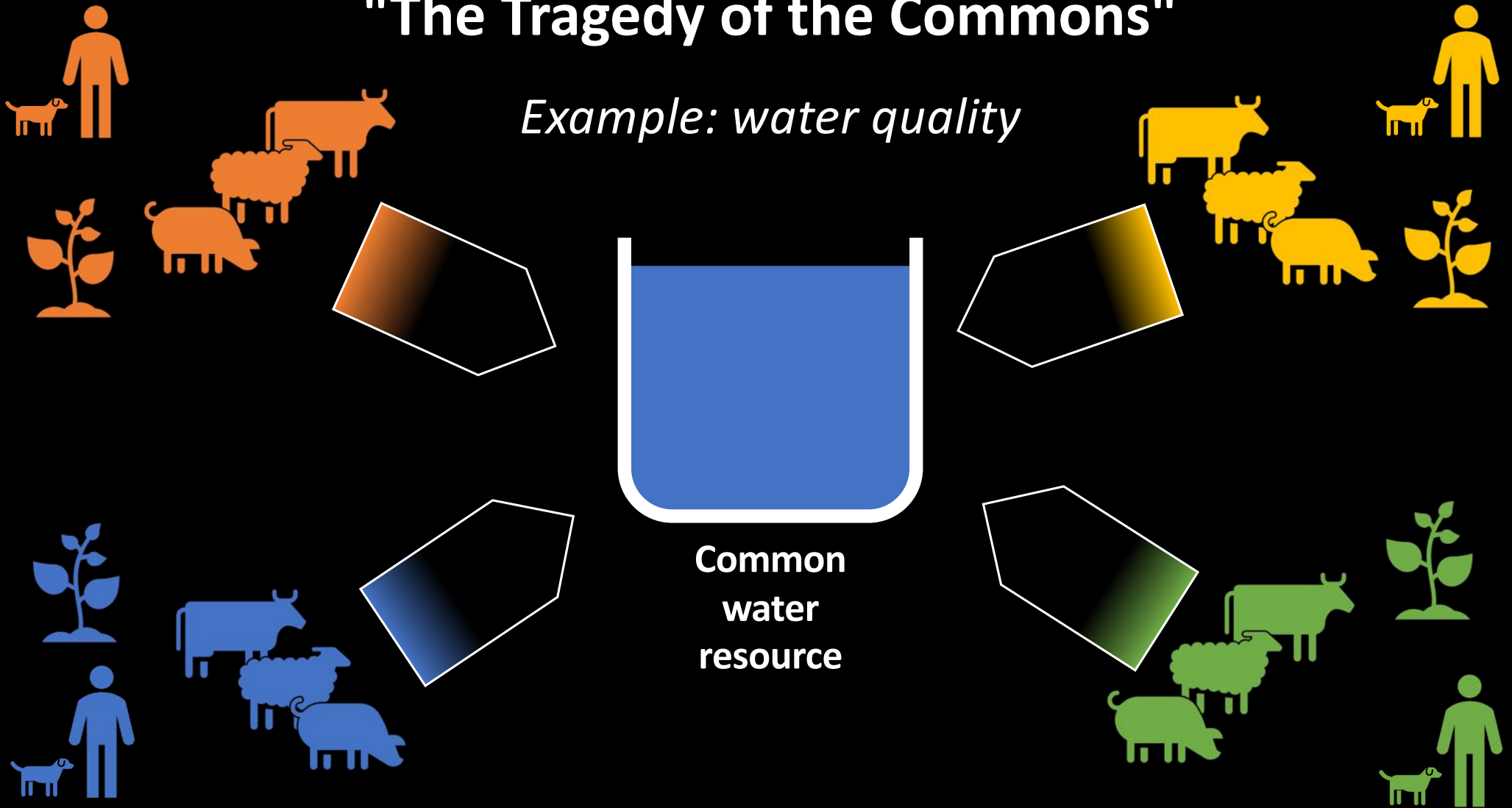


Common
water
resource



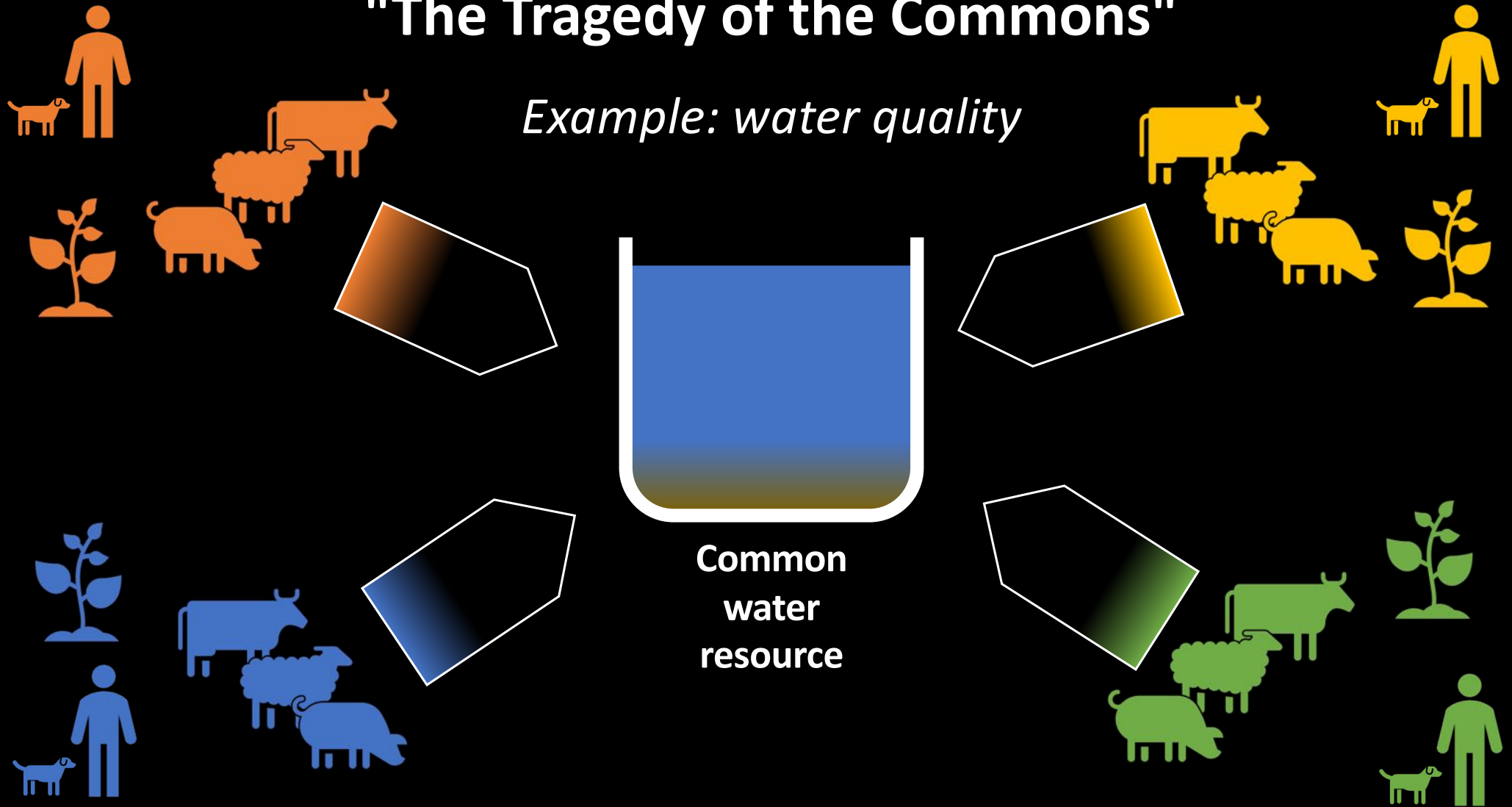
"The Tragedy of the Commons"

Example: water quality



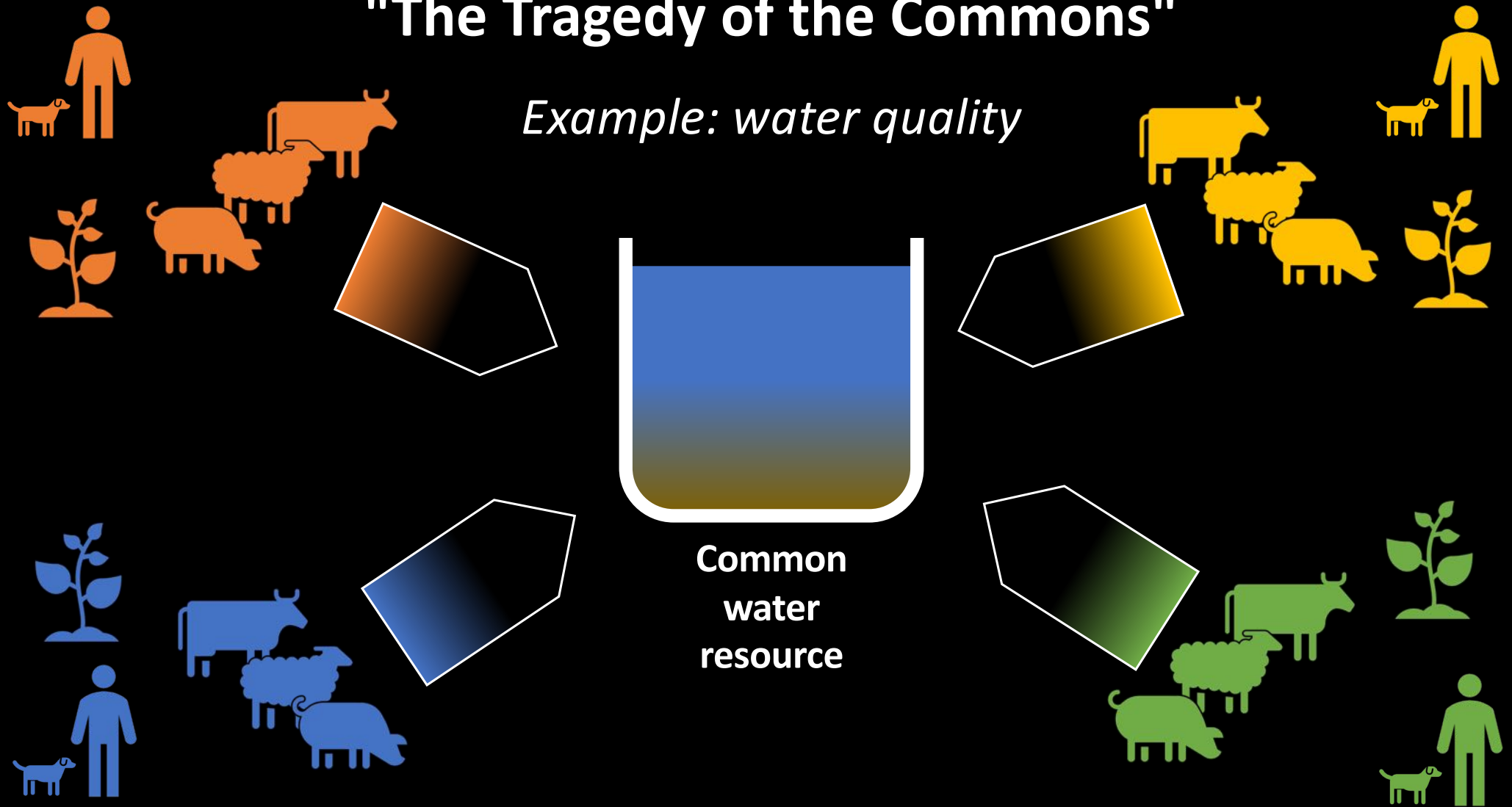
"The Tragedy of the Commons"

Example: water quality



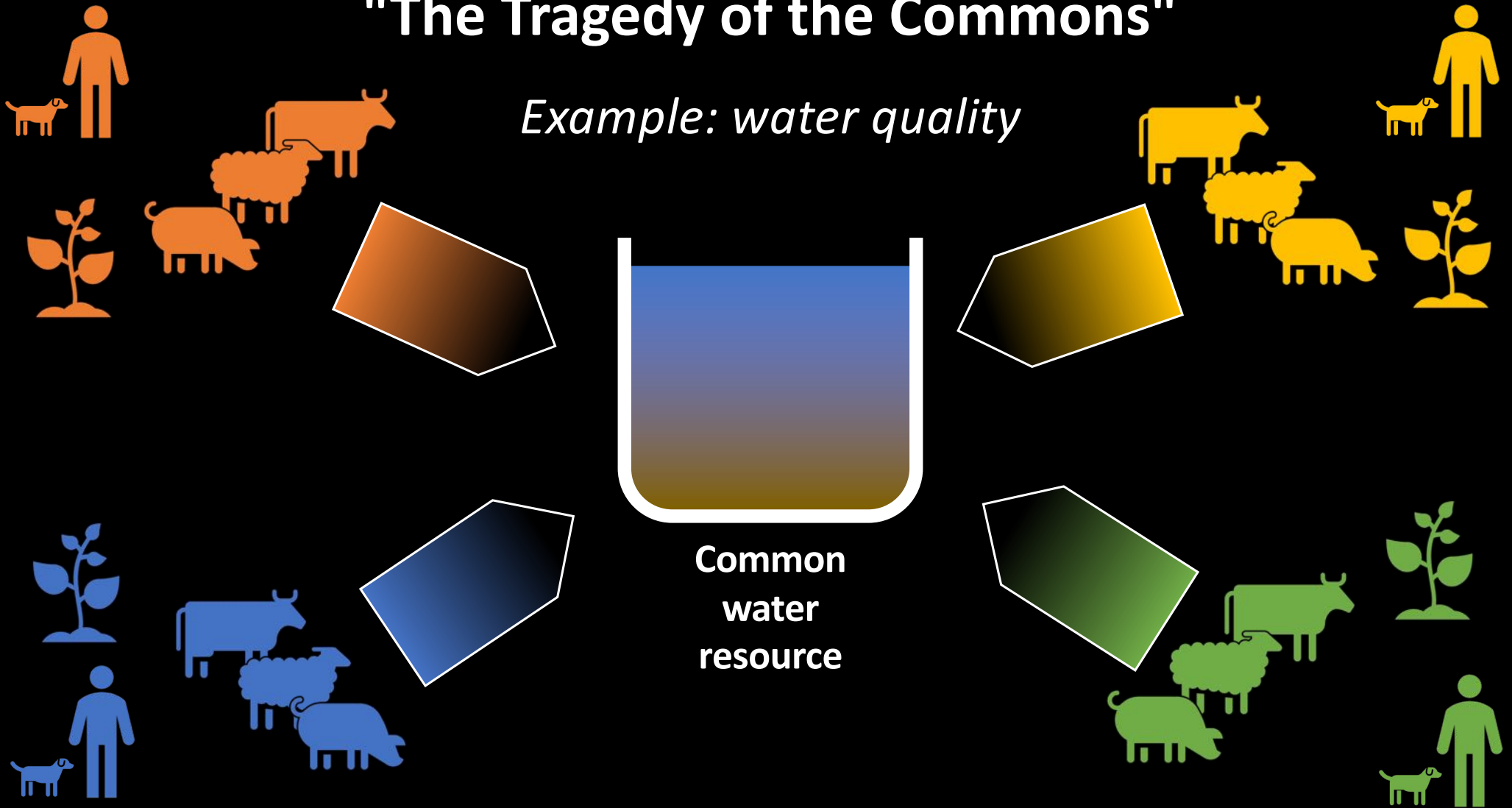
"The Tragedy of the Commons"

Example: water quality



"The Tragedy of the Commons"

Example: water quality



**Standard economic theory says
unregulated Common Pool Resources
will always result in
"The Tragedy of the Commons".**

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Except... it's not true...



Elinor Ostrom

Some
societies/groups
self-organised to
manage common
pool resources,
avoiding collapse

Summary: characteristics of *self-organising groups managing Common Pool Resources*

- *Identifiable* users & resource
- The *effort* it takes is appropriate
- Users can make the *rules*
- *Monitoring* (users & resource)
- Violators can be *prosecuted* (appropriately)
- Low-cost *conflict resolution*
- Authority (if there is one) gives *permission*



So... TANK Catchment Collectives are...

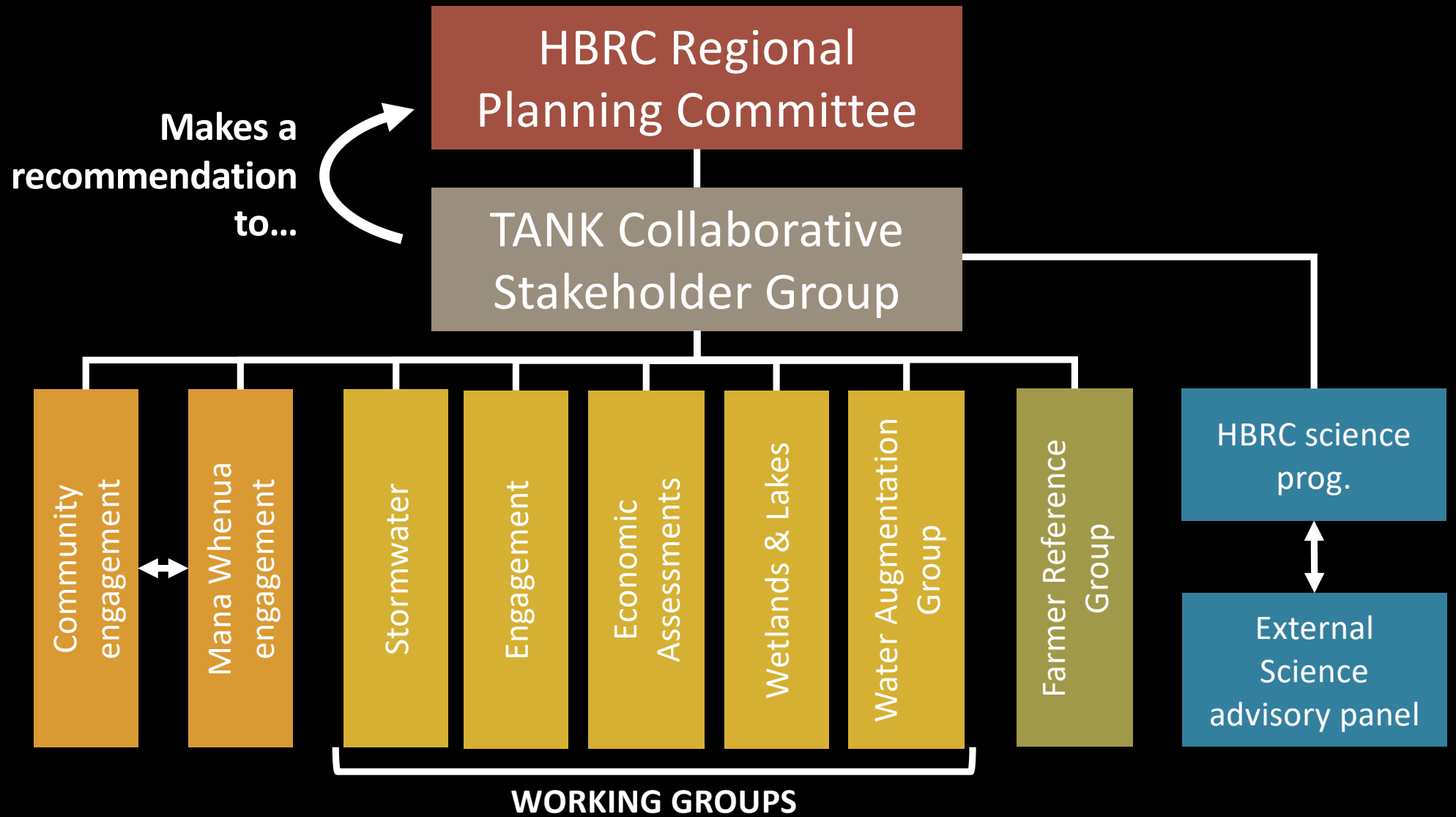
*...self-organising groups trying to manage a
common pool resource of water quality...*

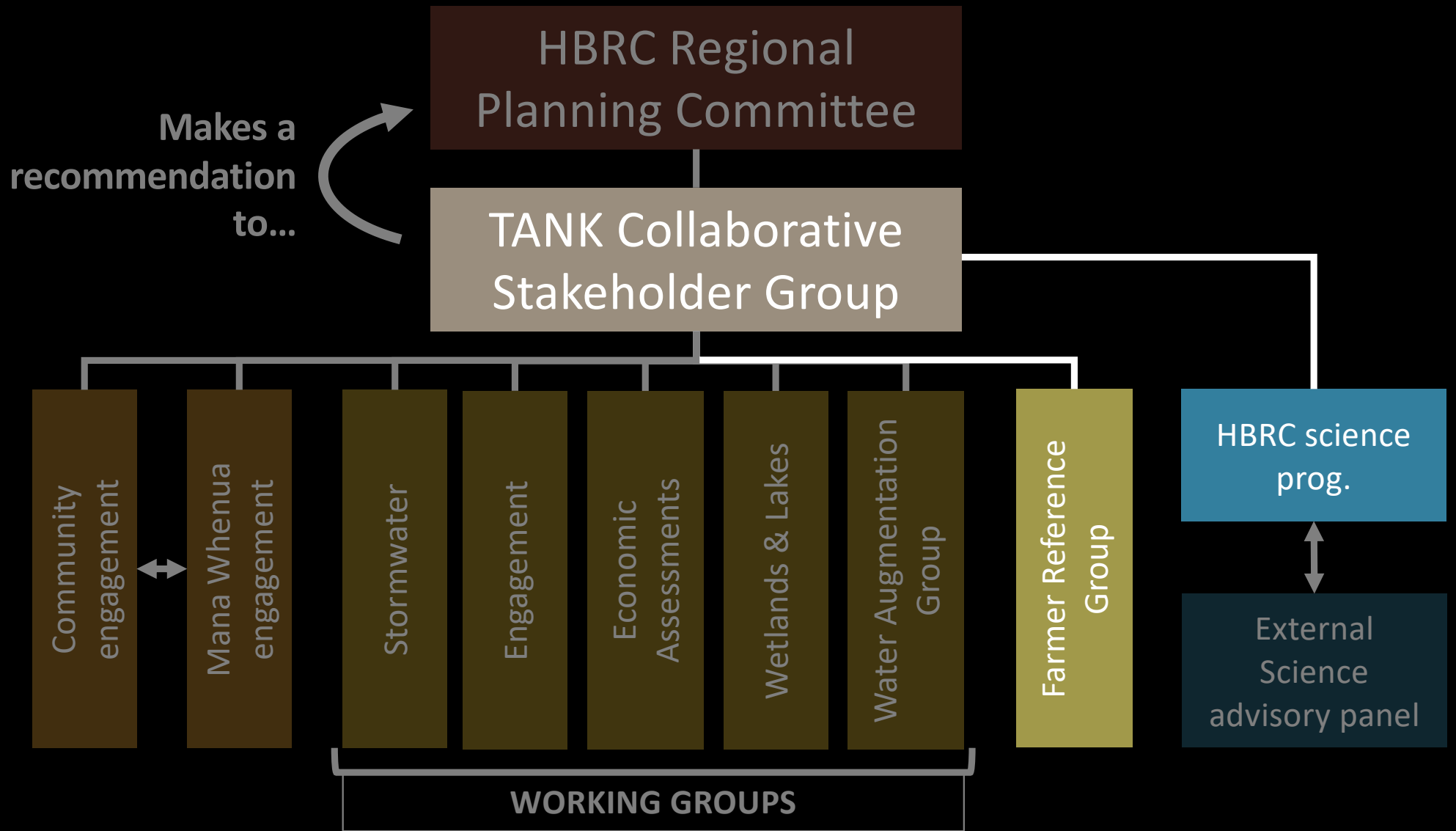
How to determine barriers to adoption?

Interviewed primary producers and council
staff to assess the extent to which

Catchment Collectives

demonstrated Ostrom's characteristics...





Key barriers identified:

- Risk of being too complex
- Risk of mal-aligned expectations
- Some specialist support may be required
- Interpersonal risks / Community division
- Lack of transparency of accountability
(monitoring and enforcement)

A key tension: free-riders vs. conditional cooperators

Free-riders: people who contribute little or nothing to the group, but get the benefits.

Conditional cooperators: Only willing to cooperate so long as others continue to operate in the way that is expected of them

**How has this insight
been applied?**



Governance



Objectives



Risk based assessment

Agreed action

Works



Practices



Monitoring

(& how it will be used)



Reporting



**Conflict resolution
& enforcement**



Governance

Outline how this will be done, complex or simple...



Objectives

What are you trying to achieve? Tie this to freshwater objectives rather than mitigation actions...

Risk-based assessment

Structure consistent with other mechanisms in plan (e.g. Individual Farm Plans).

Avoids unpopular and possibly ineffective 'blanket rules'



Agreed Action

Simple but clear articulation of what individuals have agreed to do as part of the Catchment Collective.

This is to provide clarity for individual planning & budgeting, as well as for potential conflict resolution and enforcement.



Monitoring

Clear, agreed expectations of or for monitoring, especially how it will be used and whether it can be used as 'evidence'.

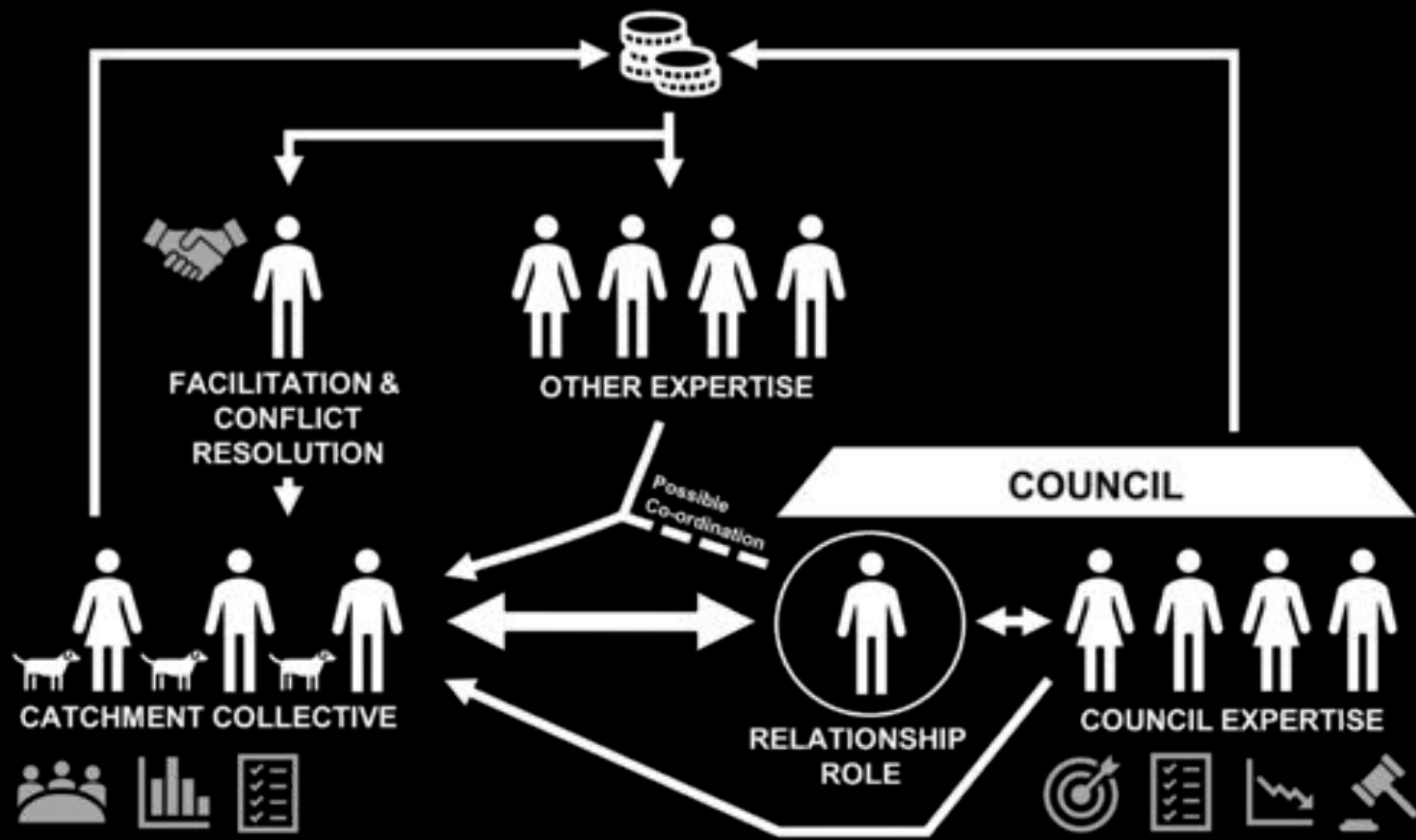


Reporting

Clear, agreed format for reporting.
Where report items need to be compared across collectives (e.g. monitoring) this should be a consistent format.



Conflict resolution & enforcement
Clear process for internal conflict resolution agreed.
Clear process for potential council enforcement agreed.



Summary

Questions?

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Download report from MfE website:

<http://www.mfe.govt.nz/publications/fresh-water/tank-plan-change-barriers-and-risks>