

**Species at Risk Partnerships on Agricultural Lands (SARPAL) Rapid Impact
Evaluation**

by

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Abstract

The Species at Risk on Agricultural Lands (SARPAL) initiative by the Government of Canada provides opportunities to engage with cattle ranchers on issues related to species at risk (SAR). The initiative provides dollars and education to ranchers to adapt their management styles to provide better outcomes for SAR; over 70% of Canada's SAR are affected by agricultural practices. Many barriers exist for ranchers to engage with SAR conservation, including education, economics and legal issues related to the *Species at Risk Act, 2002* (SARA). The first five years of SARPAL sought to address some of these barriers and to improve outcomes for species. As the first five years of funding came to an end in 2020, Environment and Climate Change Canada engaged with different stakeholders to develop an understand of the strengths and shortcomings of the initiative. The research used a rapid impact evaluation (RIE) methodology and used key informant interviews to gather data related to the initiative. Participants generally had positive feedback on SARPAL and recommended the initiative continue, with the possibility of more funding, and the strengthening of relationships in the agricultural sector. Further research related to the initiative should continue to be conducted related to the quantitative impacts SARPAL will have on SAR.

Foreward

This Major Research Project is the culmination of the MES program. After two and a half years in the MES program, this project fulfils the objectives of the plan of study (POS) for Andrew Johnson, the author. This research focused on two components of the POS including the understanding of partnerships for sustainable development and a deep dive into environmental policy. This research also provided the opportunity to achieve a personal desire to provide original research that would be useful. Because SARPAL is an important initiative for the Government of Canada, the interview data collected will be used to help inform the future of SARPAL and other species at risk programming. The process of completing this research was at times difficult due to the COVID-19 pandemic, but the ability to persevere and push through barriers are exactly what this research is about. Pushing back against barriers is what will help species at risk thrive again in Canada and around the world. This program has revealed a lot about myself and having been through this research process, I feel more confident in tackling other challenges in the workforce.

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Chapter One: Introduction

Humans' relationship with wildlife in the twenty-first century faces an immediate need for change. Threats to wildlife globally continue to be human-centric including illegal wildlife trade, invasive alien species and land-use changes related to urban development, and the forest and agriculture sectors (IUCN, 2020). These sectors, in conjunction with climate change, are poised to threaten biodiversity and populations of wildlife globally (Seddon et al., 2019). Despite the interrelatedness of climate change and biodiversity loss, climate change has often received far greater media attention and as a result, has received more funding dollars (Legagneux et al., 2018). Due to this, and because they are interrelated within Earth's complex biophysical systems, it is important to design wildlife conservation initiatives that combine benefits for climate change and wildlife.

Conservation initiatives face many challenges, regardless of the sector in which they take place in. The research presented in this report focuses specifically on species conservation within the agriculture sector. The agriculture sector has to consider many socio-economic and environmental factors in day-to-day operations. The growing need to feed an ever-increasing human population is putting pressure on agricultural systems to increase yields (Beek et al., 2010). During the 2019 Canadian Federal Election, the Liberal Party of Canada outlined in their campaign platform that Canada would become the second largest (currently fifth according to the Canadian Agri-Food Trade Alliance (CAFTA, 2017)) exporter of agricultural products. While increasing agricultural exports may be good for the economy and producers, it is not a simple endeavour and requires considerable investments for innovation and infrastructure.

The agriculture sector also faces geo-political challenges. Over the past three years, trade negotiations with the United States and Mexico have increased anxiety levels within the agriculture sector and throughout the entire Canadian economy. For example as a result of reduced market share to the United States, Canada's dairy industry has seen a decline in shipments south of the border and will be hard hit. For some parts of the sector, the Canada United States Mexico Agreement (CUSMA; formally known as NAFTA) benefits agricultural producers. However, as a result of Canada's unique supply-management policy framework, the parts of the agricultural sector that produce supply-managed products could be at a disadvantage once the agreement into full force effect (Canadian Federation of Agriculture, 2019). Similarly, the diplomatic crisis and trade disruptions in recent years with China have also caused anxiety within the agricultural sector, especially for canola, pork and beef exporters (Chase, 2019). China is Canada's second largest importer for agricultural goods after the United States.

Another socio-economic challenge the agricultural sector face is related to a shortage of skilled labourers. Agriculture in Canada relies heavily on seasonal migrant workers. Despite the demand, there are immigration barriers and heavy administrative burdens that agricultural producers must go through in order for the workers to get to Canada (Canadian Agricultural Human Resources Council, 2019). As well, because most of the migrant workers are in Canada for a short period of time, there are calls from within the agricultural sector to create immigration pathways for these workers in order to build resilience within the system to ensure there are no lags in the production of agricultural goods (Canadian Agricultural Human Resources Council, 2019). Immigration, combined with education and concrete efforts to attract more people to the sector could help also (Canadian Agricultural Human Resources Council, 2019). However, as the COVID-19 pandemic unfolds, it has become

increasingly apparent that the agriculture sector requires a highly skilled workforce and producers need access to a workforce that have the knowledge and the skill to work in the industry (Wyld, 2020). At the time of writing of this report, COVID-19 and access to skilled immigrants is another barrier the sector faces.

After addressing the preceding barriers, the agriculture sector is faced with environmental and climate related challenges. Agriculture is highly dependent on favourable environmental conditions and therefore producers' livelihoods depend on a good growing season. Agricultural producers know that in order to produce good quality food, they require healthy soil, air and water. There are already many practices in the Canadian agricultural sector that producers are adopting to ensure the environment is safeguarded (Canadian Federation of Agriculture, 2018). Agricultural producers in Canada already have a good reputation for sustainability, however, the Canadian Federation of Agriculture (CFA) advocates that there should be more investment in the technologies that improve environmental sustainability, because they require large upfront investments that do not currently make the activities economically sound for producers, that are already facing small profit margins (Canadian Federation of Agriculture, 2018). Improvements in agricultural production could potentially be incentivized with economic tools that promote environmental services, including carbon offsets and increasing the amount of funding for Beneficial Management Practices (BMPs) (Canadian Federation of Agriculture, 2018). Economic tools could be linked with BMPs or the already existing Environmental Farm Plan to incentivize agricultural practices that result in emissions reductions, species recovery and healthy yields for the producers.

These recommendations by the CFA are some of what one initiative led by Environment and Climate Change Canada (ECCC) sought to follow with species at risk (SAR). The Species at Risk Partnerships on Agricultural Lands (SARPAL) initiative was founded on the need to address issues related to SAR on private lands (Canada, 2015). Within the *Species at Risk Act, 2002* (SARA) the federal government relies on voluntary conservation and stewardship initiatives as the primary approach for habitat protection, especially on private land (SARA, 2002). Although SARA prohibits the harming of a listed endangered, extirpated or threatened species or its residence on private land, the Act is predominantly limited to federal lands. Additionally, habitat protection does not occur under SARA until critical habitat has been identified in a recovery strategy or action plan and then specific steps are taken to protect it, which is often a long and drawnout process.

SARA, like many acts of parliament, is not a perfect piece of legislation, but it does provide opportunities for flexibility. There are many tools and instruments within SARA that allow for the implementation for action for species, including implementing multi-species recovery actions. However, there are issues related to delays with SARA's listing process, and with the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), the scientific body responsible for assessing the status of species at risk under SARA. COSEWIC predominantly uses single species approaches to assessment. The legal requirements to implement single-species recovery strategies makes it difficult to implement multi-species action plans because critical habitat for species overlaps, yet single-species recovery is a legal requirement. Additionally, using place-based approaches to recovery strategies takes longer to actually come to fruition than single-species strategies creating a disincentive to create multi-species actions. Despite this, multispecies are more likely to be biologically sound and cost-effective creating better outcomes for SAR if the overlapping habitat meets similar

requirements, such as shared threats and recommended recovery actions (Auerbach et al., 2014) and shared habitat associations (Poos, Mandrak, and McLaughlin 2008).

Many of these themes are relevant to SARPAL. On agricultural lands in Canada, there are many SAR, especially in the prairie region. The 2013 Emergency Protection Order (EPO) for the Sage-Grouse was a turning point for the SARPAL initiative because it revealed the legal implications of having SAR on private lands and the push back from the sector (Campbell, 2014). Agricultural production is necessary for human survival; however, the EPO was met with heavy pushback, despite the fact that a large portion of Canada's SAR exist on agricultural lands. Voluntary action for private landowners is critical for SAR conservation success because roughly 60% of agricultural land in Canada is private, and only 13% of agricultural land in Canada is leased from a form of government, mostly provincial governments (Statistics Canada, 2020). Agricultural land in Canada makes up 6.8% of the total land area, although 90% of SAR in Canada occur on agricultural landscapes (CWF, 2020). Because of the importance of SAR conservation, SARPAL sought out ways in which SARA could be implemented on private lands. The initiative addressed some of the barriers that agricultural producers face when trying to enter into conservation agreements given the challenges the sector faces. The timing of the EPO for sage-grouse and the Government's initiative to address private landowners engagement within the act raised the profile of SAR on agricultural land and for how SARA could be revitalized, or, as it will be addressed later in this report, how SARA can be implemented differently.

Many of the lessons from SARPAL have already been acted upon in the Government of Canada's adoption of the Pan-Canadian Approach to Transforming Species At Risk Conservation in Canada, hereinafter referred to as the Pan-Canadian Approach. The Pan-

Canadian approach signalled a possible response to limited funds available for wildlife conservation. Under the Pan-Canadian Approach, the Government of Canada, hereinafter referred to as ‘GoC’, has begun the process of reinventing the way in which wildlife conservation is carried out in Canada. Wildlife conservation in Canada will be explored in more detail below, however the Pan-Canadian Approach is trying to move the GoC from a single-species approach, to a multi-species approach focused on maximizing biodiversity conservation benefits.

The Pan-Canadian Approach lays out collaborative principles that promote sectoral partnerships with the government, align investments, focus on shared priorities, Indigenous engagement, evidence-based decision making, and multi-species and ecosystem-based approaches. These principles are designed to result in better conservation outcomes for more species, improve return on investment and increase co-benefits for biodiversity and ecosystems. In theory, the Pan-Canadian Approach should help to create better outcomes for wildlife in Canada. The three priority initiatives in which the new approach plans to do so is through priority species, priority places, and priority sectors and threats. It is the hope of the GoC that if a species is not picked up under one of the Priority Initiatives, that another will be able to capture it, therefore casting a wide net across the country.

The increasing human population and climate change are putting a strain on natural landscapes. Land-use changes from forests and grasslands to croplands, and from agricultural to urban, are creating major problems for wildlife in Canada, and around the Globe. At the time of writing this report, the agricultural sector initiative has begun the action planning phase. The initiative is part of the larger Pan-Canadian Approach adopted by the GoC to improve species conservation in Canada. The action planning stage is the initial stage of the

initiative in which Environment and Climate Change Canada are scoping the initiative and gathering together key stakeholders for the sector. As the sector initiative begins, the SARPAL initiative is coming to the end of the first five years of funding and project renewals and new proposals are beginning to be approved. At this important juncture, this report will evaluate the SARPAL initiative and explore what lessons can be learned to help inform the priority sectors initiative, and future GoC policy related to SAR in the agricultural sector including SARPAL moving forward.

The evaluation will focus on three areas of learning for SARPAL. The first will be policy learning, both external and internal, in which policy improvements or alternatives will be considered. The second will be operational learning in which improvements or alternatives to program delivery will be evaluated. The third will be relationships learning in which the important relationships developed through SARPAL lessons learned will be highlighted.

It is important to consider that five years in terms of species conservation is not significant. Governments often find themselves operating within a limited time-scope, potentially because election cycles are between 3-4 years and because of the long-term requirements and financial commitment SAR need to recover, there may be a lack of political will to implement SAR recovery to the extent required by the species. This report will not comprehensively address every lesson from SARPAL but will attempt to paint a picture of the successes of the initiative and how the next five, ten and twenty years of SAR conservation on agricultural lands can be enhanced.

Chapter Two: Methodology: Scope and Rationale of Inquiry:

The SARPAL initiative can not simply be described as part of the discipline of environmental policy. The stakeholders involved in the initiative have varied interests and therefore different, yet related disciplines have been explored as part of this inquiry. The relative infancy of the initiative means that there was limited published research on SARPAL. The fields most related to the topic are ecological economics, environmental policy, agricultural biology and behavioural economics, which were explored through the literature review. The overall purpose of this report is to position SARPAL within the Priority Sectors Initiative through a summative rapid impact evaluation (RIE). The Priority Sectors Initiative is part of the Pan-Canadian approach to transforming species at risk conservation in Canada. The initiative seeks collaboration activities with the three priority sectors (agriculture, forestry and urban development) to improve conservation outcomes for species at risk. The evaluation will inform decisions about whether to continue, discontinue, replicate or scale up the intervention of SARPAL in the agricultural sector.

SARPAL is an initiative funded by the GoC and administered mostly through third party organizations with deep roots in the agricultural sector. Research was conducted using a combination of qualitative methods including literature reviews and interviews following the Treasury Board guidelines for RIE. A summative research methodology was chosen because of the important juncture in which the inquiry is being conducted. As previously mentioned, the end of the initial SARPAL period is coinciding with the planning stages of the Priority Sectors initiative. Additionally, RIE are beneficial because they can be completed quickly and with low to medium resources. Therefore, in order to help guide the work of the Priority Sectors initiative, this report will provide guidance on how to create better outcomes for SAR

on agricultural lands from an existing initiative, SARPAL. This report used a rapid impact evaluation method, as explained below, in accordance with the Government of Canada's Treasury Board Guide to Rapid Impact Evaluation (Government of Canada, 2017).

Literature Review:

At the time of the writing of this report, SARPAL was concluding the first five years of funding. There were almost no published academic journal articles related to SARPAL. In order to provide context to SARPAL and to the Pan-Canadian Approaches Priority Sector Initiative, a comparative literature review was conducted related to two topics. The literature review focused on agriculture and species at risk, in a block method. Because species at risk (SAR) is a term predominantly used in Canada to describe the Species at Risk Act (SARA), it is important to mention that a variety of keywords were used to describe SAR.

Keywords included: nature, species, biodiversity, wildlife, flora, fauna, endangered species, agriculture, farming, ecosystem services, better management practices, land-use change, payments for ecosystem services, agri-environment, conservation and Sage-Grouse.

The literature review focused on threats to species on agricultural lands, challenges for the agricultural sector and opportunities for the agricultural sector to enhance species outcomes. Literature was sorted based on these three evaluation criteria. The literature drew out major themes and recommendations within the literature, with a particular focus on the Sage-Grouse, an important species for SARPAL. Documents that were reviewed included government reports, governments documents, peer-reviewed literature, grey-literature and media reports. The literature was intended to focus on the prairie regions of Canada and the

USA, however due to the fact that SARPAL uses economic incentives such as those in payment for ecosystem services (PES) programs, this topic expanded the geographic scope slightly. Additionally, because agricultural activities a major contributing threat to biodiversity decline, some reports focused on global themes related to biodiversity and industrial threats.

Sources were found using a keyword (please see keywords above) search through the York University, Google Scholar and the Environment and Climate Change Canada online library. The timeframe for the published works varied, however recent articles were preferred when possible.

Rapid Impact Evaluation (SARPAL):

The Government of Canada's Treasury Board (TB) guidelines to rapid impact evaluation (RIE) were followed in order to evaluate SARPAL (Government of Canada, 2017). Dr. Andy Rowe created this methodology in 2004 and 2005 to assess the environmental and economic effects of decisions about managing natural resources. The TB guide is based on the results of three federal departments' pilot projects, which used mixed-method approaches, allowing the framework to be adapted to departmental, and program needs. REI framework provides structure to the evaluation of a program's impact in a relatively short period.

This methodology works best in situations where a program or pilot's impact needs to be evaluated but experimental or quasi-experimental designs are difficult. Therefore, it is necessary to create a counterfactual. A counterfactual is an alternative program design or situation, considered in contrast to the program being evaluated, in order to assess the

program’s impact relative to alternatives. In the case of this report, due to resource constraints, the counterfactual simply assumes the same results would have occurred if SARPAL did not exist. RIE is also a beneficial methodology in evaluations that are analyzing a program renewal or redesign. These recommendations under the TB guidelines apply to SARPAL. The program is full coverage across Canada, and no control group can be determined. SARPAL is not present in the Territories; however, this is due to the lack of agricultural development in this region. SARPAL is also currently in the process of renewal and because SARPAL engages external agricultural and conservation organizations, it is necessary for outside perspectives to help improve the program going forward.

Generally, RIE are conducted in 4 phases as summarized in the chart below

(Government of Canada, 2017):

Table 1: Rapid Impact Evaluation Phases (Government of Canada, 2017).

Phase	Purpose
1	Plan the evaluation, assemble the lists of experts and obtain necessary approvals
2	Develop the program summary, populate the evaluation framework and engage technical advisors and key program stakeholders in the evaluation.
3	Engage with three groups of experts to gather their assessments of the program through key information interviews.
4	Analyze the data gathered in Phase 3 and report the results.

Interviews:

In accordance with the GOC Treasury Board Guidelines on RIE, interviews were conducted with different stakeholder groups that had either direct knowledge of SARPAL, or an understanding of the field of study (agriculture and wildlife policy in Canada). These interviews were necessary to help build an understanding of SARPAL, but also to extract

recommendations for improvements to SARPAL. The first round of interviews were with the SARPAL coordinators within the Canadian Wildlife Services (CWS). SARPAL coordinators are employees of Environment and Climate Change Canada (ECCC) and are an important holder of knowledge on the initiative. Coordinators are located in the four regions in which this research was conducted (Atlantic Region, Ontario Region, Pacific Region and Prairie Region). Quebec Region only began SARPAL implementation in the 2019-2020 fiscal year and therefore there was not enough data or stakeholder experience to be able to evaluate thoroughly.

Key-informant interviews were conducted, and the data was analyzed based off of key areas of learning pre-determined by ECCC. Interview participants were contacted and informed of the research being conducted. Participants were generally very eager to participate in the interview process. The lack of academic writing on SARPAL limited the number of academics that could be interviewed, however SARPAL coordinators were instrumental in making connections to the appropriate individuals. Due to the COVID-19 pandemic and timing issues, some interviews were not able to be conducted and therefore academic literature was reviewed to make inferences about participants' viewpoints on the field of study.

Interviews generally lasted one hour and were recorded using Webex, a GoC communications application. Participants were required to sign the Informed Consent Form which can be found at the end of this report. Participants were provided the questions prior to the interview to allow them to properly prepare. The questions can be found under subsection A of the interviews chapter of this report. Academics under the stakeholder group 'technical advisors' were asked an adapted form of questions because they did not necessarily

have knowledge of the SARPAL initiative, but were knowledgeable in the relevant field of study.

Interview Questions:

SARPAL Related Questions:

1: How long have you been involved in SARPAL and what is the nature of your involvement?

2: What do you understand to be the objectives of SARPAL?

- Country level objectives
- Regional level objectives
- Project-specific objectives

3: Do you believe that SARPAL is a successful model for reaching the intended outcomes and that the preliminary results are a result of the program? Would you say that if the counterfactual were true (i.e. no SARPAL), that the results would have occurred?

4: Compared to other initiatives focused on agriculture and the environment such as Payments for Ecosystem Services (PES) or programs run by organizations such as ALUS, what aspects of SARPAL program design were successful and how has SARPAL enhanced or diversified the reach of existing programs such as the environmental farm plan?

5: How well was SARPAL implemented and adapted as needed? Were there opportunities to adjust along the way?

6: How did SARPAL produce the intended objectives? Do you believe that SARPAL successfully measured outcomes throughout the first five years?

Environmental objectives for SAR, e.g. did it maintain Greater Sage-Grouse habitat

Socio-economic objectives, e.g. how did it help to break down a) the distrust for government so often seen by ag producers, b) the distrust between environment & agriculture within different levels of government, c) the negative impact of dedicated public social campaigns against meat in general and beef in particular

7: What unintended results – positive and negative – did SARPAL produce in regards to the following scopes:

- a. Relationships
- b. Operational
- c. Outcomes
- d. Policy

8: Did disappointing results occur and if so, what were the causes? What were the enablers to successful results?

9: Could you define the different stakeholder groups involved in SARPAL and when describing the stakeholder groups, could you describe in what ways were the preliminary results valuable to the specific stakeholder group?

10: Was the program worthwhile and was the output value greater than the value put in?

11: What would it take to sustain or build on the results? In what circumstances? (more federal funding, access to external or partner funding, recognition of forgone revenue as a source of in-kind support, availability of external/partner funding, technical support on species ecology, financial management support, clarification of regulatory context that the initiative fits into etc)

12: How do you see SARPAL influencing the Pan-Canadian Approach, especially within the context of the agriculture sector work?

Participants:

Table 2: Stakeholder Categories

Stakeholder Group	Number of Participants	Main Output
Program Stakeholder: Beneficiaries (Producers), program managers, program staff, delivery partners (not-for-profits), decision makers.	5	Analysis of direct outcomes, cost-effectiveness, other evaluation questions or issues.
Subject Matter Experts: Researchers, industry leaders and those with knowledge of the relevant field	2	Analysis of direct outcomes, comments on program improvement, program need and relevance.
Technical Advisors: Faculty at a university or field expert with knowledge of the program.	3	Analysis of direct outcomes, comments on program improvement and program need.

Interview Data Analysis:

Since all of the interview responses were qualitative in nature, information was initially sorted based on which of the interview question listed above, it was most closely related to. Coding was pre-determined by ECCC in the areas of learning recommended by SARPAL coordinators. These include relationship learning, operational learning and policy

learning. Following this, data was coded, and a thematic content analysis was conducted to look for recurring themes and keywords. Based on this, information was then combined into categories based on common themes and concepts. Participant responses are either paraphrased or directly quoted and all information is kept anonymous to protect the privacy and work of the participants.

Research Limitations and Challenges:

There were three main limitations and challenges related to SARPAL research. The first were sensitivities related to the relationship between agricultural producers and the GoC. Due to privacy considerations that the need to respect the relationship between producers and program representatives. Part of this is that producers worry about too many people knowing they have SAR on their land because of past incidents where members of the public suddenly show up in large numbers wanting to see the species; part of this is that the producers are usually dealing with a third party they trust when they may not trust the government and be worried their involvement could lead to a protection order on their land. Interviews were conducted during the COVID-19 pandemic and due to the challenges the agriculture sector faced as a result of the pandemic and due to the sensitivities around the GoC and sector relationship, it was decided it was not appropriate to speak with producer participants. In order to capture the viewpoints of this stakeholder group, three participants were interviewed that had worked directly with participants in order to capture these viewpoints.

The second challenge was due to the fact that SARPAL was only operational for five years and in some regions was still in the infancy of implementation. Ontario and Prairie region were the longest running regions and therefore had the most to offer in terms of lessons learned. Nevertheless, it was concluded that a broad lesson learned approach would

be used in order to capture changes to SARPAL that could be implemented across the country.

The third challenge was related to the availability of data related to SARPAL. Two factors were related to this. The first was that SARPAL was in the infancy stages and therefore almost no academic literature exists on the subject. The second was due to the fact that there was limited academic literature related to SARA and agriculture. In order to mitigate this challenge a mix of academic and gray literature from ENGOs were used.

Chapter Three: Literature Review:

Species at Risk in Canada:

The term species at risk (SAR) is predominantly used in the Canadian legal framework to describe the *Species at Risk Act, 2002* (SARA). SARA is designed to meet Canada's obligations under the International Convention on Biological Diversity (CBD), which sets out to conserve biological diversity. Internationally, SAR may be referred to as wildlife, nature, endangered species, or a variety of different terms related to the CBD. In plain language, SAR refers to any living organism (plant, animal, insect, etc.) that faces a threat to their wellbeing as a species. SAR is not only an issue in Canada; globally species are increasingly becoming under threat, predominantly from human action.

The International Union for Conservation of Nature (IUCN), one of the leading international conservation organizations sets out threat categories to help with the planning of conservation actions (IUCN, 2020). The threat categories are consistent with current academic research and lists human actions including agriculture, energy production, residential and commercial development, pollution and climate change, amongst other threat categories (IUCN, 2020).

WWF Canada reported that since 2002 when SARA was implemented, SAR have decline by an average of 28% (WWF Canada, 2020). These rates of decline of the species have increased (to 2.7% from 1.7%) despite protections under SARA (WWF Canada, 2020). A study from 2006, fourteen years prior to the WWF Canada report found that the most significant threats to SAR in Canada were habitat loss (84%), then overexploitation (32%), natural causes (27%), pollution (26%), and invasive species (22%). The most common human causes of habitat loss and pollution are from the agriculture and urban development

sectors (Venter et al., 2006). It should be noted that roughly 30% of species face a single threat, meaning that 70% of species face multiple threats; species at risk face 2.2 of the 6 identified threats on average (Venter et al., 2006).

The same 2006 study also compared Canadian species to species at risk worldwide, and to American species. The study confirmed that habitat loss is the greatest threat to Canadian species (Venter et al., 2006). Habitat loss affects approximately 94% of species and is a result of agricultural uses and converting land for urban development. It is important to identify and define protected areas, however most of the crucial habitat falls on private land (Venter et al., 2006). In Canada, habitat on federal lands is protected, which is 4% of overall terrestrial habitat which means that enhancing SAR legislation in Canada should be a priority for all levels of government.

SARA is a relatively young piece of legislation. After passing in Parliament, SARA came into full effect in 2004. The act covers species that exist on federal land but in certain cases, it can be applied to non-federal land by the Governor-in-Council, and it came about as a result of the 1996 National Accord for the Protection of Species at Risk in which the federal, provincial and territorial governments approved a national policy governing species at risk. The accord contained commitments from federal, provincial, and territorial ministers to identify at-risk species and protect their habitats and living spaces; create recovery plans; develop needed laws, regulations, and policies as well as programs for stewardship opportunities.

In Canada, the provinces and territories manage wildlife species on their lands as well as land uses, and the federal government regulates aquatic and migratory species, and species found on federal lands. Therefore, SAR conservation in Canada requires collaboration each

level of government, and stakeholders (i.e., academia, not-for-profit and private landowners). The goal of the Accord was to set up legislation across Canada that complimented each jurisdiction's environmental, economic and jurisdictional makeup. However, to date, not all provinces have appropriate legislation related to species at risk, with those that do failing to provide the protections necessary (Ecojustice, 2014). Ecojustice published a report in 2014 which graded the federal government and the provinces and territories for their actions taken for protecting species at risk. The Province of Ontario received the highest grade of C+ on the “report card,” (Ecojustice, 2014). The report card mentioned that while the Ontario Endangered Species Act (OESA) was once considered the “gold-standard” for species protection amongst all the Canadian provinces, because of its balance between a science-based approach and inclusions of socio-economic considerations in its recovery actions, the OESA implementation has been poor and inconsistent (Ecojustice, 2014).

It may seem worrisome that Provinces and Territories are lacking in legislation for SAR, there are elements of SARA that allow the federal government to act on non-federal land if there is an imminent threat to SAR. SARA contains measures for SAR on provincial, territorial and private land, although the Smart Prosperity Institute (2018) found that the implementation of these measures is hardly ever used (McFatrige, 2018). Table 1 below goes over some of the tools offered in SARA that could implement protection on lands other than federal crown land.

Table 3: Legislative Tools Under SARA (McFatrige, 2018).

Box 1: Key legislative tools under the Species at Risk Act
Section 11 conservation agreements are signed between (a) a competent Minister (either the Minister of Environment, the Minister of Fisheries and Oceans, or the Minister responsible for the Parks Canada Agency) and (b) provincial/territorial governments,

organizations or individuals. They are intended to support actions being taken to “benefit species at risk or enhance their survival in the wild”, including protection of habitat or critical habitat.

Section 13 funding agreements allow a competent Minister to enter into an agreement with any of the previously mentioned entities to assist with funding programs or measures to manage SAR, including programs or measures taken under section 11 agreements.

Section 34, article 2, article 3 states that if the Minister of Environment determines that provincial and territorial laws are not effectively protecting species or their residences on non-federal land, then the Governor in Council (GIC) may (following the obligatory recommendation and consultations from the Minister) make an order to impose SARA’s prohibitions against the harming of individuals and their residences to non-federal land. This is commonly referred to as a “safety net order” 8.

Section 61, article 4 of SARA states that if the Minister of Environment is of the opinion that the laws and regulations of the province or territory do not protect some portion(s) of critical habitat which requires protection, and if the critical habitat is not otherwise protected via the provisions of any other federal legislation (including section 11 agreements), then the GIC may (following the obligatory recommendation and consultations from the Minister) issue an order whereby SARA’s prohibitions are extended to that portion of CH. It serves a similar objective to section 34, article 3 but with respect to critical habitat.

Section 63 of SARA contains a clause on progress reports on unprotected portions of CH, which states that if the Minister is of the opinion that a SAR’s CH remains unprotected 180 days after it has been identified in a recovery strategy, the Minister must report steps being taken to protect CH, and continue to do so every 180 days thereafter until the CH is protected.

Section 80 contains the emergency order clause, which states that if a species faces an imminent threat to its survival or recovery, the GIC may (following the obligatory recommendation and consultations from the Minister) issue an emergency order which identifies the species’ CH in the area designated by the order, and extends SARA’s prohibitions to individuals, CH or residences on these portions of non-federal land.

Section 11 and section 13 agreements are tools that were being explored under the SARPAL. These agreements provide incentives for provincial and territorial governments, organizations or individuals to work with the federal government on SAR conservation. Safety net orders and emergency orders indirectly incentivize compliance with SARA by providing a federal backstop to provincial and territorial SAR protection. It is important to note that to date, the federal government has issued only two emergency orders, one for the western chorus frog in Quebec (ECCC, 2016), the other for the greater sage grouse in Alberta

and Saskatchewan. It is also important to note that the federal Minister of Environment has never recommended safety net orders to be issued. This resistance to recommending safety net orders can be problematic, since emergency orders are only meant to protect SAR that are at imminent risk of extinction (Wojciechowski et al., 2011). Emergency orders are not tools for proactively ensuring that SAR are receiving equivalent protection on provincial and territorial land, and they are not substituting for safety net orders (Wojciechowski et al., 2011). The federal government has never issued the section 63 clause, which could create more transparency in their commitment to protecting critical habitat. Section 11 agreements have the potential for reducing the need for safety net orders or emergency orders, which are often viewed as much more severe and regulatory.

Species at Risk and Agriculture

Case-Study: Sage-Grouse

Under the Pan-Canadian Approach there is a list of priority species in which the Greater Sage-Grouse (GRSG) is listed. This is significant because four of the six species listed under Priority Sectors are caribou species and the Wood Bison. GRSG is the largest grouse species in North America and in Canada can be found in southern Alberta and Saskatchewan in the prairie grasslands. Human actions in the prairie regions of Canada and the United States have had grave impacts on the GRSG's habitat, prairie sagebrush, which it uses for mating (Dumroese et al., 2015). This plant is also the main source of food for GRSG during the colder months and is therefore critical to be intact in order for the grouse to survive. The protection of the sagebrush is not only critical for the survival of GRSG, but protecting this habitat also has benefits for grasslands in Canada. Canada has about 25% of its native grassland remaining, which most of it having been lost to crop agriculture and some to urban sprawl (CPAWS, 2020).

The GRSG in Canada has been seen in the conservation world as a win, as a successful EcoJustice court challenge led the Government of Canada to implement the first Emergency Protection Order (EPO) in 2013 (Alberta Wilderness Association, 2016). This decision had profound implications for ranchers in Alberta and Saskatchewan because the EPO meant that the GoC had regulatory powers wherever Sage-Grouse critical habitat existed on Provincial Crownland (Alberta Wilderness Association, 2016). This is why SARPAL is a tool that can be used to conserve critical habitat on private lands. According to the Government of Alberta, historically the conversion of sage-grouse habitat into farmland played a major role in its early decline (Government of Alberta, 2016). In recent years, industrial developments have been contributing to the decline of the GRSG. The range of the species has been reduced to only 6% of their original extent because of habitat loss and degradation. This means that because much of the traditional critical habitat for GRSG had already been converted into cropland, only identified critical habitat in the prairie grasslands was affected by the EPO (Alberta Wilderness Association, 2016). Identified critical habitat refers to the areas that are still considered habitat for GRSG, however land that has already been converted to farmland would not be considered critical habitat. This left ranchers, who have often been excellent stewards of grasslands, in a difficult situation and in need of support in how to navigate the complexities of SARA to ensure that their livelihoods were not jeopardized (Pittman, 2019).

SARPAL was instrumental in restoring the relationship with ranchers following the EPO. Cattle on grasslands have replaced the bison which has long disappeared from the Canadian prairies. Cattle can take on the ecological role of bison, which once roamed the

grasslands throughout North America (Pittman, 2018). Protecting the grasslands has an impact for ranchers, GRSG and for the environment. The temperate grasslands that once covered much of western North America (United States and Canada) are one of the most threatened ecosystems in the world. WWF Canada found that North America is losing more grasslands annually than the Amazon Rainforest is losing trees (WWF Canada, 2020). Grasslands have the ability to improve soil, air and water quality. Grasses have deep roots that help to stabilize slopes and protect soil erosion and potential GHG sequestration. Therefore, protecting GRSG is helping to highlight the importance of ranching and the importance of grasslands for climate change.

Challenges for Producers to Enhance Outcomes for Species at Risk

The *Species at Risk Act, 2002* (SARA) outlines ways in which Stewardship Action Plans can be implemented. SARA states that a competent minister may establish a stewardship action plan that creates incentives and other measures to support voluntary stewardship. These actions may be taken by any government in Canada, organization or person as laid out in the act. Action plans that fall under ‘Stewardship Action Plan’ must include commitments to enhance the conservation of species at risk or species that are not at risk, but the actions taken will help protect the species from becoming at risk. As part of voluntary stewardship, SARA states that funding agreements can be entered into to help pay for the costs of the conservations that are outlined in the act. This section of SARA is crucial for the conservation of SAR in Canada. However, in the context of the agricultural sector, there are many challenges that producers face when considering their farming practices and how to protect SAR. The intention of this section is to explore those challenges and how SARA may help to relieve the barriers producers face.

Incentivizing producers to change their behaviours with the purpose of protecting species is not a new concept, although it is gaining attention, especially during the COVID-19 pandemic. In many countries, incentives for conservation are called payment for ecosystem services (PES) program. PES programs attempt to protect ecosystem services by charging users of those services in order to pay for actions to help protect those services (Wunder et al., 2008). There are many issues related to PES and incentive programs. When designing economic incentive programs, it is important to consider barriers to entry. Many of the barriers that the academic literature addresses have to do with challenges for the landowner. Barriers include economics, trust and governance, and knowledge barriers.

Economic Barriers:

The most obvious barrier to conservation on agricultural lands is economics. The agricultural sector is rapidly expanding to help meet the increasing demands to feed a growing population. Producers face low return on investments, especially in the ranching industry (Henderson et al., 2014). Taking land out of service for a conservation action may be easier in regions like the Canadian prairies where pieces of land are thousands of acres large, whereas in Ontario and Quebec, farms are much smaller and there is a greater economic cost due to property values. A study of the Alternative Land Use Services (ALUS) program found that creating flexibility in the payment schemes helps to encourage producer to participate when there are factors out of the control of the producer (France et al., 2015). Agricultural producers rely heavily on good weather and a stable climate, which most often is out of their control. Therefore, creating more flexibility in the program design may entice more participants in the incentive programs.

Although paying for landowners to conduct conservation related actions on their land is a good idea, many studies point to the importance of performing the actions intrinsically. If incentive programs pay entirely for the actions, there is a real risk of crowding out participation in the program (Greiner and Gregg, 2011). This crowding out effect occurred in one study that found that higher monetary awards induced less participation of conservation-minded landowners (Rode et al., 2015). Purely PES programs where the payment is based on additionality can also crowd out already conservation minded landowners. Also, by only focusing on providing 100% of the dollars there exists a serious risk that participants would exhibit negative behaviours.

One study from the province of Saskatchewan found that rural landowners felt that they should not bear the costs associated with conservation and that policy should reflect this if the government wants them to conserve species on their land (Olive, 2015). PES programs are criticized for adopting neo-liberal values and focusing on ecosystem services (ES) as a market (Olive, 2015). Focusing on PES as neoliberal, overlooks alternative PES outlooks. This view of ES helps to support the idea that conservation is a burden that entails costs due to foregone land-use opportunities, and financial incentives are seen as important for mitigating these costs. This outlook has helped draw attention to the disproportionate costs of conservation to the local people on the ground (Brockington et al., 2006) and has assisted the transition to the adoption of conservation to financial incentives. What is missing in this outlook is that conservation has the ability to enrich societies, but there is also evidence that new agricultural practices that recognize conservation as a critical component, can actually enrich crop yields.

Often users of ES are unaware of the fact that they pay for PES, and that the markets in ES rely primarily on government intervention and community engagement to bring PES into existence and keep them working (Vatn, 2010). Several studies offer alternate approaches to PES using ecological economics: Muradian et al. (2010) argues that it is more appropriate to imagine PES programs as a transfer of resources between social actors, which aims to create incentives to align individual and collective land use decisions with the social values in mind in the management of natural resources. Vatn (2010) advocates that we should think of payments as “fair compensation” instead of incentives and Norgaard (2010) argues for attention on how markets intersect with other institutions across scales. Framing conservation as a burdensome activity can crowd out the actors that already practice conservation because it takes out the inherent joy that many get from performing an environmental care activity, and this can easily get “crowded out” by payments (Singh, 2015). This does not suggest that resources should not be transferred to those implicated in a PES, but that this transfer could be driven by the logic of gift, reciprocity, and affect (Singh, 2015).

In the context of PES, studies have shown that payments provided are often insufficient to compensate for income and opportunities forgone and that conservation behavior is driven by other non-monetary, personal, and collective motives (Kosoy et al., 2007, McAfee, 2012) including “sacred values and intergenerational concerns” (Kosoy et al., 2008). Chan et al (2019) suggests that co-pay is one solution to creating intrinsic value in PES programs. Co-payments do not need to be in the form of a monetary value, but could be in-kind payments, tools, resources, technology or other ways to give landowners a stake in the program. The literature shows that creating flexibility on how co-payments are adopted in

the program design can also help to allow landowners to join a program, especially one not entirely based on financial incentives.

In relation to economic barriers to joining an incentive-based conservation action, it is important to consider flexibility and the potential for co-payments. The literature has shown that landowners need flexibility in how they implement conservation initiatives on their land and that a one-size fits all structure is not sustainable. Flexibility is important because it could help to create landowners that are focused on stewardship, not particular actions (McFatridge, 2018). Co-payments should not purely be financial in order to allow producers that are already working with small profit-margins, to be successful (Mineau et al., 2012).

Alternative tools to direct payments may include conservation easements, land acquisitions, tax incentives or ecological gifts programs. By adopting a variety of approaches, governments hoping to create conservation outcomes will have greater success. In some instances, alternatives to economic incentive may be worth exploring. Economic instruments (i.e. tax incentives, direct-payments, land acquisitions) are not always the best option because it is often difficult to monitor and measure, but also because funding sources may not be sustainable for a long enough period (McFatridge 2018). Program design for PES needs to be combined with other policy tools for greater impact. The Smart Prosperity Institute (SPI) suggests prioritizing services and places with the potential for the highest impact may help policymakers decide where to focus limited funding dollar (McFatridge, 2018). SPI also suggests that program design need to factor in transaction costs, which are the costs that the organization delivering the program incurs when engaging with the private-landholder and the time it takes to sign up the landowner to join the conservation initiative (McFatridge, 2018).

Governance and Trust Barriers:

The majority of agricultural land in Canada is privately owned, and therefore SARA depends on voluntary stewardship to protect species at risk. Contrary to common belief, many landowners have knowledge of SAR and believe that they should be protected. (McCune et al., 2017). However, this does not necessarily mean that landowners are willing to give up their property rights to help protect SAR (McCune et al., 2017). Agricultural producers have the fear that more regulations will negatively impact their operations and creates a barrier to joining conservation programs (Brooke et al., 2003; Conley et al., 2007). This view of their property rights being infringed upon, requires collaboration between landowners and the government on issues related to SAR (Henderson et al., 2014). Collaboration includes inviting landowners to participate in the program planning phase of stewardship activities (Henderson et al., 2014). France et al (2015) review of ALUS' Canada wide PES program found that failure to include landowners in all stages of the program planning and development was an avoidable mistake. This recommendation is coupled with the fact that producers are independently minded and want to have the flexibility to create their own outcomes.

Conservation agreements can also instil fear in agricultural producers because there could be a perceived risk that the land will be surrendered. By agreeing to enter into the agreement, producers fear that not complying could lead to financial or legal implications. Producers fear that by protecting SAR populations they could be held liable to future land regulations (McFatrige, 2018). Landowners often prefer bottom-up approaches to top-down

approaches because it allows them to maintain control and ownership. This further enforces the need for flexibility and collaboration in program design.

A study from an Australian conservation program found that the main barrier to participation was the threat of modified property rights and devalued property prices (Moon et al., 2011). Policy makers must work hard to find the balance between legal rights, environmental responsibilities and appropriate compensation for landholders. Using the PEI ALUS program as an example, it is clear that PEI has changed farmers' attitudes towards agri-environmental practices, encouraging wider buffer zones and making land retirement part of doing business (France et al., 2015) This shows that it is possible to work with producers to change their attitudes to create better outcomes, consideration may need to be given to the design of two or more distinct programs to meet the needs of different landholding groups.

Knowledge Barriers:

Many studies have highlighted a number of household characteristics influencing the decision to participate in conservation programs, including education, income, debt, landholding size, opportunity costs of land, managerial experience, technical knowledge and politics. This section will focus on the characteristics of education, which may act as an umbrella for the other household characteristics.

The use of pesticides in agriculture is contentious from an environmental and social perspective. Pesticides can be a threat to wildlife and therefore more research needs to be done to see whether a reduction in the use of pesticides would benefit SAR. There is some

agreement that land-use intensity has increased in recent decades, with an increase in monoculture cropping and pesticide use (Krebs et al., 1999; Malézieux et al., 2009). Farmer knowledge and management of crop disease is also an important factor in the use of pesticides (Bentley and Thiele, 1999). Wilson and Tisdell (2001) expressed that in developing countries inadequate education (many farmers were not able to read the instructions printed in their own language), training and pesticide regulations in the use of pesticides lead to accidents and over-use. This may not be the case in a Canadian context, however when it comes to understanding landowner's reluctance to join initiatives to conserve species, studies have found that different levels of education may be a factor.

A study from the European Union found that educating producers on new agricultural practices could help to shift conventional agricultural practices to practices that are beneficial to biodiversity and human-health (Cheze et al., 2020). The same study found that farmers are reluctant to change their practices because of fears that yields will be lower. This may not always be the case. Public policy would be wise to work towards education programs with significant incentives to overcome their fear of the increased risk of large production losses as well as an admin cost to accept changing their current practices.

In Saskatchewan, Andrea Olive (2015) argues that there is broad support for the conservation of endangered species, despite a significant lack of awareness about species at risk and existing policy. The study also stated that agricultural landowners strongly felt that they were good stewards of the land and, thus, government involvement is rarely, if ever, needed. When asked if farmers are good stewards of the province, only 46% of urban respondents agreed (Olive, 2015). This may show that education campaigns are not only necessary for producers, but also for those in urban populations that benefit from stewardship

in the grasslands. Olive argues that since farmers and ranchers do not favor the government on their land, agricultural organizations like the Canadian Cattlemen's Association, might be able to assist landowners who are willing to steward a species in exchange for compensation or other rewards and incentives.

Henderson et al (2014) found that 69% of producers interviewed learned to manage their land by experience or from family members previously involved in ranching. 31% of producers learned to manage their land through formal education and experience. The study found that this was even more true in older producers and that younger ranchers with some level of formal education, greater awareness and knowledge of species at risk policy were willing to support SAR conservation.

SARA implementers could improve conservation successes by using the knowledge of ranchers in the development of management strategies and BMP (Knapp & Fernandez-Gimenez, 2009; Willcox et al., 2012). Knowledge gaps have led limited acceptance of the conservation actions among producers. Social learning and economic incentives such as reduced production cost, and higher yields are some of the factors that guarantee wide adoption of a BMP.

Opportunities for Producers to Enhance Outcomes for Species at Risk:

Agriculture's impact on the environment can be attributed to the type of production/management practice by the agricultural producer (van der Werf and Petit, 2002) because different practices have varied impacts on the environment (Sharpley et al. 2009).

Depending on the geographic location in which the action takes place, the impacts on agricultural outputs and the environment can be positive or negative (Sharpley et al. 2009). Beneficial Management Practices (BMPs) are the types of practices that have a positive impact on the environment. BMP's are developed by academia and agronomists with the partnership of producers, government, not-for-profit groups and conservation associations to help reduce environmental risk for the agricultural sector. Because agricultural producers have to consider many different variables, BMPs are normally designed to be economically viable for the producer to be able to afford (Hilliard and Reedyk, 2003, Smiley et al. 2009, Feather and Amacher 1994). Examples of BMPs in Canada that promote species include delayed haying, perennial grass strips, fencing, grassland restoration and riparian buffer zones

BMPs have the ability to provide longer term economic benefits to producers with proper education and communication (Valentin et al., 2004). However, measuring the adoption of beneficial management practices is a complicated task. Floress et al. (2018) outlined two ways to measure BMPs. The first is through direct observation, which can be highly reliable but expensive, and the second being self-reported behaviour or behavioural intention, which is generally completed via surveys and is less expensive (Floress et al., 2018). A criticism of measuring BMPs through self-reporting can be linked to a social desirability bias, which argues that people will say that they exhibit better environmental behaviours as they perceive it as more socially acceptable (Floress et al., 2018). It is estimated that the adoption of BMPs ranges from 25% to 71% in Canada (MacKay, 2018).

To increase the adoption of BMPs, governments have to develop diverse strategies of intervention. The three most common approaches to assist with the adoption of BMPs are volunteerism, regulations, and incentives (Mills et al., 2016). The first, volunteerism, is the

way of allowing producer to adopt BMPs voluntarily, and while providing the producer with the information or raising awareness and is generally seen as ineffective. The regulation of producers is generally seen as being effective at forcing producers to adopt BMPs, but this method is subject to steep costs and hard to enforce (Greiner et al., 2016). In some cases, regulatory interventions are associated with lower adoption of BMPs in comparison to voluntary adoption (Barnes et al., 2013).

A concern with incentive programs is that there is a potential for the financial incentive to crowd out the intrinsic motivations for integrating BMPs in management (Greiner and Gregg, 2011). Work on BMPs and their potential interventions has not focused on the different actors involved in why producers decide to adopt (Bennett et al., 2018). BMP programs mostly work with agronomists who either provide support or advice to producers adopting BMPs (Hejnowicz et al., 2016). Wilson et al. (2009) suggests that there could be more education on BMPs. Programs that are prescriptive do not allow producers to play an active role in the management of their land, which can lead to limited adoption of the BMPs (Chan et al., 2017).

In relation to the SARPAL initiative, agricultural producers did indeed have flexibility in choice of BMP. This may partly be due to the fact that many of the programs that SARPAL funded were administered through agricultural organizations. In Ontario, SARPAL was solely administered by Ontario Soil and Crop Improvement Association and provided funding to producers to adopt BMPs that benefit SAR. The following are BMPs that focus on species conservation in Canada:

Chapter Four: SARPAL Background:

The Species at Risk Partnerships on Agricultural Land fund was created in 2014 to help agricultural producers enhance habitat for Sage-Grouse and other grassland species affected by agricultural production. The first round of funding included \$6.2 million spread out over five years (2014-2019). Sage-Grouse is an important species for SARPAL because the year prior to the funds establishment, an Emergency Protection Order (EPO), pursuant to section 80 of the Species at Risk Act (SARA), was ordered for the species. The EPO stated that habitat for Sage-Grouse must be protected. The order prohibited the destruction of sagebrush plants, native grasses or native forbs, and activities that impact the survival of Sage-Grouse. This was a pivotal moment for SARA, as this was the first EPO issued under the act. In 2013, Sage-Grouse species had reached the brink of extinction.

The first five years of SARPAL were meant to act as a pilot phase. The initial objectives of the initiative were to build partnerships and find links between existing agricultural programs, and to explore the use of Beneficial Management Practices (BMPs). In the longer term, SARPAL is meant to implement the practices explored in the first five years into already existing programs to help increase protected habitat for SAR, while supporting agricultural producers in a sustainable way. Participation in SARPAL is voluntary and focuses almost entirely on private agricultural lands that have individuals, populations or critical habitat of SAR. The structure of SARPAL was focused on three elements including conservation agreements or contracts, BMPs and providing funding to producers to implement BMPs. As previously explored in this report, there are a variety of barriers for agricultural producers to engage in conservation, however the remainder of this report will be focused on the findings in key informant interviews. It is the hope of this report to shine a

light on whether SARPAL did a good job at achieving the intended outcomes and what lessons can be learned for enhancing the initiative.

The original focus of SARPAL was on three main approaches:

1. Conservation Agreements: Section 11 of the SARA authorizes a competent minister to enter into a conservation agreement to benefit a species at risk (ECCC, 2016). A Section 11 agreement can serve as a mechanism to protect critical habitat (ECCC, 2016). Protecting critical habitat and demonstrating effective protection, was a critical issue after the emergency order for Sage Grouse came into force.

2. Certification Programs: SARPAL aimed to capitalize on market interest in sustainable products and the desire of agricultural producers to access these markets. The goal was to determine the extent to which a certification program or similar scheme could support voluntary, cooperative approaches to biodiversity protection.

3. Integration with the Environmental Farm Plan (EFP): The EFP is a voluntary education program for agricultural producers and exists in most jurisdictions across Canada with regional variations. It is often a prerequisite for accessing funding dollars, but its basis is a voluntary, education-first approach to addressing areas of environmental risk on the farm. Recent interest has been in tying the EFP process to internationally recognized sustainability certification programs, with the goal of allowing Canadian agricultural producers to be

1 Critical habitat as defined and used in SARA is “the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species’ critical habitat in the recovery strategy or in an action plan for the species” (SARA 2002).

Other priorities identified in the original SARPAL proposal were to be incorporated throughout program delivery:

1. Adaptive management: Annual assessment of program effectiveness and efficiency by ECCC. Opportunities to improve or adapt the activities were to be jointly identified by ECCC, the provinces, and the delivery organizations, where applicable.

2. Investment in action: Investment of the majority of funds in on-the-ground actions that directly benefit the target species.

3. Relationship building: Develop relationships with agricultural organizations and producers. In particular, if staff were to focus, in part, on improving buy-in from ranching communities affected by the Sage Grouse emergency order, so that conservation activities could take place.

The relationships SARPAL set out to build are critical for a myriad of environmental, social and economic reasons. From an environmental perspective, temperate grasslands are host to many SAR and are in rapid decline. More than 80% of Canada's prairie grasslands have been lost and face a greater threat than the Amazon Rainforest. One of the greatest threats to prairie grasslands is the conversion to cropland. According to the Canadian Wildlife Federation, 90% of SAR in Canada lives on agriculture landscapes and therefore there is a definitive role for the agricultural industry to play in the protection of SAR in Canada. Dr Jeremy Pittman emphasizes that "if done properly, cattle ranching can play an important role

in the future of species at risk conservation and biodiversity protection on the Prairies” (Pittman, 2018).

Program Delivery:

Exploring different program delivery methods was part of the pilot phase of SARPAL. When implementing any funding program in Canada, it is important to recognize the diversity in regions across the country. This is especially true for the agricultural sector. For example, in the prairies, agricultural production is often on farms or ranches that are hundreds of hectares large. Whereas in Ontario, agriculture is done on smaller plots of land. Other factors include socio-economic diversity, crop diversity, politics, geography and history also may need to be taken into consideration as explored in the introduction. From the SARPAL inquiry, one of the most important factors to consider was the relationship the Federal Government had with the different producers, agricultural organizations and environmental organizations. One of the objectives of SARPAL was to test how well a third-party delivery method would work. The thought process behind third-party delivery was that it would allow for more regionality, allow for more partnerships to grow, and distance the role of the Federal Government. The latter point is crucial because of issues that have been raised due to lack of trust in government. Below is a description of the different delivery partners that were involved in each region.

Atlantic Region:

In the Atlantic Region, SARPAL was concentrated in the Provinces of Nova Scotia and Prince Edward Island.

Nova Scotia:

Table 4: Nova Scotia Delivery Partner

<i>Delivery Partner:</i> Nova Scotia Federation of Agriculture
<i>Species:</i> Wood Turtle
<i>Activities Funded:</i> Riparian buffer areas, limiting livestock access to streams, raising mower blades, delayed harvest, mowing avoidance, land swapping.

Prince Edward Island:

Table 5: Prince Edward Island Delivery Partner

<i>Delivery Partner:</i> Department of Communities, Land and Environment, ALUS and Island Nature Trust.
<i>Species:</i> Bobolink
<i>Activities Funded:</i> Delayed harvesting

Ontario Region:

Table 6: Ontario Delivery Partner

<i>Delivery Partner:</i> Ontario Soil and Crop Improvement Association
<i>Species:</i> Bobolink and American Badger
<i>Activities Funded:</i> Tree and Shrub Planting Establishment of In-field Perennial Grass Strip(s), Wetland Restoration Grassland Restoration, Cross Fencing for Rotational Grazing, Fencing to Exclude Livestock from Woodland Areas, Forage Harvest Management (Delayed Haying)

Pacific Region:

Table 7: Pacific Delivery Partner

<i>Delivery Partner:</i> British Columbia Cattlemen's Association
<i>Species:</i> Yellow Breasted Chat, Lewis's Woodpecker.
<i>Activities Funded:</i> Riparian fencing, riparian restoration & replanting, protection of wildlife trees

Prairie Region:

Table 8: Simply Agriculture Delivery Information

<i>Delivery Partner:</i> Simply Agriculture
<i>Species:</i> Chestnut Collared Longspur, McCown's Longspur, Sprague's Pipit, Loggerhead Shrike, Burrowing Owl, Common Nighthawk, Short-eared Owl, Ferruginous Hawk, Greater Sage Grouse, Piping Plover, Little Brown Myotis, Long-billed Curlew.
<i>Activities Funded:</i> Native Prairie Restoration and Conservation, Grazing Management, Woody Species Control Management, Invasive Species Control Management, Prescribed Fire Management, Riparian Area Management, Forage Harvesting Management, Cropping Management, Predator Management, Insecticide/Pesticide/Rodenticide Management, Water Developments, Road and other Linear Developments, Management of Burrowing Mammals

Table 9: Saskatchewan Stock Growers Association Delivery Information

<i>Delivery Partner:</i> Saskatchewan Stock Growers Association
<i>Species:</i> Chestnut Collared Longspur, McCown's Longspur, Sprague's Pipit, Loggerhead Shrike, Burrowing Owl, Common Nighthawk, Short-eared Owl, Ferruginous Hawk, Greater Sage Grouse, Piping Plover, Little Brown Myotis, Long-billed Curlew.
<i>Activities Funded:</i> Preparing seedbed and performing weed control Seeding an appropriate mix of native species, plugs and seedlings Resting seeded area up to 2 years post-establishment Implementing a grazing plan Maintaining site in perennial cover for a minimum of 12 years

Table 10: Manitoba Beef Producers Delivery Information

<i>Delivery Partner:</i> Manitoba Beef Producers
<i>Species:</i> Sprague's Pipit, Ferruginous Hawk, Chestnut-collared Longspur, Loggerhead Shrike, Burrowing Owl and Baird's Sparrow.
<i>Activities Funded:</i> Fencing that supports improved grazing, Watering systems designed to improve cattle distribution, Management of woody, invasive plants encroaching on grasslands (shrubbing), Establishing additional pastures that help to relieve grazing pressure on native rangelands, Native pasture establishment.

Chapter Five: SARPAL Evaluation Result:

Understanding the impact of SARPAL required speaking with stakeholders directly involved with the planning and delivery of the initiative. Two types of interviews were conducted. The first was an initial program fact-finding initiative with SARPAL coordinators to get an understanding of the initiative in general and the second was more narrowly focused on the research question of whether SARPAL was an effective approach and what lessons could be learned. Stakeholders ranged from academics with direct knowledge of SARPAL, academics with knowledge of the field of study more broadly, recipients that had previously worked with third-party delivery partners, program coordinators and employees of Environment and Climate Change Canada and one participant from Agriculture and Agri-Food Canada. Due to sensitivities around the nature of the relationship between the Government of Canada and agriculture producers, it was decided that direct contact with these individuals would not be completed. It became evident from the interviews that the individuals selected to be interviewed had enough first-hand knowledge of agricultural producers' perceptions of SARPAL as expressed through their accounts of working with producers.

A variety of questions were asked and could be disseminated into five buckets of learning. The first bucket of learning is related to relationships learning. This bucket of learning was the most prominent theme throughout the interviews as every participant spoke about the importance of the relationship building aspect of SARPAL. The second bucket of learning is related to operational learning. Many participants addressed some of the ways in which they felt SARPAL could be better delivered. Participants recognized that this was a pilot, and these types of learning were suggestive and constructive in nature. The third and fourth buckets of learning scratch the surface of policy (internal and external) learning. Not

every participant discussed the need for this, however three participants provided advice on how to better align SARPAL with different levels of governments and to test other policy measures that may already exist in SARA.

Relationships Learning:

Consistent with the literature review findings of barriers for agricultural producers to perform conservation on their lands, trust and relationship building were an extremely common theme from all participants' answers. When asked what the participant thought was the main objective of SARPAL, every participant provided a version of the answer “to build trust and relationships between the Federal Government and agricultural producers”. This was no surprise because when reviewing SARPAL project proposals, it became apparent that the entire first year of the initiative was designed to engage stakeholders and potential partners. The inquiry provided key examples of relationships that were formed as a result of SARPAL and participants explained that without SARPAL most of the relationships formed would not have occurred, and therefore found SARPAL to be extremely effective.

When participants were asked about why building relationships with agricultural producers was so important, some participants explained that it had always been that way, while others alluded to a long history of conflict between the Government of Canada and the agriculture sector. One participant with knowledge of ranchers in the Prairie region explained “Ranchers are different than crop producers and tend to have a different culture that is deeply rooted in stewardship in the land - somewhat religious - relationships to the land. Stewardship is part of their livelihoods. They Do not like government and do not care for either province or the federal governments but would take the province over the feds.”

One participant explained that there is a long history of political and economic factors that have created animosity between the government and agricultural producers. They explained that “We need a shift through SARPAL that ranchers and producers are more comfortable with - local presence. Not necessarily grass-roots, but local. There is also a history of East-West politics – a lot of history with the federal government.”

The responses differed amongst the regions, with the greatest sense of distrust for government coming from the Prairie region. Several participants also expressed that some of the conflict comes from the independent nature of agricultural producers, especially ranchers. It was also mentioned by nearly every participant that ranchers feel as if they are already good stewards of the land and therefore do not want to be bothered by the government. Three different participants mentioned that although it is important to build relationships with producers not involved in conservation programming, it is important to highlight and reward those that are already improving outcomes on their lands already. One academic highlighted the importance of not crowding out producers that are already doing good work. Another academic expressed that although producers, in particular ranchers, believe they are good stewards of the land, they expressed that more needs to be done and that avoiding conversion of grassland to crop agriculture is necessary.

Another common theme across the regions was the importance of partnering with agricultural organizations versus partnering with environmental organizations. One academic participant explained the history behind SARPAL and the Emergency Protection Order (EPO) for the Sage-Grouse. They pointed out that the Sage-Grouse had been listed and a recovery strategy was published, however very little work was completed on identifying critical habitat. The participant went further to explain that the Federal Government was sued

by a group of environmental NGOs and the EPO was ordered. The participant explained that although they believed the EPO came down hardest on the oil and gas sector, many agricultural producers felt that it was a very top-down approach and was done without consulting the sector. The participant explained that SARPAL's approach to using agricultural organizations with local presence and pre-existing trust amongst agricultural producers was a key component of the success of the initiative, a sentiment that was shared by other participants.

Participants also felt that relationships amongst departments and ministries were an important aspect of SARPAL. One participant noted that in one Atlantic province, both the ministry responsible for agriculture and the respective ministry responsible for SAR were located in the same building and had little to no communications before SARPAL. The same participant explained that this was common amongst all Atlantic provinces stating that SARPAL helped to bridge the gaps and increase communications. Another academic participant explained that part of the thinking around relationships needs to do an overhaul of the way in which government works. The participant suggested that more collaboration needs to occur amongst different government departments but recognized that this is not a SAR specific issue, but one that has to do with the way in which government works in general. Other participants also explained that collaboration amongst federal departments and provincial counterparts could help to create even greater success.

One participant with knowledge of the Atlantic region program explained that being able to sit down with agricultural producers face-to-face was key in building a relationship. The participant stated that it is not an easy process, but by building an initial relationship and listening to producers, it made it much easier to have a more difficult conversation later on. A

participant with knowledge of the British Columbia SARPAL initiative also found that creating the base-line relationship with the producers allowed for more difficult conversations later on. Both participants explained that building more personal relationships with the producers is an easier task in smaller regions but explained that having consistency in coordinators would allow for relationships to be sustained longer. Additionally, both participants recognized that in the prairies this may be more difficult. An academic participant mentioned that more money could be dedicated to administration spending for organizations because they believed that a large part of the success of SARPAL was related to including producers in the conversation, and more administrative spending could allow more producers to be reached. Over the first five years of the initiative, some participants SARPAL suffered from disjointed communications between national partners, because delivery agents were not provided adequate opportunities to come together. One participant suggested that greater engagement with universities could help to bring more academics to the table, and they could potentially host meetings that bring together the different stakeholders on a regular basis. This affected regional CWS operations, but also third-party delivery agencies, who were important contributors to program design and are local experts in agriculture and stewardship programming.

A final aspect related to relationships learning was the need for a more coordinated effort across the country and coordination of activities across regions. This is particularly important in an initiative that partners such geographically distant regions, which also face a diverse set of barriers and opportunities within agriculture. Some participants explained that they supported having a national direction that allows for central coordination and a uniform policy framework, but with regional specificity. A couple participants explained that they felt

that there was a lack of central coordination. Lack of overall goals and inconsistent national coordination for SARPAL may have hampered progress. Regions sometimes felt limited to a set of perceived but non-existent guidelines, which restricted ability for adaptive management. Having a consistent central coordinator may have helped with some of the operational aspects of SARPAL and could have allowed for more synergies.

Operational Learning:

Operational learning focused on improvements to the way in which SARPAL was delivered and the financial sustainability of the initiative. Participants expressed concern with what would happen if the funding were to run out and if the agricultural producers would continue the practices that protect SAR on agricultural lands. One participant mentioned that compared to agricultural subsidies that Agriculture Canada is able to offer, Environment and Climate Change Canada has limited dollars available for conservation initiatives and is bound by regulatory legislation that the former is not. The lack of conservation dollars available to initiatives like SARPAL is where the concerns related to the sustainability of SARPAL arise. Most participants expressed that the funding was critical to the initial success of SARPAL.

One participant suggested that if SARPAL funding was doubled, it would very easily be used up. Four different participants suggested that a portion of the funding should be targeted to administration. Participants expressed that there is a huge administrative burden. This burden does not necessarily have to do with paperwork; however, two participants did suggest that farmers do not have the time to fill out administrative paperwork and that student summer jobs could be an option. One participant mentioned that one of the SARPAL delivery

partners was not necessarily using SARPAL funding but was creative in their use of the Canada Summer Jobs programs through the Government of Canada to fund some parts of SARPAL delivery. Summer students can be used to help sign up participants, or with surveying. Three participants also suggested that the transactional costs involved in building the relationships are an important aspect of SARPAL.

In many of the conversations, the aspect of match funding was raised. One participant mentioned that not having a matching requirement allows for more flexibility and greater access to SARPAL. The same participant asked where the matching would come from considering that the agriculture sector is already increasingly time strapped and is facing pressure to stay competitive with European markets. In-kind matching is one theme that frequently came up in the interviews, however in-kind matching is an area that the participants were unable to provide concrete solutions for. However, four participants suggested exploring further what producers are able to do for free. Participants believed that by educating and making better connections, participants may be more likely to do something intrinsically. However, there are certain activities that may require funding. One participant explained that it is critical that producers believe in the objectives, otherwise when the money stops flowing, there will be no commitment to continue the good behaviour. Financial recognition cannot be the only aspect of the initiative.

Another theme related to in-kind matching was providing diversified incentives including tax breaks at the local level or exploring carbon credits. This of course is a more difficult calculation but could be an interesting way in which SARPAL could develop more participants for a less upfront, monetary amount.

One participant suggested that there needs to be greater clarity of the objectives and the activities that can help fulfill the objectives. Their suggestion included creating a library of tools and activities (i.e. BMPs) that can be matched to specific ecosystem services that are being met. This may help the producer to better make connections to how the activities are making a difference. This is important because multiple participants mentioned that for some producers, species at risk are important, however weighed against other economic factors, they are not a top priority. Two participants from opposite ends of the country mentioned that it could be advantageous to seek out the influential producers and work with them to highlight to others the importance of SARPAL and species conservation.

Working with targeted third-party delivery agents is an efficient and cost-effective approach that can take advantage of established networks, expertise, and personnel. Third party delivery agencies offer a number of benefits including improved funding efficiency, faster program delivery, established relationships with the farming community will increase uptake, especially at first and expertise in program design and delivery. However, participants explained that the appropriate delivery agency should be selected. First, ensure that the desired programming is part of their mandate, or whether they are eager to expand into this area. Second, ensure appropriate expertise and experience if substantial partner direction is desired. Some regions may be limited in available partners specializing in the desired program type, which may require piloting of new initiatives.

Two of the participants commented that Environment and Climate Change Canada should take stock of all the programs that are already working in the area of species at risk

and agriculture and looking at how SARPAL can be more complementary to these programs and where there are possibilities for synergies.

Another aspect of operational learning that most participants explained was the need for recognition. Both in Pacific Region and the Atlantic Region participants expressed that there was a desire to have a sign on the producer's property. Participants explained that in some instances some producers wanted to have a sign on their properties identifying them as places in which SAR exists and protected. Participants found that once farmers understood that there were SAR on their properties, they often wanted to do what was right, but also weighed the economic costs. One academic participant explained that it was important to not make the incentives too attractive that it was the only reason the producer was doing something. There needs to be an element of additionality, but also recognizing that there are producers that already do this. In the same vein, other participants explained that program design needs to consider ways of communicating the benefits of protecting SAR in a more sustainable way. Payments for protecting SAR should be targeted to areas of highest risk and reward. One participant mentioned that producers will often say "look what my neighbours are doing." The participant mentioned that incentives are part of it, however landowners becoming more aware of what they have on their properties. They concluded that the vast majority of people want to do the right thing. Another participant supporting this mentioned diffusion of innovation theory. This means that there will be some producers that are risk takers and do innovative practices first, as supported by Mascia and Mills, 2018, and that it is the job of SARPAL to highlight these producers so that other producers are able to participate in SAR conservation (Mascia and Mills, 2018).

One participant suggested exploring ways to reward producers for signing up new participants and spreading the network of SARPAL through rewarding current participants that help sign up new participants. This is not a new concept and is often used in the private sector to increase subscriptions. This kind of innovative thinking may be useful to explore further, however considering lack of available funds has been raised, a proper economic assessment would be required.

Multiple participants expressed that monitoring and surveying is an important aspect that needs to be further developed. Most participants expressed the importance of protecting critical habitat, but some also suggest that it is not clear exactly what the benefit to species has been. All participants acknowledged that five years is a short time-frame to know the exact impact of SARPAL. One participant questioned how SARPAL success should be measured in the future (i.e. number of participants enrolled, number of acres under conservation or species abundance). These are questions that will need to be further explored, however critical habitat may be the most effective, if issues around multi-species recovery and the fact that landowners are not interested in reconciling multiple overlapping critical habitat designations are not addressed because they are concerned with legal implications under SARA.

From the perspective of the participants, the first five years of SARPAL were well received. Although it was not possible for the author of this report to speak directly to producers directly involved in SARPAL, other academics were able to. For example, Dr. Dana Reiter of the University of British Columbia, Okanagan has completed research with 36 producers that were involved in the program (Saskatchewan Stockgrowers Association, 2019). It is important for policymakers to engage with such academic research in order to

make good policy. In her interview with Beef Business, Dr. Reiter explained that she does not know how “anybody can make policy without talking to the people who are directly affected by that policy. It’s important for policymakers to hear their voices.”

SARPAL was successful for many reasons. For example, all participants expressed that the use of local delivery agents helped to make SARPAL more accessible for ranchers as many of the organizations have ranchers within their organization which helps them to understand the unique challenges ranchers faced. Dr. Reiter also asked producers for their opinions on how SARPAL could be improved. She found that producers were satisfied with the program and its implementation. Her research found that producers would however like to see improvements could be made related to funding. Under the five-year SARPAL program, many of them signed contracts for less than three years. A longer funding term, like 10 years, would provide more security and would allow them to develop long-term planning for their ranches. A higher level of funding would allow ranchers to put more land into the program. It would also mean more ranchers could participate in the program and devote more land to habitat protection.

Policy Learning:

One of the greatest challenges for SARPAL derives from the fact that political landscapes, like physical landscapes across Canada, are extremely diverse. One participant was well informed of the ways in which SARA can enhance and hinder the success of an initiative like SARPAL. The participants' input was both related to SARPAL, and the Pan-Canadian Approach. Other participants discussed external policy issues. One participant

lamented that the planet is in such a dire situation when it comes to species and birds on agricultural lands. They mentioned that what has been done is not enough, and they attributed this in part to a lack of political will. The participant stated that making SAR conservation on agricultural lands is a priority and it needs to be signaled through policy.

Internal policy compared to external policy challenges are similar. The same participant with an extensive knowledge of the internal workings of SARA mentioned earlier, stated that the difficulties of protecting species on agricultural land stems from an aversion to interacting with SARA in new, potentially riskier ways. However, participants expressed that landowners are apprehensive to reconcile a whole bunch of overlapping critical habitat designations because it becomes confusing and there are different legal implications. The way SARA is designed is overwhelming and conflicting towards how multi-species approaches work. The same participant commented that “Recovery has to be single (according to SARA) - action can not water down single species protection. Making a lot of us question - is this just taking single-species strategies and stapling them together and consulting them once?”. One clause in SARA allows the minister to take a multi-species approach but does not exempt the minister from taking a single species planning approach or report on every single critical habitat single species.

Three participants (BC, Atlantic and Ontario) commented that there were difficulties with identifying critical habitat, or that none had been identified for the selected species. One participant mentioned that the backlog of listing species and their respective recovery strategies and action plans. Another issue arising out of this conversation is that once critical habitat has been identified, how do practitioners on the ground reconcile overlapping critical habitat? There is currently no framework for where two different species that need

reconciling are in conflict with each other. Identified critical habitat overlapping needs to be addressed in SARA. The participant explained that this is not a flaw of SARA, this is a flaw in the simple interpretation of the Act and there needs to be greater risk taken and there needs to be frameworks in place to allow for trade-offs to be made. At current, it is not clear how the Pan-Canadian Approach and SARA can work in tandem to address the multi-species approach, because SARA policy assumes that protection will happen singularly, but this is not the case. This boils down to the legal risk in making trade-offs between species needs that the government is legally required to take action on, which at current, SARA does not properly address.

Three participants commented that Agriculture Canada provides agriculture producers with subsidies for a myriad of practices, including pesticide use, creating the perception to producers that producers are more important than resolving environment externalities, and that producers are needed to feed Canadians and therefore high yields. This can create conflict between Agriculture Canada and Environment Canada because the two departments are trying to achieve different, potentially competing objectives. Subsidies are creating the wrong incentives one participant referred to this as “the Noble feeding the world and do not dare tell us that is not a public good” attitude.

At least three participants spoke about the importance of exploring Section 11 agreements and the ability to produce land use agreements akin to safe-harbour agreements. Participants expressed that there are a lot of barriers that exist internally to developing them and using them. This has to do with limits to the judicial liabilities that fall back on the federal ministers. One participant suggested tweaks to enact those types of policies more

widely. Internally there appears to be a lack of comfort because section 11 agreements have not been used widely and policymakers tend to be risk averse. Because of the nature of the f species conservation and the urgency of the time, two participants suggest the need to create safe spaces to explore more riskier ventures and explore how it may open up new, exciting ways to create policy in Canada.

Other policy issues that participants mentioned revolved around the payments and kind of matching participants received and provided. One participant recommended that SARPAL move away from away from incentives for practice based and moved towards outcome-based results. This would mean that producers could potentially report on species occurrences on their properties. However, other participants mentioned concerns that when the payments stop, that the behaviour would stop. Not every participant thought this to be true, however there is the possibility that producers are only doing the changes for the money. This conversation also led to conversations around the types of in-kind matching producers could provide. All participants agreed that in-kind matching may have the potential to allow more producers into programs like SARPAL, but this would need to be studied further. Flexibility was a common theme in both participants interviews and some of the literature. Flexibility could mean more integrated policy framework applied across Canada, but with regional specificity so it is not unfair to anyone as a result of Canada being a diverse and large country.

Chapter Six: Recommendations and Discussion:

Recommendation 1: SARPAL requires consistent and centralized coordination from the National Capital Region. Coordination should include increased lines of communication between regional coordinators, third-party organizations, participants, academics and other interested stakeholders. This includes increased knowledge sharing and engagement with academic institutions. Centralized coordination should include clearly defined objectives and reporting measures at the beginning of the initiative. National objectives should follow a coarse-filter approach and allow for regionality and fine-filter approaches within the specific projects.

Recommendation 2: Environment and Climate Change Canada should continue to push for the inclusion of multi-species conservation actions on agricultural lands and identify which actions producers can take that will benefit multiple species.

Recommendation 3: SARPAL coordinators should work with SAR Recovery teams and other experts to identify the agricultural actions that producers can take that will benefit the species. Policy needs to address the areas in SARA that conflict with the goals of the Pan-Canadian Approach, especially around single-species recovery planning versus multi-species action planning. Policy needs to address the fact that agricultural producers do not necessarily understand the regulatory aspects of SARA and are not interested in reconciling multiple overlapping critical habitat designations and therefore work needs to be done to make it easier for producers to comply and benefit multiple species.

Recommendation 4: Environment and Climate Change Canada should continue to explore economic instruments that incentivises agricultural producers to perform conservation actions on their land that are not already doing so. Agricultural producers that are already partaking in stewardship actions should be recognized for their work. Direct payments to agricultural producers should be focused on high risk areas where there is a potential for rewarding conservation results. Economic incentives should not be too attractive that agricultural producers sign up for SARPAL for financial gain, but enough to offset any transactional or implementation costs.

Recommendation 5: SARPAL should continue to build partnerships amongst stakeholders in the agricultural sector and stakeholders concerned with species and conservation. This includes fostering partnerships between provincial and territorial departments and ENGOs.

Recommendation 6: SARPAL should continue to work with third-party organizations in a targeted fashion. Third-party organizations should have mandates that are aligned with the goals of SARPAL and have relationships within the agricultural community in the region. The agricultural sector requires a tailored approach to species conservation because of the unique challenges the sector faces and therefore requires buy-in from local agriculture organizations. In regions without an appropriate third-party organization, pilot initiatives may need to be tested.

Recommendation 7: Program design should be simple and straightforward, and reduce administrative barriers for producers to join the program.

Recommendation 8: Increased funding for the program should be directed towards transactional costs. Transactional costs are incurred by both the program administrator and the program participant. Building relationships with agricultural producers is time consuming and often requires one-on-one interactions. Online tools or brochures should only be used for participants with more advanced knowledge of species at risk and conservation. Investing in outreach and dialogue with landowners is necessary for engaging participants and increasing interest in and support for payment programs.

Recommendation 9: SARPAL should invest in education campaigns for both urban and rural communities. On the rural side, producers sometimes need more education to know why conservation is important and how this can benefit them. On the urban side, urbanites have a limited understanding of the challenges of the agricultural sector and therefore having buy-in from urban populations may help to adopt greater market based incentives to help pay for the activities of farmers.

Recommendation 10: SARPAL should not require match-funding. If match-funding is required, Environment and Climate Change Canada should look for ways that matching can be done through non-monetary means such as through in-kind matching or by exploring other incentives including tax incentives.

Recommendation 11: SARPAL should not aim to reinvent SARA, but find ways to engage with the act differently that allows for the Pan-Canadian Approach to be implemented and to answer some of the more difficult questions around multi-SAR conservation.

Chapter Seven: Conclusion:

The first five years of SARPAL have been well received. The initiative was not without challenges, especially because five years in species conservation is a very short time. The challenges of implementing an initiative like SARPAL have not been fully revealed throughout the five years, however a lot of learning has been extracted from this report, and the work of key SARPAL coordinators within ECCC, that will allow for SARPAL to be improved and to reach more producers as it continues into the future.

Despite the challenges, producers value initiatives like SARPAL and if Canadians public wants to protect species at risk and their habitat, then it is important to not only reach producers, but also make the public be aware of the importance of working with ranchers and what they are doing with their lands to protect species at risk and their habitats. One participant had mentioned that part of the equation should be reaching out to the public as the dollars used for SARPAL come from the public purse. The citizens of Canada should know that there are projects like SARPAL that are going on and contributing to healthy habitat and feeding the population.

One thought that was top of mind while completing this report was how in many conversations, beef production gets a bad name. Of course over production of beef will have a net negative impact on the planet, however as can be seen through SARPAL, there are management practices of beef that can be positive. The next steps for SARPAL should be communication to the general public and scaling up sustainable cattle production so that more species habitat can be adequately protected or added in Canada. Of course, SARPAL has only been around for five years, and therefore it would be important to check in after another five years.

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