

Livestock policy in Special Areas, Alberta, Canada

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Abstract

Special Areas, Alberta, Canada, is a rural municipality of 2.1 million hectares (about 5 million acres) in south-eastern Alberta. It is home to almost 5000 residents, with a unique governance arrangement in Alberta. Most of the farms and ranches utilize a mix of crop and livestock primarily annual cereal and oil seed cultivation and beef cattle. These production units are usually a mosaic of privately-owned land and Crown land leased from the government.

It provides an interesting case study for the local, and national challenges facing western Canadian agriculture. It also provides an opportunity to contrast with different bioclimatic and socioeconomic cases in other areas of the world.

This case study will analyse the main changes in the area over the past 100 years according to the following four drivers: technical/technological changes, market and supply chains, socio-demographic trends, and public policies.

These drivers include a discussion of rangeland and forage management that has increased value to the resource, including branding organic and natural and sustainable products, and development of systems for payment for ecosystem services. A variety of technical and technological changes have provided opportunities to manage for long term economic and environmental sustainability. The socio-demographic challenges and opportunities facing the area will be considered.

Introduction

It is argued Special Areas is one of the areas in Western Canada that should have never been ploughed. These lands had been inhabited for centuries by nomadic indigenous peoples who followed the buffalo. Initial exploration in late 1850's found a barren prairie in the drought portion of the weather cycle that continues to mould and challenge inhabitants today. Reports warned much of the land would never support human life. However, years later, ranchers drove herds of longhorn cattle up from Texas finding ample grass, and good water supplies (Gorman, 1988).

Public policy has played a key role in the history of Special Areas. The settlement of the first pioneers was the result of the Canadian government's policy at the beginning of the 20th century, to occupy the western territories by building a railroad to cross the country from east to west. Before the settlers arrived the dominant land-use was indigenous peoples living a gathering and hunting life based on bison grazing natural grassland.

Successive policies since the mid-19th century in Alberta's rangelands have had a major role in the settlement of immigrants and in their permanence on their lands, and in the construction of a rural society based on livestock farming. The focus area is south of the North Saskatchewan River, and running to the northern border of the United States covering most of the southeast corner of the province.



By the late 1920 there were 26,000 people living in the area presently known as the Special Areas. This was much more than the rangeland transformed into cultivated land could sustain. Recurring droughts hit the region with sandstorms causing terrible soil erosion due to rangeland degradation. The depression years of the 1930's, especially the strong falling prices, led to disaster and hardship in Special Areas. Farmers defaulted on loans and taxes, 27 rural municipalities were bankrupt and over 2.2 million acres (900,000 ha) of land was lost under tax recovery proceedings. The economy collapsed.

After an economic depression and drought in the 1930s decimated the area, the Alberta Government established a special governing body to provide municipal services. Administered under the authority of the Special Areas

Act, the Minister of Alberta Municipal Affairs, through ministerial order, delegates authority to the Special Areas Board to provide those services. This Board is responsible for the administration of about 2.6 million acres of provincial Crown land. The land is leased directly to agricultural producers for grazing and cultivation by the Special Areas Board. The majority of the farms and ranches in the area produce a mix of annual cereal and oil seed crops, and almost exclusively beef cattle with a few producers raising sheep.

Drivers influencing land use change in rangelands and grasslands of the world can be grouped into four areas: i) technical changes, ii) market and supply chains, iii) socio-demographic trends and iv) public policies. This paper discusses how those drivers have impacted change in Special Areas, Alberta, Canada.

Discussion

Technical Changes

Technological advances meeting the demands of climate and markets have long been the source of prosperity in Canadian agriculture. The word technology suggests the high-tech world of grain production or hog barns. However, cattle producers tend to think more of management tools, e.g., managed grazing using electric fences; limit access to wetlands to decrease diseases like foot rot and improve animal performance with improved water quality. Another tool is adding legumes to a seeded grass mix primarily to increase productivity but with collateral benefits such as decreasing methane production from cattle digestion.

A recent study of leading-edge cattle producers in Alberta found active participation in regional forage associations, or applied research organizations, attending field tours and seminars was an important characteristic. It is long recognized that management practices must be customized to each farm. Exposure to new ideas and innovative thinkers is an important factor in making changes efficiently. Producers see the cattle and their relationship with the land as being complex. They see a need for systems thinking but also emphasize their needs to be a balance, utilizing technology and keeping management simple (Strankman and Reid, 2013).

Market and Supply Chains

The last decade has brought significant challenges for the Alberta cattle sector. Drought in 2002 forced many to bring down cattle numbers because the pasture grass to support them was not there. That type of unplanned marketing causes expensive disruption in breeding and marketing programs and has tax implications. Then in May 2003 the industry was rocked by the discovery of bovine spongiform encephalopathy (BSE) which closed the border to exports. Canada is still dealing with residual trade restrictions. Through the last half of 2007, the rising Canadian dollar and high feed costs created significant additional financial hardship for cattle producers. This was followed by the global economic crisis of 2008 that further eroded sale prices for cow/calf producers. In addition, in late 2008 the United States implemented Country of Origin Labelling (COOL) causing a significant negative impact on Canadian beef export prices. With about 50% of Canadian beef production going to the US, Canadian prices are essentially set by the net price received from shipping to the US. COOL discrimination costs Canadian cattle participants around \$640 million per year. This presents a dilemma given that about 85% of Canadian beef and cattle export trade is with the US generating 1.8 billion CA\$ in total sales (Canadian Agri-Food Policy Institute, 2012).

Special Areas cow numbers have followed the Canadian trend, decreasing since 2005. Canada's cow herd has decreased by one million head (20%) since 2005. How Canada will ensure sufficient cattle supply to meet the future market opportunities is challenging. Per capita consumption of beef is falling domestically (10.7% since 2001) and across the Organisation for Economic Cooperation and Development (OECD). This is contrary to the increase in meat consumption in the developing world. The predictions for continued growth are based on the increasing affluence of middle classes. Canada will need to find ways to effectively out compete other beef exporting countries which are also developing marketing strategies to serve these markets.

Nearly 60% of Canada's beef is produced in Alberta. The largest confined cattle feeding network and the largest beef processors are located there, and beef is Alberta's number one agricultural commodity.



Most Special Areas cattle producers market their 500–600 lb (227–272 kg) pound calves in October/November. Generally, the calves will go directly into confined feeding operations to be fed to a finished weight of about 1200 pounds. Some calves may go to what is termed backgrounding operations to be fed primarily forages for some time until market conditions determine timing is good to begin to bring them to market weight. Canada markets a grain finished beef, so the calves are fed increasing amounts of grain until they reach their finished weight. That grain is generally barley unless corn prices in the US make it economically advantageous to import and displace the barley in the ration.

Some of the challenges to managing Canadian beef marketing are as follows: reducing dependency on the US market; leveraging strengths of animal identification and traceability in select markets; creating traceability through entire beef chain; growth of domestic market based on an increased understanding of consumer needs; improving communication on consumer issues such as nutrition and product preparation; effectively utilizing the Canada brand through the Canadian Beef Advantage program (Canada Agri-Food Policy Institute, 2012).

Sociodemographic

In 2011 there were 847 farms and ranches in Special Areas with 475 reporting having cattle (Statistics Canada, 2011). This was down 122 farms from 2006. Number of cattle in the area had dropped by about 43,500 from 2006 to 2011. The land in Special Areas is about 45% privately owned with the other 55% leased from the Special Areas Board (Government of Alberta 2009).

In the recent past a portion of farms in Special Areas are able to supplement their income with revenues linked to oil or gas-well drilling, or a natural gas pumping station. Land access payment for the drilling of a gas or oil well was in the neighbourhood of 1400 CA\$ a year. The Alberta strong oil-based economy pushed many young people to migrate for wage employment in urban areas, i.e., close to services and with more flexible working hours. However recently the decline in the oil industry has had a serious impact on the provincial economy and the access payments to landowners

Decreasing agricultural income raises questions regarding the farm/ranch viability for the next generation. Declining farm incomes also have a negative impact on intergenerational transfer within the agricultural community with young potential farmers being driven to urban areas for employment and resulting depopulation of the rural area (Canada, Parliament, Senate, Standing Committee on Agriculture and Forestry, 2006).

Although there are numerous and significant economic and social challenges in this region, there is also a strong sense of community and a spirit of cooperation. Most of the residents do see the area as special, with a natural beauty in the native grass lands and its wildlife. There is uniqueness to the region believed to be marketable. However, to date only traditional recreation opportunities in the form of parks, campgrounds and golf courses have been developed.

Public Policy

As discussed earlier the federal government policy in the late 1800s encouraged the cultivation of the native grasslands. However, it is now Special Areas policy and regulation that encourages the retention of rangelands.

Land use management in Special Areas is influenced by a mosaic of federal, provincial, and municipal division of power and responsibility in the areas of agriculture and environment. Environment is one policy area where there has been growth in intergovernmental administrative interactions responding to the increase in bilateral and multilateral intergovernmental agreements. Agriculture and Agri-Food Canada, on the other hand, has managed intergovernmental relations by integrating into several department units. All provincial governments have adopted the concept of sustainable development or sustainable resource management and this influences municipalities such as Special Areas (Kennedy and Donehee, 2006).

Increasing producers' profitability has long been the primary goal of Canada's federal and provincial agriculture departments. Farm incomes have been supported and stabilized by a variety of policy instruments with market

promotion and trade liberalization being the favorite for the export-oriented grains, oilseeds, and livestock sectors (Skogstad, 2011).

Perhaps the most significant recent change in Canadian agriculture policy was how the federal and provincial governments interacted on the development of what was called the Agriculture Policy Framework (APF) (2003–2008). For income safety nets / business risk management programming, there was a five-year government commitment of funding as opposed to the former three-year agreements. Secondly, business risk management goals were clearly linked to public goods such as food safety and environmental protection (Skogstad, 2011). APF was identified as being an integrative approach to agriculture policy support, agricultural economic viability and improving environmental performance and benefits to society. Subsequent frameworks, Growing Forward I and II, weakened that integration (Strankman, 2014).

Through APF 2003–2008, an important agriculture sustainability tool was developed and delivered in all provinces: a Environmental Farm Plan (EFP). This process supported producers identifying risk and developing a plan to reduce those risks. A suite of 30 Beneficial Management Practices (BMP) received federal and provincial funding. The majority of the BMPs increased agricultural productivity by increasing efficiency, however, there were several BMPs, such as Riparian Area Management, Shelter Belt Establishment, Invasive Alien Plant Species Control, Species at Risk, Grazing Management Planning, Biodiversity Enhancement Planning, positively impacting livestock production (Agriculture and Agri-Food Canada, 2006).

In Alberta, the Alberta Land Stewardship Act (ALSA) was passed in 2011 to support a transparent and accountable regional planning process (Alberta Government 20). These regional plans will integrate provincial policies, setting regional land-use objectives, providing context for land-use decision-making within the region, and reflecting the uniqueness and priorities of each region. Special Areas will be involved in the development of the Red Deer regional plan which supports a sustainable development approach by integrating economic, environmental, and social factors, and ensures that planning for land use, water and air quality are aligned.

These plans will develop a strategy for conservation and stewardship on private and public lands promoting efficient use of land to reduce the footprint of human activities on Alberta's landscape. These plans if delivered with the promised support and monitoring system should contribute to continuous improvement of land-use planning and decision-making to the benefit of livestock producers in Special Areas.

The livestock producers in Special Areas and the rangelands of Alberta and Canadian Prairies continue to overcome challenges brought by weather and markets. The communities are strong, and the people determined. The spirit of rural people finds opportunities in markets, technology and the traditional ways and stewardship of the land continues.

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