

SUBMISSION TO THE DEPARTMENT OF CLIMATE CHANGE ON DISCUSSION PAPER: DETAILED DESIGN ISSUES RELATING TO COVERAGE OF REFORESTATION

Memorandum By:

Eric Bettelheim, Gregory Janetos, Rob de Fégely and Michael Parsons

SUSTAINABLE FORESTRY MANAGEMENT AUSTRALASIA PTY LTD

Contact Person:
Rob de Fégely
Chief Operating Officer
SFM Australasia Pty Ltd
+61 415 486 201 mobile
+61 39596 9740 work
rob.defegely@sfm.bm



SFM AUSTRALASIA PTY LTD
ABN 46 105 317 333
PO Box 855, Fremantle, Western Australia, 6959
Suite 1, Level 1 City House, 22 Queen Street, Fremantle, Western Australia, 6160
Tel: +61 8 9336 7984, Fax: +61 8 9467 6287

Submission to the Department of Climate Change on the Discussion Paper: Detailed design issues relating to coverage of reforestation

Sustainable Forestry Management Limited (“SFM”) was established in 1999 to demonstrate that reversals of tropical and subtropical forest degradation and mitigation of global warming can be accomplished by private sector investment meeting the highest commercial, environmental and social standards. The SFM Group has a rapidly growing global portfolio of carbon forest assets in Africa, the Americas, Asia and Australasia. SFM Australasia Pty Limited (“SFMA”) is an Australian company established in 2002 as a wholly owned subsidiary of SFM. SFMA, with offices in Perth, Melbourne Sydney and Auckland, now has investments in South Australia, Western Australia, Victoria and New Zealand. As a developer of projects that generate carbon credits and offsets, the SFM Group is concerned to ensure reliability and integrity of land use change and forestry activities in emissions trading and carbon markets.

This submission addresses the main items raised in the Discussion Paper: Detailed design issues relating to coverage of reforestation.

Design Issue	Proposal
<p>2.1 Kyoto accounting</p>	<p>The Government indicated in the Green Paper that access to the scheme would be limited to forests that meet the definition of ‘reforestation’ for the first commitment period of the Kyoto Protocol. Further, permits would only be issued for increases in sequestration after 2010, which counts towards Australia’s Kyoto commitments.</p> <p>Reforestation is the direct human-induced conversion of non-forested land to forested land after 1 January 1990 through planting, seeding and/or the human-induced promotion of natural seed sources, on land that did not contain forest on 31 December 1989.</p> <p>Australia’s definition of a forest for Kyoto Protocol purposes is:</p> <ul style="list-style-type: none"> • a forest of trees with a potential height of at least two metres and crown cover of at least 20 per cent; and • in patches greater than 0.2 hectare in area. <p>Australia has declared that it will report annually on changes in emissions from LULUCF during the first commitment period.</p>
<p>SFM comment</p>	<p>The National Greenhouse Accounts (NGA) Factors states forests must also be “...(for reasons of detectability) a minimum width of 10 metres”. The exclusion of this requirement implies the use of higher resolution imagery to detect changes in land use to or from forest. SFMA supports greater flexibility in what can be recognized for the purposes of the scheme.</p> <p>SFMA supports annual accounting of changes in carbon stocks at a project level, consistent with Australia’s accounting period. Although, SFMA considers that parties should be afforded the flexibility to account at less frequent intervals where this would not be inconsistent with Australia’s international obligations (for example, where there is no net decrease in carbon stock during the extended accounting period).</p>

<p>2.1.1 Human induced reforestation</p>	<p>Identification of reforestation for national Kyoto accounting purposes uses Landsat satellite imagery available since 1972 to identify forest and non-forest cover for the entire continent at a 25 metre resolution. A time-series of transition of land cover from non-forest to forest is derived by comparing the forest extent through adjacent time steps. Vegetation that may meet Kyoto forest criteria but which cannot be confirmed as resulting from direct human activity is excluded from the national accounts.</p> <p>However, forest owners would be able to bring forward evidence that forest establishment has occurred as a result of direct human activity, for example, land management records or photographic evidence.</p> <p><i>Stakeholders are invited to comment on the process for incorporating external evidence of human induced reforestation into NCAS.</i></p>
<p>SFM comment</p>	<p>SFMA considers that photos, management plans, and management records should also be accepted as evidence. To provide maximum flexibility, but limit the burden on the regulator, SFMA considers the Government might consider a guideline as to how forest owners should demonstrate that land has been “reforested” in accordance with human activities. This would standardize the form in which information is provided, but we would recommend that the evidence that could be adduced for such purposes should not be limited.</p>
<p>2.1.2 Identifying areas of eligible Kyoto forests</p>	<p>To obtain recognition of additional lands not already recognised as eligible in NCAS as being eligible for reforestation, potential forest owners would need to provide maps or some other form of spatial referencing (e.g. from GPS or maps) of the land and evidence that the land was clear of forest at 31 December 1989, for example satellite imagery, aerial photographs or land management records.</p> <p><i>Stakeholders are invited to comment on the process for incorporating external evidence of Kyoto eligible land into NCAS.</i></p>
<p>SFM comment</p>	<p>Information that might be used for this purpose includes aerial photos, other photos dated and with recognizable land marks that confirm location, statutory declaration of landowner at 31 December 1989 about dates of clearing. In accordance with our suggested process for proving human induced reforestation, SFMA considers the Government might consider implementing a guideline as to how forest owners should demonstrate that land has been “reforested” in accordance with Kyoto Protocol definitions. The evidence that might be provided to demonstrate eligibility should not, in SFMA’s view, be artificially confined to specified sources.</p>

<p>3.1 Defining eligible forest owners</p>	<p>There are two models which could be adopted to determine who can opt in. The options are:</p> <ol style="list-style-type: none"> 1. Allowing legal entities that have at least a right of access to the relevant land and the legal capacity to establish a forest, maintain it and replant it (on harvest or if it is destroyed by natural causes) which is enforceable against the world at large to opt in to the scheme (with the agreement of others with an interest in the land). 2. Allowing only landowners and the holders of long term leases to opt in to the scheme (with the agreement of all others with a lesser interest in the land). <p><i>Stakeholders are invited to comment on these options.</i></p> <p><i>If Option 2 is preferred, what should be the minimum length of a 'long term lease'? Should it be extended to long term leases from land owners other than the Crown?</i></p>
<p>SFM comment</p>	<ul style="list-style-type: none"> • SFM strongly endorses Option 1. • SFM does not agree that Option 1 would add to the cost and complexity of the scheme. Under Option 1, there will be the ability for more projects to occur as most of the current sink projects are undertaken by experienced companies who are able to plant sinks on a scale that is economic and are able to manage the liability issues. Most landowners will not, by themselves, pursue such projects. Enabling holders of carbon rights across many properties to participate in the scheme will increase the efficiency of monitoring and reporting, as there will be fewer, more sophisticated entities dealing with the registry. • However, it is important that parties are able to pool their rights of access across different landholdings to manage a buffer and bring together greater economies of scale. • Option 1 also promotes better risk management by enabling an entity to hold and trade permits created from several carbon property rights that may be located on land that is geographically dispersed, is comprised of multiple age classes, contains species with different capacity to adapt to climate change, employs different management practices, as well as maintaining a larger buffer. Individual landowners are less likely to be able to provide the same level of risk management. • Carbon rights are registered with land titles and can be easily tracked through title systems being established in all states (but not yet in the territories). We consider there would be some merit in attempting to work with the States to obtain some consistency in these rights, but the Commonwealth cannot ignore that these rights already exist. • The purpose of carbon property rights is to clearly define who is entitled to carbon stored in sinks. At the time of establishment of carbon property rights, agreement is reached between the land, forest and carbon rights owners. Normal due diligence procedures by the parties involved would address the issues raised. • Option 2 would require additional legislation addressing the consent requirements. This will introduce complexity that could be more

	<p>efficiently dealt with through common approaches to commercial agreements.</p> <ul style="list-style-type: none"> • If carbon rights cannot be separated from land (and without carbon rights of the type in most States that represent an interest in land) project proponents may consider that they do not have sufficient security to undertake projects. The alternative is to enter into a personal agreement with landholders that is then not enforceable against third parties or subsequent owners of the land. • By separating carbon rights from the land, the States have been able to allow landowners to effectively transfer the carbon management function to a third party. If the Government were to pursue option 2, this would impose liabilities on the landowner, rather than the carbon right owner, and so might reduce the willingness of landowners to engage in carbon sequestration projects undertaken by companies with the expertise to do so. • Separate carbon rights means that the interest in the carbon can be transferred to third parties without affecting the landowners. This can assist in developing a more liquid market for the property rights in carbon on land while reducing the regulatory burden on the Commonwealth to manage scheme liabilities when there are changes in landownership. • If the Commonwealth fails to recognize State carbon rights, effectively transferring these rights to the landowners might constitute an acquisition of property under the Constitution, which requires compensation on just terms. Given the broad definition of “property” applied by the High Court in these circumstances, this could apply even where the State carbon right is not an interest in land under the State legislation.
<p>3.2 Enforcement against successive forest owners</p>	<p>To ensure scheme obligations can be enforced through time, scheme obligations would need to be enforceable against successive forest owners (or others with relevant interests - e.g. the land owner). This may involve a statutory encumbrance on the land.</p> <p>Option 1 would allow forests to be opted in by short term leaseholders or holders of, for example, complying carbon property rights as well as by landowners and long term leaseholders. Short term leases and carbon property rights are time limited, for example they may last for twenty or so years, and can be terminated. Leases and carbon property rights can also be transferred. Scheme rules would therefore be needed to determine the allocation of benefits and obligations following the expiry or termination of a lease or complying carbon property right, or transfer of forest ownership. Option 1 is therefore more complex.</p> <p>Whether Option 1 or Option 2 is preferred, there would need to be provision for the rights and liabilities on transfer of ownership of the land or the lease.</p> <p>There are several options to address this situation:</p> <p>Option A – Settlement at the point of transfer</p> <ul style="list-style-type: none"> • The transferor gains the benefits and is responsible for any reduction in the

	<p>forest carbon stock which occurs up to the time of the transfer but not thereafter.</p> <ul style="list-style-type: none"> • There would be an obligation on the transferor to settle its obligations to the scheme regulator prior to transferring the interest. • The transferee would gain the benefit of and be liable, by virtue of the implementing legislation, for changes to the forest carbon stock occurring after that point. <p>Option B – outstanding obligations pass to the transferee</p> <ul style="list-style-type: none"> • Any rights and obligations under the scheme associated with the land would pass to the transferee by virtue of the legislation. • The value of the rights and obligations would presumably be taken into account in the terms of the contract between the parties. <p><i>Stakeholders are invited to comments on the options outlined.</i></p> <p><i>Are there other options that should be considered?</i></p> <p><i>What administrative arrangements would be required to ensure that the scheme regulator is routinely informed of the end of a carbon property right or lease and of transfers of relevant land?</i></p>
<p>SFM comment</p>	<p>In our view Option B seems much easier and straightforward. The transferee, before undertaking any investment, will uncover any liabilities during the due diligence process. Of course the seller would be required to disclose any material liabilities arising from participation in the scheme, as is common practice.</p> <p>It could be worthwhile to make option B the usual process, but to give transferors the option to choose to reconcile liabilities or benefits before sale if they would prefer to do so. This allows the market to decide.</p>
<p>3.3 Consent of other interest holders</p>	<p>Including land within the scheme will have consequences for other entities that have rights and interests over the same land. This suggests that land should only be included in the scheme:</p> <ul style="list-style-type: none"> • In the case of Option 1, with the written consent of all others with existing rights in the relevant land – for example, this would mean that the holder of a complying carbon property right might need to obtain the agreement of the landowner, mortgagee and lease holder; • In the case of Option 2, with the written consent of all others with existing lesser interests in the land – this would mean that holders of long term leases from the Commonwealth or State/Territory Government would not be required to obtain the agreement of that Government. <p>Those taking a proprietary interest in the land after it was opted into the scheme would in effect accept that the interest was subject to the scheme.</p> <p><i>If Option 1 were adopted (and holders of short term leases could opt in) would the requirement for the owner’s agreement effectively rule out short term lessees of land owned by states or territory governments from opting into the scheme? If there are problems in this respect, then what is the extent of land held by interested parties that could not be included in the scheme as a consequence?</i></p> <p><i>Would there be difficulties with either option in including indigenous land (eg land where there</i></p>

	<p><i>are native title interests, Aboriginal land in the Northern Territory (under the Aboriginal Land Rights (Northern Territory) Act) and State indigenous lands?</i></p>
<p>SFM comment</p>	<p>As we discuss above regarding the choice of “eligible forest owner”, SFMA considers that if the holder of a carbon right is the “eligible forest owner” consent becomes unnecessary because consent of interest holders should have been provided when the carbon rights were registered over the land. To accommodate the Territories (which do not yet have carbon rights) and promote consistency in the use of the CPRS, the Commonwealth might consider implementing its own carbon right that can be recognized in State law (using its external affairs power to legislate on the matter).</p> <p>Of course, if the Government were to select the landowner as the eligible forest owner, consent of other parties having an interest in the land would be required and we doubt it would be possible to “opt-in” unless consent of all persons with an interest in land affected by the Carbon Rights were obtained.</p> <p>For example, it might not be relevant to obtain consent from the holder of an easement (if the terms of the easement are not inconsistent with accounting for carbon on the land). However, it would almost certainly be necessary to obtain the consent of a mortgagee (who would have exclusive possession of the land) given that the liabilities associated with the CPRS could affect the landowner’s ability to pay a mortgage. If a landowner were to opt into the scheme it might not impact on a lessee’s enjoyment of the land, as they should have exclusive possession of the land. However, there could be special conditions in a lease (for example a licence retained by an owner to look after a forest on a farm) that could impact on the lessee’s use of the land.</p>
<p>3.4 Notice to prospective buyers</p>	<p>It is desirable that prospective buyers of the land or an interest in it have notice that the land has been opted into the scheme.</p> <p>The Commonwealth could establish a register of forests which have been opted in to the scheme indicating the name of the entity which is currently responsible under the scheme. This would, however, mean an additional search for prospective buyers. (On the other hand, the register would form part of the opting in mechanism, provide information to the public about land that has been opted in and give some indication to the market about the number of permits that may be allocated as a result.)</p> <p>Another option currently being considered is whether the Commonwealth scheme could provide for a notice to be placed on the relevant state and territory land title register notifying prospective buyers and others that the land has been included in the scheme.</p> <p><i>Should public notification that particular land has been opted into the scheme be a condition of scheme participation?</i></p> <p><i>Are there types of land holdings for which this would be impractical?</i></p>
<p>SFM comment</p>	<p>If the Government pursues Option 1 for the “eligible forest owner” and recognizes State carbon rights for this purpose, public notification is not required. Any prospective buyer will be able to ascertain through their due diligence whether the land in question is part of the scheme. Due diligence would include a search of the relevant State land title register against which carbon property rights are registered. If the Government recognizes a broader</p>

	<p>range of rights for this purpose (for example, licenses or other rights that are not registered on title) then the Government might consider establishing its own carbon rights regime, which rights comprise interests in land that might be registered on State or Territory land title registries. Existing licence holders might seek to migrate to the new scheme.</p> <p>If the Government makes landowners or long term lease holders the “eligible forest owners” then some kind of notice should be required upon sale of land. Perhaps State cooperation could be sought to register such a notice on title? Alternatively, the Government might rely on its external affairs power to seek to impose a notice that the land is participating in the CPRS.</p>
<p>3.5 Enforcing scheme obligations</p>	<p>To address the particular enforcement challenges with respect to forestry, additional provisions could be considered, including:</p> <ul style="list-style-type: none"> • imposing and maintaining a financial asset test for eligible forest owners or requiring a bond or guarantee; • preventing legal entities that have opted in with respect to one parcel of land but failed to pay their obligations from later opting in with respect to any other parcel of land (the potential for phoenix or related companies would also need to be addressed in this context). <p>Such provisions could be in the nature of reserve powers for the regulator, or apply automatically.</p> <p>A provision could be included making directors or the chief executive officer of a company liable where, for example, they knew that a contravention would occur, and were in a position to influence the conduct of the company but failed to take reasonable steps to prevent it.</p> <p><i>Should the scheme include any mechanisms specifically designed to improve the enforceability of scheme obligations with respects to forests and, if so, what mechanisms would be appropriate?</i></p>
<p>SFM comment</p>	<p>Eligible forest owners should be dealt with in the same way as other entities that might have a liability to surrender permits under the Scheme: the penalties for failing to surrender permits when required should be no harsher than those imposed on liable entities.</p> <p>If a company becomes insolvent (or a person becomes bankrupt) or is genuinely unable to meet a liability and has not willfully breached the CPRS, we do not see why criminal liability should be visited on the participant in the scheme.</p> <p>We doubt that criminal liability would be imposed upon a company that is liable for its emissions and is unable to surrender units corresponding to those emissions because it is insolvent, so different treatment for forestry participants (who are attempting to reduce emissions by undertaking the project in the first place) would seem to be unwarranted. If a forestry company has a liability and is unable to meet it, it is unlikely to have done so on purpose and is likely failing. By the time forests that have “opted-in” have reached maturity, it is possible that Australia will have included all reforestation in the scheme by force and so the risk of being unable to meet liabilities will apply to landowners of all reforested land. It would, surely, not be sustainable to impose possible criminal liability on (potentially) all landowners for being unable to make-good losses in reforestation.</p> <p>Other mechanisms that encourage participation in the scheme but are directed at</p>

	<p>maintaining the integrity of the scheme and not punishing companies that have tried but failed would be more suitable. For example, refusing new registrations or ensuring that directors of new registrations have not been directors of failed projects where the company has not made good.</p>
<p>3.5 opting out</p>	<p>Forest owners would be permitted to remove their forests from the scheme. To prevent forest owners from opting out to avoid future scheme obligations, the forest owner would be required to surrender permits sufficient to cover all existing and potential liabilities. Exactly what the potential liabilities are would depend on the accounting method adopted (see section 4). It may involve surrendering to the regulator the number of permits which have been issued with respect to the relevant land.</p> <p><i>Stakeholders are invited to comment on opting out provisions.</i></p>
<p>SFM comment</p>	<p>In our view this approach seems reasonable.</p> <p>However, one issue that must be clarified is will any liability imposed under the scheme to acquit permits be a permanent one – or limited by some timeframe such as 70 years (like Greenhouse Friendly) or 100 years (like GGAS). If the liability is not limited to a certain time frame, then it will not be possible to obtain insurance products around carbon sinks and one cannot obtain leases indefinitely (and in the cases of crown land it is further restricted). Certain lease terms are restricted to no more than 99 years.</p>
<p>4.1 Crediting options</p>	<p>One option would be for the regulator to credit all increases in forest carbon after 2010 and impose liabilities for any net forest emissions. This approach would ensure that, for each forest, there is broad consistency between emissions reported in Australia’s Kyoto inventory and the permits issued or surrendered in the scheme.</p> <p>An alternative approach would be to issue permits up to the projected annual average amount of carbon sequestered less emissions in each forest stand (land unit) over accrediting period which may be multiple years – that is, average projected carbon sequestration would be used to determine the level up to which permits would be issued. 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.</p> <p>Permits would be issued as sequestration occurs and is reported, not in advance. The projected level up to which permits would be issued would be adjusted over time to reflect actual carbon sequestration in each stand.</p> <p>Under this approach, forest owners would be unlikely to have to surrender permits for net emissions from the forest as a result of harvest, fire or destruction by pests, provided that the forest is re-established. Permits would have to be surrendered if forested land that was opted in to the scheme was converted to an alternative land use.</p> <p>This approach would result in annual discrepancies between the national inventory and the number of permits issued for forest carbon in the scheme each year. Permits would not be issued for the full amount of carbon stored in the forest or surrendered for all forest emissions.</p> <p>Enforcement risks and compliance costs would be lower under average</p>

	<p>accounting than full accounting.</p> <p>The regulator would not need to apply scheme obligations for periodic forest emissions and then reissue permits as the forest is re-established, although permit allocations would need to be adjusted to reflect changes in the actual emissions outcome over time. Under this approach forest owners would not have to manage the risk of very significant periodic scheme obligations. These risks would be greater and harder to manage for owners of small forest areas and single age class forests than for owners of large or multiple forest areas. Average accounting is, therefore, likely to enable owners of smaller forests, for example, farm forestry, environmental and landcare plantings to participate in the scheme.</p> <p><i>Which approach to crediting do stakeholders prefer – full crediting or crediting to the average level of carbon sequestration? Are there other options that should be considered?</i></p> <p><i>Should some or all forest owners be given the option of full or average crediting?</i></p>
<p>SFM comment</p>	<p>SFM strongly endorses the first option, full carbon accounting. This should include all carbon stock changes associated with the land use change activity from 1 January 2008 to 31 December 2012. However, SFMA considers that parties should be able, at their election and if the plantings used for carbon stock are appropriate, for unanticipated depletion events allow the carbon stock to recover (or replant to enable it to recover) before being required to surrender permits to meet the liability. This would be appropriate where the time for recovery of the carbon stock is small.</p> <p>A prudent forest manager intending to generate permits from reforestation will have established clear risk management approaches. This could include selection of species that are unlikely to suffer catastrophic loss (i.e. readily re-shoot following fire or defoliation), geographical distribution of forests such that any one event will affect only a small proportion of the total forest from which permits are generated, and maintaining a buffer of unsold permits to cover future liabilities. It is not necessary to build additional risk management into the CPRS, as proposed in the average accounting approach. To do so risks promoting poor forest management, whereby in the knowledge that the averaging approach reduces the likelihood of future liabilities, some forest managers may reduce the level of diligence in their management activities, such as fire protection and monitoring of forest health, to the detriment of carbon stocks and other co-benefits provided by established forests.</p> <p>The period over which averaging is proposed is not specified in the discussion paper. If a long period is used for calculating the average, the revenue stream would be significantly altered compared to full accounting. For an unharvested forest the vast majority of costs are incurred during establishment. If income in the early years is reduced through averaging, the net present value of the investment in reforestation will be substantially reduced. Consequently, the average accounting approach could discourage reforestation projects that are truly additional (i.e. rely primarily on carbon income to cover costs and generate a return on investment).</p> <p>In our view, eligible forest owners should be entitled to generate units from all additional reforested carbon stock post-2008 (not just from 2010, as proposed) because the Government will take the benefit of removal units (RMUs) from the carbon stock increases during that period under the Kyoto Protocol without</p>

	<p>passing any benefit to the entities that have undertaken the reforestation.</p> <p>Indeed, if the Government has or proposes to take the benefit of all additional carbon stock back to 1990 (according to the definition of reforestation under the Kyoto Protocol) we consider that eligible forest owners should be able to be credited with units for any reforestation that has not been brought to account for other purposes (for example, if the reforestation has not already been acquitted under a voluntary or State scheme).</p>
<p>4.2 Capping scheme obligations</p>	<p>Under the accounting rules for the first commitment period of the Kyoto Protocol (2008-2012), emissions from forest stands established since 1990, cannot be negative but are instead reported as ‘zero’. The rule is known as the harvest sub rule. The harvest sub rule removes the risk that a Party could have higher emissions as a result of reforestation (because of harvesting or other disturbances during the commitment period) than it would otherwise have had if reforestation had not occurred. It is not yet certain whether this rule will be agreed as part of the post-2012 climate change framework.</p> <p>The same rule could be adopted in the Carbon Pollution Reduction Scheme – that is, scheme obligations could be capped for the first commitment period so that, for any forest stand, emissions obligations cannot exceed the number of permits issued.</p> <p>If scheme liabilities are capped indefinitely but the harvest sub-rule is not agreed as part of the post-2012 framework, the result would be that permits would be issued for sequestration that is not counted towards international commitments. This would increase scheme costs beyond what they would otherwise be because international commitments will still need to be met using internationally recognised abatement.</p> <p>An alternative would be to cap scheme liabilities from this provision until 2013. The application of the harvest sub rule beyond this time could be linked to the outcome of international negotiations on the rules for a post-2012 agreement.</p> <p><i>Should scheme liabilities be capped indefinitely or until 2013 (reviewable in the context of the international accounting framework for a post-2012 climate change agreement)?</i></p>
<p>SFM comment</p>	<p>The Government should proceed on the basis of a “zero” liability rule, but if the international position changes in 2013 the Government should give forest owners whose stocks include existing forests (pre-commencement of the Australian scheme) the opportunity to opt-out for those existing forests without penalty.</p>
<p>4.3 Base Year Carbon Stocks</p>	<p>In the Green Paper, the Government proposes to issue permits for Kyoto compliant sequestration that occurs following scheme commencement. In effect, increases in sequestration would need to be measured relative to carbon stored in 2008, although permits would only be issued for the net emissions that occur after scheme commencement once stocks are greater than in 2008.</p> <p>Applying a 2008, rather than a scheme commencement, base year carbon stocks would ensure there are no perverse incentives to clear established forests in 2009 in order to re-establish forests in order to receive permits for all increases in sequestration from establishment.</p>

	<p>in accordance with approaches used by NCAS.</p> <p>The NCAS uses remote sensing and modeling, climate and soil data, and extensive management databases to represent interactions between carbon flows, climate, and management. The NCAS method meets the highest level (Tier 3, Approach 3) described in IPCC Good Practice Guidance.</p> <p>The design and ongoing development and implementation of the NCAS involves a large range of collaborators in gathering together available data and generating new data, testing of methods, independent verification of system results and independent peer review.</p> <p>As required under Kyoto Protocol implementation rules, the NCAS modeling framework for developing reforestation accounts for the first commitment period is fixed for this period. However, ongoing enhancement of NCAS, including incorporation of new data (e.g. for forest growth), will be undertaken within the established program of rigorous validation, verification and independent review.</p> <p>The National Carbon Accounting Toolbox (NCAT) provides entity-level accounting capability using the same data and modeling applied through the NCAS.</p> <p>The NCAT also allows users to enter their own data to derive forest specific estimates, where this data can be appropriately verified. The NCAT provides:</p> <ul style="list-style-type: none"> • accuracy and comprehensiveness, including coverage of all pools and all gases (accounting capability for non-CO₂ Kyoto gases is under development) • is low cost – it is freely available (including user support), with ongoing development costs met by the Government • is low risk – the Government undertakes model calibration and validation • is available to all forest growers, including small growers that do not have their own models and data <p>In addition, using NCAS data would remove the need for independent third party verification of forest carbon estimates because estimates would be consistent with the national Kyoto account. In other words, given that Australia uses the NCAS to calculate emissions from LULUCF for Australia’s Kyoto inventory, scheme permits could be issued on the basis of this data, without the need for further data verification. Removing the need for third party verification of emissions estimates would make it more cost effective for owners of small forests to participate in the scheme.</p> <p><i>Stakeholders are invited to comment on the process for incorporating external forest growth data into NCAT.</i></p>
<p>SFM comment</p>	<p>NCAT is a valuable tool for calculating changes in carbon stocks and the Australian Government is to be commended for its development. It is a complex tool requiring considerable training and experience to modify default values to produce valid scenarios.</p> <p>For this reason, the use of default values in NCAT should be one of the methods available to forest/carbon property right owners to quantify carbon stock changes. This option would suit small forest owners and encourage their</p>

participation in the scheme.

However, there will be (many) instances where outputs from using default values in NCAT deviate significantly from measured changes in carbon stocks or estimates derived from other calibrated methods of carbon stock estimation. In these cases, alternative methods should be available to more experienced and sophisticated carbon managers. Alternative methods could include modifying NCAT input values such as growth, wood density, partitioning between carbon pools, etc. based on validated datasets (as described in the discussion paper), or using other models and methods that can be verified as providing accurate and precise estimates of carbon stocks.

Permitting the use of forest specific methods for carbon stock calculation will improve the accuracy of Australia's national Kyoto account by direct input of data from forest areas under the CPRS, as well as through further refinement of input parameters and calibration of NCAS.

Inclusion of carbon stock data from forest areas under the CPRS into the national Kyoto account could be achieved using similar techniques already used in NCAS. Spatial data for land covered by CPRS forests that use non-default NCAT parameters or alternative accepted carbon accounting methodologies could be used as an additional 'mask' of land areas excluded from NCAS (as is currently done for non-eligible land). A carbon account would be created using default NCAS parameters for forests included (this would include forests included in the CPRS that adopt default NCAT parameters).

To this would be added the change in carbon stocks from forests in the CPRS that use non-default NCAT parameters or alternative accepted carbon accounting methodologies, as reported in annual reports.

Spatial data of CPRS forests using non-default NCAT parameters or alternative accepted carbon accounting methodologies would need to be obtained at project registration or submitted as part of annual reports. Systems are being developed to manage these spatial data, linked with carbon property right details, land titles, land eligibility and other relevant data (e.g. in Western Australia). These systems will be finalized and available to the CPRS administrator well before the proposed introduction of the CPRS in 2010.