Advance Planning:
Thinking ahead for the Biodiversity and Ecological Forecasting Programs

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Overview

- ❑ What is Advance Planning?
- ❑ Development steps
- ❑ Discussion & feedback

Joe Parks from Wikimedia

One’s vision is not a road map but a compass

--Peter Block

What is Advance Planning?

Table of Contents

- ❑ Program overview
- ❑ Program context
- ❑ Program goals
  - Key questions
- ❑ Synthesis and implications for program structure and focus

- ❑ Why important
- ❑ Current state of knowledge
- ❑ How to answer it: Measurements, algorithms, challenges….

Purpose of the Plan

- To have the conversation
- To develop community consensus on priorities
- To guide & prioritize the programs
- To provide a baseline for further planning
- To convey (to all stakeholders) what these programs do

Audience

- Us
- The two Programs
  - Biological Diversity (R&A)
  - Ecological Forecasting (ASP)
- NASA Management
- National sponsors (OMB, Congress…)
- Broad community of stakeholders

Scope: Parameter Space

- ❑ Both programs
- ❑ Freshwater, marine, terrestrial ecosystems
- ❑ Ecosystems, species, genes
- ❑ Impactful activities
  - Provide ROI to taxpayers and society
- ❑ Relevant to NASA observations and models
- ❑ Aligned with:
  - Program of Record & other observables in 2017 Decadal Survey

Essential Qualities

- ❑ Community buy-in
- ❑ Realism
- ❑ Fits into the parameter space
- ❑ Resilience
- ❑ Exciting, inspirational…

James St John from Wikimedia

Plan for the Plan

- ❑ Select Consultation Group
- ❑ Solicit “white papers” from broad community
- ❑ CG uses WPs as input and develops:
  - Prioritized list of questions
  - Information needed to answer them
- ❑ Review (of the questions)
- ❑ CG writes draft plan…
- ❑ Draft plan external review
- ❑ Final plan

White Paper Template (Draft)

- ❑ Question
- ❑ Why important, and who would use the answer
- ❑ Measurements needed
- ❑ Potential partnerships
- ❑ Dependencies and challenges

Charlesjsharp from Wikimedia

Other Thoughts

- Development timeline: …one to two years
- Key activity: getting questions right
  1) Think broadly…then…
  2) Align…with DS, etc
- Combining two programs into one Plan
  - "Understanding and saving life on Earth"

Wikimedia

Discussion

- ❑ Your thoughts?
- ❑ Reasonable approach?
- ❑ What themes or questions do you think are important?

Avoini from Wikimedia

OBB 2007 Questions

- How are ocean ecosystems and the biodiversity they support influenced by climate and environmental variability and change…How will these changes occur over time?
- How do carbon and other elements transition between ocean pools and pass through the Earth system…How do biogeochemical fluxes impact the ocean and Earth's climate over time?
- How (and why) is the diversity and geographical distribution of coastal marine habitats changing…What are the implications for the well-being of human society?
- How do hazards and pollutants impact the hydrography and biology of the coastal zone? How do they affect us, and can we mitigate their effects?