BENEFITING FROM CO-BENEFITS IN AUSTRALIA
ACKNOWLEDGEMENTS

This report could not have been completed without the valuable contribution of the individual members of the International Steering Group.

The members of the International Steering Group were:

(in alphabetical order)

Dr Adam Bumpus
ASSISTANT PROFESSOR, UNIVERSITY OF MELBOURNE (AUSTRALIA)

Carolyn Ching
PROGRAM DEVELOPMENT MANAGER, VERIFIED CARBON STANDARD (USA)

Christian Dannecker
DIRECTOR OF FORESTRY, SOUTH POLE CARBON (COLOMBIA)

Tanya Petersen
DIRECTOR OF MARKETING AND COMMUNICATIONS, THE GOLD STANDARD (SWITZERLAND)

Will McGoldrick
POLICY MANAGER CLIMATE CHANGE, WWF AUSTRALIA (AUSTRALIA).

The Steering Group provided insight and advice throughout the development of the Options Paper and conducted a peer review of the draft before publication. Any mistakes or inconsistencies are the responsibility of the authors of this report.

Net Balance Foundation would like to thank the authors of this report: Neil Salisbury, Astrid Edwards and Fiona Silke.

For further details contact:
Neil Salisbury    |    neil@netbalance.com    |    +61 3 8641 6427
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Drivers for a co-benefits approach in Australia

Specific contextual issues in Australia

1. Indigenous priorities
2. Biodiversity measurement and market expertise
3. Existing world class monitoring, reporting and verification expertise

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Barriers remain

1. Risk and uncertainty
2. Measurement and verification difficulties
3. Inability to articulate the business case

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Proposed process for establishing a co-benefits standard in Australia

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Domestic standards and guidelines

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The Gold Standard: Co-benefit requirements

Climate, Community and Biodiversity Alliance Standard requirements

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<th>Acronym</th>
<th>Description</th>
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<tr>
<td>ACCU</td>
<td>Australian Carbon Credit Unit</td>
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<td>CARB</td>
<td>California Air Resources Board</td>
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<td>CCER</td>
<td>Chinese Certified Emission Reduction</td>
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<td>CDM</td>
<td>Clean Development Mechanism</td>
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<tr>
<td>CER</td>
<td>Clean Energy Regulator</td>
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<td>CFI</td>
<td>Carbon Farming Initiative</td>
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<td>CCBS</td>
<td>Climate Community and Biodiversity Standard</td>
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<td>CFC</td>
<td>Chlorofluorocarbon</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon dioxide</td>
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<tr>
<td>CO₂e</td>
<td>Carbon dioxide equivalent</td>
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<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
</tr>
<tr>
<td>DCCEE</td>
<td>Department of Climate Change and Energy Efficiency</td>
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<tr>
<td>ERF</td>
<td>Emissions Reduction Fund</td>
</tr>
<tr>
<td>EU ETS</td>
<td>European Union Emissions Trading Scheme</td>
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<td>FSC</td>
<td>Forestry Stewardship Council</td>
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<tr>
<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<tr>
<td>MRV</td>
<td>Monitoring, reporting and verification</td>
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<tr>
<td>Mt</td>
<td>Million tonnes</td>
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<tr>
<td>NDRC</td>
<td>National Development and Reform Commission</td>
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<td>NGERS</td>
<td>National Greenhouse Gas Reporting Scheme</td>
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<td>NOx</td>
<td>Nitrogen oxides</td>
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<td>PDD</td>
<td>Project Design Documents</td>
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<td>SEEA</td>
<td>System of Environmental Economic Accounting</td>
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<td>SOₓ</td>
<td>Sulphur oxides</td>
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<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<td>VCS</td>
<td>Verified Carbon Standard</td>
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<td>VERs</td>
<td>Verified Emission Reductions</td>
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EXECUTIVE SUMMARY:
HOW TO BENEFIT FROM CO-BENEFITS IN AUSTRALIA

Co-benefits are the direct positive outcomes (social, environment and economic) associated with an offset project that are additional to the emissions avoided or the carbon stored. They are benefits which are not automatically priced into the value of an offset.

This paper investigates how co-benefits could be delivered alongside carbon-offset projects in Australia. It reviews both existing international standards and guidelines, and examples of where the co-benefits approach has been used. The paper explores the fundamental question as to whether Australia should adopt an existing co-benefit standard or develop a specific one that addresses our unique environment.

The Government’s Direct Action Plan will build on the Carbon Farming Initiative (CFI) and includes an Emissions Reduction Fund (ERF) to provide incentives for abatement activities across the Australian economy. As the CFI is likely to be expanded to include other activities including energy efficiency, the definition and integration of a co-benefits approach in Australia is important and timely.

Why pursue co-benefits now?

The current CFI legislation contains several provisions to ensure projects do not adversely impact on the environment or the associated communities. Despite this, co-benefits are not explicitly defined in the legislation. The legislation does implicitly recognise the potential of co-benefits by encouraging participants to voluntarily include in the Register of Offsets Projects "particular information about the environmental benefits, or community benefits, of the project…".

While projects are able to advertise these features and seek a premium price for their carbon credits, there isn’t applicable guidance or recognition of applicable international standards in Australia to assist project proponents (developers, buyers and sellers) to identify, measure, monitor and verify co-benefits associated with a project.

With the right framework, co-benefits present an opportunity to create value for project stakeholders and spur demand in the domestic market, while also pursuing social and other environmental outcomes. With bipartisan support for land-based sequestration activities, and the key domestic framework for such activities (the CFI), projects are likely to be expanded to include other activities such as energy efficiency, providing a framework for delivering co-benefits has never been more important.

There are a number of drivers that build the case for providing a co-benefits framework in Australia:

- The existence of effective and respected international standards and guidelines in the international market, providing a valuable platform for integrating co-benefits in the Australian domestic market;
- Significant potential for project developers, land owners and associated stakeholders to achieve multiple social and environmental outcomes;
- Potential for government to achieve multiple objectives such as carbon mitigation to meet their Kyoto target along with their proposed biodiversity objectives; and
- Potential re-launch of a voluntary program proposed by the Commonwealth Government for voluntary offsets.

1 The Coalition (2013).
The barriers preventing action to date

While co-benefits are not a new concept, there is some confusion around their definition. The term co-benefits was used exclusively in the climate change community a few years ago. Now its use is quite widespread and means different things to different people.

Despite the potential advantages of including a co-benefit standard alongside the CFI scheme, there are barriers to adoption, such as the:

- Perceived or real uncertainty and risk associated with co-benefits;
- Methodological and technical difficulties across the various social, environmental and economic co-benefits;
- Potential increase in project development and delivery time due to additional monitoring, reporting and verification (MRV) requirements;
- Potential additional project and compliance costs, such as transaction and administration costs associated with the MRV for co-benefits that may outweigh, or be perceived to outweigh, the price premium potential; and
- Inability to articulate the business case adequately.

These barriers are not insurmountable, but are highlighted to provide a list of key characteristics that will need to be considered during the deployment of a co-benefits approach in Australia.

Key findings of this paper

1. **Communicating the need**: The concept of co-benefits is relatively new in Australia and therefore it is important to share international lessons and raise the profile of a co-benefits approach in Australia. As the research has found, there are clear benefits for Australia to continue to examine and look to implement a co-benefits approach alongside CFI projects.

2. **Price premium**: A review of carbon offset prices indicates that, while price premiums are available for offsets with demonstrated co-benefits, attracting sufficient demand and stimulating supply remains an issue in the current international market.

3. **Monitoring, Reporting and Verification**: Whilst robust MRV is essential to providing credibility, the research highlighted some of the difficulties in measuring some co-benefits such as social outcomes. Yet, overly complex or expensive MRV requirements will have an impact on the project participant’s appetite to develop projects with co-benefits. The authors recommend the use of existing Australian MRV tools under programs such as the CFI, NGER and ESS to meet these requirements.

4. **The business case**: Significant work is required with all associated stakeholders to help articulate and communicate the business case for projects delivering co-benefits. The authors recommend further stakeholder engagement with Australian actors to help articulate the business case.

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These are summarised below and detailed in the ‘Barriers to adoption’ chapter in this report.
5. **Our recommended approach:** This study highlighted a variety of ways to establish a co-benefit standard in Australia. These include a government backed or developed standard and an international standard that is adopted in Australia. In this context, we examined a number of applicable criteria to make a determination, including: the cost and ease of development, flexibility, the ability to align within the Australian context, credibility, fungibility and international consistency. Based on this review, the authors of this paper agree that adopting an international standard would be preferable as it would:

- Bring fungibility with international schemes which would expand the ability to exchange Australian offsets on the international market;
- Represent the lowest cost and be the easiest to implement;
- Build credibility in Australian co-benefits, without reducing flexibility; and
- Reduce implementation and deployment risk.

**Next steps**

If co-benefits are to be mainstreamed as a serious policy option, there are a number of necessary steps that must be taken:

1. **Identify a champion:** A national approach to co-benefits in Australia requires a champion, or group of champions, to mainstream co-benefits in Australia. The authors recommend that the federal government take a lead role in assisting the various stakeholders establish a co-benefits approach in Australia.

2. **Broaden the discussion beyond carbon in Australia:** While the discussion beyond carbon markets is happening on a broad scale globally, it is still in its infancy in Australia. Co-benefits offer an opportunity to engage with other industries and sectors in order to drive demand and investment in viable projects. There are two key types of projects: ones where specific co-benefits are the primary outcome and carbon reduction is secondary, or projects where co-benefits are the secondary outcome with carbon reduction the key. The authors recommend a comprehensive stakeholder engagement program to communicate the need, understand the key requirements, engage with key stakeholders and facilitate deployment of a co-benefits approach in Australia.

3. **Understand the technicalities:** Quantification of some co-benefits is difficult, and valuation more so. Whilst extensive work has been conducted by organisations such as the Gold Standard, further research is needed to define some of the specific co-benefits most relevant in the Australian context. This will provide clarification around the methods for measuring and verifying the benefits, and to consider the potential quantity and extent of the associated co-benefit outcome.

4. **Develop the business case:** A number of stakeholders who were consulted during this process were concerned with the potential additional costs associated with deploying a co-benefits standard in Australia. This was related to the large upfront costs and associated delays faced by participants in developing land sector projects under the CFI. Therefore it is important that the business case for co-benefits is clearly articulated based on evidence specific to the Australian context and supported by lessons learned internationally.

5. **Tailor an international standard:** The adoption and/or integration of an international standard, such as the Gold Standard, will enable widespread acceptance of a co-benefits approach in Australia. It is likely this would initially address a limited number of co-benefits (such as biodiversity) and subsequently be expanded over time.
What are co-benefits?

Co-benefits are direct positive outcomes associated with an offset project that are additional to the emissions avoided or carbon stored. They are the social, economic and environmental benefits that occur as a result of an offset project, but which have been not automatically priced into the value of that offset.  

Co-benefits fall into three broad categories:

- **ENVIRONMENTAL** including increased biodiversity, habitat protection and improved environmental management.
- **ECONOMIC** including increased employment, improved infrastructure, technology transfer and increased economic activity.
- **SOCIAL** including capacity building, access to services and enhanced utility.

Co-benefits have been recognised for more than a decade in the international arena. Table 1 presents a summary of programs from around the world that recognise co-benefits. This list is not exhaustive but provides a summary of the application of co-benefits around the world. Additional information on a comprehensive list of schemes is presented in Appendix A.

In Australia, an offset under the CFI is called an Australian Carbon Credit Unit (ACCU). Co-benefits are recognised in the current CFI legislation to be the additional benefits over and above the abatement associated with an individual ACCU and can be voluntarily reported.

**TABLE 1: RECOGNITION OF CO-BENEFITS AROUND THE WORLD**

| Clean Development Mechanism | A stated goal of the Clean Development Mechanism (CDM) is to support sustainable development in developing countries. The contribution of individual offset projects to sustainable development objectives over and above the emissions reductions are recorded in the strict project design documentation.  

A review of the CDM in 2012 (Benefits of the Clean Development Mechanism 2012) also examined the sustainable benefits through the CDM process and concluded the CDM is making a contribution to sustainable development in host countries in addition to the mitigation of greenhouse gas (GHG) emissions.  

However, concerns about the sustainable development contribution of CDM projects led to some stakeholders launching initiatives, such as the Gold Standard and the Community Development Carbon Fund (CDCF), to support projects that meet specific sustainable development criteria.  

The Gold Standard certified co-benefits in best-practice CDM projects while the CDCF focuses on promoting CDM activities in underprivileged communities. A review of The Gold Standard and CDCF found that the sustainable development profiles their projects tend to be comparable with |

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3 Kollmus et al. (2008).
4 Carbon Credits (Carbon Farming Initiative) Act 2011, s168(o)(i).
5 Nussbaumer (2009).
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<th>Table 1: Recognition of Co-Benefits Around the World</th>
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<tr>
<td><strong>California Cap and Trade Program</strong></td>
</tr>
<tr>
<td>The California Cap and Trade Program sets an emissions limit on those sources that contribute to 85% of California’s emissions. At present there are four offset categories – forestry, urban forestry, dairy digesters and destruction of ozone-depleting substances – and offsets can account for up to eight per cent of an entity’s compliance obligation. Only the forestry protocol recognises co-benefits of sustainable long-term harvesting practices and natural forest management. However, there is a framework for the future inclusion of offset programs.</td>
</tr>
<tr>
<td><strong>European Union Emissions Trading Scheme</strong></td>
</tr>
<tr>
<td>The European Union Emissions Trading Scheme (EU ETS) sets a limit on large emitters across all Member States as well as Iceland, Norway and Liechtenstein. Co-benefits are not explicitly recognised, however limited offsets from the CDM and Joint Implementation are allowed, with exclusions relating to offset projects such as land use and forestry activities, and HFC and adipic acid projects. For the case of N₂O and HFC projects, these quality restrictions are reflection in the EU ETS Directive that requires credits must ‘represent real, verifiable, additional and permanent emission reductions and have clear sustainable development benefits and no significant negative environmental or social impacts’. There is anecdotal evidence that since the enactment of the regulation of quality offset project, there are still reports that some dubious quality offsets remain in the EU market.</td>
</tr>
<tr>
<td><strong>The Chinese 12th Five Year plan</strong></td>
</tr>
<tr>
<td>The 12th five year plan refers to a co-benefits approach through linking climate and air pollution. However, co-benefits are yet to be explicitly included in institutional arrangements. The Panda Standard encourages the development of projects aimed to alleviate poverty, however results have been mixed.</td>
</tr>
</tbody>
</table>

**How are co-benefits achieved?**

Co-benefits are not a new concept within carbon markets. The term was used exclusively in the climate change community until a few years ago, but is now quite widespread. However, like the terms sustainability, it can mean different things to different people.

The CDM, the international trading scheme governed by the Kyoto Protocol, was designed in the 1990s to assist developed economies such as the European Union to reduce emissions while helping developing countries to achieve sustainable development outcomes, also known as co-benefits, from the emission reductions.

In 2001, the Intergovernmental Panel on Climate Change (IPCC) explicitly distinguished co-benefits (the intended positive side effects of a policy) from ancillary benefits (the unintended positive side effects).

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6 CARB (2013).
8 Peng (2011).
9 UNFCC (2013); Sun et al. (2010); Kollmus et al. (2008). For example, The Gold Standard refers to sustainable development indicators and environmental co-benefits. The Climate, Community and Biodiversity Standard (CCBS) refers to additional benefits such as the well-being of local people, the conservation of biodiversity and assist with adaptation to climate change (CCBS, 2012).
10 ACP (n.d.).
Within international markets, co-benefits have been pursued using specifically developed co-benefit standards. These standards were developed in response to criticism that the CDM was not adequately requiring projects to deliver on its sustainable development objectives.\(^\text{11}\)

Table 2 outlines examples of co-benefit measurements and definitions used within the international market.\(^\text{12}\) The types of co-benefits delivered and measured as part of the co-benefit standards and guidelines are varied, and often cover similar concepts with slightly different emphasis.

Co-benefit standards offer a means to pursue multiple outcomes that are good for the environment and for society through an existing market mechanism. It is possible for categories of co-benefits to vary between geographies or jurisdictions, and for these markets to value co-benefits in different ways.

**TABLE 2: KEY INDICATORS**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>EXAMPLE INDICATORS</th>
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<tbody>
<tr>
<td><strong>Biodiversity</strong></td>
<td>Usually refers to number of genes species and habitats affected by a project or located on a project site.(^\text{13})</td>
</tr>
<tr>
<td></td>
<td>- Number of affected and/or threatened plants</td>
</tr>
<tr>
<td></td>
<td>- Number of affected and/or threatened mammals, birds, reptiles, fishes, and other species and habitats</td>
</tr>
<tr>
<td><strong>Air quality(^\text{14})</strong></td>
<td>Air quality refers to ‘changes in pollution in indoor and outdoor air that may have a negative impact on human health or the environment compared with the baseline’.(^\text{15})</td>
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<tr>
<td></td>
<td>Concentrations and emissions of:</td>
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<tr>
<td></td>
<td>- Nitrogen oxides (NOx), sulphur oxides (SOx), carbon dioxide, ozone, CFCs, halons, particulate matter and volatile organic compounds</td>
</tr>
<tr>
<td><strong>Water quality and quantity</strong></td>
<td>The Gold Standards refers to changes from the baseline of pollutants and changes in water balance and availability in ground and surface water,(^\text{16}) however Climate Community and Biodiversity Standard (CCBS), Plan Vivo and Social Carbon capture water impacts through net biodiversity or environmental impacts.(^\text{17})</td>
</tr>
<tr>
<td></td>
<td>Levels of:</td>
</tr>
<tr>
<td></td>
<td>- Biological oxygen demand, biochemical oxygen demand, thermal pollution, mercury and lead</td>
</tr>
<tr>
<td><strong>Soil quality</strong></td>
<td>Soil condition relates to the levels of pollution in soils, such as lead, SOx, NOx, mercury and cadmium. It can also refer to erosion levels or organic matter content.(^\text{18})</td>
</tr>
<tr>
<td></td>
<td>Levels of:</td>
</tr>
<tr>
<td></td>
<td>- Lead, SOx, NOx, mercury and cadmium</td>
</tr>
</tbody>
</table>

\(^{11}\) Olsen (2007).
\(^{12}\) The measures and definitions from each standard have been collated.
\(^{13}\) The CCBS specifically relates to biodiversity within the project boundary, the broader project zone, and offsite (Pitman, 2011).
\(^{14}\) The Gold Standard includes air quality as a key element of its sustainable development matrix, while CCBS considers it in relation to community health benefits and net biodiversity benefits. The CCB standard captures air quality under community impacts and through changes in community health (Richards, 2011), and should be considered when outlining the net benefits of biodiversity changes (Pittman, 2011). Plan Vivo and CarbonFix do not specifically refer to air quality (CarbonFix (2011); Plan Vivo (2012)).
\(^{15}\) Ibid.
\(^{16}\) The Gold Standard (2012).
\(^{17}\) CarbonFix (2011); Plan Vivo (2012); Richards (2011).
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<tr>
<th>TABLE 2: KEY INDICATORS</th>
<th>DESCRIPTION</th>
<th>EXAMPLE INDICATORS</th>
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<tbody>
<tr>
<td><strong>Quality of employment</strong></td>
<td>This can refer to changes in labour conditions such as job related health and safety (quantity measure) or value of employment such as highly or poorly qualified, temporary or permanent employment.(^{19})</td>
<td>• Qualification certificates of employees</td>
</tr>
<tr>
<td><strong>Livelihood of the poor</strong></td>
<td>This can refer to various elements such as poverty alleviation, health improvements of local stakeholders, access to health care services and sanitation, access to appropriate quantity, quality and variety of food.(^{20})</td>
<td>• Children immunised against measles • HIV prevalence among pregnant women • Life expectancy</td>
</tr>
<tr>
<td><strong>Capacity building</strong></td>
<td>This element is related to the improvement of knowledge, skills and capacity of local stakeholders. This could also relate to the empowerment and involvement of certain disadvantaged groups within a community i.e. women or individuals of certain religious beliefs.</td>
<td>• Female combined gross enrolment ratio for primary, secondary and tertiary schools • Change in income and asset distributions by region, ethnicity, religion, and socio-economic groups</td>
</tr>
<tr>
<td><strong>Social resources</strong></td>
<td>Social resources can relate to social cohesion and trust, measured through indicators such as level of participation in civil organisations, family networks, internal conflicts and their causes, and number of people taking collective decisions.</td>
<td>• Level of support or acceptance from the neighbouring population • The existence of a formal association among the members of the community and the association structure grade • The existence of external interferences, such as politics or other institutional influences</td>
</tr>
<tr>
<td><strong>Access to energy services</strong></td>
<td>The Gold Standard specifically refers to the increasing access of communities to affordable and clean energy services. These are particularly relevant to The Gold Standard projects as they historically focused on energy projects.</td>
<td>• Traditional fuel consumption • Change in energy use • Change in traditional fuel consumption (percentage of total energy requirements) • Electricity consumption per capita (kilowatt-hours)</td>
</tr>
</tbody>
</table>

\(^{19}\) The Gold Standard (2012).  
TABLE 2: KEY INDICATORS

<table>
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<th>DESCRIPTION</th>
<th>EXAMPLE INDICATORS</th>
</tr>
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<tbody>
<tr>
<td><strong>Quantitative employment and income generation</strong></td>
<td>• Household income generated from the project</td>
</tr>
<tr>
<td>It could include measuring number of jobs and income from employment for local stakeholders. These types of factors can lead to income stabilisation and diversification or vice versa. 21</td>
<td></td>
</tr>
<tr>
<td><strong>Balance of payments and investment</strong></td>
<td>• Balance of payments</td>
</tr>
<tr>
<td>This refers to the changes in net foreign currency savings and investment into a region, country or technology.</td>
<td>• Amount of domestic investment</td>
</tr>
<tr>
<td></td>
<td>• Amount of foreign direct investment</td>
</tr>
<tr>
<td><strong>Technology transfer and self-reliance</strong></td>
<td>• Number of workshops, seminars organised, and training-related opportunities held</td>
</tr>
<tr>
<td>Measuring the transfer of technology and the training that enables the technology to be applied more broadly than the project. Under The Gold Standard, there must be evidence of technology transfer. 22</td>
<td>• Number of participants who attend those capacity building activities</td>
</tr>
<tr>
<td></td>
<td>• Research and development expenditure</td>
</tr>
</tbody>
</table>

The benefits of an Australian co-benefits standard

The development of a co-benefits standard, or supporting policy mechanisms, would deliver many advantages. A standard would allow for additional benefits to be recognised, and therefore funded, increasing the appeal of the CFI and leading to increased market participation. A standard would also provide a structure allowing for the whole spectrum of co-benefits to be acknowledged, many of which would have remained hidden or ignored without a corresponding framework.

A co-benefits standard would:

1. **ACHIEVE MULTIPLE ECONOMIC, ENVIRONMENTAL AND SOCIAL OUTCOMES**

A co-benefits standard would provide a mechanism to allow intertwined issues that may otherwise compete against each other in practice to be addressed at the same time. This is particularly relevant in Australia, a country faced with multiple environmental concerns and social imperatives.

In the post-Global Financial Crisis climate, carbon prices are at an all-time low and likely to remain that way for several years with reduced demand and unchanged supply of credits in international carbon markets. The resulting decrease in the ability to fund projects with environmental and social benefits is directly at odds with community expectations that social, economic and environmental issues need to be addressed. Therefore a mechanism that offers the potential to achieve **multiple outcomes** is significant.

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For instance, China is exploring air quality co-benefits as part of domestic renewable energy and air quality policies, and the European Union explored improved health outcomes as a result of its climate policy.

By funding one project with multiple outcomes, a buyer will receive more value from their investment than if the two outcomes were paid for separately.

Consider the hypothetical example of farmers where investment could lead to increased abatement, increased on-farm revenue and improved health for landholders (a problem in Australia following the country’s recent decade of drought). The first two goals could be achieved through the CFI, and the resulting mental health outcomes for farmers could be considered co-benefit.

The intention to achieve multiple outcomes is clearly seen in the objectives of the CFI legislation. Indeed, there are two key drivers that demonstrate the CFI is more than a land sector abatement scheme—effective environmental management and engagement of farmers and rural landholders (see Table 3).

<table>
<thead>
<tr>
<th>TABLE 3: MULTIPLE CFI SCHEME GOALS</th>
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<tr>
<td><strong>Effective environmental management</strong></td>
</tr>
<tr>
<td><strong>Engagement of farmers and rural landholders</strong></td>
</tr>
</tbody>
</table>

2 STIMULATE DEMAND OVER TIME BY BROADENING THE MARKET

While co-benefit standards, or more specifically the outcomes they represent, are important as a stand-alone mechanism, they also have the added benefit of stimulating demand for offsets over time.

To date, the carbon market has suffered from the twin issues of inadequate demand and oversupply. Demand for offset projects can be stimulated in the short term by promoting the advantages of co-benefits and providing more certainty and transparency around their ability to be measured and verified. However, there is a case to be made for a considered and thorough campaign to communicate the advantages of co-benefits to a wider audience—after all, it is a mechanism that will achieve broad scale sustainability for carbon offset investments and deliver multiple benefits for less. Through a co-benefit standard, demonstrable and verifiable outcomes could be achieved, impacts that sophisticated and large scale

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23 Ma et al. (2013).
24 The Health and Environment Alliance, Climate Action Network and WWF Europe (n.d.).
25 Eigenraam et al. (2006).
26 National Centre for Epidemiology and Population Health and College of Medicine and Health Sciences (2008).
investors seek. Co-benefits also provide an opportunity to re-badge carbon offset projects, as co-benefit projects, removing the sometime politically sensitive carbon focus.

There is significant potential for Foundations, such as the Bill and Melinda Gates Foundation whose purpose is to improve health in developing counties, to realize carbon as a co-benefit. In cases such as this the significant investment in a health project could also result in significant carbon reduction (see Case Study 1).

**CASE STUDY 1: HEALTH CO-BENEFITS**

Energy efficient cooking stoves are the focus of a significant number of The Gold Standard accredited projects.

The burning of biomass fuel is still the main energy source for cooking for 2.5 billion people. In developing countries, this use of biomass fuel results in more than 1 billion tonnes of CO₂ to the atmosphere. These emissions can be reduced through the development of more efficient cooking stoves, which reduce the amount of biomass burned. In addition, there are a number of social, economic and environmental co-benefits to moving to more efficient stoves.

One of the most important benefits is health. For example, there is evidence of a direct relationship between exposure to biomass smoke and health, with 1.6 million deaths each year – mostly women and children – attributed to diseases resulting from smoke inhalation from open cooking fires. More efficient stoves can reduce the amount of smoke emitted during cooking improving the health of those exposed to the pollution.

The largest cooking stove project under The Gold Standard was the quarter of a million Verified Emission Reductions (VERs) issued to EntrepriseWorks in 2012 for its Gyapa Cookstove project based in Ghana (and developed in association with ClimateCare). Since 2007, more than 287,000 Gyapa stoves have been sold avoiding the release of about a quarter of a million tons of CO₂. The Gyapa Cookstoves are designed to burn charcoal more efficiently, cutting fuel usage by 50 per cent and reducing toxic emissions. In addition to the emissions avoided and the health co-benefits, this reduced fuel usage also has the benefit of realising significant savings at a household level and slowing the rate of forest degradation while helping provide employment throughout the production chain.

While the Australian market is different from and currently not connected to the international market, it suffers a common problem – inadequate demand.

Anecdotal evidence suggests corporate Australia is interested in ‘Australian-made’ co-benefit offsets but has no detailed understanding of what form these may take. Offsets with demonstrable co-benefits are likely to be more attractive to business than standard offsets because of the associated reputational and brand benefits. An Ecosystem Marketplace Report from 2012 found that corporate social responsibility (CSR) drivers are the key motivation for forestry carbon offset.

A clear articulation of what constitutes an ‘Australian-made’ offset combined with a national framework for co-benefits would enable corporate investors to clearly communicate to their stakeholders the value of the positive economic, environmental or social outcomes they have funded.

Given that most corporations have an annual CSR budget to invest in social and environmental projects that align with their corporate vision, the potential pool of corporate buyers could be increased from those with specific offset requirements to include those with broader needs. This would require a clear articulation of the value of co-benefits and the outcomes they

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29 World Bank (2011)
30 Perez-Padilla et al. (2010); World Health Organisation (2002)
31 The Gold Standard (n.d.).
32 Peters-Stanley et al. (2012).
achieve. By rolling co-benefits into carbon offset projects, corporations may be able to combine their CSR budgets with their carbon offset budgets to achieve more tangible outcomes.

It should be noted that redirecting and/or leveraging existing large pools of funds is not a new concept in Australia. For example, it is currently actively discussed in relation to investments in national infrastructure by the nation’s superannuation funds.33

3 SUPPORT SUPPLY BY BOOSTING THE FINANCIAL RETURN

Australia’s Emissions Projections 2012 estimate approximately seven million tonnes carbon equivalent abatement per year from the CFI.34 Currently, there are over 90 CFI projects underway with nearly two million credits issued.35 However, the majority of these are landfill gas projects, with few co-benefits.36 Within the market there are concerns regarding the low financial return from CFI projects, particularly non landfill gas projects. A national approach to co-benefits will not completely address this issue however, as the value of co-benefits is increasingly understood outside of carbon markets, co-benefits may improve the revenue potential for individual projects (see the ‘International Developments’ chapter for a discussion on price premiums for co-benefits in the international market).

Key findings

There is potential for Australian governments (federal, state and local) and investors to achieve multiple social and environmental outcomes through a coordinated co-benefits approach. The CFI in Australia provides a useful vehicle to deliver co-benefits and, in a number of circumstances, the value of combined co-benefits could be significantly greater than the value of carbon alone.

Co-benefits are important to:

- Achieve multiple environmental, economic and social outcomes;
- Stimulate demand for carbon offset projects by broadening the market; and
- Stimulate supply by boosting financial return.

33 Industry Super Network (2013); Infrastructure Partnerships Australia (2010).
34 DCCEE (2012).
36 Ibid.
CO-BENEFITS IN AUSTRALIAN LEGISLATION

The CFI legislative package is underpinned by the *Carbon Credits (Carbon Farming Initiative) Act 2011*. It has been subjected to many changes with regulatory amendments occurring throughout 2013 and more likely to occur in the future due to the change in government. The Coalition’s Direct Action Plan seeks to expand the CFI to include other projects such as energy efficiency, with the primary objective being to obtain the lowest cost Kyoto compliant abatement through a reverse auction process. This is to ensure Australia meets its five per cent target (2000 levels) by 2020.

Currently, co-benefits are not explicitly defined in the legislation. However, the legislation implicitly recognises the potential of co-benefits by stating that participants can volunteer “particular information about the environmental benefits, or community benefits, of the project” and record this in the Register of Offsets Projects (see Table 4).

**TABLE 4: REGISTER OF OFFSETS PROJECTS**

The Register of Offsets Projects provides information about all CFI offsets projects that have been declared eligible by the Clean Energy Regulator. The Register is also a reference for buyers seeking land associated with sequestration offsets projects so that the potential costs and benefits that may be associated with the project can be factored into the sale price. The information available includes details of the type of project, the location, the number of ACCUs issued, and whether units have been relinquished or if that land has a carbon maintenance obligation in place.

The Register of Offsets Projects also allows for the voluntary disclosure of co-benefits where the information documented meets the requirements of the CFI Regulations. This is intended to assist buyers of offsets to also invest in projects with additional environmental or social value.

Accompanying the legislation, the Explanatory Memorandum specifically states that “acceptable standards, such as those relating to co-benefits for Indigenous communities, will be specified at a later date.”

The legislation includes a negative list, which specifies those aspects which projects cannot adversely affect. Projects must not impact water availability, biodiversity and conservation, employment, the local community and/or land access for agricultural production.

At the time of writing this paper, it was not clear what changes the new government is likely to make under the CFI. However, now more than ever, it is important integrate and mainstream co-benefits into regular decision-making processes and projects rather than creating a separate mechanism for applying a co-benefits approach.

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37 Carbon Credits (Carbon Farming Initiative) Act 2011.
38 Ibid, s168(o)(ii).
BARRIERS TO ADOPTION

Despite recognising the potential advantages for including co-benefits in the CFI legislation42 there remain significant barriers to the widespread adoption of co-benefits in Australia. It is important to understand why these barriers exist and how they can be addressed.

Perceived risks and uncertainty

All markets have an element of risk or uncertainty. This is particularly true in the case of co-benefits which require the establishment of a new market to cater for the additional benefits from the carbon offset projects, on top of the relatively new market for carbon in Australia.

1 MARKET UNCERTAINTY

The carbon market – globally and within individual schemes – has experienced significant uncertainty in recent years. At the international level, the market has been destabilised by the twin issues of oversupply and inadequate demand driven by low international demand for carbon reductions and the associated economic downturn. This has been compounded by the uncertainty surrounding the Kyoto Protocol and the long-term effectiveness of the overarching multi-lateral climate architecture enshrined in the United Nations Framework Convention on Climate Change (UNFCCC). The world’s largest compliance market, the EU ETS, continues to face its own challenges, with oversupply again being a key issue.

Even following the election of the Coalition in early September, uncertainty remains as the market waits to see how it will respond.

2 UNCERTAIN PRICE PREMIUMS

There is also uncertainty associated with the price premiums available to co-benefits certified projects. There is evidence to suggest that internationally many land-based projects do not seek external verification regarding the delivery of co-benefits due to the higher costs associated with measuring and verifying these benefits (as well as risk of securing a price premium).43 However, this premise has been countered with some suggestion that the current low prices have encouraged more projects to seek co-benefit certification to access higher prices.44

The lack of clarity around price premiums is likely to impact the willingness of farmers and landholders to monitor and verify co-benefits over and above current monitoring, reporting and verification abatement requirements. A buyers and sellers perspective of uncertainty is outlined in Case Study 2.

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42 Carbon Credits (Carbon Farming Initiative) Act 2011, s168(0(ii)).
43 Simonet et al. (2012); Hug and Ahammad (2011).
44 Personal communication, South Pole Group, 3 August 2013.
CASE STUDY 2: PERCEIVED RISKS ASSOCIATED WITH CO-BENEFITS AT THE PROJECT LEVEL

A buyers perspective

Buyers of carbon credits are classified as either compliance or voluntary buyers. Compliance buyers have a legal obligation to purchase credits and therefore look for the lowest cost of abatement possible. Voluntary buyers choose to purchase credits and are motivated by a range of factors. Their interest may be in the commercial value of the carbon credit or it may be driven by reasons that are difficult to quantify financially.

From a buyers perspective (particularly in the voluntary market), a new set of standards to help define and differentiate the various types of co-benefits (which are often misunderstood and hard to quantify) would allow them to make more informed purchase decisions and unlock the intrinsic value currently held in certain types of projects.

There are two key risks associated with co-benefits from a buyers point of view:

- **One is to equal one**: If co-benefits are going to be used to help buyers make purchasing decisions, then the co-benefit in project A has to be equal or comparable to the co-benefit in project B. There may be a need for the standard or guideline to include weightings for different types of co-benefits; and

- **Buy-in**: The voluntary carbon market is actually quite small internationally, with perhaps a dozen main intermediaries supplying the market. Buy-in from these intermediaries will be needed in order for a new co-benefits model/standard to take off.

A sellers perspective

Sellers of carbon credits tend to be either project developers or third party intermediaries. While project developers understand the specific details of their own projects, they are not always familiar with the wide variety of other project types in the same way as third party intermediaries who have experience and knowledge across a range of projects.

Sellers in the international market need to find new ways to differentiate and value their carbon credits, particularly in the voluntary market where different types of co-benefits have different value propositions. If sellers are able to demonstrate the co-benefits that arise as a result of their projects, they may be able to promote their credits to new and alternative types of buyers, potentially increasing the commercial value due to the value of the co-benefits, not just the value of the underlying abatement.

However, there are also two perceived risks from the seller’s point of view:

- **Communication and early adoption**: If there is a new standard and/or guideline for co-benefits it may be difficult to encourage project developers to use it early on. This is because while projects can take years to commercialise, the decision on which standard to use is decided very early. Once a standard has been selected it can be quite hard to adapt it or change it.

- **Buy-in**: There will need to be buy-in from project aggregators. This is because there are approximately ten main aggregators, with around 50 second tier aggregators that feed into the larger ten.

Case study provided by Nathan Dale, Managing Director of Brokers Environmental. Primary carbon market (International): Project Origination and Forward Sales. See [www.brokersenvironmental.com](http://www.brokersenvironmental.com).
Methodological and technical difficulties

The identification, MRV and quantification of all types of co-benefits is complex. The process for defining, monitoring, measuring and valuing co-benefits is outlined in Figure 1. There are a number extra steps required if a project is to certify the delivery of co-benefits, and the complexities associated with measuring social, environmental and economic outcomes remain high.

**FIGURE 1: IDENTIFYING, MEASURING, MONITORING AND VALUING CO-BENEFITS**

- **DEFINE RECOGNISED TYPES**
  - A co-ordinated approach is unlikely to include all potential benefits; specific types need to be defined.

- **MEASURE EXTENT OF BENEFIT**
  - A consistent and rigorous approach is required to measure the extent of the benefit, and needs to be comparable across co-benefit types.

- **VERIFY THE BENEFIT**
  - Market confidence requires quality monitoring and verification of not only the carbon component, but also of additional benefits.

- **VALUE THE PREMIUM**
  - A key difficulty is valuing the additional benefit on top of the market price for carbon, and again, this needs to be comparable across types.

The measurement of social outcomes is potentially more complex than the measurement of environmental impacts. The complexity associated with measuring intangible social outcomes and the problematic nature of producing comparable results, can increase cost of collection and decrease the usefulness in defining value to the marketplace, particularly for buyers. The different nature of environmental and social outcomes means that trade-off decisions regarding the achievement of these outcomes are subjective and difficult to replicate.

There are also difficulties measuring environmental outcomes, particularly when comparing local and regional benefits. For all co-benefits – environmental, economic and social – there are trade-offs involved in the qualitative versus quantitative measurement. These issues require careful consideration. If the process to evaluate and compare activities that generate co-benefits is not well defined within Australia, co-benefit outcomes will be highly contested. This will reduce the likelihood that these projects will attract a premium (in either the domestic or the international market) or encourage additional private sector investment.

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45 Simonet et al. (2012).
46 There are also complexities associated with simply drawing the boundary on the scope of social outcomes considered.
48 Simonet et al. (2012).
49 Ibid.
MRV and subsequent quantification of the value of the co-benefit also presents potentially significant transactions costs. If these outweigh (or are perceived to outweigh) the potential premium the co-benefit may be able to attract, investment will not occur.

Inability to articulate the business case

By investing in one project which will deliver multiple outcomes, a buyer is likely to receive better value compared with investing in two separate projects.\(^5^0\) As voluntary buyers seek out offsets with a charismatic edge, the ability to show the story behind the offset is increasingly necessary.\(^5^1\)

The lack of demand and oversupply in the carbon market globally, means that non-priced benefits could provide the differentiator needed to sell the credit. Co-benefit standards enable project suppliers to articulate the story behind the offset and access these higher premiums by providing assurance to buyers of the rigor behind the measurement and monitoring of the co-benefit outcomes. Marketing offset projects as co-benefit projects with carbon reduction as a side benefit may assist in building demand.

Through a co-benefits standard a strong business case for the purchase of CFI offsets with co-benefits can be made. This could align the offset projects with the CSR goals of large corporations, thereby attracting new buyers to the market. This will require significant education among not only the environment and/or compliance teams, but also the CSR and community investment teams.

Key findings

While there are potential benefits to be gained through the inclusion of a co-benefit standard, there are also barriers to adoption. These include:

- Perceived uncertainty and risk;
- Methodological and technical difficulties across the various social, environmental and economic co-benefits;
- Potential increase in project development and delivery time to additional requirements;
- Additional MRV requirements;
- Potential additional costs; and
- Inability to articulate the business case.

These barriers are not insurmountable; however, they do need to be addressed, before a co-benefit standard can be rolled out within Australia.

\(^5^0\) Eigenraam et al. (2006).
\(^5^1\) Simonet et al. (2012).
INTERNATIONAL EXPERIENCES

Given the potential benefits of and barriers to implementing a co-benefits standard alongside Australian carbon offset projects, there is much to learn from the international experience. The information in this chapter is prefaced on the matrix included in Appendix A, which summarises the key elements of the CDM, four key international co-benefit standards and relevant current Australian standards.

Co-benefit standards and guidelines in the international market

The CDM enables offsets from developing economies to be used within compliance markets in developed economies. The CDM does not require projects to measure and report on anything other than the abatement achieved by the project. While project proponents are asked to explain the potential benefits of the project during the Project Design Documents (PDD) stage, the extent to which the CDM achieves sustainable development outcomes has been questioned. While it is not the purpose of this paper to analyse the effectiveness of the CDM, the limitations of the CDM in demonstrating additional benefits beyond abatement is relevant to a discussion of co-benefits in a compliance market.

International co-benefit standards and guidelines have been developed to operate in parallel to the CDM to enable project proponents to demonstrate co-benefits that arise from CDM projects. Co-benefit standards and guidelines have been an integral part of the international market since 2003. Each standard and guideline responds to certain drivers or has a particular focus. For example, some focus on local communities and small landholders while others seek to broaden the scope for benefits but lighten the MRV requirement. Regardless of the focus, international co-benefit standards and guidelines seek to deliver on the original intent of the Kyoto Protocol by establishing a framework to deliver sustainable development alongside abatement (see Table 5).

Most co-benefits standards are designed to work in conjunction with a carbon-focused standard such as the Verified Carbon Standard (VCS), which accounts for 61 per cent of the voluntary market. The Gold Standard and Plan Vivo are self-standing standards that already incorporate both carbon and co-benefit accounting.

<table>
<thead>
<tr>
<th>TABLE 5: INTERNATIONAL CO-BENEFITS STANDARDS</th>
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<tr>
<td>Co-benefit standards are those standards that assess, measure and/or report on benefits other than carbon reduction as part of carbon offset projects. The four key standards are:</td>
</tr>
<tr>
<td><strong>Climate, Community and Biodiversity Standard:</strong> CCBS is a land-based co-benefit standard providing a framework for identifying and reporting on additional community and biodiversity benefits from reforestation, afforestation and other land-based offset projects.</td>
</tr>
<tr>
<td><strong>The Gold Standard:</strong> Developed by a group of NGOs, this co-benefit standard has historically targeted energy projects however, it has recently been expanded to include land-based offset projects and alternative types of additional benefits. For example there is an increasing trend for land with either Fair Trade or Forest Stewardship Council activities to also be used for carbon reduction activities and to sell the carbon reductions in the voluntary market. The Forestry Stewardship Council (FSC) and FairTrade are working with Gold Standard to establish carbon certification projects.</td>
</tr>
</tbody>
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52 Olsen (2007).
53 Lee et al. (2013).
54 Kollmuss et al. (2008).
55 Peters-Stanley and Yin (2013).
56 Carbon Fix was also a stand-alone standard, however has been acquired by The Gold Standard.
57 Determined by market share, as reported in Peters-Stanley and Yin (2013).
**Social Carbon**: Founded on the principle of transparent assessment and monitoring of the social, environmental and economic conditions of communities associated with offset projects. It can be applied to a broad range of project types.

**Plan Vivo**: This standard focuses on small landholder land-based offset projects that improve local livelihoods and restore ecosystems.

Other standards, guidelines and frameworks include:

**PANDA STANDARD**: Created in 2011 by the China Beijing Environment Exchange (CBEEX) and BlueNext. This standard is the first Chinese domestic voluntary carbon offset standard. It aims to provide transparency and credibility to the Chinese carbon market and China’s poverty alleviation objectives.

**Women’s Carbon**: Administered by Women Organising for Change in Agriculture and Natural Resource Management, this standard certifies carbon projects that demonstrate women’s engagement and leadership.

**Drivers of co-benefit standards**

A key driver of the co-benefit standards is to ensure more rigor around the delivery of sustainable development outcomes. As outlined in Table 6, each standard or guideline has been developed in response to a particular issue or constraint within the countries where carbon offset projects are being delivered.

<table>
<thead>
<tr>
<th>TABLE 6: DRIVERS OF FOUR KEY CO-BENEFITS STANDARDS</th>
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<tr>
<td><strong>STANDARD</strong></td>
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| Climate Community and Biodiversity Standard (2003) | - Developed by conservation NGOs and private sector players concerned about displacement of local people and the threat of monocultures.  
- Aimed at improving forestry carbon projects.  
- Methodologies include theory of change and sustainable livelihood approach. |
| The Gold Standard (2003) | - Considered the most rigorous and comprehensive co-benefit standard.  
- Developed by group of NGOs seeking to ensure the delivery of multiple outcome projects within the carbon market. |
| Social Carbon | - Voluntary offset standard, developed to be used with other standards such as VCS or the CDM.  
- Aimed to strengthen co-benefits of offset projects and to enhance stakeholder participation. |
| Plan Vivo | - Developed for community-based agro forestry projects, seeking to support and empower rural communities to sustainably manage their land.  
- Socio-economic impact assessment plan that requires participatory methods for project development. |

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58 Peters-Stanley and Yin (2013).  
60 Richard and Pantll (2011).  
63 Kollmus et al. (2008); Plan Vivo (2012).
Co-benefits alongside compliance markets

The voluntary carbon market has provided a useful testing ground for co-benefit standards and guidelines. It has facilitated and encouraged innovation to occur in the CDM compliance market. It has also allowed for some co-benefits to be recognised within compliance markets by building on the CDM methodologies. Buyer demand and willingness to pay for higher quality offset projects provides useful insight into the potential of co-benefits standards within the CFI.

Of the 610 VCS projects registered with APX, 29 were agricultural/land-based projects of which 14 had CCBS certification. Growing in number, cook stove offset projects represent a good example of how co-benefit standards can be applied with CDM methodologies to measure the additional co-benefits (see Case Study 3).

CASE STUDY 3: APPLICATION OF CDM APPROVED METHODOLOGY WITH THE GOLD STANDARD

As highlighted earlier, researchers estimate potential carbon reductions with improved efficiency will exceed one billion tonnes CO$_2$e per year with additional benefits for rural living and the environment. There are currently two CDM methodologies for quantifying the carbon reduction from cook stove projects.

The Gold Standard has enabled the use of the CDM methodologies to quantify the carbon reduction, alongside co-benefit requirements, linked to cook stove projects. This allows these projects to be CDM compliant as well as capturing the additional benefits generated, potentially accessing a price premium for this investment.

There are limited examples of mandatory co-benefits in carbon compliance markets. While California has such requirements with co-benefits obligatory for all forest projects within its cap and trade program, this is the only example where co-benefits are a mandatory requirement within a compliance scheme.

CASE STUDY 4: CALIFORNIA’S CAP-AND-TRADE PROGRAM

The California Cap and Trade Program sets an emissions limit on those sources that contribute to 85 per cent of California’s emissions. The program will eventually cover about 350 organisations, representing 600 facilities.

Under the scheme offsets are permitted for up to eight per cent of a facility’s compliance obligation. These offsets are initially restricted to projects in four areas: forestry, urban forestry, dairy digesters and destruction of ozone-depleting substances. While there is a framework for future inclusion of international offset programs, offsets must currently comply with one of four approved protocols:

- U.S. Forest Projects Compliance Offset Protocol
- Urban Forest Projects Compliance Offset Protocol
- Livestock Projects Compliance Offset Protocol; and
- ODS Compliance Offset Protocol.

All offset projects must have their emissions reductions verified by an accredited offset verification body. There are co-benefits obligations for forestry projects where it is recognised that forest projects can create long-term climate benefits as well as providing other environmental benefits, such as supporting natural ecosystem processes. The protocol requires projects to employ both sustainable long-term harvesting practices and natural forest management.

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64 APX (2013).
65 Ibid.
practices. The use of these practices is reviewed during all verifications.

Protocols are based on those used by Climate Action Reserve and the American Carbon Registry are approved Offset Project Registries for the program.

Co-benefits in voluntary markets

The voluntary carbon market is relatively small when compared with the CDM market (see Table 7). However, in 2012 average prices in the voluntary market were more stable than in the CDM market.68

<table>
<thead>
<tr>
<th>TABLE 7: THE CLEAN DEVELOPMENT MECHANISM AND VOLUNTARY MARKET</th>
<th>CLEAN DEVELOPMENT MECHANISM</th>
<th>VOLUNTARY MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volumes (CO₂e)</td>
<td>1,700* Mt</td>
<td>2,025 Mt</td>
</tr>
<tr>
<td>Value</td>
<td>$22,000 million</td>
<td>$6,498 million</td>
</tr>
<tr>
<td>Average price</td>
<td>-</td>
<td>$3.2/t CO₂e</td>
</tr>
</tbody>
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*Includes CDM relevant only.
*Estimated.

Within the voluntary carbon market, transacted volumes and demand have been volatile over the past few years (see Figure 2 and Figure 3).

**FIGURE 2: HISTORICAL TRANSACTED VOLUMES IN THE VOLUNTARY MARKET**69

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68 Peters-Stanley and Yin (2013).
69 Ibid.
Within the voluntary carbon market, co-benefit standards accounted for approximately 30 per cent of the market. Of this, CCBS applied in conjunction with VCS accounted for the highest proportion of the market at 41 per cent, with The Gold Standard projects accounting for 35 per cent of the total co-benefit market share (see Figure 4).

FIGURE 4: PERCENTAGE OF MARKET SHARE BY STANDARD

Demand in the voluntary carbon market is driven by a need to manage compliance and supply chain risk, as well as to demonstrate corporate social responsibility and industry leadership.  

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70 Peters-Stanley and Yin (2013).
71 Ibid.
72 Ibid.
Lessons to gain from international experiences

The international experience provides useful input into the discussions around the development of co-benefits standards in Australia.

1 DELIVERY OF ADDITIONAL BENEFITS

Recent research has investigated the extent to which co-benefit standards and guidelines (largely focusing on The Gold Standard) provide additional benefits when compared with the CDM.\(^\text{73}\) In most instances, The Gold Standard was found to capture greater sustainable benefits than CDM projects. It also indicated there is greater differentiation between CDM and The Gold Standard projects for social and economic indicators compared with environmental indicators.\(^\text{74}\)

However, the evidence does not fully provide a clear picture of the additional benefits delivered by co-benefit standards’ projects over and above CDM projects. Due to the MRV requirements of most co-benefit standards and guidelines, it is conjectured that the actual co-benefit outcomes would be much higher for co-benefit certified projects.

Research is currently underway at the international level. Further research specific to the Australian context and opportunities is also required.

2 CO-BENEFIT PROJECTS ATTRACT A PRICE PREMIUM

Co-benefits are often sought because of their potential to achieve multiple benefits through a single mechanism, as well as generating price premiums (although it must be noted that not all co-benefit offset projects will require a price premium). Figure 5 illustrates the basic logic behind a price premium.

FIGURE 5: CREATING A PREMIUM CREDIT

A key question is whether price premiums – particularly in a volatile market – can be achieved at scale. This is complicated by the fact that the price premium for a co-benefit will depend on the price of the offset itself.

Recent data released suggests that co-benefit certified projects are attracting a premium price as can be seen in Table 8 which summarises the average price across international standards for co-benefit projects in 2012. In addition, there is evidence to indicate that some project developers are increasingly turning to co-benefit certification during times of low carbon price, to access the price premiums available on these types of projects.\(^\text{75}\) This is a result of offset suppliers using co-benefit certified projects as a way to differentiate and increase the value of their offsets.\(^\text{76}\) This proposition remains an opportunity for project suppliers in Australia.

\(^\text{73}\) Nussbaumer (2009); Drupp (2011); Killick (2012).
\(^\text{74}\) Killick (2012).
\(^\text{75}\) Personal communication, South Pole Group, 3 August 2013.
\(^\text{76}\) Personal communication, the Gold Standard, 1 September 2013.
While Table 8 indicates higher prices for co-benefit certified projects, the experience is not that straightforward. The same report revealed that a number of market trends within the voluntary market for 2012 influenced the price levels achieved by different types of projects. The findings included:

- A push from buyers to engage closely and exclusively with offset projects, meaning that buyers have a higher willingness to support boutique projects of which they are the exclusive owners;

- Larger offset project had difficulties attracting higher prices for their projects. Large project suppliers found that when they came to sell a portion of a large offset project, they were often undersold by intermediaries who they had sold to already;

- A lack of corporate buyers willing to enter into multi-year contracts, which limited the ability of suppliers of large innovative projects to access the necessary capital investment; and

- Sustained growth has been experienced for individual projects that grow from small annual volumes to multiple projects and locations. This was demonstrated by the increasing demand for cook stove projects. This may be due to uncertainty about new innovative offset projects, which may be overcome as the market becomes more familiar with a particular project type.

### Table 8: Average 2012 Process – The Gold Standard and VCS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Gold Standard (cook-stoves)(^\text{a})</td>
<td>1.6 M</td>
<td>4.4 M</td>
<td>$14/t</td>
<td>$11/t</td>
</tr>
<tr>
<td>Afforestation and reforestation(^\text{a})</td>
<td>7.6 M</td>
<td>8.8 M</td>
<td>$9/t</td>
<td>$8/t</td>
</tr>
<tr>
<td>VCS+CCB REDD(^\text{a})</td>
<td>2.4 M</td>
<td>6.5 M</td>
<td>$8/t</td>
<td>$7/t</td>
</tr>
<tr>
<td>The Gold Standard (wind)(^\text{a})</td>
<td>2.6 M</td>
<td>2.2 M</td>
<td>$10/t</td>
<td>$7/t</td>
</tr>
<tr>
<td><strong>VOLUNTARY MARKET AVERAGE</strong></td>
<td><strong>97 Mt</strong></td>
<td><strong>101 Mt</strong></td>
<td><strong>$6.2/t</strong></td>
<td><strong>$5.9/t</strong></td>
</tr>
</tbody>
</table>

\(^\text{a}\) Based on 28 Mt CO\(_2\)e associated with survey responses that report project type, location and transaction volumes.

### 3. Demonstrating Innovation and Flexibility

International standards and guidelines have been innovative in response to market drivers, seeking varied funding sources for projects. Driven by low offset prices and the imperative of securing funding, several standards and guidelines have expanded the type and emphasis of co-benefits that can be certified.\(^79\) As a result, co-benefits such as water quality, women’s empowerment and public health are being explored.

For example, offset projects have begun on land that has FairTrade activity and/or FSC certification, leveraging a partnership with The Gold Standard. This means that offset projects can access funding through FairTrade and FSC sources, as well as funds leveraged through the carbon market.

Other innovations have focused on reducing the transaction costs associated with the certification of projects under a co-benefits standard or guideline for smaller offset projects. This change has enabled smaller projects to be developed (thereby responding to market demand). For example, Plan Vivo updated its guidelines to deliver a more integrated

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\(^77\) Peters-Stanley and Yin (2013).

\(^78\) Ibid.

\(^79\) Ibid.
certification service for smaller landholders and The Gold Standard established a micro-scale scheme that reduces the audit costs for projects under 10,000t CO$_2$e per annum in developing economies. These types of innovations could inform an Australian standard that seeks to overcome market barriers.

**4 DIFFICULTIES IN MEASUREMENT AND VERIFICATION REMAIN**

MRV can be extremely difficult to apply to co-benefits. While advances have been made in terms of measurement, limitations remain. Figure 6 illustrates the continuum of international standards and guidelines, with levels of quantification and measurement plotted against the levels of co-benefits. Different standards take very different approaches to the requirements of projects. Gold Standards projects must meet a level of benefit from initiation, whereas Social Carbon requires the demonstration of improvement.

**FIGURE 6: STANDARDS MAPPING QUANTIFICATION VERSUS LEVEL OF CO-BENEFITS**

Even though The Gold Standard is seen as the leader in terms of measuring co-benefits, there are limitations inherent within its sustainability matrix. This particularly applies to the subjective nature of the matrix, which relies on qualitative explanations of potential impacts rather than quantitative assessments, as well as possible inconsistencies in the use of baselines from one indicator to the next. Another limitation can arise when defining the boundary of the project and quantifying co-benefits, as many projects will have regional impacts not localised impacts, which makes it difficult to capture these benefits quantitatively.

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80 Peters-Stanley and Yin (2013).
81 Godfrey (2009), Killick (2012); Simonet et al. (2012).
82 Astrium Services and CEC in Simonet et al. (2012).
83 Sterk et al. in Godfrey-Wood (2011).
5 IMPORTANCE OF INTERNATIONAL FUNGIBILITY AND CREDIBILITY

The importance of international fungibility, the ability to substitute one for one across jurisdictions, has been highlighted in China where the Panda Standard (outlined below in Case Study 5), has been trialled. The Panda Standard, an independent co-benefit standard applicable only in China, has found difficulties due to the lack of fungibility and international standardisation.84

CASE STUDY 5: CHINA’S PANDA STANDARD

China is rolling out seven domestic pilot emissions trading schemes in advance of moving to a national scheme. The first scheme started in Shenzhen in July 2013 and covers electricity generation, industrial enterprises and the building sector. Emitters have the option of trading credits in the form of Chinese Certified Emission Reductions (CCERs), which are issued by the National Development and Reform Commission (NDRC). The NDRC allows existing CDM projects to register as projects.85

The Panda Standard is the first Chinese domestic voluntary carbon standard. It is designed to provide transparency and credibility in the Chinese market, as well as to advance poverty alleviation objectives by encouraging investment in rural areas.86 Initially its focus is Agriculture, Forestry and Other Land Use (AFOLU) offset projects with significant poverty alleviation benefits.87

To be eligible, projects must comply with seven core principles — they must be real, additional, measurable reportable and verifiable, unique, permanent, demonstrate ancillary benefits and unambiguously owned. Ancillary benefits must generate net positive impacts on the environment and contribute to the social and economic wellbeing of communities by mitigating potential negative effects caused by the project activity. These benefits will be monitored, reported and verified using independent third party auditors, with at least one on-site visit required at validation and verification. The guidelines for assessing and monitoring ancillary benefits are still under development.

In addition, the poverty reduction impact of the project may be assessed through the Panda Standard Poverty Alleviation Criteria Tool, however this is not a requirement. Projects that apply the Poverty Alleviation Criteria Tool and demonstrate positive poverty reduction impacts that are verified by approved third party auditors will be awarded Panda Standard credits with a special designation indicating the optional added certification of poverty impacts. The Poverty Alleviation Criteria Tool is in the final stages of review and approval but is expected to be a toolkit composed of poverty alleviation criteria, indicators, and methods of assessment and verification.

The purpose of the Panda Standard is to stimulate investment in voluntary offsets in rural areas. It has not specifically been designed to align with domestic emissions trading schemes however, it is expected that the Panda Standard will operate concurrently with these schemes.

84 Personal communication, the Gold Standard, 1 September 2013
85 Climate Bridge (2012); The Climate Institute (2013).
87 Panda Standard (2013) Sectoral Specification For Agriculture, Forestry And Other Land Use.
Key finding

Effective international standards and guidelines are in operation and have demonstrated the many benefits of a co-benefit standard. In particular, internationally, co-benefit standards have clearly demonstrated their flexibility and innovation, which could also benefit Australia. This flexibility indicates that a standard could be adapted to Australia’s local context.

While the price premium of different co-benefit certified projects vary, there is evidence that they are able to achieve higher prices. This would help in communicating the value of co-benefits to Australian stakeholders (suppliers and governments). International experiences will not solve some barriers to adoption such as methodological and technical difficulties, with MRV still remaining an issue in Australia. However, various co-benefit standards have sought to present a way to balance the complexities and ease of implementation, which can inform an Australian approach. Furthermore, no systematic independent review has been undertaken to demonstrate that the co-benefit standards are delivering over and above the co-benefit outcomes of CDM projects.

Finally, lessons from China’s requirement for international fungibility and credibility, must inform a way forward for Australia as it will be less onerous and complex to import an international standard than develop one from scratch. The lessons learnt from other jurisdictions about fungibility are also important and should be one of the main points for consideration.
DOMESTIC CONTEXT

Co-benefits offer to deliver broader benefits to Australia through:

1. Delivering multiple outcomes for lower funding;
2. Broadening the market demand for carbon; and
3. Supporting the supply of projects.

Australia has the opportunity to learn from the international experience. While there are some differences between the international and Australian contexts that must be taken into account when determining the path forward for Australia and co-benefits there are also many similarities.

Drivers for a co-benefits approach in Australia

The drivers for co-benefits to be included in Australia’s domestic offset scheme are quite different to the push in the international markets. International demand for co-benefits standards has been driven by a need to manage the relationships and expectations between developing and developed countries.

Within Australia the drivers for the delivery of co-benefits are less about pure development outcomes and more about maximising benefits of projects, potentially linked to the delivery of existing public policy and socio-economic concerns.

Specific contextual issues in Australia

Also influencing the drivers and potential implementation of co-benefits in Australia are specific contextual characteristics. The three key contextual issues for Australia are:

1. Indigenous priorities;
2. Biodiversity market expertise; and
3. Existing world class monitoring, reporting and verification expertise.

INDIGENOUS PRIORITIES

Australia has a unique social and political history, which remains a major economic and public policy influence. Indigenous participation and cultural heritage concerns are key considerations within the CFI framework and would remain so in any land-based carbon offset scheme. Specifically, the CFI includes provisions to promote projects that benefit Indigenous communities.

Significant work is already underway investigating the potential for Indigenous co-benefits to be recognised under the CFI such as the work undertaken by the Aboriginal Carbon Fund.88 Any attempt to implement a co-benefits standard or deliver co-benefits in the Australian context will need take this into consideration and would require extensive consultation with Indigenous people. Case Study 6 provides more detail about the current market action surrounding Indigenous projects.

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CASE STUDY 6: INDIGENOUS OFFSET PROJECTS

There has been much interest in Indigenous carbon offset projects under the CFI, with two methodologies approved by the Clean Energy Regulator which will provide opportunities for Indigenous landholders to access funding from the CFI. There are different approaches to delivering offset projects with Indigenous landholders, through their management of a project or the benefits a project delivers to them. While both approaches will assist those involved, the outcomes will likely be different. Anecdotally, buyers in the market do not seem to be very concerned about actual outcomes resulting from different Indigenous engagement projects, however, a co-benefit standard may influence how these outcomes are measured and reported.

2. BIODIVERSITY MEASUREMENT AND MARKET EXPERTISE

The experience and expertise of Australian participants, particularly in establishing biodiversity markets and creating measures to compare disparate types of vegetation and land, presents opportunities for co-benefits within Australia. There is also an increasing sophistication in understanding the benefits provided by ecosystem services and acknowledgement of how they support the economy.

Market expertise

Investment in biodiversity outcomes is not new to Australia where many programs have been established with the aim of protecting its unique environment. Over the past decade, various state governments have set up biodiversity offsets and invested in market based instruments. To date, programs have focused on establishing biodiversity offsets that land developers can purchase from private landholders to offset biodiversity impacts associated with their specific development. These schemes have developed measurement frameworks to enable comparison of disparate pieces of land and have also created accepted practice for putting a price on carbon. Victorian schemes, Ecotender and Bushbroker, use a measure called ‘habitat hectare’ to compare different types of biodiversity improvements and to price improvement benefits. Further details of the domestic based biodiversity schemes are provided in Appendix A. Appendix A includes various aspects of the Victorian EcoTender, an independent approach to stakeholder engagement and biodiversity projects, and the New South Wales BioBanking scheme.

The existence of these trading schemes means that some participants in the Australian market are familiar with pricing biodiversity. With the current price of biodiversity offsets upwards from $1,000 per hectare and even though direct comparison is not possible, some voluntary buyers who can currently purchase carbon offsets for $6 per tonne may consider the former quite expensive.

Measurement and monitoring developments

Further to these market developments, the Australian Bureau of Statistics is undertaking research to create a national measurement framework that includes consideration of stocks and flows, similar to the national accounts. While at this stage the accounts focus on environmental assets that are currently traded or easily measured, they are seeking to track the stocks and flows of ecosystem services (see Table 9).

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89 Ecosystems Marketplace (2012).
90 Office of Environment and Heritage (2013).
Australia is in the process of establishing the Australian System of National Accounts, which aligns with the United Nations System of Environmental – Economic Accounting (SEEA) Central Framework. The accounts will provide a capital estimate for natural capital that can be split into land, subsoil (fossil fuels and minerals) and native timber.

Biodiversity is not yet included in the national accounts as a standardised method for valuing environmental assets and ecosystem services. However, SEEA continues to work on Experimental Ecosystem Accounts such as biodiversity. A list of provisional indicators has been agreed to assess progress towards achieving biodiversity targets that can be implemented at national, regional scales or international scales.

The four indicators concerning the state of biodiversity are:
- Trends in extent of selected ecosystems;
- Trend in abundance and distribution of selected species;
- Trend in status of threatened species; and
- Change in genetic diversity.

**EXISTING WORLD CLASS MONITORING, REPORTING AND VERIFICATION EXPERTISE**

Australia – unlike many jurisdictions in which the voluntary market operates – already has a world class carbon MRV system in place. This system is built on the National Greenhouse and Energy Scheme (NGERS), which has been in operation across Australia since 2007. NGERS is a national framework for energy and emissions reporting, and provides the data required for Australia’s national greenhouse accounts and relevant international obligations.

Australia is in the position of being able to export MRV expertise. For example, in early April 2013 the Commonwealth Government announced new carbon market collaboration with China. This included specific provisions to share Australian expertise in measurement, reporting and verification in the seven pilot schemes being implemented in China. Australia also provides carbon market training and education through the Carbon Markets Institute as well as training programs for farmers and other stakeholders on the CFI.

This experience, combined with capabilities in evaluating biodiversity improvements, means that Australia has the potential to extend some of the measurement criteria associated with the delivery of co-benefits. In particular, the Federal Government has developed specific assessment requirements for all funding provided through the Biodiversity Fund or Caring for Country program. The latest round of funding is particularly focused on collecting spatial information about projects, along with information about which projects are contributing to conservation and protection of Matters of National Environmental Significance.

Leveraging Australian expertise in both carbon and biodiversity could mean the establishment of more rigorous MRV process for Australian biodiversity benefits, reducing risk through higher investor confidence. A rigorous MRV process ensures genuine quality and market confidence, which is necessary to support any potential price premium.

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91 ABS (2013).
95 Combet (2013).
96 Carbon Market Institute (n.d.)
97 DAFF and DSEWPC (2013) ‘Program monitoring, evaluation, reporting and improvement (MERI) plan: Caring for our Country, Sustainable Environment Stream’.
Key finding

There are similarities between the Australian and international contexts as well as some distinct differences. Australia has specific expertise in seeking to achieve co-benefits, particularly biodiversity outcomes. This expertise, with biodiversity markets and MRV, could be used to develop or enhance a co-benefits standard for Australia, potentially enhancing the rigor and therefore market confidence in the delivery of co-benefits. While the focus of international co-benefit standards are to deliver development outcomes to developing countries, drivers for a co-benefit standard in Australia include accessing the additional benefits that are available, and bolstering demand for co-benefit carbon offset projects. Indigenous priorities and the legal requirements that may affect development of some projects in certain locations should also be taken into consideration, when developing a co-benefits standard in Australia.
THE WAY FORWARD

There are clear benefits for Australia to continue to examine the role of co-benefits alongside carbon offset projects. There is significant potential for Federal, state and local government, investors, corporates and project developers to achieve multiple outcomes through a coordinated co-benefits approach.

Learning from international experiences

There is much to learn from international experiences and it provides useful input into the discussions around the development of a co-benefits approach in Australia. Key findings include the following:

- The extent of additional benefits has not yet been verified by independent review;
- Clear evidence that co-benefit projects attract a price premium in the voluntary market;
- Innovation and flexibility can be useful in times of low carbon prices;
- MRV remains difficult; and
- Fungibility and credibility are important.

Barriers remain

Incorporating the lessons learnt from our international experience, there are barriers that still remain to the easy adoption of co-benefits alongside carbon reduction, from offset projects.

1. RISK AND UNCERTAINTY

In the Australian context, there will remain uncertainty and risks associated with the potential to obtain a price premium on projects that have verified co-benefits. While we can use international examples to articulate the business case and outline examples where price premiums have been paid for specific co-benefit projects. We will need to test the approach in a domestic context, to alleviate the risk and uncertainty.

2. MEASUREMENT AND VERIFICATION DIFFICULTIES

There continue to be some MRV difficulties associated with co-benefits, such as difficulties in measuring social outcomes and establishing metrics that provide one for one comparison of projects. While there are different opinions about the adequacy of MRV relating to co-benefits, there appears to be consensus that this should not prevent further consideration of this issue.

For instance, establishing or adopting a co-benefit standard in Australia would leverage Australia’s expertise in areas such as measuring biodiversity, social outcomes and air quality.

3. INABILITY TO ARTICULATE THE BUSINESS CASE

Significant work is still required to articulate and communicate the business case for projects delivering co-benefits. While Australia can learn from overseas experience, the business case needs to reflect issues specific to this country. The delivery of a co-benefits business case will allow participants to look beyond carbon to realise social and environmental outcomes.

* It must be noted that challenges also continue to the CDM carbon MRV processes as well.
Approaches to establishing a co-benefit standard

There are a number of ways to establish a co-benefit standard in Australia. The government could develop a standard to apply alongside the CFI, which could mandate or advocate for the voluntary inclusion of co-benefits into offset projects. Alternatively, an existing international standard could be adopted into Australia or Australian stakeholders could develop an independent standard.

To provide a preliminary recommendation on the best approach, this paper used the following assessment criteria:

- **Cost and ease of the development of approach:** The ease and timeframe required developing an approach and having it operating within Australia. A hastily developed approach may not necessarily result in the best framework but early adoption may enable Australia to benefit from quick wins.

- **Flexibility:** The Australian market is still a developing market and over the coming few years is likely to change substantially. The incorporation of co-benefits into projects needs to be flexible to respond to changing conditions.

- **Fungibility:** This is important and required for co-benefits in an Australian context to enable the exchange carbon permits and carbon credits. Any approach for incorporating co-benefits into Australia must consider fungibility within the scheme. This allows credits generated within Australia (co-benefit projects) to be traded on the international voluntary markets, thereby expanding the market. International fungibility also gives Australian companies, already operating within international carbon markets, more confidence in the quality of domestic supply.

- **Ability to align with Australian context/priorities:** The approach taken in Australia must be relevant to the Australian context and should leverage our existing expertise, such as those in biodiversity markets and respond to indigenous priorities.

- **Bring credibility to co-benefits:** Due to the infancy of the carbon offset market and co-benefit projects within Australia, the approach must bring credibility to co-benefits and build confidence in the burgeoning market.

The scoring system indicates a level of each roll out option to meet the criteria. Table 10 outlines the scoring system.

<table>
<thead>
<tr>
<th align="center">TABLE 10: SCORING THE CRITERIA</th>
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<tbody>
<tr>
<td align="center">SYMBOL</td>
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<tr>
<td align="center">☞</td>
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<tr>
<td align="center">☞</td>
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<tr>
<td align="center">☞</td>
</tr>
<tr>
<td align="center">☞</td>
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</tbody>
</table>

*This assessment is based on preliminary consultation with stakeholders in the sector and a desktop assessment. The outcome of the assessment will need to be tested further.*
1 GOVERNMENT SPONSORED STANDARD

There are advantages and disadvantages of the Australian Government leading the development of a co-benefits standard to sit alongside the CFI. A Government backed standard would provide credibility to the offsets however; it may limit innovation due to its less flexible approach. Independent standards tend to be more responsive to changing conditions and requirements.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>SCORING</th>
<th>COMMENTARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost and ease of the development of approach</td>
<td>☑️</td>
<td>It is likely that a government approach would take longer than other approaches.</td>
</tr>
<tr>
<td>Flexibility</td>
<td>☑️</td>
<td>Government systems can be less flexible than private independent approaches due to the requirements to modify systems. In addition, the existence of a government sponsored approach would reduce the likelihood of independent standards developing responding to alternative market needs.</td>
</tr>
<tr>
<td>Fungibility</td>
<td>☑️</td>
<td>A government standard could be developed to be fungible, but would have to work carefully with the international community to ensure this.</td>
</tr>
<tr>
<td>Ability to align with Australian context/priorities</td>
<td>☑️ ☑️</td>
<td>A government sponsored approach would strongly align with Australian priorities and context.</td>
</tr>
<tr>
<td>Bring credibility to co-benefits</td>
<td>☑️ ☑️</td>
<td>With government sponsorship, the co-benefits approach would gain credibility.</td>
</tr>
</tbody>
</table>

2 NEW INDEPENDENT STANDARD

A new independent standard could be established by local participants, drawing on international experience. The standard could be tailored specifically to the Australian context and leverage the domestic experience of biodiversity markets, MRV and Indigenous issues. However, there are a number of issues with developing an independent standard including building credibility, a brand and reputation in Australia, the associated cost and time required by key stakeholders to develop such a standard.

The assessment against our high level criteria is outlined below in Table 12.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>SCORING</th>
<th>COMMENTARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost and ease of the development of approach</td>
<td>☑️</td>
<td>It would take time to develop an independent approach, although the new approach could learn from the international approaches.</td>
</tr>
<tr>
<td>Flexibility</td>
<td>☑️</td>
<td>Depending on the systems, this approach could be quite flexible. The existence of an independent standard would not necessarily limit other standards being established in the market.</td>
</tr>
<tr>
<td>Fungibility</td>
<td>☑️</td>
<td>It would difficult for an independent standard to ensure that it was fungible with international standards. The experience of the Panda Standard in China does not bode well for Australia to have its own standard.</td>
</tr>
</tbody>
</table>
### Table 12: Assessment of New Independent Sponsored Standard

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Scoring</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to align with Australian context/priorities</td>
<td>☆☆☆☆☆</td>
<td>This would be tailored to suit the Australian context.</td>
</tr>
<tr>
<td>Bring credibility to co-benefits</td>
<td>☆☆☆☆☆</td>
<td>The credibility of a new independent standard would strongly depend on the players involved in establishing the new standard and how it was structured. However, much work would be required to ensure that is provided credibility within the market.</td>
</tr>
</tbody>
</table>

### 3 Importation of International Standard

Co-benefits can be applied to projects within a domestic compliance market. The importation of a tried and tested international co-benefits standard has a number of benefits within an Australian Context. As outlined in this report, the benefits include a lower cost and quicker implementation of a standard in Australia, credibility and lower risk for project participants. A large number of Australian Players have worked in the international carbon space and will be familiar with the workings of a number of international standards.

The assessment of the importation of international standard is outlined in Table 13.

### Table 13: Assessment of Importation of International Standard

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Scoring</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost and ease of the development of approach</td>
<td>☆☆☆☆☆☆</td>
<td>This approach would be relatively straightforward, as the framework is already established.</td>
</tr>
<tr>
<td>Flexibility</td>
<td>☆</td>
<td>Importing an international standard to Australia, would not limit other standards being established in the market. International standards have demonstrated flexibility in how they have responded to market conditions, this flexibility could benefit Australia.</td>
</tr>
<tr>
<td>Fungibility</td>
<td>☆☆☆☆☆☆</td>
<td>This would be ensured through the importation of an international co-benefit standard.</td>
</tr>
<tr>
<td>Ability to align with Australian context/priorities</td>
<td>☆</td>
<td>The international standard would have to be tailored to the Australian context. With the innovation and flexibility that has been demonstrated with the international markets, this would likely be possible.</td>
</tr>
<tr>
<td>Bring credibility to co-benefits</td>
<td>☆☆☆☆☆</td>
<td>An international standard, depending on the standard that is imported, would bring credibility, with some domestic and international players (buyers and sellers) already familiar with the standard.</td>
</tr>
</tbody>
</table>

Other considerations: One or many standards and the cost of MRV

The cost and ease of implementing a MRV platform around co-benefits is likely to be a key issue. Project developers and associated stakeholders are looking to minimize the sunk cost of developing projects. Therefore overly complex or
expensive MRV requirements will have an impact on the number of project participants willing to pay a price premium to certify the delivery of co-benefit outcomes and are unlikely to seek co-benefit certification. This may reduce the participation to consider co-benefits in the development of their projects.

The Australian market needs to determine if it will pursue one standard or a variety of standards. Internationally, however, we can see consolidation of a number of standards due to some of the issues with cost, governance, credibility, participation risk, demand and supply and fungibility. In the end, whether there is one or many standards, will be largely driven by standard designers, participants and the markets with which they aim to connect. Given the risks associated with multiple standards, the authors of this paper believe one standard would be preferable.

Proposed process for establishing a co-benefits standard in Australia

Based on barriers to adoption and the lessons learnt from the international market, the following process has been provided to map the next steps. The benefits available to Australia and the carbon offset market are significant and should be further investigated.

Investigating, testing and refining a co-benefit standard within Australia will take time, so it is recommended that the process commence immediately.
Work has already begun to consider how co-benefits may be applied at scale in Australia, particularly in the area of Indigenous and biodiversity co-benefits. To facilitate a consistent approach, the relevant stakeholders will need to come together.

The coordination and/or development of a national approach to co-benefits requires leadership. Given that co-benefits operate alongside the CFI, the Australian Government will have a role - whether implicit or explicit - to play.

The concept of co-benefits is a way to engage other industries and sectors and to drive demand and investment in viable projects. Inadequate demand and oversupply plagues the market. Investment is needed from outside the carbon market, beyond the usual participants. This additional demand will not be enough to solve the ills of the carbon market, but broadening interest in the market via co-benefits will have a positive outcome.

The Australian market – both project developers and potential buyers – is wary of co-benefits. Clear articulation of the business case, based on evidence specific to the Australian context and backed by the champion mentioned above is required to enable co-benefits to be leveraged.

MRV difficulties for co-benefits remain. However, Australia has exceptional expertise in carbon and biodiversity MRV that can be leveraged on behalf of co-benefits, assuming a co-ordinated approach is taken.

Co-benefits may achieve scale in Australia if a coordinated and tailored approach is taken. This can leverage the existing expertise already evidenced in the international market. It will require recognition of the work (particularly in the Indigenous space) that is already advanced.
## APPENDIX A: REVIEW OF EXISTING STANDARDS AND GUIDELINES

### International standards and guidelines

| TABLE 14: MATRIX OVERVIEW OF INTERNATIONAL STANDARDS AND GUIDELINES |
|---|---|---|---|---|
| **Types of projects** | UNFCCC CDM | THE GOLD STANDARD | SOCIAL CARBON | CCBS |
| Afforestation and reforestation, destruction of HFC-23 and N₂O, transportation improvements, renewable energy, energy efficiency | Renewable energy | Hydro-power plants, landfills, fuel switching, forestry etc. (same as CDM) | Land-based |
| | Energy efficiency | | | |
| | A&R and IFM | | | |
| | | | | |
| **Type of co-benefits** | Broadly sustainable development | Environmental, social, economic and technological | Environmental, social, economic and technological | Community Biodiversity |
| | | | | Livelihood and ecosystem benefits |
| **Stakeholder decision makers** | ✓ | ✓ | ✓ | ✓ |

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x CDM (n.d.)

x1 Gold Standard (2009).


x3 Richards, (2011) and Richards and Panfil (2011).

x4 Plan Vivo (2012).
<table>
<thead>
<tr>
<th><strong>TABLE 14: MATRIX OVERVIEW OF INTERNATIONAL STANDARDS AND GUIDELINES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNFCCC CDM</strong></td>
</tr>
<tr>
<td><strong>Co-benefits Requirements</strong></td>
</tr>
<tr>
<td><strong>Measurement methodology</strong></td>
</tr>
<tr>
<td><strong>Baseline measurement</strong></td>
</tr>
<tr>
<td><strong>Payment structure</strong></td>
</tr>
</tbody>
</table>

**Information sources (all information sources are utilised, ticks represents a particular focus)**
<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>UNFCCC CDM</th>
<th>THE GOLD STANDARD</th>
<th>SOCIAL CARBON</th>
<th>CCBS</th>
<th>PLAN VIVO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local experts</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary research</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>MRV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualitative/quantitative</td>
<td>Quantitative</td>
<td>Quantitative</td>
<td>Qualitative</td>
<td>Qualitative</td>
<td>Qualitative/Quantitative</td>
</tr>
<tr>
<td>Frequency of MRV</td>
<td>There are no timeframes. For afforestation/reforestation projects it is every 5 years.</td>
<td>3 years</td>
<td>Not specified</td>
<td>5 years but the expectation is higher.</td>
<td>5 years</td>
</tr>
<tr>
<td>Additionality</td>
<td>The effect of the project activity to reduce anthropogenic GHG emissions below the level that would have occurred in the absence of the project activity.</td>
<td>UNFCCC or The Gold Standard-approved 'additionality tool'</td>
<td>Refers to other standards such as VCS, CDM or CAR</td>
<td>Project benefits not occurred in absence of project.</td>
<td>Would not take place in absence of project, due to financial, social, cultural, technical, scientific or institutional barriers</td>
</tr>
<tr>
<td>TABLE 14: MATRIX OVERVIEW OF INTERNATIONAL STANDARDS AND GUIDELINES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Leakage</strong></td>
<td>UNFCCC CDM&lt;sup&gt;103&lt;/sup&gt;</td>
<td>THE GOLD STANDARD&lt;sup&gt;103&lt;/sup&gt;</td>
<td>SOCIAL CARBON&lt;sup&gt;102&lt;/sup&gt;</td>
<td>CCBS&lt;sup&gt;108&lt;/sup&gt;</td>
<td>PLAN VIVO&lt;sup&gt;104&lt;/sup&gt;</td>
</tr>
<tr>
<td>Leakage</td>
<td>Leakage emissions must be deducted from the emission reductions generated by the project activity, and certified emission reductions (CERs) are only issued in respect of the net reduction in emissions brought about by the project, once leakage had been taken into account.</td>
<td></td>
<td>Increased GHG emissions that occur beyond the project area and are caused by project activities are mitigated and remainder is subtracted from climate benefits claimed.</td>
<td>Preferred: monitor leakage and subtract actual leakage from climate services claimed. Minimum: estimate likely leakage and if expected to be significant i.e. 5 per cent or more, deduct from claim.</td>
<td></td>
</tr>
<tr>
<td>Permanence</td>
<td>The crediting period can be either a 7-year period renewable twice or a single 10-year period. Temporary and long CERs are special types for forestry projects. tCERs expire at the end of the commitment period following the one during which it was issued. LCER is issued for a project which expires at the end of its crediting period which can be either 20 year renewable twice or a single 30 year period.</td>
<td>Longevity of a carbon pool and the stability of its stocks, given the management and disturbance.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 15: MATRIX OVERVIEW OF DOMESTIC SCHEMES

<table>
<thead>
<tr>
<th></th>
<th>ECOTENDER (similar to BushBroker)</th>
<th>INFFER</th>
<th>BIOBANKING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scheme objective</strong></td>
<td>A mechanism to facilitate Victorian Government investment in biodiversity on private land.</td>
<td>Outlines a process for developing and prioritising projects to address environmental issues.</td>
<td>Provides an framework for assessment and management of biodiversity offsets (including new private land offsets for projects, and provide framework for investment in biodiversity conservation)</td>
</tr>
<tr>
<td><strong>Types of projects</strong></td>
<td>Land-based</td>
<td>Land-based</td>
<td>Land-based</td>
</tr>
<tr>
<td><strong>Type of co-benefits</strong></td>
<td>Saline land, carbon sequestration, terrestrial biodiversity and aquatic function.</td>
<td>Wetlands, waterways, biodiversity and agricultural land</td>
<td>Species and ecosystem credits</td>
</tr>
<tr>
<td><strong>Stakeholder decision makers</strong></td>
<td></td>
<td>![Checkmark]</td>
<td></td>
</tr>
<tr>
<td><strong>Co-benefits Requirements</strong></td>
<td>Mandatory commitments include: landholder cannot apply fertiliser, remove rocks, plough or disturb soil, alter natural hydrology, or artificially feed stock. Management actions could include: Fencing, grazing changes, weed control.</td>
<td></td>
<td>Additional ecosystem and species improvements.</td>
</tr>
</tbody>
</table>

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105 inffer (2013).
<table>
<thead>
<tr>
<th></th>
<th>ECOTENDER (similar to BushBroker)</th>
<th>INFFER</th>
<th>BIOBANKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement methodology</td>
<td>A non-point production function is used to score multiple environmental outcomes. A catchment</td>
<td>Follow the INFFER 7 step process</td>
<td>Biobanking assessment methodology - assesses all biodiversity values including the composition, structure and function of ecosystems and threatened species, populations and ecological communities and their habitats, and connectivity and area of vegetation.</td>
</tr>
<tr>
<td></td>
<td>modelling framework enables multiple environmental outcomes to be spatially represented.(^{107})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline measurement</td>
<td></td>
<td></td>
<td>Measured through vegetation survey</td>
</tr>
<tr>
<td>Payment structure</td>
<td>Annual payments dependent on completion of actions and required reporting.</td>
<td>NA</td>
<td>Includes upfront payments to cover establishment costs, and annual payments to cover ongoing maintenance requirements</td>
</tr>
<tr>
<td>Information sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(all information sources are utilised, ticks represents a particular focus)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholder</td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Local experts</td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Secondary research</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Uncertainty</td>
<td></td>
<td></td>
<td>Risks and uncertainty are explicitly acknowledged in the framework.</td>
</tr>
</tbody>
</table>

\(^{106}\) DEPI (2012).  
\(^{107}\) Eigenraam et al. (2007).  
\(^{108}\) OEH (2012).
<table>
<thead>
<tr>
<th></th>
<th><strong>ECOTENDER (similar to BushBroker)</strong></th>
<th><strong>INFFER</strong></th>
<th><strong>BIOBANKING</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MRV</strong></td>
<td>Report on completed actions, including, comments and observations on plants, regeneration, faunal species, actions not completed per schedule and photograph from same place.</td>
<td>Recommended to update Project Assessment Form every year or two years.</td>
<td></td>
</tr>
<tr>
<td><strong>Frequency of MRV</strong></td>
<td>Annual reporting. Monitoring offices will also visit site over 5 year contract</td>
<td></td>
<td>Annual</td>
</tr>
<tr>
<td><strong>Additionality</strong></td>
<td>Ecotender sites cannot be captured under NV offset scheme, however, some other permanent protected sites are eligible.</td>
<td>Not directly addressed. Payments structured around activities, and improvement on baselines. Initiative assumes that landholders would not have done the activities without the payments.</td>
<td></td>
</tr>
<tr>
<td><strong>Permanence</strong></td>
<td>Contracts are for 5 years. There is a voluntary option to have permanent protection (current and future owners required to maintain).</td>
<td></td>
<td>Controlled through biodiversity credit being assigned land title.</td>
</tr>
</tbody>
</table>
APPENDIX B: OVERVIEW OF THE GOLD STANDARD AND CCBS

The Gold Standard: Co-benefit requirements

Environmental, social, economic and technological co-benefits are covered by The Gold Standard for offset projects. To obtain the certification, projects must meet certain criteria and comply with a monitoring and verification plan.

Firstly, projects must evaluate the risk of their project having negative environmental, social and/or economic impacts through a ‘Do No Harm’ assessment; declaring that they are in compliance with a list of safeguarding principles. The projects must then demonstrate the sustainable development benefits through a Detailed Impact Assessment. The impact assessment is completed via a sustainable development matrix comprising 12 sustainable development indicators grouped into three categories:

- **Environment**: Air quality, water quality and quantity, soil condition, other pollutants, biodiversity;
- **Social development**: Quality of employment, livelihood of the poor, access to affordable and clean energy services, human and institutional capacity; and
- **Economic and technological development**: Quantitative employment and income generation, balance of payments and investment, technology transfer and technological self-reliance.

All indicators have an equal weighting and are scored negative, neutral or positive against a baseline using measurable parameters. Suggested parameters are provided. For example, the Livelihood of the Poor indicator parameters include *children immunised against measles or prevalence and death rates associated with malaria*. The project is responsible for identifying the most appropriate. The project must score a net positive for two categories and at least a neutral score for the third category. Close collaboration with local stakeholders is required through two rounds of consultation during the project design and development of the sustainable development matrix and clear guidelines have been established to direct the consultation process.

All non-neutral indicators are monitored via the parameters over the crediting period and on a recurrent basis as part of a Sustainability Monitoring Plan. The monitoring is then verified for each verification period, as well as during mandatory site visits.

Offset projects are required to use either a UNFCCC approved or The Gold Standard approved additionally tool to demonstrate the extra project outcomes.

Some limitations to the standard that have been highlighted include the subjective nature of the matrix which relies heavily on qualitative explanations of potential impacts rather than quantitative assessments, and possible inconsistency in the use of baselines from one indicator to the next. 109

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Climate, Community and Biodiversity Alliance Standard requirements

The CCB standard focuses on community and biodiversity co-benefits. To obtain certification the projects must satisfy a list of 14 criteria that are grouped into four categories:

- **General**: Original conditions in the project area, baseline projections, project design and goals, management capacity and best practices, and legal status and property rights.

- **Climate**: Net positive climate impacts, offsite climate impacts, and climate impact monitoring.

- **Community**: Net positive community impacts, offsite stakeholder impacts, and community impact monitoring.

- **Biodiversity**: Net positive biodiversity impacts, offsite biodiversity impacts, and biodiversity impacts monitoring.

Three additional criteria are available to those looking to qualify for the Gold Level status – Exceptional Community Benefits, Climate Change Adaptation Benefits and Exceptional Biodiversity Benefits.

As suggested by the indicator names, community impacts, climate impacts and biodiversity impacts must all result in a positive outcome versus a ‘without-project’ situation. This differs from The Gold Standard in that neutral impacts for indicators are accepted in The Gold Standard as long as the net impacts are positive.

Benefits need to be demonstrated using appropriate methodologies rather than reporting against specified parameters as in The Gold Standard. The methodologies are not prescribed giving the project developer the flexibility to choose one applicable to their context. A ‘theory of change’ framework is suggested as the most appropriate for identifying indicators. Once defined, all indicators must be monitored via a monitoring plan over the lifetime of the project. This plan and its reports are prerequisites for project verification. In terms of additionally, this must be proven but specific tools are not defined.

Ongoing stakeholder engagement is required during the project design and is not limited to the two consultations specified by The Gold Standard.
REFERENCES


Carbon Credits (Carbon Farming Initiative) Act 2011, Commonwealth of Australia.


Carbon Market Institute, (n.d.) Homepage, see www.carbonmarketinstitute.org.


