# Performance Standards and the Farmer: Design and Application in Greenhouse Gas Mitigation

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### INTRODUCTION

Agriculture's impact on the global climate is increasingly becoming understood. Much remains unknown, but from what is known, agriculture can both aid and prevent the release of greenhouse gases (GHG), depending on the land-use pattern adopted. The majority of this volume is devoted to identifying the interactions between agriculture, climate change, and land-use patterns. This chapter moves the discussion to the implementation of policies aimed at the mitigation of on-farm activities that have a negative impact on the climate. At some point in the near future, farmers will be asked or forced to adopt specific land-use practices and a system will be established that evaluates a farmer's performance in this regard. This chapter argues that the form in which the standard used to evaluate the farmer will influence a policy's success.

Without a specific understanding of what farmers will be asked to do under a GHG mitigation scheme, it may appear premature to discuss performance standards. Such a view is short-sighted. The successful use of agricultural land as a carbon sink or the reduction of fossil fuels used in production, for example, will depend on farmer support for the endeavour. Without this support, compliance will be an issue in a mandatory system. It will also impact the level of farmer participation in a voluntary system. This is because performance standards are intrinsically linked with risk. Farmers may not be willing to fully participate in a GHG mitigation scheme if they feel that their participation has a real potential of attracting liability.

Consider the relationship between agricultural lands and GHG sequestration. These lands are known to function as a carbon sink. If this role becomes formally recognized in a greenhouse gas mitigation scheme, it will be the responsibility of farmers to manage land for this purpose. Farmer participation can be voluntary, as in a carbon credit system or a payment-by-result program, or mandated by state legislation. In either system, farmers will be required to undertake land management practices that are designed to mitigate GHG emissions. The integrity

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of the GHG mitigation scheme will depend on assurances that farmers are meeting an acceptable standard of performance in these GHG management activities.

The source of environmental performance standards applicable to agriculture in law are threefold:

- contracts;
- the common law; or
- government statutes and regulations.

This chapter reviews the different performance standards currently being used in each of these areas to evaluate a farmer's impact on the environment. Examples from Canadian law are provided although the conclusions reached have broad application. The chapter concludes with an evaluation of their appropriateness for GHG mitigation in agriculture. It is hoped that policy-makers will find this chapter informative as they attempt to identify and design effective means to encourage the adoption of appropriate land-use patterns in agriculture.

#### **CONTRACTUAL STANDARDS**

Performance standards may pose a number of risks to farmers. The failure to perform under a contract will usually attract damages. The meaning of performance under any contract must be determined on a case by case basis. What constitutes performance will depend on the intent of the parties as evidenced by the words contained in the contract itself and the parties' conduct as it relates to the contract (Waddams, 1999). Failure to perform under a contract can occur as a result of issues arising from the timing and quality of performance. This is in addition to failures that result as a consequence of one party omitting to carry out the contractual obligation all together.

Because each farmer will be evaluated by a performance standard unique to the specific contract in question, it is difficult to make generalized comments about what the content of the standard will entail. Instead, the discussion that follows emphasizes the importance of ensuring that the contractual parties have a clear understanding of the contract's purpose as well as the standard that will be used to measure contractual performance.

Depending on the mitigation scheme in place, a GHG emitter who contracts with a farmer to offset its emissions may face significant penalties if the farmer does not satisfy her contractual obligations. These penalties will likely become a component of the damages an emitter seeks from a farmer in an action for nonperformance. Therefore, in the event of non-performance an emitter may be able to shift the responsibility for its GHG emissions to the farmer.

This shift of responsibility to the farmer may seem to be a reasonable result in the event of a farmer's complete failure to undertake the land management practices she has contracted with an emitter to perform. The reasonableness of this result, however, becomes questionable if there is a misunderstanding between the parties as to the performance standards the farmer must satisfy. In this way, the overall goal of the contract becomes important. Is the farmer contracting to undertake a specific set of land management practices or is the farmer contracting to offset an emitter's GHG emissions? It may appear that the farmer's obligations under the contract remain the same regardless of the understanding of the contract's purpose. In fact, a difference in this understanding may fundamentally alter the ultimate performance standard a farmer may be held to in the event of a dispute.

An example may assist in outlining why a clear understanding of the purpose of a contract is important. Consider a situation where a farmer enters into a contract with an emitter. Under the contract, the farmer agrees to maintain permanent cover on a segment of her land by planting a specified perennial forage crop. After planting the field, through no fault of the farmer, the seeds fail to germinate as a consequence of lack of moisture or a sudden drop in temperature. To avoid an action for breach of contract or to mitigate the damages the plaintiff will suffer, the farmer replants the field with seeds of a different perennial forage crop. Unknown to the farmer, the original crop is better at preventing the release of GHGs from the soil.

Under these facts, the courts may find that the emitter essentially received the full benefit of the contractual bargain and, therefore, rule that the farmer was not in breach. Or, the court could decide that the farmer is in breach of the contract, but the damages suffered by the emitter are negligible. Either of these results are possible if the court determines that the purpose of the contract is merely to maintain permanent cover over a specific piece of land and that the specification of the crop to be planted is not an essential component of the contract.

On the other hand, if the courts determine that the purpose of the contract was to facilitate the capture of GHGs through a specified land management practice, the opposite result will likely occur. In that instance, planting a specific crop may be an essential component of contractual performance. Not only will the farmer be in breach, she may face significant damages if the emitter becomes subject to financial penalties as a result of not satisfying its own mitigation commitments. Not surprisingly, the same problem arises in a mandatory, legislated GHG management system in agriculture. In order for the system to have 'teeth', the legislation will likely include significant penalty provisions for non-compliance. Farmers will face an unknown risk of liability if the legislation is not explicit as to the standard that will be used to evaluate a farmer's performance.

In addition to the content of performance, its duration may also dissuade participation. Ideally, once a mitigating land-use pattern is adopted, it is hoped that the land-use pattern will not revert to one which is known to have a negative impact on climate change. The tendency may, therefore, be to enter into longterm contracts with farmers to avoid this from occurring. It is unclear that farmers will be willing to restrict their land-use options for many years into the future. In addition, such restrictions will not be desirable as new understandings of the linkages between agriculture, land-use, and climate change emerge. Long-term contracts reduce flexibility and may prevent the adoption of innovative practices that emerge over time.

The uncertainty associated with contractual standards may also increase when parties are contracting across political boundaries. In the event of a dispute, the question of what law is applicable will arise. Not only does the content of law vary between nations, there can be some variance between provinces within a single country. A farmer may be certain of his expectations and obligations under the law in her home jurisdiction, but if the contract is interpreted by a court in another jurisdiction, she may be held to a different standard. Luckily, this uncertainty is easily avoided by specifying what law will apply in the event of a dispute.

Although not strictly a performance standard issue, contracts across political boundaries may also discourage participation in contracts to mitigate GHGs if it is not clear that the contracts can be enforced. Enforcement will specifically become an issue in contracts that cross national political boundaries. A farmer who has entered into a GHG mitigation contract with an emitter in another needs assurances that he will be able to enforce that contract if the emitter fails to meet his contractual obligations (and vice versa). It is possible that the emitter will have no assets in the farmer's jurisdiction available for seizure in the event of the emitter's failure to pay the farmer for executing the contract. In those circumstances, once the farmer has obtained a judgment in the farmer's jurisdiction against the emitter for breach of contract, the farmer will need to be able to enforce that judgment in the emitter's home jurisdiction. Enforcement across national boundaries is not automatic, but relies on an agreement between nations to do so.

### **COMMON LAW STANDARDS**

The common law generally serves to address areas of law that have not been specifically contemplated by the legislature. The law of nuisance, negligence, and trespass have emerged to tackle, among other things, many environmental disputes. From these actions, two important standards have emerged. They are reasonableness and strict liability. To date, these standards have not been applied in the context of a GHG mitigation scheme. The content of each standard is therefore discussed in the context of other environmental disputes with the view of gaining an appreciation of the suitability of their use in evaluating a farmer's performance under a GHG mitigation scheme.

### Reasonableness

Reasonableness is a common standard used to evaluate a farmer's actions and to attach liability for on-farm, environmental injury. Historically, actions in nuisance and negligence have provided a remedy to parties injured, either physically or in law, as a consequence of some aspect of an agriculture operation. To prevent an unending chain of liability, the common law has limited what injuries are compensable through the use of a reasonableness standard. Due to its inherent fluid nature, this standard eludes precise definition. An understanding, however, of the many permutations of the reasonableness standard can be gained through an analysis of its application in the torts of nuisance and negligence. Agricultural operations have historically faced numerous actions in nuisance and negligence.

### Nuisance

Prior to zoning laws, nuisance 'served as an all-purpose tool of landuse regulation' (Halper, 1998). Under the common law, a person is generally entitled to quiet use and enjoyment of her land. If this use is interfered with unreasonably, an action in private nuisance will arise. Unreasonableness is determined in light of the circumstances and considers such factors as: duration, character of the neighbourhood, type and severity of harm, sensitivity of the plaintiff, and the utility of the activity causing the nuisance (Lindon, 1997). Because nuisance is used to remedy situations where the full enjoyment of one's property is impeded by another's use of her property, an action in nuisance can address physical injury to property or person as well as less obvious interferences such odours and noise. In this way, nuisance attempts to balance the rights of competing property-holders.

In light of the fact that private nuisance involves the rights of competing property-holders, it is not surprising that agricultural operations have been the target of numerous nuisance charges over the years. A number of these cases have involved odour and the corresponding attraction of flies from hog barn and associated manure lagoon. Others have involved dust and noise originating from agricultural operations. In each of these cases, a farmer's actions were evaluated using a standard of reasonableness.

It is important to note that an action for public nuisance also exists in Canada. It usually involves the unreasonable interference with a common public right like navigation, access to public roads, or public health and safety (e.g. tower on farmer's property that interferes with commercial flights thus placing the public in danger). In addition, the widespread interference with private property rights can collectively constitute a public nuisance. Unlike a private nuisance, a public nuisance action must be brought to court by the Attorney-General acting on behalf of the effected public (Lindon, 1997). Like a private nuisance, liability is based on a reasonableness analysis. Only those actions that 'materially affect the reasonable comfort and convenience of life' of substantial number of the public are actionable (Lindon, 1997).

The reasonableness standard employed in a nuisance action does not focus on the reasonableness of the defendant's action. Rather, the courts primarily look at the reasonableness of the interference from the plaintiff's perspective. Therefore, a farmer can become liable to another in nuisance as a consequence of a reasonable farming practice like composting manure. The focus only shifts, somewhat, to the defendant when the court analyzes the utility of the activity interfering with the plaintiff's right. Notwithstanding this shift, the focus remains on the nature of the activity rather than the care or diligence exercised by the defendant.

#### Negligence

A reasonableness standard is similarly used in an action for negligence. An action in negligence has the compensation of losses suffered by a plaintiff because of a defendant's conduct as a primary goal (Dobbs, 2000). A person will be found negligent if she does not take reasonable care to avoid injuring those she ought reasonably be able to foresee as likely to be affected by her conduct. Not all losses, however, are recoverable. Each element of a cause of action for negligence must be analyzed to determine when a loss is recoverable. These elements are best understood as a series of questions addressing a specific aspect of a cause of action in negligence (modified from Prosser, 1971):

- Has the plaintiff suffered loss or damage?
- Is there a duty, recognized in law, that required the defendant to take care to avoid subjecting others to unreasonable risks?
- Has the defendant breached her duty owed to the plaintiff by acting unreasonably in the circumstances?
- Is the defendant's conduct the cause of the plaintiff's loss or damage? Was it foreseeable that the defendant's breach of the standard of care would result in the plaintiff's loss or damage? Are there any reasons in law or has the plaintiff contributed in anyway to the loss thereby barring recovery or reducing the damages awarded?

As shown, the courts must determine if the defendant's conduct was unreasonable in the circumstances.

In negligence, the reasonableness standard necessarily involves an objective evaluation of the surrounding circumstances. This is specifically called 'the reasonable person test.' The fundamental question that must be determined is 'who is the reasonable person?' The reasonable person, as understood in Canadian law, is best described in Arland v. Taylor (1955):

[The reasonable person is] a mythical creature of the law whose conduct is the standard by which the Courts measure the conduct of all other persons and find it to be proper or improper in particular circumstances as they may exist from time to time. He is not an extraordinary or unusual creature; he is not superhuman; he is not required to display the highest skill of which anyone is capable; his is not a genius who can perform uncommon feats, nor is he possessed of unusual powers of foresight. He is a person of normal intelligence who makes prudence a guide to his conduct. He does nothing that a prudent man would not do and does not omit to do anything that a prudent man would do. His conduct is guided by considerations which ordinarily regulate the conduct of human affairs. His conduct is the standard 'adopted in the community by persons of ordinary intelligence and prudence'.

Assuming an average defendant, this standard gives little attention to the actual circumstances of the defendant. Rather, the focus is on an artificial analysis of what a reasonable person would have done in the circumstances.

The application of the standard of reasonableness may do little to encourage farmers to voluntarily participate in GHG mitigation efforts. The standard fails to consider the actual circumstances of the defendant. Instead, it determines liability based on an analysis of what the average person would do in the circumstances.

In this way, the reasonable person test discourages innovation and rewards the status quo. A farmer who tries a new farm practice for the purpose of mitigating GHGs may not be acting 'reasonably' for the purpose of determining nuisance or negligence. This may be the case even if the farmer acted diligently to avoid any harm.

The imprecision of the reasonableness standard may also be problematic even though a certain amount of flexibility in determining liability may generally be desirable. Without a precise definition of what conduct will attract liability, farmers can never be entirely certain as to the level of risk they are facing when they undertake a new GHG mitigation activity. Farmers who are more risk averse may chose to avoid these activities altogether. In the alternative, farmers who otherwise would be willing to undertake these activities may choose not to if faced with competing demands for the adoption of new on-farm practices. The additional risk associated with an innovative GHG mitigation practice may be the determining factor in a farmer's choice to invest her energy into better management of food safety risks rather than GHGs. This will be particularly true if the recent estimates of the limited economic returns likely to accrue to farmer as a result of investment into GHG management, are accurate.

#### Strict liability

Another standard employed in the common law to redress injury is strict liability. Under a traditional strict liability standard, a defendant will be liable once the prohibited conduct is proven to have occurred notwithstanding that the defendant acted reasonably or with due diligence. The key distinguishing feature of the strict liability standard is the fact that wrongful conduct is not a consideration in the application of the standard (Osborne, 2000).

Trespass exemplifies the use of a strict liability standard in the common law. Below is a discussion of these two actions. The discussion of the application of a strict liability standard in a GHG mitigation context will be saved, however, until the next section because of its common use in regulatory offences.

## Trespass

A person will liable in trespass for any direct intrusions onto another's property (Osborne, 2000). Trespass is actionable *per se*. That is, one is liable for all unauthorized intrusions onto another's property even if no damage was caused. Furthermore, the trespass need not be intentional to result in liability. A plaintiff in an action for trespass only needs to establish that the trespass occurred in order to be successful. This standard is known as strict liability.

#### Rule in Rylands v. Fletcher

The rule in 'Rylands v. Fletcher' also promotes a strict liability standard. Under this rule, a defendant will be liable for any damage that results as a consequence bringing something onto her land that is likely to cause mischief if it escapes (Osborne, 2000). The application of this rule, however, is limited to damages that result from the defendant's non-natural uses of land. This standard differs from trespass because it is not limited to direct intrusions on another's property. It contemplates actions that may otherwise be considered a nuisance. Unlike nuisance, the plaintiff is not required to establish the unreasonableness of the interference. The rule in 'Rylands v. Fletcher' is also actionable *per se*.

# **REGULATORY STANDARDS**

In designing a policy regime aimed at mitigating climate change, governments can choose to use mandatory regulatory standards in addition to or instead of efforts to encourage the voluntary adoption of desirable land-use patterns. In addition to enforcement, how the regulatory standard is designed will influence whether or not the public chooses to comply with it. It is therefore important to consider regulatory design if the goal of minimizing agriculture's impact on climate change is to be realised.

In Canada, the legislature has an almost unrestricted right to design environmental standards as it sees fit provided that the laws do not violated the Canadian Constitution and Charter of Rights and Freedom by being arbitrary, overly vague, or outside their constitutional authority. Canada may also choose to limit this authority by participating in international agreements like those governing international trade.

Currently, there are numerous environmental regulatory offences of general application in Canada that have an impact on farmers. In addition, there are certain regulatory offences that are specifically targeted at agriculture. Generally, all of these offences take one of the following forms:

- specifically mandated or prohibited conduct;
- zero-tolerance; and
- prescribed limits.

Either a strict liability standard or an absolute liability standard is used to determine when someone will be held accountable in law for the commission of a regulatory, environmental offence. In addition, many jurisdictions have taken legislative action to respond to the particular susceptibility of agricultural operations to nuisance actions. They have passed laws that prohibit nuisance claims where a farmer employed "normally acceptable agricultural practices" thereby creating a new standard only applicable to agriculture.

Each of these regulatory standards is discussed below. Strict liability, absolute liability, and the defence of due diligence will be discussed first. This will be followed by an analysis of how the form of the offence as well as the standard used to determine liability can inform the debate on the appropriate standards to be used in GHG mitigation in agriculture. The chapter will then discuss the unique 'normally acceptable agricultural practices' standard.

## Strict liability, absolute liability and the defence of due diligence

The discussion of the use of the standard of strict liability in the common law outlined that strict liability offences are actionable *per se* without proof of intention or wrongful conduct. The same is true of absolute liability offences, however, an important distinction must be made between the standards of strict and absolute liability. Strict liability offences are subject to various defences. That is, one can escape liability if they have an acceptable defence to the action. The defences vary according to the offence and include acts of God, necessity, self-defence, and in some instances, due diligence. Absolute liability offences do not permit these defences.

The distinction between absolute and strict liability offences was not made in the above section for two reasons. First, there are no true, absolute liability environmental offences in the common law. And second, common law strict liability offences are rarely subject to a due diligence defence. This last factor is a key distinction between the regulatory and common law strict liability standards.

Due diligence emerges as a defence to a strict liability offence once it has been established that the defendant committed the offence in question. The defendant will be liable unless she can establish that she used due diligence. Essentially, the onus shifts to the defendant to establish that she used reasonable care in the circumstances. An analysis of due diligence may include a consideration of the following factors (Fuller and Buckingham, 1999):

- acceptable standards in the industry and whether they were followed;
- the nature and gravity of the environmental harm;
- the foreseeability of the harm, including atypical sensitivity;
- available alternative solutions;
- legislative and regulatory compliance;
- character of the neighbourhood;
- the efforts made to address the problem and matters beyond control;
- the expected skill level of the defendant;
- preventative practices;
- economics; and
- any action taken by officials.

These factors are reminiscent of those considered under the common law reasonableness standard.

The due diligence defence is often incorporated into environmental legislation. It serves the dual purposes of reducing the burden of proof a plaintiff must meet, while accommodating those offenders whose actions were reasonable in the circumstances. Its usefulness in the context of GHG mitigation in agriculture will largely depend on the form the offence takes.

# Specifically mandated or prohibited conduct

It is common for environmental legislation to require or prohibit specific conduct. Often prohibitions and mandated conduct are used in conjunction to achieve the overall goal of the legislation. For instance, Saskatchewan's 'Environmental Management and Protection Act, 2002' provides that:

Subject to subsections (2) to (4), without holding a valid permit that authorizes the person to do so, no person shall: cause or allow the discharge of any substance that may cause or is causing an adverse effect to the quality of any water.

Furthermore, the EMPA holds that in the event of an accidental discharge, the person responsible is required to report the discharge to the appropriate government authority. With the inclusion of definitions for what is considered pollution and what constitutes a discharge, EMPA provides relatively clear notice of what conduct is expected of the public – do not discharge a pollutant without a permit and if you do, report it. Therefore, the only issue that remains is whether non-compliance with either of these sections is an absolute or strict liability offence.

In designing a regulatory standard aimed at climate change mitigation, strict liability will always be the preferred standard from a farmer's perspective because it provides an opportunity to for the farmer defend non-compliance. On the other hand, if legislatures are serious about mitigating GHGs it may be undesirable to excuse non-compliance under any circumstances. An absolute liability offence may be justified where the standard of conduct expected of producers is unambiguous. If absolute liability is rejected in these circumstances, the burden to establish due diligence should be set quite high so as not to undermine the standard's effectiveness.

As will become clear as the other forms of offences are discussed, GHG mitigation schemes that specifically mandate or prohibit conduct may be in the best position to balance the goal of reducing the risk to producers of non-compliance with the goal of mitigating GHGs. One of the principal reasons for this is the fact that producers will have an incentive to innovate as traditional land management practices become unacceptable through a prohibition. Such a prohibition is not unlikely with respect to summer fallowing on the Canadian prairie.

A regulation that specifically mandates conduct will also promote innovation if it directs an outcome rather than a process. For instance, a regulation could state that producer must employ land management practices that maintain a constant level of organic matter in the soil. A regulation in this form will allow producers to innovate within their own operations and employ practices that best suit their situation.

#### Zero tolerance

Environmental legislation may outline zero-tolerance of certain substances that are deemed hazardous to the environment in all amounts. EMPA states that "[n]o

person shall manufacture, offer for sale, sell, use or consume any product containing a halocarbon that acts as a propellant." Zero-tolerances are closely related to the prohibition of conduct in environmental legislation. The distinction being obvious – zero-tolerance prohibits actual substances in specific forms instead of prohibiting conduct. The use of zero-tolerance presumes that there are means to test for the presence of the prohibited substance.

The use of zero-tolerance may pose an additional risk to producers in a GHG mitigation scheme. Unlike prohibited conduct, the meaning of zero-tolerance may change as the means used to detect the presence of a prohibited substance improve. For example, if a GHG mitigation scheme establishes zero-tolerance for methane emissions from confined livestock operations, producers may be faced with having to satisfy a changing standard, at a considerable expense to their operation, each time the tools of measurements become more precise.

In this circumstance, whether the scheme employs a strict or absolute standard of liability is of great importance. The added uncertainty as to what will attract liability under a scheme that establishes zero-tolerances argues for a strict liability standard. As mentioned above, however, the reduced risk to farmers under a strict liability standard is achieved by sacrificing the environmental objectives the standard is ultimately trying to promote.

It should be noted that the changing standard does create an incentive for continual innovation in order to establish better GHG mitigation practices on the farm. Unfortunately, this incentive is achieved as a result of an increased risk to producers.

#### Prescribed limits

Environmental legislation also may permit an activity up to a certain prescribed level of acceptance. For example, the 'Canadian Environmental Protection Act' (CEPA) (1999) provides that:

No person shall manufacture for use or sale in Canada or import a cleaning product or water conditioner that contains a prescribed nutrient in a concentration greater than the permissible concentration prescribed for that product.

CEPA provides the maximum acceptable nutrient concentration in its regulations. This leaves no ambiguity as to what is expected of a person in these circumstances because the statute outlines a clear standard of conduct. Therefore, there is no added risk of non-compliance due to a misunderstanding as to the standard that will be used to evaluate conduct.

This form of standard may be attractive in the context of GHG mitigation because it is less restrictive than a straight prohibition of offending conduct. It will allow activities to occur up to an acceptable threshold. This may be desirable if GHG mitigation will require a fundamental shift in land management activities. The threshold can be lowered overtime to allow for the gradual adoption of new activities by producers. It must be noted, however, that once the initial threshold is established there is a risk that the subsequent legislative amendments may not occur.

Prescribed limits may also be a means to target those producers who can have the largest impact on GHG emissions without burdening small players with the costs associated with change. The prescribed limit can be set at a level above what would be expected from small producers.

Unfortunately, the use of prescribed limits does not always produce a clear standard of conduct. EMPA also uses prescribed limits to control activities that may be harmful to the environment. Below is an example of such:

No person shall discharge or allow the discharge of a substance into the environment in an amount, concentration or level or at a rate of release that may cause or is causing an adverse effect unless otherwise expressly authorized to do so.

This section of EMPA leaves a lot of room for interpretation. Although adverse effect is defined elsewhere in EMPA, the inclusion of that definition provides little assistance in outlining the expected standard of conduct. The section is designed in an overly broad and imprecise fashion thereby introducing ambiguities and enhancing the risk of non-compliance as a consequence of a misunderstanding.

Even when the standard is clear, however, the use of prescribed limits may be unattractive. The mere imposition of a prescribed limit alters the focus of compliance to meeting the limit. The overall objective of mitigating GHG in agriculture gets lost. Prescribed limits do not provide an incentive for on-going innovation to develop best practices once the threshold has been met. In addition, establishing the prescribed limit in itself may prove problematic. At some point, this process involves the creation of an arbitrary threshold.

## Normally accepted agricultural practices

The normally accepted agricultural practices standard emerged in response to an increase in nuisance actions directed at agricultural operations. It is a unique example of the creation of a new standard designed to protect a specific industry. This standard has been adopted by numerous jurisdictions across North America. For example, the 'Agricultural Operations Act' of Saskatchewan provides:

The owner or operator of an agricultural operation is not liable to any person in nuisance with respect to the carrying on of the agricultural operation, and may not be prevented by injunction or other order of any court from carrying on the agricultural operation on the grounds of nuisance where the owner or operator uses normally accepted agricultural practices with respect to the agricultural operation.

It goes on to define a normally accepted agricultural practice as one that, among other things:

is conducted in a prudent and proper manner that is consistent with accepted customs and standards followed by similar agricultural operations under similar circumstances including the use of innovative technology or advanced management practices in appropriate circumstances.

Therefore, a producer will be immune from liability for any nuisance her operation is causing provided that she is using management practices that are custom in her industry.

This standard has not been employed in any other area besides nuisance. Special preference given to the property rights of one segment of society at the expense of another segment is rarely justified. It is highly unlikely that this standard will be employed in a GHG mitigation scheme and its use in this context should not be encouraged. The protection afforded to operations that employ customary practices preserves the status quo and has the potential to penalize innovation.

## CONCLUSIONS

In a voluntary scheme, standards of concern to farmers will likely be a component of contracts they have entered into with large-scale emitters. As a result, it is impossible to generalize about which performance standards would be most appropriate in a contract because that will likely be negotiated among the parties on contract by contract basis. Instead, it must be stressed that the standard used to evaluate performance will be influenced by the overall purpose of the contract. It is important that time be spent when first drafting a contract to clearly outline the expected standard of performance and the contractual purpose. Any ambiguity may influence the allocation of risk under the contract.

Likewise, consideration must be paid to the appropriate duration of the contract. A balance must be struck between the goal of maintaining gains achieved through the contract at the same time as allowing room for innovation as new understandings of the relationship between agriculture, climate change, and land-use emerge.

In a mandatory scheme, legislatures have a choice of standards in which to employ in order to evaluate a farmer's performance. A legislated standard that clearly mandates or prohibits conduct is most desirable, regardless of whether it is a strict or absolute liability offence. This is because these standards are in the best position to balance the goal of reducing the risk to producers of non-compliance with the goal of mitigating GHGs. Such a standard leaves little room for ambiguity as to what will constitute a violation. As a result, producer compliance is facilitated by clear expectations. In addition, these standards promote innovation by prohibiting traditional land management practices that do not encourage GHG mitigation thereby forcing farmers to look for alternative methods. Farmers are free to innovate without running the risk that a new practice may in fact fail. This luxury is not afforded to an innovator where there is a prescribed limit or a zero-tolerance level. Where no standard is discernible, the option to rely on the common law standard of reasonableness remains. As outlined, this standard is less than desirable as it fails to consider the specific circumstances of the farmer when evaluating performance and leaves enough ambiguity to discourage a farmer from participating in an activity that may attract liability.

From the foregoing, two things become clear. First, the form a performance standard takes may influence its ability to foster the land-use pattern it aims to encourage. This is because risk is intrinsically linked to performance standards. If the standards are unknown or those known are ambiguous, farmers are less able to determine the standard of conduct required of them to avoid liability. In a voluntary GHG mitigation system, this may discourage participation. In a mandatory system, compliance may become an issue. The integrity of the GHG mitigation scheme, however, will depend on assurances that farmers are meeting an acceptable standard of performance.

Second, all standards have benefits and drawbacks. No one policy will encourage all farmers to effectively adopt the desired land-use pattern. It is therefore desirable to adopt a range of policies aimed at bringing about the same outcome to ensure that farmers fully understand the performance standard they must satisfy in order to avoid liability.

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