

## **Appendix A – Detailed Review of Selected Taxation Incentives**

Table A1. Canadian Programs

<b>Tax-based Incentives</b>				
<b>Jurisdiction</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Success/Notes</b>
Quebec	Real Estate Refund Program (Programme de remboursement des taxes foncières)	Municipal tax reduction of up to 85% on forest management expenses	<ul style="list-style-type: none"> <li>Available to certified forest producers that own the land only.</li> <li>Activities have a pre-ordained financial value.</li> <li>Site preparation, seedling costs are eligible</li> <li>Eligible expenses greater than annual real estate taxes carried forward and used as credits for up to 10 years.</li> </ul>	<ul style="list-style-type: none"> <li>Acceptance rate requested from Government of Quebec</li> <li>Agricultural Tax Rebate –minimum of \$300 and minimum of 30% of gross agricultural income or 70% of property taxes. Must be a registered agricultural producer within the agricultural zone that has a gross income of more than \$150 / ha and total gross income of more than \$5000. (<a href="http://www.agr.gouv.qc.ca/publications/Programme-INTER2004-OK29-01.pdf">http://www.agr.gouv.qc.ca/publications/Programme-INTER2004-OK29-01.pdf</a>)</li> </ul>
Ontario	Managed Forest Tax Incentive Program (MFTIP)	Municipal Tax Reduction of 75% on qualifying lands	<ul style="list-style-type: none"> <li>To qualify lands must: be at least 4 ha acres in size; have a management plan approved by a registered plan approver; meet a definition of “forest cover”; and be re-approved every 5 years.</li> <li>Reduction in tax brings the rate for qualifying lands down to the same as for agricultural lands.</li> <li>Management objectives for lands can include: environmental protection; forest products; investment; recreation; wildlife; and others.</li> <li>PST not applicable on purchased stock</li> </ul>	<ul style="list-style-type: none"> <li>Program has over 10,000 participants with approx. 1.8 m ha.</li> <li>Benefits are greater for residents in southern area as tax rates are higher there.</li> <li>Definition of “forest” is based on trees/ha; plantations would qualify.</li> <li>Recent controversy regarding land assessment values has decreased the number of eligible properties</li> </ul>
Ontario	Conservation Land Tax Incentive	Municipal Tax reduction of	<ul style="list-style-type: none"> <li>Tax relief provided for owners of</li> </ul>	<ul style="list-style-type: none"> <li>40,000 property owners are eligible,</li> </ul>

## Tax-based Incentives

Jurisdiction	Program	Incentive	Description	Success/Notes
	Program (CLTIP)	100% on qualifying lands	<p>provincially significant wetlands, designated areas of natural and scientific interest, habitat for endangered species, Niagara Escarpment lands, or community conservation lands.</p> <ul style="list-style-type: none"> <li>Lands must be designated by Ministry of Natural Resources.</li> <li>Land owners must agree to maintain land in a natural state and not degrade it.</li> </ul>	<p>but only 14,000 participate:</p> <ul style="list-style-type: none"> <li>MNR thinks participation rate reflects reluctance of landowners to consent not to change their lands.</li> <li>MNR contacts landowners annually</li> <li>Landowners must re-submit applications annually, but MNR trying to change the rules so that agreements cover 5 yrs.</li> <li>Area covered – 200,000 ha</li> </ul>
Ontario	Farm Property Tax Class Rebate Program	Municipal Tax Reduction of 75% on qualifying lands	<ul style="list-style-type: none"> <li>Property must be assessed as farmland by municipal property assessment corporation.</li> <li>Property must be part of a farming business generating over \$7,000 gross income.</li> <li>“Farm income” as defined by Canada Revenue Agency includes tree farming and Christmas tree farming.</li> </ul>	<ul style="list-style-type: none"> <li>Should include afforested areas if they can be shown to be “tree farms”?</li> <li>Info on uptake not readily available.</li> </ul>
Manitoba	Ecological Tax Credit	Property Tax Credit (amt?)	<ul style="list-style-type: none"> <li>Incentive is intended to encourage farmers to return marginal agricultural land to a “natural condition”.</li> <li>Planting of trees should qualify as effort to return farm land to natural state.</li> </ul>	<ul style="list-style-type: none"> <li>Credit is referred to in 2001 budget and tax documents, but no other references to it have been found</li> <li>does it still exist?</li> </ul>
Manitoba	Land tax Assessment Categories	Municipal taxes rates	<ul style="list-style-type: none"> <li>There are several tax assessment categories for land depending on the productivity. Forest land has a low assessment rate.</li> <li>This is not an afforestation program per se, but could provide encouragement for tree planting.</li> </ul>	

### Tax-based Incentives

Jurisdiction	Program	Incentive	Description	Success/Notes
Saskatchewan	Land tax Assessment Categories	Municipal tax rates	<ul style="list-style-type: none"> <li>There are 4 categories of land for taxation purposes. Improved agricultural land; Unimproved agricultural land- which generally includes forested land; Residential land; Industrial land</li> </ul>	
Alberta	Land Tax Assessment Categories		<ul style="list-style-type: none"> <li>Agricultural and forest land is taxed at the same rate</li> </ul>	
B.C.	Property Taxes		<ul style="list-style-type: none"> <li>Unmanaged forest taxed at \$4.50 / \$1000</li> <li>Managed forest and agriculture taxed at \$0.50 / \$1000</li> <li>Rural residential land taxed at \$0.95 / \$1000</li> <li>Land classification based on zoning not land use. No incentive to reforest land zoned residential.</li> </ul>	

<b>Other incentives</b>				
<b>Jurisdiction</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Success/Notes</b>
Canada	Permanent Cover Program/Greencover	Direct Payments per ha – amts. differed by province.	<ul style="list-style-type: none"> <li>The Permanent Cover Program was a five-year program (1989–1994) that was offered to farmers in the Prairie provinces and the Peace River region of British Columbia.</li> <li>The new Greencover program is structured similarly and has a similar intent</li> <li>The main objective was to convert marginal lands under cultivation (Canada Land Inventory classes 4, 5, and 6) to permanent forage or tree cover.</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 15 000 farmers converted approximately 522 000 ha of marginal, erosion-prone land from annual crops to permanent cover under 10- or 21-year contracts.</li> <li>No indication of how much land was converted to forest vs. other permanent covers</li> </ul>
Prince Edward Island	Hedgerow and Riparian Zone Planting	Tree planting subsidies	<ul style="list-style-type: none"> <li>Year-old seedlings \$ 0.40/tree</li> <li>Two year-old seedlings \$ 1.00/tree</li> <li>Herbicides and other site prep at \$ .12/seedling</li> <li>Maximum of \$35,000 per farm.</li> <li>Agroforestry acceptable</li> </ul>	<ul style="list-style-type: none"> <li>Acceptance rate requested from Government of P.E.I.</li> </ul>
Quebec	Forestry Financial Support Program		<ul style="list-style-type: none"> <li>Minimum area 80 hectares</li> <li>Low interest loans (at residential mortgage rates) of up to \$500,000</li> </ul>	<ul style="list-style-type: none"> <li>Acceptance rate Requested from Government of Quebec.</li> <li><a href="http://www.financiereagricole.qc.ca/d/efault1024.html">http://www.financiereagricole.qc.ca/d/efault1024.html</a></li> </ul>
B.C.	Land-Base Investment Program		<ul style="list-style-type: none"> <li>Planting subsidies on backlog crown lands</li> </ul>	<ul style="list-style-type: none"> <li>Probably would not be considered afforestation under Kyoto.</li> </ul>

Table A2. Non-Canadian Programs

Tax-based Incentives					
Jurisdic.	Program	Incentive	Description	Success	Notes/ Applic. to Canada
Finland	Farm Income Tax Act	Tax incentive for afforested lands	<ul style="list-style-type: none"> <li>Afforested fields exempted from forest taxation schemes (treated like agriculture?)</li> <li>Initiated in 1967</li> </ul>		Similar to Ontario's MFTIP program
France	National Forestry Fund	Financial assistance and tax breaks (no details)	<ul style="list-style-type: none"> <li>Direct payments and various tax breaks for farmers converting agricultural land to forests (no details)</li> </ul>	Since inception, natural regen. and afforestation has averaged approx. 63,000 ha/yr	
Germany	Disaster Relief	Tax Relief	<ul style="list-style-type: none"> <li>Forest owners compensated for natural disasters in the form of tax relief</li> </ul>		Not really an afforestation incentive
Ireland	Tax exemptions	Tax exemptions	<ul style="list-style-type: none"> <li>Returns from forestry are tax free</li> </ul>		Possibly – this would require afforested land being kept in forest even though harvesting would occur.
Norway	Forest Trust Fund	Tax deferment, through a trust fund	<ul style="list-style-type: none"> <li>Small forest owners must contribute some portion of their forest revenues (5 to 25%) to a trust fund. Money is not taxed when paid into fund. When money is withdrawn and applied to long-term investments (including afforestation), a significant portion of the money can still be deducted from annual income taxes.</li> <li>Functions sort of like an RRSP</li> </ul>		Not an incentive for afforestation per se, but for good forest management. However, the notion of deferring tax to encourage planting may have merit.
Chile	Various	Payments and tax subsidies.	<ul style="list-style-type: none"> <li>Tax exemptions for plantations, and direct payments of up to 75% of the cost of reforestation</li> </ul>	Govt. spent \$150 m in subsidies in	How should incentives for other aspects of forest

### Tax-based Incentives

Jurisdic.	Program	Incentive	Description	Success	Notes/ Applic. to Canada
Chile	Laws to protect forest environment	Tax credits	<ul style="list-style-type: none"> <li>• Further payments available for additional silv. activities</li> <li>• Exemptions on property and inheritance taxes on reforested lands.</li> <li>• Special central Bank line of credit for reforestation</li> <li>• Planting subsidy removed in 1994</li> </ul>	20 year period prior to 2000, but this was responsible for catalyzing \$4 billion in investments.	management be linked to initial incentive for afforestation?
Costa Rica	Income Tax deduction Program	Income tax incentives	<ul style="list-style-type: none"> <li>• Recent new laws allow for one time tax credit for following activities: reforestation of fragile soils, marshes, etc; recovery and forestation activities for eroded non-arable dry soils; and sand due stabilization and forestation</li> <li>• Tax incentives targeted at large investors allowed them to deduct the cost of establishing and maintaining plantation investments from their income tax liability, provided that portion was invested in govt.-prescribed activities.</li> <li>• Tax grant valued at US\$800/ha</li> </ul>	<p>Incentives may have been so high as to encourage cutting of natural forest and then establishing plantations.</p> <p>Incentive did not address small landowners as only large landowners pay income taxes</p>	One time credits may not be as appealing as longer-duration incentives.
Costa Rica	tax incentives	1993	<ul style="list-style-type: none"> <li>• Above incentives modified to include small-medium land owners.</li> </ul>	10,000 –50,000 ha planted	Should there be separate incentives targeting large landowners/forestry companies from those targeting farmers/small landowners?
Costa Rica	Income Tax	Write-off of tax	<ul style="list-style-type: none"> <li>• Up to 16% of income tax liabilities can</li> </ul>		May be appealing to

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Jurisdic.	Program	Incentive	Description	Success	Notes/ Applic. to Canada
	Act 4465	liabilities	<p>be written off if invested in reforestation.</p> <ul style="list-style-type: none"> <li>Can be used by individuals and companies who own land</li> </ul>		landowners with liabilities, but would be more if liabilities could be written off for more than they were worth if invested in afforestation. → can this be done?
Costa Rica	Forestry Bonds (CAF)	Bonds used for tax payment	<ul style="list-style-type: none"> <li>Bond can be used to pay any kind of tax. Payment is made when investor provides proof that a plantation has been established</li> </ul>	600 businesses participated and approx. 38,000 ha reforested	Likely not applicable
Costa Rica	Fossil Fuel Tax (part of PSA program)	Tax payment to forest owners	<ul style="list-style-type: none"> <li>One-third of the tax on fossil fuels goes to forest owners, who may invest the payment in reforestation, management of natural forests, or forest protection.</li> </ul>	In 1997 and 1998, these funds were invested in reforesting 13.9% of the total planted area.	Likely not applicable
USA	General taxation policy	Capital gains treatment for timber	<ul style="list-style-type: none"> <li>Timber could be treated as a long-term capital gain for tax purposes starting in 1944. This measure applied to individuals and corporations; previously applied only to individuals who occasionally sold timber.</li> <li>Meant that only 40% of timber sale income was taxable</li> <li>Preferential tax treatment of capital gains ended in 1986, re-instated in 1996. Since improved under Bush government.</li> </ul>		Not really an afforestation incentive Capital gains treatment of farm woodlots exists under Canadian Tax policy; the same treatment is not available to non-farm woodlots
USA	General taxation policy	Tax credit for tree planting –	<ul style="list-style-type: none"> <li>For up to \$10,000/year of planting expenses, there is a 10% investment</li> </ul>	Between 1977 and present,	Similar credit could exist in Canada.

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<b>Jurisdic.</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Success</b>	<b>Notes/ Applic. to Canada</b>
Mississippi	Reforestation Tax Credit	both for reforestation and afforestation	<ul style="list-style-type: none"> <li>credit and 95% of expense is amortized over 8 years</li> <li>Started in 1980, continues to present</li> </ul>	<p>planting rate grew at 2.4% per annum; not sure how much is afforestation vs. reforestation</p> <p>Stumpage prices generally stable during this period</p>	Similar system could be applied in Canada
Ireland	Afforestation Grant and Premium Schemes	Tax incentives	<ul style="list-style-type: none"> <li>Applies to reforestation of agricultural, pasture, cutover or idle land.</li> <li>Only applies for individuals, groups or associations; companies not eligible.</li> <li>Tax credit is for 50% of the actual cost of approved reforestation practices or 50% of the average cost of approved practices as established by Miss. Forestry Commission, against the taxes imposed for the tax year in which the costs are incurred.</li> <li>Maximum of \$10,000 lifetime</li> <li>Costs included: seeds, seedlings, planting, site preparation</li> <li>Owners must have a reforestation plan prepared by a registered forester</li> <li>Planting grants received under the EU Forest Grant and Premium Scheme is exempt from Income Tax.</li> <li>Capital Gains Tax: The land is liable while the crop is exempt.</li> <li>Capital Acquisitions Tax: Transfers between parent and child are exempt up to a threshold. This was € 422,148</li> </ul>	Established in 1990	Having capital gains applicable to land, but not to crop would be new for Canada, but in theory it could work. Similar systems exist in forest tenure, where companies

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<b>Jurisdic.</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Success</b>	<b>Notes/ Applic. to Canada</b>
New Zealand	Incentives for the export of logs	Increased Exports Taxation Incentive (IETI) and Market Development Expenditure Scheme (MDES)	<ul style="list-style-type: none"> <li>in 2002.</li> <li>Established in 1990</li> <li>In 1959, the government recognized the value of creating a log export industry</li> <li>Two early export incentives introduced in Income Tax Act in early 1960's, not specific to forestry. One was a reduction in tax paid on the increased revenue from exports (IETI); the second was a deduction based on the increase in export revenue (MDES)</li> <li>Export Development Grants introduced in 1975 (a 40% deduction of costs incurred to promote exports) and New Market Increased Export Taxation Incentive allowed another 15% deduction equal to 15% of the increase in export sales to new markets.</li> <li>Another five export incentive measures from the early 1980's are listed, ranging from convertible loans, grants, tax deductions to increased depreciation on machinery purchased to produce goods for export. All export incentives were terminated in mid-late 1980's, including those on agriculture.</li> <li>Immediate full deduction of plantation establishment expenses from taxable income eliminated in 1983.</li> <li>In 1984, forest establishment costs</li> </ul>	<p>Tariffs on log imports were low to minimal but were higher (from 20-40%, with lower rates from developing countries, Australia and Canada) on chips, HW pulp, boards and plywood.</p> <p>Price spike of 1993-94 led to surge in log exports; government resisted calls to limit exports. Note that export of logs of indigenous species is controlled.</p>	<p>have ownership rights to trees, but not land.</p> <p>Not really afforestation incentives. While increasing export incentives may lead to increased planting, the link is likely tenuous given that private landowners are of interest here.</p>
New Zealand		Deductibility of plantation establishment costs		<p>Private land planting peaked in 1985 at 36,000 ha then fell to 15,000</p>	<p>Could be applied in Canada</p>

### Tax-based Incentives

Jurisdic.	Program	Incentive	Description	Success	Notes/ Applic. to Canada
Australia	New Taxation System, introduced July 1 2000 by the Australian Taxation Office	Favourable tax treatment of plantation costs; 12 month rule Non-commercial losses (NCL); Capital gains	<p>became fully deductible against income; this measure was removed again in 1987 and restored in 1991.</p> <ul style="list-style-type: none"> <li>Reduction of tax costs from plantation establishment through transport and manufacture</li> <li>Immediate deduction for select prepaid expenses in a plantation mgmt agreement; must be completed within 12 months of start; does not apply when prepaid expenses relate to a plantation under tax shelter rules</li> <li>There are a number of very favourable treatments of capital gains from plantations</li> </ul>	<p>ha in 1992, rose to 50,000 ha in 1993 and 98,000 ha in 1995.</p> <p>On July 1, 2000, government ended "13 month rule", and required activities to be undertaken in same fiscal year as pre-payments collected. This led to high planting rate in 2000, sharp decline in planting rate in 2001 and collapse of one public company; "12 month rule" announced in Oct 2001 and passed in March 2002 (lited).</p>	
Australia	Landcare deduction (1985); landcare offset (1997)		<ul style="list-style-type: none"> <li>Immediate deduction for expenditures related to soil conservation;</li> <li>Offset allows claim of 30% of capital expenditures for soil conservation, etc. (alternative to landcare deduction)</li> </ul>		Soil conservation measures could include planting, but likely not directly relevant to afforestation incentives

<b>Other Incentives</b>					
<b>Juridic.</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Dates</b>	<b>Success and Notes</b>
United States	Forestry Incentives Program	Federal Government direct payment of costs.	<ul style="list-style-type: none"> <li>Established by 1996 Farm Bill.</li> <li>Federal government pays 65% of the costs of tree planting and stand improvement to a maximum of \$10,000 per year if the landowner agrees to maintain practices for at least 10 years.</li> <li>Intended to take marginal agricultural land out of production.</li> <li>Program has run since 1996, although earlier versions of the program extend back to 1974</li> </ul>	From 1974 to 1994, FIP cost-shared more than \$200 million, for approx. 3.32 million acres of tree planting, 1.45 million acres of stand improv. and 0.27 million acres of site preparation on non-industrial private forests.	Incentives for both planting and stand improvement applicable to Canada - afforestation incentives should cover more than establishment
United States	Stewardship Incentives Program	Federal Govt. direct payment of costs and provision of technical assistance	<ul style="list-style-type: none"> <li>Established by 1996 Farm Bill.</li> <li>Funds and technical assistance are provided to landowners who develop Forest Stewardship Plans (including afforestation). Federal gov't covers 75% of the costs up to \$10,000 per year if the landowner agrees to maintain the planned practices for 10 years.</li> <li>Intended to take marginal agricultural lands out of production.</li> <li>Program has run since 1996</li> <li>Helps farmers retire environmentally sensitive cropland for 10 years in return for rental and cost-sharing payments and technical assistance.</li> </ul>	Between 1991-99, 150,964 hectares (372,881 acres) of trees were planted. The cost of the program during this same period was about \$23.5 million.	Incentives for good stewardship should be part of afforestation incentive program
United States	Conservation Reserve Program (CRP)	Federal Govt. direct payment of costs. Govt. funds		As of October 1999, 12.5 million ha of cropland were	Although funds received are partially tax deductible, the main feature of this program is cost-sharing arrangement

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<b>Jurisdic.</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Dates</b>	<b>Success and Notes</b>
Europe	Directive 2080/92	received are partially tax-deductible	<ul style="list-style-type: none"> <li>Federal govt provides up to 50% of the costs of a cover crop to a maximum of \$10,000 per year.</li> <li>Funds received under these programs are partially tax-deductible.</li> <li>Enacted in 1985 and expanded in 1990</li> <li>An EU initiative in which the European Agricultural Guidance and Guarantee fund finances up to 75% of the costs of reforestation of poor agricultural lands. The directive is comprised of many individual programs which include: Aid for afforestation, aid for investment in new plantations, premiums for maintaining new plantings, permanent protection of forest against clearing. Fast growing species only funded on farm land. Hardwood funded on all land.</li> </ul>	<p>enrolled in the CRP</p> <p>1 million ha of agricultural land were afforested between 1994 and 1999</p>	<p>Only somewhat applicable to present interest; main intent is to retire poor agricultural land although incentives are provided for several stages of forest management.</p>
Belgium Flanders	2080/92 regulation Joint programmes for public and private owners	Direct financial instruments	<ul style="list-style-type: none"> <li>Support for planting, income compensation, and extra support for afforesting marginal agricultural land.</li> <li>Variable payments depending on species (900-3700 Euro/ha)</li> <li>200 - 500 Euro/ha/annum extra support for the first five years for maintenance, depending on the tree species used</li> <li>minimum area of 0.5 ha</li> </ul>	<p>Over the period 1997 - 2000 343 private owners and 85 public owners benefited from the programme</p> <p>1997 – 2000 Output: 662 ha</p>	

Other Incentives					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
Belgium Flanders	National forest assisting programs	Direct financial instruments	<ul style="list-style-type: none"> <li>land must have existed as farmland before July 1992,</li> <li>the afforested land must stay afforested for a period of at least 20 years time</li> <li><b>Source:</b> EFI: EVALUATING FINANCING OF FORESTRY IN EUROPE Country Level Report BELGIUM: JOINT PROGRAMMES FOR PUBLIC AND PRIVATE OWNERS 1997 - 2000</li> </ul>	<p>Initial target: 12,000 ha</p> <p>Considerable underachievement relative to target</p>	
Belgium Walloon Region	National forest assistance programs	Direct financial instruments	<ul style="list-style-type: none"> <li>500 Euro/ha for poplar cultivars up to 2500 Euro/ha for indigenous species (as pedunculata oak), depending on the tree species used.</li> <li>total afforested area should be at least 0.5ha.</li> <li>Same source as above</li> </ul>	<p>Between 1991 - 1999 285 private forest owners obtained financial support for afforestation, 1832 private forest owners used support for reforestation</p> <p>Considerable underachievement relative to targets</p>	
Belgium Walloon Region	National forest assistance programs	Direct financial instruments	<ul style="list-style-type: none"> <li>Variable rates by species, with assistance only provided for some species (42 total)</li> <li>for conifers, financing only if 10 % of the regenerated area are regenerated with broadleaved species</li> </ul>	<p>over the period 1991 - 1999 1249 private land owners obtained financial support</p>	

Other Incentives					
Juridic.	Program	Incentive	Description	Dates	Success and Notes
Belgium Walloon Region	Public forestry sector: afforestation of new forest land and reforestation after cuttings	Direct financial instruments	<ul style="list-style-type: none"> <li>in case of planting, the minimum and maximum amount of plantation per are for each tree species should be respected</li> <li>regeneration of indigenous species are subsidized for cultural reasons or to enhance biodiversity</li> <li>agricultural land: minimum area afforested: 1 ha</li> <li><b>Source:</b> EFI: EVALUATING FINANCING OF FORESTRY IN EUROPE, Country Level Report BELGIUM: NATIONAL FOREST ASSISTANCE PROGRAMS</li> <li>practices that can be subsidized are: soil preparation before planting or natural regeneration, purchasing, transporting storage, planting, game protection, cleaning and maintenance, the first clearance by hand or mechanical, except for chemical clearance.</li> <li>the financial support is calculated on the costs, limited to 3470 Euro/ha</li> <li>Very similar financial incentives and restrictions to above program</li> <li>Same source as above</li> </ul>	<p>over the period 1990 – 1999</p> <p>1 province, 113 municipalities, around 7 health care organisations and another 6 other public institutions did use this financial support</p> <p>It is not clear, which part of this program refers to afforestation/reforestation according to the</p>	

Other Incentives					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
Denmark	The Forest Act	Direct payment subsidies	<ul style="list-style-type: none"> <li>Act has a goal to double the forest area over one tree-generation (5000 ha / yr). Subsidies are given for nature conservation in private forests, afforestation particularly for urban, recreation broad-leaf forests and forest improvement and afforestation on private land. Also planting subsidy of up to 75% of direct costs (broadleaf in target areas).</li> </ul>	<p>Kyoto Protocol</p> <p>30 -35% of target by 2000.</p> <p>Competition for agricultural uses constrained implementation.</p> <p>Disincentive EU agricultural subsidies.</p>	
France	Afforestation/ reforestation- Law of September 30, 1946 (creation of the National Forestry Fund)	<ul style="list-style-type: none"> <li>subsidies</li> <li>Low-interest loans</li> <li>Indexed and postponed loans</li> </ul>	<ul style="list-style-type: none"> <li>Usually 20 – 40 % of the overall expenditures</li> <li>interest rate ~ 0.25% covering up to 80 % of the expenditures (for individual private owners), 100 % for communes and joint private owners</li> <li>loans repaid to the bank when the crop is realised</li> </ul>	<p>Over the period 1990 – 1998 more than 6,600 public owners have benefited from the programme (= more than 50 % of the French communes)</p> <p>over the period 1990 – 1998 more than 35,500 private owners benefited from the programme (almost every private owner has been helped</p>	<p><b>Efficiency:</b>            average 1990 – 1998:            Financial value of output: 6,6 M Euro/ann            Administrative costs: 2,4 M Euro/annum</p>

### Other Incentives

Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
Finland	Field Reservation Act	Direct payment of subsidies	<ul style="list-style-type: none"> <li>Subsidies paid for suspension of agricultural production in afforested fields for up to 15 years.</li> <li>Initiated in 1969; subsidy increased in 1977</li> </ul>	through this programme) Program reached 86% of target objective  Goal in 1995 was to afforest between 10,000 and 20,000 ha / yr. Actual results were 42% of goal. Currently Govt. has abandoned its afforestation programs	Shows pattern that activity very high at start of a program and falls off dramatically thereafter.
Finland	Forest Improvement Act	Direct payment of subsidies	<ul style="list-style-type: none"> <li>Allows for 100% subsidy for the cost to afforest areas unsuitable for agriculture.</li> <li>Initiated in 1969</li> </ul>	Finland	
Finland	Act Concerning Agricultural Production Regulation and Balancing	Direct payment	<ul style="list-style-type: none"> <li>Payment for costs of afforestation to farmers who agree to afforest fields.</li> <li>Initiated in 1977</li> </ul>		
Germany	Investment subsidies within the Joint Scheme for the	Direct payment of 100% of costs	<ul style="list-style-type: none"> <li>Federal and State governments share complete costs for promotion of forest management on private lands. Afforestation is among the practices covered.</li> </ul>		Afforestation rate decreased as available land was used up.

### Other Incentives

Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
Germany	Improvement of Agricultural Structure and Coastal Protection Afforestation bonus	Direct payments	<ul style="list-style-type: none"> <li>Amounts and schemes vary by State. Compensation to farmers and forest owners for loss of income due to set-aside land (up to 20 years). Amounts also vary depending on soil quality and tree species.</li> <li>1991-present</li> </ul>		Incentive varies depending on soil quality, and tree species
Ireland	Forest Operational Programme	Compensation payments	<ul style="list-style-type: none"> <li>Annual premium to compensate for loss of farm income due to afforestation. Negative impacts due to planting of bogs and unsuitable land</li> </ul>	From 1990-1997, 143,00 ha reforested	Negative impacts due to planting of bogs and unsuitable land (estimated 20% of total)
Ireland	Revised granting mechanisms	Government grants, premiums and tax-holidays	<ul style="list-style-type: none"> <li>Attractive grants and premiums to promote afforestation. As well, returns from forestry are tax-free.</li> <li>Grants of C\$3100 to C\$ 8200 / ha paid for afforestation. 75% upon establishment. 25% paid after 4 years. As well, premiums of C\$185 – C\$275 / ha / year paid to non-farmers and C\$300 – C\$700 / ha / year paid to farmers. 1992- present (?)</li> </ul>		
Ireland	Native Woodland Scheme Element 2:	Direct financial instruments for the establishment	<ul style="list-style-type: none"> <li>Grant payment is dependent on the achievement of the objectives set out in approved plan.</li> <li>Non-native species are excluded under the scheme.</li> </ul>	Introduced in 2002.	

Other Incentives					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
	Native Woodland Establishment	of new native woodlands	<ul style="list-style-type: none"> <li>• Operations eligible for funding: surveys, management plan prep.; site prep, forest protection (fencing, etc.), clearance of exotic species, purchase of native stock, planting, regen, maintenance</li> <li>• A second instalment of 25% of total is paid four years after the first instalment, on verification of successful establishment and the achievement of the required stocking levels and species mix specified in the management plan,                             <ul style="list-style-type: none"> <li>• Payments for oak are higher</li> <li>• Payments to farmers are higher than to non-farmers</li> <li>• Premiums are payable for 20 years in the case of farmers and 15 years in the case of non-farmers.</li> </ul> </li> </ul>		
Ireland	Afforestation Grant and Premium Schemes	Afforestation grants , Forest premiums,	<p><b>Afforestation Grants</b></p> <ul style="list-style-type: none"> <li>• Grants cover the costs associated with plantation establishment payable after planting</li> <li>• payment rate determined by the type of land and the species planted.</li> <li>• The second instalment is payable four years after the date of planting based on a successful inspection</li> </ul> <p><b>Annual Forest Premium:</b></p> <ul style="list-style-type: none"> <li>• To compensate farmers and non-farmers for the loss in income earning potential from the</li> </ul>	Established in 1990	

<b>Other Incentives</b>					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
Norway	Forest Protection Act	Direct payments	<ul style="list-style-type: none"> <li>afforestation of their land</li> <li>Payable for a period of up to 20 years in the case of farmers or 15 years for non farmers.</li> <li>Payment rate determined by land status and the species planted.</li> </ul> <p><b>Minimum plantation areas:</b></p> <ul style="list-style-type: none"> <li>A conifer plantation must be not less than 1 hectare.</li> <li>A broadleaf plantation must be not less than 0.1 hectare.</li> </ul>		
Sweden	Agricultural Realignment Program	Grants	<ul style="list-style-type: none"> <li>Provide for Government funding of planting to around 30% (but up to 80%) of costs.</li> <li>Initiated in 1965</li> <li>Grants provided to afforestation of arable land.</li> </ul>	14,000 ha afforested between 1990-1993	
Sweden	Forestry Act	Legal responsibility	<ul style="list-style-type: none"> <li>Disused agricultural land must be reforested within three years of falling into disuse</li> </ul>		
United Kingdom	The English Woodland Grant Scheme (EWGS) Woodland creation grants (WCG)	Direct financial instruments	<ul style="list-style-type: none"> <li>The use of natural regeneration or direct seeding for woodland creation will be supported using the same WCG grant and same payment structure:               <ul style="list-style-type: none"> <li><b>5 Woodland categories</b> (standard, small standard, native, community, special broadleaved)</li> <li><b>Prerequisites:</b> special</li> </ul> </li> </ul>	<p>A new programme, starting 2005</p> <p>A proposed change to the current WGS grants is that</p>	

Other Incentives					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
United Kingdom	The English Woodland Grant Scheme (EWGS) Farm woodland payment (FWP)	Direct financial instruments	<p>conditions for stems per net hectare required at establishment and spacing</p> <ul style="list-style-type: none"> <li>▪ Depending on wood size, tree species used, purpose (i.e. designed for public access)</li> <li>▪ variable payment rates for broadleaves and conifers</li> <li>▪ extra payments provided for Woodland establishment within 5 miles of 100,000 people or within the Community and National Forest areas or Woodland establishment with agreement to provide for public access and where there is an identified need</li> <li>▪ payments in two instalments, with 2<sup>nd</sup> paid if results are satisfactory</li> <li>▪ Obligation period: Normally 10 years (in case of new woodland intended for public access that access must be allowed for 30 years)</li> </ul> <p>Annual payments to offset loss of income as a result of converting agricultural land to woodland with WCG support under EWGS.</p> <ul style="list-style-type: none"> <li>• The annual income forgone payments will be made over 10 or 15 years (depending on composition of woodland)</li> </ul>	<p>unimproved land outside Less Favoured Areas will not be eligible for WCG. This change supports the protection of these areas and reduces the risk of their loss.</p> <p>Source:  <a href="http://www.forestry.gov.uk/pdf/fcconsultationdoc1.pdf/\$FILE/fcconsultationdoc1.pdf">www.forestry.gov.uk/pdf/fcconsultationdoc1.pdf/\$FILE/fcconsultationdoc1.pdf</a></p>	Benefit to offset loss of income - could this be incorporated into a tax incentive scheme?

<b>Other Incentives</b>					
Juridic.	Program	Incentive	Description	Dates	Success and Notes
United Kingdom	Farm Woodland Premium Scheme	Annual Payments	<ul style="list-style-type: none"> <li>• payment varies for land class - most for arable land, less for other improved land, and least for unimproved land</li> <li>• Agreement holders must undertake to maintain the woodland concerned for 30 years in case of mainly broadleaved plantings and 20 years in the case of mainly conifer plantings.</li> <li>• The minimum total area per application will be 1 hectare per farm business but this need not be planted as a single block.</li> <li>• Payments rates and land categories subject to review</li> <li>• Encourages farmers to convert productive agricultural land. Makes annual payments to offset foregone agricultural income.</li> <li>• Payments are for 10 or 15 years. To receive the latter, afforestation must use broadleaf trees or Scots pine within the native range of Scots pine. Wood must not be harvested for 30 years. Amount of payment depends on quality of land reforested.</li> <li>• Amount of payments are reviewed every five years to see if income is comparable to agricultural land</li> <li>• Grants for woodland expansion. Annual payments as above and</li> </ul>	will replace the current FWPS (below)	
United	Scottish	Direct Payments of			

Other Incentives					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
Kingdom	Forestry Grants Scheme	costs	<p>afforestation is subsidized between 60% and 90% of a standard cost.</p> <ul style="list-style-type: none"> <li>Emphasis on native woodlands on wet, nutrient poor sites.</li> </ul>		
Austria	Sonderrichtlinie betreffend die Umsetzung der SRL C IV and Austrian Programme for the Development of Rural Areas	Direct financial instruments for the afforestation of agricultural land	<ul style="list-style-type: none"> <li>60 % of the overall expenditures will be paid as well as an annual premium for compensation of income loss</li> <li>Only applicable in regions with low forest cover (Burgenland, Styria, Lower Austria)</li> <li>A fixed sum is paid, depending on the tree species planted (low for conifers, high for broadleaved species)</li> <li>The subsidies are paid for a maximum of 20ha/annum</li> <li>Afforestation has to be evaluated by a nature conservation agency</li> </ul> <p>Source: <a href="http://www.lebensministerium.at">www.lebensministerium.at</a></p>	As almost half of Austria is already covered with forest, afforestation will hardly lead to much further carbon sequestration.	
Poland	Act on Forestry	Direct financial instruments as well as lower taxes after four to five years for the afforestation of marginal agricultural land	<ul style="list-style-type: none"> <li>The incentive can be claimed if the land is either                             <ul style="list-style-type: none"> <li>infertile</li> <li>of low fertility</li> <li>flooded from time to time</li> <li>degraded</li> <li>or if it has a slope of at least 15 %</li> </ul> </li> <li>The minimum area afforested must be 0.4 ha, the maximum area subsidized is 30 ha</li> <li>Species and density standards</li> </ul>	The Act on afforestation of marginal agricultural land was valid between 2001 and 2004.	The afforestation

### Other Incentives

Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
Chile	Various	Payments and tax subsidies.	<ul style="list-style-type: none"> <li>defined in overall directions.</li> <li>Afforestation defined as 70% land cover with trees</li> <li>Payments/ha vary with area afforested</li> <li>Higher payments if afforestation has led to cessation of agricultural activity by the owner</li> <li>If the forest is damaged by the owner, payment is stopped. The owner is forced to give back more than what he got</li> <li>After four to five years, the land is considered forest and lower taxes apply</li> </ul>	<p>programme was very successful. There is no information about how many people have used it, but the government went out of money to pay more grants – so the initial target was more than reached.</p>	<p>Govt. spent \$150 m in subsidies in 20 year period prior to 2000, but this was responsible for catalyzing \$4 billion in investments.</p>
Costa Rica	Banking system loans	Low interest “soft” loans	<ul style="list-style-type: none"> <li>Tax exemptions for plantations, and direct payments of up to 75% of the cost of reforestation</li> <li>Further payments available for additional silv. activities</li> <li>Exemptions on property and inheritance taxes on reforested lands.</li> <li>Special central Bank line of credit for reforestation</li> <li>Planting subsidy removed in 1994</li> <li>National banking system established soft loans for reforestation with an 8% interest rate and 10 year grace period. Payment periods as long as 30 years, depending on the species planted</li> </ul>		

<b>Other Incentives</b>					
<b>Jurisdic.</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Dates</b>	<b>Success and Notes</b>
Costa Rica	Forestry Loan Certificates (CAFA)	Bonds for plantation establishment	<ul style="list-style-type: none"> <li>This is a redeemable bond for small landowners with plantations of less than 25 ha. The bond was worth US\$520 per ha with 50% paid upon confirmation of contract and the remainder spread over next 4 years.</li> </ul>		
Costa Rica	Fondo de Desarrollo Forestal (FDF) grant	Payment of reforestation costs	<ul style="list-style-type: none"> <li>Similar to CAFA. FDF pays the cost for the first 5 years of plantation activities. Requires participation of local farmer organizations. Organizations receive 70% of reforestation costs on the assumption that the remaining 30% of the cost will be contributed in the form of farmer's labour.</li> </ul>		
Costa Rica	Payment for Environmental Services (PSA)	Direct Payments	<ul style="list-style-type: none"> <li>Landowners compensated for services that forests provide to the national and global community.</li> <li>Landowners receive compensatory payments for:               <ul style="list-style-type: none"> <li>Reducing greenhouse gas emissions (by fixing, reducing, binding, storing and absorbing them),</li> <li>Protecting water for urban, rural or industrial use,</li> <li>Protecting biodiversity to conserve it and ensure its sustainable use for scientific and pharmaceutical purposes, and</li> <li>Protecting ecosystems, forms of life, and natural beauty for</li> </ul> </li> </ul>		

<b>Other Incentives</b>					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
USA	Soil Bank Program	Direct payments	<p>tourism and scientific purposes.</p> <ul style="list-style-type: none"> <li>US Dept of Agriculture paid part of establishment costs and an annual amount of \$10 - \$12 /acre for ten years</li> <li>Program was designed to take land out of agricultural production and put permanent cover on it – trees or grass</li> <li>Ran from 1956 to 1960</li> </ul>	<p>880,000 ha of private croplands were planted, mostly in the US South</p> <p>Program driven by desire to reduce surplus agricultural production and reduce federal govt agricultural subsidies</p>	
USA	Forest Incentives Program	Cost share funding	<ul style="list-style-type: none"> <li>Cost share for tree planting and stand improvement</li> <li>In 1996, federal program enlarged and broadened the Stewardship Incentive Program, that promotes stewardship of multiple forest resources.</li> <li>18 states also have cost share programs, sharing from 50 -75% of tree planting costs</li> </ul>	<p>Cost sharing appears to have stimulated afforestation, but it is not clear how much of the cost share planting was afforestation vs. reforestation</p> <p>About 40% of non-industrial private planting was cost-share from 1951 - 96</p>	
USA	Conservation	Cost share	<ul style="list-style-type: none"> <li>Federal govt provides 50% of planting/ establishment costs to</li> </ul>	<p>920,000 ha have</p>	

<b>Other Incentives</b>					
<b>Jurisdic.</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Dates</b>	<b>Success and Notes</b>
	Reserve Program	funding	<p>retire land from agricultural production</p> <ul style="list-style-type: none"> <li>Started in 1986</li> <li>In 1990, a Forest Stewardship Program started, in which federal and state forest staff provide technical advice and plan preparation – directed at non-industrial private landowners</li> </ul>	<p>planted under this program (probably from 1986 to 1999, which seems to be date of most recent info), largest area planted under any cost share program during this period</p>	
New Zealand	Forestry Encouragement Loans	Low interest loans	<ul style="list-style-type: none"> <li>Loan rate of (5%) for up to a twenty year period to cover establishment costs.</li> <li>Costs of establishment, including tending, spent within a five-year establishment period, were eligible.</li> <li>Land area between 5 and 100 acres;</li> <li>Half of loan and interest refunded after 20 years if plantation successful.</li> <li>Government tinkered with program continuously. Two years after start, interest rate was lowered to 3% and interest charged only on non-refundable half of loan; 100 acre limit removed; municipal governments became eligible</li> <li>Replaced after 7 years by a grant program for individual landowners and small companies; municipal</li> </ul>	<p>Nearly 200 Loans were approved over the 20 years of the Grant scheme, with 20,000 ha planted.</p>	

<b>Other Incentives</b>					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
New Zealand	The future forests programme	Tradable Kyoto Protocol compliant emission units	<p>governments remained eligible for loans.</p> <ul style="list-style-type: none"> <li>• Forest owners (especially of largely marginal land) who establish new permanent 'non-harvest' commercial forest sinks will receive fully tradable Kyoto Protocol compliant emission units in proportion to the carbon sequestered in their forests</li> <li>• The land must not have been covered in forest as at 31 December 1989</li> <li>• The new forest must be direct human induced</li> <li>• Emission units will be free to sell to whomever the landowner wishes</li> <li>• Amount of units received will be equal to the increased CO<sub>2</sub> stored in the forest for the period between 2008 and 2012</li> <li>• It is anticipated that companies or countries with obligations under the Kyoto Protocol may be interested in purchasing emissions units.</li> <li>• Contracts will be in perpetuity but will be able to be changed with the mutual consent of the Parties (landowner and the Crown)</li> <li>• The program will get started in 2004</li> <li>• After 35 years and on a continuous canopy basis, trees can be harvested</li> </ul>	<p>Source:  <a href="http://www.maf.govt.nz/mafnet/rural-nz/sustainable-resource-use/climate/">http://www.maf.govt.nz/mafnet/rural-nz/sustainable-resource-use/climate/</a>   <a href="http://www.climateexchange.govt.nz/policy-initiatives/sink-credits.html">http://www.climateexchange.govt.nz/policy-initiatives/sink-credits.html</a></p>	

<b>Other Incentives</b>					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
New Zealand	Forestry Encouragement Grants	Tree planting grants	<ul style="list-style-type: none"> <li>• Clear-fell plantation forests are not included</li> <li>• the landowner will be required to replace emission units for the CO<sub>2</sub> released, plus make a penalty payment if the forest was harvested for sale outside of the allowable limits.</li> <li>• There are no restrictions on eligible species.</li> <li>• The program is principally designed to allow greater economic benefit to be derived from land, especially marginal land.</li> </ul>	Over the 13-year life of the program, nearly 3,000 grants were made, resulting in 100,000 ha planted.	
			<ul style="list-style-type: none"> <li>• Began in 1970.</li> <li>• Cash grants would be paid for up to 50% of the establishment costs on approved planting plans, for individuals, trusts, small companies whose annual qualifying expenditure was less than \$200,000.</li> <li>• Maximum grant of \$750/ha</li> <li>• Minimum area of 2 ha.</li> <li>• Per hectare financial limits removed in 1980.</li> <li>• In 1982, gov't introduced a simplified grant program and eliminated forest encouragement loans</li> <li>• Terminated in 1984.</li> </ul>		

<b>Other Incentives</b>					
<b>Jurisdic.</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Dates</b>	<b>Success and Notes</b>
Australia	Commonwealth Softwood Forestry Agreements (CSFA)	Loans provided to State gov'ts at favourable rates to establish and care for softwood plantations	<ul style="list-style-type: none"> <li>Eliminated deductibility of forestry expenditures from taxable income.</li> <li>General purpose of policy at this time was to become nationally self-sufficient in softwood; focus was on softwoods to replace imports and native forest harvesting</li> <li>Under Softwood Forestry Agreement Acts, Commonwealth was committed to provision of low-interest loans to States</li> <li>No interest charged for first 10 years, repayment over 20 years starting in year 15; 35-year cycles coincides with rotations</li> <li>Planting and tending monitored by Australian Forestry Council</li> <li>CSFAs were offered from 1967 to 1982</li> <li>No incentives offered to private sector at this time; majority of private plantings were of <i>P radiata</i>.</li> </ul>	<p>Plantation area rose from 170,000 ha to nearly 900,000 ha; private sector planted 10,000 ha/yr in late 1970's, mainly for industrial pulp and paper</p> <p>Total expenditure was \$78 million (\$390 million in 2002 dollars)</p> <p>Expansion was accompanied by expansion of markets, infrastructure, R &amp; D, and risk reduction.</p>	
Australia	National Afforestation Program; in 1989 replaced by Save the Bush and One Billion Trees programs		<ul style="list-style-type: none"> <li>Purpose was to expand hardwood plantations, assist in land rehabilitation and afforestation</li> <li>Targeted to State gov't and large private growers; did not address underlying institutional obstacles or do much for smaller, non-industrial landowners</li> <li>Established in 1987</li> </ul>	<p>Program cost \$15 million (Aus) over first five years (1987 – 92);</p>	

<b>Other Incentives</b>					
Jurisdic.	Program	Incentive	Description	Dates	Success and Notes
Australia	National Forest Policy Statement (1992)		<ul style="list-style-type: none"> <li>Subsequent programs had sharper focus on biodiversity</li> <li>Policy statement that guides subsequent approaches – recognizes long-term nature of plantations and need for security</li> </ul>		
Australia	Bushcare Programme Part of Natural Heritage Trust <sup>1</sup>		<ul style="list-style-type: none"> <li>Aggregation of other programs</li> <li>Natural Heritage Trust restructured in 2002 to provide more focus on environmental benefits, funding raised</li> </ul>	funding totaled \$350 million from 1997 – 2002	
Australia		Removal of export controls	<ul style="list-style-type: none"> <li>Progressive removal of export controls on unprocessed wood from plantations (logs and chips) after review of forestry in 1990</li> </ul>		
Australia	National Farm Forestry Programme	Annuities	<ul style="list-style-type: none"> <li>Intended to encourage addition of tree growing into farming systems; promoted for diversification benefits and also benefited investors in annuity schemes and with plantation investments</li> <li>Operated between 1996 and 2001</li> <li>Effectiveness reduced because program did not overcome initial cost req'ts and long time to maturity of investments; uncertainty over future markets and tax rates, and general lack of awareness</li> </ul>	Between 1995-99, establishment of farm forestry plantations rose from approx 10,000 ha to 23,000 ha	
Australia	Victoria State Govt. Farm	Low interest loans	<ul style="list-style-type: none"> <li>Ran from 1967 to 1992</li> <li>Low interest loans with payments</li> </ul>	A total of 8,300 ha planted during	

<b>Other Incentives</b>					
<b>Jurisdic.</b>	<b>Program</b>	<b>Incentive</b>	<b>Description</b>	<b>Dates</b>	<b>Success and Notes</b>
	Forestry Programme		deferred for first 13 years, for planting softwood	the 15 years, administrative costs were high Some participants had difficulty with repayments when unable to sell thinnings	
Australia	Plantation for Australia: the 2020 vision Partners include state and national govts, Plantation Timber Assn of Aust., Aust. Forest Growers, Nat'l Assn of Forest Industry		<ul style="list-style-type: none"> <li>• Released in 1997</li> <li>• Designed to create internationally competitive plantation growing and processing industry, market oriented with majority of participation from private sector</li> <li>• Intention is to treble plantation area from 1.1 million ha (1997) to 3.3 million ha</li> <li>• Approach is increase land availability, get incentives right, improve information flow, and establish private plantation culture.</li> </ul>	Vision reviewed in 2002 and revision increased emphasis on social and environmental benefits, reducing Aust net emissions of greenhouse gas, contribution to rural employment, and contribution to foreign exchange	