

Thank you for inviting me to speak with you today about Saskatchewan's climate change strategy, to address the long-term impacts of climate change.

I would like to start by saying that the Government of Saskatchewan is committed to taking action to reduce greenhouse gas emissions.

Therefore the province has introduced climate change legislation designed to reduce the greenhouse gas emissions of major emitters and to continue and formalize its century-long history of adapting to extreme weather events. We are currently engaged in comprehensive consultations on the accompanying regulations to ensure we have the best possible system in place.

This year's flooding shows some of the real costs and challenges that could be faced by all Saskatchewan people. As no small example, the TransCanada Highway was washed out and much of the crop was lost down in the Cypress Hills area which saw a one in one-thousand year flood.

Saskatchewan's provincial climate change plan addresses the need to abate greenhouse gas emissions, and develop adaptation planning initiatives to limit the adverse impacts from unavoidable changes in our climate.

I will outline the key elements of Saskatchewan's climate change plan, which will focus on reducing greenhouse gas emissions and adapting to climate change.

Saskatchewan's approach has been developed with industry stakeholders, First Nations and Métis, and government agencies to provide a balanced approach to the problem.

Saskatchewan has the highest per capita greenhouse gas emissions in Canada. With 3 per cent of the country's population, Saskatchewan accounts for 10 per cent of national greenhouse gas emissions. This in itself presents several challenges, as our resource-based economy is heavily-dependent on fossil fuels, and is growing rapidly.

In 2008, Saskatchewan's emissions were equivalent to 75 million tonnes of CO₂, of which 34 per cent was from the oil and gas sector, and 22 per cent from electricity

generation. Coal-fired generation accounts for about 60 per cent of provincial electricity supply. Non-regulated sectors such as agriculture and transportation account for 17 per cent and 15 per cent of provincial emissions, respectively.

Addressing climate change in Saskatchewan therefore requires a program that deals with greenhouse gas emissions of major emitters as well as other sectors of the economy, not all of which will be regulated, and also provides for measures to allow industry, the economy, and society to adapt to climate change.

It is difficult to address all of these elements that require attention together, but that is exactly what Saskatchewan's *Management and Reduction of Greenhouse Gases and Adaptation to Climate Change Act* provides for.

The Act received Royal Assent on May 20, 2010, and Regulations have been drafted and consultations completed. The province is also in the process of writing an environmental code for greenhouse gases under the guidance of a multi-stakeholder group.

From Saskatchewan's perspective, there are five critical considerations that need to be taken into account for climate change programs to be successful.

The first consideration is that climate change plans need to be acceptable to our population and our industries.

Without support from the public and industries, our ability to follow through with any plan will be severely handicapped.

The second consideration is that climate change plans need to accommodate and support growth.

Saskatchewan now leads economic growth in Canada, and after years of stagnation, it is important that climate change programs accommodate and maintain that growth.

The third consideration is that climate change plans must be enforceable.

The fourth point is that the plans also need to provide some assistance for those industries to adapt.

Therefore, the plans need to retain carbon compliance payments within the province for investment in new greenhouse gas reducing activities.

And finally, climate change plans must be able to integrate with the rapidly changing policy frameworks that will emerge in the U.S. and internationally.

Most of our industries in Saskatchewan are closely tied to American and global markets. It is important we retain their competitive positions.

The legislation provides for:

- Reporting of greenhouse gas emissions by major emitters;

- Major emitters with annual emissions greater than 50,000 tonnes should reduce their emissions from a 2006 baseline;
- A provincial greenhouse gas emission reduction target of 20 per cent from 2006 levels by 2020;
- A Technology Fund for payments by major emitters in excess of their allowable emissions;
- A Climate Change Foundation to address longer term matters of greenhouse gas reduction research, adaptation, biodiversity, conservation, and education and awareness.
- A Climate Change Advisory Council
- An Office of Climate Change to administer the program.

Saskatchewan's new *Management and Reduction of Greenhouse Gases and Adaptation to Climate Change Act*.

So, with all that in mind: How does this system work?

As I mentioned earlier, the Act establishes a policy framework for reducing emissions by large emitters and non-regulated sectors to meet our provincial target.

The administrative structure for implementing the climate change plan includes setting a carbon price and establishing the Technology Fund and the Climate Change Foundation.

The legislation also includes provisions requiring large emitters to report baseline emission levels and annual greenhouse gas emissions.

A carbon compliance price will be set that is competitive with developments in the U.S. and Canada.

Regulated emitters who exceed their greenhouse gas emission targets will be required to make payments into the Technology Fund, a non-profit corporation outside government.

The rate of payment will simply be the carbon price times their excess emissions, based on a base year of 2006 as the baseline emission level.

Emitters are expected to have reduced greenhouse gas emissions by two per cent below this baseline by the end of the first year of regulation and an additional two per

cent of the baseline emission level until the tenth regulation year, i.e. 2020.

Carbon compliance payments can be reduced by the use of credits. The program provides some flexibility in compliance by offering a variety of credits such as pre-certified investment credits, credits for emission-intensive trade-exposed industries, credits for early action, performance credits and offset credits.

The program will be administered by the Ministry of Environment through the Office of Climate Change with the support of expert advice from the Climate Change Advisory Council.

Regulated emitters will be required to meet annual emission reduction targets.

Carbon compliance payments by large emitters will be directed to the Technology Fund for investment in low-carbon technologies within five years.

Monies from the Technology Fund that aren't allocated in this timeframe, and accumulated interest, will be transferred to the Climate Change Foundation to finance research and demonstration projects for low-carbon technologies, renewable energy sources, water and biodiversity, conservation, adaptation planning initiatives, and education and awareness.

By establishing the Technology Fund and Climate Change Foundation as not-for profit, non-government corporations, we can ensure that the funds are not used for any purpose other than what is mandated by the corporate bylaws. In other words, the funds are not available for other government priorities or General Revenue Fund activities. The plan is not intended to simply be another tax on industry.

The main objective of the Technology Fund is to increase capital investment in low-carbon technologies and to reduce greenhouse gas emissions through early adoption of transformative technologies

Major emitters will be eligible to apply to the fund to finance low-carbon investments.

Some have asked why the Technology Fund is being established as a non-profit corporation.

Consultations with industry and stakeholders make it clear that they prefer a Technology Fund located outside of government to prevent dilution of available funds to other sectors, other uses, or non greenhouse gas investments.

Simply put, any dilution of revenues flowing into the Technology Fund will not allow the greenhouse gas targets to be met.

Major resource industries and other provincial stakeholders have strongly supported our Technology Fund concept. In fact, it's very similar to the method that is employed right here in Alberta.

Negotiation of an equivalency agreement with the federal government has been underway, and would ensure that carbon compliance payments remain in the province to enable the Technology Fund to finance investments by large emitters in low-carbon technologies.

Saskatchewan signed an agreement-in-principle with the federal government in May 2009 to negotiate this Equivalency Agreement.

More recently, the province is in the process of negotiating a Canada/Saskatchewan Equivalency Agreement to regulate coal-fired electricity generation to achieve equivalent or better environmental outcomes, when federal regulations are passed in 2011.

Non-regulated sectors such as transportation, agriculture, upstream oil and gas, and residential and commercial buildings will also be required to reduce emissions through performance agreements, guidelines, financial incentives and research and development initiatives.

The performance agreements with interested parties in the non-regulated sectors to reduce greenhouse gas emissions will enable participants to obtain offset credits

for specific initiatives that reduce greenhouse gas emissions, and to report on emission reductions.

The provincial offset system will deliver continued emission reductions in non-regulated sectors, while also generating financial revenues for agricultural producers who practice tillage management and other farm management practices.

I'm sure I don't need to tell the group here today that zero tillage practices reduce nitrous oxide emissions. Other beneficial agricultural practices include reducing livestock emissions or converting to perennial crop covers. It might include activities focused on afforestation and agroforestry, wetland restoration, or biofuels.

The idea is that credits generated would be marketed to regulated emitters by offset aggregators as just one of many options for regulated emitters to achieve their compliance obligations.

Saskatchewan has an immense land base. By making it part of our offset system, we are engaging in important adaptation practices.

Saskatchewan is also a world leader in carbon capture and storage technologies.

This single technology can provide a long-term solution for climate change. However, we know the technology is very expensive.

Carbon capture and storage can support the development of clean coal technology and enhanced oil recovery, enabling Saskatchewan to achieve incremental growth in energy production, while reducing carbon dioxide emissions.

Opportunities may also exist to transfer carbon capture and storage technology developed in Saskatchewan to other jurisdictions to help meet our global emissions challenge.

The Ministry of Environment is developing standards and protocols to quantify greenhouse gas emissions from carbon capture and storage technology.

This includes measurement, reporting, verification, long-term monitoring and adequate controls to prevent post-decommissioning release of carbon dioxide.

The Saskatchewan government has commissioned a guidance document and related standards development with IPAC-CO2 to enable offset credits to be issued for carbon capture and storage technologies activities.

We are also working with our partners to develop other technological approaches that could be used to achieve major reductions in greenhouse gas emissions, including the reduction of fugitive emissions from the oil and gas industry and landfill gas capture.

We will promote expanded use of renewable energy sources such as wind, solar and biomass and promote replacing fossil fuels with cleaner electricity. The province is also interested in increased energy efficiency in vehicles and buildings.

We have accomplished a lot so far, but there is still much to do.

The Saskatchewan climate change plan will be flexible, and will give priority to establishing a positive investment climate for developing low-carbon technologies and processes.

Our initiatives in Saskatchewan are part of a wider national and international effort being undertaken to reduce Canada's greenhouse gas emissions.

We have participated in the development of the federal program and international climate change negotiations to ensure Saskatchewan's interests are recognized.

Stakeholder consultations to date on the climate change program have attracted more than 500 participants, who provided useful input on options for reducing emissions and adapting to long-term climate change impacts.

Saskatchewan industries and residents have a long history of developing strategies for coping with weather-related stresses.

In the 1930s, droughts led to practical forms of adaptation that allowed people to stay on the land and to succeed, in spite of droughts which have continued into the 21st century, including back to back droughts in 2001 and 2002. The use of field shelterbelts to prevent soil erosion peaked in the 1930s. Water development and irrigation projects were initiated.

Large reservoirs have been constructed on most major rivers in the grasslands region. These reservoirs capture spring runoff for delivery during times of drought and reduce flooding during times of peak flows.

Most of these reservoirs serve multiple objectives, such as irrigation, power production, recreation, flood protection to downstream communities, and transferring water between drainage basins.

Farm and community dugouts have also been constructed to store spring runoff. Many rural areas rely on groundwater supplies as a supplement to surface water supplies.

Agricultural producers have been assessing environmental risks on their farm operations and adopting beneficial management practices to reduce these risks through Environmental Farm Planning.

Climate science has forecasted that a large portion of southern Saskatchewan could be at risk of potential water shortages by 2050.

Increased water scarcity could lead to more frequent droughts, wildfires, and severe floods.

This experience and expertise held by our agricultural producers can help prepare for future climate change impacts, but we need to develop and formalize an adaptation framework that would take us from now into the future.

So, that's where we are at today in Saskatchewan, and as for the next steps....:

We will be developing a provincial climate change adaptation strategy, through a broad consultation process with stakeholders.

We have been funding climate research by the Prairie Adaptation Research Collaborative, and collaborating with the Saskatchewan Research Council to develop effective approaches for long-term adaptation planning.

We will be addressing key issues related to water demands from all sources, drought, extreme events, appropriate water uses, priority water use, water quality, and ecological health.

The critical basins for surface water supply and future demand in Saskatchewan are the South Saskatchewan and Qu'Appelle River basins.

The projections of future use in these basins will be critical for developing water allocation policy.

The Government of Saskatchewan, through the Saskatchewan Watershed Authority, is examining the availability of ground and surface waters in the province.

We will quantify existing water use, and a new water information data base will be established.

We are anticipating increased demand for water from communities due to population growth, industry, agriculture, and other end users that will increase pressure on water supplies as greater stream flow variability occurs in our major river systems.

We will identify the important vulnerabilities for different sectors in our region, followed by identification of a set of adaptation options. This will enable us to weigh the relative costs of these adaptation options against the risks of impacts.

Our government in the October 2010 Throne Speech made a significant commitment to rehabilitating Saskatchewan's irrigation system. More than \$30 million will be committed over the next 10 years to restore and repair irrigation infrastructure in the Lake Diefenbaker area.

Public consultations will enable us to monitor the effects of adaptation decisions, and update the planning process as new information about climate change, vulnerabilities, and the effectiveness of adaptation options emerges.

Sectoral adaptation strategies will be developed in partnership with other ministries, industry, and agricultural associations, non-governmental organizations, and First Nations and Métis, to identify priority issues and options to guide adaptation planning in key sectors.

Resource management and allocation policies will be reviewed to allocate scarce resources such as water and other inputs required for sustained economic growth.

I've provided a brief overview of our climate change plan and adaptation challenges in Saskatchewan.

We look forward to working with you to develop effective climate change mitigation and adaptation solutions.

We must recognize that good ideas about climate change and adaptation are not in competition with one another, but rather they complement each other. We need every possible solution.

Thank you for the opportunity to speak with you this morning, and I wish you all the best with the rest of the Forum.

Thank You.