Subject: Re: Two Action Items/Decisions Needed from GBIRd Steering Committee

From: Paul Thomas <paul.thomas@adelaide.edu.au>

Date: 7/24/2017 3:17 AM

To: Fred Gould <fgould@ncsu.edu>

CC: Royden Saah <royden.saah@islandconservation.org>, "Peter.Brown@csiro.au"

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I agree with Fred.

On 23 Jul 2017, at 9:50 pm, Fred Gould < fgould@ncsu.edu > wrote:

Royden,

First—I like Karl's list — A tiny suggested change for #5 add "only" —only operate in countries.....

Second— I've already stated my preference to focus solely on our mission of eradication of invasive rodents from islands where they harm biodiversity. If we want to defend a long term objective that also includes agriculture, we need to be able to defend the broad geographic use of this technology on continents. This will involve addressing different environmental issues and well as the concerns of a different group of stakeholders. I think this could dilute our focus on island conservation.

(I understand that New Zealand could be a target in the future—excuse my lack of specific knowledge, but isn't New Zealand considered an "island nation"?)

On Jul 22, 2017, at 8:48 PM, Royden Saah < royden.saah@islandconservation.org > wrote:

Hi All, - Suggestion - schedule 15 minutes on your calendar to review the below info and share your decisions to the group.

1 of 3 9/11/2017 11:00 AM

Per our last meeting, we need two decisions made by the steering committee. **First** is agreeing to the Principles as communicated in Karl's paper. He combined what he found in the strat plan draft and the website. Please email agreement or share your thoughts/suggestions with the group. Thanks:

The program's guiding principles help provide context for decision making:

- 1. Proceed cautiously, with deliberate step-wise methods and measureable outcomes;
- 2. Engage early and often with the research community, regulators, communities and other stakeholders:
- 3. Maintain an uncompromising commitment to biosafety, existing regulations, and protocols as minimum standards (e.g. NASEM, 2016; AAS, 2017);
- 4. Use, and participate in developing best practices;
- 5. Operate in countries with appropriate regulatory capacity; and
- **6.** Be transparent with research, assessments, findings, and conclusions.

SECOND issue is the framing of this technology to benefit human health and agriculture, in addition to preventing extinctions. Fred shared his thoughts at the last committee meeting. I reviewed the website which appears to promote these benefits, if not directly, then thru suggestion, starting with the opening statement, "Like you, we want to save lives, support livelihoods, and preserve our world for generations to come. Every year billions of dollars are lost to damaged infrastructure, crop losses and the associated hunger, and disease and illnesses caused by invasive rodents." There is also mention of GBIRd's humanitarian mission. The implication is that this technology is for the purposes framed in the opening statements.

Karl's paper, in contrast, focuses mainly on preserving island biodiversity, but touches on potential distant future applications lightly in the discussion section, rather than strong or initial statements. "In addition to impacting biodiversity on islands, invasive rodents also negatively impact the health of people and their livestock, and greatly reduce agricultural productivity, stored food stocks and damage infrastructure. In the future, these problems may also benefit from the development of gene drive systems in invasive rodents. However, our program is currently focussed on the development and evaluation of gene drives in invasive rodents on islands to prevent biodiversity loss. This complements our step-wise approach and reflects National Academies' recommendations (NASEM, 2016; AAS, 2017)."

The suggestion is to align communication to the scientific community and to the general public. If not completely aligned, then clarifying the program's intention regarding health vs. ag. Vs. island ecology clarified to the public regarding the program's. In conversation with Fred, his main issue is that we will need to defending the use of our technology for continental use in Ag and heath arenas.

Please email your decision to align website with our manuscript or to keep status quo.

Thanks in Advance, Royden

From: Royden Saah

Sent: Wednesday, July 19, 2017 4:06 PM

2 of 3 9/11/2017 11:00 AM

To: Peter.Brown@csiro.au; Piaggio, Antoinette J - APHIS < toni.j.piaggio@aphis.usda.gov >; 'Eisemann, John

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Subject: Draft Notes from Steering Committee Meeting

Here they go – please review and comment.

Cheers

rs

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3 of 3 9/11/2017 11:00 AM