

Conservation Finance

January 2020

Syllabus [DRAFT]

“In the end we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught.”

--- Baba Dioum, Senegalese forestry engineer

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INTRODUCTION

We're in a world of hurt. According to the United Nation's recently-released IPCC report on global climate change, we have scarcely a dozen years to limit global warming to a maximum of 1.5°C. Failing to meet this target – by even half a degree – will significantly worsen the risks of drought, floods, extreme heat and poverty for hundreds of millions of people. (UN IPCC, 2018). Meanwhile, global wildlife populations have fallen by 60% in just over four decades, the result of accelerating pollution, deforestation, wetlands conversion and yes, climate change (WWF, 2018). We are facing unprecedented threats to Earth's biodiversity and natural resources. We must do more to address these challenges, now.

One major challenge to the better conservation of nature is the lack of available funding. It's estimated that \$300–400 billion of annual funding is needed to preserve healthy ecosystems – an amount 6-8 times larger than what's currently being allocated by (mostly) governments, foundations and international agencies. We need more financing, and private investment capital may be the only source that can fill this gap. (Credit Suisse/McKinsey, [date](#))

Fortunately, we're seeing an increase in capital committed to conservation efforts – \$8.2 billion in 2015, up from \$2.8 billion in 2014 (Forest Trends, 2016). The majority of these investments were related to sustainable food and fiber production. Moreover, millennial investors are highly motivated by social environmental issues. More than a quarter of investors under the age of 45 have allocated at least 25% of their investments to socially responsible companies, according to a 2017 study by Spectrem Group. Conservation finance – crafting financial agreements to benefit both nature and investors – is an exciting new field which holds significant promise for addressing our current conservation crisis.

Africa is a particularly compelling location to study conservation challenges as it is home to large numbers of threatened species, e.g., rhinos, elephants, giraffes, lions, mountain gorillas, etc. and vast habitats worthy of protection. Many exciting conservation finance programs already exist on the continent, but there is a need for many, many more.

The wildlife conservancy we'll be visiting in central Kenya encompasses more than 50,000 acres of spectacular bushland and is home to significant populations of elephants, wildebeest, Grevy's zebras, reticulated giraffes and rhinos. With a wildlife rescue center, a conservation education program and strong leadership dedicated to the preservation and improvement of natural capital, it's an ideal venue for students to learn about and ideate ways of addressing real-world conservation challenges.

The course itself will take place in January 2020 during the University's J-term session. After a few days in Nairobi visiting with leaders in the field of conservation finance, students will travel to the conservancy where they will engage with managers and staff to identify, evaluate and imagine funding needs and sources. A series of seminars and experiential learning activities is planned, in addition to shorter sessions dedicated to case studies and specific conservation finance topics.

LEARNING GOALS AND AUDIENCE

The following specific learning goals will be addressed in this course:

- 1) **Understand** the challenges facing wildlife conservation efforts in Africa (as an example for the rest of the world) **[knowledge]**
 - a) Ecological challenges
 - b) Social challenges
 - c) Economic challenges
 - d) Political challenges
- 2) **Advise** ways to address these challenges (by adapting/amending existing models or imagining new methods) **[analysis]**
- 3) **Present** results to stakeholders; respond to questions/defend arguments **[communication]**

The course is intended for students in the McIntire School of Commerce and the College of Arts and Sciences. Enrollment is by permission of the instructor and will be based upon students' interest in, and familiarity with the subject material. The combination of experienced University faculty, lectures by well-respected practitioners, on-site visits to international organizations and the unique natural assets of central Kenya contribute to a unique, purposeful and well-developed intellectual experience for students and faculty alike.

CLASS FORMAT

COMM 4589 is an interdisciplinary course offering by the McIntire School of Commerce.¹ The bulk of the course will take place on-site in Kenya during J-term 2020. To prepare for this intensive period of learning, we will meet three times during the Fall semester to get to know one another, understand the scope of the challenge, and introduce some fundamental concepts in conservation finance. Our time in Africa will be spent visiting organizations, participating in field trips at a wildlife conservancy, and working on your conservation finance project. We will also likely visit some cultural sites to get a better understanding of Kenyan society. You are expected to participate fully in question-and-answer sessions during our various presentations. We will depart from Washington Dulles airport on Tuesday, December 31st, 2019 and return Saturday, January 11, 2020.

REQUIRED READING

Case studies available from the UVA bookstore; other readings and videos posted on Collab

GRADING

Grades are based on performance, NOT effort. This course carries three credits in either the College or the Commerce School. Approximately 3 percent of your grade will be based on your contribution to class learning (both domestically and overseas). The remainder will be based on your “Essential Kenya” briefing, trip journal, group presentation and written deliverables at the end of the class.

Your “contribution” grade is one that you must earn. The nature of this class is such that regular attendance is an absolute minimum requirement for the effective acquisition of knowledge. Class contribution, however, involves much more than just showing up. Your performance in class will be evaluated along several dimensions: cognitive skills (insight, knowledge, creativity and logic); expressive elements (clarity, fluency and conciseness); affective ingredients (enthusiasm and interest) as well as your contribution to the process of learning itself (constructive criticism and relevance). Quality contributions change the direction of class discussion to benefit the group, rather than for selfish reasons. Quality contributions can be measured by the frequency with which others cite your ideas and/or respond directly to you. Grades will be assigned on a ‘+/-’ basis.

Individual Grades

Contribution to class learning (domestic)	10%
Contribution to class learning (abroad)	20%
“Essential Kenya” Briefing	15%
Trip journal	10%

Group Grades

Final presentation	15%
Pitch deck	10%
Five-page Business Plan	20%
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Total	100%

¹ Plans are underway to submit this course for cross-listing with Global Studies (GSVS), but the outcome of this decision is still pending.

DESCRIPTION OF DELIVERABLES

There are five other deliverables in addition to your individual contribution grades.

1) “Essential Kenya” Briefing

Students are expected to select one of the topics from the list shown below and then:

- a) Prepare a short outline/summary of the topic with an annotated list of readings and/or videos to share with your classmates before we depart for overseas
- b) Give a brief 10-15 minute presentation on your topic WHILE we’re in Kenya at a time to be announced

Geography of Kenya	Kenyan Education System
Pre-Colonial Kenyan History	Health Care in Kenya
Colonial and Post-Colonial Kenyan History	Kenyan Politics
Demographics of Kenya	Religions of Kenya
Tribes of Kenya	Foods of Kenya
The Masai Tribe	Kenyan Fashion
Kenya’s Major Products and GDP	Kenyan’s Musical Culture
Kenyan Agriculture	Kenya’s Place in the World
Kenyan Wildlife Tourism	Weird Facts About Kenya

As you investigate these topics, please consider how an understanding of them is likely to impact the success or failure of your conservation finance initiatives

2) **Trip Journal** -- see attached guidelines

- 3) **Final Presentation** Each group is expected to present their analysis in a 20-minute oral slide presentation, with approximately 12 minutes for content and 8 minutes for questions.

- 4) **Pitch Deck** A pitch deck is a brief presentation, often created with PowerPoint or Keynote, used to provide your audience with a quick overview of the firm's business plan (or in our case, value proposition). When creating your pitch deck, keep in mind your **audience** and the **final ask**. For the purposes of this class, assume your audience to be the investment committee of a philanthropic foundation or impact investing fund interested in better aligning its portfolio with a general set of conservation values.²

The **eight-slide pitch deck** is a bit of an industry standard and consists of the following elements:³

- a) **One-line summary** of your recommendation and analysis. Think BLUF (aka "bottom line up front") and consider using an assertive statement with "because ..."
 - b) **Problem** -- a brief description of the conservation challenge(s) you're addressing
 - c) **Solution** -- what/how is your idea doing to solve the problem?
 - d) **Market** -- how large an opportunity are we talking about? How likely are we to capture it?
 - e) **Traction** ... an analysis of your idea's business quality
 - f) **Team** ... an analysis of the human resources needed to carry out your idea
 - g) **Competition** -- who else is working on a solution that might be better than the one you're proposing
 - h) **The Ask** ... how much is needed to address the problem you've described
- 5) **Project Report** I'm a real fan of brevity, so I'm asking that your written report take the form of a *Five-Page Business Plan*, which is pretty much what it sounds like! Several years ago, Rolfe Larson put forth the notion of an abbreviated plan that involved "just enough" research and analysis into "just the right areas" that were critical to achieving business success.⁴ He said those results should be summarized in three pages of text, to which should be added a page of financial projections and a final page concerning the expertise of the management team and key risks affecting execution of the plan.

That's not a lot of space, so clarity and conciseness is at a premium. (And to be very clear on my end, I'm talking exactly five pages with margins no less than .75" on all sides, at least 1.5 spacing between lines, and a font size no smaller than 11 point Times Roman). Any exhibits or tables you wish to include need to fall within this limit. (Hint: Some folks format their work in two columns for this reason; that's totally cool).

² Feel free to change/increase the specificity of this assumption if it will help us to better understand your final recommendation. This is still somewhat of an academic exercise, after all!

³ There are all sorts of "industry standard" decks, like this 12-slide version:
<https://pitchdeck.improvepresentation.com/what-is-a-pitch-deck>

⁴ <https://managementhelp.org/blogs/business-planning/2010/09/01/5-page-business-plan-wave-of-the-future/>

Incidentally, at this writing I'm not entirely sure about the facilities available at the wildlife conservancy, i.e., the availability of internet services. I know we'll be able to use laptops and projectors, and I know there will be some internet availability, but I doubt it will be as ubiquitous as we enjoy it here in Virginia. Thus, it might be helpful to download useful materials and bring them with you, and I imagine it would also be helpful for each GROUP to have a laptop to work on. I don't think it's necessary for everyone to bring their computers!

I imagine it will be most convenient for everyone to simply email me their slide decks and five-page business plans.

HONOR

Students enrolled in this class are expected to abide by the standards of the University of Virginia's Honor Code. To avoid any ambiguity, two issues merit special discussion. First, please avoid the temptations of plagiarism. The ready availability of information over the Internet has led to an epidemic of "surfing and pasting" across college campuses. Claiming credit for the work of another is not honorable. Second, in this class, all members of a group will be held equally accountable for work turned in on behalf of the group (aka "joint and several liability"). Thus, it might behoove one to read what one's group has written before signing the pledge.

LEARNING NEEDS

All students with special needs requiring accommodation should present the appropriate paperwork from the Student Disability Access Center (SDAC). It is the student's responsibility to present this paperwork in a timely fashion and to follow up with the instructor about the accommodations to be offered. Accommodations for test-taking (e.g., extended time) should be arranged at least 7 days before an exam.

RESOURCES

Conservation finance is a new, and rapidly-developing field. While there are a few texts out there, the newest and most-relevant material is to be found in the “grey literature” -- reports prepared by environmental groups, development agencies and consulting firms. Here are some citations/links to the most useful reports and books:

Reports

European Investment Bank, 2019, *Investing in Nature: Financing Conservation and Nature-Based Solutions*, Available: <https://www.eib.org/attachments/pj/ncff-invest-nature-report-en.pdf>

This guide helps one identify cost-saving and commercial opportunities from nature, primarily focused on innovative and large-scale financing sources to help one do that. It introduces EIB's Natural Capital Financing Facility (NCFF), a new program dedicated to supporting pioneering conservation and nature-based solutions projects.

CIPC / PwC, 2018, *Conservation Investment Blueprints: A Development Guide*, Available: <http://cpicfinance.com/wp-content/uploads/2018/01/CPIC-Blueprint-Development-Guide-2018.pdf>

The Coalition for Private Investment in Conservation (CIPC) is a multi-stakeholder group focused on increasing the amount of funding for conservation. This report attempts to provide “blueprints” for doing so.

Credit Suisse, McKinsey, Moore Foundation and Rockefeller Foundation, 2016, *Conservation Finance From Niche to Mainstream: The Building of an Institutional Asset Class*, Available: <https://assets.rockefellerfoundation.org/app/uploads/20160121144045/conservation-finance-en.pdf>

Provides an overview of the theory and structures behind conservation finance, and how financial product structures have the potential to establish conservation finance in the mainstream investment markets.

WWF, 2018, *2018 Living Planet Report: Aiming Higher*, Available: https://wwf.panda.org/knowledge_hub/all_publications/living_planet_report_2018/

The twelfth edition of WWF's study of trends in global biodiversity and the health of the planet.

WWF-Clairmondial, 2017, *Capitalising Conservation: How Conservation Organisations Can Engage with Investors to Mobilise Capital*, Available: <https://www.clairmondial.com/wp-content/uploads/2018/03/Capitalising-Conservation-Clairmondial-WWF.pdf>

Highlights opportunities in conservation finance, with the goal of raising the level of investment activity occurring in the field.

Environmental Defense Fund, 2017, *Unlocking Private Capital to Finance Sustainable Infrastructure*, Available: <http://business.edf.org/files/2017/09/EDF-Unlocking-Private-Capital-to-Finance-Sustainable-Infrastructure-FINAL.pdf>

Very nice report summarizing efforts to increase sustainable infrastructure, including the key elements of investment investment-ready projects: a) Funding models, b) Performance measurement, c) Risk management and d) Stakeholder engagement

Credit Suisse / Clairmondial, 2016, *Levering Ecosystems: A Business-focused Perspective on how Debt Supports Investment in Ecosystem Services*, Available: <https://www.credit-suisse.com/media/assets/...us/.../levering-ecosystems.pdf>

Report extolls the uses and benefits of debt in financing conservation using a case study approach. It provides excellent guidance, once an organization has DECIDED to raise debt

IUCN, 2016, *Nature-Based Solutions to Address Global Societal Challenges*, Available: <https://www.iucn.org/sites/dev/files/content/documents/nature-based-solutions-to-address-global-societal-challenges.pdf>

Nature-based Solutions (NbS) actions to protect, sustainably manage and restore natural or modified ecosystems, which address societal challenges effectively and adaptively, while simultaneously providing human well-being and biodiversity benefits. The NbS concept has emerged within the last decade or so, as international organizations search for ways to work with ecosystems – to adapt to and mitigate climate change effects, while improving sustainable livelihoods and protecting natural ecosystems and biodiversity.

Books

Tercek, M. R. and J. S. Adams, 2013, *NATURE'S FORTUNE: HOW BUSINESS AND SOCIETY THRIVE BY INVESTING IN NATURE*, New York: Basic Books

Mark Tercek, CEO of The Nature Conservancy, recounts a number of stories affirming the value to be realized -- both financial and conservation -- of nature's ecosystems

Whitworth, J. 2015. *QUANTIFIED: REDEFINING CONSERVATION FOR THE NEXT ECONOMY*, Washington, DC: Island Press

Drawing lessons from some of the world's most tech-savvy and high-impact organizations, Whitworth shows how "quantified conservation" can help achieve better outcomes

Clark, S. 2007, *A FIELD GUIDE TO CONSERVATION FINANCE*, Washington, DC: Island Press

Pretty much a "how to" guide on setting up and managing conservation finance programs, with an emphasis on land trusts

Levitt, J. N., Ed. 2005. *FROM WALDEN TO WALL STREET: FRONTIERS OF CONSERVATION FINANCE*, Washington DC: Island Press

An early, edited compilation of various examples of conservation finance schemes

Conservation Finance Project Description

The field of finance is comprised of two major decisions: the investment decision (How should we spend our money?) and the financing decision (How should we raise money?) *Conservation finance* -- which we defined earlier as "... crafting financial agreements to benefit both nature and investors" -- is specifically associated with the latter, but in practice, such financing agreements aren't likely to occur unless they are used to finance good investments.

Put another way, the investment decisions and the financing decisions are intimately intertwined, and our conservation finance project will, appropriately, reflect that relationship.

In a nutshell, your assignment is to work in groups of three students to identify an initiative which substantively improves the likelihood of a particular species or habitat to maintain itself (or even thrive!) in the face of the challenges identified below. Groups will be assigned randomly to one of these six challenges affecting the wildlife conservancy, and, after listening, learning, and engaging with the course content, a) Develop a value-creating project benefiting both wildlife and investors and b) Identify and pitch this idea to a specific funding source in a mock presentation session at the end of the class.

Ideally, your work products (pitch decks, pitch recordings and five-page business plans) will be good enough, relevant enough, and practical enough that the conservancy's management will be able to submit them to funding agencies and actually implement your plans!

As we're offering this course for the first time, there are likely to be some adjustments that will need to be made along the way, but Mr. White has had significant success facilitating similar assignments in other courses.

Here are the six big "buckets" of challenges impacting wildlife conservation at the conservancy:

Population Growth / Family Planning -- An increase in human population increases the burden on existing natural resources

Overexploitation -- Renewable resources (land, water, wildlife) are subject are being depleted by overuse, poaching and hunting

Habitat Loss -- Driven by both population growth and overexploitation, loss of habitat is the major driver of species loss

Human-Wildlife Conflict -- humans and wildlife (e.g., elephants, rhinos) aren't always the best of neighbors. Where such conflict occurs, wildlife is generally on the losing end.

Invasive Species -- Invasive plants and animals occupy and/or compromise the niches of endemic species, often with unfortunate consequences for wildlife and ecosystems.

Lack of Education -- In the words of Baba Dioum, "In the end we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught." It's hard to put it much better than that.

Trip Journal Assignment⁵

Your "Conservation Finance" experience should be documented with a journal -- your journal. A few of you may already journal on a regular basis. Some of you may have had journal assignments in other classes. A number of you may be keeping a journal for the first time. **Why not get started now?** But, before we discuss your journal assignment, let's address a few questions about keeping a journal-- What is a journal? Why do people journal? What should I keep in my Conservation Finance journal?

What is a Journal? The *Oxford Dictionary* tells us that a journal is a number of things: 1) a newspaper or periodical. 2) a daily record of events. 3) a logbook. 4) a book in which business transactions are entered. 5) the part of a shaft or axle that rests on bearings. 6) a legislative body's record of daily proceedings. From this definition, we can understand why news gatherers and reporters are often referred to as journalists. Note that the term "diary" does not appear among the definitions. That is because the type of journal that we are describing is not a diary. A diary contains pure observation and very little else: "I had corn flakes for breakfast," or "I saw Susan when I got off the bus," for example.

Why do people journal? People journal for many different reasons--for the sake of history, for personal gratification, because they had to for a class, etc. The works of Samuel Pepys in Restoration England or the writings of young Anne Frank have become literary works of great significance. "Journals should do more than simply record experience: they should reflect on it, reshape it, and evaluate it. The 'success' of any journal depends upon what the writer lets himself/herself see, feel and think, the openness of the writing itself, and the ability to persevere," writes Minnesota State English Professor Mark Vinz. The Quakers used journals to document their actions when they went "into the world for service," but also placed a high value on reflection, in addition to pure observation. Keeping a journal is a serious pursuit. It is a form of "active thinking." A journal has value both in the moment and later on. As we consider our experiences and sensations in the present, we are actually making a snapshot for our remembering, reflection and reevaluation in the future.

What should I keep in my Conservation Finance journal? Whatever your background in journal-writing, your journal will provide the most concrete record you have of your Kenyan travels. Treat this assignment very seriously, not because it contributes to your final grade, but because it will provide you with a vivid keepsake of what will surely be one of the great experiences of your life. Include the following in your journal: 1) Records of places, events, memorable meals, weather, etc. 2) Observations and responses to site visits, readings, people, cities, museums, historical sites and the like. 3) Connections you make between courses, travels and your own life. 4) Conversations and experiences with other people. 5) Personal observations. 6) Reflections on the educational value of what you are doing and how your travel experience has changed you.

⁵ This assignment has been adapted (nearly verbatim) from one given to students participating in the Minnesota State's "Eurospring" program by Prof. Jim Bartruff and used subsequently in several of Mr. White's previous overseas experiences (<http://www.mnstate.edu/bartruff/eurospring.html#JOURNAL%20ASSIGNMENT>, 1 March 2005)

Suggestions for Journal Writing

- Use a loose-leaf notebook which allows you to add, subtract and rearrange your writing. *This also allows you to remove intimate sections you might not want your instructor to read. Regardless, you can be assured of total confidentiality.*
- You may include found objects such as napkins, menus, postcards, leaves, milk bottle caps, drink coasters, wine or beer labels, etc. Save them in envelopes or special folders included with your notebook. *Don't get too carried away with this.*
- Date each entry and add time of day, place and even weather to ground your essay.
- Start each entry on a new page--this allows room for additions or clippings.
- Write in your natural voice but strive to be as precise as you possibly can.
- Avoid hyperbole. Not every sunset, forest or beach can be great, awesome or cool.
- Write with a favorite pen or writing instrument, something you really enjoy writing with.
- Write at different times of the day--your moods do change.
- Write in different places--you'll have different thoughts.
- Write regularly. **Get in the habit of daily entries.**
- As you write, observe the DIE formula--describe, interpret and evaluate.

You must make an entry for each city, visit, activity, site and side trip. Your journal is the source of 10 percent of the credit you will earn for Conservation Finance. Failure to keep a satisfactory journal will likely have an adverse impact on your overall grade.

2020 Itinerary

30-Aug-2019

We're planning to meet three times during the Fall semester before leaving for Kenya. The first two classes will be held on-grounds during the evening; the third will be a predeparture African-themed dinner at Mr. White's house.

TBA Conservation Challenges

This session will explore the "big six" drivers of declining wildlife populations and ecosystem health

TBA A Primer on Conservation Finance

Conservation finance can be broadly defined as the stewardship, protection and restoration of nature through the raising and managing of investment capital. Although the field has been around for awhile, it's only now just starting to gain traction as a viable means for achieving conservation objectives

We'll plan to meet up in Nairobi on Wednesday, January 1st at our hotel. We'll send plenty of instructions before that time to ensure everyone's there!

After a few days in Nairobi visiting conservation finance organizations, we'll depart for the wildlife conservancy on Saturday, January 4th, where we'll spend the majority of our time.

On Friday, January 10th, we'll make our final presentations to the wildlife conservancy management, then return by coach to Nairobi, where we'll anticipate taking evening flights back home, returning on Saturday, January 11th.

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