



TreeSmart Australia Pty Ltd

PO Box 363
Alexandra 3714
Victoria Australia
ABN 14 117 830 976
Phone: 03 5774 7617
website: www.treesmart.com.au
email address: info@treesmart.com.au

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Carbon Pollution Reduction Scheme Green Paper Submission
Department of Climate Change
GPO Box 854
Canberra ACT 2601,

CPRS Green Paper Submission.

This submission is made in response to the Government's Green Paper on the Carbon Pollution Reduction Scheme, and the Discussion Paper on Detailed Design Issues relating to Coverage of Reforestation. Since most of the issues covered herein are related to Reforestation, we have taken advantage of the later closing date for submissions on the Reforestation Discussion paper, even though some of the points refer specifically to issues raised in the Green Paper itself.

None of the information in this submission is considered confidential, and the submission may therefore be published on the Department of Climate Change website.

We appreciate the opportunity to comment on these important developments, and look forward to future actions in these areas.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Tony Richardson".

Dr. Tony Richardson
Director, TreeSmart Australia

A Submission by TreeSmart Australia Pty Ltd

on the

Carbon Pollution Reduction Scheme Green Paper and the Discussion Paper on Detailed Design Issues relating to Coverage of Reforestation

Author: Dr. Anthony J. Richardson, Director, TreeSmart Australia

Overview

This submission is made in response to the Government's Green Paper on the Carbon Pollution Reduction Scheme, and the Discussion Paper on Detailed Design Issues relating to Coverage of Reforestation. Most of the issues covered herein are related to Reforestation, and the issues raised in the Reforestation Discussion Paper, but some of the points refer specifically to issues raised in the Green Paper itself.

The topics addressed in this submission include:

- Coverage of forestry in the CPRS
- Eligible forests criteria
- Harvested Wood Products issues
- Eligible parties
- Offsets vs Permits
- Voluntary offset schemes
- Methods of accounting
- Capping of liabilities
- Establishment of a base year
- Reporting issues
- Succession issues

Coverage of forestry in the CPRS

It appears highly likely that Forestry will be included as a covered sector, on an opt-in basis, from the commencement of the CPRS in 2010. For those foresters who decide to opt-in, they will be responsible for their

net emissions from 2010 onwards. Since forestry is expected to have more sequestration than emissions, this will mean that the sector, as a whole, will gain a financial advantage from opting into the CPRS. However, the voluntary opt-in nature of the program will mean that not all foresters will decide to opt-in. In particular, the following two groups may decide not to opt in:

- Small farm foresters who decide that the cost and hassle of opting in will outweigh any financial benefits they may receive from carbon permits they are allocated if they opted in; and
- Owners of large, relatively mature plantations which will not sequester much more after 2010. For them, the potential liability if they harvest (and the uncertainty of whether the harvest sub-rule will continue beyond 2012) may be enough to convince them not to opt in.

Those foresters who decide not to opt into the CPRS may still be able to receive sequestration payments via a voluntary carbon offset scheme (see below).

TreeSmart Australia supports the coverage of forestry on an opt-in basis.

Eligible forests criteria

It has been stated several times in the Green Paper that only forestry activities that are recognised in Australia's Kyoto protocol accounts will be eligible for inclusion in the CPRS. This means that only reforestation will be counted, and that forests included in this category must meet the Kyoto criteria with respect to planting date and method, potential height, crown closure, area etc.

While generally supporting this position, **TreeSmart Australia** has a number of reservations, as follows:

- While Kyoto-compatibility is generally desirable, Australia should not let some of the assumptions made within the Kyoto Protocol become an over-riding consideration. Adherence to Kyoto rules and regulations has stifled innovative activity in Europe, and we should not let that happen in Australian as well. In Europe, the game has become one of manipulation of the rules to achieve outcomes, while many have taken their eye off the ball in the main game, which is removing greenhouse gases from the atmosphere. In the end, that is the main objective. We should not become so consumed with the means, that we forget the ends.
- This obsession with Kyoto Protocol rules, which may well change within a couple of years, is particularly critical with respect to the proper recognition of carbon stored in Harvested Wood Products (HWP), as will be described below.
- Even within the Kyoto rules about eligible forests, decisions will need to be made about what constitutes an eligible forest. For example, would fruit and olive trees which meet the Kyoto rules about tree height

etc be regarded as forests? If so, would such trees be seen as falling within the Forestry sector (which will be covered) or the Agriculture sector (which will initially be uncovered)?

Harvested Wood Products issues

While the Government Green Paper, and the Garnaut Review, has been very supportive of the inclusion of carbon stored in Harvested Wood Products (HWP), they have not followed through on their principles when it comes to recognising carbon stored in HWP in the domestic trading scheme. Instead they have fallen back to the old Kyoto assumption about HWP, which they have publicly stated is not “an appropriate reflection of reality”. Their main reason for this is their concern about the tradeability of Australian carbon permits if HWP storage (or other deviations from Kyoto) were recognised in the domestic trading scheme (pg 122). This concern with tradeability can only relate to the sale of Australian carbon permits, since Australia could always buy Kyoto-compliant permits from overseas if the need arose. And yet in another part of the Green Paper (pg 246), they state that “the Government would not allow Australian permits to be converted into Kyoto units for sale in and transfer to international markets in the early years of the scheme”. Thus the activity which is given as the reason for non-recognition of HWP carbon storage in the early years is explicitly prohibited by another decision within the proposed CPRS.

The Green Paper makes the point that if the scheme includes emissions and removals that are not counted towards Australia’s Kyoto obligations, those efforts would not count towards Australia’s international commitments. Because Australia would still need to meet its international commitments, it would have to tighten the scheme cap (with other participants bearing the burden) or buy international units equivalent to the permits issued for non-Kyoto sequestration. This is not a good reason for non-recognition of HWP carbon storage, since such exemptions and deviations are tolerated elsewhere in the CPRS for other reasons. The treatment of trade-exposed and emissions intensive industries are just two examples. Indeed, the very industries likely to receive favourable treatment under these other provisions provide a good reason why HWP carbon storage should be recognised.

Three industries likely to receive special treatment as trade-exposed, emissions-intensive industries are steel, aluminium and cement. The free permits allocated to them will mean that they will not face the true costs of their emissions, and will remain favourably treated compared to timber as a building product (which has no emissions from which it can be excused). Indeed, timber (as a HWP) will not be receiving its rightful recognition as a net sequesterer of carbon, and hence will be doubly disadvantaged.

The CPRS could make a substantial contribution to the rightful recognition of timber as a greenhouse-friendly building material by making another special case with respect to HWP carbon storage, which although different to the current Kyoto treatment, would be “based on science and provide appropriate incentives to reduce emissions”.

Recognition of HWP carbon storage from inception of the CPRS would also provide another strategic advantage for Australia. Given that “Australia will increase its efforts to influence changes to the international climate change framework” in relation to recognition of HWP, such efforts would be greatly enhanced if Australia could point to the fact that they have a working system of carbon accounting operating in Australia which shows how HWP recognition can be practically included within an emissions trading scheme. It would also give Australia several years advance experience with such accounting methods, thus conferring significant intellectual property advantages on Australian parties.

It is clear that the HWP issue is being considered seriously at an international level, as illustrated by the UN Workshop on HWP held in Geneva in September 2008. Strangely, despite the Government’s intention to “influence changes to the international climate change framework”, no Australian speaker was listed on the UN Workshop program. The draft conclusions from that Workshop clearly support the recognition of carbon storage in HWP when they state that “when drawing up national responses to climate change through the forest sector, different strategies including carbon sequestration by forests, storage in wood products, and substitution of fossil fuels and energy-intensive materials should be considered and combined”. They also highlight the urgency of the issue by noting that “considering the time schedule of the climate negotiations, consensus on HWP accounting has to be reached by mid 2009 in order to still include it into a potential agreement in Copenhagen in November 2009”. Australia should take the lead now and show how an operational recognition of carbon storage in HWP can be put into practice.

Additionally, early recognition of HWP in the CPRS would simplify many of the procedures being proposed for the CPRS. Many issues concerning measurement and accounting have been distorted and made overly complex by the need to accommodate the inappropriate assumptions about HWP that are inherent in the Kyoto assumptions. If HWP carbon storage were recognised, then inaccurate statements such as “on average, the amount of carbon stored in a forest that is not harvested will be significantly greater than a similar forest that is harvested periodically” (p8 of the Dept of Climate Change paper) would not need to be made simply to justify the false assumption about HWP. It would also provide the right incentives to point the industry in the correct direction, whereby harvested plantations are used to sequester the maximum amount of carbon on the minimum area of land with the minimum risk in an economically sustainable manner, rather than establishing “perpetual” plantings on an ever expanding land base just waiting to be destroyed in the first fire that comes along.

Finally, even if carbon storage in HWP is not recognised immediately in the CPRS, then many of the early-adopter advantages could be achieved if HWP carbon storage was recognised in the voluntary offset market which the Green Paper has acknowledged could “trade in offsets that are not recognised under the CPRS” (p137). Since “the Government will establish a standard for offsets for the voluntary market” (p138), these voluntary offset standards could recognise HWP carbon storage and thereby drive the development of the required accounting procedures (which could later be adopted by the CPRS) without affecting the international tradeability of carbon credits recognised within the CPRS.

TreeSmart Australia strongly supports the early recognition of HWP carbon storage within the CPRS; failing that, it should be recognised immediately in the standards that the Government will develop for the voluntary offset market.

Eligible parties

The Green Paper and, more specifically, the DCC Reforestation Discussion Paper make some significant proposals about who might be the eligible parties who could opt into the CPRS. Either of the options proposed in the DCC paper orient eligibility towards the land owner, and away from the carbon owner. While Option 2 clearly makes the landowner the only eligible party, even Option 1 gives priority to those who have permanent access to the land. This goes against the developments with Forest Rights Agreements and Carbon Rights Agreements that have taken place in the States over the last 20 years, whereby “ownership” is clearly divided into land ownership, tree ownership and carbon ownership. The requirement (under Option 1) that “the holder of a complying carbon property right might need to obtain the agreement of the landowner, mortgagee and lease holder” before opting into the CPRS clearly negates the intention of a Carbon Right.

Having said this, however, it is clear that the reason for concentrating on the landowner is to try to keep the CPRS eligibility as simple as possible. The preference seems to be for landowners to be the only ones who can opt into the CPRS, and to keep all the other arrangements covered by Forest and Carbon Rights Agreements as side-deals, outside the scope of the CPRS, and regulated by existing state laws dealing with Forest and Carbon Rights Agreements.

If landowners are the only ones who can opt into the CPRS, then this will have significant implications for all existing carbon offset providers (in the voluntary market) who act predominantly as brokers, owning neither the trees nor the land on which the carbon is sequestered. Nonetheless, there will be changed roles in the CPRS for brokers who operate more as advisors and facilitators, in much the same way as an accountant assists with preparing a tax return for an individual or company. The tax return is still the legal responsibility of the individual or company, but much of the compliance work is done by the tax accountant. A similar model could operate to assist landowners to participate in the CPRS.

On balance therefore, and in the interests of overall scheme simplicity, **TreeSmart Australia** supports Option 2 of the DCC Discussion Paper, whereby landowners (and long-term crown lease holders) are the only parties eligible to opt into the CPRS; all the other arrangements dealing with Forest and Carbon Rights Agreements would be covered by side-deals between the parties, outside the scope of the CPRS, and regulated by existing state laws dealing with Forest and Carbon Rights Agreements.

Offsets vs Permits

Until now, the word “offset” has tended to be used generically in the industry to represent a reduction in emissions from one activity to compensate for an increase in emissions in another activity (e.g. planting trees to offset emissions from car travel). With the advent of the CPRS, another term will be coming into the vernacular with a somewhat different meaning to carbon offset. The term “carbon permit” (sometimes called a “carbon credit”) will be used to represent what needs to be submitted to the regulator for every tonne of CO₂-e emitted by a covered entity. These permits will need to be bought by the covered entity, either at auction or from another covered entity that has a surplus of permits (some permits may also be distributed for free by the regulator). Foresters who opt into the CPRS are in a somewhat different position, since their sequestration will generally be much larger than their emissions. Therefore they would be issued carbon permits which are additional to the cap for the increased quantity of CO₂ that is stored in their forest. They can then choose to sell these permits to those covered entities who need more permits to cover their emissions (note that they could also choose not to sell them to a covered entity, thereby reducing the supply of permits, forcing up the price and requiring covered entities to reduce their emissions rather than buying permits).

Thus “permits” refer to units of sequestration that are created and traded within the CPRS. “Offsets” will now be used to refer to units of sequestration that are created by parties outside the CPRS. Theoretically, it might have been possible for these offsets to be sold into the CPRS (this is what was proposed by Garnaut when he suggested that forestry remain an uncovered sector), but the Green Paper has proposed that such sales not be allowed (even from foresters who choose not to opt into the CPRS). Therefore, the term “offset” will now only refer to units of sequestration that are created and traded outside the CPRS (as described below for a voluntary offset scheme).

TreeSmart Australia supports the proposal that foresters who choose not to opt into the CPRS will also not be allowed to create offsets that can be sold into the CPRS. Rather such offsets would be restricted to use within the voluntary offset market.

Voluntary offset schemes

The CPRS to be introduced in 2010 will make it mandatory for covered entities to submit a carbon permit for every tonne of CO₂-e that they emit during a year. These permits may be obtained from various sources, including from foresters who opt into the CPRS. While this scheme will make it mandatory for covered entities to purchase credits if they don't have enough themselves, the targets being proposed by the Garnaut Review for emissions reductions are relatively lenient. Although the official Government targets are yet to be announced, Garnaut has suggested that Australia's target should be to reduce total emissions by 10% from 2000 levels by 2020 (30% per capita), and by 80% by 2050 (90% per capita). The target till the end of the first Kyoto compliance period (2012) is simply to meet our Kyoto target of 108% of 2000 levels, which Australia is on target to achieve.

The 2020 target is a reduction of 17% (27% per capita) from the levels that are expected in 2012. Thus, in the eight years from 2012 to 2020, the annual reduction will be 2% p.a. from the previous year (assuming a straight line ramp-up).

This is a relatively modest target, especially when compared with that of various entities that have already expressed an intention to go “carbon neutral” before 2020. Going “carbon neutral” means a 100% reduction on current levels by 2020. Since the mandatory CPRS program will only require a 10% reduction by 2020, this leaves a lot of offsetting that will be done by a voluntary offset scheme outside of the CPRS. All existing offset programs in Australia are voluntary programs. Theoretically, they could continue after 2010 as they now operate. However, it is likely that many of these programs will also want to operate within the CPRS (either directly or indirectly). Hence some modifications to their operating procedures are likely if they want to maintain some form of compatibility between the two programs. The Green Paper has recognised that voluntary schemes will operate in parallel with the CPRS, so that voluntary carbon market participants – that is, firms and individuals that voluntarily buy abatement (usually in the form of carbon offsets) – can trade in offsets that are not recognised under the CPRS. It has also indicated that the Government will take an active role in the voluntary markets by establishing a standard for offsets for the voluntary markets (most likely, a modification of the current Greenhouse Friendly rules).

The question then arises as to where the offsets for the voluntary market will come from? Most likely, they will be sourced in four ways:

- From sequestration that has occurred before the commencement of the CPRS in 2010, and which would be ineligible for use within the CPRS;
- From sequestration that is not recognized within the CPRS in 2010, but which may be recognized within the Government standards for the voluntary offset market (e.g. carbon stored in HWP);
- From foresters who decide not to opt into the CPRS; and
- From foresters who have opted into the CPRS, but have decided to sell their permits into the voluntary market (this is explicitly recognised in the Green Paper when it states that “participants in the voluntary carbon market could also purchase and retire carbon pollution permits”).

It is uncertain at this stage as to the relative quantities that will be sold, and prices that will be charged, in the CPRS and voluntary markets. Conventional wisdom was that the CPRS would command higher prices, because of the mandatory nature of the program where permits must be held, compared to the voluntary markets where the purchase of offsets is a choice. However, given the relatively modest 2020 target suggested by Garnaut, the demand for permits within the CPRS may be reduced, leading to a reduction in permit price. Garnaut has also recommended a fixed permit price up to 2012 (of about \$20-\$23 per tonne CO₂-e). This price is already less

than is being charged in many voluntary offset schemes, and so some schemes may continue to prefer to sell into the voluntary market. The low 2020 target will also allow entities to buy more voluntary offsets within their overall environmental budget, since the financial and environmental impacts of the CPRS will be less than if a more ambitious target had been set (say 20% reduction over 2000 level by 2020).

However, a significant advantage of trading within the CPRS is the lower costs that might be expected within the CPRS, where additionality, permanence, measurement and verification will be virtual non-issues (especially in comparison to the requirements likely to be imposed on voluntary offsets).

TreeSmart Australia strongly supports the continuation of a voluntary offset market in parallel with the CPRS, and the Government's active role in the setting of complementary standards for the voluntary offset market. The relationship between the CPRS, the voluntary offset market and Australia's international obligations needs to be carefully considered to ensure that sight is not lost of the primary objective of the programs, which is to reduce greenhouse gas concentrations in the atmosphere.

Methods of Accounting

The DCC paper suggests two options when accounting for emissions and sequestration; the annual stock change approach and the average net sequestration approach. Both of these methods are much fairer and more logical than the minimum long-term sequestration approach currently used in the NSW GGAS program. Both accounting methods are based on the general concept that permits would be issued for net increases in forest carbon sequestration and permits would have to be surrendered for net emissions from the forest. However, they differ in the way they implement this policy over time. The stock change approach credits and debits sequestration and emissions in the year in which they actually occur. The long-term average approach issues permits up to the projected annual average amount of carbon sequestered less emissions in each forest stand over the accrediting period. The DCC paper concludes that "average accounting is likely to enable owners of smaller forests, for example farm forestry, environmental and landcare plantings to participate in the scheme", on the grounds that they are not faced with a large payout if they have a year with significant emissions, such as a harvest year or a large fire.

However, analyses undertaken by **TreeSmart** have shown that the stock change approach could actually be better for foresters (even those who intend to harvest), while being more logical, simple and flexible. The idea that you "get paid when you sequester, and pay when you emit" is simple to understand and easy to implement. It is also more in line with other entities in the CPRS who will need to surrender permits in the year of their emissions. The issue of potentially large payouts is also not as big a problem as represented in the DCC paper, if one takes account of the time value of money. Payments for sequestration will take place relatively early in the life of the plantation, while payouts at harvest time will not occur for many years. One also needs to consider why

a forester would want to harvest in the first place, and consider the cashflow generated from wood and bioenergy sales that would more than cover the replacement of the carbon permits previously given to the forester.

The long-term average approach has a major problem in that it relies upon estimates of what might happen in the future, whereas the stock change approach is based on what has already been seen to happen in the past. The long-term average approach relies on modelling of future growth and on an accurate statement of future intentions with respect to harvesting. Since “on average, the amount of carbon stored in a forest that is not harvested will be significantly greater than a similar forest that is harvested periodically”, there will be an incentive for foresters to declare they do not intend to harvest, and then change their mind, rather than admit up-front that they intend to harvest. The stock change approach does not encourage such “gaming” and merely reflects what has actually happened.

Finally, one needs to consider that the Green Paper states that “given the possibility of changes to the international climate change framework, the scheme should be flexible enough to include additional sinks and sources or accounting approaches that have been internationally agreed.” The long-term average approach has significant problems if HWP carbon storage is recognised in the future (as the Australian Government will be arguing for), since the long-term average will be continually rising with each successive rotation. Under these conditions, the stock change approach is a much more flexible and realistic approach for carbon accounting. It should be noted that the UN Workshop on HWP held in Geneva in September 2008 considered accounting methods extensively, and all the favoured methods were based on the stock change approach.

For all these reasons, **TreeSmart Australia** strongly supports the annual stock change approach since it is considered to be a more simple, accurate, flexible and risk-free method of accounting for sequestration and emissions..

Capping of liabilities

The DCC paper raises the issue of the harvest sub rule (Rule 2b from the Marrakesh Accords) and its ability to limit harvesting liabilities such that the forester will not need to replace more permits at harvest than they have received from the growing of the plantation after the commencement of the scheme. If this rule is not recognised in the CPRS, and continued beyond 2012, it poses a severe risk for owners of mid-rotation plantations who might otherwise wish to opt into the scheme. The potential risk imposed by waiting until the outcomes of the post-Kyoto negotiations are known could also be a major deterrent. However, if “for the first two to three years, the regulator could issue permits for all increases in sequestration from 2010, regardless of when forests are registered during this period”, then owners of mid-rotation plantations would be able to wait those two or three years after 2010 (until the post-Kyoto negotiations are concluded) to see if Rule 2b will continue.

TreeSmart Australia supports the capping of liabilities under the harvest sub-rule indefinitely. If the international rules change post-2012, then the Australian Government should assume the sovereign risk associated with this change of rule, just as they intend to assume the sovereign risk associated with catastrophic emissions from carbon capture and storage facilities in the future.

Establishment of a base year

The idea of using 2008 as a base year for establishing a baseline of sequestration for a forest seems reasonable in order to minimise the scope for “perverse incentives” to clear plantations in 2009 and start afresh in 2010. It is noted that permits would only be granted for sequestration beyond 2010, provide that the total sequestration exceeds the levels observed in 2008.

TreeSmart Australia supports the adoption of 2008 as a base year for measurement of carbon stocks.

Reporting issues

Noting that entities in other sectors would be required to undertake annual reporting, it seems logical that the forestry sector would also be required to report annually (provided that the costs of reporting can be held to reasonable levels). Given the growth rates of plantations over time, it might, however, be reasonable to have a longer reporting period at the start of a rotation (when sequestration rates are low) and after the forest matures (if it is being kept as a perpetual plantation).

The key to the feasibility of annual reporting is to minimise the costs of reporting for the forester. In the voluntary offset market, there are significant costs associated with modelling, monitoring and measurement of sequestration rates, and with third-party verification of the measurements. Hence the proposal in the DCC paper that “one option for reducing reporting costs would be for the regulator to issue forest owners with an annual assessment of the carbon stock change in their forest, based on NCAS projections” (*the “rates notice” approach*) is an interesting option which could significantly reduce the transaction costs involved for those foresters who opt into the CPRS. Under this option, “forest owners could accept the assessment or apply to have the assessment amended in NCAS”. This proposal has great potential for keeping the costs of reporting low, since it would be the regulator who does the estimation (using NCAS methods), and “using NCAS data and methods would remove the need for independent third party verification”. This would allow an individual forester to opt into the CPRS and receive an annual allocation of permits at very low administrative costs, *provided they were willing to accept the NCAS estimates*.

For many foresters, this might be sufficient for their needs. However, experience with using the FullCAM model within NCAT (by **TreeSmart** and others) has shown that the FullCAM estimates of tree growth (and hence sequestration) are often significant underestimates of what has been observed in the field using standard forestry

measurement methods. If this situation continues into the future, then it might well be cost effective for a forester to challenge the NCAS estimates, collect and verify the necessary in-field measurements, and have the NCAS estimates upgraded. This will provide increased permit revenue in that year and, provided the new data is used to upgrade the NCAS estimates for future years, it will provide a future stream of increased permit revenue, without the need to continually challenge the NCAS assessments issues each year.

TreeSmart Australia strongly supports the issue of annual NCAS assessments by the regulator, with the option for foresters to challenge the assessment and provide field measurements to the regulator in order to have the assessment upgraded, both in the year of the challenge and in subsequent years.

Succession issues

The treatment of succession issues in the DCC paper is far from clear. Option B clearly states that a new owner would receive any benefits and be responsible for any obligations after they purchase the land, and that this needs to be factored into the purchase price they pay for the land (as a side-deal with the vendor). However, the intention of Option A is unclear (to me and others with whom I have discussed the matter). Clearly, this issue of opting out and succession needs to be resolved if current owners are to feel comfortable about opting into the CPRS.

Despite the uncertainty about the meaning of Option A, **TreeSmart Australia** would be happy with the succession arrangements outlined under Option B.