# Complexity-Aware Monitoring

USAID's Learning, Evaluation, and Research Office

Briefing on USAID's Discussion Note

**Heather Britt & Melissa Patsalides**

USAID
FROM THE AMERICAN PEOPLE

# Have You Ever …?

**Have you ever encountered a project (or aspects of a project) in which –** (choose all that apply)

- **Cause and effect relationships are poorly understood**, thereby making it difficult to identify solutions and draft detailed implementation plans in advance
- Expected results required revision to take advantage of **new opportunities**
- **Adaptive management** is necessary to steer effectively in a dynamic context
- The purpose is to **influence social change or innovate** to discover solutions

USAID
FROM THE AMERICAN PEOPLE

# What is Complexity?

**Simple: "one size fits all"**

- Cause and effect is clear & stable across contexts; agreement on intended results & certainty about how to achieve them.

**Complicated: multiple components, but ultimately predictable**

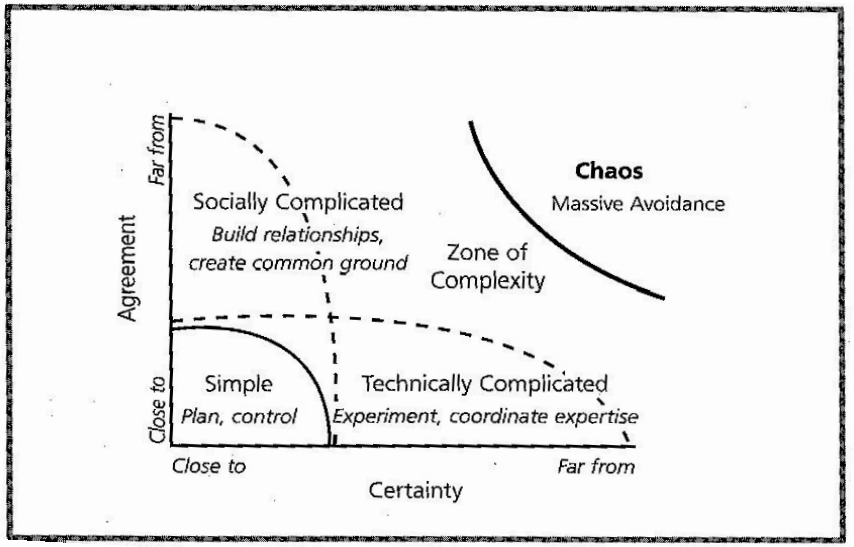
- Long chains of cause and effect; multiple paths to results; causality works differently in different contexts; multiple agendas and values; expertise required.

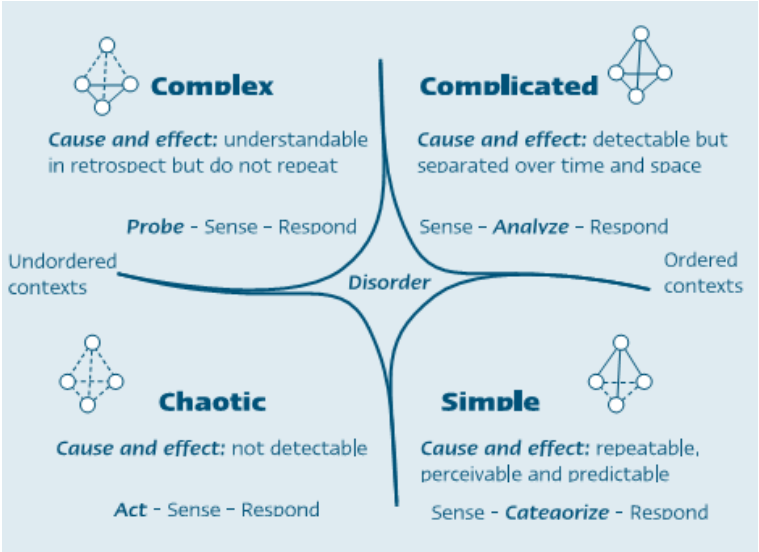
**Complex: emergent & inherently unpredictable**

- Uncertain & unpredictable cause & effect; appropriately adaptive in response to emergent needs and opportunities

# What is Complexity?

## Certainty / Agreement Matrix




## Cynefin Framework

# Complexity Myth Busters

## Myth #1

- Complexity is synonymous with conflict.

## (Closer to the) Truth

- Most development contexts include complexity.
- Terms like “complex environments” can be confusing.

# Complexity Myth Busters

## Myth #2

- We should treat everything as complex.

## (Closer to the) Truth

- Some aspects of projects can be appropriately treated as simple or complicated.

- Plan, implement, monitor and evaluate according to the characteristics of simple, complicated & complex.

# Complexity Myth Busters

## Myth #3

- Operating effectively in complexity requires expensive technical tools or specialized knowledge.

## (Closer to the) Truth

- Simple rules and principles steer effective practice in complexity.

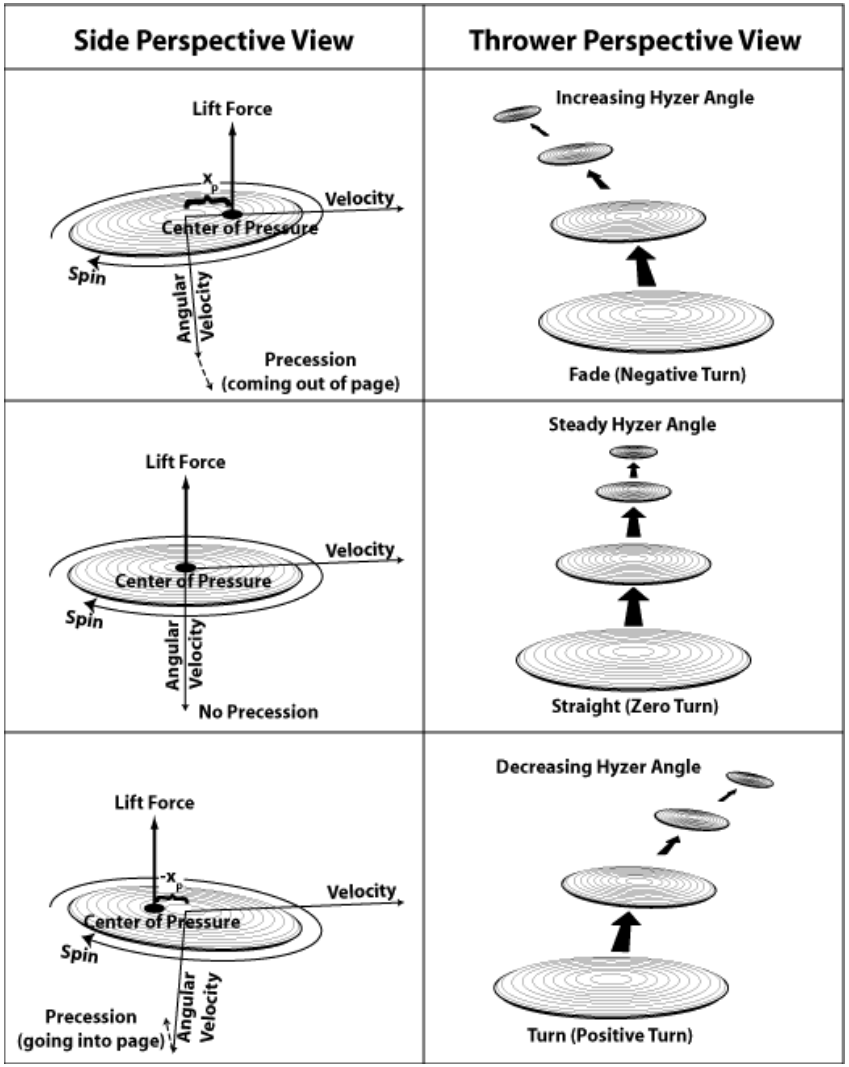
USAID
FROM THE AMERICAN PEOPLE

# Operating in Complexity

# Operating in Complexity

## Frisbee Flight Simulation

- Models based on initial speed, shooter angle, and shooter height
- Holding all other factors constant
- Can't account for changes in wind speed and direction, and other factors



USAID
FROM THE AMERICAN PEOPLE

# Operating in Complexity

# Performance Monitoring & Complexity-Aware Monitoring

**Performance Monitoring measures the predicted.**

**Results intended by us**

**Pathways of change planned by us**

**Implementation strategies designed by us**

**Indicators**

**Targets**

# Performance Monitoring & Complexity-Aware Monitoring

**Complexity-Aware Monitoring tracks the unpredictable.**

**Results** (beyond those originally intended by us)

**Factors & actors outside the project**

**Multiple pathways of change & feedback loops**

**Systems qualities**

**Triggers**

# Performance Monitoring & Complexity-Aware Monitoring

**Performance monitoring & complexity-aware monitoring complement one another.**

Performance monitoring for simple & complicated aspects of projects and strategies.

Complexity-aware monitoring for complex aspects of projects and strategies.

# Practicing Complexity-Aware Monitoring

## 3 Principles

## 5 Approaches

# Principles of Complexity-Aware Monitoring

1. Synchronize monitoring with the **pace of change**
2. Attend to performance monitoring's **3 blind spots**
    a. broader range of outcomes
    b. alternative causes
    c. full range of non-linear pathways of contribution
3. Consider **relationships, perspectives, and boundaries** (3 key systems concepts)
    a. the structures, processes, and exchanges linking actors and factors within a system
    b. different perspectives within a system
    c. what is in and what is outside the system

USAID
FROM THE AMERICAN PEOPLE

# 5 Recommended Approaches

1. **Sentinel Indicators:** Proxy for the system that signals the need for further investigation (example: stock-outs)
2. **Stakeholder Feedback:** Seeks diverse perspectives of partners, beneficiaries or those excluded from a project
3. **Process Monitoring of Impacts:** Tracks predicted & emergent processes transforming outputs to results
4. **Most Significant Change:** Captures broad range results and makes diverse perspectives explicit
5. **Outcome Harvesting:** Captures broad range results and works backward to describe & verify contribution

USAID
FROM THE AMERICAN PEOPLE

# 5 Recommended Approaches

**A Sentinel Indicator:**

- Is a proxy for complex processes that are difficult to study in their entirety
  - A sentinel species is a proxy for an eco-system
  - Stock-outs are a proxy of market efficiency
- Is easily communicated
- Signals the need for further analysis and investigation

Why important?

- A simple way to monitor complexity

USAID
FROM THE AMERICAN PEOPLE

# 5 Recommended Approaches

**Stakeholder Feedback**

- Family of approaches
- Privileging perspectives of partners, beneficiaries or those excluded from a project
- Seek diversity rather than consensus

Why important?

- Complexity is diverse
- Knowledge of the system is partial and predictability is low.

USAID
FROM THE AMERICAN PEOPLE

# 5 Recommended Approaches

**Process Monitoring of Impacts**

- How a result at one level is used to achieve results at the next level (outputs to 1st level results)
- Predicted and emergent processes
- Between results boxes in a LogFrame

Why important?

- Bounds areas of complexity most critical to success
- 2 blind spots:  factors outside the project, feedback loops

# 5 Recommended Approaches

**Most Significant Change**

- Collection and analysis of stories describing the most important project outcomes
- Perspectives of different stakeholder groups are represented in the criteria for determining a significant change

Why important?

- Captures broad range results (intended/unintended, positive/negative).
- Makes diverse perspectives on results explicit.

# 5 Recommended Approaches

**Outcome Harvesting**

- Discover results without reference to predetermined objectives, and work backwards to determine the contribution.
- Emphasis on verification and describing contribution

Why important?

- Captures broad range results (intended/unintended, positive/negative).

WANTED
COMPLEXITY CHAMPIONS
TO
TEST NEW METHODS
REWARD
LER SUPPORT

USAID
FROM THE AMERICAN PEOPLE

# Challenges to M&E Innovation

1. **Selecting an appropriate M&E approach** to meet the information needs and suit the project and its context
2. **Applying the M&E approach.** Which adjustments facilitate use and which ones compromise data?
3. **Lack of intentional learning** that can contribute to guidance about applying the approach in USAID programming

USAID
FROM THE AMERICAN PEOPLE

# LER Supports Successful Innovation

**Learning Circles collaborate to --**

1. Select a suitable monitoring approach
   - Meet the project's monitoring needs
   - Good fit for the project & context
2. Apply the approach to meet monitoring needs
   - Expert TA from C-AM Resource Panel; collaborative problem-solving
   - Balance rigor with flexibility; apply methods systemically.
3. Foster intentional learning through learning circles
   - Protect space for experimentation

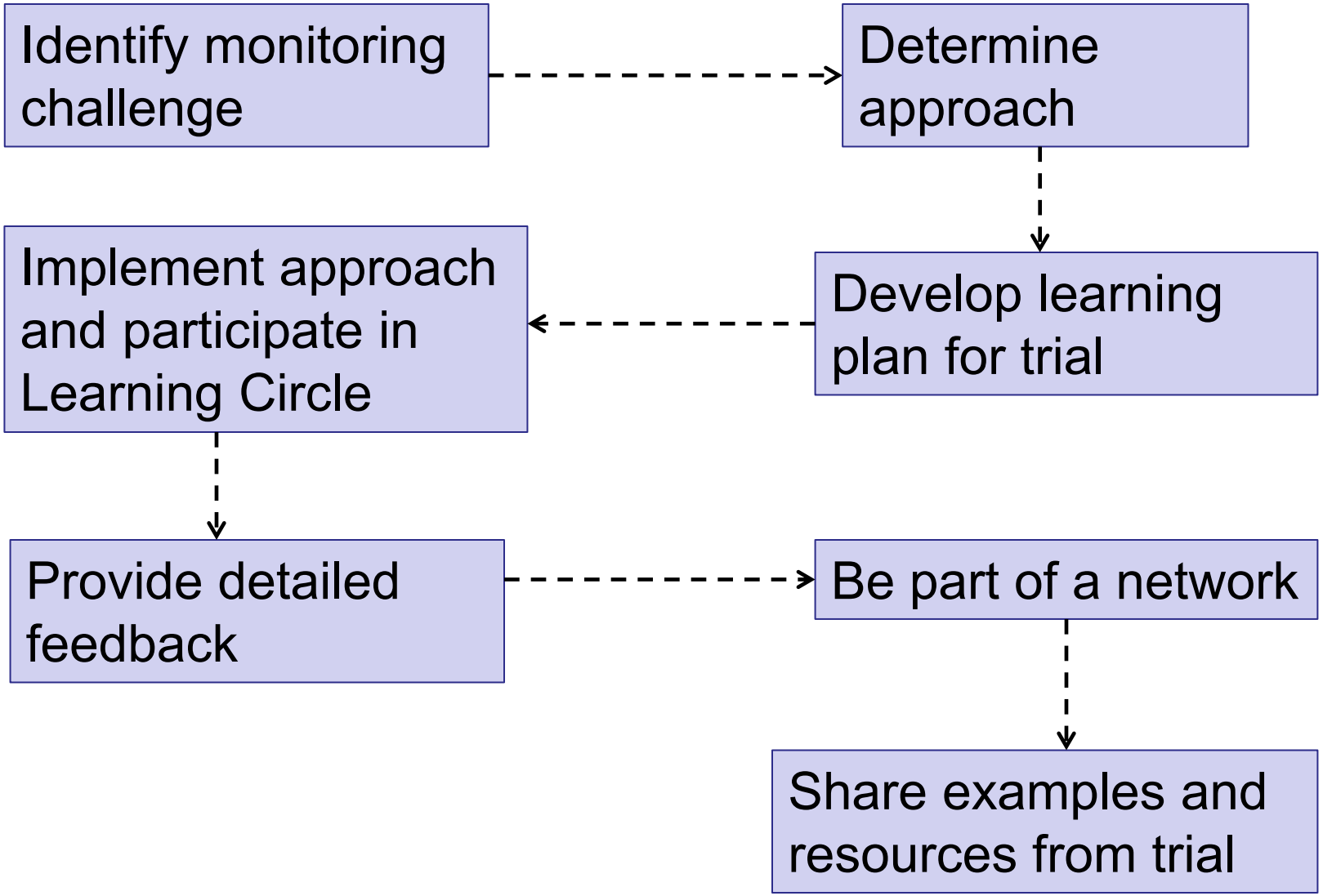
USAID
FROM THE AMERICAN PEOPLE

# What's in it for you?

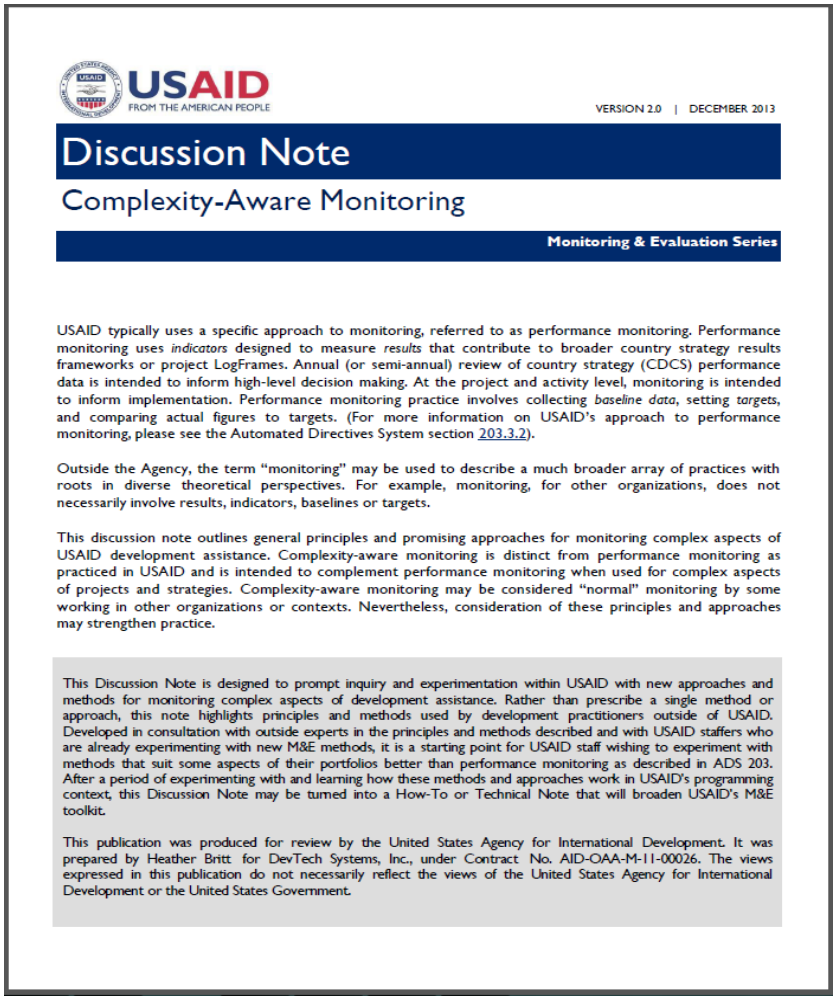
- Improved monitoring information to steer projects in complexity
- TA from international experts
- Share information with other early adopters
- Create and sustain space for innovation in your organization and the field
- Contribute to shaping USAID guidance and resources for M&E innovation

USAID
FROM THE AMERICAN PEOPLE

# Trial Roadmap



# Next Steps: Read Discussion Note



USAID
FROM THE AMERICAN PEOPLE

VERSION 2.0 | DECEMBER 2013

## Discussion Note

### Complexity-Aware Monitoring

**Monitoring & Evaluation Series**

USAID typically uses a specific approach to monitoring, referred to as performance monitoring. Performance monitoring uses *indicators* designed to measure *results* that contribute to broader country strategy results frameworks or project LogFrames. Annual (or semi-annual) review of country strategy (CDCS) performance data is intended to inform high-level decision making. At the project and activity level, monitoring is intended to inform implementation. Performance monitoring practice involves collecting *baseline data*, setting *targets*, and comparing actual figures to targets. (For more information on USAID's approach to performance monitoring, please see the Automated Directives System section 203.3.2).

Outside the Agency, the term "monitoring" may be used to describe a much broader array of practices with roots in diverse theoretical perspectives. For example, monitoring, for other organizations, does not necessarily involve results, indicators, baselines or targets.

This discussion note outlines general principles and promising approaches for monitoring complex aspects of USAID development assistance. Complexity-aware monitoring is distinct from performance monitoring as practiced in USAID and is intended to complement performance monitoring when used for complex aspects of projects and strategies. Complexity-aware monitoring may be considered "normal" monitoring by some working in other organizations or contexts. Nevertheless, consideration of these principles and approaches may strengthen practice.

This Discussion Note is designed to prompt inquiry and experimentation within USAID with new approaches and methods for monitoring complex aspects of development assistance. Rather than prescribe a single method or approach, this note highlights principles and methods used by development practitioners outside of USAID. Developed in consultation with outside experts in the principles and methods described and with USAID staffers who are already experimenting with new M&E methods, it is a starting point for USAID staff wishing to experiment with methods that suit some aspects of their portfolios better than performance monitoring as described in ADS 203. After a period of experimenting with and learning how these methods and approaches work in USAID's programming context, this Discussion Note may be turned into a How-To or Technical Note that will broaden USAID's M&E toolkit.

This publication was produced for review by the United States Agency for International Development. It was prepared by Heather Britt for DevTech Systems, Inc., under Contract No. AID-OAA-M-11-00026. The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

# Next Steps: Answer 6 Questions

1. Describe the project in 2-3 sentences.
2. What aspect of this project is complex? (Short statement)
3. What monitoring needs should a complexity-aware monitoring approach serve? What monitoring needs are currently not being met by performance monitoring?
4. What questions should be answered through a monitoring approach?
5. Who will use the monitoring data?
6. What will they use it for?

USAID
FROM THE AMERICAN PEOPLE

# Next Steps: Contact LER

**Travis Mayo**

Tmayo@usaid.gov

USAID
FROM THE AMERICAN PEOPLE

# Next Steps: Contact LER

Thank you!