Three is company: fixing the grazing-land business conundrum

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ABSTRACT

Grazing-lands have the largest footprint on the world’s land surface area but this is not reflected in the amount of business conducted on them. The most common land use systems are very land intensive, i.e., they use a lot of land to produce not very much and few jobs. The health of the planet depends on having healthy grazing-lands but there is a perfect storm brewing in which the demand from expanding pastoral communities for more food and jobs cannot be met just by applying good grazing-land management practices. Compatible businesses must be found that can create jobs without increasing the pressure on the environment. Fortunately there are many resources found in grazing-lands that could be exploited to create scalable employment-creating industries. However, taking up such opportunities requires big investments. However investments in grazing-land areas have to contend with a lot of uncertainty that is compounded by the need to satisfy three very diverse interested parties: i. Investors in the businesses, ii. Customers for the products of the businesses, and iii. Local communities. Traditional business planning techniques are not suited to coping with so much uncertainty and the consequent need for continuous experimentation in search of elusive pathways to business success. They are also not well suited to facilitating co-creation of businesses by very diverse potential business partners. To address these problems this paper proposes the innovative Lean LaunchPad approach, which was introduced by Steve Blank in 2011 at Stanford University and UC Berkeley to teach founders how to reduce their failure rates through the combination of business model design, customer development and agile development. The key message of this paper is that the divide between large-scale investors and the local grassland communities is an unnecessary and unfortunate barrier to rational and equitable large-scale mutually beneficial, profitable and sustainable investments in grazing-land areas.

Introduction

Grazing-lands, which encompass both grasslands and rangelands, have the largest footprint on the world’s land surface area but this is not reflected in the amount of business conducted on them. The most common land use systems are very land intensive, i.e., they use a lot of land to produce not very much. Huge ranches provide good livelihoods for just a few people and communal grazing areas inevitably degenerate when livestock and human populations increase beyond their capacities to support them.

For grassland people, to have better futures compatible businesses must be found that can create jobs without increasing the pressure on the environment. Where there are mineral resources they should be carefully exploited but extractive industries will only survive until the deposits are exhausted and they have are rarely been of much benefit to the local communities. Ecotourism and handicraft industries must be encouraged but the small markets for their products will always limit their impact. Grazing schemes are absolutely vital for natural resource conservation but they cannot accommodate many families and they tend to conflict with the interests of excluded neighbours. For example, despite painstaking interactive planning with the local communities, the Maasai Mara conservancies in Kenya have to constantly contend with counter claims and encroachments by relatives of members and non-members who are not benefitting.

Ways of avoiding conflicts over resources must be found because they deter investment and results in massive costs of lost opportunities for creating scalable employment-creating industries. To be able to capture such opportunities without generating conflicts it will be necessary find ways to identify and respond to the demands of three very different interested parties, i.e, Investors in the businesses, Customers for the products of the business, and Local communities. That presents a formidable challenge because in the past attempts at bringing such disparate parties together has formed crowd that are incompatible with big business. Solving that problem will require finding innovative approaches
to identifying, planning and managing businesses in which all three parties can participate actively in win-win-win pursuit of their own long-term interests.

That is exactly the problem that led to the development of the ‘Lean Launch Pad’ approach, to business planning which was launched by Steve Blank in 2011 at Stanford University and UC Berkeley to teach founders how to reduce their failure rates through the combination of business model design, customer development and agile development.

**Background**

The good health of the vast grasslands is vital to the good health of everyone on the planet. In addition to producing food and many non-food products they are essential for conserving biodiversity, preserving watersheds and in sequestering carbon to ameliorate climate change. Without their proper use it will be very difficult, if not impossible, to support the 9 billion people who will inhabit planet earth by 2050 (Kaufmann 2013) but there is a tipping point after which the more people that try to depend on them the fewer people they will actually be able to support.

The theme for the 22nd International Grassland Congress (IGC 2013) appropriately recognised that grasslands include many systems that are facing severe challenges to their future productivity and therefore to the livelihoods of over 700 million people, directly and many more indirectly, who are dependent upon them. It foresaw the need for appropriate policy and management responses to the negative impacts of population pressure, climate change, food security, water resources and energy reserves. The Congress’s raised awareness of the need for holistic approaches to address the causal stresses and competing demands.

The Congress sought ways for encouraging young scientists across the world to view grassland systems in new exciting contexts by revealing the opportunities for more effective grassland management emerging from technological advances, ecosystem management, cultural and community forces and markets. It searched for solutions among the diversity of models and approaches to research, development, education and extension.

However, it did not address the fact that large complementary investments are required to establish businesses that are big enough to create sufficient employment for the growing numbers of people who cannot make a living off grazing-lands without aggravating their degradation. That unseen elephant loomed ominously over the congress hall. It must not continue to be ignored or else it, in the form of too many people and livestock and inappropriate cultivation, will trample remorselessly on all grassland research and development endeavours.

There are many commendable progressive grazing-land research and development initiatives. For example, on the northern and eastern boundaries of the Maasai Mara National Reserve much of the traditional Maasai grazing land has been converted into wildlife conservancies.

On these conservancies, the Maasai landowners have come together to benefit from ecotourism by committing to joint land-use and lease agreements with tourist camp operators who pay the community members an annual rent and a daily fee for each visitor. This approach, first tried in Kenya in 1997, has progressed well with one large area after another converting from cattle grazing to ecotourism and conservation. Sometimes the Maasai retain limited livestock-grazing rights in these areas and particularly in the corridors between them.

Of course there have been some difficulties. A few participants have engaged in side trading their grazing rights or have been less diligent in observing the rules about where to graze at particular times. Nevertheless the conservancy model is considered to be a massive success (Boynton 2014). Each conservancy has a limited number of tourist camps and none of them are fenced and the health of the natural environment is being restored. Where there are fences they are used to keep people and livestock safe rather than to enclose the free-roaming wildlife. The wild animals prefer the less visited conservancy areas where there is more bush cover and humans pose little threat. So there are now more wild animals on the conservancies outside the world-famous Maasai Mara National Reserve than within it.

However, there are unresolved external tensions that are highlighted by the very raison d’etre for the conservancies, which is to act as buffer zones against the spread of the cultivated fields of ever-expanding neighbouring communities. The buffer zones will have served a vitally important function if they succeed in this function until alternative solutions have been found, but they cannot by themselves be a permanent solution. All dams must have provision for overflows without which their walls will sooner or later be breached. This paper is concerned with the processes for identifying and designing employment-creating businesses that can serve as overflows for job seekers in holistic grassland development.
Alternative revenue sources are also required to deal with problems affecting ecotourism that endanger the conservancy model. Chief among these is the unreliability of tourist numbers as evidenced by the drastic fall in numbers in the wake of terrorist activities in the East Africa even though the incidences occurred far from the Mara (Boynton 2014). The plight of the 50,000-acre Naboisho conservancy illustrates the fragility of the schemes. Even though it only has five camps with 134 beds it has a guaranteed income of $1 million a year. However, if tourist numbers are not restored it will not be possible to sustain that guarantee and the landowners will have little choice but to revoke the conservancy agreement and return to breaking the land into plots of maize and wheat.

Fortunately there are many potential industries that could be attracted to grazing-land areas where labour and land are relatively cheap and there are unexploited natural resources. A study by UNEP and the World Agroforestry Centre found that there is also enough water falling as rain over Africa to supply the needs of some 9 billion people (UNDP and ICRAF 2006). They estimated that in Ethiopia alone there is a potential to harvest sufficient rainwater for over 520 million people. It may be counter-intuitive to agriculturalists but seawater is increasingly used for irrigation (Glenn et al 1998) with untold potential in the huge coastal deserts of Namibia, Djibouti, and Mauretania etc. In another approach seawater greenhouses (Figure 6), are running in Eritrea (Seawater Forest Initiative), Mexico (Seawater Foundation, Bahia Kino), the United Arab Emirates (UAE University) and Australia (Seawater Greenhouse). These are managed by private organizations with funding from both public and private sources. The fact that they are exploiting very different technologies is particularly encouraging.

The fact that such schemes are economically attractive suggests that it would be good to find ways of avoiding disputes between developers and local communities. That would remove a critical disincentive for investors to take advantage of the grazing-lands abundant resources and the growing markets for food and other agricultural products.

A review of grassland development issues (Kaufmann 2103) identified 23 skills needed for successful grasslands research and practice that were waning or had not yet been developed. Topmost on that list were the skills needed for developing grassland investment plans including financial analysis and investment planning for commercial grassland enterprises. Research since IGC 2013 confirms that it was appropriate to put these particular skill deficiencies at the top of the list, but the paper was wanting in defining the consequences of not addressing them. It hardly touched on the skills and tools needed to associate local communities with the scale of investments required to sustainably improve their futures.

However, very importantly, it did assert that the people are not the problem. Contrary to common perceptions, pastoralists are not irrevocably locked into their traditional lifestyles but are in fact astute businesses persons. For example, the apparently irrational desire to have large numbers of animals is economically rational when land is the most limiting constraint. Despite apparent overstocking and low levels of production per animal, communal grazers in Kenya and Botswana consistently out yield neighbouring commercial ranches in terms of returns to land (De Ridder and Wagener 1984). Sandford (1983), cited in Barton et al (2001), explained that there are good reasons to hold on to animals until the income from milk, reproduction and blood falls below their salvage value during droughts.

The traditional approach to planning large-scale investments in rural areas is to develop detailed business plans and then try to persuade the affected local communities to accept them. This approach has several drastic, often fatal, flaws. The plans are too complicated to be developed in a participatory way with laypersons. Moreover they are usually written in a language foreign to the affected community. This author was tempted to say that such plans are ‘too sophisticated’ but it is not at all sophisticated to apply methods that the proposed collaborators cannot understand.

Ironically, even if all the involved parties could understand business plans, where there is so much uncertainty such plans are not helpful because they raise the risk of failure. Even in the more certain business environments of developed economies business plans do not prevent 75% of start-ups from failing (Gage 2012). The odds against success are even less favourable in grazing-lands of developing economies where there is so much more uncertainty.

**Materials & Methods:**

The Lean LaunchPad alternative to traditional business plans:

The Lean LaunchPad approach copes with uncertainty by framing the proposed actions that comprise business models as hypotheses backed up by
clear metrics and processes for testing and validating them. This brings to business modelling the managerial equivalent of the scientific method, which should appeal to grassland scientists. It brings more rigour and greater transparency to investment and management decisions.

In the context of grazing-lands in developing countries the application of the Lean LaunchPad ‘build-measure-learn’ approach offers huge benefits for encouraging collaborators from different cultures and backgrounds to trust each other and to work together effectively because it removes the incentive to hide information or paint overly optimistic pictures.

**The Business Model Canvas:**

Articulating how the model will function and be profitable is greatly facilitated by using the Business Model Canvas (Osterwalder and Pigneur 2010). To quote an Alexander Osterwalder blog; the Business Model Canvas( “is basically a visual template that allows you to create a shared language and it gets your idea out of your head onto the poster or a piece of paper to make it crystal-clear. … You capture the idea, you tell the story very quickly on one piece of paper.”

A case study of how the business model canvas can be applied

To demonstrate the utility of applying the Business Model and Value Proposition Canvases to finding win-win-win businesses a case study may be created from hypothetical large-scale horticultural investment similar to SunDrop’s. In this case the three parties would be, i. remote the supermarkets that are the customers for the horticultural products, ii. the external investors in the business of producing and processing the vegetables, and iii. the local pastoral community. Members of each community have particular jobs that they want help to do as efficiently as possible, gains that they want to achieve and pains they want to alleviate.

It will take patience and several meetings to complete the numerous iterations needed to tease out the optimal matches between the jobs, pains and gains of each party and the goods and services that a horticultural business and its ancillary enterprises could provide but, if that is done well, it will be rewarded with concepts for a truly sustainable scalable businesses. The following paragraphs demonstrate, albeit in a necessarily simplistic way, how the Canvases can be used to tease out such long-term win-win-win options.

Very importantly for pastoralists is that, if they cannot be shareholders in the main business, they can take up associated business opportunities. For example they could form a business to buy the vegetable cut offs and food residues as supplementary feed for their livestock. Their involvement will assure that the discards will be handled in ways that will retain optimum livestock feed value, which is not the case in present horticultural businesses that regard the material as mere waste.

**Other uses for the Business Model Canvas**

In a blog Alexander Osterwalder has noted that there are many ways in which the Business Model Canvas can be applied. Examples pertinent to the horticulture case study include:

- **Strategic Planning** - The Canvas provides a pragmatic means of involving all parties in strategic planning because it provides a very clear foundation and direction for the conversations that the parties must have and it is just as applicable on a flip chart under a thorn tree or being projected on a screen in a boardroom.
- **Dashboards** - The Canvas can be used as a dashboard with indicators for the building blocks each with its own performance metrics. The Post-Its can be green if their performance is satisfactory, orange if there is something to be worried about and red if there is a problem that must be dealt with immediately. The block headings can be changed to suit other uses. For example, four blocks can be used for SWOT analyses with the other blocks available for comments.
- **Understanding Competition** - By sketching out the business models of competitors it is possible to give laypersons such as pastoralists a better understanding of their strengths, limits, constraints and what they can or cannot do. This will indicate if there is a need to change to be able to compete better.
- **Alignment and on-boarding** - Businesses in grazing-lands will have to satisfy authorities, such as District Councillors who are not too well informed about what the businesses are doing and how they could help. The Canvas is well adapted to bringing such persons on-board because it helps convey a quick understanding of the whole business, almost at a glance.
- **Strategy diffusion and co-creation** - A very powerful way to use the Canvas is in the context of strategic alignment within an organization to create buy-in and this especially important when...
such diverse parties are involved. The canvas can reveal in easily understood ways exactly how the strategy will be implemented.

Results and discussion

The world’s grazing-lands are entering a perfect storm in which the demand from expanding pastoral communities for more food and jobs cannot be met by traditional good grazing-land management practices but, at the same time, it has never been more important for the health of the planet that those good practices should be applied. Unless this vicious cycle is disrupted the range research and development initiatives aimed at helping the inhabitants gain long-term vested interests in good conservation practices will succumb to immediate demands for more food. To avoid that disastrous outcome jobs must be created off the grazing-lands to cater for expanding numbers of job seekers.

Fortunately there are a lot of underexploited resources on grazing-lands and technologies are emerging that are opening possibilities for exploiting them to establish scalable businesses. However, to date the large businesses that have been established in grazing-land areas have tended to bypass the local communities rather than do businesses with them. Local people have not even benefited from the employment opportunities because they have had little opportunity to acquire the necessary job skills. They have had to watch with increasing resentment outsiders flood in to take jobs that, with a little training, should have been theirs.

The investors have limited their interactions with the local communities to paying compensation for land and providing indirect social mitigation measures. These, at best, may satisfy immediate demands but they leave the locals dispossessed of their inheritances, impoverished and with simmering grievances that can erupt at any time. These compound the already daunting risks and uncertainties of establishing large-scale businesses in remote areas.

These complex circumstance call for an alternative to traditional business plans that are not well suited to creating businesses where there are so many unknowns, especially when they involve very diverse communities. The Lean LaunchPad approach provides such an alternative because it is designed to enable new businesses cope with risk and uncertainty to reduce their failure rates through the combination of business model design, customer development and agile development.

The process of articulating underlying hypotheses to explain the perceived business opportunity and then prioritising them, testing them through build-measure-learn loops, capturing the lessons learnt applies the scientific process to business. By facilitating rapid response to new information emerging from experience the LeanLaunchPad approach opens scope for involving local communities directly and actively in a wide range of potential investments, which could tap presently underutilised grazing-land resources such as the human capacity, green energy from wind and sun, and access to land.

By its facility for enabling the different communities to work together, the Business Model Canvas breaks the mould of the three communities being a crowd by enabling them to come together in very effective company. This gives the Lean LaunchPad the potential to solve the ‘three is a crowd’ conundrum to facilitate the formation of companies that can resolve the seemingly intractable problems that have confounded progressive grazing-land development.

Conclusion

Grazing-lands have the largest footprint on the world’s land surface area but this is not reflected in the amount of business conducted on them. The most common land use systems are very land intensive, i.e., they use a lot of land to produce not very much and few jobs.

The health of the planet depends on having healthy grazing-lands but there is perfect storm brewing in which the demand from expanding pastoral communities for more food and jobs cannot be met just by applying good grazing-land management practices. Compatible businesses must be found that can create jobs without increasing the pressure on the environment.

Fortunately there are many resources found in grazing-lands that could be exploited to create scalable employment-creating industries. However, taking up such technologies requires big investments. A further disincentive to making such investments in grazing-land areas is that they not only have to contend with a lot of uncertainty and risk but these are compounded by the need to satisfy three very diverse interested parties: i. Investors in the businesses, ii. Customers for the products of the businesses, and iii. Local communities.

Traditional business planning techniques are not suited to coping with so much uncertainty and the consequent need for continuous experimentation in search of elusive pathways to business success. They
are also not well suited to facilitating co-creation of businesses by very diverse potential business partners. To address these problems this paper proposes the innovative Lean LaunchPad approach, which was introduced by Steve Blank in 2011 at Stanford University and UC Berkeley to teach founders how to reduce their failure rates through the combination of business model design, customer development and agile development.

The key message of this paper ‘Three is company: fixing the grazing-land business conundrum’ is that the divide between large-scale investors and their customers from the local communities is not only undesirable but it is also an unnecessary and unfortunate barrier to rational and equitable large scale mutually beneficial, profitable and sustainable investments in grazing-land areas.

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