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## **Gender-Sensitive Carbon Offsets: A Scoping Study**

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## ABSTRACT

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Most literature on climate change and gender to date has focused on impacts and adaptation strategies. There is considerably less literature investigating the relationship between gender and climate change mitigation, or more specifically, gender in the carbon market. This paper therefore seeks to address this research gap by assessing the gender-sensitivity of carbon standards operating in the Voluntary Carbon Market (VCM), and the demand for voluntary carbon offsets (VCOs) that have pro-poor sustainable development co-benefits accruing to women. Based on a review of carbon standard's guideline documentation, findings suggest that only the Gold Standard and CCB Standard have a gender-sensitive approach to offset project design. The results also indicated that there would be demand for gender-sensitive VCOs if these were available on the VCM, but that few buyers have sought these to date. In order to take these ideas forward, carbon standards and project developers should consider gender-mainstreaming their offsetting activities through integrating existing gender and natural resource management literature into their methodologies and project design.

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## INTRODUCTION

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There is now overwhelming evidence to suggest that if anthropogenic greenhouse gas emissions continue to rise, so will the severity of climate change and the frequency of catastrophic events induced by rising temperatures and increases in the frequency and intensity of droughts and floods. These are likely to lead to water shortages, famine, mass emigrations, loss of biodiversity, an increased spread of disease and pests, and the loss of natural resources on which livelihoods are based (IPCC 2007).

The countries worst affected by these events, and least able to cope, are historically the least responsible for the climate change we are experiencing today. Developing countries are particularly vulnerable due to their high dependence on natural resources and limited ability to cope with the impacts of climate change due to other immediate pressures including political unrest and widespread poverty (IPCC 2007). What financial capital exists within these countries is already stretched beyond capacity, leaving little to deal with climate change. This has led to a new discussion surrounding climate change, where focus has shifted to policies addressing global inequalities and development.

The impacts of climate change will not be the same across different classes, groups and genders. Poorer groups, for example, often have fewer resources, including assets, education and credit, available to adapt to changing environmental conditions, and as a result are less able to diversify income-generating activities. Women constitute 70% of this group (OECD 2009), placing them at the forefront of this discussion. Their traditional roles mean they often work closely with natural resources as farmers, herbalists and water and firewood collectors (Agarwal, 2009; Neumayer and Plumper, 2007). They are important agents of change as educators of the next generation and are key sources of experiential expertise in natural resource management. Their involvement in and input to carbon projects is therefore important to the long-term success of these projects.

The Voluntary Carbon Market (VCM) allows actors in developed countries to offset their emissions through project-based initiatives, sometimes located in developing countries. Such project can yield co-benefits: positive attributes that are additional to reducing atmospheric GHG concentrations, and which could, for example, include biodiversity enrichment, natural resource protection or sustainable development. The VCM facilitates the transfer of technology, funds, knowledge and skills to developing countries (Bumpus and Liverman 2008); and therefore represents a new opportunity to combine climate change mitigation with development.

In order to give some structure and transparency to the VCM, a number of carbon standards have been developed. As of June 2010 there were 18 public voluntary offset standards and certification programs operating on the VCM, five of which specifically aimed to include co-benefits in project design; namely CarbonFix Standard, Climate, Community and Biodiversity (CCB) Standard, Gold Standard (GS), Plan Vivo Standard and the SOCIALCARBON Standard (Hamilton et al.,

2010). Collectively these claimed only 11% of the 2009 voluntary carbon market share.

Although they claim only a small portion of the market share, these standards have considerable scope for growth as consumers become increasingly conscientious in their purchasing decisions. In 2009 consumer's demands help to shape the types of projects available on the carbon market (Hamilton et al, 2010). This indicates that if there was more awareness as to the impacts of climate change on women, and to the potential to couple GHG emissions reductions with sustainable development, consumer demand could help to promote the development of gender-sensitive voluntary carbon offsets (VCOs)<sup>1</sup>.

Recognising the important reflexive link between these influences, this dissertation therefore seeks to investigate both the supply and demand of carbon offsets that have a gender-sensitive approach to carbon project design and development.

## Research Objectives

Most academic literature discussing gender and climate change to date has focused on the adaptation of women to the impacts of global warming. Whilst it is vital to explore these concepts, it is also important to consider the role of gender in climate change mitigation (UNEP and UNF 2009, Brody et al. 2008). This paper therefore seeks to address this research gap by:

- assessing the gender-sensitivity of carbon standards operating in the Voluntary Carbon Market (VCM),
- assessing the demand for voluntary carbon offsets (VCOs) that have pro-poor sustainable development co-benefits accruing to women.

The aim of this paper is not to transfer responsibility of reducing atmospheric greenhouse gases to women in developing countries, but instead to utilise carbon markets to facilitate pro-poor sustainable development and to transfer financial capital to those who need it most.

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<sup>1</sup> In this context, 'gender-sensitive VCOs' refer to offsets that have originated from projects that aim to address gender inequalities through targeting women to be the primary beneficiaries of activities, financially or otherwise.

# CARBON STANDARD ANALYSIS: GENDER SENSITIVITY

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## METHODOLOGY

In order to investigate the extent to which voluntary carbon standards were gender-sensitive, the guideline documentation for the five standards offering co-benefits on the VCM were reviewed. A carbon standard's guideline documentation outlines specific criteria and methodologies that eligible projects must fulfil. These standard's documentation can therefore be used as proxies to estimate the degree to which gender is considered on the VCM.

Due to the considerable heterogeneity of carbon standards, a methodology that streamlines comparisons was chosen. The 'meaning units' (Bryman 2004), for this study were the words 'women', 'female', 'gender', 'poor' or 'poverty' and 'development'. Table 1 outlines the full criteria for inclusion of these words in the analysis. Word counts, and the contexts in which words were mentioned, were used as indicators of gender-sensitivity.

Table 1 – Criteria for the inclusion of specific 'meaning units' used in the content analysis.

Meaning unit	Rule
Women/woman/ Female/gender	Mention of these words anywhere in the document.
Poor/poverty	Mention of the word 'poor' in the context of poverty. The word 'poor' was omitted when it was used to mean " <i>lacking or deficient in the proper or desired quality; of little excellence or worth; of low or inferior standard or quality</i> " (Oxford English Dictionary 2010) The words 'poor/poverty' were included since in recent years focus has shifted from targeting 'women' as a specific group, to targeting 'the poor', in which women may or may not be implicitly included. It could therefore be argued that the word 'poor' included women since they represent 70% of the category.
Development	Mention of the word where defined as " <i>the economic advancement of a region or people, especially one currently under-developed</i> " (Oxford English Dictionary 2010); and in the context of sustainable development, defined by the UNFCCC as " <i>development that meets the needs of the present without compromising the ability of future generations to meet their own needs</i> " (UNFCCC, 2010). This word, used in the context of social and economic development, was included in word counts to investigate the degree to which a standard considered sustainable development as a co-benefit within its project design specifications. An HFC capture project, for example, will reduce GHG emissions considerably, but do very little to contribute to sustainable development.

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The count of word ‘hits’ in the document, coupled with an analysis of the general content of guideline documentation was used to indicate the level of consideration, if any, these issues were given within a standard’s guidelines, allowing for the analysis of both manifest and latent content. The carbon standards were then categorically rated depending on the criteria laid out in Table 2.

Table 2 – Categorical system used in rating the carbon standards.

Rating	Definition
☆	No references to women, gender or pro-poor sustainable development.
☆☆	Reference to pro-poor sustainable development, but no mention of women or gender considerations
☆☆☆	At least one reference to the consideration of gender or women within project design, as well as mention of pro-poor sustainable development, or the activities of the project contributing to poverty alleviation and economic benefits to the local communities.
☆☆☆☆	More than one reference to considering gender or women within project design, with guidance, or reference to guidance, as to <i>how</i> to involve them.
☆☆☆☆☆	Strong emphasis on considering gender issues or making an effort to assess the benefits of including local women within the project design. This could include actively involving them in the initial consultation process, ensuring that their viewpoints and needs are taken into consideration, a ‘do-no-harm’ assessment, a consideration of how the activities of the project will impact on all genders or identification of the opportunities for the involvement of women within the project itself.

## RESULTS AND DISCUSSION

In order to facilitate purchasing decisions, offset consumers should be aware of the strengths and weaknesses of each carbon standard. One standard may, for example, have a very good methodology for verifying co-benefits to biodiversity, but have less of an emphasis on social benefits. For those consumers seeking offsets that are gender sensitive, the following section outlines the comparative degree to which women and gender issues are given consideration within carbon standard’s documentation. The results should be considered as indicative rather than definitive.

Table 3 – Results of content analysis investigating the gender-sensitivity of the VCM’s standard guideline documentation. Figures represent the number of word ‘hits’ *in absolute terms*.

	CFS	CCB	GS	Plan Vivo	SOCIALCARBON
Women/female	0	2	13	2	5
Gender	0	2	5	0	3
Poor/poverty	0	28	5	3	0
Development	1	6	49	2	16
<b>Rating</b>	☆☆	☆☆☆☆	☆☆☆☆☆☆	☆☆☆	☆☆☆

Table 4 – Results of content analysis investigating the gender-sensitivity of the VCM’s standard guideline documentation. Figures represent the number of word ‘hits’ *per page reviewed*.

	CFS	CCB	GS	Plan Vivo	SOCIALCARBON
Women/female	0.00	0.04	0.05	0.02	0.04
Gender	0.00	0.04	0.02	0.00	0.02
Poor/poverty	0.00	0.54	0.02	0.03	0.00
Development	0.02	0.12	0.17	0.02	0.13
<b>Rating</b>	☆☆	☆☆☆☆	☆☆☆☆☆☆	☆☆☆	☆☆☆

The following sections will discuss each carbon standard in more detail.

### CarbonFix Standard (☆☆)

CarbonFix Standard certifies afforestation, reforestation and agroforestry projects, and requires that projects yield socio-economic benefits to the communities in which they operate. Projects must give evidence for this through describing the creation of employment, capacity building and welfare activities, but with no specific gender emphasis. The standard gives little further methodological guidance on how to achieve socioeconomic benefits within the project specifications.

It was the standard with the least mention of any of the words outlined above. Projects under CarbonFix are rated based on their socio-economic benefits and only projects which have also received CCB Standard registration can achieve the highest rating. This may in part explain why CarbonFix has such a low emphasis on issues surrounding sustainable development as it is designed for CCB Standard to step in where it is lacking.

Although the standard does state that a stakeholder consultation must be carried out to which “*all stakeholders must be invited*” (pg 7, CarbonFix Standard 2009), and that the “*results of the consultations must be documented*” (pg 22, CarbonFix Standard 2009), project proponents are not required to state exactly *who* attended the stakeholder consultations, or how gender, race or ethnically sensitive these consultations were. The CFS was therefore awarded two stars as it made reference to pro-poor sustainable development, but lacked any mentions of genders.

## Climate, Community and Biodiversity Standard (☆☆☆☆)

The CCB Standard approves the social and environmental benefits resulting from land-based bio-sequestration and mitigation projects, and does not verify the carbon component of projects. It emphasises the importance of local stakeholder engagement to maximise project benefits (pg 16, CCBA 2008), explicitly states that community consultations must be “*gender and inter-generationally inclusive*” (pg 17, CCBA 2008) and that project proponents must document how any issues raised were addressed within the final project proposal.

It also offers ‘*Gold Level Exceptional Community Benefits*’ certification, in which poorer communities and community members are specifically targeted to benefit from the project. It requires the demonstration that all community members are given an equal opportunity to fill employment positions, “*including women*” (pg 34, CCBA 2008).

The CCB Standard has a particularly strong emphasis on pro-poor sustainable development, as evident in the comparatively high word score for ‘poor/poverty’ (Table 3, Table 4). In order to qualify for a Gold Level Exceptional Community Benefit, projects must demonstrate “*approaches that are explicitly pro-poor in terms of targeting benefits to ... the poorer, more vulnerable households and individuals within them*” (pg 34, emphasis not in text, (CCBA 2008). It could be argued that women, as a prominent group suffering from poverty, could be included in the umbrella reference to ‘the poor’. Households for which women are solely responsible due to, for example, the death or absence of a husband are likely to be in the poorer bracket since only one adult income is supporting the household and any children therein. Moreover, if the standard requires the targeting of the poorer individuals within a household, it is likely that women will qualify as a recipient group.

The CCB Standard was awarded four stars since it not only made references to women and gender, but also to gender-sensitive guidance in the ‘Potential Tools and Strategies’ section (CCBA 2008).

## Gold Standard (☆☆☆☆)

The Gold standard is generally considered to be the standard with the most stringent quality criteria currently available on the VCM, and is the only standard discussed here that also verifies the social and environmental benefits of carbon projects operating in the compliance market (Kollmuss et al. 2008). Since the compliance market is far larger than the VCM (Hamilton et al. 2010), this means that the GS has considerably more scope of operations than the other standards discussed here.

The Gold Standard explicitly states that “*unless the context requires another meaning, a reference to... a gender includes all genders*” (pg 10, Gold Standard 2009a). It requires that projects do not practice any form of gender-based discrimination (pg 38 Gold Standard 2009b) and that developers demonstrate how projects may effect gender equality, with possible indicators including changes in female earned income, employment and the number of women in decision-making

positions (pg 49, Gold Standard 2008). It is useful that the GS outlines specific indicators for project developers as it outlines the criteria the GS may be looking for in a proposal, thereby helping to guide developers. The Gold Standard also gives detailed guidelines on how to ensure that women are included in stakeholder consultations, as well as guidelines for avoiding negative impacts on them. Advice such as this goes a step further than all other standards reviewed.

The GS also highlights the need to anticipate the unexpected through giving an interesting gendered example of how a 'do-no-harm' assessment had failed to consider the gendered impacts of its activities. It had the highest absolute and per page score of mention of the words 'women' and 'female' (Table 3; Table 4). In combination the above attributes lead to the GS achieving the highest rating of all the carbon standards reviewed.

### Plan Vivo Standard (☆☆☆)

The Plan Vivo Standard certifies small-scale LULUCF (Land-Use, Land-Use Change and Forestry) projects and emphasises participatory design and ongoing stakeholder consultation.

Within the four documents reviewed under the Plan Vivo Standard, women were mentioned twice (Table 3): once as a possible target group that could benefit from the activities of the project (pg 3, Plan Vivo 2009), and once again as a possible marginalised group who could be mobilised (pg 16, Plan Vivo 2008). Little detail is given as to how to involve women, and there are no specifications stating that the project must demonstrate how they have considered the impacts of project activities on women, or how they could be included within stakeholder consultations or project activities. The Plan Vivo standard was therefore awarded three stars: although it does make some reference to women, the emphasis is more on sustainable development and the transfer of carbon finance directly to those on the ground, rather than on the gendered impacts and aspects of activities.

### SOCIALCARBON Standard (☆☆☆)

The SOCIALCARBON standard, like the CCB Standard, is designed to assess the social and environmental performance of projects, and does not verify the carbon components. Projects receive a 'score' based on six assessment criteria, namely 'human', 'social', 'biodiversity', 'natural', 'financial' and 'carbon'.

The SOCIALCARBON standard received three stars in Table 3, but only marginally. Out of a total of eight women/gender references, seven were found in a single document specifying ranking indicators for the ceramics sector, in which a project could score higher if women made up >20% of the on-the-ground workforce. Since this is a very specific project type, the word counts results for women are somewhat misrepresentative of the standard as a whole. SOCIALCARBON standard made one mention of gender within the main policy documentation, stating that SOCIALCARBON "*strives for social inclusion and recognizes gender issues and the other forms of social difference*" (pg 5, SOCIALCARBON 2010). Whilst the SOCIALCARBON standard may "*recognize*" these issues, it does not make any other reference to either gender or women. It

does, however, make considerable reference to sustainable development, achieving the second highest word score (Table 4).

## CONCLUSION

According to this analysis, the Gold Standard operates as the most gender-sensitive carbon standard on the VCM, followed by the CCB Standard. Since it is expensive, complex and time-consuming to be registered under the GS it remains inaccessible to many small project developers. Furthermore, since the GS registers only renewable energy or energy efficiency projects there is a considerable opportunity for other standards to offer gender-sensitive VCOs from other project types.

The lack of gender sensitivity within carbon standards that verify co-benefits could in part be due to the non-tangible nature of engendered co-benefits, which are difficult to verify, quantify and measure, and a lack of understanding as to the need to gender-sensitise activities (Denton 2002).

In order to address this and avoid a whole-scale restructuring of carbon standards, a gender inclusion could be added as a section similar to the CCB Standard's '*Gold Level Exceptional Community Benefits*', where project developers can choose to include '*exceptional benefits to women*' if they wish to do so. This would offer a simple method for project developers to demonstrate these benefits, and therefore cater to a potential demand for VCOs with co-benefits to women.

# GENDER-SENSITIVE CARBON OFFSETS ON THE VOLUNTARY CARBON MARKET

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## METHODOLOGY

Whilst the previous methodology considered the supply of gender-sensitive carbon offsets, this section sought to investigate the demand. Data was collected via questionnaire using an open-source software tool (eSurveyPro, 2010) on an accessible website.

The respondent sample was non-probabilistic due to the topic in question requiring extensive and detailed knowledge regarding the structure and function of the VCM. The respondent sample was restricted to relevant companies, including offset wholesalers, retailers, and brokers, project developers, NGOs and carbon consultants, and were chosen following the list of respondents as laid out in ‘*The State of the Voluntary Carbon Markets 2010*’ report (Hamilton et al. 2010). An additional fourteen companies, who fit into one of the five categories of carbon retailer, broker, wholesaler, consultant or project developer were contacted. These companies were identified via internet searches whilst seeking contact details for the list of respondents to the ‘*State of the Voluntary Carbon Markets 2010*’ report (Hamilton et al, 2010).

All companies contacted played a regular, active and participative role in the VCM. They were therefore considered to be a knowledgeable group who were well placed to give informed answers regarding the VCM, and whose opinions held significant credibility. The niche topic required specific background knowledge, therefore limiting the number of eligible respondents.

Table 5 – Questionnaire response rate

No. companies contacted	No. of responses	Response rate
88	38	43%

The survey was intended as a basic scoping study and aimed to yield a high number of responses rather than few responses with more in-depth answers. This was reflected in the simplicity of the questions, which remained short and straightforward to encourage response rates, which are detailed in Table 5.

## RESULTS AND DISCUSSION

There has been considerable debate as to whether carbon offsets should focus only on reducing atmospheric concentrations of GHGs, or if they should also consider generating and measuring co-benefits alongside their GHG reductions. This paper would clearly advocate the inclusion of co-benefits alongside carbon offsets, but in order to determine whether or not this would be possible the demand for boutique offsets should be assessed.

The results of this research showed that 75% of respondents expected the market for boutique offsets to grow in the near future (Figure 1), indicating significant

optimism and market confidence. This finding is supported by the work of Hamilton et al (2010), who have predicted that the market for offsets with co-benefits may indeed grow due to the increasing desire for charismatic offsets and their relatively low cost in comparison to making native carbon reductions.

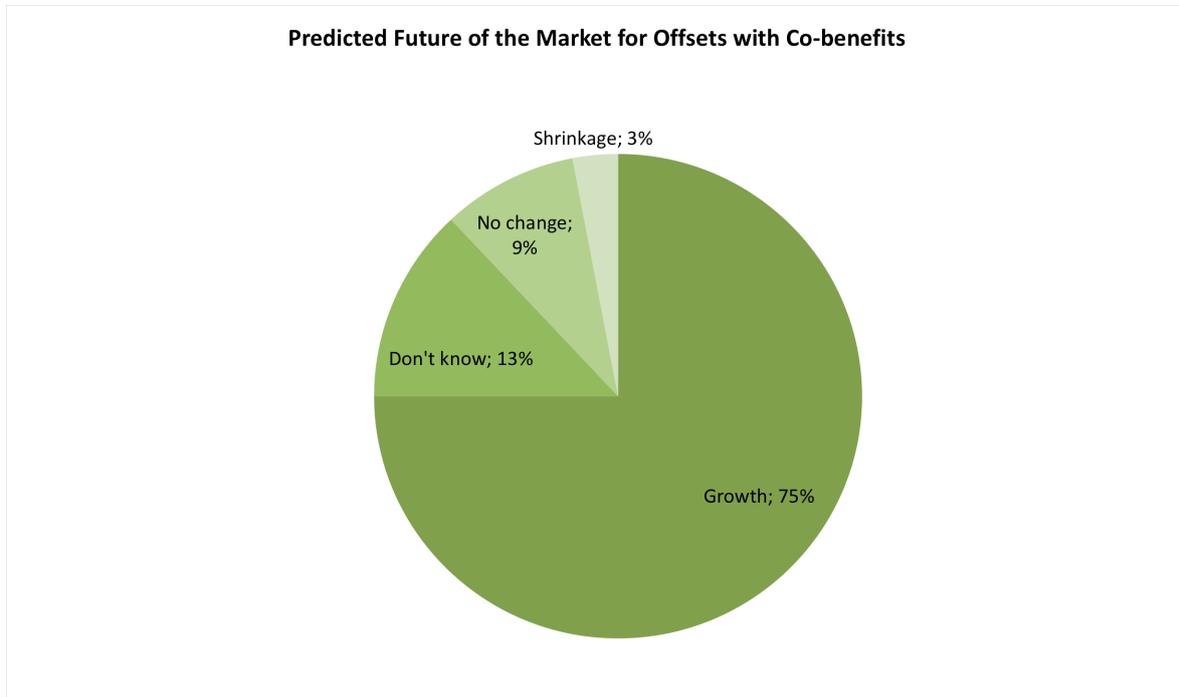


Figure 1 – Survey responses illustrating the expected future of the market for carbon offsets with co-benefits.

83% of respondents stated that they sought offsets with co-benefits (Figure 3), but only 65% of respondents actually used a standard that registered these (Figure 2). VCO consumers must make difficult trade-offs between price, certainty of co-benefit outcomes and GHG reductions when choosing offset standards - in some cases it would appear that these trade-offs have won in favour of price or GHG reductions. This indicates that if gender-mainstreaming a carbon project incurred significant costs, there is a risk it would lose buyers due to other trade-offs.

According to this survey, 69% of respondents were aware that women will be more impacted by climate change than men; indicating that there is an understanding as to why there should be dialogue with regards to gender and climate change. However, the question follows a paragraph outlining how women will be impacted by climate change. There is a risk that respondents may have been guided to answering 'yes', they were aware that climate change will have more of an impact on women than men, because of what preceded the question. The results of this question may therefore fail to be truly indicative of the level of awareness of the impacts of climate change on women.

Furthermore, this awareness is not yet reflected in action, as only 17% of respondents reported actively seeking VCOs with benefits accruing to women (Figure 3). This low rate may be due to a lack of supply of offsets offering such benefits or because other co-benefits, or project attributes, have won priority.

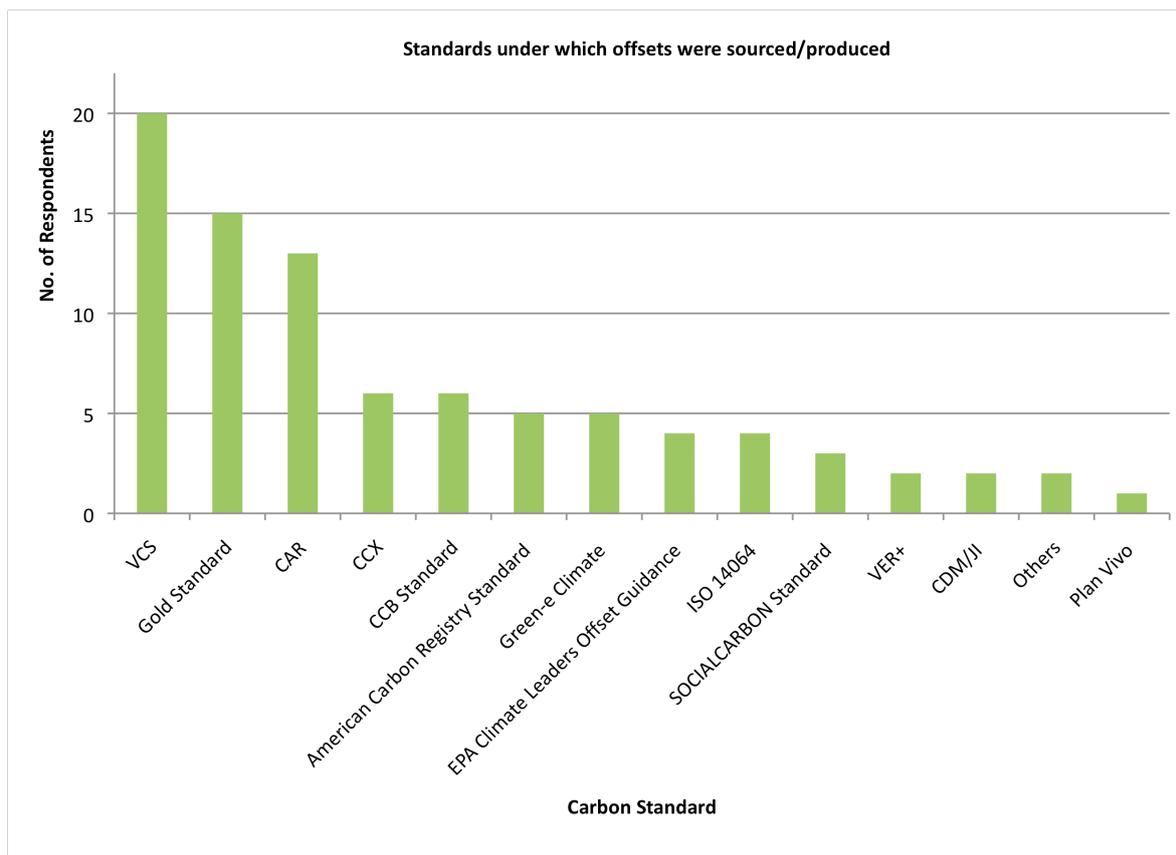


Figure 2 – Survey responses to Q4 investigating the popularity of carbon standards on the VCM.

Of those surveyed, 85% of respondents believed that there was a market, and hence demand, for offsets with co-benefits that accrue to women (Figure 4). But when respondents were asked if they thought these would fetch a premium amongst offset consumers, only 34% thought that it would, and 54% said they did not know (Figure 4). However, the design of this question required respondents to answer on behalf of offset consumers. A better question design would have allowed respondents to give an answer relevant to them directly, such as *‘Would your company be willing to pay a premium for gender-sensitive carbon offsets?’*, which may have decreased the number of *‘don’t know’* responses.



Figure 3 – Survey responses to Q9 and Q10 investigating the current level of awareness with regards to the impacts of climate change on women.

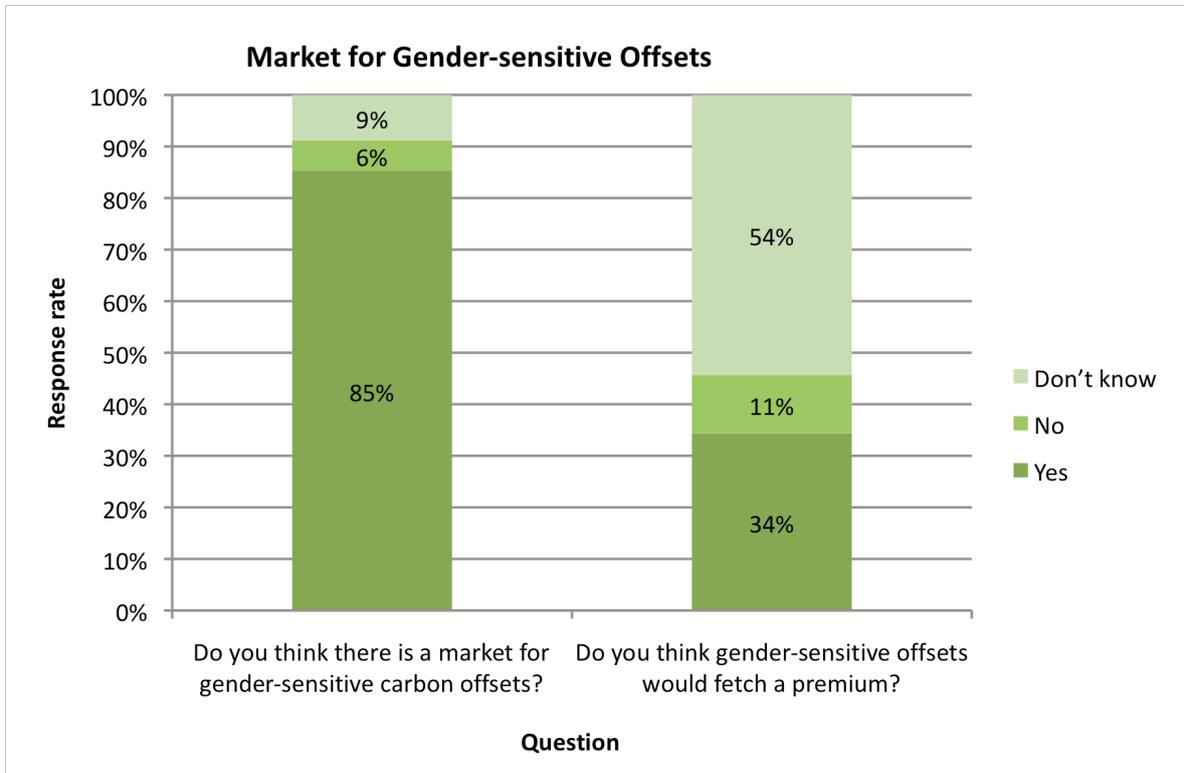


Figure 4 – Survey responses to Q11 and Q12 investigating the market for gender-sensitive carbon offsets.

Hamilton et al. (2010) identified that VCOs with co-benefits are likely to fetch a premium over pure carbon offsets, thereby helping to compensate for the potentially greater cost and complexity of such projects due to the need to monitor not only carbon, but also co-benefits. However, very little research has been conducted on VCO consumers willingness to pay for co-benefits (MacKerron et al. 2009) and more is certainly needed.

The uncertainty surrounding the price of gender-sensitive carbon credits could be a significant barrier to gender-mainstreaming offset projects given that to do so will probably incur higher costs to developers, who will therefore likely be seeking a higher price for their carbon credits to compensate for this.

A further barrier to designing and/or marketing gender-sensitive carbon offsets may be the ability to verify that co-benefits have accrued to women. They must be verified in such a manner as to satisfy criticism and decrease the reputational risk posed to companies who purchase such offsets as a positive CSR strategy.

Ultimately, the future demand for gender-sensitive carbon offsets is likely to depend on four key factors: the ability to verify that these benefits have occurred, the cost in project development, the price of offsets sold under a 'gender-sensitive' name and the ability of gender co-benefits to compete with other co-benefits.

## CONCLUSION

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The main aim of this dissertation was to assess the feasibility of developing gender-sensitive carbon offsets. It considered if there was potential to include women in carbon mitigation projects, and both the demand for and supply of gender-sensitive carbon offsets.

It demonstrated that women are more vulnerable to the impacts of climate change and will be considerably more negatively affected by it than men, therefore demonstrating the importance of not only including women in adaptation strategies, as much of the literature to date has discussed, but also to engage them in carbon offset projects, thereby helping to address gender inequalities and poverty. In order to facilitate this, women should play a key role in a project's planning and implementation through involvement in stakeholder consultations and paid carbon activities. Existing barriers stem from women's lack of access to education, poverty and their familial responsibilities; while project developers face financial barriers. There is also a risk that developing projects that aim to tackle both greenhouse gas emissions reductions and sustainable development could decrease the effectiveness of both aims, especially if budgets are constrained.

This paper also demonstrated that most existing carbon offset standard documentation is lacking in a gender-sensitive approach, thereby overlooking an opportunity and running the risk of exacerbating gender inequalities. The lack of gender-sensitivity within carbon standards could in part be due to the difficulty in verifying, quantifying and measuring engendered co-benefits, a focus on other issues and a lack of understanding as to the need to gender-sensitise activities.

And finally, this research demonstrated that there is potential demand for gender-sensitive offsets, although few have sought such offsets to date.

In order to take these ideas forward more research is needed into the potential for gender-mainstreaming carbon standards, especially land-based activities since these are not approved under the Gold Standard and their propensity for close engagement with local stakeholders offer an obvious opportunity to engage women. Furthermore, awareness needs to be raised about the impacts of climate change on women, thereby helping to increase demand for gender-sensitive VCOs.

## FUTURE RECCOMENDATIONS

There continues to be limited discussion regarding the role of women in climate change mitigation, and more research focusing on this topic is needed. This would include gathering gender disaggregated data regarding the roles that women have played in climate change mitigation and adaptation to date, as well as best practice case-studies.

More research is also needed as to the financial costs associated with gender-mainstreaming offset activities, and to the expected returns given the price that gender-sensitive offsets are likely to attract.

There is also a need for more collaboration between social and climate change scientists, NGOs, consultants and businesses to bridge respective knowledge gaps and enhance project successes. There has been extensive research highlighting gender differences in interactions with the environment and natural resource management, and there is a need to incorporate these lessons and knowledge into future carbon mitigation projects through cooperation across disciplines. Additionally, increased knowledge sharing between those currently working in the VCM regarding strategies for enhancing the participation of women, key lessons learnt, barriers and how these have been overcome is vital if we are to move forward in a sustainable and comprehensive manner.

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