APAS Submission to the Saskatchewan Offset Framework Discussion Paper Engagement

Questions for consideration on start dates, crediting periods, and baselines:

How would the choice of the program start date affect your interests?

The establishment of a program start date applied uniformly to all offsets in all sectors poses significant issues to sequestration based offsets since early adopters would not receive credits for their efforts. Instead this would create a perverse incentive to change their practices and remove that soil organic carbon so that it could be re-established and receive an offset credit. This has the potential to undo decades worth of sequestration and compound the problem of increasing greenhouse gas concentrations in the atmosphere. Likewise, the IPCC highlights the importance of incentives to maintain existing carbon sinks like agricultural soils in order to ensure market signals do not prompt practice and land use changes that would deplete those sinks. As the Global Climate Action Agenda asserts, a 4% annual increase in sequestration in agricultural soils would halt the annual increase in CO2 in the atmosphere.

How should the project start date and crediting start date be implemented in the Saskatchewan offset program?

Sequestration based practices that took place prior to any proposed crediting start date should receive financial recognition for the work that has been done to ensure a perverse incentive is not created to remove carbon from the soil and reintroduce it for a credit. If we hope to use agricultural soils effectively as a carbon sink then incentives will need to be in place to dampen market signals that would suggest changes in practice resulting in a release of stored soil carbon.

Are there data concerns associated with allowing earlier project and/or crediting start dates? Does a crediting period of seven to 10 years for non-sequestration projects present limitations? What about opportunities?

In the case of sequestration based offsets in agriculture, allowing for earlier crediting dates is necessary to maintaining the integrity of those existing soil carbon sinks. Even without precise measurements on a particular field over the course of the practice's use, it is still possible to get a reliable estimate of how much sequestration has taken place. The application of a practice factor or model based on existing data (Prairie Soil Carbon Balance Project) could be used to quantify sequestration prior to an established crediting start date.

Should offset projects be provided the opportunity for credit period extensions? If yes, should projects be limited to one extension over the life of the project?

Agricultural producers face a complex series of production factors each growing season and thus require great flexibility in their decision making to meet those challenges. Likewise, agricultural offsets must allow for flexibility in how they are administered including the ability to extend credit periods for agricultural projects. Since agriculture is one of the most climate exposed sectors and already has to contend with vastly changing conditions each year, the ability to extend a crediting period repeatedly for a particular practice could be the difference been maintaining that practice or allowing conditions to dictate a change in management.

What criteria should be considered to determine the baseline for an offset project under an approved protocol?

Criteria used to determine the baseline for an offset will depend on the offset quantification system used (see Questions for Consideration on Quantification Protocols). The establishment of a baseline in the case of measurement based systems would require a preliminary measurement but practice factors and some modeling systems would eliminate the need for such intensive activities.

Questions for consideration on eligibility, ownership and aggregators:

How important is it for the eligible GHGs and associated GWPs in Saskatchewan's offset program to align with those in Saskatchewan's OBPS program and Canada's NIR?

The importance of this alignment with other standards will only be vital should the province decide to sell Saskatchewan made offsets to other jurisdictions.

Should activities occurring outside Saskatchewan's borders be eligible to earn Saskatchewan offset credits?

If the recognition of offset generating activities is part of the provincial resiliency strategy then it would make sense that those activities occur within Saskatchewan. Our province represents 40% of Canada's cultivated land and 35% of Canada's pasture land providing us with a significant opportunity to sequester carbon and improve soil health. These activities will also impart considerable economic benefit as well as ecological goods and services on the landscape that would otherwise be lost to the province.

What is an appropriate approach to confirm ownership, particularly in multi-owner or lease scenarios?

Ownership of an offset is something that should be agreed upon and included in rental and lease agreements.

Should Saskatchewan's offset program allow for aggregation of offset projects?

APAS does not support the use of aggregators in agricultural offsets as they provide minimal administrative value while extracting an inordinate share of the proceeds from

offset sales. Our members have more trust in administration by an independent body with no financial stake in the process, and with no incentive to structure ongoing offset design to favour their own interests. The perceived integrity and eventual success of an offset system requires a level playing field.

Questions for consideration on quantification protocols:

Which quantification protocols should be approved for use at the start of the Saskatchewan offset program to ensure uptake by project developers and an adequate supply of offset credits?

Approved quantification protocols will be dependent upon which approach the Saskatchewan offset program takes to account for changes soil organic carbon (SOC) and reductions in emissions levels. Three basic approaches to account for these changes include practice based factors, modelling, and measurement focused systems. Each of these systems has their own merits ranging from simplicity for users and administrators to finding exact measured values.

Practice Based Factors

Practice base factors are simplified representations of the change in SOC or emissions linked to the adoption of a specific practice. The factors can be derived from datasets (IPCC methodology), process models (Comet-VR), or an ensemble of models and measurements (Canada's GHG inventory). Practices assigned a factor can be very general or specific with greater specificity requiting more supporting data to derive reliable factors.

Practice factors are often the easiest to document, administer, and are readily comparable with factor for the same practice that have been derived by alternative methods. The factors can also be updated over time to reflect increased data collection and understanding from the scientific community. Unfortunately, this does mean that everyone following the same practice will receive the same factor which with balanced implementation could incentivize a practice and reduce liabilities that could be associated with assigning a credit.

Process Modeling

Process models are a bit more complex but have the added flexibility to change over time as better models are produced and validated with real data. The models have the potential to be standardized globally and are reproducible given the same inputs and parameters which may make offsets easier to trade in other jurisdictions. Additionally, models can be project specific or extrapolated across an entire eligible offset activity but become less reliable with increased coverage and complexity of the activity.

Measurement Based

Measurement based quantification systems tend to be the most exact way of quantifying changes in emissions and sequestration. These are results based methods that if done uniformly can be widely accepted by stakeholders with no assumptions about appropriateness. However measurements systems have a very high cost and do not generate any results until measurements take place. They are often inflexible with initial design constraining possible future modifications and the integrity of the measurer critical since biasing is possible and results are inherently not reproducible.

Measurement based systems also miss the point at times in the adoption of a practice since they only look at sampled values to create the offset and do not allow for identification of specific management practices that could be beneficial within the sector moving forward. Measurement is best used to support factor and model based quantification systems through validation and additions to existing datasets, an approach that can be much more cost effective.

The Future of Offsets and Insetting in Supply Chains
While compliance and voluntary markets have been the current standard for generating and trading offsets, insetting is the fastest growing concept among industry and supply chain based organizations including Walmart, Pepsico, and Coca-Cola. The concept involves investment in an emission reducing activity within a company's supply chain. This means that in some cases the organization will pay for the cost of adoption and implementation of the practice with the emission reduction or sequestration value (inset) being claimed by the company that sponsored the activity. The first corporate working group focused on insetting projects was established in October of 2018 comprised of Mars, Danone, General Mills, Cargill, Barry Callebaut, Ben & Jerry's, McDonald's, Chanel, and L'Oreal.

The province must consider moving forward with offset design what is happening in the marketplace and apply a level of flexibility going forward to incorporate other effective ways to incentivize mitigation of emissions and increase sequestration.

How should draft protocol development be considered?

Draft offset protocols would be considered at the sector level with a stakeholder consultation comprised of those directly involved in the activity. This approach is geared towards making sure the protocol follows the latest scientific understanding within the sector and it can highlight policy barriers to adoption that could be faced by the stakeholders.

What approach to review and update protocols in Saskatchewan's offset program would be most efficient in terms of utilizing available resources and timely incorporation of new science and best practices?

When an offset protocol is up for review it would make sense to also handle it at the sector level with stakeholders and researchers that are directly involved in the activity. This approach would allow for new science to be brought forward and an examination from the grassroots level of whether the policies behind the offset have been effective.

What would be the impact on your ability to develop an offset project in Saskatchewan's offset program adopted the additionality criteria set by the Government of Canada?

APAS has voiced its concerns with the additionality criteria set by the Government of Canada.

With respect to offset design, APAS raises concerns over the use of additionality in the criteria for eligible offset protocols and its potential to set a precedent towards the application of offsets from agriculture. Agriculture does not have a "business as usual"

with each growing season being a completely different set of production factors and market risks resulting in changes to the production practices that year. Each eco-region has a dynamic and complex range of production variables which must be managed with continual transformative changes in agricultural production technologies, management practices, and crop mixes.

An overly “conservative” approach to the definition of baselines and sectoral “additionality” would cause technical difficulties and could render any program design effectively redundant in the face of other market pressures. The use of additionality in offset protocols could also produce an unintended perverse incentive to remove carbon from the landscape so it could be reintroduced and made eligible for an offset.

Would any of the other federal criteria for eligible offset protocols found in Appendix B inhibit your ability to generate offset credits?

As mentioned from the previous question, APAS has also expressed these concerns with the federal government in the creation of offset criteria.

Questions for consideration on validation, verification and government audits:

Should Saskatchewan’s offset program require validation of offset projects before they are eligible to earn offset credits?

Whether validation of an offset is necessary to earn the associated credit is highly dependent of the system of quantification that the province elects to use. In a measurement base system validation would be necessary to not only make sure the offset was generated but it would be needed to determine the size of the offset. In a practice factor or modeled system there is a degree of assurance that the activity will be successful based on supporting datasets, models, and previous validations. In some jurisdictions half of the offset is awarded with the rest dependent on a later validating measurement. This system helps to incentivize the adoption of the practice, safeguard against part the liability associated with the offset, and helps to ensure continued upkeep of the practice.

Should priority be given to aligning verification requirements with the proposed federal OBPS regulations?

Should the province decide that the sale of these offset to other jurisdictions is key then it would make sense that they try to follow a system of validation that would align with other regulations. This is highly dependent on the method of quantification for offsets used by the province with some being easier to match up with a specific practice even if a different methodology was used in another jurisdiction.

Questions for consideration on the offset credit registry:

Is there concern with publicly posting project information on an offset registry?

The public posting of project information in an offset registry would need to follow a degree of confidentiality including not publicly posting names of landowners/lessees or the exact land location where the practice is taking place to avoid any unintended consequences. If further information would be required by the buyer of an offset credit, they should be able to use non-public means to access that information.

Should offset credits in Saskatchewan's offset program have expiration dates to ensure continuing demand and additional emission reductions? If yes, after how long should offset credits expire?

The expiration date of an offset should be proportional to the amount of time and investment needed for that offset to be created. In this case sequestration based projects require a longer period of time to increase soil organic matter and significant input value for the equipment needed to perform conservation tillage practices. The methodology would help to incentivize larger and more time intensive practices if their offsets would retain their viability longer.

Questions for consideration on records, reversals and penalties:

What mechanism should be used to guard against the potential reversal of GHG emission reductions or removals from offset projects in Saskatchewan's offset program?

Other jurisdictions like Australia have dismissed the quantification practice of discounting the measure of the sequestration to account for removals or reductions. Instead they offer half of the credit value up front as a means of greatly incentivizing the adoption of a practice then holding the rest of the credit to be given based on validation and maintaining of the practice. Once the economic and ecological benefits of the practice are felt by the producer it is likely they will keep the practice for the long term. Some flexibility is also required to account for changing conditions with each growing season that should be included in the criteria for the offset – for example the need to till in response to very wet conditions.

What mechanisms should be put in place to administer penalties to persons who are in non-compliance with program requirements?

The validation that the practice has started to take place and offering some of the credit's value up front to help cover the cost of implementation would incentivize uptake of practices. Similarly, holding the rest of the credit to be given out based on subsequent validations and maintaining the practice would prove helpful to increase the integrity and long term resilience of the soil sink. In the case that the practice is not kept, an option for re-adoption of the practice or creating the offset another way should be evaluated before seeking the return of any offset funds.