



Feasibility Assessment of Afforestation for Carbon Sequestration (FAACS) Initiative

Ontario Pilot

Establishing New Forests to Address Kyoto

FAACS Fall Focus Sessions

A Report on

Landowner Incentive Focus Sessions

“What Incentives are Required to get Trees in the Ground?”

A Series of Focus Sessions held across Ontario
November 2003

Jointly Convened by:

Eastern Ontario Model Forest, Ontario Woodlot Association, and
Natural Resources Canada, Canadian Forest Service

In partnership with:

Conservation Ontario, Ontario Forestry Association,
Ontario Ministry of Agriculture and Food,
Ontario Ministry of Natural Resources,
Ontario Soil and Crop Improvement Association,
Ontario Stewardship, and Trees Ontario Foundation.

This report was prepared by the FAACS Ontario Pilot Team at the Eastern Ontario Model Forest. This team is made up of; Sharleen Hawco, Tony Rotherham, and Martha Copestake. Assistance was provided by Wade Knight and Gord Harrison of the Ontario Woodlot Association.

If you have any questions regarding this report or if you require any further information please contact:

Martha Copestake
Eastern Ontario Model Forest
P.O. Bag 21111, Kemptville, ON, K0G 1J0
(613)258-6567
mcopestake@eomf.on.ca
www.eomf.on.ca

Executive Summary

As a part of the Feasibility Assessment of Afforestation for Carbon Sequestration (FAACS) Ontario Pilot Project, the Eastern Ontario Model Forest and several partners hosted a series of landowner workshops across southern Ontario in November of 2003. The primary goal of these sessions was to hear from a broad spectrum of rural landowners about the type of incentives it would take for involvement in an afforestation program. In addition, their views of afforestation agreements, offset carbon credits, and their opinions on real or perceived issues that may arise by undertaking such an initiative were also discussed.

The workshops consisted of two segments; a Background Information Session followed by two facilitated Discovery Sessions. This report briefly outlines the presentations from the Background Information Sessions which served as a primer to the Discovery Sessions. The main purpose of this report is to outline the findings of each of the Discovery Sessions.

The objective of the first Discovery Session, Incentives and Disincentives, was to identify the incentives that would entice landowners to participate in a potential afforestation program, and also to identify any existing disincentives that must be addressed before landowners would agree to sign on. The following summarizes the messages from this session:

- Program must have long term stability
- Delivery agent should be an existing, trusted, locally based agency or organization
- Respect for the management objectives and property rights of participating landowners is essential and recognition for landowner involvement is necessary (i.e. on-property signage)
- An extensive and flexible financial assistance package for landowners is necessary (to cover 70-90% of the establishment costs and management cost to free-to-grow)
- The benefits to the landowner from afforestation must be competitive with other land-use opportunities
- Property assessment and tax issues must be resolved, this is the most influential matter in the consideration of a land use change (i.e. converting farmland to forestland)

The objective of the second Discovery Session, Landowner Agreements, was for the participants to have input into shaping a landowner agreement. An afforestation program for carbon sequestration will require two separate agreements; for the establishment and growing of the trees and for the sale of the offset carbon credits. Participants indicated that the following are important components of a landowner agreement for afforestation:

- Simple, clear language
- Registration on title
- Clear Roles
- Flexible term
- Flexible ownership
- An Exit Clause with necessary penalties
- Flexible packages
- Management Plan
- Process for dispute resolution

The take home message is that a well-designed program, which provides long-term commitment to program participants, respects landowner's rights and management objectives, provides a range of attractive incentives, and which utilizes a landowner 'friendly' agreement, should attract large-scale landowner participation.

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1.0 Introduction

As part of a FAACS Initiative Pilot Project, the Eastern Ontario Model Forest and several partners¹ hosted a series of landowner workshops across southern Ontario in November of 2003. The primary goal of these sessions was to hear from a broad spectrum of rural landowners about the type of incentives it would take for them to become involved in a potential afforestation program. In addition, their views on afforestation agreements, offset carbon credits, and opinions on real or perceived issues that may arise by undertaking such an initiative were also being sought.

Utilizing a network of provincial and regional organizations actively involved with rural landowners across southern Ontario, 100 landowners were invited to participate in one of the three workshops held in Kemptville (eastern Ontario), Barrie (south central Ontario) and Woodstock (southwestern Ontario). Participants were invited based on a criterion of having available open land (agriculture and/or rural vacant lands) and who had an interest in establishing trees on these lands. It should be noted that although individuals from both the farming and forestry communities were invited to attend all sessions, attendees represented predominantly the forestry community (i.e. those involved in forestry organizations and/or active in planting).

The workshops consisted of two segments. The first segment was designed to provide participants with background information on afforestation that would serve as a primer to the second segment, where landowners participated in several facilitated discovery sessions. Please refer to Appendix I for a detailed focus session agenda. The following is a synopsis of the three workshops.

2.0 Background Information Sessions

As a primer, participants were provided with background information on the topics described below. The material covered in each presentation is briefly outlined here; the complete presentation material is included in Appendix II.

Afforestation Overview (Darren Allen, Canadian Forest Service): General information on afforestation and climate change, FAACS and Forest 2020 initiatives, Kyoto Accord, and key afforestation terms were presented. A facilitated Q & A period provided participants an opportunity to seek clarification of the terms, concepts, and the link between afforestation addressing climate change.

Trees Ontario - Vision for an Enhanced Afforestation Program (Rob Keen, Trees Ontario Foundation): An overview of the Trees Ontario Foundation's insight into what a potential centralized provincial afforestation program (Trees Ontario) might look like in southern Ontario was provided to workshop participants.

Landowner Opinions and Needs (Sharleen Hawco, Eastern Ontario Model Forest): A summary of the findings from recent landowner surveys (EnviroNics Research Group² and Hardy Stevenson and Associates Limited³) were presented. A facilitated discussion followed providing participants an opportunity to express how their experiences related to these surveys.

¹ Natural Resources Canada (Canadian Forest Service), Ontario Ministry of Agriculture and Food, Ontario Ministry of Natural Resources, Ontario Woodlot Association, Ontario Stewardship, Conservation Ontario, Ontario Forestry Association, Trees Ontario Foundation, and the Ontario Soil and Crop Improvement Association.

² "Survey of Farmers, Ranchers and Rural Landowners – Attitudes and Behaviours Regarding Land Stewardship". EnviroNics Research Group. September 2000.

³ "Findings of the Afforestation Surveys for Landowners in Eastern Ontario". Hardy Stevenson and Associates Limited. May 2003.

Carbon Credits (Darren Allen, Canadian Forest Service): A primer on the key concepts and terms of carbon credits was presented. A facilitated Q & A period provided participants with an opportunity to clarify terms, concepts, and to affirm the link between offset carbon credits and landowners. For more information please refer to Appendix III, which contains Tony Rotherham's (2003) short paper entitled "A Short Explanation of the Role of Canadian Forests in achieving GHG Emissions Reductions under the Kyoto Protocol".

Introduction to Incentives & Afforestation Agreements (Tony Rotherham, T.Rotherham Consulting Inc.): An introduction on why landowners may be interested in becoming involved in an afforestation program was presented. It provided a look at the potential benefits produced from a larger scale program (wood fibre, wildlife habitat, offset carbon credits, increased property values, etc.) and who would benefit from such an initiative (landowner, community, environment, forest industry, society at large, etc.). Participants were also provided with an introduction to the key elements of a potential afforestation agreement. Some of the key components discussed included the length of the agreement, responsibilities of the parties to the agreement, should the agreement be registered on title, investment and investors rights, ownership of the wood and carbon, penalties, and exit clauses.

Explaining MFTIP - Our Common Message (Wade Knight, Ontario Woodlot Association): An explanation of the Managed Forest Tax Incentive Program (MFTIP) was given which included program eligibility and program benefits. The new valuation procedures of the Municipal Property Assessment Corporation (MPAC) were outlined and efforts that are underway to remedy the problems with the taxation of forested land in Ontario were discussed.

3.0 Incentives and Disincentives Discovery Session

The objective of this discovery session was to identify the incentives that would entice landowners to participate in a potential afforestation program, and also to identify any disincentives that must be addressed before landowners would agree to sign-on. Working in small groups, participants were asked to identify the "top" four or five incentives/disincentives, describe each incentive in detail, and/or how to address a particular disincentive.

The following is a synopsis of the main points expressed by participants from the workshops. They have been summarized and categorized into six main headings: program overview, delivery agency, landowner agreements, incentives required for participation, taxation policies, and legislative and policy barriers. (Please note – the points of discussion under the individual headings have not been prioritized.) Appendix IV contains a compendium of the summary notes from the discovery sessions, organized regionally.

3.1 Program Overview

- The program must have long-term stability (e.g., funding) and be flexible in order to meet landowner's objectives (e.g., choice of tree species);
- It needs to be simple, non-bureaucratic, and limit the costs incurred by the landowner;
- It must recognize the entire range of management activities and the costs to undertake these activities over the lifetime of a plantation (not just the establishment costs);
- It should be responsive to the landowner's (long-term) objectives and must respect their rights;
- To be successful it will need landowner commitment (some participants indicated that if the program is free, landowners will not take the same ownership or responsibility);

- Recognition of participating landowners is necessary. Let landowner know they are an important part of the initiative (e.g. road signs showing active management, listing partners, etc.);
- Rethink the values of afforestation. Offset carbon credits are only one value, the program should also focus on the other intangible values these new forests would provide to our communities (e.g., wildlife habitat, water and soil conservation, recreation opportunities, supports the rural economy, etc.); and
- Ensure the program is tailored to the realities of the landscape (e.g., plant strategically).

3.2 Delivery Agency

- A coordinated approach is needed to provide support, marketing, and access to the program across southern Ontario, this would be in terms of a centralized province-wide coordinating agency (i.e. Trees Ontario);
- This agency must be tied in locally to on the ground organizations (i.e. Woodlot organizations, Conservation Authorities) that landowners will communicate with and that they trust. These organizations would actually deliver the afforestation program;
- The agency and the organizations must provide access to technical advice (extension services), landowner ‘friendly’ information, and provide landowner education and awareness.

3.3 Landowner Agreements

- Flexibility in the agreement to suit landowner objectives (e.g., choice of species) and the ability of the landowner to contribute to the program (e.g., in-kind contributions or where the landowner is prepared to undertake some of the management activities for a fee);
- Agreements need to respect property rights and the right of the landowner to make management decisions;
- Disincentives would include a lengthy excessively legal type document, excessive penalties, or one that would extend over a longer period of time (e.g., 40 years);
- Long-term commitment between the investor and landowner and where a cooperative manages the offset carbon credits and assumes/manages risks (fire, disease, etc.); and
- Any agreement must have a method for the landowner to exit the program.

3.4 Incentives for Participation

- “Show me the money”. Financial assistance is required to cover the full range of management activities (e.g. costs associated with site preparation, seedlings, planting, and tending of the plantation to the free-to-grow stage);
- Incentive packages need to be flexible (e.g., options for full program financial assistance, landowner provided in-kind contribution, provisions for the landowner to undertake some of the work in the establishment of the plantation for a fee, etc.);
- Incentives must offset the costs of other lost land use opportunities;
- Incentives must be greater than disincentives created by existing land use alternatives (e.g., incentives to clear land are a disincentive to maintaining forests); and
- Consider incentives such as the “Alternative Land Use Services” (ALUS) program that pays the landowner for the broader societal and ecological benefits and services provided by their property. This creates a “fee for service” and it compensates landowners for the costs they incur in managing lands that provide socio-economic benefits.

3.5 Taxation Policies

- Remove potential property tax disincentives (e.g., the fact that planting trees may change the property assessment classification from farmland to residential);

- Need tax incentives, reductions in property taxes, and income tax benefits (e.g., tax deferral, income deduction, etc.);
- Property tax treatment for managed forests (Managed Forest Tax Incentive Program) needs to be at least as favourable as farmlands;
- Woodlot/plantation management costs should be treated as expenses, similar to farming (for taxation purposes);
- Need property tax / property tax assessment credit. Ensure participating in an afforestation project is not a tax penalty (at least break-even proposition); and

3.6 Legislative and Land Use Policy Barriers

- Disincentives to afforestation arise when agricultural incentives are greater than those incentives available for afforestation initiatives (e.g., government policies for property assessment of farmland vs. managed forest);
- Forests require protection from (urban) development and expansion;
- Landowners participating in afforestation programs may be restricted by municipal bylaws (e.g., afforestation of vacant farmland changes the land use that is not reversible under some municipal tree conservation bylaws); and
- There is a need for additional incentive to retain forested lands.

3.7 Summary

Landowners indicated there was considerable interest in participating in a potential afforestation program. However, landowners expressed that a number of assurances would have to be realized from any program/delivery agency prior to making a commitment to participate. These include:

- i. One of the overriding messages expressed by participants was the need for the program to have long-term stability. The program/delivery agency has to be able to make, and meet, the long-term commitments to program participants throughout the entire term of the agreement.
- ii. Any program developed would be best received by landowners if an existing locally based agency or organization (e.g., forest management extension services, technical advice, plantation establishment, tending, etc.) delivered it.
- iii. Respecting landowner's management objectives (e.g., choice of tree species, silviculture treatments, etc.) and property rights is essential.
- iv. An extensive financial assistance package will be needed to attract landowners (e.g., 70 – 90% of the establishment costs, associated management cost to at least the “free-to-grow” stage). A flexible incentive package providing landowners with a series of options, based on their objectives and ability (financial and in-kind) to contribute to the program, would be more readily received by landowners than just a “one size fits all” package.
- v. The benefits of afforestation for the landowner (e.g., revenues from wood fibre and offset carbon credits, as well as the intangible benefits – personal, social, and environmental) must be competitive with other lost land use opportunities.
- vi. The long-term success of the program (and the management of the plantations) will require the landowner to adopt a sense of ownership to the initiative. To assist in building this foundation it was recommended that landowners should contribute financially to the program (e.g., perhaps pay 10% of the establishment costs, underwrite the cost associated with the field visit during the initial planning stage, etc.).

- vii. The landowner needs to be recognized for his/her contribution (e.g., the use of a gate sign similar to those used to promote participation in the Ministry of Natural Resources' Woodland Improvement Agreement program).
- viii. Creating a more favourable property assessment and tax environment were noted as one of the most influential matters in consideration of a change in land use (e.g., converting farmland to forestland).
- ix. Agriculture and forestry policies and programs, affecting private a landowner's decision on land use at the provincial and municipal government levels, needs to be reviewed and harmonized. For more information please see the FAACS Policy Barriers Outcome Document entitled, "Overcoming Policy Barriers to Afforestation on Private Lands in Ontario".

4.0 Landowner Agreement Discovery Session

The objective of this discovery session was for the participants to have input into shaping a landowner agreement. Working in small groups participants were provided with the key elements of an agreement and were asked to provide input into the setting of the terms that they thought would work for both the landowner and the delivery agency.

The following is a synopsis of the main points expressed by participants from the workshops. They have been summarized and categorized into nine main headings: term of the agreement, ownership of the commodity, legal status of the agreement, does one size of an agreement fit all, roles and responsibilities, management plans, penalties, and exit clauses. (Please note – the points under the individual headings have not been prioritized). Again, Appendix IV contains a compendium of the summary notes from the discovery sessions, organized regionally.

4.1 Term of Agreement

- 15-20 year agreements were preferred;
- Flexible in length (e.g. 10-15 years) and degree of commitment;
- Options to review and renew for another term (perhaps for 5-10 increments); and
- Agreement transferable without penalty.

4.2 Ownership of Commodity (wood fibre and offset carbon credits)

- The wood belongs to the landowner. For the first 10 years, no return on carbon to landowner, at 10 year-mark, and at subsequent 10-year intervals, ownership of carbon reviewed and renegotiated;
- Flexible based on the investor vs. landowner contributions, where the level of the investment equals the level of sharing. The landowner retains the ownership to the wood throughout the agreement while the investor holds the right to the offset carbon credits, with the credits reverting to the landowner on expiry of the agreement;
- Although there is recognition for the need to be flexible, landowners were not sure about the ownership of offset carbon credits. Most owners would want the wood, while allowing the investor access to the offset carbon credits. However "we" (the landowners) may be in too much of a hurry to give away our carbon commodity; and
- Ownership of the commodities must be identified in the contract.

4.3 Legal Status of the Agreement

- A contract is legally binding on the landowner;
- Covenant, only if landowner-friendly, simple, and transparent;
- Must be on title. Must be a condition of the agreement (i.e. easement);
- Do not register against the title. Registering the agreement against the title would be a disincentive to landowner; and
- Agreements need to be fully transferable.

4.4 Does One Size of Agreement Fit All

- Agreements must be flexible and be able to be customized based on the landowner's objectives and willingness and/or ability to invest;
- Landowners should have a choice of agreements (perhaps three or four different "styles/models") with the option to select one that meets their specific needs; and
- Flexibility is very important in order to meet the landowner's property objectives and to allow him/her an opportunity to contribute at different levels based on their circumstances (e.g. allow landowners to provide a variable level of contribution e.g. site preparation).

4.5 Roles and Responsibilities

- The roles and responsibilities of all the parties need to be clearly defined in the agreement;
- Sliding scale of responsibilities, with the delivery agency taking on more if the landowner commits to a longer-term agreement;
- The delivery agency takes responsibility for the establishment and maintenance costs while the landowner takes on the responsibility to minimize risks (e.g., fire, fencing, insect, disease);
- Depending on the level of risk (e.g., loss due to fire, insect, disease, etc.) landowners need insurance on their land use investment; and
- The investor/delivery agency assumes all the risks for the offset carbon credits and the landowner in return provides the land over the term of the agreement.

4.6 Management Plans

- A plan must be prepared, including eligible species, and future management activities based on good forestry practices. The plan needs to be simple – "not 400 pages";
- A plan for afforestation should be developed under Managed Forest Tax Incentive Program;
- Make it simple – a "stewardship plan" for sustainable management;
- Should be a condition of the program for the term of the agreement. Could be used as an incentive to offer the landowner access to other programs (e.g., Ducks Unlimited, Managed Forest Tax Incentive Program, etc); and
- Manage for offset carbon credits, by only allowing 80% of the land to be timber-harvested, with rest for offset carbon credits. Plan must be species and site dependent. Need to harmonize management plan for offset carbon credits within the MFTIP planning term (latter is a 20 year plan) and framework.

4.7 Penalties

- If penalties are too severe they may deter landowner participation;
- They need to be reasonable, perhaps based on a pro-rated cost recovery basis (e.g, sliding scale decreasing with time based on the contributions of the delivery agency and the landowner);
- Yes, penalties are needed and should be applicable to both the landowner and the program agency; and
- Must be written into the agreement.

4.8 Exit Clauses

- There is a definite need for an exit clause. It will provide for unforeseen changes in the landowner's objectives and to accommodate land sales;
- Agreements need to be transferable without penalties;
- Terms of exiting should conform to the penalty clause of the agreement (e.g., if the agreement isn't transferred to another landowner penalty pro-rated over time);
- Penalty to exit should be applicable to all parties, unless mutual consent; and
- It needs to be kept simple; with an option for arbitration should one of the parties disagree with the conditions placed on exiting.

4.9 Summary

Due to the nature and complexities and the different roles and responsibilities of the parties involved in establishing a plantation to produce both wood fibre and offset carbon credits, it is likely that two separate agreements will be needed. One agreement for the establishment and growing of the trees, and a second agreement covering the sale of offset carbon credits. Other considerations that need to be taken into account in the development of an agreement include:

- i. Landowners will be more receptive to an agreement that is simple, written in plain language, and one that doesn't intrude on their property rights and/or management objectives.
- ii. Landowners were apprehensive about long-term agreements. They indicated a preference for a flexible agreement that was shorter in length (e.g., 15-20 year term maximum, with provisions for renewal in 10-year increments).
- iii. Most landowners thought that the ownership of the commodities (wood fibre and offset carbon credit) should be flexible. In most cases, the wood fibre being retained by the landowner throughout the agreement, and the offset carbon credits contracted to another party (e.g., investor).
- iv. Having the agreement registered on title caused concern amongst some landowners. While landowners understood the argument for the inclusion of such a condition, they also thought it might be a deterrent to participation. An agreement that is simple and written in plain language may help in alleviating this concern.
- v. It was acknowledged that a "one size fit all" type of agreement wouldn't necessarily meet the needs and/or objectives of the landowner. A flexible agreement offering an array of different arrangements would be much more engaging to landowners. The arrangements might offer different options such as the following: the length of the agreement, level of financial assistance in the establishment of the plantation, ownership of the offset carbon credits, opportunity for the landowner to participate in management activities, etc.
- vi. The roles and responsibilities of all parties need to be clearly spelled out in the agreement.
- vii. The management plan needs to conform to other planning tools currently being used by landowners – i.e. Managed Forest Tax Incentive Program, Ontario Environmental Farm Plan, A Guide to Stewardship Planning, etc. It needs to be simple, based on sustainable forest management, and avoid conflict with offset carbon credit development and sales.

- viii. Any agreement will require carefully structured penalties (e.g., repayment of costs and losses pro-rated over the term of the agreement) to cover failure to perform. It must be designed in a manner that promotes responsible performance and not something that becomes a barrier (perceived or real) to landowner participation. Penalties need to be clearly defined in the agreement.
- ix. A landowner's needs (e.g., land sales, change of objectives, etc.) change over time and regardless of the length of the agreement, a method to exit the agreement is required. Penalties to exit the agreement will be necessary (e.g., repayment of costs and losses pro-rated over the term of the agreement) and care should be taken to ensure they do not serve as a deterrent to participation.
- x. An arbitration process to resolve any disputes as to the meaning and/or implementation of the provisions of the agreement (e.g., penalties, terms of exiting the program, etc.) should be included.

5.0 Overall Summary

The workshop participants greeted the concept of an afforestation program linked to carbon sequestration with great interest. Landowners appeared to be receptive and willing to enter into some form of partnership with an agency/organization in a potential afforestation program across southern Ontario.

A well-designed program, that will provide long-term commitment to program participants, respect landowner's rights and management objectives, provide a range of attractive incentives, and which utilizes a landowner 'friendly' agreement, should attract large-scale landowner participation.

It should be noted that there is a relevant option that was not discussed to much length within these Landowner Incentives Focus Sessions; the land lease option. This option involves the landowner leasing their land and its contents to an investor, passing ownership of both the wood and carbon to the investor. This is an option that should be investigated further.

The challenge that lies ahead is to ensure that landowner's interests are adequately addressed should an afforestation program be developed under the FAACS initiative or another program.

Appendix I

LANDOWNER INCENTIVE FOCUS SESSION AGENDA



– FAACS Fall Focus Sessions –
Establishing New Forests to Address Kyoto

Landowner Incentive Focus Sessions
What Incentives are Required to get Trees in the Ground?

Dates and Locations

Eastern Ontario	Kemptville, ON	Monday Nov 10, 2003
South - Central Ontario	Midhurst, ON	Wednesday Nov 12, 2003
South – Western Ontario	Woodstock, ON	Thursday Nov 13, 2003

Goal of Session: To hear from landowners the types of incentives that would entice them to be involved in a potential afforestation program. To determine landowners' views on afforestation agreements, potential offset carbon credits, perceptions towards a potential afforestation program, and perceived problems with such a program.

Audience: Landowners across southern Ontario who are in the Forest and Agriculture sector who have open land, and are potentially interested in tree planting in the future.

Agenda:

<i>9:00 – 9:30am Registration</i>	
Part 1: Background Information	
9:30am – 12:00pm	
Welcome and Opening Comments from the Chair , 15 min	Wade Knight, Ontario Woodlot Association
Afforestation Overview , 15min <ul style="list-style-type: none"> Facilitated Q & A's, 15min, <i>Gord Harrison – facilitator</i> 	Darren Allen, Canadian Forest Service
Overview of the Trees Ontario Program , 15 min <ul style="list-style-type: none"> What a potential Afforestation program might look like Facilitated Q & A's, 15min 	Rob Keen, Trees Ontario Foundation
<i>Coffee Break, 15min</i>	
Landowner Opinion and Needs , 10 min <ul style="list-style-type: none"> Facilitated Q & A's, 15min, <i>Gord Harrison – facilitator</i> 	Sharleen Hawco, Eastern Ontario Model Forest
Carbon Credit Presentation , 15min <ul style="list-style-type: none"> Facilitated discussion, Q & A's, 15min, <i>Gord Harrison – facilitator</i> 	Darren Allen, Canadian Forest Service
<i>11:45 – 12:30pm, Lunch – a light lunch will be served</i>	

Part II: Discovery Sessions 12:30 – 4:00pm	
Introduction to Incentives <ul style="list-style-type: none"> • MFTIP, what have been the incentives and disincentives (Wade Knight) (10min) • Funding programs (15min) • Tax incentives • Lease arrangements, ownership of carbon, fibre • Other including non-tangibles, i.e., intrinsic values, environmental benefits, source water protection, water quality conservation, wildlife habitat etc... 	Tony Rotherham & Wade Knight, Ontario Woodlot Association
Incentives and Disincentives Discovery Session	Gord Harrison, facilitator
<i>Coffee Break, 15min</i>	
Introduction to Elements of potential Afforestation Agreements, 30min <ol style="list-style-type: none"> 1. Planting Agreement 2. Carbon and Wood Ownership Agreement 3. Summary of the key Elements of an agreement (to lead into the breakout session) 	Tony Rotherham
Agreements Breakouts	Gord Harrison, facilitator
Wrap-up, 30 min <ul style="list-style-type: none"> • Summary of the day's speakers, discussions and general findings 	Wade Knight, Ontario Woodlot Association

The Session will close at 4pm

Appendix II

BACKGROUND INFORMATION SESSIONS



Afforestation Overview



-FAACS Fall Focus Sessions-
Establishing New Forest to Address Kyoto

Landowner Incentives Focus Session
November 10, 11 & 12, 2003

Darren Allen, Forestry Specialist
NRCan, Canadian Forest Service
Great Lakes Forestry Centre








The Role of Afforestation in Meeting Canada's Kyoto Commitments



What is Climate Change?

“ Any change in climate due to **natural variability** or as a result of **human activity** ”
-(IPCC 1995)

“Changes in greenhouse gases [CO₂] and aerosols, taken together, are projected to lead to... changes in temperature, precipitation, and other climate variables...”
-(IPCC 1998)




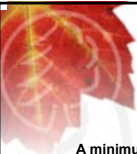



Kyoto Accord Basics

Kyoto Protocol (1997)

- requires Canada to reduce greenhouse gas emissions by 6% below the 1990 level by 2008-12
- established international emissions trading
- allows certain carbon sink/source activities to be included in the accounting







Marrakesh Accord (Nov. 2001)

- elaborated detailed rules for the Protocol
- includes definitions and accounting rules for forest sinks/sources for first commitment period (2008-12)



Definition of a “Kyoto” Forest

A minimum area of land of {0.05 to 1.0} ha with tree crown cover (or equivalent stocking level) of more than {10 to 30} percent with trees having the potential to reach a minimum height of {2 to 5} meters at maturity






ARD Definitions

Afforestation (A)
...is the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources

Reforestation (R)
...is the direct human-induced conversion of non-forested land to forested land, on land that was previously forested. For the first commitment period, activities will be limited to reforestation occurring on those lands that did not contain forest on December 31, 1989.

Simply put, **A & R** = planting of bare lands to trees

Deforestation (D)
...is the direct human-induced conversion of forested land to non-forested land



Sink vs. Source Terminology

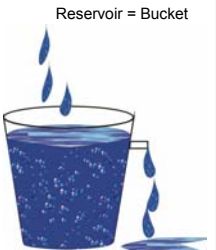
Reservoir = Bucket

Sink: a stock which is increasing, removing GHGs from the atmosphere


Examples: trees, peat, landfills, wood products, soils...

Source: a stock which is decreasing, venting GHGs to the atmosphere

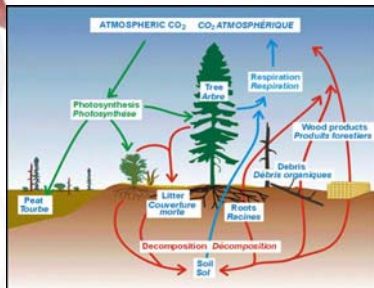
Reservoir: A place where a greenhouse gas is stored. Can be a sink, a source, or neutral.




Stock = Amount of water in the bucket

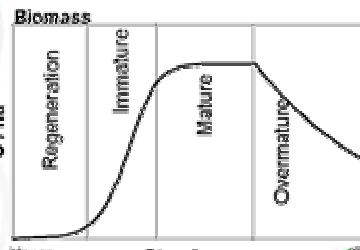
Canada  7


Forest Carbon Basics



Canada  8


Carbon Sequestration and Tree Age



Canada  9


The Role of New Forests in Canada

- Can be viewed as **one part** of the solution to slowing climate change and reducing pressure on natural forests
- Can be considered an interim (stop gap) measure to meeting Kyoto commitments, until source reduction actions implemented
- Management objectives, site factors, regional forest landscape ecology, and socio-economic aspects must be considered


Canada  10

Summary

- Climate change is predicted to effect significant impacts on Canada's forests
- Plantations (new forests) can play a role in addressing Kyoto, providing new wood fibre sources, and benefiting forest conservation
- If planned and carried out properly, the establishment of new forests on presently-bare lands can also increase biodiversity and habitat, and serve to restore permanent forest cover in the longer-term
- Landowner management objectives must be considered in designing an afforestation program




Canada  11

Feasibility Assessment of Afforestation for Carbon Sequestration (FAACS)

Canada  12

Background to FAACS




- Oct. 2000 announcement of "Government of Canada Action Plan 2000 on Climate Change"
- \$500 million investment over five years on specific measures that reduce greenhouse gases (GHG)
- Targets key sectors, i.e., Transportation, Energy, Industry, Buildings, Agricultural and **Forestry**
- Aimed at possibly helping Canada achieve one-third of its Kyoto Protocol emission reduction target during 2008-2012 commitment period
- Includes forestry component focusing on advancing carbon sequestration opportunities through FAACS initiative
- Forestry activities such as afforestation, reforestation, and deforestation (ARD) are presently included in the Kyoto Protocol under Article 3.3

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So, what is FAACS ?




- FAACS initiative is a preparatory measure intended to evaluate whether a large national afforestation effort is justifiable and, if so, how to best initiate and support such an effort.
- FAACS considers both the sequestration potential and the cost of implementing a large-scale planting program to increase forest cover in Canada as a cost-effective solution to offset GHG emissions.
- Main focus is to carry out information collection and land assessment research on private lands, as well as develop required carbon measurement and accounting infrastructure to support Canada's Kyoto Protocol reporting requirements

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FAACS Goals/Timelines


- Carry out information assessment and evaluate program mechanics to explore a range of options for implementing a large scale national afforestation program
- Establishment of afforestation pilots/trials to assess interest, design, mechanics and feasibility
- Historical afforestation data collected will feed into national afforestation database - to be used to create afforestation module of the CFS Carbon Budget Model (CBM-CFS2)
- Three year timeframe 2001/02 to 2003/04

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Pilot Projects Under FAACS Initiative

- Nationally under FAACS a total of five pilots are currently underway across the country, each contributing a regionally developed approach to national policy development in this area.
- Eastern Ontario Model Forest leading Ontario pilot...



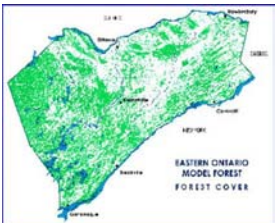





16

Eastern Ontario Afforestation Pilot Project

- Represents the Great Lakes St. Lawrence Forest Region
- 1.5 million hectares
- 34% forested
- 1 million people
- 23% rural
- 88% privately owned

"A settled landscape"









17

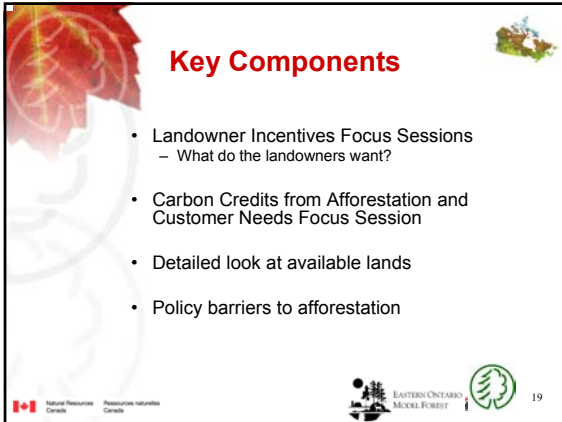
Objectives of FAACS Ontario Pilot

The Eastern Ontario Model Forest (EOMF) in partnership with other agencies is leading the pilot for CFS to:

- **Design** and **test** potential afforestation scenarios
- **Maximize early carbon** returns and **minimize planting cost**
- In consideration of the **management objectives** of the **landowner**
- Determine **landowner interest** and potential **participation**
- Determine incentives to **maximize participation**







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Key Components

- Landowner Incentives Focus Sessions
 - What do the landowners want?
- Carbon Credits from Afforestation and Customer Needs Focus Session
- Detailed look at available lands
- Policy barriers to afforestation

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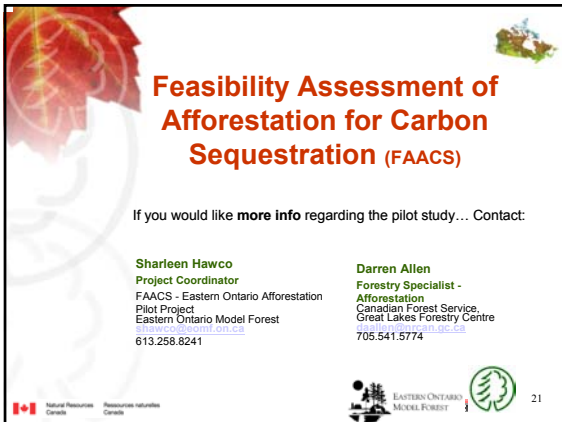


Next Steps

- Results from all of the sessions will be compiled into a final report in support national policy development



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Feasibility Assessment of Afforestation for Carbon Sequestration (FAACS)

If you would like **more info** regarding the pilot study... Contact:

Sharleen Hawco Project Coordinator FAACS - Eastern Ontario Afforestation Pilot Project Eastern Ontario Model Forest sharleen.hawco@nrc.ca 613.258.8241	Darren Allen Forestry Specialist - Afforestation Canadian Forest Service, Great Lakes Forestry Centre darren.allen@nrc.ca 705.541.5774
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Forest 2020



Forest 2020 Overview

- Policy driver for Forest 2020 is Canadian Council of Forest Ministers
- Promotion of sustainable forest and community development, with the additional concurrent benefit of sequestering carbon
- **Objectives** of Forest 2020
 - Conservation
 - Community Development
 - Intensive Forest Management
 - Fibre
 - Carbon Sequestration – recent addition

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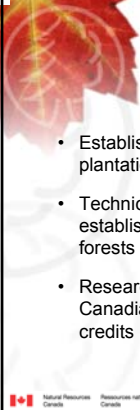


Forest 2020 / Greencover Overview

- Announced August 12, 2003 Government of Canada announced details of the investment of over \$1 billion towards the implementation of the Climate Change plan for Canada - \$20 million.
- NRCan, CFS developed Forest 2020 to demonstrate the role fast-growing plantations can have in achieving Canada's climate change goals.
- CFS will also explore, with the financial sector, models and options for sustainable investment opportunities to expand planting of fast-growing trees for both fibre and climate change (carbon sequestration) benefits.



 

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3 Main Elements Forest 2020/ Greencover

- Establishment of fast-growing demonstration plantations
- Technical support – establishment of regionally relevant establishment and tending guidelines for fast growing forests plantations
- Research into “Vehicle for Investment” – exploration of Canadian made forest plantation derived Kyoto carbon credits



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Where we're at in Ontario

- In discussions with Trees Ontario Foundation on delivery agency/CFS roles and responsibilities
- Assembling all related fast-growing information for Ontario and other related jurisdictions
- Initial stages of planning for workshop to assemble experts on fast-growing species (hardwoods and conifers) “bringing to light” most current information
- Assessment of growing stock available in Ontario
- Re-measurement of existing clonal site trials/plantations for fast-growing species across Ontario



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Trees Ontario
a community tree planting partnership



**Vision for an
Enhanced Afforestation Program**

**FAACS
Landowner Incentive Focus Session**



Presentation by the Trees Ontario Foundation

Tree Planting - Market Analysis and Business Plan

- Assess the current status of private land tree planting
- Identify potential for growth and current limitations
- Outline a possible structure of an enhanced private land tree planting program for Ontario

Trees Ontario - a community tree planting partnership

Trees Ontario Foundation

Objectives: (condensed version)

- Solicit and apply funds to programs that support tree establishment projects
- To promote and encourage appropriate tree establishment activities
- To encourage and foster awareness of the benefits of tree establishment projects

Trees Ontario - a community tree planting partnership

Trees Ontario: Vision for an Enhanced Afforestation Program - R.Keen

Afforestation Workshop - June, 2002

Hosted by:

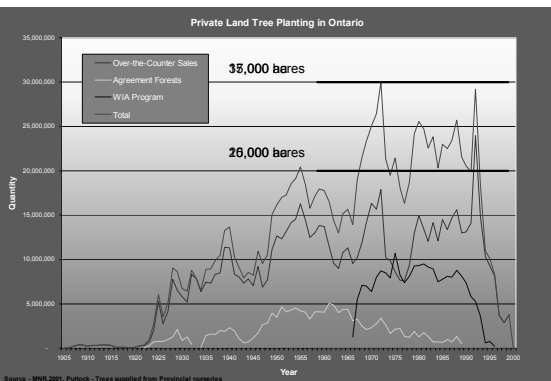
- Canadian Forestry Service
- Ministry of Natural Resources
- Conservation Ontario
- Ontario Forestry Association
- Trees Ontario Foundation

Trees Ontario - a community tree planting partnership



Trees Ontario - a community tree planting partnership

Former MNR Program



Source - MNR 2001, P. 106 - Trees supplied from Provincial nurseries

Trees Ontario - a community tree planting partnership

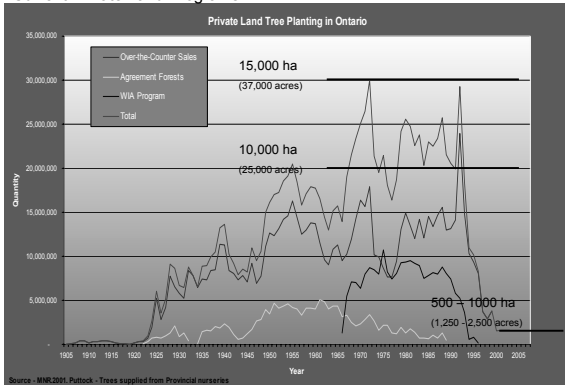
Trees Ontario: Vision for an Enhanced Afforestation Program - R.Keen

Agencies currently providing tree planting services to landowners

- Conservation Authorities
- Stewardship Councils
- Eastern Ontario Model Forest
- Ontario Power Generation
- Forestry Consultants
- Forest Industry

Trees Ontario - a community tree planting partnership

Current Private Land Programs



Trees Ontario - a community tree planting partnership

Conclusions From the Market Study:

- There is interest for tree planting from society and from landowners
- There is enough land to support a program (very sensitive to incentives)
- There is capacity to produce stock

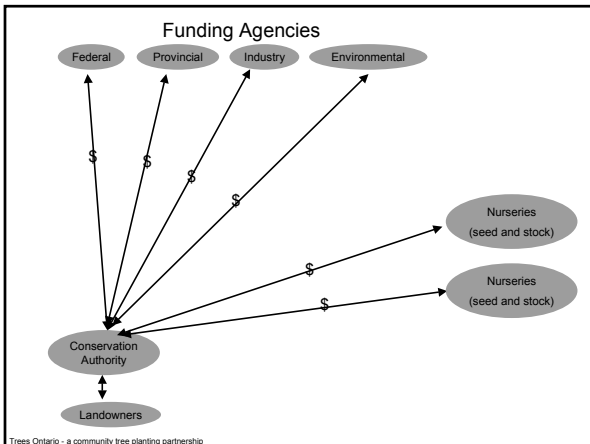
Trees Ontario - a community tree planting partnership

Trees Ontario: Vision for an Enhanced Afforestation Program - R.Keen

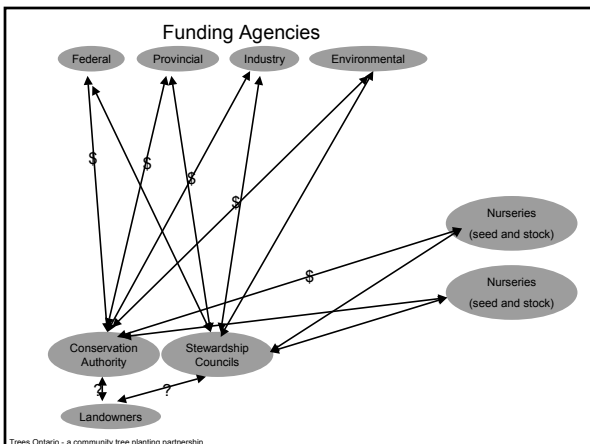
Reasons for lack of large scale tree planting:

- Absence of personnel on the ground to promote tree planting - landowners don't know who is providing tree planting services
- Lack of guaranteed long term funding and therefore no long term investment in infrastructure
- Availability of genetically appropriate species
- Higher costs especially to the landowner

Trees Ontario - a community tree planting partnership

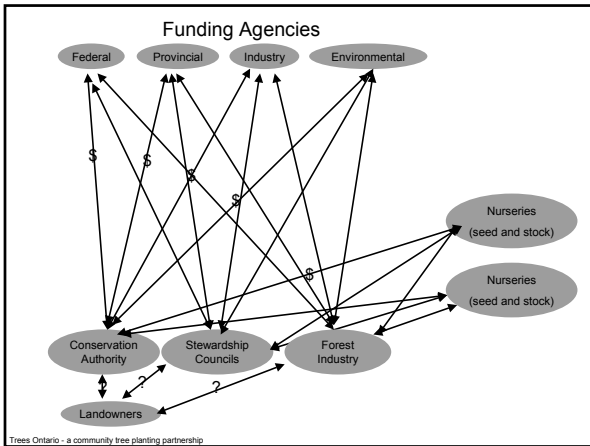


Trees Ontario - a community tree planting partnership




Trees Ontario - a community tree planting partnership

Trees Ontario: Vision for an Enhanced Afforestation Program - R.Keen



Enhanced Tree Planting Program

Trees Ontario
a community tree planting partnership



Goal

Increase the forested landscape of Ontario's private lands

Trees Ontario - a community tree planting partnership

Enhanced Tree Planting Program

Centralized Agency will co-ordinate:

- the solicitation of funding
- provincial seed collection program
- forecasting, ordering and financing of seedlings
- Maintain database on provincial tree planting efforts and maintenance requirements
- Transfer of information on current tree planting practices
- Promote the benefits of tree planting

Trees Ontario - a community tree planting partnership

Trees Ontario: Vision for an Enhanced Afforestation Program - R.Keen



MNR involvement

- Leadership role in private land tree planting programs
- Trees Ontario provides the government with the opportunity to re-enter private land forest management
- Demonstrate its commitment to environmental enhancement and to support community level actions

Trees Ontario - a community tree planting partnership

Post June 2002 Workshop

- Trees Ontario Foundation
- Trees Ontario Steering Committee met in June 2003 – discussed agency's program and proposed program structure
- Introduced the potential of the Forest 2020 program

Trees Ontario - a community tree planting partnership

Trees Ontario: Vision for an Enhanced Afforestation Program - R.Keen

Forest 2020 Program

Trees Ontario and the Federal government have begun discussions on what Trees Ontario can provide to the Forest 2020 program

Potential launching of Trees Ontario program

Trees Ontario - a community tree planting partnership

Next Steps

Looking for “a few good landowners” that would be interested in participating in a program with national profile.

Trees Ontario - a community tree planting partnership



FAACS Fall Focus Sessions
Establishing New Forests to Address Kyoto

Landowner Incentive Session

Review of findings from the Eastern Ontario Landowner Afforestation Survey
– Spring 2003 –



Sharleen Hawco
 Eastern Ontario Model Forest
 November 10, 12 & 13, 2003




forests for seven generations



Purpose of the Survey

- To gauge interest of rural landowners in a potential tree planting program.
- To provide baseline information:
 - current and future tree planting activities
 - types and sizes of land holdings

Sample & Method

- **Random Sample** of key areas in Ontario with **low land opportunity costs**.
- 350 rural landowners sampled
- Minimum 10 acres of land.
- Telephone survey
- Similar Q's as National Survey




Do our findings represent your views?




Eastern Ontario Model Forest

- Represents the Great Lakes St. Lawrence Forest Region
- 1.5 million hectares
- 34% forested
- 1 million people
- 23% rural
- 88% privately owned

"A settled landscape"



The Respondents - EO

Rural landowners in Ontario come from diverse occupational backgrounds

- 20% of respondents identified themselves as farmers, an additional 20% identified as skilled trades-people, and over 35% as retired.
- Over two-thirds of the respondents indicated that at least half of their income comes from farming.

Much of the land owned is heavily treed

- The average total acreage was 160 acres or 65 hectares.
- Most reported having wooded land on their property, with an average of over 60 acres.

The Respondents - SO

Rural landowners in Ontario come from diverse occupational backgrounds

- 30% farmers
- 20% professionals
- 20% retired



The Respondents - SO

Most landowners own land serving a variety of purposes

- The average total acreage was 100 acres or 65 hectares.
- 90% have wooded land on their property
- 66% have farmland
- 50% have aquatic areas
- 40% have pasture / grazing lands
- 40% have idle land



The Respondents - SO

Landowners' farmland consists primarily of good / high productivity land.

- 75% have good / high productivity land, avg 64 acres.
- On average 16 acres medium productivity land, 24 acres poor productivity land.



The Respondents - EO

Many landowners have owned their land for at least a generation

- Over half of respondents have owned their land for 19 years or longer, avg. length of ownership 22 yrs.

Most landowners enjoy participating in activities for the benefit of others.

- Most either somewhat or strongly agreed that they enjoy participating in activities that benefit their neighbours.



The Respondents - SO

Many landowners have owned their land for at least a generation

- 50% have owned their land for 19 years or longer, avg. length of ownership 20 yrs.

Most landowners enjoy participating in activities for the benefit of others.

- Most either somewhat or strongly agreed that they enjoy participating in activities that benefit their neighbours.



Past and Future Planting Activities - EO

Landowners plant trees primarily to enjoy their property.

- An equal number identified aesthetics and providing a place for recreation and solitude as the most common reasons for planting over the last 12 yrs.
- The top reasons for planting within the next 5 years were almost identical.

Most landowners do not plant trees when a considerable portion of their land is already covered in trees, or it is being used for other purposes.

- The most common reason for not planting in the past 12 years was that respondents already had enough land covered in trees.
- Half had the same rationale for why they weren't planning to plant in the next 5 years.
- 20% reported that they had not planted trees when their land was being used for other purposes.



Past and Future Planting Activities - SO

Landowners plant trees for aesthetic and environmental reasons.

- Aesthetics, conservation & wildlife habitat, shelterbelts, improving soil and water quality.
- Top reasons for intending to plant within the next 5 years were similar.

Most landowners do not plant trees when their land is already covered in trees, or it is being used for other purposes.

- The most common reason for not planting in the past 12 years was that respondents already had enough land covered in trees.
- 50% had the same rationale for why they weren't planning to plant in the next 5 years.
- Respondents had not planted trees when their land was being used for other purposes.



13

Past and Future Planting Activities

Landowners may plant trees in the future if they did not have enough time to plant in the past

- 56% of those respondents who reported being somewhat likely to plant in the next 5 years also reported having other priorities or not having enough time to plant as a reason for not planting in the past. This finding suggests that they may plant in the future if they have the time.

Financial incentives are most popular / desirable for encouraging landowners to plant, while assistance with planting and other tasks are considerably less popular incentives

- 50% felt that either a reduction in property tax or income tax would be very important in encouraging them to plant in the future.
- 20% of respondents who had planted in the past 12 years had received a grant or subsidy.
- 50% felt that assistance with site preparation and planting are "not at all important" as incentives.



14

Interest in a Tree Planting Program - EO

Most landowners with idle land are at least a little interested in participating in a program for planting trees

- 75% with idle land expressed at least a little interest in a tree planting program.
- 25% of those respondents were very interested in a program
- 30% were moderately interested. Those who were not at all interested cited their main reason for not being interested as "enough of their land is covered in trees".

Landowners who intend to plant in the near future are more likely to participate in a program than landowners who are unlikely to plant

- Many of the respondents who intended to plant in the future were also statistically likely to participate in a planting program.
- 92% of respondents who were not at all interested in participating in a planting program were not at all likely to plant in the future.



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Interest in a Tree Planting Program - SO

Landowners who are most likely to be interested in planting are professionals, have purchased their land within the last 8 years and are likely to plant small acreage.

- 33% of respondents who are either somewhat or very likely to plant in the next 5 years are professionals, even though they make up just over 20% of the total sample.
- 50% who reported being very interested in planting also purchased their land within the last 8 years

Most landowners are at least somewhat interested in participating in a pilot program

- 33% of respondents were very interested in a pilot program, while another 33% were not at all interested.
- Those who were not at all interested cited their main reason for not planting as "already having enough trees on their land"



16

Interest in a Tree Planting Program - EO

Incentives appear to be important in encouraging participation in a program

- 50% of respondents who were interested in a program reported that all incentives would be very important in encouraging them to participate.
- 75% chose financial incentives as being most important, with over three-quarters of those respondents choosing income tax credits and a reduction in property tax as very important incentives.
- Types of incentives were not statistically related to the amount of land that respondents owned, or the amount of idle land they had.

Woodlot / forestry associations and Conservation Authorities are most trusted to deliver a planting program

- Of all the potential groups to deliver a planting program, respondents reported having the most confidence in woodlot / forestry associations and Conservation Authorities.
- Respondents had the least confidence in large industries as potential deliverers of the program.



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Interest in a Tree Planting Program - SO

Incentives appear to be important in encouraging participation in a program

- 50% of respondents who were interested in a program reported that all incentives, with exception of technical assistance with planting, monitoring and caring for trees would be very important in encouraging them to participate.
- Financial incentives as being most important, with over 75% of those respondents choosing income tax credits and a reduction in property tax as very important incentives.

Carbon Credits

- 50% expressed interest in selling carbon credits as part of the program.

Woodlot / forestry associations and Conservation Authorities are most trusted to deliver a planting program

- Of all the potential groups to deliver a planting program, respondents reported having the most confidence in woodlot / forestry associations and Conservation Authorities.
- The least confidence was expressed towards large industries as potential deliverers of the program.



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Interest in a Tree Planting Program - EO

- **A majority of landowners are unwilling to lease their land to others**
 - When asked whether they would be willing to lease their land for 20 years for use as a tree plantation that would be established, maintained and owned by someone else, almost 75% of respondents responded that they would not.
- **Landowners who are involved in community services are more interested in participating in a planting program than those who are less involved in their community**
 - Relationship between attitudes towards community service, including participating in activities that benefit their neighbours and volunteering time for community services, and an interest in participating in a planting program.



Interest in a Tree Planting Program - SO

- **A majority of landowners are unwilling to lease their land to others**
 - When asked whether they would be willing to lease their land for 20 years for use as a tree plantation that would be established, maintained and owned by someone else, more than 75% of respondents responded that they would not.
- **Landowners who are involved in community services are more interested in participating in a planting program than those who are less involved in their community**
 - Relationship between attitudes towards community service, including participating in activities that benefit their neighbours and volunteering time for community services, and an interest in participating in a planting program.



Implications and Follow-up – SO

- These results paint a picture of landowners who have owned their land for a long time, and come from diverse occupational backgrounds.
- Most own wood land, and have highly productive farmland.
- They are not active in tree planting, either now or likely to be in the future. They mostly do not plant because they already have areas covered with trees or crops.
- Those who have planted in the past have planted small acreages (e.g., 1-2 acres), and do so for esthetic and environmental reasons.
- Those who are likely to plant in the future are more likely to be professionals.



Implications and Follow-up – EO

- These results paint a picture of landowners who come from diverse occupations with over one-third retired.
- They have owned their land for a long time, and it is heavily treed.
- They are not active in tree planting, either now or likely to be in the future. They mostly do not plant because they already have areas covered with trees or because it is being used for other purposes.
- Those who have planted in the past have planted small acreages (e.g., 1-2 acres), and they plant mostly to enjoy their property.
- They are not likely to plant for economic reasons.



Implications and Follow-up - EO

- Future efforts at encouraging afforestation might focus on rural landowners with smaller proportions of wooded land, and examine their interest in planting.
- Rural landowners want economic incentives, such as property tax credits, if they are to plant in the future.
- Those with idle land are at least a little interested in an organized planting program, and those who are already intending to plant also tend to be most interested in the proposed program.



Implications and Follow-up - EO

- Those who are most interested in the program were statistically related to those who were most involved with their community.
- Future efforts at afforestation might consider the **link between contributing to the community and tree planting.**



*Does this represent
your views?*

*What information are we
missing?*



1-800-387-7373
www.mnr.gov.on.ca



25

FAACS - Ontario Pilot

**Feasibility Assessment of Afforestation for
Carbon Sequestration**

**Sharleen Hawco
Afforestation Project Coordinator
Eastern Ontario Model Forest**

shawco@eomf.on.ca

613.258.8241

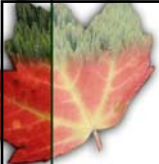



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forests for seven generations



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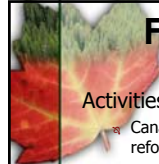




An Overview of Carbon Credits

**-FAACS Fall Focus Sessions-
Establishing New Forest to Address Kyoto**

**Landowner Incentives Focus Session
November 10, 11 & 12, 2003**

**Darren Allen, Forestry Specialist
NRCan, Canadian Forest Service
Great Lakes Forestry Centre**

Forests in the Kyoto Protocol

Activities

- ☒ Canada must account for land subject to afforestation, reforestation and deforestation (ARD) since 1990

Areas



- ☒ once land enters the accounting system, it must be accounted for in all future commitment periods

Pools and gases



- ☒ account for non-CO2 emissions and carbon in above- and below-ground biomass, litter, dead wood, soil

Measurement

- ☒ sinks and sources measured as carbon stock changes in 2008-12 on the land subject to specific activities



2



Forests and Mitigating Climate Change

☒ **Deforestation**

- ☒ estimated to be a source (16 Mt CO2/yr); need to
 - improve understanding of causes, locations, magnitude
 - explore options for reducing deforestation

3






Afforestation / Reforestation to Mitigate Climate Change



- For Protocol, both defined as the creation of new forest since 1990, where none had existed on the land for some time
 - planting, seeding and human promotion of natural seed sources qualify
- Activity to date since 1990 thought to be relatively small in terms of area afforested / reforested and carbon impact

☒ Assessment underway of:

- incentives for future large-scale activity on marginally productive rural private land
- establishment of future fast-growing species plantations on highly productive rural private land

4



An Offset System

Proposal in the Federal *Climate Change Plan for Canada* (Nov. 2002, page 40):



... to establish a framework that will enable agricultural and forestry sinks and emissions reductions to be sold as offsets into a domestic emissions trading system.

Offsets would have to be measurable and go beyond business-as-usual practices.



Governments, farmers, foresters and large industrial emitters will need to work together to design the offsets system.

5





Forest Carbon Projects






6

Forest Project Eligibility





- ❧ Afforestation and reforestation (A/R) projects will be eligible
- ❧ Avoided emission projects could be eligible
 - e.g. reduced deforestation

  7

Forest Project Eligibility



- ❧ Forest projects:
 - must involve "forest" as defined in Marrakech Accords
 - have to account for all ecosystem carbon pools and non-CO2 gases specified in Protocol
 - will be subject to a permanence provision
- ❧ Project-based system does not preclude aggregation of individual activities or land areas into one project for registration

  8

Should I get involved in an afforestation program?

Let's look at it from the land owners viewpoint.

A long-term commitment: 15-40 yrs

Tony Rotherham
Forester and Landowner
West Bolton, Quebec

1

The main purpose of the program

To plant trees and sequester carbon

To produce carbon credits

- to help meet Canada's Kyoto GHG emissions reduction target (-30%)

Carbon is embodied in the wood

- There are two commodities in the same material - Wood & Carbon

Carbon credits are measured in tonnes of Carbon Dioxide equivalent or CO₂e

- $1 \text{ m}^3 \text{ wood} \times 0.43 \times .5 \times 3.667 = .8 \text{ tonnes of CO}_2\text{e}$

2

What will be produced and who will benefit?

The Landowner

- Put idle land into production
- Improve property values
- Wood sales
- Aesthetics

Environmental Benefits

- Wildlife habitat
- Water quality conservation
- Watershed runoff management

3

What will be produced and who will benefit?

Community Values and Benefits

- Replaces declining agricultural jobs
- Tree planting and silvicultural jobs
- Wood supply and forestry jobs
- Helps support community stability
- Helps sustain a rural lifestyle

The Forest Products Industry

- Improvement in Wood Supply

The GHG Emissions Reduction Program

- Carbon credits to help meet Canada's GHG emissions reduction targets

4

What type of land are we looking for?

What type of land are we looking for?

- Land that was clear of trees in 1990
- Marginal/ sub marginal agricultural land
- Stony, Steep, poorly drained
- Land not subject to development pressures
- Free of brush and scrub

Land not desired in the program?

- Productive agricultural land
- Land that is subject to development pressures

We are looking for land that is best off growing trees

5

The steps involved in the program

- Provide Information to landowners
- Assess the eligibility of the land
- Discuss the landowners' objectives & plan
- Decide on the areas to be planted
- Consider species suitability and decide
- Decide on the management plan & rotation
- Estimate costs of planting
- Estimate growth rates & revenues (the business case). From wood sales & Carbon credit sales

6

Who are the investors? Sources of Funding?

The landowner

- The landowner has \$1000/ha invested in the land

Paying for planting: \$1500-\$2000/ha

- The Landowner?
- An Investor? An Individual, A Private Sector Consortium

The number and type of investors involved will determine the type of agreement required to protect the interests of all.

7

Who owns the Wood? Who owns the Carbon?

The investors will own the assets

- The land owner has \$1000/ ha invested in the land and pays the property taxes.
- The person who pays for the planting will have \$1500-\$2000/ ha invested.
- How do we divide the revenues?
- The wood to the landowner?
- The carbon to the planter?
- In proportion to the investment?

8

Revenues and the business case for planting land

There will be two sources of revenue

- Wood sales after 30-50 yrs
- Revenues from sales of Carbon Credits starting at age 5-10 yrs and continuing during the active growth of the plantation.
- Carbon credits may be worth \$7 per tonne?
- Wood sales may be worth \$10- \$30/m³?
- Total wood production and sales:
7m³/year x 40 years = 280 m³@ \$20/m³ = \$5600
- Total carbon credit production and sales:
280m³ x .8 = 225 tonnes of CO₂e @ \$7/tonne = \$1575

9

Who might be involved during the period of the agreement?

- Landowner
- Plantation Management Organization
- Tree Planting Investor
- Carbon Aggregator/Broker

Carbon credits will be sold in 100,000t lots

1ha x 40yrs x 7m³/ha/yr x .43 x .5 x 3.667 = 220 t CO₂e
450 ha required for a full rotation
18,000ha required for 1 sale per year
Possible net value of a sale-100,000t x \$7/t = \$700,000

- Carbon Credit Buyer
- Wood buyer
 - A local mill
 - Thinnings and final harvest

10

The length and structure of the agreement

The number of investors will determine the type of agreement

Possibilities:

- Landowner pays for the tree planting - 1 investor
- An outside investor pays for the tree planting- 2 investors
- The land is leased for a long period and the leasor pays for the tree planting- 1 investor

11

The length and structure of the agreement (cont'd)

There are likely to be 2 agreements:

A tree growing and stewardship agreement

- Length- 20-40 years
- Access for planting and management
- Access for measurement
- Cooperation with the owner of the carbon

A carbon ownership and sales agreement

- Cooperation with the Landowner
- Cooperation with the Aggregator/Broker

12

How do we ensure that the Agreements are honoured?

- Fair to everyone!
- Transparent!
- The agreements cover 15-40 years
- What happens if I want to sell the land?
- A handshake over the nose of a ½ ton truck?
- Written?
- Registered against the title?

13

Discussion on Incentives

Some ideas:

- Landowners management & ownership objectives.
- Grants, land taxes, income tax rebates.
- What is an appropriate landowner contribution?
- Services from a forest management organization.
- How to bundle/ aggregate and sell CO2e?
- Program must be competitive with other land uses.
- Harmonize agricultural and afforestation policies.

14

Agreements: planting and tree growth & carbon ownership and sales

1. **Term**
 - min. 15 yr to 40 yr
1. **Commodity ownership**
 - wood & carbon
1. **Revenue sharing/allocation**
2. **Legal status of agreement** (on title?)
 - Q1. How to deal with land sales over the term of the agreement?
 - Q2. Will this increase or decrease the value of the land.
1. **Does "one size fit all" ?**
 - length of agreement, ownership of wood and CO2e, responsibilities for management, etc
6. **Responsibilities of Landowner & Investor**
 - Honour agreement
 - Cooperate on management
 - landowner vs Forest Management Organization - to improve management efficiency?
6. **Penalties?**
 - What happens if the landowner doesn't honour the agreement, or wants to break it?
7. **Management plan & harvesting**
 - Agreement on the harvest level and timing to ensure there is a predictability re sale of wood and carbon commodities
8. **Exit clause & conditions**
 - life is unpredictable

15

Agreements: planting and tree growth & carbon ownership and sales

1. **Term** (min. 15 yr to 40 yr.)
2. **Commodity ownership** (wood & carbon)
3. **Revenue sharing/allocation**
4. **Legal status of agreement** (on title?)
 - Q1. How to deal with land sales over the term of the agreement?
 - Q2. Will this increase or decrease the value of the land.
5. **Does "one size fit all" ?**
 - length of agreement, ownership of wood and CO2e, responsibilities for management, etc

16

Agreements: planting and tree growth & carbon ownership and sales

6. **Responsibilities** (landowner/investor)
 - Honour agreement
 - Cooperate on management
 - landowner vs Forest Management Organization) to improve management efficiency?
7. **Penalties?**
 - What happens if the landowner doesn't honour the agreement, or wants to break it?
8. **Management plan & harvesting**
 - Agreement on the harvest level and timing to ensure there is a predictability re sale of wood and carbon commodities
9. **Exit clause & conditions** (life is unpredictable)

17



Explaining MIFTIP: our common message

Landowner Incentive Focus Sessions

- Kemptville - November 10th 2003
- Midhurst - November 12th 2003
- Woodstock - November 13th 2003

1



Goals of MFTIP.

- Greater taxation fairness for woodlot owners by valuing forest land according to its current use.
- To maintain or enhance healthy forests that contribute to the maintenance of a healthy environment.
- The program is designed to increase landowner awareness and education about forest stewardship.

2



Program incentives.

- Landowners participating in the program have their property re-assessed (from residential) and classified as managed forest under the Managed Forest Property Class.
- Managed Forest lands are taxed as 25% of the municipal tax rates set for residential properties.


3



Program eligibility rules.

- Management plan required (and approved by a Managed Forest Plan Approver).
- Property eligibility rules include:
 - minimum treed area 4 ha. per roll number
 - Minimum trees per ha.
 - Ownership (i.e. Canadian citizen or permanent resident)
 - not subject or a Registered Plan of Subdivision or under lands licenced under the Aggregate Act.


4



Is there a tax savings?

- MF properties will be taxed at 25% of the tax rate applied to residential properties
- Based on the assumption that entrance into the MFTIP will not increase the overall assessment of the property – this equates to a 75% reduction in property taxes on the eligible portion
- Mixed-use apportionment issue has been “mathematically” addressed
- MNR will attempt to develop a mechanism to monitor the impact of the policy change

5



Other Incentives?

- Conservation Land Tax Incentive Program
- Farm Tax Policy

6



Changes to the regulation.

- The results of the 2000 program review have been presented to the MOF
- These are non-contentious stakeholder recommendations:
 - open areas
 - plan period
 - submit only portions of the plan needed for administration
 - municipalities being given the flexibility to reduce tax rate below 25%

7



MPAC's valuation procedures.

- Municipal Property Assessment Corporation is responsible for assessment of properties in Ontario and has indicated:
 - MF property class will no longer be assessed using farmland rates
 - rather assessed based on sales comparison of properties in the program
 - banding of waterfront properties is no longer occurring
 - rather assessed based on comparison of waterfront properties
 - apportionment issue has been corrected
 - these properties will now receive benefit from program

8

Appendix III

A SHORT EXPLANATION OF THE ROLE OF CANADIAN FORESTS IN ACHIEVING GHG EMISSIONS REDUCTIONS UNDER THE KYOTO PROTOCOL

A SHORT EXPLANATION OF THE ROLE OF CANADIAN FORESTS IN ACHIEVING GHG EMISSIONS REDUCTIONS UNDER THE KYOTO PROTOCOL

A note to the reader:

This short explanatory document has been prepared by Tony Rotherham as an aid in understanding how forests are included in the Kyoto Protocol. It is the viewpoint of the author, and should be read as a guide and not as a rule. Canadian forest management terminology has been used, rather than Kyoto terminology, for purposes of clarity. For example: two words; afforestation, and reforestation are used in the Kyoto Protocol to denote the planting of two categories of treeless land. 'Afforestation' is used here to denote the planting of trees on any eligible land (treeless land with emphasis on marginal/sub-marginal agricultural land) to avoid confusion with the Canadian forestry use of 'reforestation' which is 'regeneration after harvest'. Forests are included in the Kyoto Protocol under two general headings: Afforestation and the Managed Forest.

1.0 AFFORESTATION

Afforestation is the establishment of plantations on land that was bare of trees in 1989. There is no cap on the amount of carbon offset credits developed through Afforestation. Land being considered for a potential afforestation program is poor pasture land considered to be on the economic margins of agriculture and most is in private ownership. It is recognized that the dedication of private land to forest for long periods of time is a substantial contribution by the landowner. Other opportunities to use the land may be lost. If the eligible land is planted with trees to develop carbon offset credits, the land must remain under forest for a rotation period of 20-50 years. The length of rotation depends on the species planted. Not all species grow at the same rate. For example, hybrid poplars grow faster than conifers and are generally managed on shorter rotations.

1.1 Starting Date

In order for an afforestation project to be eligible to produce tradable carbon offset credits, the planting must not start before the official starting date determined by the government of Canada. January 1, 1990 is the earliest starting date possible and should be Canada's starting date. As of February 2004, the starting date had not been set by the government.

1.2 Carbon Accounting

Carbon accounting is straightforward. Prior to planting trees, the amount of carbon on the site is measured in order to establish a baseline. After planting, the trees are measured periodically to calculate the carbon being stored. This would include measuring the merchantable wood in the stem of the trees and calculating the amount of carbon stored in the stems, limbs, foliage, stumps, root mass, soil and litter on the forest floor. A mix of field measurements and factors will probably be used. The second step would be to subtract the baseline amount of carbon. The net carbon gain would then be converted into carbon dioxide equivalent (CO₂e), using appropriate conversion factors. The result would be the amount of carbon offset credits available for trade.

Risk management strategies should be part of the management plan in order to make provision for possible

carbon losses. One strategy would be to sell only a percentage of the total offset carbon credits, perhaps 70-80%, keeping the rest in reserve as insurance against loss. Potential losses could be due to natural disturbances like fire, insect attack, disease, or to silvicultural stand treatments, logging, and clearing or possible management and stewardship failures.

1.3 Leakage

Leakage is the emission of greenhouse gas (GHG) due to activities associated with the implementation of the Afforestation project. Leakage can be from clearing of other land by landowners or from the GHG emissions involved in establishing the plantation (site preparation, fertilization, weed control, seedling production, supervision, etc.) Although accounting for leakage is an important aspect, it could also be an impediment to action if measured at a highly precise scale. The management control system could cost more than the value of the 'leakage' being measured.

1.4 Permanence

Permanence is a problem. A lack of permanence can be caused by deforestation, by fire or clearing for development. Risk management strategies will help to overcome these problems. But lack of permanence gets to be less of a problem as we move up the size scale from a very small patch of trees covering 1ha, to a new forest at a landscape scale covering perhaps 100,000 ha or more. A new forest of 100,000 ha or more will tend to become a permanent forest if the land on which it is established is chosen with permanence in mind. Lack of permanence may affect price.

1.5 Ownership of Carbon Offset Credits

Ownership of the carbon offset credits is not absolutely crystal clear but landowners have the strongest and natural claim to title. Legal certainty will be required. Sale of a commodity with a clouded title will not be possible. There should be legal work done on this to provide certainty before any program starts.

There are two areas requiring legal work:

- the contract between the landowner and the buyer of carbon offset credits must be very clear;
- the removal of any provincial government title to timber on private lands that is a residual artifact of colonial times.

There may be some joint funding partnerships to establish plantations on private lands. In this case the ownership of some or all of the carbon offset credits may be transferred by the landowner to the investors.

1.6 Purchase and Sale of Offset Carbon Credits

Offset carbon credits can be sold by the owner to any customer who needs credits to meet their emission reduction targets. The price will be established by the market.

2.0 THE MANAGED FOREST

The managed forest is also included in the Kyoto Protocol. Canada has 418 million ha of forest. Approximately 210 million ha is Multiple Use Forest available for forest management. Approximately 150 million ha is now subject to active management and fire and pest control operations. It is this ~150 million ha, that Canada may designate as “managed forest” under the Kyoto Protocol. The government must designate the area of managed forest to be included in the Kyoto Protocol by 2006 if it is to be counted in the first measurement period.

2.1 Ownership of The Managed Forest

The 150 million ha of managed forest is owned by the federal and provincial governments and by the private sector. Federal lands make up a very small portion. Provincial ownership consists of ~125 million ha. The remainder of the managed forest is owned by Industry; ~8 million ha, and 450,000 Small Private Woodlot owners ~17 million ha.

2.2 Offset Carbon Credit Accounting

There is a cap on offset carbon credits from the managed forest in the first measurement period. The future status of this sink and any changes in the cap will be sorted out during negotiations for the Kyoto GHG Emissions reduction targets for the second measurement period (2013-2017), as will everything else in the agreement. The uncertainty about policy and programs after 2012 will also affect Afforestation.

The carbon accounting for the managed forest is complex as there are many factors to consider. On the debit side there is harvesting, thinning, damage from; fire, insects and disease, as well as some deforestation for development, mining etc. The situation on linear deforestation such as clearing for roads and transmission lines is still unclear and is the subject of negotiation. On the credit side of the ledger the situation for linear afforestation (e.g. shelterbelts) is also unclear but will presumably be resolved

in a complementary manner. Credits will also include natural regeneration, planting, juvenile spacing and natural growth, etc. All of these activities (at their present level of implementation) and natural disturbances are considered to be Business As Usual (BAU). To develop and claim carbon offset credits we require a forest carbon measurement and inventory system that will allow us to measure change. We must also start implementing new and additional forest management and silvicultural operations and strategies (above and beyond BAU) that will increase the rate of sequestration and the size of the forest carbon sink. New or additional forest protection strategies can also be implemented to reduce the loss of forest carbon to natural disturbances like fire, insect epidemic and disease.

It is the changes in the rate of sequestration and in the volume of carbon in the forest, brought about by the implementation of these new and additional forest management and silvicultural operations as well as improved forest protection strategies that will provide the carbon offset credits. If a good measurement system is not implemented, the detection and verification of the changes will not be possible resulting in no credits being identified. The first job required of the measurement system will be to establish the carbon content baseline of the managed forest. The next task will be the measurement of changes in the carbon content of this vast forest due to the application of additional forest management and silvicultural operations and forest protection strategies. Simulation and modeling supported by sample plots to provide base data is one possibility. There is a huge task involved in getting all this done in a way that is timely, credible, verifiable and accurate enough to pass the tests that will be applied by critics and buyers of offset carbon credits. The area of forest is huge and there is a lot of diversity that must be accommodated in the sampling system. There is a huge potential, but it will not be easy or cheap. There will be substantial additional benefits to the Canadian forest sector from any such program of management strategies, silvicultural operations, growth and yield studies and forest inventory

2.3 The Ownership of Carbon Offset Credits

The question of the ownership of carbon offset credits is both politically and economically charged. To add to the complexity, Canada has a relatively small cap to be shared among the players during the first measurement period. The federal government has a strategic interest in the way managed forest carbon offset credits are used and applied. The provinces own the vast majority (~80%) of the managed forest (Crown Land) and thus would have the first claim to ownership of the carbon offset credits. Private interests own the other 20%, and also have a stake in carbon offset credits from the managed forest. The forest products companies are now doing the bulk of the forest management and silvicultural operations and are also the likely implementation agents for any new forest

management activities. Forest protection strategies such as enhanced control of fire and insect attack are generally under the control of the provincial governments. None of these players are likely to do anything extra unless they are rewarded. Another factor causing ownership uncertainty is the effects of Native Land Claims, eventually resulting in a possible change in the ownership of forest land, and ownership of any related carbon offset credits. This uncertainty may cloud the title to some carbon offset credits.

The main negotiators will be the federal and provincial governments. There are many areas to negotiate including:

- The control and management of the carbon offset credits.
- The allocation of the credits among the provinces, and the allocation of offset carbon credits to the private forest landowners in each province. It is useful to note that agreement by all the provinces may not be required for some parts of the country to move forward on developing offset carbon credits from the managed forest.
- Establishment of agreement and measurement systems in time to benefit during the first measurement period.
- Allotment of available credits: Handed out on a 'first come first served' basis or allocated? What happens if one party cannot develop all the credits allocated? Could they sell the unused allocation to another party?

A significant area (20-25 million ha) of this Multiple Use Forest land is in private ownership. Here the forest management activities are the responsibility of the private owners. About 30% of this private land is large blocks of forest land in industrial ownership. The rest is owned by 450,000 small private owners with property size averaging 40 ha. Although the presumption is that title to the offset carbon credits lies with the private owners, legal clarity will be required. A system of aggregation will be needed to bundle the credits from small private properties to create marketable volumes and reduce transaction costs. But even the private owner's access to any offset carbon credits may be dependent on agreement between the federal and provincial governments on how to share both the offset carbon credit cap and the offset carbon credit benefits from additional forest management activities in the managed forest. Needless to say there are enough questions here to provide uncertainty for a while.

2.3 Permanence

Permanence should not be a big concern in the managed forest. Most of the Crown Land is protected by legislation or policy, and will remain forested land. Only a very small percentage will be alienated to other uses over the foreseeable future. Risk management strategies, however, will have to be implemented as there is always the danger of damage and loss due to fire, insect, and disease.

3.0 CARBON OFFSET CREDITS AS A COMMODITY

Is a Carbon Offset Credit a real product with enduring value in the market? Carbon offset credits are not like wood which has a long-standing value in the marketplace. The carbon embodied in wood became a commodity due only to the negotiation and signature of the Kyoto Protocol. Before this, the carbon embodied in wood had no value, except perhaps when wood is used as a fuel; as carbon is the main component of wood that combusts and produces heat.

Carbon in wood has value as a carbon offset credit only as long as the Climate Change Convention is legally in force or is honoured by Canada. Offset carbon credits are a compliance tool for the first measurement period (2008-2012). Their value will be increased if the Canadian government states that they will also be a compliance tool for the second, third and ongoing measurement periods. The value of carbon offset credits are entirely dependent on the Canadian government supporting the Climate Change Convention or establishing a stable and long-term domestic GHG emissions reduction program based on the same general principles and reduction mechanisms. Under these circumstances it is reasonable to expect that the government of Canada would either provide assurance that the value of offset carbon credits will be maintained, or they would undertake to provide a significant portion of the investment required to establish plantations under any afforestation program, or offer an investment tax write-off program. This would serve to reduce the risk to any investment made by private land owners or others interested in the development and use of offset carbon credits.

Landowners and forest managers must understand and accept the nature and foundation of the value of offset carbon credits in their decisions to invest in the production of carbon offset credits. Landowners who invest in afforestation on marginal/sub-marginal agricultural lands may want to consider the value of a 'basket of benefits' that will result from their expenditures on plantation establishment. Some of these benefits will be more certain and tangible than others. The 'basket of benefits' will include such things as: wood, offset carbon credits, aesthetics, wildlife habitat, water and soil conservation, rural jobs and community stability. All of these are good things but with very different returns on investment. Some of these returns are enjoyed by society at large, not just the landowner. This is an additional reason for government action to provide assurances of the long-term value of offset carbon credits or to underwrite the risks by becoming an important investor or offering a tax write-off program.

Tony Rotherham R.P.F. has 38 years experience in the forest management and industry sectors in Canada, and has been involved in the development of international and Canadian forest policy and certification strategy since 1994.

Appendix IV

SUMMARY NOTES FROM BREAKOUT SESSIONS

Regional Summary Notes from Breakout Session of the Landowner Incentive Focus Session Nov. 10th, 12th, & 13th 2003

A. LANDOWNER OPINIONS & NEEDS

A1. Kemptville

- How attract those not generally involved? Get information to people not already part of the “forest” group.
- Interest in the long-term forest.
- If have forest, plant strategically.
- Focus on improving already forested areas and other areas, e.g., windbreaks.
- Tailor the program to landscape realities.
- Incentives must offset other costs. Must be greater than incentives to do the wrong thing (e.g., incentives to clear land are a disincentive to forests).
- Costs to buy seedlings is a barrier.
- “Filling out forms” is a barrier.
- A.L.U.S. — Alternative Land Use Services — is a program that pays the landowners for the broader societal and ecological benefits / services provided by landowners (see Norfolk County Stewardship Council). Must compensate landowners for the costs they incur in managing lands that provide socio-economic benefits.
- Forests provide many other non-timber benefits and values.
- Mohawk Council of Akwesasne provides seedlings and facilitates planting. Seedlings are provided to people as part of ceremony which confers responsibilities and “sense of ownership” on recipients to care for “brothers and sisters.”
- Tree seedlings must be available in the spring. Need group to facilitate.
- The Rideau Round Table sold seedlings at \$1.25/each, and had no trouble selling 5,000.
- Landowners want trees and help in planting.
- Some said if trees are free, landowner won’t take same responsibility. Need landowner commitment and responsibility.
- For small plantings, landowners may be ready to pay. However, less willing to pay for large plantings on vacant land.
- Institute a voucher system to reflect real cost of trees. The Landowner would get a voucher reflecting the real cost of trees, and landowner uses the voucher to get tending, thinning, etc.
- Markets and flexibility of service.
- Public need to know who does the work and to be confident well coordinated.
- Forest cooperative to provide trees, planting, expertise, and community development.
- In WIA, landowner paid for trees, but got planting and management advice for free.

A2. Barrie

- MPAC does not differentiate agricultural land from marginal.
- Planted trees to rehabilitate gravel pit.
- Planted for economic value.
- One person planted trees on her own with some assistance from Trees Canada.
- Problem with so many programs just disappearing.
- Planted for aesthetics and rehabilitation.
- Best way to reforest naturally is keep the cows out.
- Planted for long-term \$.
- Planted for “my kids.”
- Practices agroforestry — plants crops among “rows” of trees.

- Bought property with WIA; now has MFTIP.
- Need to look to MFTIP to compensate landowner for costs to plant and tend — to regenerate and rehabilitate forests.
- Simcoe/Dufferin did survey and found most lands planted were 50-100 acres, recreational lands, idle lands, and planted with WHC assistance.

A3. Woodstock

- “Real” farmer or not — where real is someone who earns his/her income from farm.
- Most farms are no longer 100 acres.
- Society should pay landowners to plant, as society gets benefits (a clean environment).
- Program must be permanent.
- Land is valuable / need to be compensated appropriately for using it for afforestation.
- Respect for landowner rights.
- Plants as rewards for children for staying on the farm.
- Plants to fill in “nooks and crannies.”
- Those who plant should not have to pay taxes.

B. INCENTIVES & DISINCENTIVES DISCOVERY SESSION

B1. Kemptville, Group #1

- Payment to landowners — “least effort for most return.” Payment per year for landowner to stay in the program. Payment must be greater than other opportunities. Landowner may pay for trees but with planting/tending/etc. done by others. [one of this group’s “top 4”]
- Commitment by owner, say 10 to 15 years. [“top 4”]
- One lead agency for landowner to deal with — must be local, on the ground, and one that landowners trust. [“top 4”]
- Landowner’s (long term) objectives are key and program must respect/respond to. [“top 4”]

B2. Kemptville Group #2

- 100 % subsidy to landowner to cover full cost of program: site prep., planting, tending. [one of this group’s “top 5”]
- Costs of doing MFTIP plan covered 100%. [“top 5”]
- Private lands extension services provided to landowner. [“top 5”]
- Long-term commitment between provider and landowner, and where a cooperative manages carbon credits and assumes/manages risks (fire, disease, etc.). [“top 5”]
- Landowner’s objectives are critical. [top 5”]
- Rethink the values of reforestation — carbon credits are one value / need to focus on others.
- Financial incentives to change marginal land into productive forested land.
- Incentive to retain forested lands.
- Landowner gets to chose the trees to be planted (diverse mix).
- What are the restrictions of an agreement??
- Professional advice and good communication.

B3. Kemptville Group #3

- Need agreements that protect landowner, ensure landowner has control, are not too long (15 years but not 40), and provide a way-out. [one of this group’s “top 4”]
- Need funding (at least funding that pays part of landowner’s costs). [“top 4”]
- Need tax incentives, reductions in property taxes, and income tax benefits. [“top 4”]
- Need a market for the wood. [“top 4”]
- A bonus for landowners who stick it out for the long term.
- Keep costs low to landowner in doing afforestation work -- provide free trees and management (planting, tending, refilling, assessment, and thinning).

- Choices and options to suit the landowner.
- Make trees an agricultural crop so farmers can maintain farm status.
- Disincentives include a) 40 year agreements, b) where agricultural incentives are greater, c) exit penalties, and, d) limitations on the landowner's ability to manage.

B4. Barrie Group #1

- Service provider provides trees, provides knowledge, and does the work to "free to grow" stage. [one of this group's "top 5"]
- "Show me the money" -- financial, extension, operational, and technical. ["top 5"]
- Provide property tax rebates. ["top 5"]
- Remove disincentives, e.g. inflexible agreements and the fact that planting trees changes the tax classification. ["top 5"]
- Make the program simple. ["top 5"]
- Need to look at issues around planting trees, such as "nuisance" wildlife.
- Woodlot/plantation management costs should be treated as expenses, similar to farming.
- Program must be long term (commitment of service provider and secure long term funding).

B5. Barrie Group #2

- Funding, including grants to plant and cover establishment costs. [one of this group's "top 5"]
- Flexibility (i.e., "full program versus landowner plants"). The group wanted participating landowners to be able to pick the things they were ready to do, and get \$ help on those they weren't ready to do] ["top 5"]
- Property tax rebates ("farm versus residential"). ["top 5"]
- Provision of extension services. ["top 5"]
- Respect landowner rights. ["top 5"]
- No (or minimal) up-front loss. ("subsidy versus grants")
- Program and delivery organizations must have long-term stability.
- Clear messaging.

B6. Barrie Group #3

- Recognition of participating landowners, and let landowner know he/she is an important part of the process, e.g., road signs showing active management, listing partners, and displaying landowner's name. Need respect for landowner under current bylaws — restrictions on the landowner — good forestry practices. Tree-cutting bylaws not penalizing landowners who follow good forestry practices [one of this group's "top 5"]
- Long-term technical [and "other"?] support, including supply of trees and planting services. ["top 5"]
- 90% financial support, comparable to agricultural land rates, long-term. Property and other tax incentives. ["top 5"]
- Protection [urban] development & expansion, and, landowners participating in program not restricted by tree-cutting bylaws. ["top 5"]
- Landowner education and awareness. ["top 5"]
- Disincentives include a) overly legal, b) long periods of commitment for the landowner (40 years), c) lack of continuity, and, d) where the land is more valuable for other uses.
- Re-establish carbon credits for areas cut down — "no net loss."
- Conservation easements.
- Long-term assurance and security to landowner.
- A good supply of trees.
- Advice and expertise.
- A coordinated approach — support, marketing (a cooperative), and access to equipment.
- Recognize the management activities required over the life of the plantation and the cost of these.

B7. Barrie Group #4

- Tax deferral (income deduction). Property tax, as favourable as for agricultural lands or CL lands. [one of this group's "top 5"]
- \$ to plant and tend (what percentage of total costs should be paid for by provider? For how long should provider pay for services, such as tending?). ["top 5"]
- Long-term program — stable and "minimum commitment for x years" guaranteed. ["top 5"]
- Access to technical advice and understandable information. Assurance of the right tree on the right site. ["top 5"]
- Flexibility in agreements with landowners. Individual negotiation. Choice of species, Ability to match landowner objectives. ["top 5"]
- Limits on need for landowner reporting, and on limits on costs incurred by landowner.
- Local contact and delivery for landowner.

B8. Woodstock Group #1

- Financial incentives. [one of this group's "top 5"]
- Property tax / property tax assessment credit. Participating in an afforestation project is not a tax penalty. At least break-even. Financial benefits to landowner must be comparable to alternative benefits (e.g., beef cattle). ["top 5"]
- Need maintenance costs (e.g., tending, water trees in drought) to "free to grow." ["top 5"]
- Ability to choose tree species (landowner picks from a list of suitable species). ["top 5"]
- Technical assistance (e.g., expertise, equipment). ["top 5"]
- Landowner has option to hire. Landowner gets paid for work completed. ["6th best"]
- How do you decide who gets to participate?
- Better to have clusters of participants, rather than isolated ones.
- Need to respect property rights / right of landowner to make management decisions.
- Participants do not wish to be perceived to be "doing wrong/bad" in their community.
- Public recognition (visible to neighbours) is important (signage, like WIA).
- Larger trees are better. Able to plant in field corners, hedge rows, and other areas of high risk to tree survival).
- Program must be cost effective.

B9. Woodstock Group #2

- Large % of costs to plant are covered. Landowner retains ownership. [one of this group's "top 5"]
- Owners costs for lost opportunities are covered. \$ for tying up land that could have been used for other things. Annual payments over and above planting costs. ["top 5"]
- Farm status kept, with farm tax rebate kept. Reduction in property tax / zero tax. Expenses to plant and tend trees are expenses against other farm income / off-farm income. Long-term protection. ["top 5"]
- Long-term assurances that the program will be around (for no negative changes by government). ["top 5"]
- Technical advice and assistance. ["top 5"]
- No easement.
- Program flexibility for marginal or high-productive lands.
- Customized agreements.
- Simple.
- Program stability.

C. AFFORESTATION AGREEMENTS DISCOVERY SESSION

C.1 Term

- 10 to 15 years. (Kemptville #1)
- 20 year term. Can be renewed. Incentives for additional management. % of carbon credit revenue return. 10 year MFTIP, with renewal. Renegotiations. (Kemptville #2)
- Flexible in length and degree of commitment. Renewable, and able to add terms. Must be a minimum term. (Kemptville #3)
- 10 to 15 years. (Barrie #1)
- Contract, not an agreement. Maybe 5-year, renewable. Transferable to investor without penalty. (Barrie #2)
- 15 years. Depends on the species. The longer the better. Concluded that 10 to 15 year term, with options to review and renew for 5 years. (Barrie #3)
- Minimum of 15 years, renewable. Contract or agreement. (Barrie #4)
- 15 year renewable. May depend on the tree species. (Woodstock #1)
- 15 to 20 year term, renewable. (Woodstock #2)

C.2 Ownership of Commodity

- He who pays, owns. (Kemptville #1)
- Wood belongs to landowner. For the first 10 years, no return on carbon to landowner; at 10 year-mark, and at subsequent 10-year intervals, ownership of carbon reviewed and renegotiated. (Kemptville #2)
- Need to be flexible/not sure about ownership of carbon credits. Most owners would want wood, while someone else gets the carbon. However “we” may be in too much of a hurry to give away this commodity. (Kemptville #3)
- Can't separate them — landowner owns wood and carbon. (Barrie #1)
- The landowner owns the trees/wood. The carbon is owned by investor (and landowner?), with rights to the investor for 5 or 15 year term. (Barrie #2)
- Landowner owns the wood, and leases out the carbon credits. (Barrie #3)
- Flexible, based on investor vs. landowner, where level of investment equals level of sharing. Landowner owns rights to wood throughout. Investor holds carbon credits for term of contract, with carbon credits reverting to landowner on expiry of agreement. (Barrie #4)
- Carbon credits owned by cooperative. Landowner owns wood. Reserve carbon credits, by only allowing 80% of the land to be timber-harvested, with rest for carbon credits. (Woodstock #1)
- Landowner, by default. (Woodstock #2)

C.3 Revenue Sharing

- He who owns, gets revenue (Kemptville #1)
- Wood belongs to landowner. For the first 10 years, no return on carbon to landowner; at 10 year-mark, and at subsequent 10-year intervals, ownership of carbon reviewed and renegotiated. (Kemptville #2)
- Keep it simple — landowner gets revenue from the wood, agency gets the benefits of the carbon credits. (Kemptville #3)
- Can't separate them — landowner owns wood and carbon. But investor needs payback! Need to look at other values, and how to reflect these. (Barrie #1)
- Based on 5 of contribution. (Barrie #2)
- 100% of revenues go to landowner, but must be flexible / dependent on who made investment — has to be some sort of broker. (Barrie #3)
- Flexible, based on investor vs. landowner, where level of investment equals level of sharing. Landowner owns rights to wood throughout. Investor holds carbon credits for term of contract, with carbon credits reverting to landowner on expiry of agreement. Needs to be some protection for landowner for changes to changes to property tax burden. (Barrie #4)

- Carbon credits owned by cooperative and pays landowner. Reserve carbon credits, by only allowing 80% of the land to be timber-harvested, with rest for carbon credits. Landowner owns wood and gets revenue. (Woodstock #1)
- Carbon credits in contract, can go to investor, negotiable, for a limited time. (Woodstock #2)

C.4 Legal Status of the Agreement

- 50/50. (Kemptonville #1)
- Not registered against title. Landowner needs flexibility. Registering against title would be disincentive to landowner. Agreement is fully transferable. (Kemptonville #2)
- On title, if the landowner commits long-term. Not on title if landowner does most of the work. (Kemptonville #3)
- Not on title. Must be reasonable exit clauses. Keep it simple. Define roles and responsibilities. (Barrie #1)
- Yes. Contract is legally binding on landowner, and is in effect, on title. (Barrie #2)
- Legal contract preferred. (Barrie #3)
- On the deed. Must be a condition of the agreement (easement). (Barrie #4)
- Must be on title. Multiple use is at the discretion of the landowner. (Woodstock #1)
- Covenant, only if landowner-friendly, simple, and transparent. Marginal land, over the long-term, should increase in value. (Woodstock #2)

C.5 Does One Size Fit All? [not all break out groups did this question]

- One size fits no one. (Barrie #1)
- No. Need 3 or 4 “styles/models,” you pick one that fits you. (Barrie #3)
- Must be flexible, based on landowner’s objectives and willingness to invest. (Barrie #4)
- No. Need options on responsibilities, since one size does not fit all. (Woodstock #1)
- Flexibility because of different funding sources. Needs to be customized and flexible. (Woodstock #2)

C.6 Responsibilities

- Joint responsibility and joint decision-making. Responsibilities clearly defined. What about “acts of God?”(Kemptonville #1)
- Investors/government assumes all risks with carbon credits. Landowner provides land for the term of the agreement, and meets his/her commitments under agreement. (Kemptonville #2)
- Sliding scale of responsibilities, with agencies taking on more if landowner commits to long-term. Agency does administration (e.g., inventory, bookkeeping). Landowner provides protection, pay taxes, provides liability and does fencing. (Kemptonville #3)
- Define responsibilities of all partners. (Barrie #1)
- Landowner needs insurance against fire and insect-damage losses. (Barrie #2)
- Legal contract assigns responsibilities (who and how much). Need to honour contract. Review interval. 3 or 4 models of contract — with differing responsibilities — to choose from. (Barrie #3)
- Investor takes responsibility for site prep., planting, and tending. Landowner takes responsibility to minimize risks (e.g., fire, fencing, insect, disease, signs). (Barrie #4)
- Need options on responsibilities, since one size does not fit all. (Woodstock #1)
- Roles negotiable. All parties accountable as per agreement. (Woodstock #2)

C.7 Penalties

- Landowners not interested in a program of penalties involved. (Kemptonville #1)
- For landowner: pro-rated penalty for management costs over 20 years. (Kemptonville #2)
- A sliding scale, decreasing with time. With penalties front-ended, it would be difficult to get people to sign up. (Kemptonville #3)
- Pro-rated cost recovery. (Barrie #1)
- Based on a percentage of present value. (Barrie #2)
- Yes, for “both sides of the fence,” not just the landowner. (Barrie #3)
- Written into the agreement — repayment of investor / input by landowner (“acts of God”). (Barrie #4)

- Penalties assessed by arbitration. Different penalties. Greater penalties if not arbitrated. (Woodstock #1)
- Outlined in agreement. Must pay as per agreement. (Woodstock #2)

C.8 Management Plan

- Based on best management practices, at the time of initial site assessment. (Kemptville #1)
- Plan for afforestation would be developed under MFTIP (with costs covered). (Kemptville #2)
- Yes. (Kemptville #3)
- Part of roles and responsibilities. Make it simple — a “stewardship plan” for sustainable management. Remove short-term but by brokers. Re harvesting, “we own it, no issue.” (Barrie #1)
- If carbon is to be sold, management plan must reflect so carbon is not sold as timber. Management plan must be for sustainability. (Barrie #2)
- Plan prepared, including eligible species, and good forestry practices. Plan establishes the timetable. Harvesting is recognized / spelled out in management plan. Plan has to be simple, “not 400 pages.” (Barrie #3)
- Condition to 15 year agreement, or incentive to offer the landowner and lead into other incentives. (Barrie #4)
- Manage for carbon credits, by only allowing 80% of the land to be timber-harvested, with rest for carbon credits. Plan must be species and site dependent. Need to harmonize management plan for carbon credits with MFTIP (latter is 20 year plan). (Woodstock #1)
- Required. Part of contract, for term of the contract. (Woodstock #2)

C.9 Exit Clauses

- Yes. Landowner repays investment and interest. (Kemptville #1)
- For landowner: pro-rated penalty for management costs over 20 years. (Kemptville #2)
- Keep it simple. \$ Penalty per acre to get out. (Kemptville #3)
- [No comment] (Barrie #1)
- Yes, based on current value. (Barrie #2)
- Both sides monitor. Penalties for both sides to exit, unless mutual consent. Monetary penalties. (Barrie #3)
- Yes, with repayment. (Barrie #4)
- Penalties assessed by arbitration. Different penalties. Greater penalties if not arbitrated. Arbitration negotiated by lawyers for cooperative (landowners) and investors. (Woodstock #1)
- Negotiable. (Woodstock #2)

- **Notes from the Landowner Incentives Focus Sessions in southern Ontario**

There were two main topics covered during the three meetings on which landowner opinion was specifically requested. The notes which follow, cover not only the matters required to gain landowner participation but also the matters required to ensure the success of the program.

The specific topics were:

1. The incentives and services required to gain large-scale landowner participation in an Afforestation Program.
2. The nature of the agreement covering the responsibilities of the parties involved in an Afforestation Program on private land that will produce both wood and carbon credits.

One overarching principle is that the program must be stable and able to make and meet long-term commitments to program participants.

1. Incentives and services required to gain large-scale landowner participation in an Afforestation Program.

- **Respect.** The landowner's management objectives and property rights must be respected.
- **Choice.** Some choice among appropriate species and silvicultural treatments should be offered to better meet landowners management objectives.
- Financial assistance-A large proportion (70-90%) of the plantation establishment (administration, planting and tending to F-T-G) costs will have to be covered by, or through, the program.
- Landowners need to contribute something to give them a sense of responsibility/ownership/involvement in and for the success of the plantations.
 - 10% of establishment costs
 - A \$500 fee to cover the field visit and planning costs- this will also help to reduce the amount of expensive field staff time spent to satisfy idle curiosity. A good package of information on the program should be sent to landowners before any site visit.
- A locally based and familiar forest management organization is best suited to deliver the program to landowners. This organization must be enabled to make a long-term commitment to the program. It will provide forest management extension services/technical advice to landowners as well as a plantation establishment program.
- Measurement of wood and carbon credits-There must be a system to measure trees and calculate carbon credit production. The forest management organization that delivers the program is a logical option to provide this service to landowners.
- Revenues from wood and carbon credits as well as intangible (personal, social and environmental) benefits from planting trees must be competitive with other uses of the land.
- Property Taxes- These were mentioned several times as being one of the most influential matters in the consideration of changes in land use from agriculture to forestry. If a landowner is going to sign an agreement and be locked into forestry for a period of 20-40 years there will have to be protection against significant change in property taxes. A new forest management land use class for property taxes is indicated.
- A package of incentives will be more influential than just one. Examples:
 - Technical services and advice
 - Financial assistance to cover plantation establishment costs
 - Property tax stability for the period of the agreement and a lower tax category to recognize the ecological services provided to society by the landowner.

- Harmonize the agricultural and woodlot management policies and programs that affect private landowner decisions on land use in order to achieve the desired goals. At present landowners are pulled in one direction by agricultural policies and in another by woodlot management policies. Property tax category considerations are a very influential factor in Ontario.

2. The Nature of an Agreement

- **The nature of the agreement** covering the responsibilities of the parties involved in an Afforestation Program on private land that will produce both wood and carbon credits. There will probably be two agreements. One for growing trees and one for the sale of carbon credits.
- **The length of the agreements** should be flexible. Perhaps 10-15 years but renewable. Perhaps the promise of a share in the revenues from carbon sales would be a useful inducement to renew the agreements. A landowner can look ahead with reasonable clarity for a maximum of 15-20 years. No one can see ahead clearly for 40 years.
- **Property Rights.** Landowners will be very wary of threats to their control of their land.
- **Flexible Agreements.** Agreements that offer flexible arrangements will be attractive. Everyone likes to be able to have a choice among agreements that meet the objectives of the program. Perhaps 3-4 types of agreement might be designed and offered. Landowners should not be able to 'cherry pick' the best from a long list of options. That may make things too complicated for efficient management. A clear and simple definition of roles is required. The agreements might offer a variety of arrangements for:
 - Length of agreement
 - Financing the establishment of the plantation
 - Ownership of carbon credits and wood.
 - Participation in management of the forest management organization and the landowner
- **Management services** from the forest management organization and from the landowner can be negotiated or subcontracted to the landowner within reasonable limits. Eg. The forest management organization plants and tends to F-T-G and the landowner looks after protection against cattle and monitors for insects, disease, etc.
- **Plantation management plan.** There must be a plantation management plan. This should be an 'SFM plan' not a carbon credit plan driven by the need for compliance with Kyoto targets. These plans must be harmonized with the conditions and term of MFTIP plans. The plan should provide for expected stand management operations during the period of the agreement and avoid conflict with carbon credit development and sales.
- **Carbon Credit values.** Carbon credits are compliance tools. The Canadian government must "backstop" the value of carbon credits as compliance tools beyond the 2008-2012 measurement period and through to the expected term of the program (40 years?). Forestry investments cannot be justified on the period from 2004 to 2012. The market value of carbon credits is very uncertain. These uncertainties must be reduced to attract private capital to fund plantation establishment.
- **Crop Insurance.** The need for indemnity against loss of the plantation to fire was mentioned. This is a separate matter than risk management of the carbon credits to assure buyers of the delivery of credits according to contract. Pooling will cover this risk. Some means to replace the plantation is desired so that the landowner also has coverage for loss. This need can be covered under the same carbon credit risk management program if it is designed with this in mind.
- **Penalties** will be required for failure to perform but the penalties must be carefully designed to promote responsible performance and not become a barrier to landowner participation. Perhaps the

repayment of costs and real losses prorated over time. This is closely related to the conditions in the exit clause.

- **Exit Clause.** Conditions and peoples needs change over time. The longer the period of time the more change will take place. An exit clause is essential in a 40 year agreement and is important in a 15 year agreement. The exit clause should be based on the repayment of real costs and losses. These should be prorated towards zero over the life of the agreement. Arbitration may be required.
- **Agreements registered on title.** Landowners can see the argument for this but think it may be an influential disincentive. If the agreement is simple, easy to understand and provides benefits to the landowner-ie is 'landowner friendly' it will not be seen as a heavy burden on the title.
- **Ownership of wood and carbon credits.** The landowner will own the wood and carbon credits and can contract the ownership of carbon credits to another party. The investor who pays for the costs of plantation establishment should become the owner of the carbon credits along with all revenues and responsibilities associated with the carbon credits. The investor who pays for plantation establishment must get a fair Return on Investment.
- **Recognition of Landowner participation.** The program should recognize landowner participation through the provision of an attractive sign for the gatepost.

Notes:

1. A real estate agent who attended the Woodstock meeting noted that planting trees generally increased the value of land. The planting must be designed to deliver a 'basket of benefits' not just wood or carbon credits.
2. A 'landowner friendly agreement' registered on title would not reduce the value of the property nor create a significant obstacle to the sale of the property.
3. A well designed program will attract a lot of landowner participation. Two people at the meeting in Woodstock (with the most expensive land) offered 50 and 200 acre parcels for planting. There were lots of volunteers at the meeting in Prince George BC as well.
4. The program should focus on the old 100 acre farm not on areas consolidated and operated by large farming enterprises. This is directly related to the opportunity or lack of other economic uses for the land.
5. Payments for opportunity costs will establish precedents that will be difficult to manage. It will lead to regional disparities within the program as well as distorting regional agricultural economies. The calculation of equitable opportunity cost payments will be difficult. Perceptions of a lack of equity will cause jealousies between landowners and between regions of the country. Program costs will rise. If there are 7-11 million ha of marginal/sub-marginal cleared land available in Canada there should be no need to pay opportunity costs for land to get enough for a very large program. Continued aging of the farmer population in Canada is an additional important contributing factor to the availability of land for an afforestation program.
6. The revenues should be shared according to the amount of the investment by the parties. Land values seem to vary much more than do plantation establishment costs. Kemptville -\$1000/ha; Barrie- \$2-3000/ha; Woodstock- \$6-8000/ha. Is the allocation of land by the landowner a "real investment"? The land will remain in the landowners' hands after the termination of the agreement. Both parties need appropriate returns on investment and the land owner obviously needs enough incentives to get into the program. What are these incentives?