

*Assessing Sustainable Development:  
Small Biodiversity Grants in Developing  
Nations*

Benjamin Lux

# Overview

---

1. **Background:** Thesis Motivation
2. **The Thesis:** Assessing Sustainable Development
3. **Conclusion:** Lessons Learned and Next Steps

1

Background

# About Me

---

- Commerce, Organization, and Entrepreneurship Technology Track
- Boston University's School for Field Studies: Center for Sustainable Development Studies



# Thesis Motivation: APRODUMA

---



Cooperative of 15 families in Santa Teresa de Cutris established to develop activities that **conserve biodiversity** and promote **sustainable livelihoods** for families

# Thesis Motivation

---

A common problem with monitoring and evaluation frameworks is that they do not base their assessments on **scientific evidence**, but rather **anecdote** and **myth** (Pullin et al. 2004 and Sutherland et al. 2004).

2

The Thesis

*Assessing Sustainable Development: Small  
Biodiversity Grants in Developing Nations*

# Thesis Structure

---

- Introduction
- Methods
- **Monitoring and Evaluation**
- **Biodiversity Conservation**
- **Human Development**
- **Monitoring and Evaluation Approaches of Sustainable Development Interventions**
- Final Suggestions

# Introduction

---

- United Nations Convention on Biodiversity
- Millennium Development Goals
- A development model that can provide continued economic growth and social progress in coexistence with non-exhaustive utilization of environmental services
- Shift in NGO and government focus
- This shift put more focus on Monitoring and Evaluation

## **Millennium Development Goals**

- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria, and other diseases
- Ensure environmental sustainability

# Thesis Structure

---

- Introduction
- **Methods**
- Monitoring and Evaluation
- Biodiversity Conservation
- Human Development
- Monitoring and Evaluation Approaches of Sustainable Development Interventions
- Final Suggestions

# Methods

---

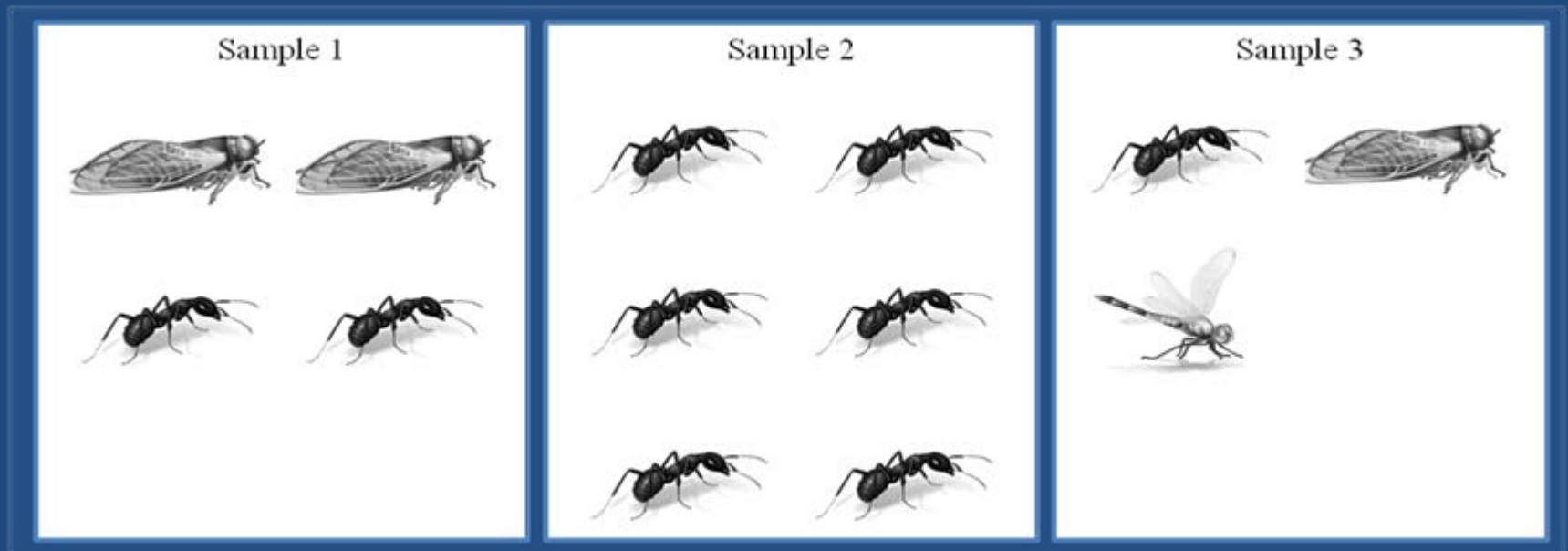
- Literature review
  - Academic journals
  - Organization reports/policy
  - Monitoring and evaluation
- Interviews with stakeholders in biodiversity grants
- Participant observation
- Site visits



# Biodiversity

“the variety and variability among living organisms and the ecological complexes in which they occur”

Discipline	Definition/Focus of Study
Genetics	A quantification of the allelic diversity
Community Ecology	A measure of the variety and distribution of animal or plant species
Wildlife Management	The measure of species presence within a specific habitat
Conservation Biology	An understanding of species richness and numbers in a given ecosystem



# Biodiversity Conservation

---

## *Biodiversity Impact Assessment*

1. Scoping
2. Analysis of Target Effects
3. Mitigation
4. Deterring the Significance of Adverse Effects
5. Follow-up Program

# Thesis Structure

---

- Introduction
- Methods
- Monitoring and Evaluation
- Biodiversity Conservation
- **Human Development**
- Monitoring and Evaluation Approaches of Sustainable Development Interventions
- Final Suggestions

# Human Development

---

“a development paradigm that is about much more than the rise or fall of national incomes. It is about creating an environment in which people can develop their full potential and lead productive, creative lives in accord with their needs and interests”

-UNDP

# Human Development

## *Logical Framework Approach*

<b>Project Description</b>	<b>Indicators</b>	<b>Means of Verification</b>	<b>Assumptions</b>
<b><i>Goals</i></b> Long-term project impact	Measurable indicators to show goal progress	Sources of information (e.g. literature) and methods used to collect and evaluate it.	N/A
<b><i>Purpose</i></b> Short-term project impact The motivation for the project	Measurable indicators to show overall project impact	Sources of information and methods used to collect and evaluate it.	Assumptions concerning the link between purpose and goals
<b><i>Outputs</i></b> Deliverables of the project Measurable results	Measurable indicators for outputs	Sources of information and methods used to collect and evaluate it.	Assumptions concerning the link between outputs and purpose
<b><i>Activities</i></b> Smaller tasks contributing to overall outputs	Activities schedule to monitor progress Activities budget	Sources of information and methods used to collect and evaluate it.	Assumptions concerning the link between activities and outputs

# Human Development

---

Goal	Indicator
<b>Eradicate poverty</b>	
	Proportion of population below \$1.25 per day
	Poverty gap ratio (mean distance separating a group from the poverty line)
<b>Eradicate hunger</b>	
	Prevalence of underweight children (under 5 years of age)
	Proportion of population below minimum level of dietary energy consumption
<b>Achieve universal primary education</b>	
	Net enrollment ratio in primary education
	Proportion of pupils starting grade 1 who reach grade 5
	Literacy rate of 15- to 24-year-olds
<b>Promote gender equality and empower women</b>	
	Ratio of girls to boys in primary, secondary and tertiary education
	Ratio of literate females to males of 15- to 24-year-olds
	Share of women in wage employment in the nonagricultural sector
<b>Reduce child mortality</b>	
	Under-5 mortality rate
	Infant mortality rate
	Proportion of 1-year-old children immunized against a given pathogen
<b>Improve maternal health</b>	
	Maternal mortality ratio
	Proportion of births attended by skilled health personnel

# Thesis Structure

---

- Introduction
- Methods
- Monitoring and Evaluation
- Biodiversity Conservation
- Human Development
- **Monitoring and Evaluation Approaches of Sustainable Development Interventions**
- Final Suggestions

# Monitoring and Evaluation Approaches of Sustainable Development Interventions

- A development model that can provide continued economic growth and social progress in coexistence with non-exhaustive utilization of environmental services
- “the best-know and most commonly cited idea linking the environment and development”

# Monitoring and Evaluation Approaches of Sustainable Development Interventions

## *Thematic Indicator Framework*

Theme	Subtheme	Indicator
Social		
Education	Education Level	Secondary school completion ratio
	Literacy	Adult literacy rate
Environmental		
Biodiversity	Ecosystems	Area of selected key ecosystems
		Protected area as a percent of total area
	Species	Abundance of selected key species
Economic		
Economic Structure	Economic Performance	GDP per Capita
		Investment share in GDP
	Trade	Balance of trade in goods/services
	Financial Status	Debt to GNP ratio

# Lessons Learned

---

- Aggregate or Composite Indices
- Indicator Selection
- Baseline Monitoring and Evaluation and Time Based Sampling

3

Conclusion

# Thank You

---

- Osvaldo Sala
- Eric Suuberg
- Maria Carkovic
- COE Thesis Writers



Questions