

DEVELOPMENT OF A BIOFUEL LABEL: FEASIBILITY STUDY

A report by Ecofys and E4tech

-Final-

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March 2008

Commissioned by:
Low Carbon Vehicle Partnership

Acknowledgements

Ecofys and E4tech would like to thank Greg Archer and Jessica Chalmers (LowCVP) and all those members of the project Advisory Group who provided input to the development of concepts and conclusions throughout the project: Iain Grime (Petroplus), Ian Waller (5 BarG8), Bob Saunders (BP), Michelle Morton (Shell), Doug Ward (Argent Energy), Samantha Lacey (CIS), Adam Harrison (WWF), Abi Bunker (RSPB), Eddie Jenkinson (Somerfield), Clare Wenner and Paul Thompson (REA), Ruth Digby (NFU), Rainer Janssen (WIP), Malcolm Watson (UKPIA).

In addition, Ecofys and E4tech are grateful to all parties who have participated in the interviews: Greenergy, Petroplus, BP, Tesco, WWF, Oxfam, Greenpeace, Friends of the Earth, CO₂-Star, Swan Ecolabel, Assured Food Standards (AFS), Forestry Stewardship Council (FSC), British Standards Institution (BSI), Trading Standards, The International Social and Environmental Accreditation and Labelling (ISEAL) Alliance.

Finally our work was greatly facilitated by the excellent ISEAL on emerging labelling initiatives, available on the ISEAL website: www.isealalliance.org.

SUMMARY

The UK implements the Renewable Transport Fuels Obligation (RTFO) in April 2008. This Obligation will require companies to sell a minimum of 2.5% renewable transport fuels in the UK in 2008/2009: a percentage which will increase to 5% in 2010/2011.

Recent media coverage, a recent consumer survey, the results of which are presented in this report, and interviews with stakeholders indicate that there is a strong demand for a mechanism which can ensure the sustainability of biofuels. This project has been commissioned by the Low Carbon Vehicle Partnership (LowCVP) to assess the demand for and feasibility of a voluntary biofuel label for sustainable biofuel as a mechanism to ensure that sustainability.

The need for such a label depends largely on the effectiveness of current RTFO carbon and sustainability reporting requirements. That effectiveness will not be known until experience of the scheme is gained, and the future effectiveness of the scheme will depend largely on the outcomes of EU regulation, which is currently under review.

This study finds that there does not appear to be an overwhelming demand for a voluntary sustainable biofuel label from all stakeholders today. However there is certainly some level of interest, and that interest could well grow in the future, depending on the performance of companies under the RTFO carbon and sustainability reporting and the final outcome of EC sustainability regulation. In the absence of satisfactory sustainability guarantees from fuel suppliers, pressure from NGOs will increase which is likely to translate into pressure from consumers to fuel retailers to provide guarantees of sustainable fuel.

Options are discussed in this report for a sustainable biofuel label focussed on fuel suppliers or on fuel retailers. A label focussed on the fuel supplier could be an effective tool if the demand for sustainability guarantees comes mainly from NGOs, and such a scheme could be relatively easily implemented as an extension to the current RTFO. A label focussed on fuel retailers could be an effective tool if demand comes increasingly from consumers. Such a scheme would however pose more challenges. The challenges faced and potential options to overcome them are explored in detail in the feasibility sections of this report.

The analysis in this study shows that it would be technically feasible to implement a fuel retailer label. The main conclusions on the different aspects of a biofuel label are:

- Chain of custody: a book and claim system is likely to offer the most flexible approach to the chain of custody, although further work would have to be done to ensure that this approach is acceptable to consumers and NGOs. Issuing certificates would be done most efficiently at the duty point based on the RTFO batch reports. A mass balance approach is also feasible but it offers less flexibility for fuel retailers in sourcing their sustainability information.
- Verification: if the verification in existing RTFO verification procedures is used, only limited additional verification would be needed.
- A number of further technical issues that would have to be considered if a labelling initiative is to be taken forward include the percentage of sustainable biofuel required for the label to be awarded, the volume of biofuel in fuel mix, and the periodicity of awarding the label. No major barriers were found here for the feasibility of operating a fuel retailer label displayed at forecourts.
- However, the network of ownership and operation of retail outlets is complex. Some retailers that would earn the right to carry the label do not necessarily own and operate all the outlets that identify their brand of fuel being sold. In these cases displaying the label at the forecourt may require negotiations between retailers and third parties forecourt owners, which may affect the roll-out and coverage of forecourts with the label in the short term.

Finally, the main options for the possible development of a biofuel label are given for different future RTFO scenarios:

Scenario 1. Future RTFO does not include sufficient mandatory requirements on sustainability of biofuels but has a comprehensive reporting scheme.

1A: Verified statements based on RTFO, possibly with RFA “seal of approval”

The current RTFO already provides the relevant verified information on the carbon and sustainability performance of biofuels supplied onto the UK market. Based on this:

- Biofuel producers and fuel suppliers could make verified claims about the sustainability of their biofuels;
- NGOs are able to distinguish the good from the bad performers,
- The government can publicly communicate who does and who does not achieve the indicative targets the Government set, and
- Fuel retailers could make claims that they only source fuel from suppliers which meet the Government's or RFA's targets, although this information would not be verified under the RTFO.

1B: Consumer focussed label used by fuel retailers and displayed at forecourts

The main opportunity to add value to the RTFO for a biofuel label is to engage fuel retailers and provide a reliable, transparent and consistent communication media to consumers through a label displayed at forecourts. This will be needed if reporting of sustainability is not seen by consumers as being adequate to guarantee sustainability.

However, for this to be of interest to fuel retailers, they must have more confidence in the balance between additional costs and benefits of participating in such a labelling scheme. Owing to scepticism about consumer awareness of these issues and in changing purchasing behaviour including willingness to pay extra, this confidence is currently low with most consulted fuel retailers. This may however change over time and could be reevaluated after the first reporting period of the RTFO.

If a consumer focussed label is taken forward, the most practical approach would be to:

- Use the RTFO Sustainable Biofuel Meta-Standard and the RTFO GHG-methodology. It would start as a UK label, but could develop towards an international label as international standards for biofuels develop;
- Base the verification of label information on RTFO verification procedures;
- Adopt a book and claim approach and consider the RFA as the issuing body for the label.

Scenario 2: Future RTFO does not include sufficient mandatory requirements on sustainability of biofuels and has no comprehensive reporting scheme.

In this case a biofuel label could add significant value as the options based on a RTFO reporting scheme (option 1A above) are not available. A voluntary biofuel label could be taken forward in line with option 1B, based on the current comprehensive versions of the RTFO standards.

Scenario 3: Future RTFO sufficiently covers mandatory requirements on sustainability of biofuels.

In this case the sustainability of biofuels is ensured by Government through legislation and there will be no demand for a mainstream voluntary biofuel label. A remaining option is a biofuel label which sets a so called “gold standard” for excellent performance. Such a niche-market label has not been the focus of this study.

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1 Introduction

1.1 Background

The UK implements the Renewable Transport Fuels Obligation (RTFO) in April 2008. This Obligation will require companies to sell a minimum of 2.5% renewable transport fuels in the UK in 2008/2009: a percentage which will increase to 5% in 2010/2011.

While biofuels are widely promoted for their greenhouse gas (GHG) reduction potential, there has been an increasing concern about the sustainability of biofuel production. In May 2007, in response to a number of NGO advertisements on the Renewable Transport Fuel Obligation Order, the Department for Transport received over 6,000 responses telling the Government to ‘choose the right biofuel’. This surprisingly large response from members of the public, indicated that there could be sufficient demand from the public for a sustainability label for biofuels.

In the UK, parties obligated under the RTFO, will be required to report on a monthly and annual basis on the carbon and sustainability performance of their biofuels. In this reporting obligation companies have the option to report “unknown” in relation to sustainability and this will be permitted during the first years of the RTFO. Biofuels which are not guaranteed to be produced sustainably, still count towards the RTFO. However, the government has set indicative targets for the sustainability and GHG-performance of companies’ biofuels and will monitor companies’ performance against these indicative targets. In June 2007, the Government announced changes to the RTFO to reward biofuels under the RTFO:

- in accordance with the carbon savings that they offer from April 2010¹
- only if the feedstocks from which they are produced meet appropriate sustainability standards from April 2011².

In the same statement to Parliament the Government asked the LowCVP to explore the feasibility of a voluntary labelling scheme to allow responsible retailers to show that their biofuels are genuinely sustainable.

¹ Provided that this is compatible with World Trade Organisation rules and EU Technical Standards requirements, and is consistent with the policy framework being developed by the European Commission as part of the review of the Biofuels Directive, and subject to consultation on its environmental and economic impacts

² Subject to the same provisos and consultation as above and subject to the development of such standards for the relevant feedstocks

Since the UK RTFO reporting obligations were developed, the European Commission has put forward proposals under the Fuel Quality Directive and proposed a Renewable Energy Directive that are also expected to cover the GHG and wider sustainability aspects of biofuels.

1.2 About this project

This project has been commissioned by the Low Carbon Vehicle Partnership (LowCVP) to assess the need for and feasibility of developing a voluntary label for sustainable biofuel. There are several reasons why a voluntary label for sustainable biofuels may be of added value:

- While the UK government wishes to set clear carbon and sustainability requirements for biofuels, the UK must operate in the wider context of EU and World Trade Organisation (WTO) policy. In order to avoid challenges under trade rules, the UK government has not demanded a mandatory minimum performance in certain areas such as social issues. Wherever the UK government is not able to demand minimum performance, a voluntary label could fill this gap.
- A label could demand a higher level of performance (in terms of sustainability and carbon) than the level set out in the supplier performance targets mentioned above.
- Parties with an obligation under the RTFO are predominantly the importers and producers of fossil fuel (refineries). However, a significant proportion of motor fuels sold in the UK are done so through supermarkets and other vendors. These parties are not obligated under the RTFO and therefore do not have an obligation to report on the carbon and sustainability characteristics. The party further upstream holds this obligation. A label could be designed for use by all fuel retailers, whether or not they are obligated parties under the RTFO. Thereby, the label could be a mechanism for fuel retailers to display directly to consumers their commitment to sustainability.

In assessing the need for and feasibility of a UK label for sustainable biofuels, this project aims to provide answers to the following questions:

- What is the added value of a voluntary biofuel label under different future RTFO scenarios, determined by different EU/WTO scenarios (e.g. whether or not social issues will be included as a minimum RTFO requirement)?
- Are companies interested in using a label for their biofuels and if so, what are the critical characteristics of such a label for companies?
- Will NGOs support a label for biofuels and what are the characteristics of the biofuel label which determine their support?
- How could a biofuel label work, taking into account the logistical infrastructure of motor fuels, mixing of fuels, lifting, etc?
- How could a biofuel label be developed: what are the concrete next steps that would need to be taken?

In addition, the LowCVP commissioned independent market research to assess consumer interest in a biofuel sustainability label. A summary of the results of this consumer research are included in this report.

1.3 Standards, certification and labelling

A standard is one of the components of a certification and labelling system, see Figure 1-1.

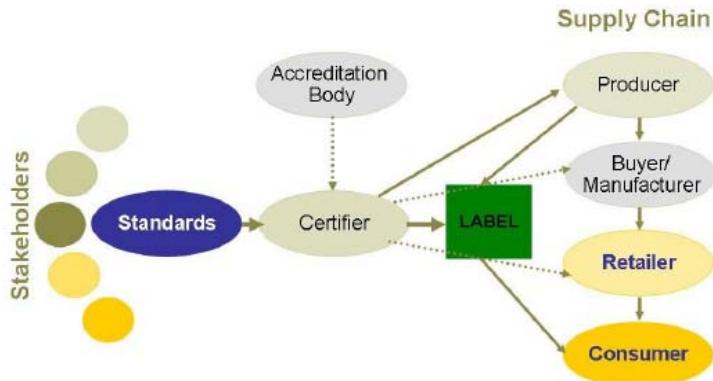


Figure 1-1 Elements of a certification and labelling system (ISEAL 2007d)

The concepts of a standard, certification and accreditation are often confused therefore their definitions as given by ISEAL are provided below:

- **Standard:** Document that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method. (ISEAL 2006)
- **Certification:** Third-party attestation related to products, processes, systems or persons that fulfilment of specified requirements [as laid down in a standard] has been demonstrated. A decision on certification is taken based on information provided by an inspector or assessor. (ISEAL 2007 part 3)
- **Accreditation:** Third-party attestation of a certification body's demonstrated competence to carry out specific conformity assessment tasks. A decision on accreditation is taken based on the demonstrated competence of a certification body to evaluate compliance with a standard. (ISEAL 2007 part 3)

It is important to distinguish between the standard and the label. As defined above, a standard describes a set of characteristics of a product or process with which compliance is not mandatory but can be measured. A label is used to demonstrate that a certain level of performance, related to the standard, is achieved. The performance level(s) that needs to be achieved to qualify for the label can be defined as part of the standard or as part of the certification and labelling process. For example, the Forest Stewardship Council (FSC) has a standard which defines a set of principles and criteria relating to a sustainable forest management. However, when a forest management unit receives a

positive certification decision and when it may carry the FSC label is described in the certification and labelling procedures, not in the standard itself.

The above also means that a single standard can be used for various purposes. The RTFO Sustainable Biofuel Meta-standard and the RTFO greenhouse gas methodology, for example, are both standards and both can be used for multiple purposes: e.g. for the RTFO reporting obligation and a voluntary biofuel label. Thereby, the performance level required for the RTFO and the voluntary biofuel label can differ while they make use of the same standards. This is schematically illustrated in Figure 1-2 below.

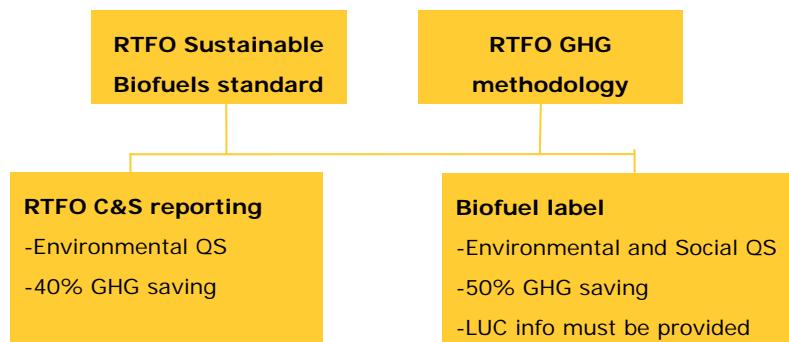


Figure 1-2 Illustrative example of how standards (the RTFO standard and the RTFO GHG-methodology) can be used for different purposes. The RTFO and a voluntary biofuel label could use the same standards, yet define different performance levels. This is an example and not a final recommendation.

Note Annex C contains further information on the process of developing a standard.

1.4 Readers Note

This report sets out to address the need for and feasibility of developing a voluntary label for sustainable biofuel. Chapter 2 explores the demand for a voluntary biofuel label, from the perspectives of consumers, fuel market players and NGOs. In doing so this chapter sets out a number of working principles for the goals of a voluntary biofuel label, which are then used to further explore the feasibility and possible design options for a label. Chapter 4 then explores the potential added value of a sustainable biofuel label when compared to the current RTFO, taking into account the most likely future policy scenarios. Chapter 5 looks at how a biofuel label could work in practice in terms of practical feasibility issues such as fuel chain logistics and chain of custody options. Finally chapter 6 discusses the possible organisational structure that would need to be in place for a label initiative to be taken forward: who could own the standard and who could develop and own the label?

2 Demand for a voluntary biofuel label

Even if there is an added value for a biofuel label, such a label will only become a success if the market is willing to adopt it. The interest of market players in a biofuel label will depend, among other things, on the interest of consumers in biofuel labelled as sustainable as well as on NGO support for such a label. This chapter summarises the main findings of consumer research which was conducted in parallel to this project to test the interest of consumers in a voluntary biofuel label at the present time. It also describes the findings of the interviews carried out under this project with fuel market players as well as NGOs.

2.1 Consumer interest in a biofuel label

Independent research in the form of a consumer survey was conducted during a week long period in January 2008³. The research was conducted through the TNS Computer Assisted Personal Interviewing (CAPI) Omnibus which conducts face-to-face interviews in respondents home and was used to collect reliable data from a nationally representative sample of British adults⁴ on awareness and attitudes to biofuels, to the RTFO and to a biofuel sustainability label. The research obtained 1,319 interviews with consumers who buy fuel for vehicles.

The complete list of questions is contained in Annex E. The results of the consumer research, carried out by TNS, are available in Annex F.

The results from the consumer research illustrate that:

- Most respondents (93%) are concerned about environmental issues in general and most (67%) mention transport related activities as an important in tackling environmental problems.
- Most respondents (78%) have at least heard of biofuels, but knowledge is limited as only a relatively small number (21%) are able to correctly identify different types of biofuels (bioethanol, biodiesel, biomethane) without error.
- Only a small proportion of respondents are aware of the introduction of the RTFO (7%). Others have heard about it but not sure what exactly it is (6%).
- Most respondents are positive towards the introduction of the RTFO (67%), but when asked, many (up to 68%) are concerned about environmental and social issues associated with biofuels. The majority were concerned about the social impacts of biofuel production and in particular the use of child or forced labour. Land rights

³ The survey was conducted from January 23rd – 27th 2008 which was prior to the RSPB newspaper advertisement calling on the UK Government to stop the introduction of the RTFO

⁴ A nationally representative sample of adults aged 17+ was interviewed.

issues were also of concern to a large number people (62%). Deforestation, biodiversity loss and water pollution were also of concern to a large majority (61%-66%). Potential food price increases (48%) and soil (49%) and water conservation (40%) were not of concern to as many people as other direct impacts.

- The majority of respondents were interested in knowing that the biofuels sold are environmentally friendly (85%) and in labelling (78%), and the three most suitable organisations to run a label are thought to be government, standards organisations and environmental groups.
- When asked, more than a third of fuel buyers said they would be willing to pay extra for environmentally friendly biofuels compared to just over a half who said they wouldn't pay more. Of those that would be willing to pay more, one fifth said they would be willing to pay up to 6p more and 15% would be willing to pay more than 6p
- A majority (86%) would want to know that the biofuel was actually dispensed into their tank. However 83% said they would prefer to spend their money with a company that *supports* environmentally biofuel production..

2.2 NGO support for a biofuel label

The NGOs interviewed for this study differed in their support for a biofuel label. Two NGOs contacted believe the risks from biofuels to be so large that governments should abandon their biofuel targets altogether. One of these NGOs was interviewed in more depth. They described how they were not very interested in a voluntary biofuel label as their priority is to do away with national biofuel targets as long as the sustainability of biofuels cannot be guaranteed. They were very concerned about the effectiveness of a scheme that was only voluntary or based around reporting with no explicit penalties, and their view was also that the science surrounding the measurement of criteria, both for carbon and sustainability, was too uncertain for such schemes to be credible and even for the monitoring of biofuels progress to be meaningful. Hence their view that all targets should be dropped. For this NGO to be supportive of any voluntary label, the label would have to address indirect LUC.

Two other NGOs interviewed were supportive of the concept of a voluntary biofuel label aimed at the sustainability of biofuels. Both were supportive of the idea to base the label on the current RTFO standard, with the comment that the label should address both environmental and social concerns as well as minimum greenhouse gas emissions savings.

2.3 Industry interest in a biofuel label

All companies interviewed were supportive of a biofuel label in general. However, companies did express several concerns:

- Costs: fuel retailers face tight margins and are sceptical to what extent consumers would be willing to pay extra for labelled fuel. The costs of labelled fuel are therefore important to them as they expect that they will need to bear the costs.

- Consistency with RTFO: companies in the biofuel supply and distribution network will be faced with the RTFO sustainability requirements and any label should build as much as possible on existing RTFO requirements and procedures to avoid unnecessary administrative burden.
- Simplicity of label: there would be a need for one simple and transparent label. The message would have to be very clear to consumers as to what the label is conveying, in particular with relation to the RTFO. For example, one fuel supplier could envisage there being a consumer market for “sustainable” biofuel, but felt that the concept of “very sustainable” biofuel would be too abstract for the majority of consumers. Companies do not want a proliferation of labels which could also add to confusion.
- One company expressed a concern that a biofuel label showed at a forecourt or on a fuel dispenser may cause issues with Trading Standards. Our interview with Trading Standards revealed that there is in principle no issue with showing a biofuel label on a forecourt or dispenser as long as the claims made to the consumer are honest, transparent and not misleading.
- Several companies expressed concerns in terms of the feasibility of a biofuel label which is displayed at individual forecourts because of the characteristics of fuel logistics. They envisaged the “label” more as something they could use in their company marketing, perhaps as a leaflet available from all forecourts.

2.4 Conclusions

This chapter has explored the demand for a voluntary biofuel label, from the perspectives of consumers, fuel market players and NGOs.

When asked, a majority of the consumers consulted in the consumer research were interested in knowing that the biofuels sold are environmentally friendly (85%). However, this does not automatically mean that a biofuel label displayed at forecourts is the most effective and efficient tool to address this concern. 78% of respondents expressed an interest in a sustainable biofuel label. However, it is not certain whether this also translates into real pressure on retail companies to carry a label because:

- The nature of fuel retailing is such that the consumer cannot choose between labelled and non-labelled fuel when it makes its purchase. (This assumes a label is assigned to an entire forecourt or retail company and not to individual pumps.) For labelled products such as organic food, consumers can typically choose between labelled and non-labelled product at the same retail point.
- The survey revealed that the majority of consumers were not particularly knowledgeable about biofuels and the vast majority were *not* aware of the RTFO. They are very unlikely to know that the fuel they purchase may already contain biofuel as current fuel specifications allow up to 5% bioethanol and biodiesel to be blended and does not need to be labelled (“blind blending”). This is likely to ensure that this lack of awareness at the pump continues. Therefore it is uncertain whether there will actually be a demand for a sustainable biofuel label from consumers as they may not even be aware of the fact that the fuel they are buying contains biofuel.

- When asked, more than a third of the respondents in the consumer survey said that they were willing to pay extra for environmentally friendly biofuel. However, this may not be an accurate representation of the percentage of buyers that actually will pay more in practice. It is generally accepted that consumers do not necessarily behave in the same way in practice as the answers they provide when interviewed and may provide what they perceive to be socially acceptable answers. Where labelled and non-labelled fuel may not be available at the same retail point and buying labelled fuel requires driving to a different forecourt, the price of fuel and convenience factors are likely to override decision making.

When asked, consumers are concerned about the social impacts of biofuel production (the majority were concerned about forced or child labour). Deforestation, biodiversity loss and water pollution were also of concern to a large majority. Land rights are of concern to more people than air pollution from burning waste for example and child and forced labour was the issue that most people were concerned about. Any label must therefore include social criteria.

It is realistic to expect that consumers will assume any fuel labelled at the forecourt to be the fuel that is actually dispensed into their tank. A majority (86%), when asked, said they would want to know that the biofuel was actually dispensed into their tank. However the survey revealed that 83% said they would prefer to spend their money with a company that *supports* environmentally biofuel production and when asked which statement best described their attitude to biofuels applied most to them, 34% would be willing to pay extra to support environmentally friendly biofuel production and only 18% said they would only be willing to pay extra if the fuel they were buying actually contained environmentally friendly biofuels. A label that claimed a company supported sustainable biofuel production is likely to appeal to the majority of consumers based on these survey results, however it is possible that this issue would cause confusion among consumers.

Industry reaction was in general positive towards the concept of a voluntary biofuel label, however it does not appear that demand is particularly strong. Industry representatives both in interviews and in the project advisory group were doubtful about consumers' true willingness to pay for labelled fuel. The feasibility of a label presented on forecourts was also in some doubt. Fuel suppliers also noted that there is a large potential for publicising data already collected under the RTFO. Therefore, unless the label is used as a message that can be directly conveyed to consumers, and there is a demand for it, they saw little added value in a label when compared to the RTFO. They also greatly value the current work that they do bilaterally with NGOs to improve the sustainability of their supply chains.

Fuel retailers (who are not necessarily obligated under the RTFO) were also positive towards the concept of a label though they do not foresee demand from consumers at this time. They see the added value of label as limited and therefore would be unlikely to pursue engagement in a label at this time. They believe that the power to influence

sustainability currently lies with the fuel suppliers and biofuel producers, some of which are also fuel retailers, under the RTFO reporting obligation.

NGO opinion is divided on a biofuel label. Ideally NGOs would like sustainability to be as possible guaranteed through regulation. Some NGOs believe the risks from biofuels to be so large that governments should abandon their biofuel targets altogether. Others are supportive of a label as long as it addresses both environmental and social concerns as well as minimum greenhouse gas emissions.

Overall, it appears that the main potential driver for a biofuel label is demand from some NGOs if they believe that regulation within the UK or EU will not be robust enough and companies are not seen to be taking enough responsibility for improving their sustainability performance under the RTFO. However, while the RTFO reporting obligation may not guarantee the sustainability of biofuels, it does provide NGOs with verified information about the sustainability of the supplied biofuels of individual companies. If NGOs are the main target audience the question arises if the verified information reported under the RTFO does not already provide NGOs with the information they need to distinguish the ‘good’ from the ‘bad’

Finally, NGOs are also likely to be the link towards increasing consumer demand for a label and it is possible that mounting pressure will increase consumer awareness such that unprompted demand is significantly increased over time.

3 Aims and options for a biofuel label

Any labelling initiative should set out clear goals at the start. What is it that the label wants to achieve? The exact goals of the label are defined by the eventual stakeholders involved in the labelling initiative, and this study cannot determine what these exact objectives should be as it inevitably includes value judgements on what is deemed important and what not. However, based on the interviews we have conducted with a wide range of stakeholders and experts (a full list of organisations interviewed is included in Annex A), we provide a series of considerations that could define the future objectives of a biofuel label. These will have a significant impact on the design of the label. The considerations below are used to generate working principles to enable further discussion of the feasibility of a biofuel label in this report.

3.1 What does the label aim to achieve?

Improving the sustainability of biofuels

An important question for the label will be how broadly it will define sustainability and its scope. Will it include only environmental concerns or will it also include social concerns?

Based on our interviews with NGOs and companies, the consumer research on consumer perception of biofuel sustainability, as well as the general public debate on biofuel sustainability, it appears that for a biofuel label to be credible it must address the following three concerns:

- *Biofuels must achieve a significant reduction in greenhouse gas emissions;*
- *Biofuels must be produced without harming the environment (environmental sustainability); and*
- *Biofuels must be produced without causing negative social consequences (social sustainability).*

Thereby, stakeholders seem to agree that a credible biofuel label should achieve a minimum level of performance on all three areas of concern with *no trade-offs* between the different issues (e.g. avoidance of child labour can not be traded off against a high GHG emission reduction).

Encouraging biofuels sustainability - market coverage

The biofuel label initiative could either stimulate best practice in its field (for example, a 'gold standard' for the top 10% most sustainable biofuels in the market) or aim to achieve an acceptable level of sustainability for a large part of the market (mainstream

focussed). This choice is likely to have an impact on the exact level of performance that is set for the label, with a niche market approach potentially enabling a higher performance level than a mainstream approach. Each of these approaches has its obvious pros and cons. A niche market approach achieves a higher level of sustainability but for a smaller part of the market. A mainstream approach will achieve a lower, yet acceptable, level of sustainability for a large part of the market.

The interviews held for this study seem to reflect the current public debate on biofuels in which the primary concern is to avoid biofuel from doing harm to either the environment or local populations. While good performance for a minority share of biofuels would demonstrate the high level of performance that is feasible, it would do little to prevent negative impacts from the rest of the biofuel market. In that respect current concerns seem to demand a more mainstream approach through which an acceptable level of sustainability is achieved by a majority of, or preferably all, biofuels. Of course, if this minimum level of acceptable performance (in all three areas of concern) is already achieved through government regulation, such a mainstream biofuel label would only duplicate government regulation. At this point a more niche market approach may be of value and the label would provide added value if it were a 'gold standard'.

Stimulating the volume of biofuels in the market

Is the label purely aimed at ensuring the sustainability of biofuels or does it also aim to increase the volume of biofuels? Increasing the volume of biofuels could be done in several ways: e.g. by requiring a minimum percentage of biofuel in a blend or by stating the blending percentage on the label. However, with the current concerns about the sustainability of biofuels and the protests of certain stakeholders against the European Commission's proposal to increase the biofuel target from 5.75% in 2010 to 10% in 2020, it seems likely that a biofuel label purely aimed at the sustainability of the biofuels would receive most support from civil society. The label could then be used to guarantee the sustainability of the biofuel component, regardless of how large that component is.

3.2 Which stakeholders does the label aim to target?

Fuel suppliers or fuel retailers

An important consideration for a label is which party will carry the label. Two options are discussed below: the fuel supplier and the fuel retailer. As will be shown, an important consideration for this choice is the target audience for the label.

Fuel suppliers: Include the five major oil companies as well as others importing fuel into the UK (refiners and non-refiners) from overseas that sell into the wholesale market.

Fuel retailers: Retail outlets are where a consumer-focused label would be displayed. Consumers are likely to identify fuel by the 'pole sign branding' which is the sign that denotes the brand the fuel is being sold under, for example BP, Shell, Tesco etc. Around 13 companies are expected to retail the vast majority of fuel in the UK and can be identified through these 'Pole Signs'.

which is supplied into the market by a certain fuel supplier. Because the label is not displayed at forecourts, the label is not directly visible to consumers when they purchase their fuel.

Advantages

- A label focussed on fuel suppliers will be relatively simple to operate and incur little additional costs. Fuel suppliers already collect information about the sustainability of their biofuels for the RTFO. In addition, this option avoids the complications involved in fuel retailing where the characteristics of the fuel infrastructure put limitations on the traceability of fuel and the flexibility with which forecourts can choose their fuel suppliers. (Fuel logistics are dealt with in detail in section 5.1.)
- Fuel retailers (some of who are also fuel suppliers) could use such a label to communicate a reliable and transparent message to NGO's and consumers about the sustainability of their biofuels. However, in this option, the label is not visible at forecourts.

Disadvantages

- The main disadvantage of this option is that it adds little value to the RTFO and setting up a separate label may therefore not be considered worthwhile. Under the RTFO fuel suppliers already report annually on the sustainability and carbon performance of their biofuels and this information is publicly available. The reported information under the RTFO is relatively easy to interpret and different companies can be compared on their sustainability and carbon performance. The question therefore arises what value a label adds if it offers largely the same opportunities for the same companies as the RTFO? In this scenario the label would likely need to address other or more stringent sustainability aspects of biofuels to be of added value to the RTFO (see section 4.2), e.g. displacement effects.
- By not having a label visible at forecourts, this option does not reach consumers at the point where they make their purchasing decision. This means that consumers are less likely to alter their actual purchasing behaviour based on the sustainability of the fuel simply because they lack the relevant information. If the label does not lead to a change in consumer behaviour it becomes questionable to what extent the label provides an added value to a company.

However, as discussed in Chapter 2, while most consumers indicate they care about the sustainability of biofuels, it is unclear whether a sustainable biofuel label at forecourts will actually lead to a change in purchasing behaviour from consumers.

Option 2: label is used by "fuel retailers" and displayed at forecourts

Advantages

- The advantage of this option is that it has the ability to reach more parties than the current RTFO as the label could be used by all fuel retailers, while the RTFO reporting only applies to fuel suppliers (who are not all fuel retailers). A label at the forecourt is *visible to consumers at the point at which they make a purchase*. In this

option, even if the label were to address the same sustainability aspects as the RTFO, there would be the added benefit of communicating the information directly to the consumer at the point of sale. The consumer would not have to do any further research, as in option 1, but could clearly see which forecourts sell sustainable biofuel (carry the label) and which do not, and could change their buying behaviour accordingly. If sufficient consumers were to do so, this would create an incentive, a value, for a fuel retailer to carry the label.

- In this option, fuel retailers are the “end users” of the label. This does not preclude fuel suppliers from using the label too. While clear rules need to be defined on the type of claims that fuel suppliers can make, fuel suppliers which supply fuel that meets the requirements of the label could communicate this in their marketing. Therefore, option 2 allows not only fuel retailers but also fuel suppliers to use the label.

Disadvantages

- Due to the characteristics of fuel retailing, consumers are unlikely to actually have a choice between labelled and non-labelled fuel at a single retail point (forecourt). A biofuel label aimed at influencing consumer buying behaviour may therefore be less effective than for example a label for organic food, where consumers are typically offered a choice in labelled and non-labelled products in one retail location (supermarket).
- The ownership and operation of retail outlets is complex. Some fuel retailers who are awarded the right to carry the label may not own or operate all the sites at which their Pole Sign is displayed and may have little control on the display of the label at certain sites without commercial negotiation with the owner of the site.
- In terms of feasibility and administrative costs, the characteristics of fuel logistics make it more complicated to assign the label to fuel retailers instead of to fuel suppliers because fuel retailers are further down the supply chain which necessitates further tracking of fuel and information. Nonetheless, several options exist to overcome these challenges and are discussed in Chapter 5.
- Of the companies interviewed, a broadly positive attitude was expressed towards the concept of displaying a biofuel label on a forecourt. However all parties interviewed recognised the difficulties faced when trying to make simple and non-misleading claims about the sustainability characteristics of the *actual* fuel sold on a forecourt.

Conclusion

Fuel companies generally see little added value of a label at the fuel supplier level compared to the current RTFO approach under which most are obligated.. They can already publicise information from the RTFO to the extent they wish and also undertake “behind the scenes” work together with NGOs to assist improved performance on sustainability performance across all business operations rather than specifically focus on biofuels only. Therefore, this study will focus on the feasibility of a label for which the end use lies with fuel retailers (option 2).

Label issued to entire retail company or individual forecourts?

If a label addresses fuel retailers, the question still remains whether the right to carry the label is issued to an entire fuel retailing company based on a certain performance level or whether the right to carry the label is assigned to individual forecourts.

The feasibility of these options also includes the structure of retail site ownership and operation, which can be complex. Whilst the branding of the retail sites can be identified according to the ‘Pole Sign’ this does not in all cases denote that this retailer owns or operates the site.

Ownership can be classified in three ways:

- Hypermarket owned - the Pole Sign shows a recognisable major retailer brand and the sites are owned and operated by that retailer directly. In practise this means that the hypermarket/supermarket has direct control over what happens on the site. E.g. a Tesco site.
- Company owned - means that the site is owned by the oil company whose name is on the Pole Sign. The site can be operated by the oil company directly (COCO) or operated by a third party company under other arrangements (CODO). In practise this means that the oil company has direct control over what happens on the site (subject to the commercial agreements). E.g. BP Connect.
- Dealer owned - means that the site is supplied by an oil company whose name is on the Pole Sign but it is owned by a third party who may be an independent or may be another recognised retailer. It could also be operated by the third party or even a fourth party. Sites can also be owned by third party Private Equity Groups that sub-lease to a fourth independent company to operate. A Dealer ownership means that there is little direct control over what happens on the site (except in some cases of franchises) and commercial negotiations to display the label would be required.

Of the total retail sites in the UK, 13% are hypermarket owned⁵, 23% company owned and 64% dealer owned.

The proportion of company owned versus dealer owned sites also differs between the major oil companies, for example:

- BP owns 30% of forecourts that carry their Pole Sign;
- Esso owns 70%;
- Shell owns 65%;
- Texaco owns less than 1%;
- Total owns 57%.

⁵ Supermarkets/hypermarkets however account for 30- 40% of the volume of fuel sold in the UK and can act as dealers (operators) as well as owners of retail sites.

The ownership structure of fuel forecourts in the UK is therefore important when considering the feasibility of issuing the right to carry the label to a forecourt or fuel retailing company. The pros and cons of each option are discussed below.

Option 1: label assigned to entire fuel retailing company

In this option the right to carry the label is issued to the entire fuel retailing company which can then display the label on all its forecourts that are branded according to their ‘Pole Sign’.

Advantages

- Transparency to consumers. Consumers can identify an entire fuel retailing company (through association with the Pole Sign) with the label. For consumers this has the advantage that they can trust that whatever forecourt they go to, as long as the Pole Sign identifies that same fuel retailer, it could carry the label (subject to negotiations where they do not own or operate the sites).
- Interviewed fuel retailing companies have indicated that the decision to carry a label would be made at a corporate level and not at the level of individual forecourts. These fuel retailing companies therefore would prefer a ‘corporate’ label which would therefore be associated with their brand. Note that also if the right to carry the label is assigned to individual forecourts, it would still be possible to make the decision to carry the label at a corporate level.

Disadvantages

- Lack of flexibility. In this option, there can be a high entry barrier (e.g. 50% of all fuel sold by a fuel retailer must meet the qualifications), and after meeting this threshold the fuel retailer has little stimulus to further improve its performance. A possible solution to this problem is to demand an increasing share of fuel which meets the qualifications (e.g. 20% in the first year, 50% in the second year, etc.)
- The complexity of retail outlet ownership and operation arrangements means that some fuel retail companies who are awarded the right to carry the label may not have full control over the operations of all individual retail sites that use have their Pole Sign, and therefore may have to negotiate the display of a label with certain owners and/or operators.

Option 2: label assigned to individual forecourts

In this option the right to carry the label is issued to an individual forecourt which can then carry the label.

Advantages

- Higher flexibility. A fuel retailing company could enter the scheme by having one or a few of its forecourts certified, which can then carry the label. As the fuel retailing company manages to source more and more sustainable fuel, it can expand the number of certified forecourts which can carry the label.

Disadvantages

- Confusing for consumers. With this option, as with the previous one in some cases, it may be confusing to consumers that one forecourt of a certain fuel retail company carries the label while another forecourt of the same fuel retailer does not carry the label. The consumer therefore cannot simply rely on a specific fuel retail company to carry the label on all its forecourts but for each individual forecourt will have to see whether it carries the label or not, once they have already driven to the forecourt.

Conclusion

The potential impracticalities for a company to be required to apply for the use of a label for each of their individual forecourts are likely to be significant and such a system would likely cause confusion among consumers. Discussions within the project advisory group led to the conclusion that the most practical approach would be for the label to be issued at a company level rather than to individual forecourts. The complexities of the ownership and operation of retail sites is likely to mean companies that choose to carry the label will in some cases have to negotiate with third parties to have the label displayed at the pump. The proportion of company ownership versus dealer ownership of forecourts differs and therefore the extent to which these negotiations would be required would differ between retail companies. The approach is therefore feasible; however in defining the guidelines for the operation of the label, the owner of the label must consider this ownership structure and the implication that it could affect coverage and roll-out of the label in the short-term.

3.3 Should the label be based on the RTFO standards?

A starting point for a voluntary biofuel label in the UK could be the methodology for reporting Carbon and Sustainability used in the RTFO, consisting of the RTFO Sustainable Biofuel Meta-standard and the GHG methodology. The advantages and disadvantages of this approach are set out below.

Advantages of using the RTFO standards

- *No proliferation of standards.* With so many initiatives for sustainable biomass there is a growing concern that a proliferation of biofuel standards will do little good for either the market players who need to work with these standards or the consumers who are supposed to understand these standards. or the environment and social groups that are expected to have an opinion on these standards. It is doubtful at least whether yet a new standard would be desirable. Adopting the RTFO standard would prevent this.
- *Quick to implement.* As illustrated by the more credible sustainability standards such as FSC, credible standard development is a long process. Developing a new standard for a biofuel label instead of using an existing one would delay its implementation.
- *Saves development costs.* Standard development processes do not only require time, also requires resources. Using an existing standard saves valuable resources of the labelling initiative as well as valuable time of stakeholders who already struggle to stay up to date with and provide input to the different biofuel initiatives.

- *Saves operational costs.* If the RTFO standard is used it may also be possible to use some of the existing RTFO processes and information such as the monthly carbon and sustainability reports of fuel suppliers and the verification processes in place for the RTFO. Making efficient use of (verified) information which already exists can greatly reduce the operational costs of the label. (This is dealt with in more detail in Chapter 6.)
- *Strengthens RTFO standard.* Adoption of the RTFO standard by a voluntary label would further strengthen the position and credibility of the RTFO standard.

Disadvantages of using the RTFO standards

- *Credibility.* For a standard to be successful, credibility of the standard is crucial (especially if compliance is voluntary). As described in Annex C (The RTFO standard development process), there have been different rounds of open consultation for the RTFO standard. However, while it largely consists of criteria taken from respected international standards and treaties, it was not developed through a multi-stakeholder consensus building process and neither did it include active input from producers in developing countries other than through western NGOs. Nonetheless, the NGOs interviewed here who were familiar with the RTFO standard would support its adoption by a voluntary label. To obtain a more representative picture of the credibility of the RTFO standard with NGOs, a larger number of NGOs could be interviewed than was possible in this study.
- *The RTFO is not an internationally used standard.* The RTFO standard is a UK standard and while it largely consists of criteria taken from respected international standards and treaties, and shows large resemblance to other sustainability standards such as the Dutch standard for sustainable biomass, it is not an internationally agreed standard. Clearly an international standard would be preferable in an international market with international consequences such as the biofuels market.

Conclusion

In general parties interviewed under the scope of this project, who were in favour of a voluntary biofuel label, were also in favour of maximising the use of existing procedures developed under the RTFO. Industry was particularly in favour of avoiding the proliferation of standards and procedures to minimise their burden of compliance. Those NGOs in favour of a label were also in favour of basing a voluntary biofuel label on the RTFO standard.

3.4 Blended fuels and technical quality

Blended fuels

In this study we have assumed the biofuel label is focussed on the biofuel component of the blend and not on the fossil component. Including claims about the fossil component is possible but would increase the complexity. If the fossil component is included, alignment with any carbon and/or sustainability requirements for fossil fuel in the Fuel Quality Directive should be taken into account.

In terms of the types of blend the label should focus on, a mainstream biofuel label in the UK will largely deal with low blends of biofuel (less than 5% biofuel initially). Market penetration of high blend biofuels (more than 5% biofuel) is very low in the UK and a label which focuses only on high blends therefore automatically limits the label's current scope to a minority share of the UK biofuel market.

Ensuring the technical quality of the biofuel

A biofuel label could also be used to ensure the quality of the biofuel, however the majority believe that the quality of the biofuel is not an issue that such a label should tackle, as this is already ensured by European technical standards (e.g. EN14214 for biodiesel).

3.5 UK label or international label

Another important choice to be made which would have important implications for the further development process of the label is whether the label is focussed on use in the UK or whether it should be a European or global label.

Clearly there are many advantages to an international label. Many players in the fuel supply chain are international organisations and if each country developed its own label with its own rules and requirements, this would create a hugely complex and burdensome situation for these international players. Such a fragmented approach will likely also be less efficient in achieving the environmental and social goals of the different biofuel labels. Internationally recognised codes of good practice for standard development, such as defined by ISO⁶, WTO⁷ and ISEAL⁸, all stress the importance of avoiding duplication.

The disadvantage of an international approach is that this would take much longer to develop and implement than a label with a national focus. There is currently no internationally recognised standard which could form the basis for such an international label. Several national (draft) standards exist for policy purposes in the Netherlands and Germany as well as a proposal from the European Commission and a global standard biofuel development initiative called the Roundtable on Sustainable biofuels⁹. These initiatives all provide useful experience and can provide valuable input to a future internationally accepted standard for sustainable biofuels. However, the development of such an international standard is likely to take several years. Interviewed experts in this field indicate a minimum time span of three years, assuming all funding is available.

A new development is the request filed by the Dutch National Standard Setting Body (the NEN, the Dutch equivalent to BSI) to the European Standard Setting Body (the CEN), to develop a CEN-norm for sustainable biomass. It is not known to the authors whether this

⁶ ISO/IEC Guide 59: 1994. Code of good practice for standardization

⁷ WTO Code of Good Practice for the Preparation, Adoption and Application of standards.

⁸ ISEAL Code of Good Practice for Setting Social and Environmental standards

⁹ For more information on this initiative, see <http://cgse.epfl.ch/page65660.html>

process will go ahead or what level of credibility such a CEN norm for sustainable biomass will have with non-governmental stakeholders. In terms of the short term options this offers for use in a voluntary biofuel label, the development of such a CEN-norm is expected to take three years (NEN 2008).

In summary, any national labelling initiative should be aware that a national label, based on a national standard, may well be taken over by an international initiative over time. Looking at the current urgent demand for proven sustainable biofuels, a national initiative could fulfil an important role as it would be quicker to develop and implement. It could also provide valuable lessons to a future international initiative. It should not, however, obstruct the development of an international standard and the goals of an initiative which starts with a focus on the UK may include the ambition to develop towards an internationally agreed label.

3.6 Label design

A key message expressed by a majority of stakeholders interviewed, in particular those involved with running existing or developing labelling initiatives, was that any biofuel label must be as simple as possible, with a message which is both easy to communicate and easy for the consumer to understand. Labels, particularly those used at the point of purchase, are not designed to convey complex messages. Consumers at a fuel forecourt are already faced with a choice of products and a large amount of information associated with products. This therefore leads to the following principles:

- There should be one level of sustainability to ensure a clear and simple message to consumers. “Less is more” is the experience of existing standards.
- GHG could either be one minimum level or a banded approach could be adopted (similar in nature to the A-G energy efficiency product labels, or with a number e.g. 80% GHG saving).

3.7 Conclusions

As discussed in the previous section there is no right way to set up a biofuel label and much will depend on the exact goals the initiative will define for itself. Many options exist but not all are equally likely. In order to facilitate more detailed discussion of the feasibility and design options for a label, several working principles are therefore defined on the goals of a biofuel label, based on the discussion of various options in the previous section. These working principles are summarised in Box 3-1 below.

Box 3-1 Working principles in this report on the goal of a biofuel label based on discussion of options in section 3.

1. Label aims to achieve an acceptable level of sustainability for a majority of the consumed biofuels, addressing environmental and social concerns as well as greenhouse gas emission reductions.
2. Label does not aim to increase biofuel consumption, nor ensure biofuel quality, but is purely focussed on sustainability of biofuels.
3. Label must be applicable to all levels of biofuel blending.
4. Label for use by fuel retailers and displayed at forecourts.
5. Label issued to entire fuel retail company instead of to individual forecourts.
6. Label starts with a UK focus but aims to develop into international label over time.
7. Label makes as much use as possible of existing RTFO procedures and information, including using the RTFO Sustainable Biofuel Meta-Standard and GHG methodology as a basis.
8. Label must be simple to communicate and to understand.

4 Added value compared with the RTFO

This chapter addresses the ‘need’ for a voluntary biofuel label which focuses on sustainability in addition to the mechanisms under the RTFO. The potential added value of a biofuel label, in terms on ensuring the sustainability of biofuels, depends on the form future government regulation on biofuel sustainability takes. Taking into account WTO trade rules and proposals for sustainability criteria by the European Commission, the most likely future RTFO scenarios are identified, and the added value of a voluntary label compared to the RTFO in each of these scenarios is discussed. In exploring the added value of a label, a distinction is made between adding value within the current scope of the RTFO Sustainable Biofuel Meta-Standard and GHG methodology, and adding value beyond the scope of the current RTFO.

Existing initiatives which focus on the sustainability of biofuels are also briefly evaluated to judge whether a new initiative is really necessary and would not be a duplication of existing initiatives.

4.1 Current and future RTFO scenarios

Current sustainability requirements under the RTFO

For the first phase of the RTFO (15 April 2008 to 14 April 2011) companies claiming Renewable Transport Fuel Certificates (RTFCs) will have to report on the carbon and sustainability performance of the biofuels they supply. For this purpose, seven sustainability principles have been defined for the RTFO, see Table 4-1. These are complemented by a methodology to determine the greenhouse gas (GHG) emission reductions achieved through different biofuels.

Table 4-1 RTFO sustainability principles. Each of these principles has been further specified into criteria and indicators. For a complete overview of these criteria and indicators see (RFA 2008)

Environmental principles
1. Biomass production will not destroy or damage large above or below ground carbon stocks
2. Biomass production will not lead to the destruction or damage to high biodiversity areas
3. Biomass production does not lead to soil degradation
4. Biomass production does not lead to the contamination or depletion of water sources
5. Biomass production does not lead to air pollution
Social principles
6. Biomass production does not adversely affect workers rights and working relationships
7. Biomass production does not adversely affect existing land rights and community relations

Currently there are no *mandatory* performance levels in the RTFO for either GHG or sustainability performance and “unknown” reporting is allowed. However, indicative targets have been set by the UK Government¹⁰ and companies’ performance relative to these targets will be made publicly available, which is expected to provide a strong incentive for companies to demonstrate good performance. Nonetheless, the reporting obligation under the RTFO has no formal penalties for non-compliance and can therefore not guarantee the sustainability of the biofuels supplied.

From 2010, the UK Government intends to link the number of Renewable Transport Fuel Certificates (RTFCs) earned to the actual carbon saving achieved, in addition to introducing a mandatory minimum level of sustainability in 2011. This will however depend on a number of factors, including the success of the RTFO reporting scheme, the further development of international sustainability standards, and European-level requirements and / or restrictions on what Member States can require. The section below therefore analyses what the likely future scenarios for the RTFO are, taking into account the European Commission’s proposal for a new Renewable Energy Directive as well as WTO trade rules. This provides an insight into the extent that the sustainability of biofuels will be covered by the RTFO in the different future RTFO scenarios. Aspects not covered by future RTFO scenarios provide an opportunity for a voluntary label.

WTO rules

Biofuel sustainability regulations set by countries are subject to the rules of the World Trade Organisation (WTO). However, what is and what is not allowed under WTO rules in terms of sustainability requirements for biofuels is uncertain. This uncertainty is caused in part by the limited jurisprudence on countries imposing barriers to trade based on non-product related sustainability characteristics. It is therefore not possible to state with certainty which sustainability requirements the UK can set for biofuels that would not infringe WTO trade rules.

Research in the Netherlands analysed the WTO compatibility of the Cramer criteria for sustainable biomass production. As the Cramer criteria show many similarities with the sustainability criteria of the RTFO, the results of this study are relevant for the RTFO as well. It should be noted however, that these are the results of a single study and they do not provide a definite answer. The study concluded that:

- Criteria on GHG emissions, which are a global problem, are likely to be allowed under WTO rules.
- Criteria on local biodiversity, air quality, water quality and availability, and soil quality are more uncertain under WTO rules as the effects occur in the producing country and not in the importing country (e.g. the UK) which sets the sustainability requirements.

¹⁰ Ascending indicative targets are currently set for each of the first three years of the RTFO for: the well to wheel GHG saving of the biofuel; the percentage of feedstock meeting a ‘Qualifying’ Environmental standard under the RTFO; and the percentage of data provided (e.g. biofuel type, country of origin, land use etc).

- Criteria on human rights are most controversial but may still be allowed under WTO trade rules according to this study because of the broad recognition of human rights as well as the existence of UN conventions on human rights.
- Criteria on economic welfare and competition with food are expected to be in violation of WTO trade rules according to this study.

Besides the subjects covered by the sustainability requirements for biofuels, other aspects play an important role in whether the requirements will be challenged under WTO. In order to minimise the risk of challenges under WTO:

- Requirements should be non-discriminatory and should also apply to indigenous producers.
- Requirements should be based on internationally agreed standards where possible.
- Requirements should be set in dialogue with affected countries and should take into account local circumstances of affected countries such that the requirements do no constitute unnecessary barriers to trade.
- Requirements are based on robust science.
- Affected countries should have sufficient time for adaptation.

EC proposal for sustainability requirements

In the proposal for a new European Framework Directive on Renewable Energy published on 23 January 2008¹¹, the European Commission (EC) proposed that biofuels must meet certain minimum GHG and sustainability criteria in order to be eligible to receive financial support from Member States and to count towards the European biofuels target of 10% biofuels in transport fuel by 2020.

The draft Directive (Article 15) proposes that biofuels (or bioliquids) which count towards the Directive targets shall meet the requirements listed in Box 4-1.

¹¹ Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources 23.01.2008. Available from:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0019:FIN:EN:PDF>

Box 4-1 Summary of sustainability requirements as proposed in the EC proposal for a RE directive (EC 2008).

- Biofuels must achieve a GHG saving of at least 35%.
- Biofuels shall not be produced from feedstocks grown on land with recognised high biodiversity value (in or after January 2008), specifically:
 - forest undisturbed by significant human activity; or
 - areas designated for nature protection purposes; or
 - highly biodiverse grassland.
- Biofuels shall not be produced from feedstocks grown on land with a high carbon stock (in or after January 2008), specifically:
 - wetlands, including pristine peatland; or
 - continuously forested areas (land more than 1 hectare with trees higher than 5 metres and a canopy cover of more than 30%, or trees able to reach these thresholds in situ).
- Feedstocks grown within the EU shall meet the requirements and standards for good agricultural practices through compliance with the “Cross compliance” requirements.

Through these requirements the EC proposals provide for a minimum level of sustainability of biofuels. However they do not cover all the criteria proposed by other sustainable biofuel initiatives, including the RTFO reporting requirements in the UK¹². Specifically the EC proposals do not address:

- Local environmental issues such as soil quality, water pollution and consumption and air pollution, for feedstock originating from outside the EU (principles 3, 4 and 5 of the standard for sustainable biofuels).
- Social criteria such as labour conditions, land rights and community relation (principles 6 and 7 of the RTFO standard for sustainable biofuels).

The current EC proposal does not allow Member States to set additional or more stringent sustainability criteria than those of the EC. This would mean that the UK would not be able to mandate wider or stricter GHG and sustainability criteria under the RTFO. Reporting on wider criteria and rewarding fuels with higher GHG savings may be allowed.

From the interviews held for this study as well as the opinions put forward by stakeholders in reaction to the proposed sustainability criteria of the European Commission, there appears to be a clear demand for a broader and more stringent set of criteria. A voluntary label could therefore most certainly fulfil a demand for sustainability which is not covered by the current EC proposal.

¹² For a full list of the RTFO biofuel sustainability criteria the reader is referred to the Technical Guidance available from <http://www.dft.gov.uk/rfa/reportsandpublications/carbonandsustainabilityguidance.cfm> The background of these criteria is discussed in the accompanying Framework Report (Ecofys 2008)

It must be stressed that the EC sustainability criteria discussed here are a proposal. They may still be revised before they are adopted as they are currently the subject of work for an ad-hoc working group attended by Member States representatives. In addition, there is also a discussion on whether to include sustainability criteria in the EU Fuel Quality Directive. This too would provide an opportunity to alter the EU sustainability criteria and the extent to which the EU allows its Member States to set more stringent criteria.

Future RTFO scenarios

Given WTO rules and current EC proposals, the most likely RTFO scenarios are laid out in Table 4-2. A distinction is made between reporting obligations and minimum requirements. For example, scenario 1 represents the status quo, whereby no carbon or sustainability aspects are mandatory under the RTFO, and represents a requirement to report only.

Table 4-2: Likely future RTFO scenarios. LUC stands for Land Use Change and reflects parts of principles one and two of the RTFO standard. P stands for principle and refers to the seven principles of the RTFO Sustainable Biofuel Meta-Standard.

Scenario	GHG (P1)	LUC (P1, 2)	Soil/Water /Air (P3, 4, 5)	Social (P6,7)
1. Current RTFO	Report	Report	Report	Report
2a. Current EC proposal	Min Req	Min Req	None	None
2b. Current EC proposal, with additional reporting	Min Req	Min Req	Report	Report
3. Current RTFO with Min Req for GHG and Environment	Min Req	Min Req	Min Req	Report
4. Current RTFO with Min Req for GHG, Environment and Social	Min Req	Min Req	Min Req	Min Req

The potential added value of a voluntary sustainable biofuel label in these different scenarios is analysed in section 4.2 below.

4.2 Added value to RTFO: ensuring a higher sustainability performance of biofuels

Added value as discussed here refers specifically to the potential added value of a voluntary sustainable biofuel label as compared to the requirements of the RTFO in terms of better ensuring the sustainability of biofuels. Achieving this would help to address the concerns of consumers and NGOs, as detailed in chapter 2.

The ways in which a voluntary biofuel label could add value to the RTFO in better ensuring the sustainability of biofuels can be divided into the categories listed below. The

potential added value in each of these categories is detailed further in the remainder of this section.

1. Setting *minimum requirements* where the RTFO currently requires reporting only.
The opportunity to do so depends on the RTFO scenario. Main options for minimum requirements include:
 - a. On average the fuel must meet the performance as set out in the indicative targets of the UK Government.
 - b. 100% of the fuel must meet the Qualifying Standard level (environmental and social) as well as the GHG emission savings as defined in the indicative targets set by Government.
2. Requiring a *higher level of sustainability* than the RTFO:
 - a. Within the current scope of the RTFO
 - i. Full compliance with all RTFO Sustainable Biofuel Meta-standard criteria;
 - ii. Additional requirements with respect to the GHG emission reduction that must be achieved and how these are determined.
 - b. Beyond the current scope of the RTFO
 - i. Inclusion of additional criteria to the RTFO (e.g. GMO or by expanding the scope of sustainability criteria beyond the plantation);
 - ii. More stretching sustainability criteria than the RTFO;
 - iii. Inclusion of displacement effects.

Table 4-3 at the end of this section ranks these options relative to each other, based on the demand from stakeholders, their compatibility with the RTFO, and the practicality of implementation.

Setting minimum requirements where RTFO requires reporting only

The most obvious potential to add value to the RTFO for a voluntary label is by including minimum requirements for those aspects where the RTFO only has a reporting obligation (with no minimum requirements). For example: under Scenario 2b (the EC proposal, with additional reporting allowed for local environmental issues and social issues), the RTFO would not have minimum sustainability criteria for local environmental effects and social issues. In this scenario, a voluntary sustainable biofuel label could be of added value to the RTFO requirements by including these local environmental issues and social issues as minimum requirements for the label. Under the current RTFO reporting obligation (Scenario 1) the potential is even larger as the current RTFO does not include any minimum requirements.

Minimum requirements for a label could be formulated in a number of ways and could theoretically be set at any number of performance levels. The main options for minimum requirements for a label which would be compatible with the current RTFO, are either to require fuel suppliers to meet the Government's proposed performance targets, or to

require fuel suppliers to meet a Qualifying Standard (environmental and social) for 100% of their fuel in addition to the governments indicative target for GHG emission savings.

There seems to be a distinct possibility that the future RTFO will not include minimum requirements for social aspects. These aspects are generally believed to have the highest chance of being challenged under WTO (see section 4.1): the EC proposal does not include social aspects and Germany, which intends to set minimum sustainability requirements for biofuels, has not included social aspects. A voluntary label is therefore likely to be able to add value compared to the RTFO on social aspects by including these as minimum requirements for the label.

However, it must be noted that a reporting obligation could prove to be very effective and the fact that a criterion is only covered by a reporting obligation under the RTFO does not automatically mean a biofuel label would add value by including this criterion as a minimum requirement. If reporting for the RTFO shows that performance on social (or environmental) issues is good across the board, there may be little added value for a biofuel label to provide a guarantee if criteria are complied with. At present there is no indicative Government target for social criteria as there are considerably few standards that address these issues and therefore good reporting across the board on social criteria will be challenging.

The potential added value of a voluntary label therefore does not only depend on the minimum requirements within the RTFO but also on the reporting performance on those aspects on which the RTFO only has a reporting obligation. This performance level is hard to predict, but the first reporting year under the RTFO (April 2008 – April 2009) will give a first indication.

Higher level of sustainability *within* the current scope of the RTFO

Regardless of the future scenario of the RTFO, it will always be possible for a label to add value to the RTFO by setting a higher level of performance. This will be most practical if a higher level of sustainability is set by using the same standards.

Full compliance with RTFO Sustainable Biofuel Meta-standard criteria

The RTFO Sustainable Biofuel Meta-standard defines a list of seven principles (5 environmental, 2 social), see Table 4-1, and further defines criteria and indicators for each principle. For the RTFO, existing standards are benchmarked against the criteria and indicators and any which cover a defined threshold level can become “Qualifying Standards”. The Qualifying Standard level is defined separately for environmental and social criteria, and as such a scheme can be a Qualifying Environmental standard, a Qualifying Social standard, or both. Therefore under the current RTFO reporting a biofuel can be defined as (environmentally and/or socially) “sustainable” without meeting 100% of the criteria of the RTFO Sustainable Biofuel Meta-standard.

A voluntary biofuel label could require parties to comply with *all* the criteria of the RTFO Sustainable Biofuel Meta-standard. The advantage of this approach is that the label still makes effective use of the RTFO Sustainable Biofuel standard and thereby prevents a duplication of standards.

However, the RTFO introduced the concept of Qualifying standards because none of today's existing standards cover all the criteria of the RTFO Sustainable Biofuel Meta-standard. Requiring compliance with all criteria would therefore require so-called supplementary checks to be performed on those criteria which are not covered by the existing standard. Many stakeholders have indicated during the development of the RTFO reporting obligation that performing these supplementary checks and passing this information on through the supply chain is expected to be complicated and is a significant administrative and financial burden.

GHG savings

To provide a high degree of certainty that a significant reduction in GHG emissions is achieved through the production and use of biofuels, a voluntary label for biofuels could impose additional requirements to the RTFO in relation to the following:

- a (higher) minimum requirement for emission reductions;
- mandatory reporting on LUC;
- the data used to calculate the emissions (increased use of actual data to calculate GHG savings, rather than default values).

Again, these additional requirements could be introduced for a biofuel label while still making use of the RTFO methodology. This would prevent the need to develop a new methodology and keep the label consistent with the RTFO.

A minimum requirement for emissions

At present there is no mandatory minimum performance level for GHG emissions (savings) for biofuels to qualify under the RTFO, although indicative non-binding targets have been set which increase from 40% in 2008/9 to 50% in 2010/11. The draft EU Renewable Energy Directive proposes a 35% minimum GHG saving. A label may wish to adopt a minimum performance level at that proposed by the EU or a more stringent one. The minimum requirement in the case of the label could apply to each batch of fuel (as defined under the RTFO) that is supplied to the retailer concerned or could apply to an aggregate performance (average of multiple batches).

Mandatory reporting on LUC

In the current version of the RTFO, it is assumed that no land use change (LUC) has occurred since the reference date (30 Nov 2005 for the RTFO), and unless a specific LUC is reported, no emissions from LUC are included. A more conservative assumption on LUC in the next phase of the RTFO is expected to be needed when RTFCs are linked to carbon performance.

Due to the serious concerns over the emissions that may result from the expansion of biofuels production, through direct and indirect LUC, it is likely that for a label to be credible, direct emissions from LUC would need to be considered. Therefore, the label could require that information on direct LUC must be provided in all cases. Default emissions would be attributed based on the LUC information provided and would affect the compliance with the minimum performance level. If information on LUC was not provided, a conservative default value could be applied which would effectively disqualify most biofuels with unknown LUC.

Emissions from indirect LUC are extremely difficult to quantify and no accepted methodology exists for this today. Options to deal with displacement effects in general are discussed in the next section.

Actual data used to calculate GHG emissions

GHG calculations can be performed based on default values attributed to the data required. However, in order to provide greater assurance over the emissions of a particular biofuel, the label may require actual data to be used for the most significant emissions categories, or that actual data be provided for all data required. This would be possible based on the RTFO methodology where actual data can be used to replace default values where appropriate. The RTFO documentation already indicates the data points that represent a significant proportion of the overall emissions in a fuel chain and where effort should be focused to obtain actual data.

Higher level of sustainability beyond the current scope of the RTFO

Inclusion of additional criteria to RTFO

A voluntary Sustainable biofuel label could aim to cover additional criteria or indicators not already covered under the RTFO Sustainable Biofuel Meta-standard. Such criteria could include, for example, no use of genetically modified (GM) crops, which is an important issue for some NGOs.

Through experience with the development of the RTFO Meta-standard, it is the view of the authors that there are relatively few farm-level issues that are of major concern to stakeholders that are not addressed by the full RTFO standard. A specific issue that has been put forward is GM crops. The fair treatment of smallholders is included in the RTFO Sustainable Meta-standard as a recommendation but, like other recommendations in the RTFO Sustainable Meta-standard, could be treated as a minimum requirement by the label without the need to develop a new standard.

Adding new criteria (such as on GM) to the RTFO standard purely for the voluntary biofuel label would have the disadvantage of creating another standard. This adds complexity and is against the advice of internationally accepted codes of good practice for standard development. It would be preferable in this case to try to have the criteria

included in the RTFO standard itself or to have them included in any future international standard which may replace the RTFO standard in time.

Expanding the scope of the sustainability criteria beyond the farm/plantation

The current RTFO *sustainability* criteria only cover the plantation due to the desire to take a pragmatic approach which focuses on key areas of risk, and to account for the fact that many existing standards for sustainable agriculture and forestry benchmarked under the Meta-standard approach are so-called farm-gate standards, which deal solely with activities within the farm gate. (Note that the scope of *carbon* reporting under the RTFO covers the entire chain).

Sustainability concerns are, however, not confined to feedstock production and it is conceivable that value could be added by a voluntary label which covers a wider scope and includes sustainability aspects of additional parts of the biofuel supply chain. For this purpose, it would be necessary to assess what main sustainability risks for each relevant processing step and whether certification schemes already exist. If so, this could enable the use of a Meta-standard approach. If such standards exist, the label could effectively require certification of multiple stages of the supply chain against standards which are accepted by the label. However, while some agricultural standards (such as the Roundtable on Sustainable Palm Oil) cover initial processing, the authors are not aware of suitable voluntary sustainability standards for intermediary processing. The lack of existing standards for intermediary processing would greatly complicate the inclusion of criteria beyond the plantation.

Introduction of more stretching criteria

A voluntary biofuel label could add value by introducing more stretching performance levels for the existing sustainability criteria. As discussed above, this can be done within the scope of the current RTFO by requiring higher levels of GHG emission savings.

Beyond GHG emissions, the difficulty with setting more stringent criteria would be that many criteria are not so easily quantifiable. RTFO criteria for soil, water, air, biodiversity, labour conditions and community relations, for example, do not have a quantitative threshold¹³. Setting more stretching criteria for GHG emissions may therefore be relatively straightforward (see previous section), but may prove very challenging for other sustainability criteria.

During discussions with stakeholders in the context of this project there were no specific calls for a label to cover criteria in a more stringent way than the RTFO does currently. One stakeholder however did stress the importance of soil carbon storage and the need for very conservative assumptions to be made in order to mitigate the risks caused by uncertainty in the science surrounding this area. The use of conservative data for LUC as well as the use of real data for important GHG calculation parameters has been addressed above.

¹³ Note that due to the many different crops grown under many different conditions it would be extremely challenging to set quantitative targets for many of these criteria.

Displacement effects

Displacement effects, also referred to as macro-level issues, such as indirect LUC and competition with food, are not well covered by the RTFO standard and are of key importance to some stakeholders interviewed for this project. Such displacement effects have proven to be very complicated and are not readily mitigated by biofuels-related policy and standards alone. Nonetheless, displacement effects are of key importance and the label may consider its options to deal with these displacement effects as pragmatically as possible.

A detailed discussion on displacement effects and how to prevent these is beyond the scope of this report. However, the following option has been put forward in a report commissioned by WWF “Towards a harmonised biomass certification scheme” (Ecofys 2007): Both displacement effects and competition with food can be prevented by restricting the use of feedstocks for biofuels to by-products and energy crops grown on previously idle land. Production on idle land would need further elaboration to be taken further by any label initiative, as there is currently no internationally accepted definition and identification procedure for such land.

Summary of options to set a higher level of performance

Several options to set a higher level of performance than the RTFO have been discussed above. In Table 4-3 these options are summarised with rankings relative to each other, based upon:

- The demand for such additional measures by stakeholders: to what extent have stakeholders expressed a desire to set such a higher performance level?
- RTFO compatibility: can the same standard and GHG methodology still be used?
- Practicality of implementation.

Table 4-3 Evaluation of options to set higher level of performance in a biofuel label compared to RTFO. Note that the ranking of individual options is relative to the other options.

	Demand from stakeholders	Compatibility with RTFO	Practicality
Minimum requirement where RTFO only requires reporting			
Meet Government reporting performance targets	High	High	High ¹
100% fuel meeting Qualifying Standard (environmental and social)	Med-High	High	Med ¹
Higher level of sustainability within scope RTFO			
Full compliance with RTFO Sustainable Biofuel Meta-standard criteria	Med	High	Low
Minimum GHG performance	High	High	High
Mandatory reporting on LUC	High	High	Med ²
Reporting real data on critical GHG parameters (other than LUC)	Med ³	High	Medium
Higher level of sustainability outside scope RTFO			
Inclusion of additional criteria to RTFO	Low-Medium	Low	Low ⁴
Introduction of more stretching criteria (non-GHG)	Low	Low	Low
Displacement effects	High	Low	Low-High ⁵

Note: the demand for different options to raise the performance level has been determined based on a limited number of interviews. These can not be taken to be representative for society at large.

- 1) *The feasibility of minimum environmental and social requirements depends strongly on the future availability of certification schemes for feedstock production with which compliance with these requirements can be demonstrated. The practicality of meeting current targets is higher than meeting the full RTFO standard at present.*
- 2) *The practicality of reporting information on the land use in a reference year strongly depends on the complexity of the supply chain. The practicality would be low for spot purchases but high where the supply chain is transparent.*
- 3) *Expected to depend on how conservative default values are set.*
- 4) *Depends on whether the additional criteria are covered by existing standards. They are currently not expected to be covered.*
- 5) *Feasible options exist such as restricting feedstocks to by-products and residues. Other options such as idle land need significant work before being implementable.*

4.3 Added value to RTFO: addressing different stakeholders

Another way through which a voluntary label can add value to the RTFO is by addressing different parties in the supply chain from the RTFO. This can provide an added value to both consumers and industry.

Added value to consumers

From a consumer perspective, a biofuel label can add value to the RTFO requirements by being more visible to consumers. Obligated companies under the RTFO report on the carbon and sustainability of their biofuels to the Renewable Fuels Agency and this information will be made publicly available. However, the obligated companies under the RTFO do not always coincide with fuel retailers, with which consumers will identify. A large proportion of motor fuels in the UK is sold through retailers which do not supply their own fuel, such as supermarkets, and these fuel retailers do not have a reporting obligation under the RTFO. It would be more transparent to consumers to have a clearly visible label at the forecourts which informs them on the sustainability of the biofuel instead of having to look up a companies' performance under the RTFO. This holds especially true for fuel retailers which do not supply their own fuel as these do not have an obligation under the RTFO. It would be difficult for a consumer to find out who the suppliers are of such a retailer and how sustainable these suppliers are. In short, a biofuel label could add value to the RTFO by being more visible to consumers and better enabling consumers to change their buying behaviour based on this information.

Added value to industry

From an industry perspective, a biofuel label enables *all* fuel retailers to demonstrate the sustainability of their biofuels to consumers, not only those with an RTFO obligation. It therefore provides an additional opportunity, and responsibility, especially to those fuel retailers which do not have an obligation under the RTFO. These fuel retailers can use the label to demonstrate the sustainability of their biofuels to their consumers. But also for parties which do have an obligation under the RTFO a label could still add value by providing them with a clear and credible label which consumers recognise and identify with sustainable biofuels.

4.4 Other initiatives for sustainable biofuels

This section summarises other existing initiatives which could develop into a standard or label for sustainable biofuels in the future. The aim is to identify whether these initiatives already fulfil the goals of a voluntary biofuel label as discussed in section 3 or are likely to do so in the near future.

Four promising initiatives were identified and are listed in Table 4-4. This table identifies to what extent the initiative meets the basic characteristics of a biofuel label which were identified in this study as needed in order to add value to the relevant stakeholders. A distinction is made between initiatives which are aimed at developing a standard and those initiatives aimed at developing a certification and labelling system around a standard. A brief description of each of the initiatives is included in Annex D.

Table 4-4 Summary of basic characteristics of existing initiatives for sustainable biofuels.

	Under development or operational?	Cover GHG + social + environmental issues	Address both low blends + high blends	Label visible at fuel retailer
Standards only				
Roundtable on Sustainable biofuels	Expected in 2008	Yes	Not a label	Not a label
CEN-norm for sustainable biomass	Expected 2011-2013	? Work has not yet started	Not a label	Not a label
Certification and labelling systems				
Swan Ecolabel for biofuels	Under development	Yes	No Only high blends	Yes
CO₂-star	Currently pilots only No time path to develop towards operational label	No Only GHG	No Only B100	Yes

Discussion

As far as the authors are aware, the only initiative which actually aims to develop an operational labelling scheme for sustainable biofuels in the short term is the Swan Ecolabelling initiative for fuels. However, the high blend fuels on which this initiative focuses, as well as some of its current operational design proposals, seem to make it focussed a small niche markets and its likely scope of application for the UK is expected to be rather limited.

CO₂-star could well provide valuable lessons for a UK labelling initiative but at least in its current form it is not a full labelling initiative by itself as it does not intend to run a label which is open to everyone.

The Roundtable on Sustainable Biofuels is a multi-stakeholder standard-developing initiative. Its eventual uptake by governments, industry or labelling initiatives will depend on its international credibility which in turn depends on many (subjective) factors such as the level of active stakeholder involvement in developing the standard. If successful, its standard could also be used in an international biofuel label. However the Roundtable on Sustainable Biofuels is not a labelling initiative itself.

Discussions on the development of a CEN standard are rather recent and it remains to be seen whether this will indeed lead to a CEN standard for sustainable biomass and whether such a CEN standard for sustainable biomass will enjoy sufficient credibility with different stakeholder groups to be of use for a voluntary label. If it does, it will provide a powerful basis for an international biofuel label.

4.5 Conclusions on added value

Added value to the RTFO by guaranteeing current reporting only criteria or requiring a higher level of sustainability

As long as government regulation does not guarantee an acceptable level of sustainability to NGOs and consumers, the main added value for a voluntary label would be to ensure this *acceptable level of sustainability is met for a majority of biofuels*. This implies a *mainstream approach* aiming for an *acceptable level of sustainability*. Unless the proposed sustainability requirements at the level of the EU change drastically, these scenarios are most likely for at least the coming years.

As soon as government regulations guarantee an acceptable level of sustainability across the three main areas of concern (GHG, environmental and social), as in scenario 4, there would be more added value for a biofuel label which focuses on a higher level of sustainability. Thereby a biofuel label would supplement the acceptable level of sustainability ensured through government regulation. In doing so, tackling displacement effects seems to be the one item for which demand from stakeholders is highest and through which a voluntary label could add most value in terms of addressing sustainability concerns on biofuels.

Finally, several other options exist to set a higher level of social and environmental performance, but demand for these measures from stakeholders was found to be lower than addressing displacement effects. Of these options the most practical option would be to require compliance with the full RTFO Meta-standard although the required supplementary checks and additional information management in the supply chain required for this are still expected to be complicated. Raising the bar for the environmental and social performance by including a wider range of criteria of more stringent criteria will be more difficult as it requires the development of new standards. If a critical criterion appeared to be missing it would be preferable to try to include it in the RTFO standard itself, thereby avoiding a proliferation of standards.

Added value to the RTFO by addressing different stakeholders

Regardless of the exact level of sustainability required by the label, a voluntary label can add value to the RTFO because it addresses all fuel retailers, which are most visible to consumers.

- *Consumers*: a biofuel label can add value to the RTFO by being more visible to consumers and better enabling consumers to change their buying behaviour based on this information.
- *Fuel retailers*: especially for those fuel retailers that are not addressed by the RTFO, a label could add value by providing them with a clear and credible label which consumers recognise and identify with sustainable biofuels.
- *Oil companies and biofuel producers*: as will be discussed in the next chapter, a biofuel label may offer an additional source of income for parties supplying labelled biofuel to retailers.

Can existing initiatives serve the purpose?

Looking at the demand from the stakeholders consulted for this study, and the characteristics of other voluntary biofuel initiatives, none of the existing initiatives seem to properly address the stakeholder demands. Therefore, a UK biofuel labelling initiative would not be a duplication of efforts. The added value of a new biofuel labelling initiative would be achieved by:

- Ensuring at least an acceptable level of sustainability for the three main areas of concern without trade-offs: GHG performance including LUC, environmental sustainability and social sustainability.
- Addressing all types of blends, also low blends.
- The availability of not only a standard but a certification and labelling scheme, with visible labels at the forecourt.
- The potential synergy with existing RTFO standard and procedures.

While no labelling initiative exists today which addressed the main demands from stakeholders, at least two initiatives exist to develop an intentional standard for sustainable biomass: the Roundtable on Sustainable biofuels and the Dutch initiative to develop a CEN-norm for sustainably biomass. Depending on the final outcome and international acceptance of these initiatives, they could form a powerful basis for an international biofuel label. A certification and labelling initiative would still be required as neither the Roundtable on Sustainable Biofuels or CEN currently have plans for a certification and labelling scheme based on the standards they are developing.

5 How could a biofuel label work and to whom does the value of a label accrue?

This chapter looks in detail at the practical feasibility of a biofuel label. Some of the largest challenges in running a biofuel label used by fuel retailers are presented by the characteristics of the fuel logistics. The chapter begins with an analysis of some of the critical characteristics of fuel logistics for the feasibility of a biofuel label. The pros and cons and practical workings of two options for the chain of custody are analysed. Based on a choice in the chain of custody approach, an analysis is made of the party which receives the value that accrues from a biofuel label. Finally this chapter discusses several key practical issues a voluntary biofuel label will need to consider.

5.1 Fuel chain logistics

How a biofuel label can be operated, and the claims that can be made with a biofuel label, depend in part on the characteristics of the fuel supply chain. Without being exhaustive, the section below provides a basic introduction to fuel chain logistics and the main implications this has for a biofuel label.

Mixing in the biofuel supply chain

Most biofuels produced today are so-called first generation biofuels which are currently typically produced from globally traded commodities such as vegetable oils and grains. The feedstocks used by a single biofuel plant will often originate from many different farms or plantations. The feedstocks from these different farms are normally mixed in various stages of the supply chain, for example in large silos at international harbours before and after shipping.

For a biofuel label the above means that:

Once the feedstock arrives at the biofuel plant it will often not be possible to tell which grains or which vegetable oil originates from which farm or plantation. Also where biofuels are produced from residues such as used cooking oil it will often be difficult to tell where the used cooking oil originated from for different batches of biofuel.

After the biofuel has been produced it will usually be mixed with fossil fuel to form a blend of biofuel and fossil fuel. Blending may take place at various stages of the supply chain and different blends may be mixed to form a new blend (as long as the fuel quality standards are still complied with).

For a biofuel label the above means that:

With the current infrastructure for biofuel feedstocks and fuels, it will normally not be possible to know the exact origin and the sustainability of the biofuel component of the fuel dispatched at a forecourt. In other words, it will often be difficult to make any claims with respect to the exact physical biofuel that enters the tank of a consumer's vehicle. However, a claim could be made that by buying fuel at a labelled forecourt, the consumer supports the production of sustainable biofuel; an amount of sustainably produced biofuel has been added to the market (equal to the amount bought by the consumer), although it can not be said where exactly the sustainably produced feedstocks and/or biofuels end up.

Note that the latter is not uncommon for labels. Wood fibre products from various sources (both certified and non-certified) can also be mixed at certain processing steps after which it can no longer be said which is which. The Forest Stewardship Council designed robust chain of custody systems in line with the mass balance approach which ensure that no more product is sold with a FSC label than the amount that was actually produced in FSC certified forests. However, also in these systems it can not be guaranteed that the wood of the product carrying the FSC label actually originates from an FSC certified source.

A more detailed discussion on the traceability of feedstocks through the biofuel supply chain and the different systems that can be used to pass carbon and sustainability data through the supply chain, can be found in the Framework Report for the RTFO Sustainability Reporting (Ecofys 2008).

Low blend biofuels and traceability

In Europe, automotive fuels are sold under European fuel standards: EN 590 for diesel fuel, and EN 228 for petrol. Both diesel and petrol may contain 5% biofuel (by volume) under these standards. In addition, gasoline may contain 15% ETBE which contains 47% ethanol. This means that automotive fuels which contain anywhere between 0% and 5% biofuels (plus anywhere between 0% and 15% of ETBE) can be traded under the same standard. Disclosure of the proportions of fuels is not required and therefore many fuel retailers today that do not produce their own fuel do not know exactly how much biofuel is contained in their fuel.

Restrictions in the flexibility to source fuel from different suppliers

Forecourts are supplied from a number of refineries and storage terminals. An overview of the main refineries and storage terminals is shown in Figure 5-1. Because of the cost disadvantage of transporting fuel over longer distances, forecourts are typically supplied from a nearby refinery or storage terminal. For example in London and the South-East, forecourts may have a choice in the fuel supplier that supplies their fuel. However, in some other parts of the country, in particular in more remote areas where there is only

one refinery or storage terminal in the surrounding area, forecourts are more or less dependent on one fuel supplier.

Implication for a biofuel label:

Owing to the inflexibility of some filling stations in choosing their fuel supplier, especially in remote areas, some filling stations may not be able to source labelled biofuel if their supplier is unable to or does not want to cooperate.

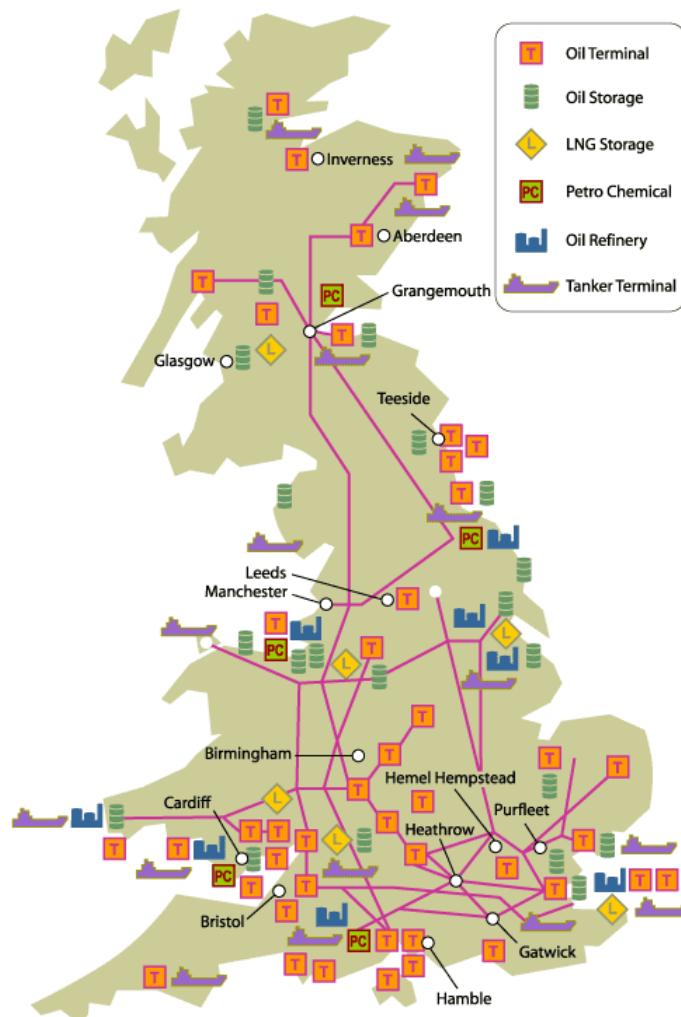


Figure 5-1 Overview of UK oil refineries and major terminals. Source: UKPIA.

5.2 Chain of Custody

The chain of custody is a term that is used to refer to the system that passes information on the characteristics of a product in a controlled way through the supply chain. Thereby the information does not necessarily need to be linked to a traceable physical product. An introduction to the three different types of chain of custody systems that are commonly distinguished (book and claim, mass balance and track and trace), the reader is referred to the Framework Report of Sustainability Reporting under the RTFO (Ecofys 2008).

Because of the characteristics of biofuel supply chains as well as fuel distribution networks, see section 5.1, a track and trace system, in which the origin of the feedstock of a litre of biofuel sold at a certain forecourt is traceable back to its origin, is deemed extremely challenging and will not be considered here. The focus will therefore be on the feasibility of mass balance and book and claim systems.

Biofuel label for fuel retailers

The discussion below assumes the biofuel label is focussed on fuel retailers and that the label will be displayed at forecourts (in line with the principles in section 3.7). Furthermore it is assumed the biofuel label is dependent upon carbon and sustainability information available from the RTFO. This means that the flow of information up until the fuel supplier is assumed to be in place and that only the flow of information between the fuel supplier and the fuel retailer is considered.

Book and claim or mass balance?

At least two characteristics are crucial in discussing the feasibility of a chain of custody system for a voluntary biofuel label: its perceived credibility, and the flexibility of the system to its users.

Credibility

A voluntary label is highly dependent on the value it provides to consumers. This value is strongly influenced by the credibility of the scheme as a whole. Whether justified or not, book and claim systems have generally received more scepticism from NGOs than other chain of custody types and a book and claim system may therefore form a serious risk to the credibility of the label. However, new sustainability schemes such as the Roundtable on Sustainable Palm Oil have recently launched book and claim systems. Because the RSPO system is so recent, no conclusions can be drawn yet on its perceived credibility.

While the merits of a book and claim system for a biofuel label could be demonstrated, the conceptual complexity of a book and claim system and its complete decoupling of the claim from the physical product and its supplier are likely to make it more susceptible to critics. Several interviewed experts from existing labelling schemes stressed that especially for a controversial subject as biofuels there will always be parties attempting to discredit the label and it is therefore paramount to keep the system as simple and transparent as possible. One important benefit of a book and claim system which actually makes it less susceptible to fraud than a mass balance system is that only two points in the supply chain need to be controlled: the point at which the certificate is issued and the point at which it is redeemed. With a mass balance system, every party in the supply chain needs to keep reliable input and output records and a higher number of points therefore need to be controlled.

Compatibility with fuel logistics

Forecourts in remote areas are highly dependent on their fuel suppliers because of their geographical location and the limited amount of fuel suppliers available near specific

forecourts. As a consequence, fuel retailers may not be able to receive the label through a mass balance system regardless of their commitment to sustainability (see section 5.1). Therefore, a book and claim systems provides more flexibility to retailing companies, especially those with forecourts in remote regions, to receive the label. How serious this limitation of a mass balance system is requires an evaluation of the number of forecourts for which fuel retailing companies do not have a choice in their fuel supplier due to their geographical location and is outside the scope of this study.

How could a mass balance system work for a biofuel label aimed at fuel retailers?

In a mass balance system for a biofuel label the information on the sustainability of the biofuel is coupled to a batch of fuel as it is sold to a fuel retailer. Two options to transfer the information are discussed here:

1. The ‘raw’ information on the carbon and sustainability characteristics of the biofuel are supplied with the fuel. The labelling organisation only verifies whether these characteristics qualify the biofuel for the label once the retailer applies for the label. This would require a good understanding of the fuel retailer of the sustainability requirements of the label that must be met such that it knows what to look for in sourcing its biofuels. An example of this option is shown in Figure 5-2.

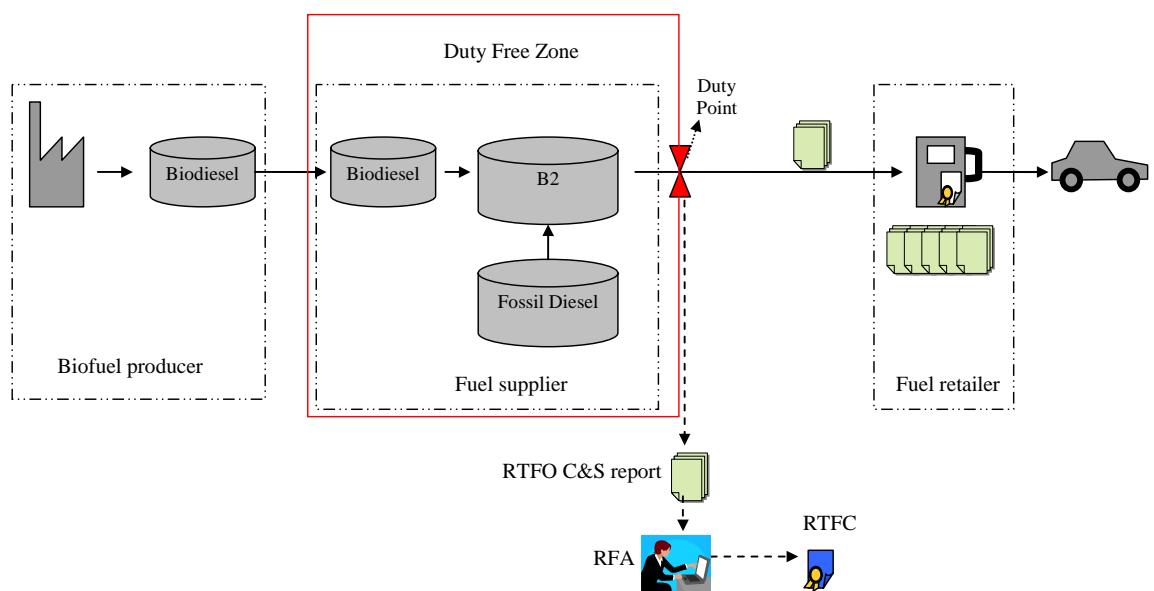


Figure 5-2 Graphical presentation of how a mass balance system for a voluntary biofuel label could work. In this option the raw sustainability information is delivered with the fuel to the fuel retailer. At the fuel retailer it is then assessed by the label issuing Body whether the fuel meets the label requirements. The RFA issuance of RTFCs is an independent process and is only included here to demonstrate the fact that it draws on the same information.

2. The alternative is that label Issuing Body verifies earlier in the supply chain whether the fuel meets the requirements for the label. For those biofuels which meet the requirements of the label, the party receives certificates (or credits) from the label Issuing Body. The party can then sell its fuel with the accompanying certificates. The benefit of this system is that it is immediately clear to buyers of the biofuel whether the fuel meets the label requirements or not. The party at which the certificates are issued could be the biofuel producer or the fuel supplier. Parties earlier in the supply chain would not be suitable for this as not all relevant information for the greenhouse gas calculation will be available. Biofuel producers have to supply their fuels with the 'raw' C&S data to the fuel suppliers anyway, because the fuel suppliers must hand in a detailed C&S report to the RFA for the RTFO. Issuing the certificates to the fuel supplier therefore would therefore be most in line with the current RTFO procedures. Basing the issuance of certificates on information for the monthly RTFO reports of obligated companies has the additional benefit that these reports are already verified (annually) under the RTFO and additional verification of the data for the label may not be required. Figure 5-3 gives a graphical example of how such a system would work if the certificates are issued at the fuel supplier.

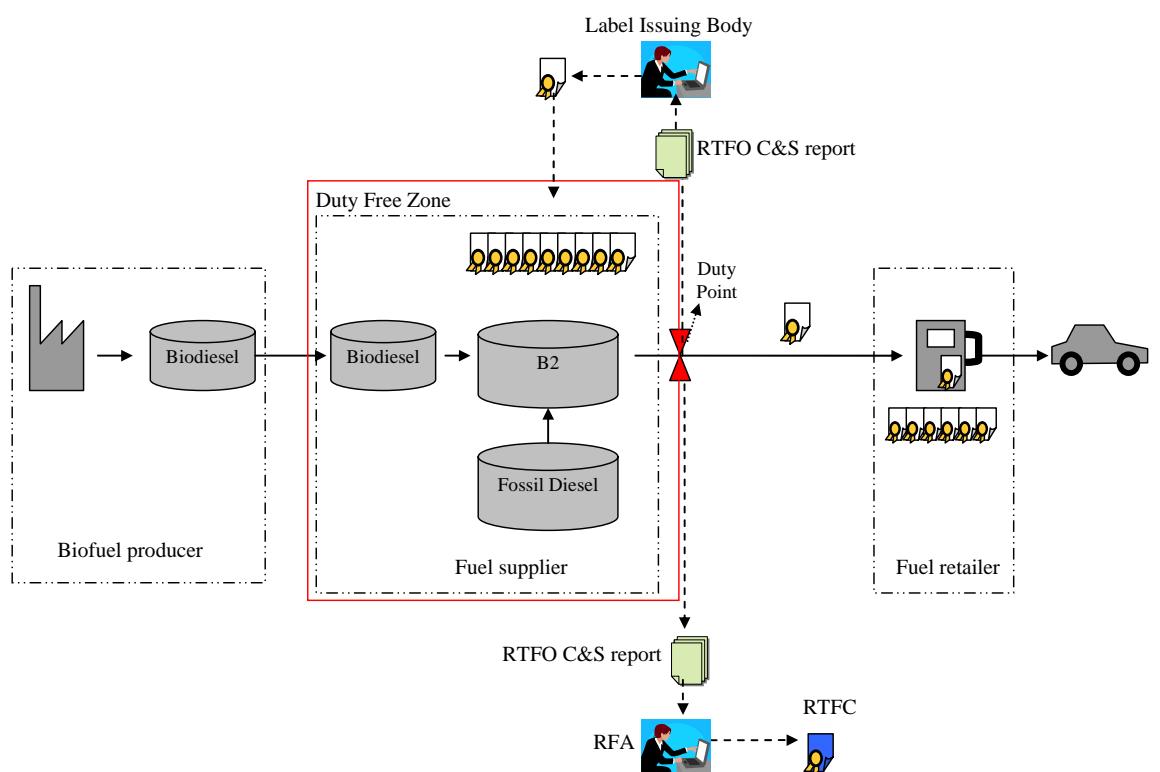


Figure 5-3 Graphical presentation of how a mass balance system for a voluntary biofuel label could work. In this option, verification whether the biofuels comply with the label's requirements is done at the fuel supplier. Note that in a mass balance system the certificates for the label are coupled to the fuel which is traded. In a mass balance system, the certificates can not be traded independently.

Mass balance: company level or site specific?

A mass balance system can either be site specific or can be run at a company level:

- The mass balance systems as operated by FSC as well as the RTFO are site specific. This means that any certificates are issued to the site which holds the product that generated the certificate. These certificates can only be allocated to products supplied from that same site, see Figure 5-4.
- Alternatively, a mass balance system can be run at a company level. This means that all certificates from different sites of one company are pooled together. These certificates can be allocated to any outgoing product, regardless of the site from which the product is supplied, see Figure 5-4.

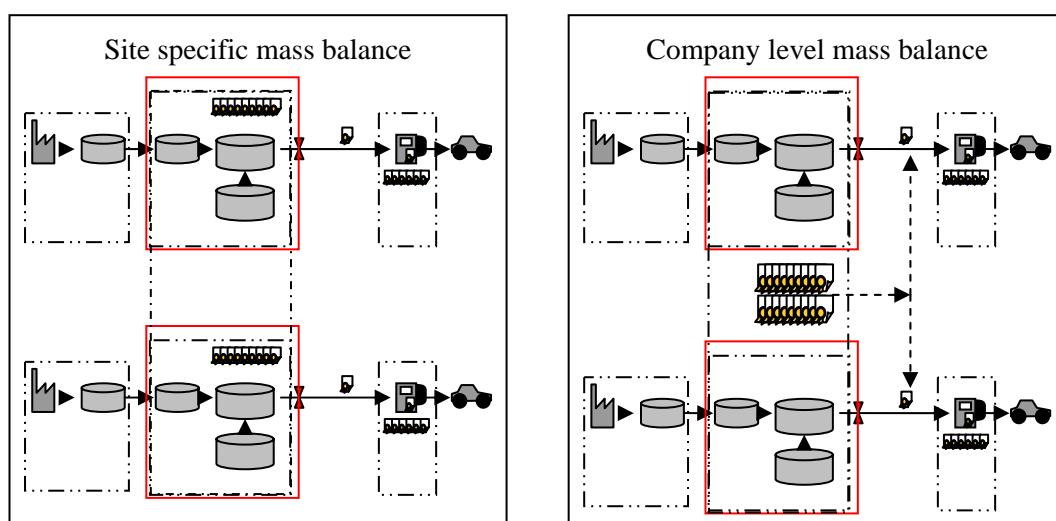


Figure 5-4 Graphical presentation of how a mass balance system can be site specific (left panel) or operate at a company level (right panel). At a company level certificates of different sites of one fuel supplying company are pooled together and can be allocated to any outgoing batch, regardless of the site from which this batch is supplied. In a site specific system the certificates are assigned to a specific site of the fuel supplying company and can only be allocated to batches supplied from that site.

A mass balance system at a company level offers more flexibility and is effectively the same as book and claim system *within* a company. The main difference with a pure book and claim system is that certificates can still only be sold when coupled to physical products. Certificates can not be sold on their own in a mass balance system. The next section will analyse how a pure book and claim system could work for a biofuel label.

How could a book and claim system work for a biofuel label aimed at fuel retailers?

In a book and claim system, certificates are traded completely decoupled from the physical product. As explained above, the main advantage of such a system is that it provides more flexibility to forecourts in where they source their certificates from. The

essence of a book and claim system is that for each unit of biofuel for which a forecourt claim is sustainable, it can be assured that one unit of sustainable biofuel has been added to the market. In other words, if more sustainable biofuel is claimed by a forecourt, this must be compensated by an increase in the supply of sustainable biofuel to the market: the increased demand leads to an increased supply and therefore can drive sustainable biofuel production. The concept is best illustrated with a diagram, which is shown in Figure 5-5 below.

An important choice in the design of a book and claim system is the point at which certificates are issued and the point at which certificates are redeemed. The point where certificates for the biofuel label (focussed at fuel retailers) are redeemed would be the forecourt where the fuel is actually sold to the final consumer. For the point where certificates are issued in a controlled way, two good options exists as both these options use specific points in the fuel chain which are already well controlled for other purposes.

1. A biofuel label certificate is issued at the same point as the RTFC is issued for the RTFO, namely at the point where the fuel passes the duty point.
2. A biofuel label certificate is issued at the point where the fuel *enters* the duty free zone.

Biofuel label certificate linked to RTFC

Because RTFCs do not carry carbon and sustainability information in the current version of the RTFO, a separate carbon and sustainability certificate (C&S certificate) will be needed which contains the required carbon and sustainability information for the label.

The system could then operate as follows:

- Parties wishing to receive RTFCs must hand in a batch report which contains the carbon and sustainability information. This same batch report is issued to the Issuing Body (of the label certificates), ensuring no additional burden for obligated suppliers.
- The Issuing Body issues C&S certificates for each litre of fuel which indicate at least whether the minimum sustainability and GHG performance level of the label has been met.
- The C&S certificates can then be used by the obligated supplier to obtain a label if the obligated company is also a fuel retail company, or can be sold to a retail company which can then use it to obtain a biofuel label for one or more of its forecourts. In effect, a biofuel which meets the label requirements thereby has increased value: it earns an RTFC (which can be traded) and it earns a label certificate (which can be traded).

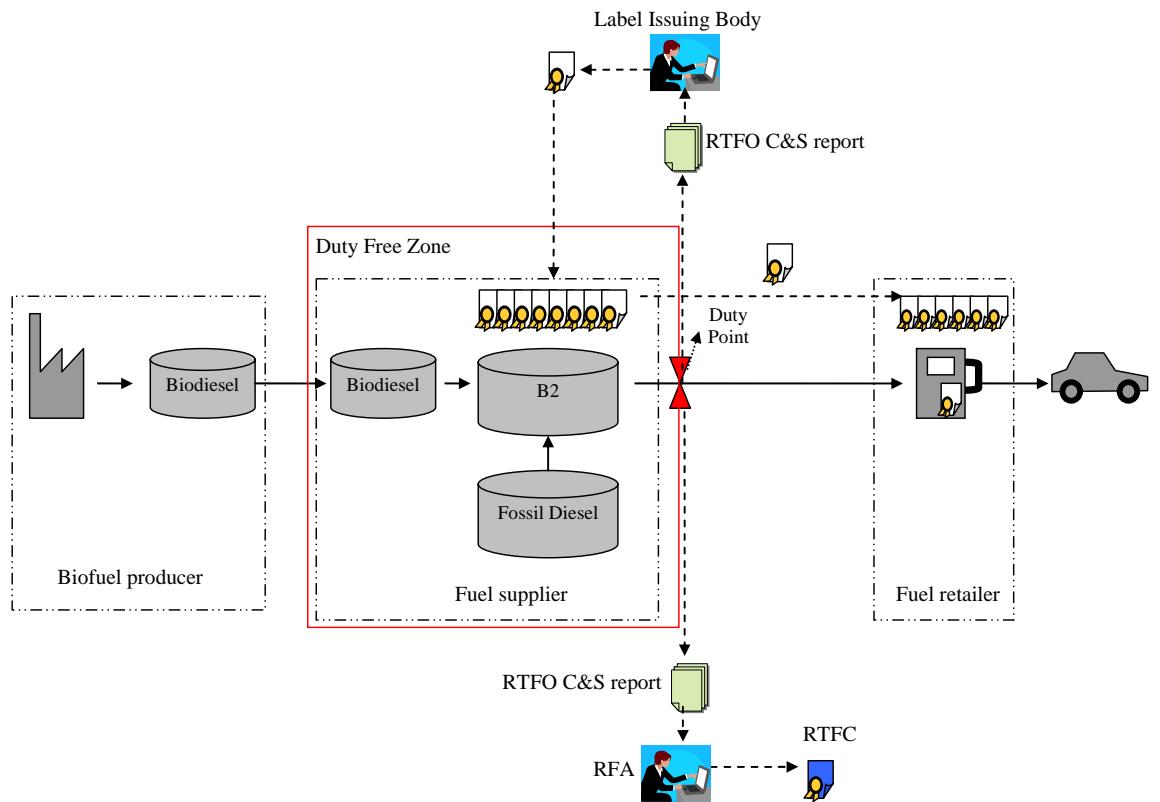


Figure 5-5 Graphical presentation of how a biofuel label book and claim system linked to the issuance of RTFCs could operate. Note that the trade in certificates between the fuel supplier and the fuel retailer is completely decoupled from the trade in fuel. Fuel and certificates can be sold independently of each other in a book and claim system.

Biofuel label Certificate issued when biofuel enters the duty free zone

The other well controlled point in the fuel supply chain is the point where the fuel *enters* the duty free zone. The figure below shows how a book and claim system could work which issues certificates at this point. Biofuel certificates would be issued at the point where the biofuel enters the duty free zone, to the party which owns the biofuel at that point. The biofuel certificate would contain the relevant carbon and sustainability information. The biofuel certificate could then be sold to fuel retailers. Fuel retailers would need to hand in (redeem) sufficient certificates with the right carbon and sustainability characteristics to be able to carry the biofuel sustainability label.

The advantage of such a system is that there is no need to trace information within the duty free zone, where a lot of mixing occurs. However, as long as the RTFO issues certificates only at the point where the fuel *exits* the duty free zone, fuel suppliers must track the (carbon and sustainability) information within the duty free zone anyway and there seems little benefit in issuing the biofuel label certificates earlier as long as the RTFO operates in this way.

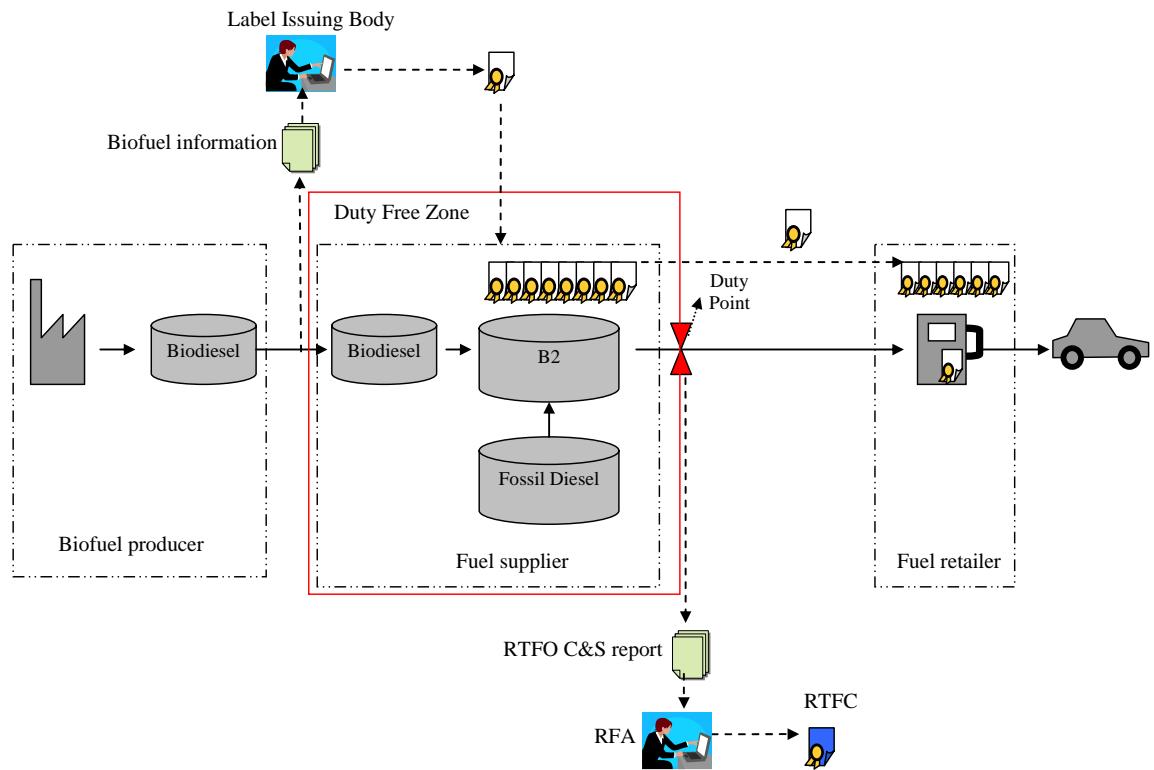


Figure 5-6 Graphical presentation of how a biofuel label book and claim system could operate where certificates are issued at the point where the fuel enters the duty free zone.

Conclusions and discussion on chain of custody

Stakeholder support

The characteristics of the different chain of custody options are summarised in Table 5-1. All are possible in theory but each option has its own pros and cons. Industry parties consulted in this study were in favour of a book and claim system because of the added flexibility. While NGOs have recently been sceptical on such book and claim type systems, the approach is actually implemented by a multi-stakeholder initiative, the RSPO. Those NGOs consulted for this study which were in favour of a biofuel label in general would also support a book and claim system as long as it can be shown to run reliably and to actually drive sustainable biofuel production volumes.

Regardless of whether a mass balance or book and claim system is chosen, both systems can only guarantee that a certain volume of biofuel which meets the sustainability requirements has been added to the market. Neither system can guarantee the sustainability of the biofuel dispensed at an individual forecourt. To avoid disputes about false claims, the labelling initiative should be very clear on this and incorporate this knowledge in the claims it makes.

Table 5-1 Summary of main chain of custody options. The rankings are relative rankings.

	Flexibility to industry	Perceived credibility	Number of points to control	Value accrues initially to	Compatibility with RTFO
Mass balance – site specific	Low	High	≥2	Fuel supplier	High
Mass balance – company level	Medium	Medium	≥2	Fuel supplier	Low-High ¹
Book and claim – certificate issued when fuel exits duty point	High	Low – Medium	2	Fuel supplier	High
Book and claim – certificate issued when fuel enters duty fuel point	High	Low – Medium	2	Fuel supplier	Low
Book and claim – certificate issued to biofuel producer	High	Low – Medium	2	Biofuel producer	Low

- 1) Compatibility with the RTFO is high if the company level mass balance is only applied between the obligated company and the retailer. The compatibility is low if the company level mass balance is also applied earlier in the supply chain.

Practicality and costs

In terms of practicality and costs there are clear benefits to making use of existing RTFO procedures.

- In case of a book and claim system this implies issuing the certificate at the same point as the RFA issues the RTFC: the duty point. This allows the use of the RTFO batch report for the issuance of certificates. While not explored in this study there would be clear efficiency benefits if the RFA would perform the tasks of the issuing body for the label.
- In case of a mass balance system it would be preferable to be consistent with the RTFO. This would require that the system is run on a site specific basis at least up until the point of the obligated party. After this point, the system could also be run at a company level without compromising compatibility with the RTFO.

5.3 To whom do the benefits of a biofuel label accrue?

As can be seen from Table 5-1, the benefits of the label for industry in all cases except one initially accrue to the fuel supplier as it is the fuel supplier who sells the certificates to the final user: the fuel retailer. This can be either coupled to the sale of physical fuel in a mass balance system, or decoupled from it, in a book and claim system. How the added value of the labelled fuel is passed on to parties further upstream in the supply chain depends on market circumstances and was not assessed within the scope of this study.

In the final option in Table 5-1 the certificate is issued to the biofuel producer instead of the fuel supplier. The biofuel producer could sell these certificates directly to fuel retailers and the added value of the labelled fuel would initially accrue to the biofuel producer. The disadvantage of this option is that this point in the supply chain is not as well controlled as the duty point and may require additional controls to be reliable,

adding costs to the system. This will be especially problematic in case of biofuel producers located outside the UK.

5.4 Practical labelling issues

In addition to the chain of custody, there are several other key practicalities a biofuel labelling initiative will need to address, which are discussed below.

Percentage sustainable biofuel for forecourt/company to hold label

Ideally 100% of all biofuels sold by a forecourt or a fuel retailing company (depending on the party receiving the right to carry the label, see Chapter 3) should meet the qualifications in order for the forecourt/company to receive the right to carry the label. However, if a mass-balance type of chain of custody system is used, a forecourt or retail company is strongly dependent on its physical fuel supplier, which in turn is dependent on its biofuel suppliers, which in turn are dependent on their feedstock suppliers, etc. In the initial stages of establishing a scheme to guarantee sustainable biofuels, there may be missing links within the supply chain which make sustainable biofuels (as defined by the label) temporarily unavailable.

In these circumstances the label may accommodate for this by allowing a minority share of biofuels which do not meet the sustainability requirements of the label: e.g. less than 20%. Note that existing labels, such as FSC, also allow products to be sold with their (mixed) label if a minority fraction does not actually meet the sustainability requirements of the FSC standard for sustainable forest management.

With a book and claim type of chain of custody system, forecourts are not dependent on their suppliers of physical fuel and this accommodation would not need to be included.

Volume of biofuel in fuel mix

As explained in section 5.1, fuel retailers may not know the exact amount of biofuels within the fuel they retail. If the label claims that all (or at least 80% in line with discussion above) biofuel contained in the fuel meets the sustainability requirements of the label, not knowing the fraction of biofuel within the blend poses a challenge. For a company to be able to claim that 80% of the biofuel it sold is sustainable, it clearly needs to know how much biofuel it sold.

Two possible solutions to this issue are provided here:

- *Fuel retailers carrying the label must know the percentage of biofuels contained in their fuel.* While this seems the most straightforward solution, knowing the actual biofuel percentage adds a cost to the fuel logistics. How large this cost is, is beyond the scope of this study. Furthermore, the fact that a fuel retailer knows the fraction of biofuel contained in the fuel it sells, still does not prevent the fuel retailer from sourcing fuel with little or no biofuel in it, in order to make it easier to comply with the sustainability requirements of the label, as described above.

- *For fuel retailers that do not know the percentage of biofuels contained in their fuel, it is assumed the biofuel percentage is the percentage as defined by the RTFO (e.g. 2.5% in the first year of the RTFO).* In this example a fuel retailer that sold 100,000 litres of fuel in a certain period must have sourced certificates for 2,500 litres of sustainable biofuel (in the first year of the RTFO) without knowing how much biofuel was actually contained in its fuel mix. This approach ensures that a fuel retailer takes responsibility for its share of the biofuels which are obligated under the RTFO. Fuel retailers that claim they sell a blend which contains more biofuel than the RTFO obligation prescribes, e.g. B5 in the first year of the RTFO or E85, would not need to make an assumption on the percentage of biofuels in their fuel and can use the known percentage.

Discussions with the project advisory group resulted in a clear preference for assuming the RTFO percentage in these cases which would avoid the need for additional measurements and/or logistical arrangements in the supply chain purely for the biofuel label.

Periodicity

A final practical matter in issuing the label to a party is the period for which the right to carry the label is issued. It is possible in theory that a forecourt sells sustainable biofuel the one day, biofuel from unknown origin the next day, and sustainable biofuels again the day after that. It would clearly be highly impractical and intransparent to consumers if a forecourt carried the label the first day, not the second day and again the third day. Therefore, use of the label should be assigned for a certain period of time: e.g. monthly, quarterly or annually. The exact period will need to be a trade-off between transaction costs and transparency to consumers on the one hand and the risk of a party carrying the label while no longer meeting the requirements on the other.

A label that is based on the RTFO standard and procedures would best be issued annually to align with the annual verification process for the RTFO.

6 Organisational structure

This chapter describes the various bodies that are required to operate a certification and labelling system. First of all, to take the biofuel label initiative forward, an entity has to be appointed or created to coordinate the development of the label. Important considerations for such an entity as well as potential candidates are discussed in section 6.1. In addition to this, an operational certification and labelling system requires one or more bodies to administer certification and accreditation functions. Different options for organising these functions exist and several options are discussed in section 6.2. Finally, this chapter gives an indication of the costs of running a certification and labelling system based upon data from existing systems.

6.1 Who would develop and own the label?

A labelling initiative needs to develop a governance structure. Depending on the entity that will own the certification and labelling system, the governance structure may be more or less predefined. Potential entities to own the label that have been suggested by interviewed stakeholders include:

1. Kitemark (BSI)
2. Subsidiary of existing label owners:
 - a. Carbon Trust (who are currently developing the “Carbon Trust Carbon labelling” scheme to place a label which displays fuel chain GHG emissions on consumer products)
 - b. Energy Saving Trust (through their role in administering the EU Energy (efficiency) label for energy-using products in the UK)
 - c. Utz Certified
3. Newly set up entity

It has not been possible within the scope of this study to analyse the pros and cons of these various options in detail and neither have the respective organisations been interviewed on their interest in running a biofuel label. Nonetheless, important considerations in making a decision on which entity will develop and own the label include:

- **Brand value.** All labelling experts expressed the importance of brand value for a label. Consumers must recognise the label and understand the positive meaning of it before a label becomes of value to a company. Building a strong brand requires a considerable effort and is a costly undertaking. From a brand value perspective it would therefore be preferable to make use of an existing label. Setting up a new entity with a new label will require more investments in building a brand value for the new label.

- **Overhead costs.** A single entity that runs multiple labels or one label for multiple products may be more cost-efficient than an entity that runs only a single label for a single product because general costs can be spread out over multiple product-label combinations.
- **Subject consistency.** Clearly many labels exist today but the brand value of many of these labels will not be relevant for a sustainable biofuel label as the subjects they cover will be unrelated (e.g. passenger car safety). In addition, running a sustainable biofuel label requires specific knowledge on sustainable agriculture and forestry as well as greenhouse gas calculations. For an existing entity to become the owner of a sustainable biofuel label it should possess the relevant expertise. In this respect the carbon label and the energy saving label which were suggested by stakeholders both focus more on the technical carbon or energy efficiency of biofuels and are likely to have less expertise on environmentally and socially sustainable feedstock production.
- **Representative governance structure.** For a sustainability label focussed on consumers, support from NGOs is believed to be of high importance (ISEAL 2007c). Support from NGOs will depend on how they are involved in the development of the label rules and to what extent they have the opportunity to influence this process. This will be especially relevant if the label will use the RTFO standard as this limits the influence stakeholders have on setting the performance level, which now has to be compatible with the RTFO standard. At the same time, Industry will want to see its interests represented as well. Overall the governance structure should represent different stakeholder groups and will need conflict resolution mechanisms which are perceived as fair by the different stakeholder groups. There is no one correct governance structure as it will depend on the goals of the label and the context in which it operates. This is also reflected by the difference in governance structures of existing labels such as IFOAM, FSC, MSC and Fair Trade¹⁴. Setting up a new entity clearly brings with it more flexibility in designing the governance structure.

The Kitemark label

The Kitemark is a registered British Standards Institute (BSI) voluntary certification mark or label. It indicates that a product, process or service has passed a certification process that verifies it complies with a certain published standard. The Kitemark does not currently set the performance level but requires the performance level to be set by the standard.

The Kitemark is applied to over 2600 products and has more recently been extended to cover services. A BSI Kitemark could also in principle be applied to a standard that was not developed by BSI, as long as publicly available and developed by consensus. Therefore, a Kitemark label could be developed linked to the RTFO standard. BSI has indicated that it is considering the development of a “green Kitemark” to distinguish labels focused on sustainability from labels focused on more technical aspects.

¹⁴ For an analysis of the different governance structures of these certification and labelling systems, see (ISEAL 2007 part 4)

The Kitemark process ideally engages with the relevant standard at an early stage of the standard development, e.g. to define and maintain competencies required for certification and define frequency of certification. The costs associated with the Kitemark consist of a licensing fee and verification costs. Verification could be carried out by UKAS accredited verifiers. The annual licensing fee for the party carrying the label could be of the order of GBP3,000 to 5,000, but some schemes work on the basis of volume or annual turnover. The development costs of the Kitemark are generally borne by BSI, sometimes co-funded by private sponsors. If the standard is available it would take 3 - 6 months to launch the Kitemark. Most of the work would be related to the training of verifiers.

6.2 Who performs certification and labelling?

Verification, certification and labelling tasks

Verification and certification are essential aspects of any label as they are at the heart of the credibility of the label. Typically verification and certification for a voluntary sustainability label such as FSC or RSPO is performed as follows:

- A certification body performs an audit of the party that wishes to become certified. In this audit the certification body verifies whether the producer meets the requirements of the standard.
- Based on the audit results and the certification guidelines provided by the labelling initiative, the certification body makes a certification decision.
- A positive certification decision normally automatically leads to the issuance of the right to carry the label (according to the rules set out by the labelling initiative). It is also possible for the labelling initiative to issue the right to carry the label by itself, based on the certification decision. This gives the labelling initiative the opportunity to withdraw the right to carry label regardless of the certification decision: for example, if the certified party makes false claims with respect to the label.

Certification and accreditation bodies

Introduction

The certification process is typically outsourced to a **certification body** as it requires specific expertise and competencies and to avoid any conflict of interest (e.g. the label owner may have an incentive to have as many parties as possible carry its label, especially if charging a volume based fee).

In order to ascertain that a certification body possesses the required expertise and competencies, certification bodies typically need to be accredited to be allowed to certify parties for a certain label. While existing labelling initiatives such as FSC often start with doing their own accreditation, over time this is often outsourced to a separate **accreditation body** as well. One of the reasons for this is that it is often more economic to outsource accreditation to existing accreditation bodies because the number of accreditations for a single standard will be very low. For example, after 20 years, Accreditation Services International (the accreditation body for FSC certifications) has only 16 clients (ISEAL 2007 part 3).

Certification and accreditation bodies for a RTFO based biofuel label

The process of verification often adds significantly to the costs of running a label.

Examples of the costs of verification are given in Box 6-1. However, for a biofuel label which makes effective use of verified information from the RTFO reporting obligation, verification may take a much lighter approach.

In essence, all information reported in the monthly RTFO reports of the obligated companies will be verified annually using a limited assurance verification as defined by ISAE3000¹⁵. Should this verification exercise be incorporated in to the operational aspects of the label, *additional verification for the label would be limited to verifying the flow of information between the obligated company and the fuel retailer.*

Such verification would *not* include technical audits of farm practices or greenhouse gas emissions but only the verification of the chain of custody between the obligated company and the fuel retailer. As this exercise requires relatively few specific competencies, it may not be necessary to set up expensive accreditation procedures to guarantee the certification body has the appropriate competencies. Due to the relative simplicity of this verification exercise, it may even be considered to perform the entire verification in-house. The Assured Foods Standards (AFS) also performs the verification of the chain of custody itself but outsources the verification of the farm's compliance with the AFS standards as this requires more specific expertise and a substantial workforce.

Certificate issuing body

In a book and claim system there is a need for a body which issues the certificates and potentially facilitates the trade in certificates. A main function of the issuing body is to prevent double counting. In other words, the issuing body must ensure that certificates are only issued for biofuels which actually meet the requirements and that each certificate is only claimed once. As the RFA already issues RTFCs and possesses all the information needed to issue certificates for a biofuel label, it is a good candidate for the issuing body.

6.3 Summary of key bodies

The main bodies required for an operational certification and labelling system, their main functions as well as potential candidates are summarised in Table 6-1 below.

¹⁵ A verification standard for non-financial audits, issued by the International Auditing and Assurance Standards Board (IAASB), under the auspices of the International Federation of Accountants (IFAC).

Table 6-1 Main bodies required for an operational biofuel certification and labelling system, their main functions and candidates.

	Main functions	Candidates	Comments
Label initiative owner	<ul style="list-style-type: none"> -Define goals -Develop governance model -Create brand value -Set/adopt standard (RTFO?) -Define key labelling rules (see section 5.3) -Define COC rules -Define verification model 	<ul style="list-style-type: none"> -Kitemark -Subsidiary existing labelling organisations -New entity 	<ul style="list-style-type: none"> Stakeholder representation is key Building new brand value can be very expensive
Certification body	<ul style="list-style-type: none"> -Verification -Certification 	<ul style="list-style-type: none"> -In-house (label owner) -Outsourced to existing Certification bodies 	<ul style="list-style-type: none"> Can be relatively simple if label based on RTFO verified information
Accreditation body	-Accreditation	<ul style="list-style-type: none"> -In house (label owner) -Outsourced <ul style="list-style-type: none"> -UKAS -ASI¹ -None if verification requires few specific competencies 	<ul style="list-style-type: none"> May not be required if label based on RTFO verified information
Issuing body²	<ul style="list-style-type: none"> -Issuing certificates -Facilitating trade in certificates 	RFA	An issuing body is only needed in case of a book and claim system.

1. Accreditation services international. Originally set-up by FSC for FSC accreditation. ASI also offers accreditation services to other certification and labelling initiatives.

6.4 Who could be the standard owner?

If the label is initially based on the RTFO standard there are at least two possible standard owners:

- The standard could continue to be owned and developed by the Renewable Fuels Agency (RFA).
- The ownership and development of the standard could be passed on to BSI, which would further develop it through a PAS or BS process.

The recent launch of an initiative by the Dutch standards body to develop a CEN standard on “sustainability criteria for biomass” may preclude the separate development of a PAS or BS in this area. Any aspects of the standard developed under the RTFO would have to feed into the European standardisation activity through BSI.

If the standard used for the label remains under the ownership of the RFA, the procedures for updating the standard and how the views and interests of different stakeholder groups are taken into account will be important for its continued credibility.

6.5 Operating costs

Cost of existing certification and labelling schemes

The costs associated with operating the label are an important consideration. Ultimately additional costs are likely to be passed onto consumers in what is a very competitive market in which, fuel companies report, customers have low brand loyalty and price is the key determining factor that steers the vast majority of consumers towards choosing a product.

Costs associated with operating the label include¹⁶:

- Data collection and availability
- Expertise requirements
- Labelling application and license costs (*where applicable*)
- Management, monitoring and verification costs (*where applicable*)
- Promotion and marketing costs

Estimating these costs is difficult as they vary widely and depend, amongst other things, on the scheme design and complexity. Auditing costs for a plantation will vary, for example, according to the size and location of the plantation, and will depend on the extent to which site visits are required versus desk-based audits. The text box below contains examples of costs charged by a selection of existing schemes:

Box 6-1 Examples of costs for membership and/or certification related to existing initiatives.

Costs associated with the **BSI Kitemark** consist of the licensing fee and auditing / verification costs. Annual licensing fee is generally £3-5,000. Some schemes work on the basis of volume or annual turnover.

FSC estimates that a typical first audit would cost in the region of €2,000 within the chain of custody, although plantation audit costs are higher. Following audits are more in the region of €1,000. Small companies (< 15 employees) have the possibility of group certification which costs €700 per year for participation.

EurepGAP (now GlobalGAP) charges €3-10 registration per farm and €20 for certification. The farmer then pays €300-500 for the Certification Body (who act as independent auditing companies).

ACCS estimates £110-170 annually to get ACCS certification (depending on farm size), which includes the fee to the Certification Body. Example for add-on is sugar cane = £60

¹⁶ European Commission, DG Environment (2000) Study on different types of Environmental labelling (ISO Type II and III labels): Proposal for an Environmental labelling Strategy

LEAF is an add-on to existing standards so farms can not be certified against LEAF on its own. The cost for LEAF certification is estimated to be £100-150 depending on farm size. LEAF membership is £50-150.

Swan Ecolabel application fee is around €1,800 and the annual license fee is 0.4% of the certified product's annual turnover from a minimum €1,100 to a maximum of €1,500 .

7 Conclusions

This project set out to assess the demand for and feasibility of a voluntary label for sustainable biofuel.

7.1 Potential need for a label

The need for a voluntary sustainable biofuel label depends largely on the effectiveness of government regulation (RTFO in the UK) in ensuring the sustainability of biofuels. Its effectiveness is currently uncertain for three reasons:

- Currently the RTFO only contains a reporting obligation on sustainability and GHG performance. The performance of suppliers against the voluntary targets set by Government will only be known after the first year.
- The Department for Transport communicated that it intends to move towards a carbon incentivised scheme with mandatory minimum sustainability requirements.
- Outcomes of proposed EU regulation are currently uncertain.

Although the future EU regulation on the sustainability of biofuels is still uncertain, the latest proposal of the EC did not cover any social issues or environmental issues other than direct land use change (covering carbon stock and biodiversity conservation).

Furthermore, the current EC proposal does not allow member states to set additional or more stringent criteria. Therefore there is a chance that the future RTFO will *not* be able to guarantee a level of sustainability acceptable to civil society. This does not necessarily mean, however, that performance levels of companies will be poor. Through a supplementary *reporting* requirement on the issues not covered by the EC criteria, the RTFO could still lead to an acceptable level of sustainability to civil society, provided that the reporting consistently demonstrates compliance with appropriate sustainability criteria and performance levels.

7.2 Demand for a voluntary biofuel label

Recent media coverage, a recent consumer survey (the results of which are presented in this report) and interviews with stakeholders indicate that there is a strong demand for a mechanism which can ensure the sustainability of biofuels. This study showed that for a mechanism to be credible to NGOs and consumers, it should cover all three main areas of concern, without trade-offs:

- GHG emission savings including LUC;
- Social sustainability;
- Environmental sustainability.

While there is a strong demand for a mechanism which can ensure the sustainability of biofuels, the question is whether a voluntary biofuel label is the *right* mechanism to

address this demand. Demand for a voluntary label was studied for consumers, NGOs and industry.

Consumer demand for a biofuel label

When asked, a majority of the consumers consulted in the consumer research were interested in knowing that the biofuels sold are environmentally friendly (85%) and just over three quarters of respondents (78%) expressed an interest in a sustainable biofuel label. However, it is not certain whether this *prompted interest* translates directly into *unprompted demand* from consumers for fuel retailers to carry a biofuel label. The main reasons for this uncertainty are:

- The nature of fuel retailing is such that the consumer may not be able to choose between labelled and non-labelled fuel when they make their purchase.
- The survey revealed that the majority of consumers are *not* particularly knowledgeable about biofuels and the vast majority were *not* aware of the RTFO. Consumers are therefore very unlikely to know that the fuel they purchase may already contain biofuel, and “blind blending” is likely to ensure that this lack of awareness at the pump continues.

Fuel retailers are sceptical of consumers’ apparent willingness to pay in this survey.

- While more than a third of fuel buyers said they would be willing to pay extra for environmentally friendly biofuels compared to just over a half who said they wouldn’t pay more the results on willingness to pay for biofuels are somewhat inconsistent. Of those that said they would pay extra if the fuel was environmentally friendly, when presented with a range of values, 42% said they would expect the biofuel to be cheaper or the same price.

Industry demand for a biofuel label

This study received mixed feedback from industry representatives on the potential for a voluntary biofuel label. Fuel retailers face tight margins and are generally doubtful about consumers’ true willingness to pay for labelled biofuel. Several large retailers therefore showed some reluctance towards the concept of a consumer focussed label, visible at forecourts, on commercial grounds. Fuel retailers that also have a reporting obligation under the RTFO saw more value in alternative mechanisms such as working directly with NGOs to understand their concerns and tackle sustainability issues. These companies also indicated that the RTFO already allows them to make verified statements about the sustainability of their biofuels and they do not need an additional label for this.

From those interviewed for this study, indications are that the fuel retail industry (including supermarkets and oil companies with retail outlets) are sceptical of the idea that a biofuel label at their forecourts will actually lead to concrete benefits from changes in consumer behaviour and therefore see little added value to their business. However biofuel producers may see added value in a label if they are able to participate in the way the scheme is designed. They are concerned that current added value would pass to fuel suppliers and would prefer a direct opportunity to create a value for their product if it has the required sustainability performance characteristics.

NGO demand for a biofuel label

While positions of NGOs differ with respect to biofuels this study suggests the main pressure for guaranteeing sustainability of biofuels is likely to come initially from NGOs rather than the general public. However, NGOs do not necessarily require a voluntary label to be able to pressure companies towards verifiable good carbon and sustainability performance for biofuels. Currently, the RTFO reporting obligation already provides the means for NGOs to distinguish the ‘good’ from the ‘bad’. While the reporting obligation does not *guarantee* the sustainability of biofuels, it does provide interested parties with *verified* information about the sustainability of the supplied biofuels. While initially there seems to be little added value to NGOs from a biofuel label, NGOs may see a value in guaranteeing the performance of biofuels and their suppliers and a biofuel label could fulfil this role.

In conclusion, there does not appear to be an overwhelming demand for a voluntary sustainable biofuel label from all stakeholders today. However there is certainly some level of interest, and that interest could well grow in the future, depending on the performance of companies under the RTFO carbon and sustainability reporting and the final outcome of EC sustainability regulation. In the absence of satisfactory sustainability guarantees from fuel suppliers, pressure from NGOs will increase which is likely to translate into pressure from consumers to fuel retailers to provide guarantees of sustainable fuel.

Options have been discussed in this report for a sustainable biofuel label focussed on the fuel supplier or on the fuel retailer. A label focussed on the fuel supplier could be an effective tool if the demand for sustainability guarantees comes mainly from NGOs, and such a scheme could be relatively easily implemented as an extension to the current RTFO. A label focussed on fuel retailers could be an effective tool if demand comes increasingly from consumers. Such a scheme would however pose more challenges. The remainder of this section therefore explores the feasibility of a fuel retailer-focussed label.

7.3 Feasibility of a biofuel label

Design choices in a consumer focused biofuel label

A series of working principles have been defined on key choices that would have to be made if a label initiative is to be taken forward to narrow down options and facilitate a more detailed discussion on the feasibility of a labelling scheme, see Box 7-1. The working principles represent the broad view of stakeholders consulted today, and may change over time as the biofuels market develops.

Box 7-1 Key design choices for a consumer focussed biofuel label based on consultation with stakeholders.

- Label aims to achieve an acceptable level of sustainability for a majority of the consumed biofuels, addressing environmental and social concerns as well as greenhouse gas emission reductions.
- Label does not aim to increase biofuel consumption, nor ensure biofuel quality, but is purely focussed on sustainability of biofuels.
- Label must be applicable to all levels of biofuel blending.
- Label for use by fuel retailers and displayed at forecourts.
- Label issued to entire fuel retail company instead of individual forecourts.
- Label starts with a UK focus but aims to develop into international label over time.
- Label makes as much use as possible of existing RTFO procedures and information, including using the RTFO Sustainable Biofuel Meta-Standard and GHG methodology as a basis.
- Label must be simple to communicate and to understand.

Feasibility of a voluntary biofuel label

The analysis in this study has shown that it would be technically feasible to implement a fuel retailer label. The main conclusions on the different aspects of a biofuel label are:

- Chain of custody: a book and claim system is likely to offer the most flexible approach to the chain of custody, although further work would have to be done to ensure that this approach is acceptable to consumers and NGOs. Issuing certificates would be done most efficiently at the duty point based on the RTFO batch reports. A mass balance approach is also possible but it offers less flexibility for fuel retailers in sourcing their sustainability information.
- Verification: if the existing RTFO verification procedures are used, only limited additional verification would be needed. Namely, the consistency between the volumes claimed by fuel retailers (not currently verified under the RTFO) and the volumes supplied by fuel suppliers (verified under the RTFO).
- A number of technical issues that would have to be considered if a labelling initiative is to be taken forward, these include the percentage of sustainable biofuel required for the label to be awarded, the volume of biofuel in fuel mix, and the periodicity of awarding the label. No major barriers were identified for the feasibility of operating a fuel retailer label displayed at forecourts.
- The network of ownership and operation of retail outlets is complex. Retailers that would earn the right to carry the label do not necessarily own and operate outlets that identify their brand of fuel being sold. Displaying the label would require negotiations between retailers and third parties which may affect the roll-out and coverage of forecourts with the label in the short term.

7.4 To whom does the added value of a biofuel label accrue?

The added value a biofuel label generates for different parties in the supply chain depends on the design of the label. This study focuses on a label used by fuel retailers

which would be visible to consumers at forecourts. It utilises a book and claim chain of custody for the label with certificates issued at the duty point (consistent with the RTFO). The added value of such a label accrues to:

- **Fuel suppliers** that take the fuel past the duty point and receive the RTF certificates. They can sell these certificates to fuel retailers. Note that some fuel suppliers are also retailers and they may therefore need at least part of the certificates for their own forecourts if they want to carry the label.
- **Fuel retailers** will have to buy the certificates from fuel suppliers and therefore ultimately pay the additional costs. They will be looking to pass any cost onto the consumer. Fuel retailers which are also fuel suppliers may transfer the certificates internally.
- **Biofuel producers** do not directly receive the income from the sale of certificates unless they take the fuel past the duty point. They may be able to charge a higher price for biofuel which meets the requirements of the label.

7.5 Synthesis and main options for developing a label

The need for a label and how it can add value to the RTFO in ensuring the sustainability of biofuels depends on the future form the RTFO takes. Below, the main options for the development of a biofuel label are given for different future RTFO scenarios.

Scenario 1. Future RTFO does not include sufficient mandatory requirements on sustainability of biofuels but has a comprehensive reporting scheme.

1A: Verified statements based on RTFO, possibly with RFA “seal of approval”

The current RTFO already provides the relevant verified information on the sustainability and carbon performance of biofuels supplied onto the UK market. Based on this:

- Biofuel producers and fuel suppliers can make verified claims about the sustainability of their biofuels.
- NGOs can distinguish the good from the bad performers, based on the achievement of voluntary performance levels set by the RFA. NGOs could work with the RFA to set these performance levels, in a similar way to those currently defined in the RTFO.
- The government can publicly communicate who does and who does not achieve the indicative targets the Government set. The RFA could consider some kind of a “seal of approval” for companies which meet its targets. This would be a label which does not require any significant additional activities or bodies on top of the current RTFO.
- Fuel retailers could make claims that they only source fuel from suppliers which meet the Government’s or RFA’s targets, although this information would not be verified under the RTFO.

This approach would start as a UK approach but is likely to develop towards an international approach as at least European standards and legislation will emerge and harmonise national approaches.

1B: Consumer focussed label used by fuel retailers and displayed at forecourts

The main opportunity to add value to the RTFO for a biofuel label is to engage fuel retailers and provide a reliable, transparent and consistent communication media to consumers through a label displayed at forecourts. This will be needed if reporting of sustainability is not seen by consumers as being adequate to guarantee sustainability. However, for this to be of interest to fuel retailers, they must have more confidence in the balance between additional costs and benefits of participating in such a labelling scheme. Owing to scepticism about consumer awareness of these issues and in changing purchasing behaviour, including willingness to pay extra, this confidence is currently low with most consulted fuel retailers. This may however change over time and could be reevaluated after the first reporting period of the RTFO.

If a consumer focussed label is taken forward, the most practical approach would be to:

- Use the RTFO Sustainable Biofuel Meta-Standard and the RTFO GHG-methodology. It would start as a UK label, but could develop towards an international label as international standards for biofuels develop;
- Base the verification of label information on RTFO verification procedures;
- Adopt a book and claim approach and consider the RFA as the issuing body for the label.

Scenario 2: Future RTFO does not include sufficient mandatory requirements on sustainability of biofuels and has no comprehensive reporting scheme.

In this case a biofuel label could add significant value as the options based on a RTFO reporting scheme (option 1A above) are not available. A voluntary biofuel label could be taken forward in line with option 1B, based on the current comprehensive versions of the RTFO standards.

Scenario 3: Future RTFO sufficiently covers mandatory requirements on sustainability of biofuels.

In this case the sustainability of biofuels is ensured by Government through legislation and there will be no demand for a mainstream voluntary biofuel label. A remaining option is a biofuel label which sets a so called “gold standard” for excellent performance. Such a niche-market label has not been the focus of this study.

References

Charles Allison and Anthea Carter (2000): Study on different types of Environmental labelling (ISO Type II and III labels): Proposal for an Environmental labelling Strategy Prepared by Environmental Resources Management for DG Environment.

Dehue, B., C. Hamelinck, G. Reece, S. de Lint, R. Archer, and E. Garcia, January 2008, Sustainability reporting within the RTFO: Framework Report.

ISEAL 2007a: ISEAL Emerging Initiatives – Module 2: Setting Standards. Available at: <http://www.isealalliance.org/index.cfm?fuseaction=Page.viewPage&pageId=915&parentID=511&grandparentID=4&nodeID=1>.

ISEAL 2007b: ISEAL Emerging Initiatives – Module 3: Models of Verification. Available at: <http://www.isealalliance.org/index.cfm?fuseaction=Page.viewPage&pageId=915&parentID=511&grandparentID=4&nodeID=1>.

ISEAL 2007c: ISEAL Emerging Initiatives – Module 4: Models of Governance. Available at: <http://www.isealalliance.org/index.cfm?fuseaction=Page.viewPage&pageId=915&parentID=511&grandparentID=4&nodeID=1>.

Office of the Renewable Fuels Agency, March 2008, Carbon and Sustainability Reporting Within the Renewable Transport Fuel Obligation: Technical Guidance. Available from: <http://www.dft.gov.uk/rfa/reportsandpublications/carbonandsustainabilityguidance.cfm>

Van Doorne, 2007: WTO/EG-rechtelijke toetsing van de door de projectgroep duurzame productie van biomassa opgestelde duurzaamheidscriteria (April 2007).

Annex A: Interviewed parties

Ecofys and E4Tech would like to thank all those organisations who agreed to be interviewed for the purposes of this project. Table 2 contains a list of those organisations interviewed.

Table 2 Interviewed parties

Organisation	Category
Greenergy	Industry - biofuel producer
Petroplus	Industry - Fuel supplier
BP	Industry - Fuel supplier / fuel retailer
Tesco	Industry - Fuel retailer
Ian Waller (5BarGate)	Industry - biofuel consultant
WWF	NGO
Oxfam	
Greenpeace	
Friends of the Earth	
CO ₂ -Star	Existing labelling initiative
Swan Ecolabel	
Assured Food Standards (AFS)	
Forestry Stewardship Council (FSC)	
British Standards Institution (BSI)	
Trading Standards	Other
The International Social and Environmental Accreditation and Labelling (ISEAL) Alliance	

Annex B: Meta-standard approach

The concept of the Meta-standard approach is based around the fact that a number of standards already exist for sustainable agriculture and forestry, and that it would therefore be unnecessary and even undesirable to develop yet another standard against which producers need to be certified. Existing standards are benchmarked against the proposed Meta-standard criteria and those which meet sufficient criteria will qualify under the scheme. Pros and cons of adopting a Meta-standard approach are described below:

Advantages:

The main advantage in using the Meta-standard approach is that it maximises benefit from work that has already been done in the area through enabling the use of existing standards, and avoids the need to develop a whole separate standard. This both reduces the time needed to implement the new scheme, and reduces the overall burden on participants in the scheme by avoiding duplication of standards.

WTO, ISO and ISEAL have drawn up Codes of Good Practice for the development of standards, which indeed include preventing duplication and stimulating international harmonisation of standards in line with the Meta-standard approach. Another main requirement from WTO and ISEAL is proper stakeholder consultation involving all parties who would be affected by the standard. The international nature of the biofuels market would mean that potential affected parties are numerous and the development process of any new standard is likely to take significant time. This has been witnessed by the experience of existing initiatives such as FSC and RSPO which each took several years to develop.

Disadvantages:

Using the Meta-standard approach however means that the scheme is limited to using the criteria, indicators and processes as implemented in existing standards. Increasing the level of, for example, sustainability criteria in the scheme would therefore require either working with the existing standards to persuade them to change their criteria, or requiring participants in the scheme to carry out additional audits against missing (“gap”) criteria. Furthermore some existing standards deal exclusively with either environmental or social issues, and it was found that none of the existing standards currently covered all of the RTFO sustainability criteria.

A scheme using a Meta-standard approach also effectively outsources its credibility to the other standards. Therefore the acceptance of existing certification schemes has to be done very thoroughly and in a credible and transparent way. The Meta-standard approach

does not remove the need for proper and full stakeholder consultation during the development of the scheme to ensure credibility in the scheme developed, see Chapter 6.

For a more detailed discussion on the Meta-standard approach and its pros and cons the reader is referred to the following two reports:

- Sustainability reporting under the RTFO: Framework report (Ecofys 2008)
- Towards a harmonised sustainable biomass certification scheme (Ecofys 2007)

Annex C: Process of developing a standard

Publicly Available Specification & British Standard

BSI (British Standards Institution) is a leading provider of standardisation services and the UK's national standardisation organisation. BSI facilitates the development of two types of standards: a formal British Standard (BS) and a Publicly Available Specification (PAS). BSs are developed based on a full consensus basis through committees representing interested parties. PASs are a fast-track way to create an open and consensus standard without the need for full consensus as in a BS (Figure 7-1)

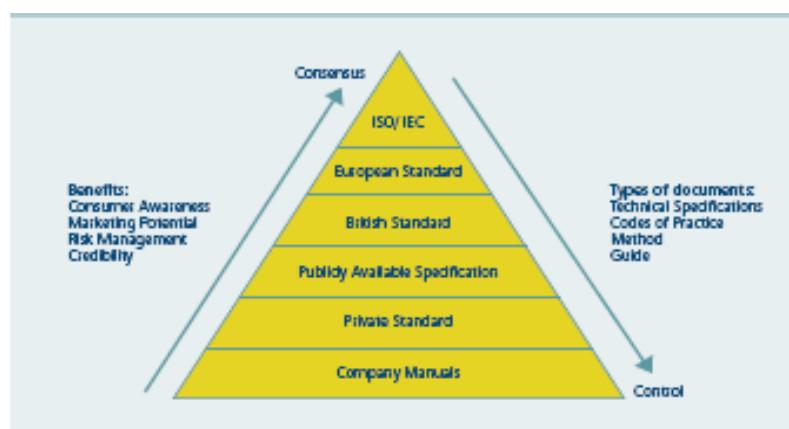


Figure 7-1: standards control / consensus dynamic (Source: BSI)

The development of a Publicly Available Specification

The development of a PAS can be initiated by a sponsor organisation which has the expertise and credibility in the field that the PAS is going to be applied. Usually, PASs are developed to underpin a certification scheme, where the sponsor develops a quality mark which is granted to companies that certify against the PAS. The sponsor, together with BSI, develops the standard through a consultation process that is governed by a Steering Group (SG) with representatives of all major stakeholders (Figure 7-2). The SG has the power to include or exclude changes proposed through the consultation process. The ownership of the PAS is retained by BSI, and PAS are referred to as BSI PAS xxx. The document itself could be co-branded as a BSI/sponsor document.

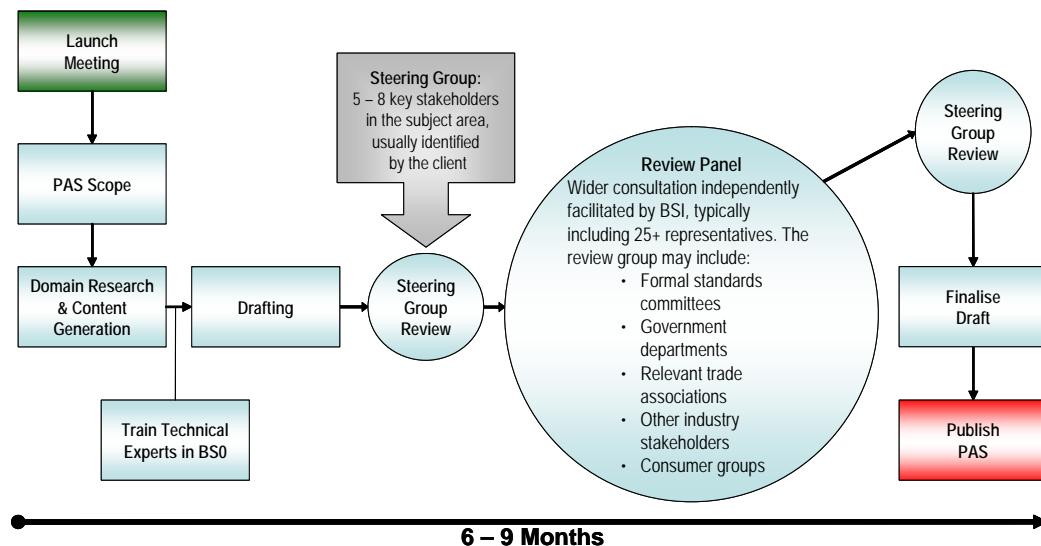


Figure 7-2: Sample PAS process (Source BSI)

The PAS can be used by anyone who would like to make use of the guidance that is provided in it. Third-party accreditation and the award of a certification mark ensure that compliance claims are true. Anyone can use principles laid out in the PAS and expand it into a new private standard which could be the basis of a new certification mark.

A PAS in the area of biofuels sustainability could be developed from scratch or could build on existing standards e.g. the RTFO standard. If a PAS is developed in a particular area it would form the basis of a British standard in its area of application.

However, the Dutch government has recently launched the development of a CEN standard for the “sustainability criteria for biomass”. If this activity moves forward, BSI will mirror the European activity and provide UK input from a wide range of stakeholders. The development of a CEN standard may take about 3 years. While a PAS could be developed in the meantime, it may not be of interest to develop an entirely separate UK-based public standard in parallel to the development of a European public standard, which would eventually supersede the UK standard.

Independent process

Unlike the development of a Public Available Specification or a British standard, independent standard setting initiatives such as FSC, Fair Trade and IFOAM may differ in their standard setting process. While these initiatives are in principle free to choose their own process for standard development their eventual acceptance critically depends on the standard development process. In addition, ISO, WTO and ISEAL have defined Codes of Good Practice for standard Development. Thereby the ISEAL code is specifically designed for standard development focussing on environmental and social sustainability.

The WTO, ISO and ISEAL standards show large similarities in their procedure requirements such as the publication of a programme and one or more public review periods. Also the importance of international harmonisation is stressed in all Codes, in which standardising bodies are required to build on existing standards, prevent duplication and overlap and participate in the development of harmonised standards relevant for the subject it wants to develop a standard for. The main difference between the Codes of WTO and ISEAL is that ISEAL requires standardising bodies to actively identify affected parties and seek their contribution while the WTO Code has no such requirement. Thereby ISEAL stresses the importance of a balance of interest among interested parties and geographical scope.

The different steps in the standard development process as identified by ISEAL are depicted in Figure 7-3 and Figure 7-4.



Figure 7-3 Steps in the standard setting process. Source: ISEAL 2007

In terms of the costs and time required for such standard development, it is very difficult to give an indication. Credible standards such as FSC and MSC have taken several years to develop and also more recent initiatives such as the Roundtable on Sustainable Palm Oil have taken several years to come to their final standard. Costs are even harder to estimate but clearly developments process of multiple years including several stakeholder sessions and working committees require significant amounts of resources. Most initiatives combine standard development with the development of a certification and labelling system. The development of certification and labelling system is discussed in more detail in the next Chapter.

For a more detailed description of credible standard development, the reader is referred to the ISEAL Emerging Initiatives paper on setting standards (ISEAL 2007).

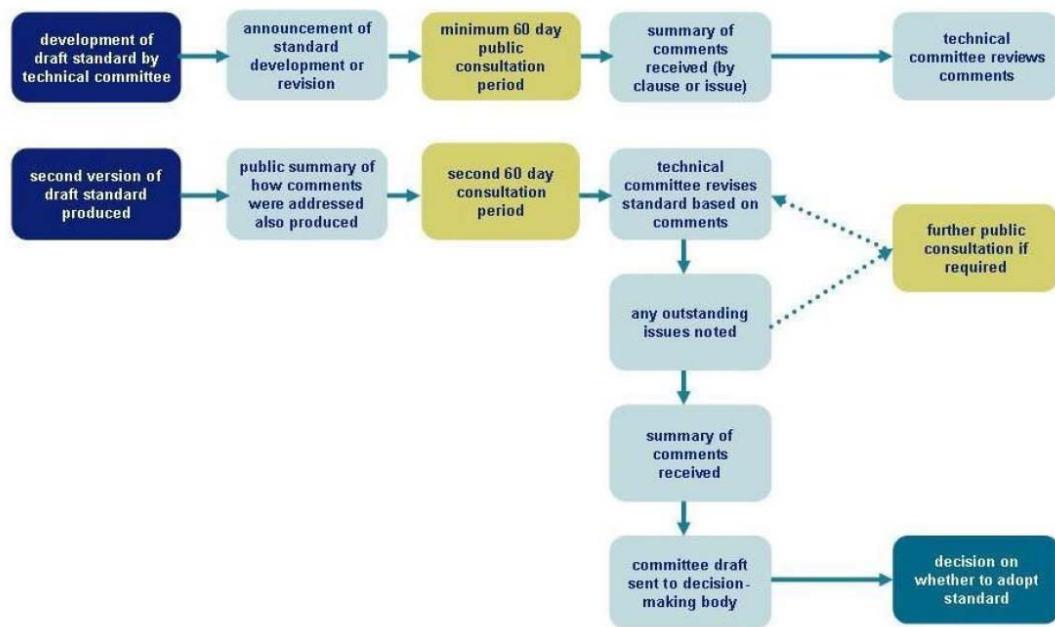


Figure 7-4 Detailed steps around the two consultation periods as advised by the ISEAL Code of Good Practice for setting social and environmental standards. Source: ISEAL 2007.

The RTFO standard development process

The RTFO Sustainable Biofuel Meta-Standard was developed in the course of 2006 and 2007. An initial draft was prepared by a team of experts which was discussed and consulted with an advisory group which consisted of a wide range of stakeholders including social NGOs, environmental NGOs, industry representatives, academia and government representatives. Based on this, amendments were made which produced the second draft. The second draft was consulted on in a formal public consultation which included several public workshops in London and yielded 55 written responses. During the process, further informal consultation took place with stakeholder groups e.g. industry trade associations. While the RTFO process engaged stakeholders on multiple occasions, the main caveat of the RTFO standard development process is the lack of producer country involvement. Of the three interviewed NGOs for this study, two were familiar with the RTFO standard and would support its adoption by a voluntary label. One NGO was not familiar with the details of the standard.

Movement towards International standard

As discussed in more detail in section 3 an international standard is clearly preferable to a national standard but will take longer to develop. The main point made here is that if properly designed, the label can be separated from the standard, see section 1.3. Thereby the standard sets out the characteristics which can be measured while the label defines exactly what level of performance, related to this standard, must be achieved to be able to carry the label. This separation between label and standard makes it possible for a label to

start with the RTFO standard and to adopt an international standard when it arises (provided the new standard is still in line with the goals of the label).

Note that in time, also the RTFO may adopt an international standard for sustainable biofuel production, if a credible international standard is developed. In that respect, a voluntary label and the RTFO could still draw on the same international standard in the future, setting their own respective performance levels.

Annex D: Existing initiatives on sustainable biofuel standards and labelling

Swan ecolabel for fuel

The Swan is the official Nordic ecolabel, introduced by the Nordic Council of Ministers in 1989. The green symbol is available for around 60 product groups for which it is felt that ecolabelling is needed and will be beneficial. Swan is currently designing a standard for fuel which could receive the Swan ecolabel. While this is a promising initiative there are a few characteristics of this initiative which differ from the focus in the UK at the moment:

- The Swan ecolabel for fuel will only be available for fuel containing more than 50% biofuel. While no decisions have been made yet on the goals of a UK biofuel label, it would likely include low blend biofuels as well as high blends, as these currently dominate the market in the UK.
- The initiative provides its own Greenhouse gas methodology which differs from the one currently used for the RTFO.
- The initiative foresees the use of existing standards to guarantee the sustainability of the biomass origin, in line with the RTFO Meta-standard approach. However, the requirements for these standards are currently rather broad which makes it difficult to compare them with the requirements of the UK (which the authors see as a minimum level of sustainability for any UK biofuel label).
- In the latest draft only 20% of the feedstock used for the biofuel has to be from certified origin. This is likely to be unacceptable in the UK where the government already set an indicative target that 80% of all feedstock should come from certified origins by 2010/11.
- In the latest draft of the Swan ecolabel, there is a requirement for full traceability. In other words, the mass balance approach in which there is no full traceability back to the source (as currently used for the RTFO and which is also used in the proposals of the EC and Germany on the sustainability of biofuels) would not be allowed.

CO₂-star

CO₂-star is carbon labelling initiative which evaluates different aspects of carbon labelling in the fuel, lubricant, vehicle and freight sectors. The programme will bring together multiple countries and participants that work together in looking at carbon labelling programmes that can work best in their country. The initiative has already performed pilots in Germany from which valuable lessons could be drawn. However, in terms of its potential adoption as a biofuel label in the UK, two important characteristics of the initiative must be noted:

- The initiative currently focuses on greenhouse gas performance only.

- The initiative is focussed on evaluation of different aspects of carbon labelling but there is currently no plan on how to take this forward to form an operational label open to interested parties with essential elements such as a standard owning body and a label owning body in place.

The Roundtable on Sustainable biofuels

The Roundtable on Sustainable biofuels is an international initiative that aims to bring together farmers, companies, non-governmental organisations, experts, governments, and inter-governmental agencies concerned with ensuring the sustainability of biofuels production and processing. The Roundtable is hosting a series of meetings, teleconferences, and online discussions with the aim of achieving global, multi-stakeholder consensus around the principles and criteria of sustainable biofuels production by June 2008. Thereby the initiative provides a useful basis for an internationally agreed standard for sustainable biomass. However, the initiative currently does not have specific plans to develop the standard into a certification or labelling scheme. Nonetheless, an international standard for sustainable biomass which has sufficient credibility globally as well as with different stakeholder groups could form a good basis for an international label for sustainable biofuels.

CEN-standard

As discussed in Chapter 1, the NEN (Dutch national standard setting body) has issued a request with the CEN to develop a standard for sustainable biofuels. It is not known to the authors whether the CEN will decide to do this or not. If the CEN does develop a standard for sustainable biomass it will be interesting to see what the perceived credibility is with other governments as well as NGOs and companies. So far, the CEN as well as national standard setting bodies have mainly focussed on technical standards and labelling experts have indicated that NGOs may prefer different governance structures through which to develop a sustainability standard: more in line with existing sustainability standards such as FSC, MSC and RSPO. In this respect it will also be interesting to see what the relationship of a CEN standard development process will be with the Roundtable on Sustainable biofuels.

Nonetheless, if a CEN standard for sustainable biomass is developed and if it enjoys credibility under a wide range of stakeholders it could be used in a voluntary biofuel label with the benefit of having international recognition. In terms of timing, a CEN standard development process is expected to take at least three years.

Annex E: Consumer survey questions

Q.1 Which, if any, of the following fuel types do you ever buy nowadays ?

- 1 Do not buy petrol or diesel nowadays
- 2 Buy Diesel, Petrol, Premium brand (e.g. V-Fuel, BP Ultimate) or DK

I would now like you to think about your attitudes towards environmental issues and the way you live.

Question 1

QE.1 Which of these statements would you say best describes your attitude towards environmental issues and climate change ?

- 1 A - I am not concerned
- 2 B - I am concerned but I haven't really changed my lifestyle to make a difference
- 3 C - I am concerned and I have changed my lifestyle to make a difference

Question 2

QE.2 Which activities listed below do you think are the most environmentally important ?

- 1 A - Use public transport, walk or cycle instead of using the car
- 2 B - Choose a more fuel efficient car
- 3 C - Use environmentally friendly biofuels in my car
- 4 D - Reduce the number of miles you travel
- 5 E - Buy food produced locally rather than abroad
- 6 F - Buy Fairtrade products
- 7 G - Reducing water use at home
- 8 H - Save energy e.g. turning off lights, installing insulation
- 9 I - Reuse bottles \ containers
- 10 J - Recycle paper, bottles etc

Q.1 Which, if any, of the following fuel types do you ever buy nowadays ?

- 1 Do not buy petrol or diesel nowadays
- 2 Diesel
- 3 Petrol
- 4 Premium brand (e.g. V-Fuel, BP Ultimate)

Q.2 Which of these places do you usually buy your fuel from ?

- 1 A - Supermarkets \ hypermarkets
 2 B - Main oil companies (BP, Shell, Esso, Total or Texaco)
 3 C - Other oil companies (e.g. Gulf, Jet, Murco, Maxol, BFL, etc)
 4 D - Independent \ unbranded petrol stations
 5 E - Other place

Q.3 Which of the following best describes your average annual mileage ?

If you are not sure, please give your best estimate

- 1 A - Less than 6,000 miles (less than 500 miles per month)
 2 B - 6,000 to 12,000 miles (500 - 1,000 miles per month)
 3 C - 12,000 to 18,000 miles (1,000 - 1,500 miles per month)
 4 D - Greater than 18,000 miles (more than 1,500 miles per month)

I am now going to ask you some questions about a product called 'Biofuel'.

It doesn't matter if you have never heard of Biofuel, as it is just your personal opinions I am interested in.

Biofuels are transport fuels that are commonly made from plants. Some of them can help reduce overall greenhouse gas emissions which are believed to cause climate change.

Q.4 Which of the following statements best describes your knowledge of Biofuels ?

- 1 Not heard of them before
 2 Heard of biofuels but don't know anything about them
 3 I know just a little bit about them
 4 It is something that I know quite a bit about

From April next year all petrol and diesel suppliers in the UK will have to add Biofuels by law or pay a penalty.

Q.5 Were you aware of this new law ?

- 1 Yes I knew about it
 2 I heard something about it but I am not really sure
 3 No I did not know about it

Q.6 Which of these best describes your opinion of this proposed law ?

- 1 It sounds like a good idea
 2 It sounds like a bad idea
 3 Don't know

Q.7 Which of these types of fuel do you think is a Biofuel ?: Any others ?

- 1 A - petrol
- 2 B - diesel
- 3 C - sulphur free petrol
- 4 D - hydrogen
- 5 E - biodiesel
- 6 F - liquefied natural gas (LNG)
- 7 G - bioethanol
- 8 H - compressed natural gas (CNG)
- 9 I - biomethane (LPG)
- 10 None of them
- 11 I don't know

There are different ways of making Biofuels and some are more environmentally friendly than others. Some fuel companies are expected to spend more time and money sourcing and supplying more environmentally friendly Biofuels, whilst other companies might supply fuels that are not environmentally friendly.

Q.8 Were you aware that there might be good and bad Biofuels ?

- 1 Yes I'm aware there are different types
- 2 I heard something about it but I am not really sure
- 3 I know about Biofuels but I'm not aware there were different types
- 4 Not aware of Biofuels at all

Q.9 Which of these aspects of Biofuels production would you be concerned about ?: Any others ?

- 1 A - using forced or child labour to grow the plants
- 2 B - turning forests into farmland for biofuels
- 3 C - turning land that has rare or endangered species of animal or plant into farmland
- 4 D - pollution of water with chemicals
- 5 E - making sure that water is used efficiently (i.e. not too much is used)
- 6 F - forcing people off their land to turn it into farmland for biofuels
- 7 G - making sure the soil is not ruined because of bad farming practice
- 8 H - pollution of air by burning waste materials
- 9 I - increase in food prices due to plants being used for Biofuels

Question 1000

Q.10 If a company you did not usually buy fuel from started selling Biofuels, and the cost was the same, how likely is it you would start buying your fuel from this company ?

- 1 Very likely
- 2 Fairly likely
- 3 Not very likely
- 4 Not at all likely

Q.11 The price of petrol and diesel is about £1 per litre , how much more would you be willing to pay for the more environmentally friendly type of Biofuels ?

- 1 I would expect it to be cheaper
- 2 I would pay the same as petrol or diesel
- 3 1p more
- 4 2p more
- 5 4p more
- 6 6p more
- 7 8p more
- 8 10p more
- 9 12p more
- 10 More than 12p more

We have just been talking about a transport fuel called Biofuels. They are intended to be good for the environment. However, Biofuels can be made in different ways and there are Biofuels which are good for the environment and Biofuels which are bad for the environment.

Q.12 It is possible that the producers or suppliers of Biofuels might in the future make consumers aware that the company supplied good or a bad Biofuels through a labelling scheme.

How interested would you be in this information when you were buying petrol ?

- 1 Very interested in labelling
- 2 Quite interested in labelling
- 3 Not very interested in labelling
- 4 Not at all interested in labelling

Q.13A Which of these types of organisations do you think would be suitable to run such a labelling scheme ?

- 1 Government department e.g. Department of Transport, Dept of Environment
- 2 Independent government agencies e.g. DVLA, Renewable Fuels Agency
- 3 Standards organisations e.g. British Standards Institute, Assured Foods Standards (the Little Red Tractor), Forest Stewardship Council
- 4 Consumer organisations e.g. Consumers Association, Which magazine
- 5 Environmental groups e.g. Greenpeace, Friends of the Earth
- 6 Fuel companies e.g. BP, Esso, Shell
- 7 Other type of organisation

Q.13B Which one type of organisation would you personally trust most to run the scheme ?

- 1 Government department e.g. Department of Transport, Dept of Environment
- 2 Independent government agencies e.g. DVLA, Renewable Fuels Agency
- 3 Standards organisations e.g. British Standards Institute, Assured Foods Standards (the Little Red Tractor), Forest Stewardship Council
- 4 Consumer organisations e.g. Consumers Association, Which magazine
- 5 Environmental groups e.g. Greenpeace, Friends of the Earth
- 6 Fuel companies e.g. BP, Esso, Shell
- 7 Other type of organisation

Q.14 I am now going to read out a number of statements about Biofuels. I would like you to tell me to what extent you agree or disagree with these statements.

[Consumers must be told whether the fuel they are buying comes from a company which is producing environmentally friendly Biofuels or not]

[I would want to know that the biofuel that I am putting in my tank is environmentally friendly]

[I would prefer to spend my money with a company that is supporting environmentally friendly Biofuels]

[Price and convenience are the only things that matter to me]

- 1 Agree strongly
- 2 Agree slightly
- 3 Neither agree nor disagree
- 4 Disagree slightly
- 5 Disagree strongly

Q.15 Which one of these statements best describes your attitudes towards the different types of Biofuels ?

- 1 A - I am not interested
- 2 B - I am interested but would not be willing \ able to pay extra
- 3 C - I would be willing to pay extra for fuel if I was certain that the money was being used to support the production of environmentally friendly Biofuels
- 4 D - I would only be willing to pay extra if the fuel I was buying actually contained environmentally friendly Biofuels

End of questionnaire

Annex F: Consumer interest in a Biofuel label - summary consumer survey report

Summary of consumer survey

Assessing consumer demand for a label is a key component of the study. In May 2007, in response to a number of NGO advertisements on the RTFO Order, the Department for Transport received over 6,000 responses telling the Government to ‘choose the right biofuel’. This surprisingly large response from members of the public indicated that there could be sufficient demand from the public for a sustainability label for biofuels.

To assess this potential demand, independent research in the form of a consumer survey was conducted during a week long period in January 2008¹⁷. The research was conducted through the TNS Computer Assisted Personal Interviewing (CAPI) Omnibus which conducts face-to-face interviews in respondents home and was used to collect reliable data from a nationally representative sample of British adults¹⁸ on awareness and attitudes to biofuels, to the RTFO and to a biofuel sustainability label. The research obtained 1,319 interviews with consumers who buy fuel for vehicles.

Results

General environmental attitudes

Of those interviewed, almost all fuel buyers are concerned about environmental issues and believe saving energy and recycling are important. More than a half (56%) say that they have made changes to their lifestyle to be “greener”.

Four transport related activities were identified that can contribute to reduced CO2 emissions. 50% of consumers indicated that using public transport, walking or cycling was environmentally important. 44% of respondents thought choosing a fuel efficient car and 37% considered reducing the number of fuels miles as important. Around a third think using environmentally biofuels is important, a surprisingly large number considering the potential knowledge differential between biofuels and other issues, however this was a much lower response compared to other environmental issues tested.

¹⁷ The survey was conducted from January 23rd – 27th 2008 which was prior to the RSPB newspaper advertisement calling on the UK Government to stop the introduction of the RTFO

¹⁸ A nationally representative sample of adults aged 17+ was interviewed.

Awareness of biofuels and the RTFO

Three quarters (78%) are aware of biofuels and over half claim (53%) claim some knowledge. Within those who claim knowledge, a smaller group (8%) claim to know quite a lot. Respondents were provided with a brief outline which explained that there were different ways of making biofuels and some were more environmentally friendly than others. More than a quarter of fuel buyers said that they were aware biofuels differ in environmental impact. Although most consumers express interest in the topic it is fair to say that understanding is limited. When respondents were tested against claims of their knowledge 21% of fuel buyers correctly identify the biofuels without error but those that claimed to heard about biofuels and know something about them did not fare much better (27%).

Respondents were provided with a brief outline of the forthcoming RTFO and when asked, awareness among respondents was low even within those who claim greater awareness of biofuels. When asked whether the RTFO seemed like a good idea, most people (67%) responded positively. However 8% of fuel buyers believe that the introduction of the RTFO is a bad idea and were split broadly into two groups. One group that is not interested in biofuels and another that were aware of the different environmental impacts of biofuels. While the opinions illustrated that the majority believe that the RTFO was a good idea, the percentage of people who thought the RTFO was a bad idea increased with the level of awareness of the potential impacts of biofuels. Over half (59%) thought it was a good idea, less than a fifth thought it was a bad idea (18%). Of those that said they are aware of the different impacts of biofuels think that that the RTFO is a bad idea, however only around a third were able to correctly identify biofuels within a list of other fuels.

Environmental and social concerns

A list of environmental and social issues associated with biofuel production was provided and respondents asked to indicate the aspects they were most concerned about. Most people (68%) expressed concern about using forced and child labour and deforestation. Water pollution, using land with endangered species and forcing people off their land were also considered to be of concern to most people (62-66%). Perhaps surprisingly, food price increases as a potential impact of biofuel production and use were not of concern to as many people (48%) as other direct impacts.

In exploring the data in more detail, the percentage of people concerned about specific issues was slightly greater (in the order of 7%-14%) within those who responded negatively to the introduction of the RTFO compared to the overall response. Whilst a conclusion cannot be determined with absolute certainty, it is possible that the media reports and/or NGO campaigns on the use of biofuels (and more recently the introduction of the RTFO) has influenced some respondents. The specific issues identified in greater proportion by those negative toward the RTFO compared to the general total were:

- Deforestation

- Biodiversity loss
- Infringement of land rights
- Soil damage
- Food price increases

Willingness to pay

Consumers were also asked about their attitudes towards biofuels with respect to price. 43% of fuel buyers agreed that price and convenience were the only things that mattered in their fuel purchasing decisions and 37% disagreed with this statement. Of those people that had changed their lifestyle to be “green” around half disagreed that price and convenience were all that mattered in their fuel purchase, however a third agreed that price and convenience were the most important considerations.

Almost two thirds of respondents said they would be interested in buying biofuels from a company if they were to sell them at the same price as their regular fuel. Interestingly, half of those that have changed their lifestyle to be greener either expect the biofuel to be cheaper or the same price as their usual fuel. Around 1 in 5 of all respondents said they would be unlikely to buy biofuel even if it was the same price.

When asked, more than a third of fuel buyers said they would be willing to pay extra for environmentally friendly biofuels compared to just over a half who said they wouldn’t pay more. Of those that would be willing to pay more, one fifth said they would be willing to pay up to 6p more and 15% would be willing to pay more than 6p. 42% of those who thought the RTFO was a good idea would be willing to pay more for biofuel compared with 24% who thought the RTFO was a bad idea.

The results on willingness to pay for biofuels are somewhat inconsistent with a substantial number of responses indicating consumers will pay more for biofuels however, of those that said they would pay extra if the fuel was environmentally friendly, when presented with a range of values, 42% said they would expect the biofuel to be cheaper or the same price. However, one quarter said they would pay up to 6p more and a further quarter said they would pay more than 6p.

The research is not able to establish the actual behaviour of consumers in purchasing fuel. Expressions of willingness to pay for a potentially “green” product whilst being interviewed in the home on environmental and social issues may not translate to the same behaviour at the pump.

Biofuel labelling

Respondents were made aware that it would be possible for some companies to sell ‘good’ biofuels and others to sell ‘bad’ biofuels which may have some or all of the environmental and social impacts identified.

Not surprisingly, when asked, the majority of respondents were interested in knowing that the biofuels sold are environmentally friendly (85%) and were also very or quite interested in labelling (78%). Interest in labelling was higher from those who thought the RTFO was a good idea (86%) than those who thought the RTFO was a bad idea (65%).

One third of those that thought the RTFO was a bad idea were not interested in labelling at all. Given the potential reasons for negativity toward the RTFO it seems counter-intuitive that there would be a high level of disinterest in a label to guarantee sustainability from this group. However the research does not enable firm conclusions to be drawn on the reasons for negativity to the RTFO. Other reasons such as uncertainty over fuel quality that people may associate with biofuels could also form part of this result.

No clear expectation of who should or shouldn't run such a labelling scheme emerged but of those who are interested in labelling, the three most suitable organisations consumers thought would be most suitable were the government (42%), standards organisations (36%) and environmental groups (31%).

In an attempt to understand whether consumers understand and accept the concept of the label as it may operate under a book and claim scheme, consumers were asked to respond to a number of statements including:

- I would want to know that the biofuel that I am putting in my tank is environmentally friendly
- I would prefer to spend my money with a company that is supporting environmentally friendly biofuels

Based on conversations with people outside of the fuels industry including those conducting this research, it seems highly likely that if consumers buy from a BP or Esso forecourt, they expect the fuel to be BP or Esso fuel. As discussed in the study this is not the case. This has significant implications for consumer understanding of a label that guarantees sustainable production of biofuels. When asked, 86% of consumers said they would want to know that the fuel they put into their tank is environmentally friendly biofuel which would indicate a track and trace approach is required for consumers.

However, 83% said they would prefer to spend their money with a company that *supports* environmentally biofuel production indicating a potential acceptance of the book and claim concept.

When asked which statement best described their attitude to biofuels applied most to them, 34% would be willing to pay extra to support environmentally friendly biofuel production (book and claim approach) and only 18% said they would only be willing to pay extra if the fuel they were buying actually contained environmentally friendly biofuels (a track and trace approach).

Establishing a concrete conclusion that consumers will or will not accept a book and claim approach is not possible, but it is reasonable to assume that consumers expect

whatever product they are buying to have the physical attributes of the claims made. It may be possible to ensure that consumers have clarity on the claims of a label however this does illustrate the potential for consumer confusion.

Biofuel Consumer Survey

Prepared for



TNS CAPI Omnibus

173980

Joanne Kilpin: 01372 825936



CAPI Omnibus



Introduction

- Independent research was required to collect reliable data among the general public on awareness and attitudes regarding biofuels, and potentially labelling different types
- A nationally representative sample of adults aged 17+ was interviewed, from which we obtained 1,319 interviews with fuel buyers
- Fieldwork was conducted January 23rd – 27th 2008
- Research was undertaken by TNS via their CAPI omnibus
- Interviews were conducted face to face, in respondents homes, among a nationally representative sample of GB adults

NB: Questions about their environmental attitudes & behaviour were asked separately, and later, than the biofuels questions

Profile data

Profile - demographics

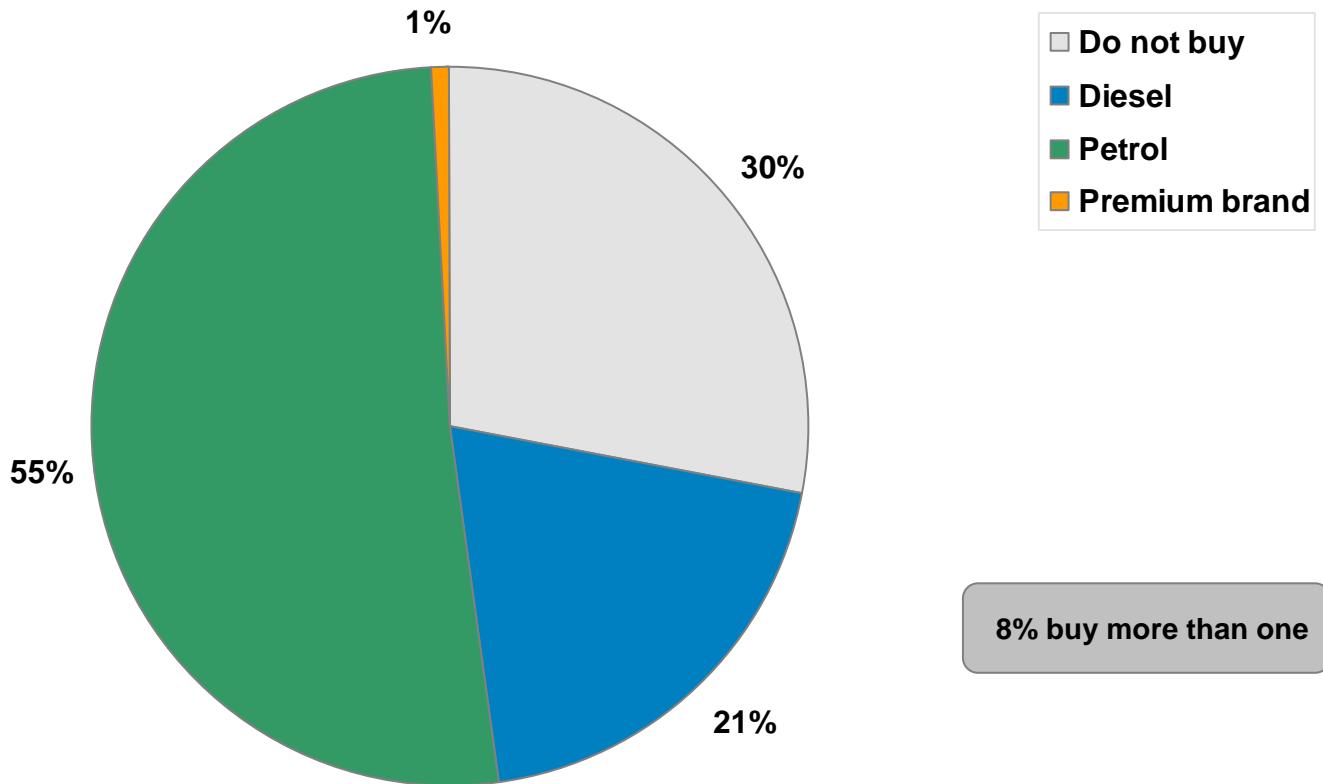
Age	
Male	53%
Female	47%
17-34	25%
35-54	41%
55+	34%
ABC1	62%
C2DE	38%
Working	63%
Not working	37%

White	91%
Non white	9%
North	32%
Midlands	27%
South	41%
Towns	25%
Urban	33%
Rural	41%
Buy from supermarkets	58%
Buy from main oil companies	32%
Annual mileage under 6,000	40%
6-12,000	40%
12,000+	16%

Base : (1319)

Only a tiny proportion of respondents say they buy premium petrol

Q1. Which fuel buy nowadays?



Base : All adults aged 17+ (1990)

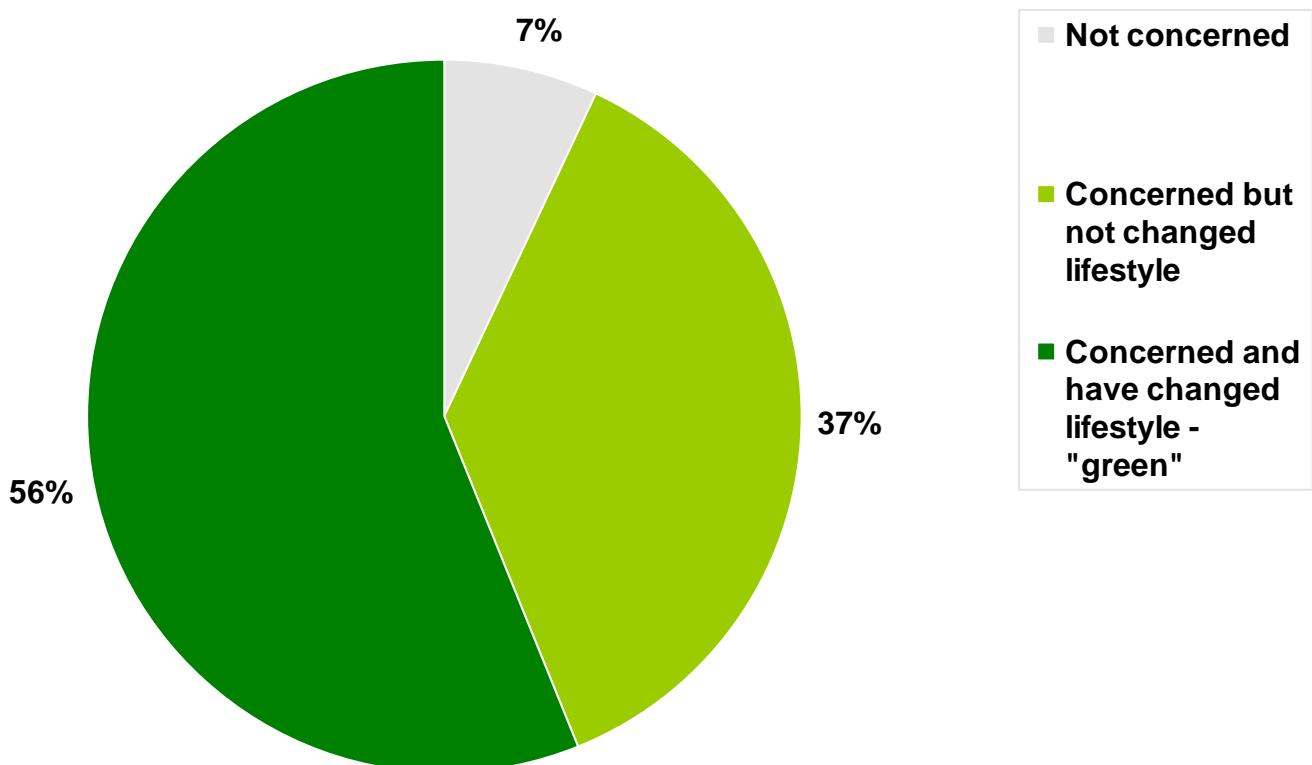
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Environmental questions

NB: In practice these questions were asked at the end of the Omnibus

More than half of consumers can be described as “green”

QE1. Attitude towards environmental issues and climate change?

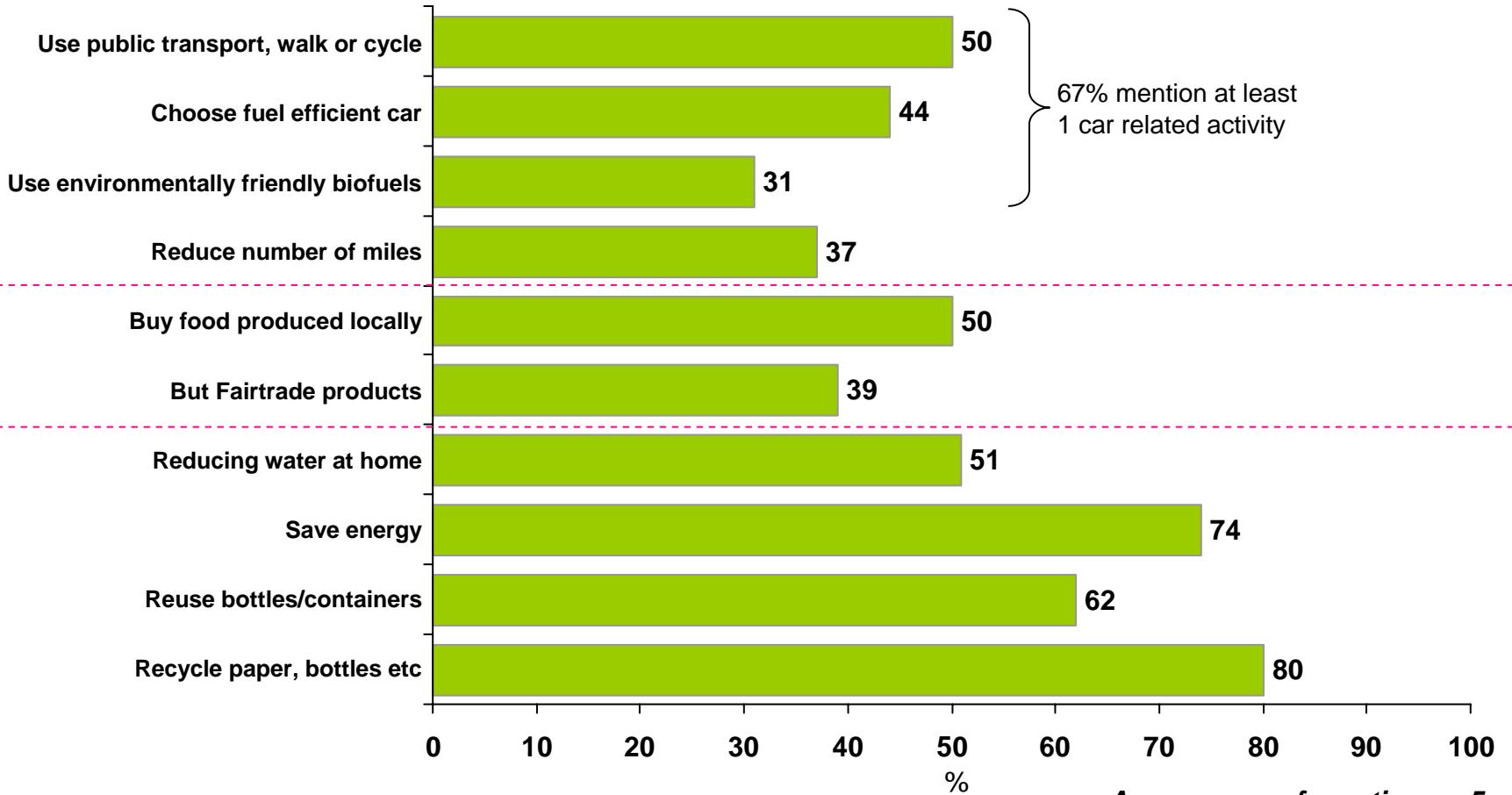


Base : Fuel buyers (1319)

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Energy saving and recycling are important to most people.
A third think environmentally friendly biofuels are important.

QE2. Which activities listed are the most environmentally important?



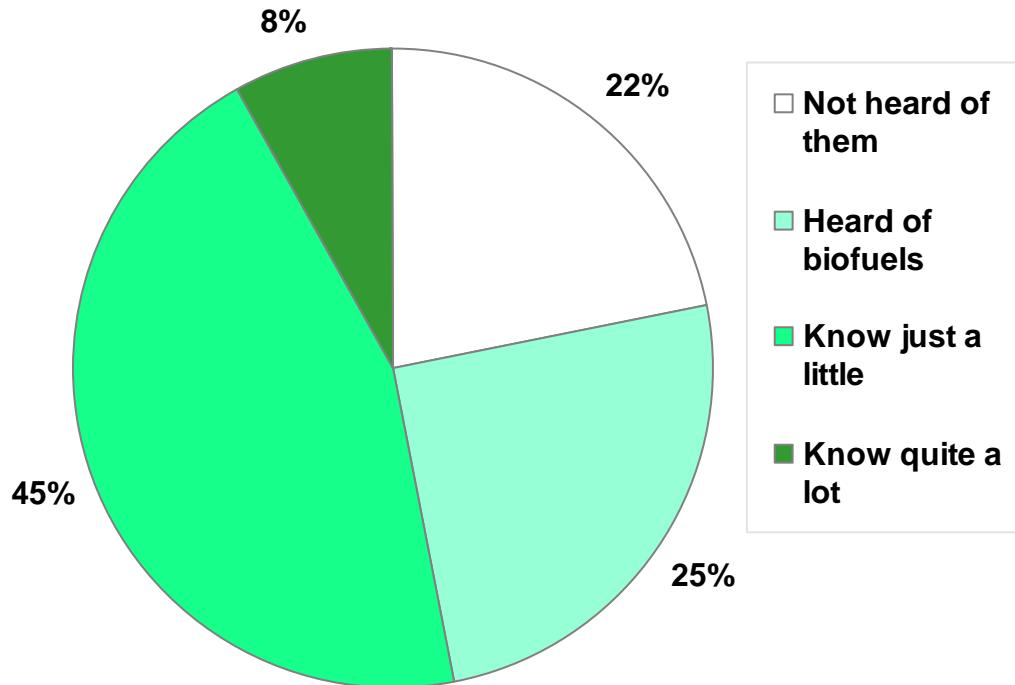
Biofuels

- awareness
& RTFO



Three quarters of respondents had at least heard of biofuels but less than 1 in 10 knew much about them

Q4. Knowledge of biofuels?



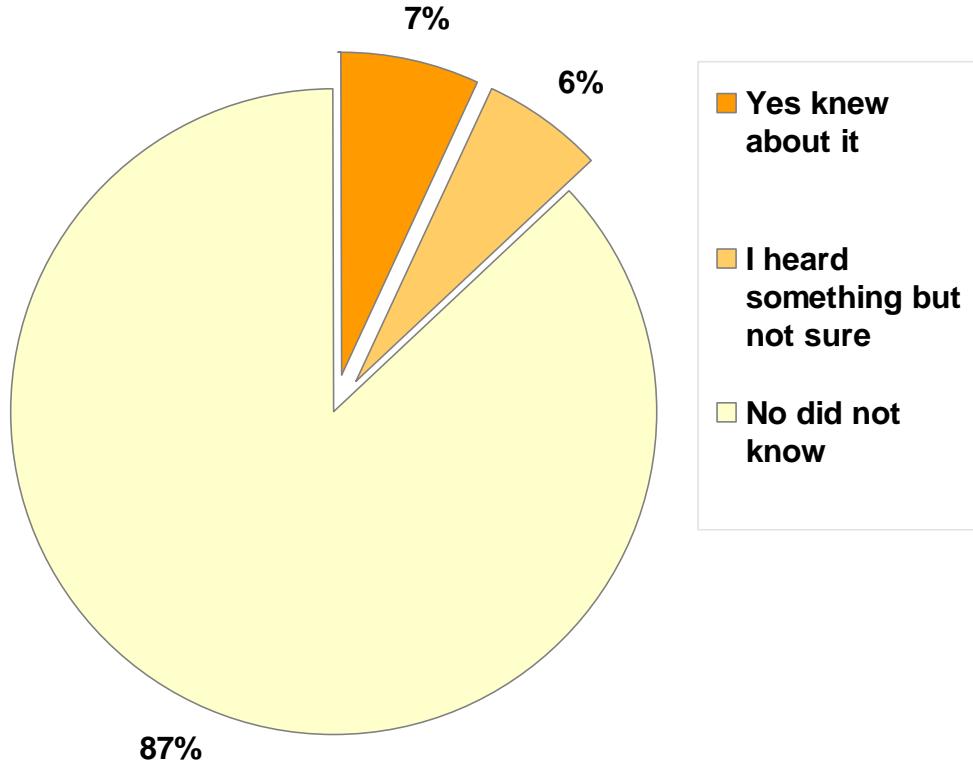
Base : Fuel buyers (1319)

173980 biofuels – January 2008 – 10

1 in 8 respondents had some awareness of the RTFO

Q5. Awareness of new law?

Only 16% who claim to know about biofuels knew about the law

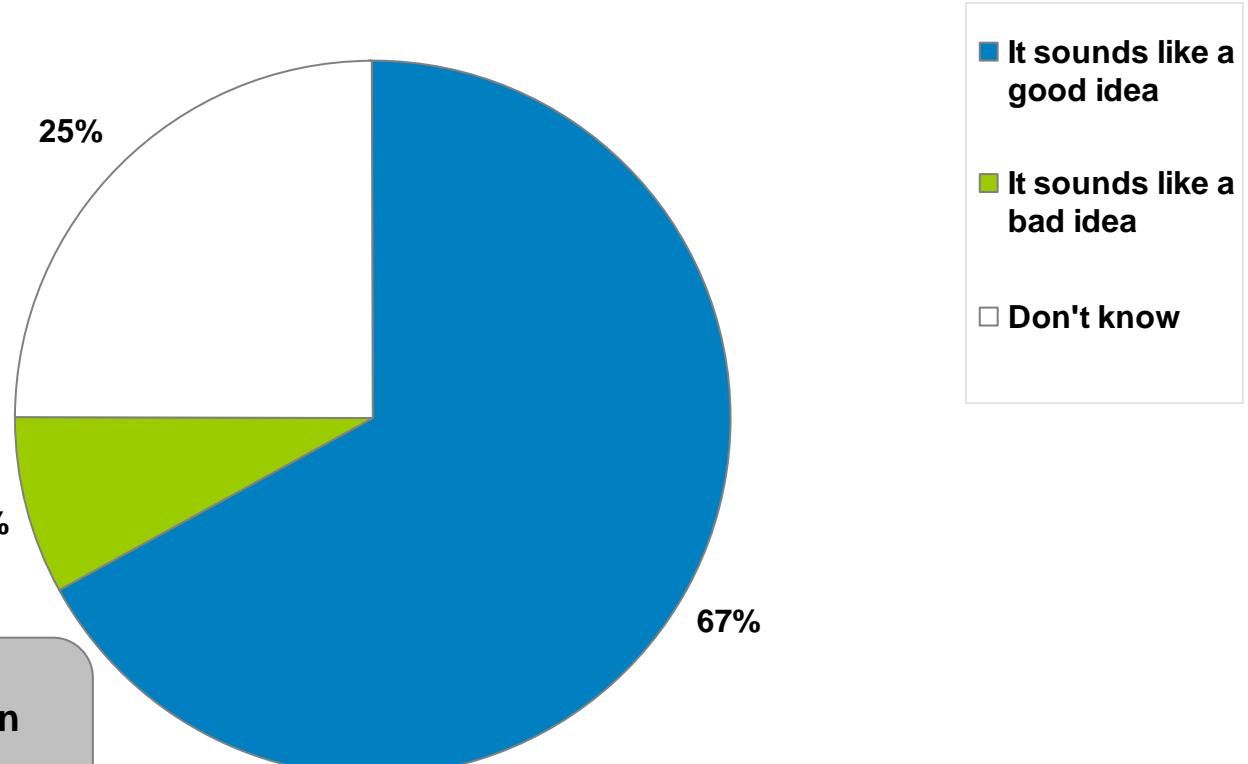


Base : Fuel buyers (1319)

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Most people were positive towards RTFO

Q6. Opinion of proposed law?

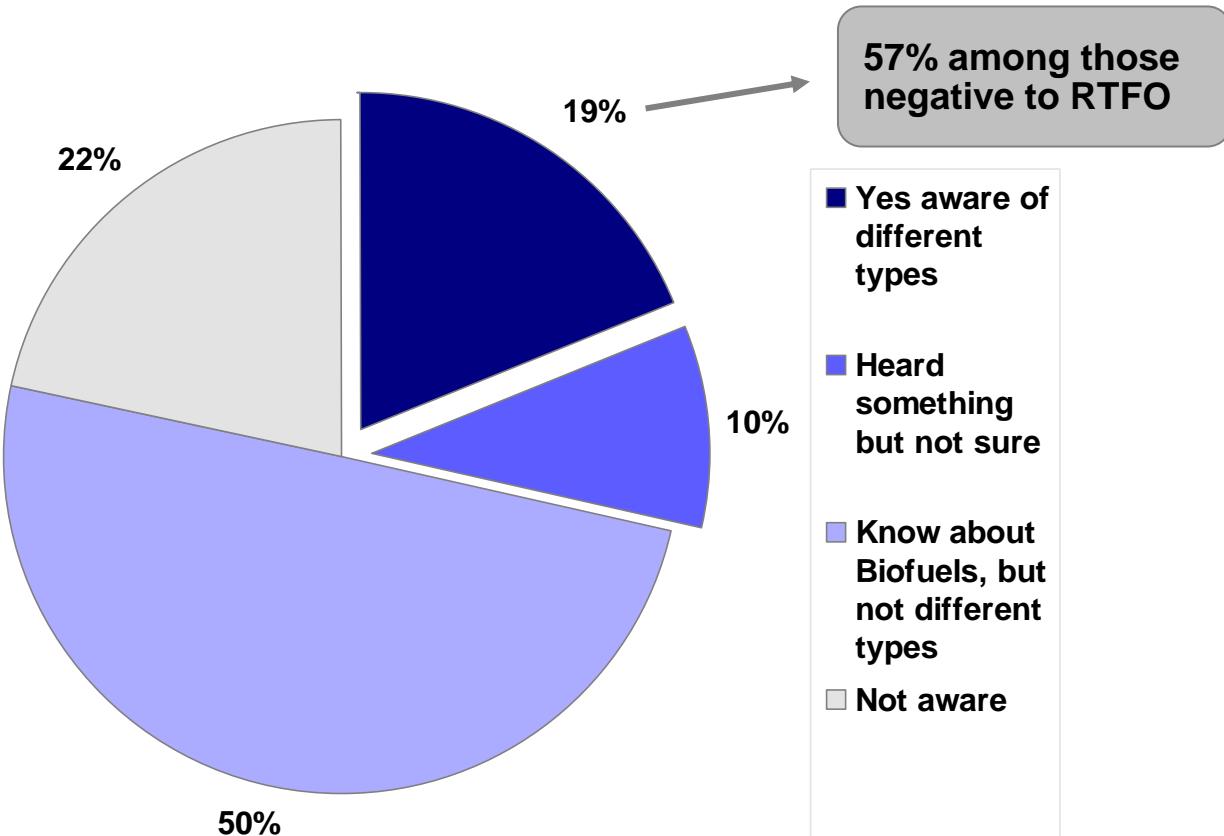


Base : Fuel buyers (1319)

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One in five claim to be aware of differing environmental impact of biofuels

Q8. Awareness that there might be “good” and “bad” biofuels?

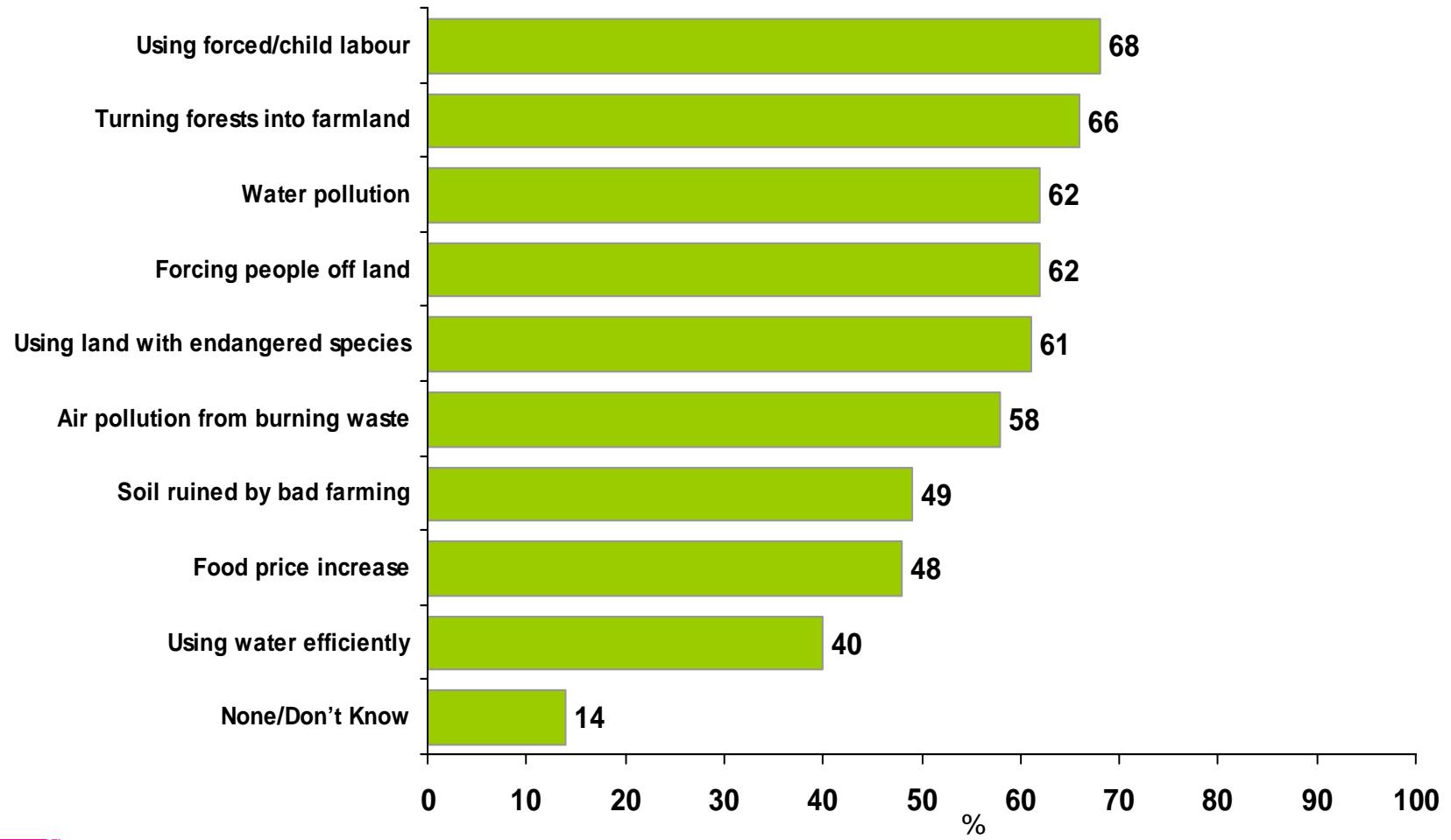


Base : Fuel buyers (1319)

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When asked, most people are concerned about social & environmental issues, with less mentions about food prices

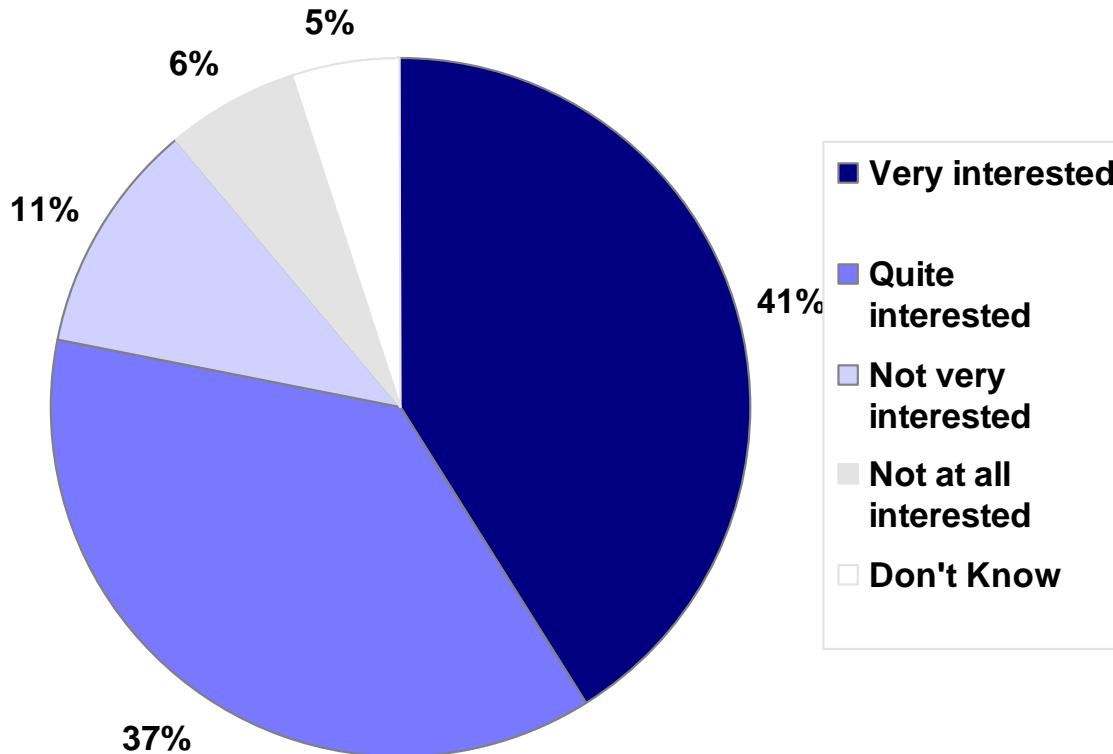
Q9. Which aspects of biofuels production are you concerned about? (shown in rank order)



Buying biofuels

As might be expected, most consumers are positive towards a biofuel label

Q12. Interest in “label” information when buying fuel?

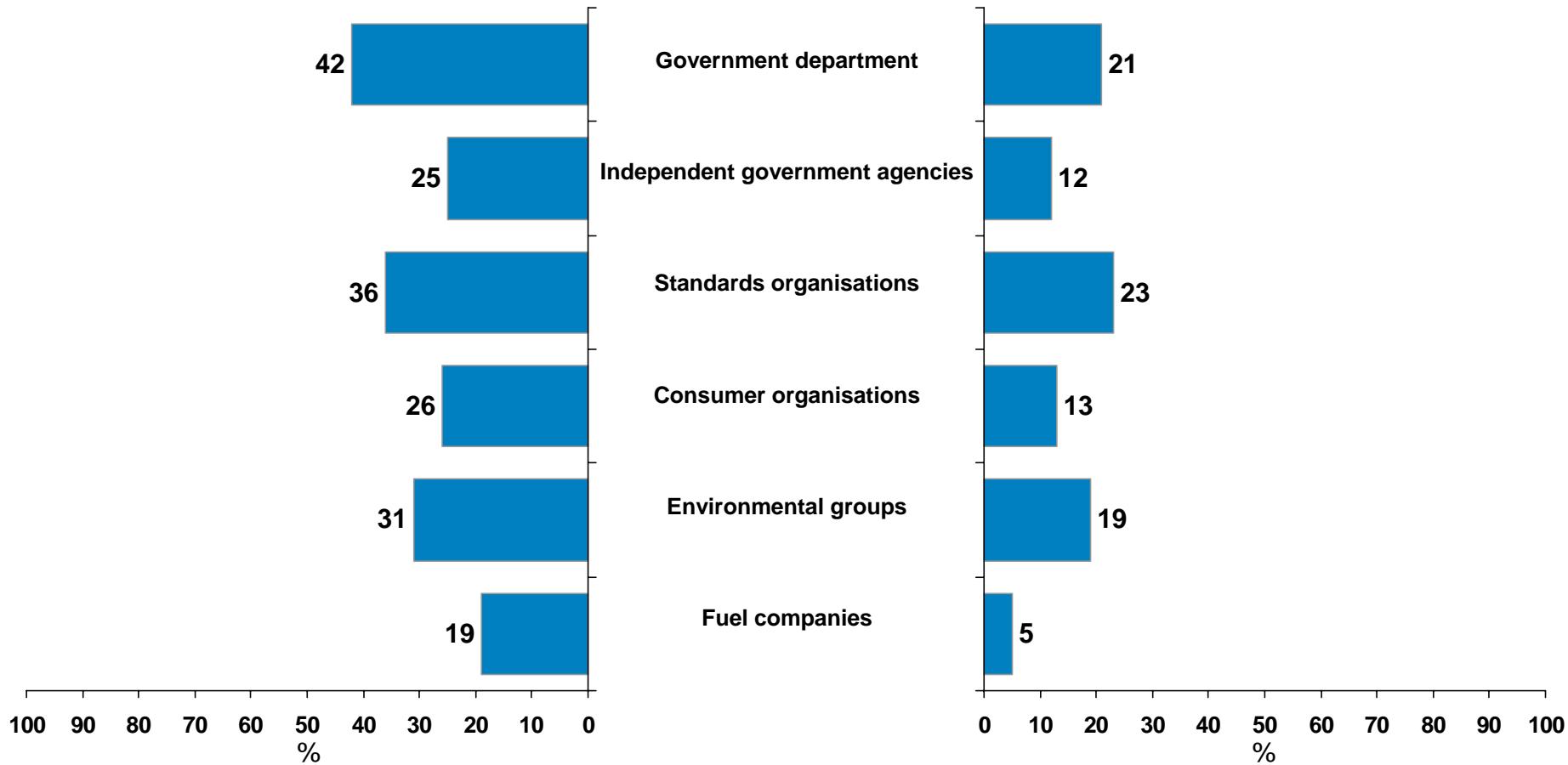


Base : Fuel buyers (1319)

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Standards organisations would be a suitable alternative to Government departments or environmental groups

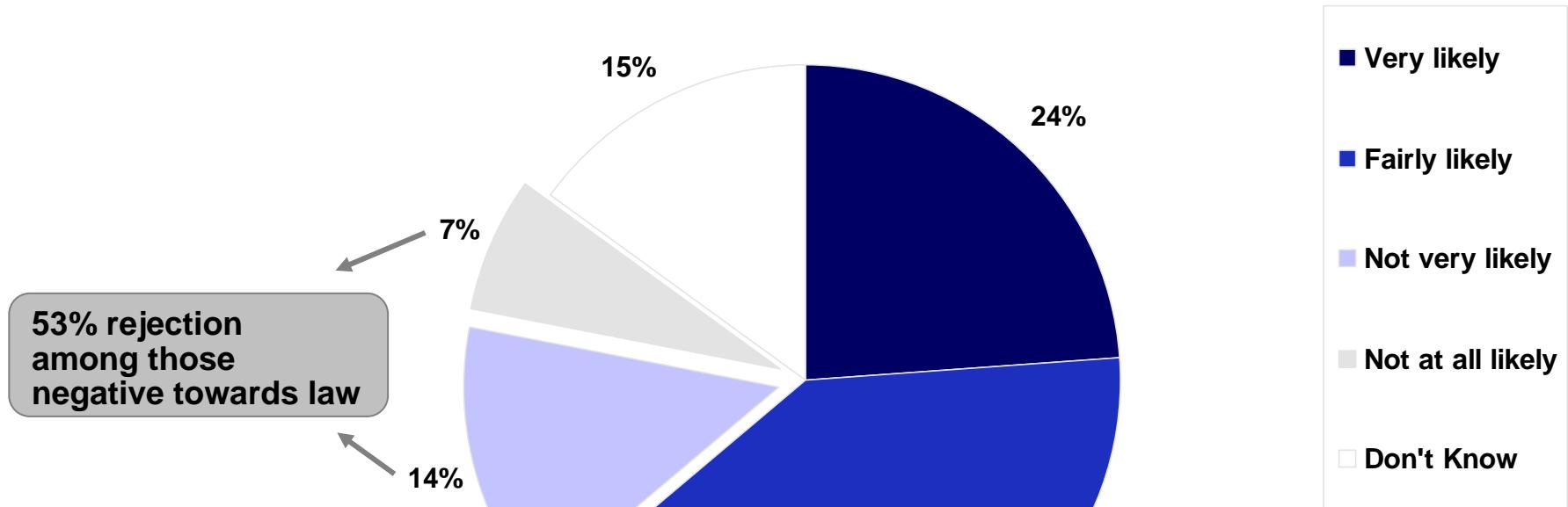
Q13a/b. Who would be suitable to run labelling scheme? Who would be trusted most?



Those interested in labelling (n=1020)

Almost two-thirds of respondents were interested in buying biofuels

Q10. Likelihood to buy if company started selling biofuels at same cost?

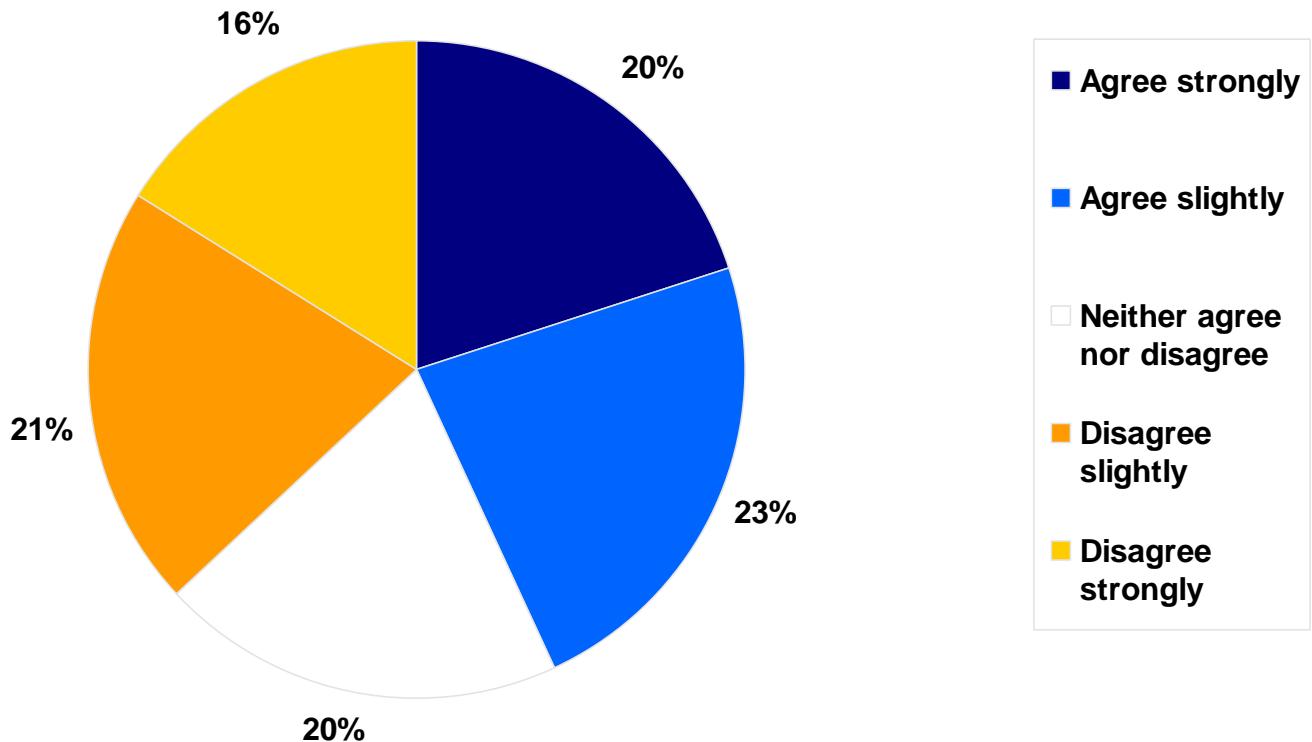


Base : Fuel buyers (1319)

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However, for many consumers price and convenience over ride environmental concerns

Q14d. “Price and convenience are the only things that matter to me”

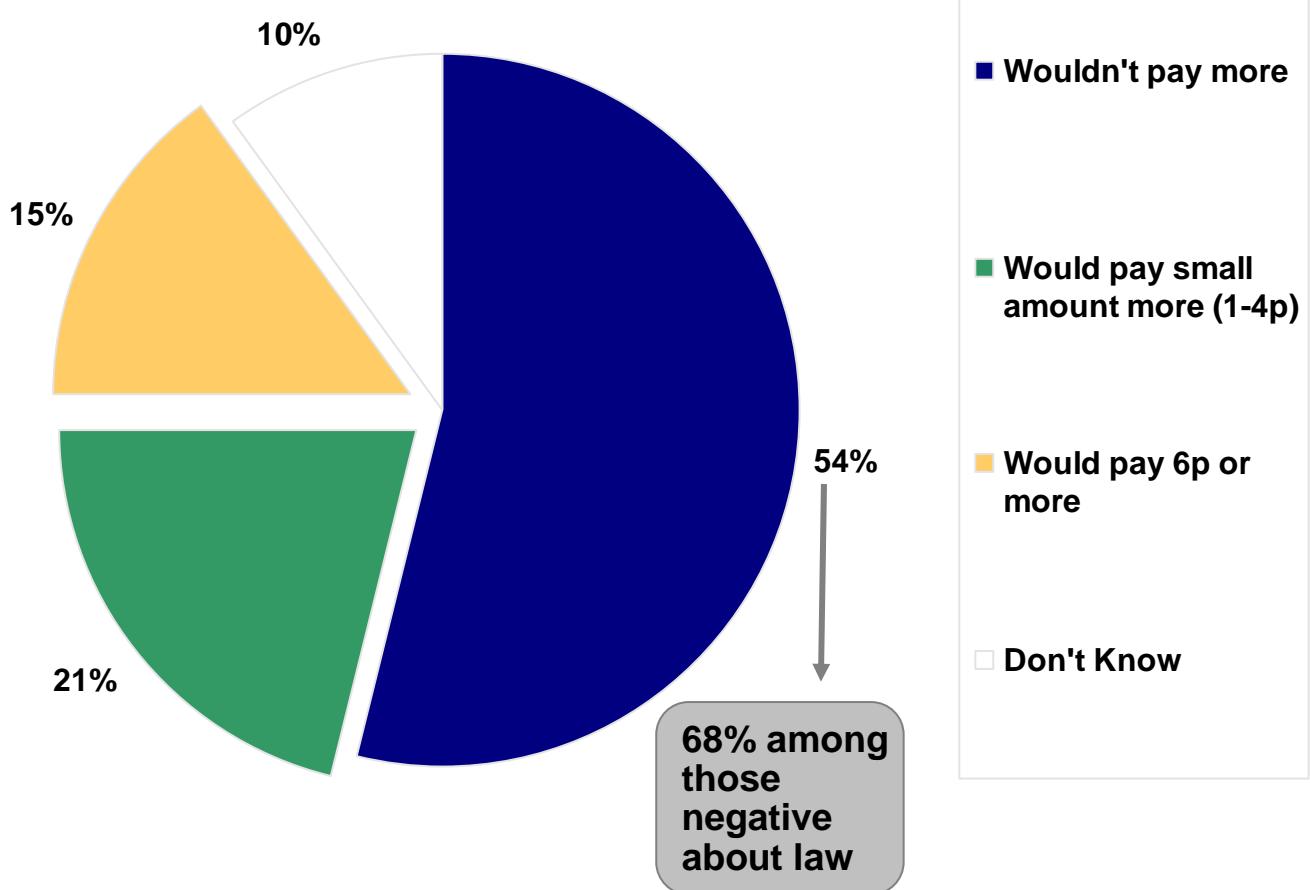


Base : Fuel buyers (1319)

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More than a third of buyers would pay extra for environmentally friendly biofuels

Q11. How much more extra willing to pay for environmentally friendly type of biofuels?

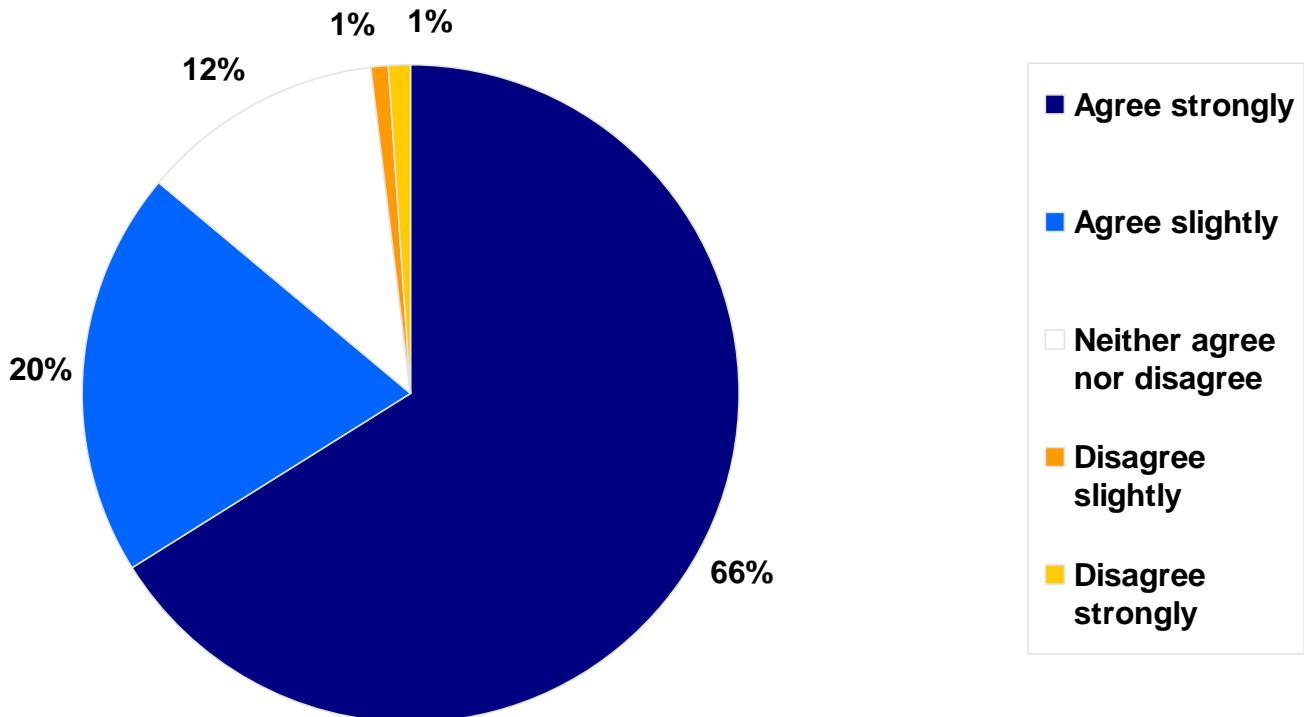


Base : Fuel buyers (1319)

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Most consumers expressed interest in the environmental impact of their fuel

Q14b. “I would want to know that the biofuel that I am putting in my tank is environmentally friendly”

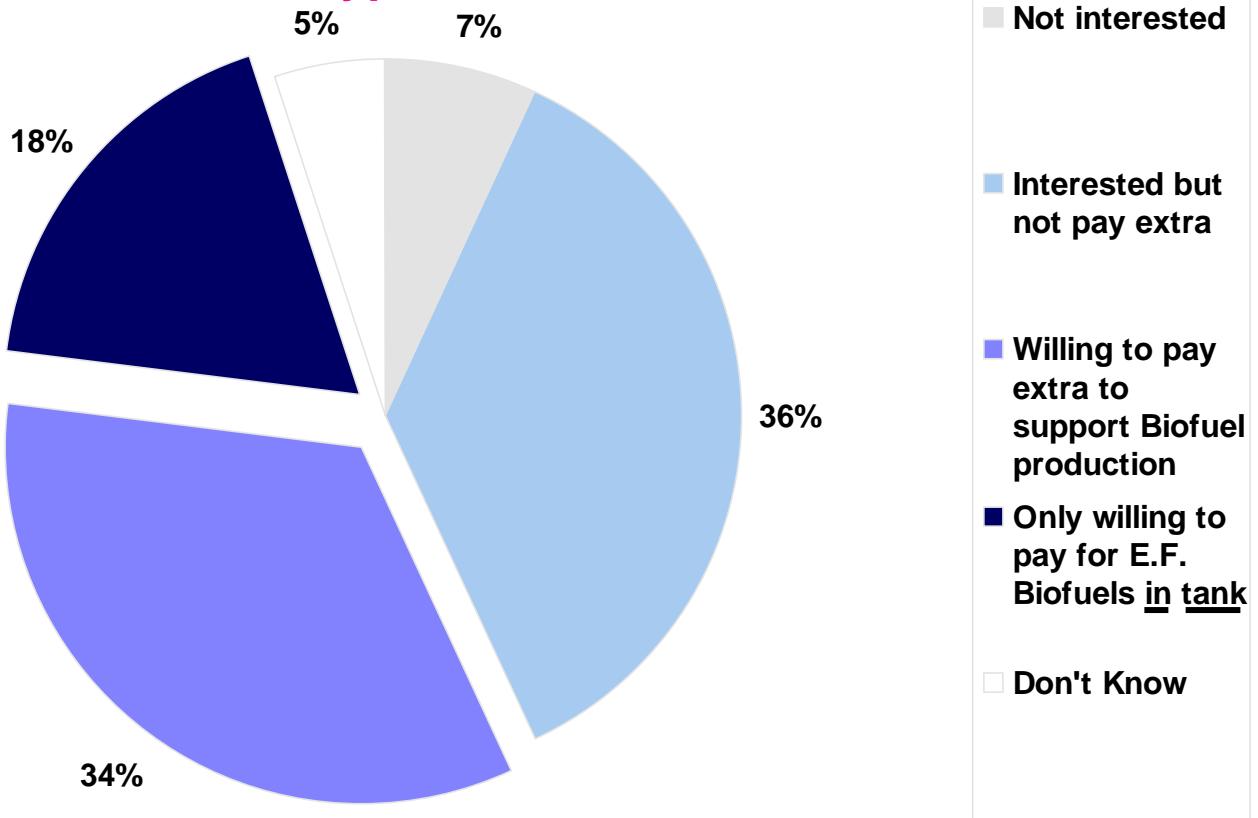


Base : Fuel buyers (1319)

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Most consumers are interested in environmentally friendly biofuels

Q15. Which one of these statements best describes your attitudes towards the different types of biofuels?



Base : Fuel buyers (1319)

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Biofuels

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