Communication across Worldviews: utilizing knowledge coproduction on Hawai‘i Island to thrive through climate change while preparing for the future

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Manager Climate Corps

Mission:

work with natural and cultural resource managers, policy professionals, community leaders, and other end users to co-develop and deliver scientific information, tools, and techniques that allow stakeholders to anticipate and adapt to climate change in the Pacific Region

Knowledge Coproduction

The process of producing usable, or actionable, science through collaboration between scientists and those who use science to make policy and management decisions.

Meadow, A., Ferguson, D., Guido, Z., Horangic, A., Owen, G., and T. Wall, 2015. Moving toward the Deliberate Coproduction of Climate Science Knowledge. *Weather, Climate, and Society*, 7, 179–191.

Knowledge Coproduction
Foundations

- Apply at any scale
- Stakeholder driven process
- Highly collaborative
  - ➢ two-way communication
- Long-term, iterative, in-person (trust)
- Shifting human behavior: local, present, and personal

Knowledge Network

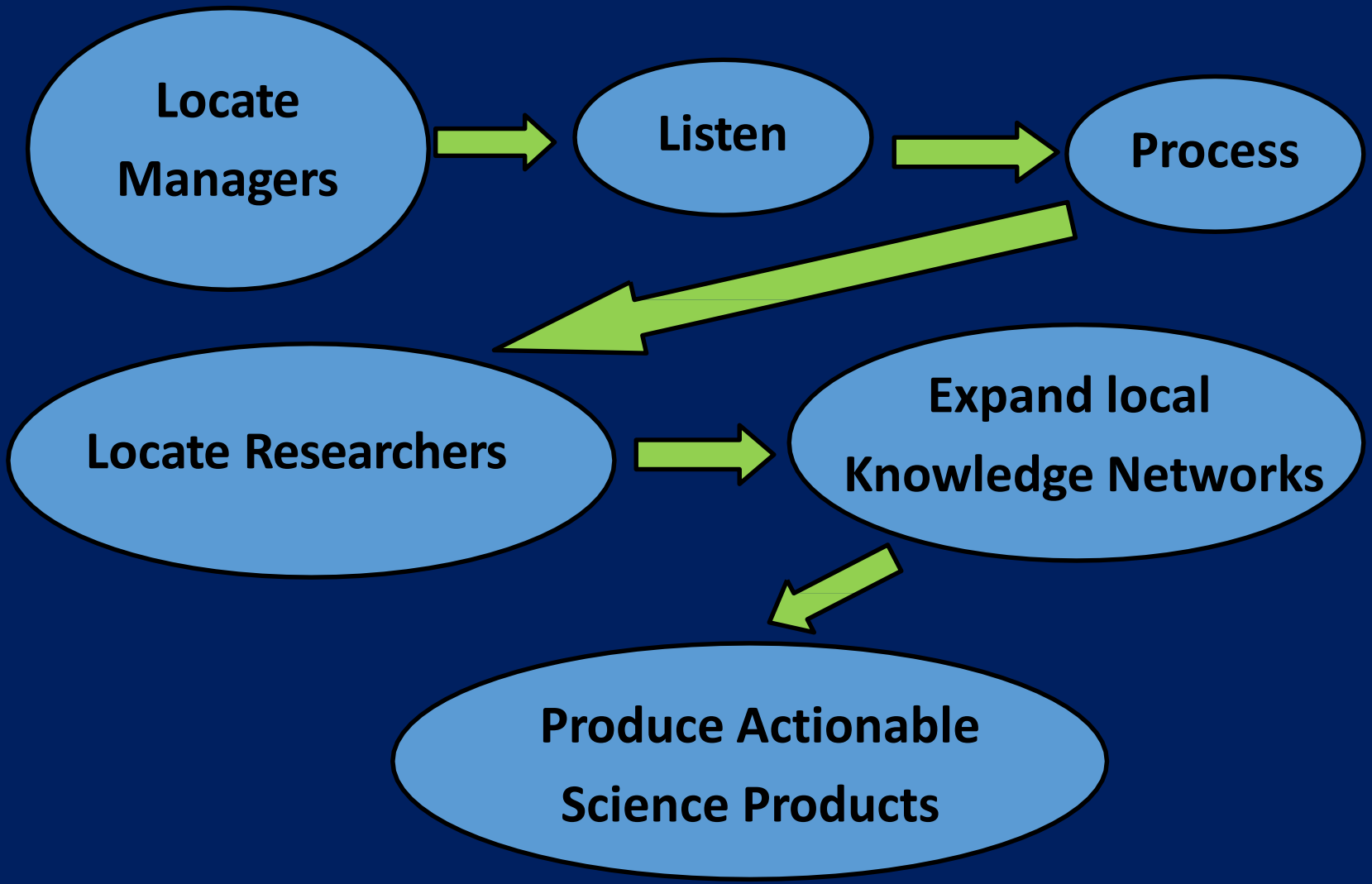
the collective group of professionals that ultimately employ a knowledge coproduction process

Manager Climate Corps
Foundational Elements

- long-term trust
- existing in-person professional networks
- knowledge coproduction
- multiple ways of knowing

Knowledge Coproduction Process

Manager Climate Corps Year 1



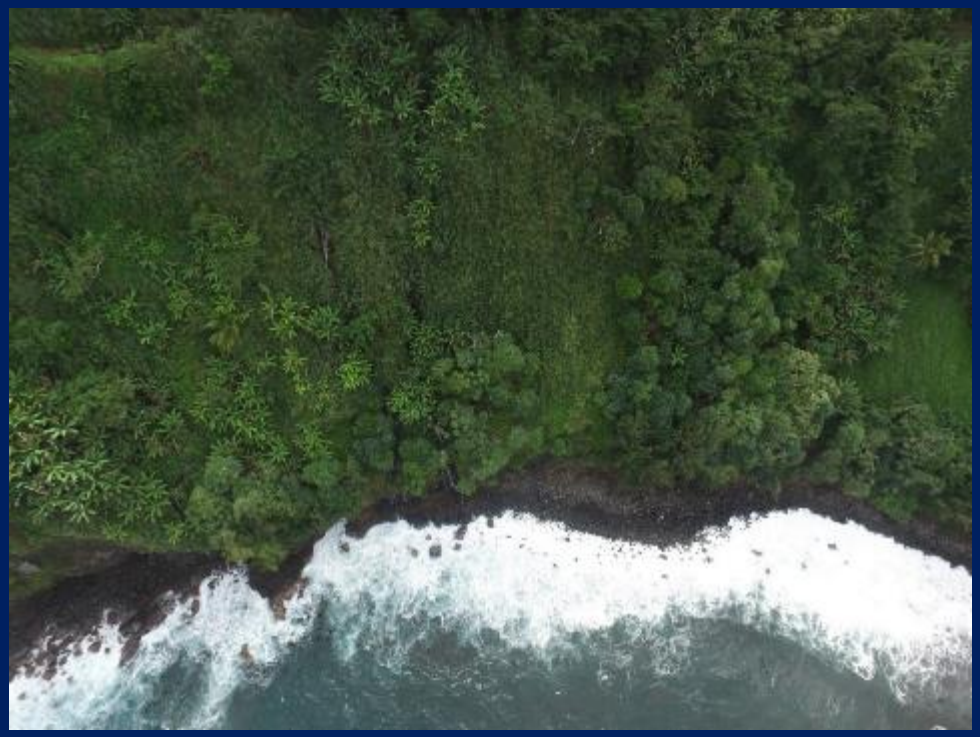
Current Graduate Research Projects

Impact of climate change on hydrology and primary production of Hawaiian fishponds

Climate driven shifts in *Staphylococcus aureus* and MRSA in near shore waters

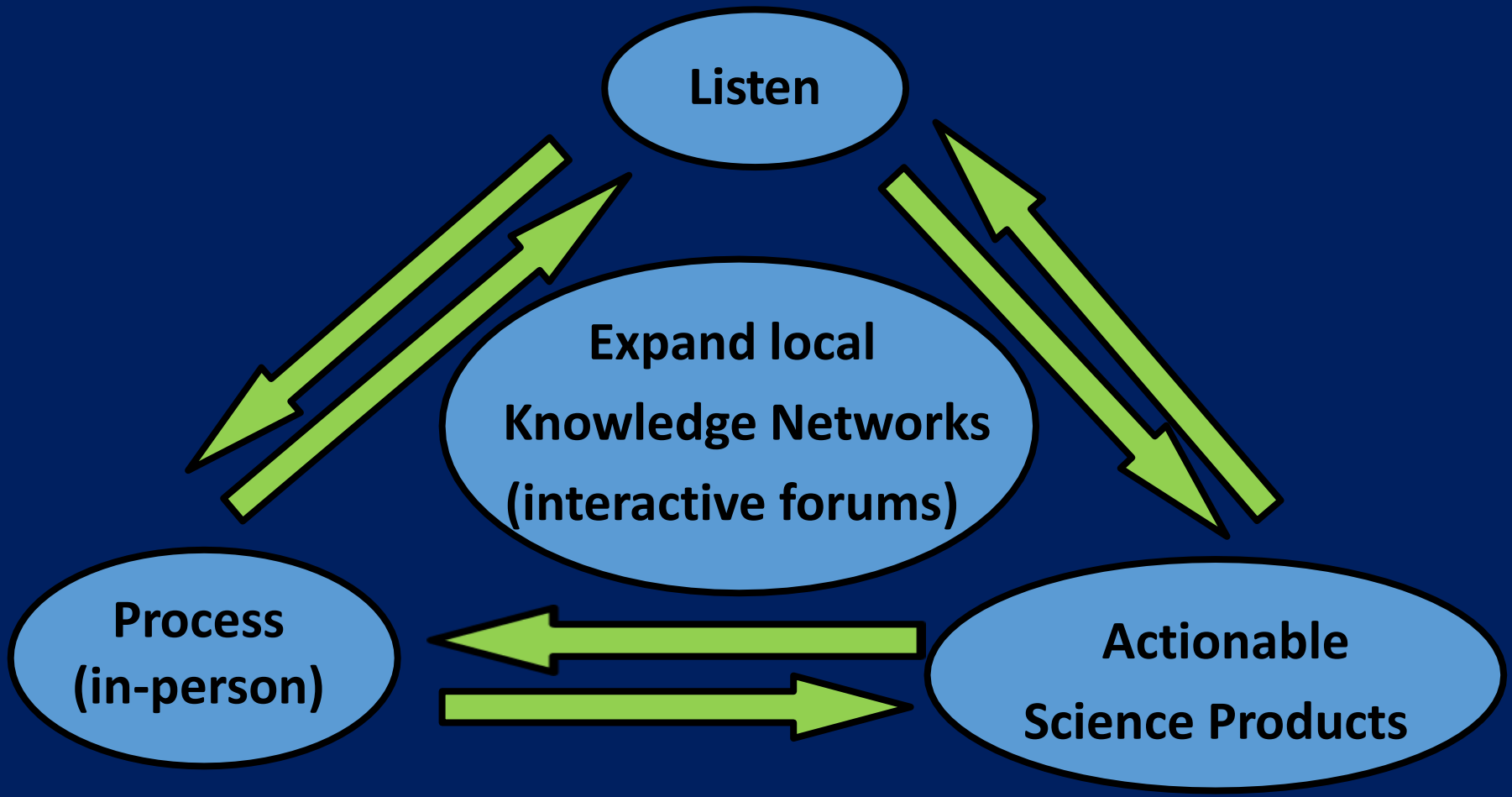
Invasive *Albizia* as a solution for climate change mitigation and sustainable agriculture

Estimating coastal erosion rates on Hawai‘i Island to inform county setbacks



Knowledge Coproduction Process

Manager Climate Corps Year 2



UH Hilo Manager Climate Corps

collaboration across worldviews

- **Process: Build upon existing professional networks by embedding science within specific biocultural landscapes/seascapes**
- **Goal: Expand collaborative manager and research networks to increase communities' capacities to adapt to change**
- **Outcome: Entrance point to shift science and society by increasingly co-developing research products within local networks across diverse worldviews and a deeper context of place**

  - **Move beyond technical problem solving and one-way communication to address complex challenges through *two-way in-person collaboration***

“Perhaps the most important challenge in climate adaptation is reconciling the information needs of stakeholders with the available scientific knowledge and capacities. This is not so much a technical challenge as a fundamental challenge in communication and mutual understanding among different communities.”

Strategic Science Agenda (2013-2018) SW Climate Science Center.

http://www.swcsc.arizona.edu/sites/default/files/data/SWCSC_Science_Agenda-2013-2018.pdf

Manager Climate Corps in Motion

Current Efforts

- 4 manager-driven graduate projects
  - Including 5 graduate students
- 5 interactive forums
  - National, regional, and local settings

Manager Climate Corps

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