

+Acumen Course: Designing for Environmental Sustainability and Social Impact

Course Description:

Today's complex environmental and social challenges are tightly linked. Any social entrepreneur looking to tackle poverty needs to understand issues of environmental conservation. Similarly, conservation organizations are increasingly recognizing the need to adopt entrepreneurial approaches as they tackle persistent environmental challenges. Collectively, conservationists and social entrepreneurs have the potential to move the needle on some of the biggest challenges facing the planet and the poor.

This introductory course will introduce social entrepreneurs, conservation entrepreneurs, and corporate intrapreneurs to the key mindsets and methods for strategically approaching environmental sustainability and social impact. You'll learn to better diagnose and understand complex environmental and social challenges using **systems thinking**. Then, you'll have the opportunity to apply the concepts of **circular economy** to begin to craft solutions that can have positive environmental impact. Next, you'll learn about key principles in **behavior change** and how they can be used to shape human actions when it comes to issues of environmental conservation. Finally, you'll learn to make the business case for environmental conservation using the tools and language of the **natural capital** movement. This course is for any entrepreneur or social change-maker looking to deepen their understanding of the connection between biodiversity, poverty alleviation, and business.

Modules:

- The Link Between Poverty and the Environment
- Systems Thinking
- Circular Economy and Circular Design
- Behavior Change
- Natural Capital and the Business Case for Environmental Conservation

Featured Case Studies and Instructors:

- Mark Tercek, CEO of the Nature Conservancy
- Hasan Anwer, EnMassEnergy
- Koushik Yanamandram, SustainEarth
- Joshwa Tambo, KShoes
- Sathya Raghu and Kaushik, Khetyi
- Shashank Kalra, Earth Shastra
- Nqo Ndlovo, WWF
- Natasha Zarine, Civic Response Corps
- Lilianna Gutierrez, NOS

Module 1: The Link Between Poverty and the Environment

Learning Objectives:

By completing this module, learners will be able:

- Describe how the effects of climate change and environmental degradation disproportionately impact the world's poor
- Explore areas for collaboration between social entrepreneurs and conservation actors to design new solutions to environmental challenges and create social impact
- Identify new mindsets that can be used by social entrepreneurs and conservationists to effectively tackle complex environmental challenges including systems thinking, behavior change, circular economy, and natural capital
- Scope a specific challenge at the intersection of environmental sustainability and social impact to work on in this course

Video:

- Why are Poverty and the Environment Connected?

Reading 1:

- **Opening Case Study:** *This case study will feature a clean cookstove company in Kenya aspiring to reduce deforestation and improve the health of Kenyan families. This case study will be woven through the course to illustrate the key concepts as they unfold in each of the modules. In this opening section, the case study will be used to illustrate (a) why issues of environmental conservation and social impact are interrelated and (b) why social enterprises that strive to promote human wellbeing sometimes still have unintended negative environmental consequences.*
- **Section 1:** Understanding the Global Challenge: Biodiversity Loss and Climate Change
- **Section 2:** Why It Matters: The Relationship Between Poverty and the Environment
 - Demand for natural resources
 - Pollution and waste processing
 - Climate change and extreme weather
 - Migration and climate refugees
- **Section 3:** Opportunities for Social Entrepreneurs and Conservationists to Collaborate on Social Impact and Environmental Sustainability Challenges
 - Health
 - Sanitation
 - Agriculture and Supply Chains
 - Livelihoods and Jobs (creating alternatives to poaching, fishing, lumber industry)
- **Section 4:** A New Way of Measuring Success: Shared Value and Triple Bottom Line
 - How Social, Environmental, and Financial Value can fit together
- **Section 5:** What You Can Expect in This Course
 - Systems Thinking
 - Circular Economy

- Behavior Change
- Natural Capital and Making the Business Case for Environmental Sustainability

Workshop Guide 1:

- **Frame Your Conservation Challenge**

- *Select a real-life challenge to explore in the course. You have two options:*
- **Option A:** Read four case studies inspired by real social entrepreneurs and select one. In each workshop activity, you will put yourself into the shoes of the social entrepreneur.
- **Option B:** Choose your own real-life challenge. Read the guide (excerpt below) to learn how to frame a challenge for the course.

- **Structure for Framing Your Challenge:**

- **Problem statement:** What big problem are you trying to tackle to improve human wellbeing and create social impact? (i.e. hunger, access to education, homelessness, job creation)
- **Your intervention to create social impact:** What are you doing to try to address this problem? What intervention is your social enterprise or organization delivering? (i.e. providing low-cost tablets to public schools, building new homes in Haiti, creating a coffee factory to supply jobs)
- **Unintended negative consequences:** What are the potential negative environmental consequences that your intervention might unintentionally be creating? (i.e. creating electronic waste, clearing forests to build homes, producing acidic waste water that damages local ecosystems, encouraging production of cheap consumer goods, etc)
- **How might you...?** Frame a “how might we question” to explore in the rest of the course that frames how you will solve your chosen problem while mitigating the potential negative environmental consequences. (i.e. *How might we increase access to education while avoiding producing new sources of electronic waste?*)

- **Example Challenge Statements:**

Sample Challenge 1:

- *The problem I'm trying to tackle is lack of access to education for children in rural India.*
- *To address this problem, I have started a social enterprise to give low-cost tablets to children in government schools.*
- *However, in the process of creating and distributing tablets, I may be creating a large amount of new electronic products that can generate waste.*

- *How might I increase access to education while avoiding producing lots of electronic waste?*

Sample Challenge 2:

- *The problem I'm trying to tackle is a lack of employment opportunities for farmers in Honduras.*
- *To address this problem, I have started a fair trade coffee social enterprise.*
- *However, coffee production is a waste-intensive business.*
- *How might I provide stable jobs while minimizing environmental waste?*

Assignment 1:

- Conservation Challenge Worksheet
 - *Everyone will upload their response to the 4 prompts above to the online platform.*

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- **Discussion Prompt:** How would you measure whether a project is “sustainable”? What qualities should it have? Challenge yourself to list 10–15 words or phrases.

Module 2: Mapping the Socio-Ecological System

Learning Objectives:

By completing this module, learners will be able:

- Understand why systems thinking is a useful approach for tackling complex environmental and social challenges
- Map the system surrounding the challenge they are focusing on
- Consider the enabling and inhibiting factors that led to the persistence of this complex challenge
- Chart the upstream and downstream consequences of these factors and identify a specific place where they can intervene to begin to change the system

Video:

- What is Systems Thinking?

Reading 2:

- **Opening Case Study:** *We will revisit the story of the Kenyan cookstove company to illustrate how the larger environmental problem they are trying to address—deforestation—is a complex systems challenge. This section of the case*

study will introduce the variety of factors that contribute to deforestation, including illegal logging, clearing forest for agriculture, and burning wood for fuel. In the reading, the company will explore these factors to find their leverage point.

- **Section 1:** Complex Challenges that Require a New Mindset
 - Introduction to complex challenges that are best tackled by using a systems thinking approach
- **Section 2:** What is Systems Thinking?
- **Mini Case Study:** Play Pump and the Failure to Take a Systems View
- **Section 3:** Enablers and Inhibitors
 - *Understanding the factors that enable progress or inhibit progress when it comes to complex systems challenges*
- **Section 3:** Upstream and Downstream Effects
 - *Understanding the causes and consequences of enabling and inhibiting forces in the systems*
- **Section 4:** Feedback Loops
 - *Understanding how forces in a system can be “knit together” to form larger feedback loops*
 - *Examples of vicious cycles and virtuous cycles*
- **Mini Case Study:** Rahm Rahim
 - *This case study will feature a social enterprise in India that has taken a systems thinking approach*
- **Section 5:** Leverage Points
 - *Understanding how you can identify points in the system where you can identify to create the greatest impact with the least amount of effort to effectively alter*
- **Mini Case Study:** Cecil the Lion
- **Section 6:** Systems Thinking in Action -- Case Study
 - **NOS:** A Mexican NGO that Used Systems Thinking to Tackle Overfishing: *This case study will explore the story of a Mexican NGO that used a systems oriented approach to reduce overfishing in a rural community where economic opportunities were limited.*

Workshop Guide 2:

- Revisit your framing “how might we” question from Module 1
- Generate a list of the enabling and inhibiting forces in your system that are perpetuating the complex problem you are trying to tackle.
- Determine the upstream causes and downstream effects of these forces.
- Identify a promising force that you wish to focus on either amplifying or reducing in this course.
- Optional: create feedback loops and start to put together your entire systems map

Assignment 2:

- Diagram of the enabling and inhibiting forces in your system and the ones you've identified you want to focus on designing solutions to address in the rest of the course

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- **Discussion prompt:** What surprising insights did you gain when you applied systems thinking to the challenge you are tackling?

Module 3: Circular Economy

Learning Objectives:

By completing this module, learners will be able:

- Differentiate between the traditional linear economy and the new circular economy paradigm
- Describe examples of circular design strategies applied by real social enterprises
- Identify circular design strategies that may be applicable to their challenge
- Develop a solution to their systems challenge that leverages circular economy principles

Video:

- What is Circular Economy?

Reading 3:

- Case Study of Cookstove Company: *We will revisit the case study of the Kenyan cookstove company to show how they could begin to apply circular design strategies to their product development. The company realizes they need to think about the entire lifecycle of their product, from the materials used to produce it to maintenance and the moment when a consumer might want to discard the stove..*
- **Section 1:** Limitations of the Linear Economy
- **Section 2:** What is the Circular Economy?
- **Section 3:** A Circular Flow of Resources
 - What happens to resources in the circular economy?
 - Examples from for-profit businesses: Patagonia, IKEA, Heineken
- **Section 4:** Circular Design: Opportunities for Social Enterprises (leveraging and crediting Ellen Macarthur and IDEO Circular Design Guide)
 - Make your product a service
 - Extend your product's life
 - Choose your inputs
 - Close the loop

- Think locally
- **Section 5: Circular Strategies in Action—Case Studies**
 - Riversimple: Offering Products as Services
 - Patagonia: Extending a Product’s Life through Repair
 - SolarNow: Extending a Product’s Life through Maintenance
 - Sanergy: Returning Waste to the Biosphere
 - Wecylers: Collecting and Incentivizing Recycling
 - IDSP in Pakistan: Local Knowledge and Materials
 - KShoes in Kenya: Circular Principles at Work in the Kibera Slum
 - HelpUsGreen: Innovations in India
- **Section 6: Circularity in Agriculture**
 - Runa (Guayusa)
 - Lazy Bear Tea (Cascara)
- **Section 7: Opportunities for Circular Design: Plastic Waste and Electronic Waste**

Workshop Guide 3:

- Map or sketch your product or service’s journey.
- Identify your circular opportunity.
- Sketch or prototype your circular solution.
- Consider the impact of this circular opportunity on the consumer, the environment, and your business.

Assignment 3:

- Upload a picture of your circular prototype or sketch

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- How has learning about circular economy changed the way you look at everyday products or shifted the way you think?

Module 4: Behavior Change for Environmental Conservation

Learning Objectives:

- Understand why shifting consumer behavior is a critical component of designing for environmental sustainability
- Map desired consumer interactions with a new solution and identify points of “friction” in the user journey
- Identify research-based behavior change principles that can be applied to conservation challenges to help people adopt more environmentally conscious habits and behaviors
- Plan how these behavior change principles can be concretely incorporated into a new solution

Video:

- What is Behavior Change?

Reading 4:

- Case Study of Cookstove Company: *We will return to this case study to illustrate how the adoption of clean cookstoves requires significant behavior change on the part of Kenyan housewives. The case study will illustrate how they have to shift from gathering traditional fuel or cooking on other types of stoves and adopt these new models. We'll illustrate the typical "journey" that a consumer has to take to adopt a new cookstove and look at places in this process where friction could be eliminated to introduce more widespread use.*
- **Section 1:** What is behavior change and behavioral economics?
 - We may think information is enough, but it doesn't make people take action.
 - Four barriers to behavior change (Dan Ariely)
- **Section 2:** The Unique Challenge of Climate Change and Environmental Consequences
 - *Make the case that many conservation challenges are fundamentally human behavior challenges.*
 - This section will describe why a problem like climate change—which can seem so far in the future and so abstract to many people—can be so difficult to encourage people take action on.
 - **Mini Case Study: Lion Guardians**
- **Section 3:** Introduction to Mapping a User Journey and Identifying Points of "Friction"
- **Section 4:** Behavior Change Interventions
 - Loss aversion
 - Social proof
 - Simplicity and defaults
 - Choice architecture
 - Incentives
 - Concreteness
- **Section 5:** The 4As of Adoption: What it Takes to Adopt New Agricultural Solutions
- **Section 6:** Behavior Change in Action — Case Studies
 - Rare.org
 - Civic Response Team, India

Workshop Guide 4:

- Identify your target behavior: What will it concretely look like when someone engages with your solution effectively?

- Map or sketch your customer/user's journey: This map should include all of the desired steps that your customer or user will have to take to effectively reach your target behavior
- Identify points of friction in your user journey: Where are there obstacles that could interfere with people accomplishing your desired target behavior?
- Identify behavior change interventions: Brainstorm how the behavior change principles you learned about in this module could be used to help people overcome points of friction in their user journey
- Sketch your new behavior change intervention: What would it look like in action?

Assignment 4:

- Upload a picture of your customer journey map and behavior change intervention

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- What examples of behavior change principles have you seen applied by other products or services? Upload photos or examples if you have them and identify the principle they are leveraging.

Module 5: Natural Capital and Making the Business Case for Environmental Conservation

Learning Objectives:

- Understand the terms “natural capital” and “ecosystem services”
- Articulate the interconnections between financial, social and environmental impact
- Tell the story of how the new solution they developed in this course will have positive financial, social and environmental impacts and begin to make the business case for investing in the environment

Video:

- What is Natural Capital?

Reading 5:

- Case Study: Cookstove Company: *We'll revisit the final chapter of this cookstove company to illustrate how they began to identify sources of funding to take their idea forward. We'll illustrate how they made the case that creating positive environmental and social change would also have financial value and began to tell this story to important stakeholders.*
- **Section 1:** Why Making the Business Case for Environmental Impact Matters
 - Reinforce the lessons from the circular economy module, this time with an emphasis on business benefits
- **Section 2:** What is Natural Capital?

- Defining key terms like natural capital and ecosystem services
- **Section 3:** Approaches to Valuing the Ecosystem
 - Sustainable Development Goals
 - Natural Capital Project
 - Natural Capital Protocol
- **Section 4:** Telling the Story and Pitching Your New Solution: *How can you begin to tell the story of how financial, social and environmental impact can all be intertwined?*
 - Examples of storytelling and impact measurement from Acumen portfolio companies in energy and agriculture
- **Section 5:** Natural Capital in Action — Case Studies
 - The Nature Conservancy
- **Mini Case Study:** Accelerating and Investing in Conservation Enterprises
 - Conservation X Labs
 - WWF Ventures
 - World Resource Institute's Restoration Enterprises

Workshop Guide 5:

- If your new solution is successfully adopted, what are the positive **social impact** outcomes that will occur?
- If your new solution is successfully adopted, what are the positive **environmental** outcomes that will occur?
- How could you begin to calculate the **financial value** of these positive social and environmental outcomes? What would be lost if this environmental or social impact was not realized?

Assignment 5:

- Put it All Together: Create a summary pitch deck that documents the work you did in this course to develop a new solution that is both environmentally and socially impactful. You should be able to use this final deck to share your work and learnings with others and hopefully move the adoption of your new solution forward. Here's what the deck should include:
 - Summary of the complex environmental challenge you were tackling in the form of your 4-sentence problem and *how might we* question
 - Summary of your organization or your background and why you are particularly well suited to tackle this challenge
 - Mapping the System: Include a picture of your enablers and inhibitor diagram and the point you chose to focus on
 - Circular Design Strategies: Include a picture of the circular design solution you chose to prototype

- Behavior Change Map: Include a picture of your user journey map and the behavior change intervention you developed
- Make the Business Case: Begin to quantify the potential impact of your solution in terms of social, environmental and financial impact
- Moving Forward: How will you take this new solution forward?
- Reflections: What new or surprising insights did you gain in this course?

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- What are your next steps? What steps will you commit to taking to move your solution forward?