



FIELD STUDY No. 1:

THE GRASSLANDS STORY

Grasslands is about harnessing the power of the photosynthetic process and converting it into financial, human, and ecological capital.



Introducing Capital Lab's

Field Guide to Investing in a Regenerative Economy



The importance of distinguishing between real investment and financial speculation is a central tenet of sustainable finance. Another is to acknowledge that, given the ecological fragility in which our market economy now operates, it is critical that we get serious about channeling real investment into enterprises that contribute to system resilience, that is, enterprises that enhance the economic system's capacity to adapt and recover in an environment of uncertainty and frequent systemic shocks. Successful enterprises of the future will exhibit these characteristics themselves, and value creation will increasingly be seen through such a resiliency lens. Enterprises that harm system resiliency will suffer, and their value will reflect this reality.

At Capital Institute, we believe such investments need to take place across a continuum—from funding small private enterprises that are “purpose built” to achieve desired social and environmental outcomes, to ESG “best in class” investments in large public corporations that are transitioning their business models in recognition of the ecological and societal challenges we face. These are all different paths up the same mountain. While it may be tempting to focus on the differences, we prefer to emphasize what these practices have in common. Let's remind ourselves to remain humble as we work, together, to harness the power of capital and markets to shift the course of capitalism onto a more just and sustainable path.

With this goal in mind, Capital Institute has created The Capital Lab's Field Guide to Investing in a Regenerative Economy, a “space” where we hope to illuminate an array of investing practices and projects, and to connect complementary approaches into a more meaningful whole. Our objective is improved mutual understanding through the sharing of ideas and experiences.

The “Grasslands Story” you are about to read represents the first installment in the Field Guide. Look for future installments, including case studies, related thematic analysis, and a key resource guide to regenerative economy investing at the Capital Lab.

—John Fullerton,
Founder and President, Capital Institute

The Grasslands Story

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reenwich, CT, is a long way from the wind-swept prairies where ranchers Jim Howell, Zachary Jones and Tony Malmberg make their homes. But it is perhaps an early indication of how the capital markets' terrain is shifting that the three found themselves in the heart of hedge fund country recently, updating their investment partners in a custom grazing business who were as interested in rural job creation, carbon sequestration and soil enrichment as they were in how increased stocking rates and fatter cattle would enrich them financially.

The investment in question is Grasslands LLC and the investors are John Fullerton, CEO and Founder of the Capital Institute, and Larry Lunt, owner of the family office Armonia. Grasslands' hard assets are 14,000 acres of pastureland in South Dakota, now operating under the Holistic Resource Management principles crafted by Allan Savory, a Rhodesian biologist and rancher. Savory started out as a game ranger in the 1950s and 60s on what Howell describes as "one of the last tracts of intact biodiversity" in what is now Zambia. Through close observation, Savory discovered that where wild grazing animals and their associated predators roamed free, the soil was remarkably porous and nutrient rich, and the plant life unusually diverse. He has dedicated his life to replicating these earth-healing habits of wild animals with domestic livestock, conventionally viewed as resource-degrading, not resource-enhancing. Savory came to the realization that it is not the livestock that are the problem, but how the livestock are managed.

Ranches like those owned by Grasslands—covering an estimated 30 million acres in North and South America, Australia, New Zealand, and Africa—are testament to the viability of the management practices that Savory promotes through the Albuquerque-based Savory Institute and its sister organization, the Africa Centre for Holistic Management in Victoria Falls, Zimbabwe. Given that nearly half of the earth's land mass is grasslands, if these projects can successfully reclaim land that has been degraded by conventional livestock management and human population expansion, the implications will be game changing for the planet.



Right: Grasslands Northern Great Plains Division Manager Zachary Jones, Alan Savory, and Savory's wife and co-founder of the Savory Institute Jody Butterfield.

Opposite page: The Grasslands team and investors relaxing at camp.



Sowing the Seeds

The seeds for the Grasslands project were sown two years ago when Savory contacted Fullerton after reading the latter's paper, *The Relevance of E.F. Schumacher in the 21st Century*. Fullerton, as it turned out, was already aware of and intrigued by Savory's work, and the two met in Rye, NY, where Fullerton arranged for Savory to give a lecture on Holistic Decision Making. Then, in January 2009, Fullerton and Lunt met for a day and a half with the Savory Institute team to discuss their vision for a "brown revolution"—that is, a focus on regenerating soil health, as opposed to growing ever greater yields of hybrid crops (dependent on soil damaging agrichemicals), which has characterized the "green revolution." They ended up hammering out a model for a for-profit grazing business based on holistic principles. The intention is to build a business that generates a solid financial return to investors, creates highly meaningful employment in rural communities, produces abundant, high quality food and

fiber, and heals grassland on a vast scale—yielding triple bottom line returns. The hope is to create a model that will inspire imitation and replication. Howell and Jones, members of the Savory Institute team, were named, respectively, CEO and Northern Great Plains Division Manager of the new operation.

Grasslands is structured as two distinct legal entities. Armonia and Fullerton's impact investment company Level3 Capital jointly own Belle Fourche Land and Livestock (BFLL), a limited partnership created expressly to fund the purchase of ranchland. A second entity, which manages BFLL's ranch properties, Grasslands LLC, is a general partnership owned 50 percent by Armonia and Level3 Capital, and 50 percent by the Savory Institute.

BFLL has thus far acquired what were two underperforming South Dakota ranches previously owned by absentee investors who had failed to manage the properties to their full potential. This outcome of absentee ownership is all too common in ranch country, says Howell. "People often invest in ranchland for the romance," he says, "but few have the practical skills and

knowledge base to make them work. Grasslands invested in these ranches because they were underappreciated assets with fantastic ecological, and therefore financial, potential. For us, ecological potential and productivity are one in the same. The more ecologically healthy we can make these ranches using holistic practices, the more livestock we can run on them. We can typically double the stocking rate, which increases revenue and dramatically increases profitability and dividends. This translates to an increase in the value of our properties, and between increasing profitability and property appreciation, we believe we will be able to achieve highly competitive financial returns. We're primarily interested in the annual dividend generation component, since we plan to hold on to these properties indefinitely."

Immediately after acquiring the South Dakota properties, the operators of Grasslands set about ensuring that their grazing practices worked with, rather than against, nature. "Any time you try to fight nature you increase expenses," Howell maintains. "For example, the South Dakota ranches are not winter properties and if we had tried to winter cattle out there it would have a major negative economic impact. So we graze the cattle only during the natural window of land productivity—from early May to first of December—and these are 'custom-grazed' cattle, which are cattle that we don't own, but graze on contract for their owners. We convert every pound of grass to livestock weight when the grass is green and growing rather than compromised by the winter weather." "You can think of us as a costume store that is only open around Halloween," says Jones, "not the rest of the year when no one wants to buy Halloween costumes."

Malmberg, co-founder of the Savory Institute and an advisor to Grasslands, is living proof that holistic management pays off. He was originally drawn to the practice when he attended a weeklong Savory workshop in 1987 at a time when his own family's Wyoming ranch was on the brink of bankruptcy. Within ten years after implementing holistic practices he increased his stocking rate by 250 percent and sold his ranch for a 300 percent capital gain. Malmberg now operates a cattle ranch in Union, Oregon, with his wife, Andrea.

Given track records like Malmberg's, why isn't every rancher rushing to adopt holistic land management practices? Jones draws another analogy to explain the phenomenon, noting that although everyone is aware of the health benefits of jogging, few adopt the practice because it requires a long-term commitment and habit reversal. Indeed, the approach of



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holistic management challenges some of the most deeply ingrained traditions of ranching culture, says Howell, "the pride and toughness in what you have done and your great granddad did. We value and honor tradition, but also accept that the way we've done business and engaged with our land has been unsustainable. Recognizing and admitting this,

and taking proactive steps to address it, requires new thinking, humility, and the formation of new, more constructive habits—it's exciting, but not easy." A fifth generation cattle rancher whose father was introduced to Savory's holistic management in 1984, Jones reports that the term "holistic" did not resonate with his father's generation of ranchers. "It's not about muscle and pride, it is about a new concept of 'going beyond thyself,' recognizing where your weaknesses are in your work and ultimately in your life," he reports. "You have to identify your weaknesses, internalize your shortcomings, specifically address them, and act—a hard concept to get across to ranchers and our culture."

Howell admits that those ranchers who have latched onto holistic management are either "odd like us, or in dire straits and running out of options." But even the latter sometimes prefer to fail rather than alter their business practices. Still, Howell is optimistic about converting a younger generation to holistic practices: "They are Zach's generation, the Gen-Y offspring of the baby boomers, and they realize the world is in a tough spot now. There is an open mindedness about these young people that gives me hope."

allow him to test a methodology that held the promise of significant positive social and/or environmental outcomes. This early support would enable the enterprise to attract a second phase of capital. "A project that was meaningful, a game changing project, that was what I was looking for," says Lunt. Grasslands met all these criteria.

Fullerton views Grasslands as the "quintessential biomimicry play." "We have a case study here of true wealth creation in Grasslands," he says. "We are building biodiversity, soil fertility, sequestering carbon, and generating financial returns. And if my belief of what will happen to ecosystem services plays out, we will make a lot more money with these assets than with most financial assets." Fullerton also sees Grasslands as an inflation hedge: "The price we get paid for grazing has been highly correlated with inflation," he says. "That is extremely comforting at a time when monetary policy seems to be about dropping cash out of helicopters. To me this is a smarter investment than gold that has no intrinsic value. And if I am wrong about the world running into trouble, I am delighted to earn ten percent on this."

The Investors' Perspective

What attracted Fullerton and Lunt to the Grasslands project? A native of Belgium, where investors typically operate with a long-term perspective, Lunt was looking for an investment that his family office would purchase and hold "in perpetuity." Its financial return would consequently be dependent not on liquidation value or long-term capital appreciation but on the generation of an annual dividend. Lunt was also seeking an investment that he could actively manage and that would

Opposite page: Grasslands investor Larry Lunt.



From left: Grasslands investor John Fullerton, Division Manager Zachary Jones, and CEO Jim Howell.

Grasslands: The First Year

Howell reports that the two South Dakota ranches are expected to double in value and in productivity over a ten-year period and to yield annual dividends on the order of 4 to 5 percent in the early years, increasing to 10 to 11 percent in the later years. “Assuming investor liquidation in 10 years and no leverage, we expect a 12 percent IRR,” he says.

So far, however, Grasslands has not achieved its initial projected financial targets. “We didn’t achieve our numbers in year 1 because we closed on the South Dakota properties in April and turned cattle out to pasture in the first week in May,” says Lunt. So, there was a timing crunch—lots of cattle needed, and not much time to find them. On top of that, as custom grazers new to the area, Howell and Jones had their work cut out creating credibility with cattle owners. Says Howell, “This stands to reason, since we don’t have a track record in this

neighborhood of the prairie yet, and our perception of what this land can produce doesn’t totally align with the local conventional wisdom. We wanted to graze more cattle than our customers thought we could run, but given the tight timing and our newness to the area, we had to defer to our customers, which, given the circumstances, was reasonable.” First season results were favorable from the cattle owners’ point of view, and “we ended up with masses of grass,” says Howell. The process of credibility-building has begun, and Howell and Jones anticipate an easier time sourcing full cattle numbers in 2011.

Howell and Jones also rode a steeper learning curve than expected in understanding their newly acquired properties. “They produced a slightly different quality and quantity of forage than we expected,” says Lunt. Howell and Jones plan to respond by introducing different combinations of livestock to make more efficient use of the terrain. “We viewed the first year as a pilot,” Lunt reports. “So even though the numbers were below what we were expecting, when we analyzed the reasons why and how we can adapt for next year we were reassured.”

“Our hope is that we will get a seat at the table of public policy on how we need to shift land management practices to avoid the continued desertification that threatens all life on earth through loss of biomass and loss of massive carbon sequestration potential.”

Measuring The Triple Bottom Line Returns

As a triple bottom line enterprise, Grasslands plans to incorporate monitoring protocols that objectively measure the financial, ecological, and social progress of their efforts. “We are good at measuring the effectiveness of certain ecosystem processes like the mineral cycle and the flow of energy captured by plants,” says Howell. To more precisely measure the carbon sequestration value of its land management practices, Grasslands has hired Applied Ecological Services. Although they do not rule out the possibility of earning credits for carbon sequestration in some future carbon market, the Grasslands business model does not project revenue from that source. “The only financial value currently projected is directly related to increasing stocking rates and the weight of the grazing livestock,” says Jones.

Grasslands is seeking partners to create more meaningful measurements of other ecological and social progress toward desired outcomes. They are working with Land EKG, a Bozeman, Montana, based company that specializes in measuring changes in subtle ecological indicators at the soil surface. And Grasslands is currently in conversations with Ecoagriculture Partners—a Washington, DC-based group that can help track the socio-economic effects of Grasslands’ presence in rural communities. At the same time, the Grasslands team recognizes that many of these outcomes cannot be quantified, and, indeed, some may not even yet be definable. For example, reports Howell, “clearly the way the northern Great Plains was originally settled by Europeans was not congruent with the natural capacities of the land. A lot of these small towns might not have been built in the first place if that had been the case. So we are not trying to hypothesize upfront how these communities should or will look. We just want them to be self-sufficient and offer strong job opportunities.”

Down The Road For Grasslands

While their goal is to avoid the short-termism built into the exit strategies of the typical venture fund, Lunt and Fullerton do hope to create a liquidity mechanism for Grasslands that will allow future investors to participate without the land assets

being sold. “If we are successful in generating annual returns we will hopefully be able to create either an internal market for Grasslands, or access to a private market, or perhaps we may eventually go public,” reports Lunt.

Since they have not yet proven their model on a financial basis, Lunt and Fullerton intend to fund the next round of investments in Grasslands before they invite other investors to participate. “Opening it to others will present an additional set of challenges we are not yet ready to take on,” says Lunt. “Now we are just the two of us and we can make decisions quickly. With other investors we will need to be much more concrete about our goals and plans. We are not sure, for example, what investment vehicle is optimal and what kind of liquidity and annual return we are prepared to offer.”

Fullerton and Lunt are now poised to invest another \$15 million in ranch properties in Montana and South Dakota, with up to half of that provided by lenders if satisfactory terms can be arranged. “The idea is to have some diversification even in the Northern Great Plains,” says Lunt, “so all our data is not coming from the same place and we can prove the model in other locations.” If all goes according to plan, the Grasslands team hopes to identify an additional \$30 million in properties in 2012 and 2013, respectively.

Looking down the road, Howell envisions the Grasslands ranches including a balance of both growing season and winter country, and thus grazing cattle year round. He also hopes to eventually build a production model that takes ecologically-enhancing cattle, harvested directly off of biodiverse, native prairie, all the way to the final consumer. “Now when the cattle leave our properties they go to a feedlot for final finishing,” he reports. “Our ideal is to create a highly liquid market for grass-finished cattle, but that is an entirely different business than land management and custom grazing, which are our core competencies. In the meantime, we can ranch at scale, and do a lot of good on the land and in these communities, by participating in the chain of production of the conventional cattle industry.”

The Grasslands team is confident that it will soon have a compelling story to tell investors and increasing opportunities to purchase properties from retiring ranchers, building on the traditions of older generations. But as it moves to expand,



Grasslands will also face certain constraints. For example, a good portion of the grazing resource of many western ranches includes state or Bureau of Land Management leaseholds. These often come with stipulations that limit flexibility in management. “If we want to put more cattle on the land because our management practices can sustain that, that involves the creation of robust documentation supporting this decision, and then working to create genuine, trust-based relationships and credibility with our BLM and state landlords,” says Fullerton. Furthermore, leased property does not generate capital appreciation, although the acquisition and use of this land is less expensive, and typically generates a higher annual dividend than deeded property. Consequently, the Grasslands financial model requires tweaking depending on the contribution of leased land to the value of specific ranch assets.

The Grasslands team anticipates a day when their competitive advantage erodes as more ranchers adopt holistic grazing practices. “In a sense you might say we have an ‘unfair’ advantage because we look at the land through different ecological and financial eyes,” says Howell, “But we look forward to that day when we no longer have that advantage because it means our model will be having an impact.”

At the end of the day, says Malmberg, “Grasslands is about harnessing the power of the photosynthetic process and

converting it into financial, human and ecological capital.” But, he quips, “success will be measured in our demise.” Jones takes one last stab at an analogy: “It is like loving a cake that only our Grandma can make,” Jones adds, “but if everyone in the world could make that cake we would love it even more.”

“In terms of our vision,” says Lunt, “we are trying as hard as we can to make this both an attractive investment vehicle and a satisfying practice. Even if the dividends are not what we originally expected, we feel this will have been a better place to invest than a conventional vehicle. I believe if we remove the financial goal as the primary one we will ultimately be more successful over the long term. Focusing too much on financials sometimes makes it harder to achieve them.”

“What Larry and I want to do is create a company that is big enough to be a serious enterprise and that becomes a platform for proselytizing for holistic management of the world’s grasslands,” says Fullerton. “Our hope is that we will get a seat at the table of public policy on how we need to shift land management practice in the US and globally to avoid the continued desertification that threatens all life on earth through loss in biomass and loss of massive carbon sequestration potential.”

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