

Developing a mechanism for palm oil traceability from plantation to end user

Discussion paper for RT3

A summary of options

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Acknowledgment

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Introduction

At the second RSPO meeting in Jakarta in October 2004, it was agreed that it was necessary to have a mechanism for linking the palm oil being used by RSPO members and other responsible users (including industrial users of palm oil based substances) with the oil palm plantations being managed in accordance with the RSPO criteria. This was seen as critical to the success of the criteria as they were more likely to be implemented in plantations if there was a clear market demand for the oil produced. Consequently a decision was made by RSPO to support a study aiming to develop a fuller understanding of possible supply chain traceability options for RSPO oil.

The study, funded by the Doen Foundation, and undertaken by a team of RSPO members (see Annex 1 for a list of those involved), has two main phases:

- Firstly, identifying possible options for managing the supply chain and establishing which were the most appropriate for RSPO.
- Secondly, elaborating and field testing the selected options.

This paper presents a summary of the work undertaken for the first phase. This involved:

- A review of other sectors to assess the way in which different approaches have been used in practice¹.
- A questionnaire-based feasibility study to collect the views of a range of interested parties on the potential approaches identified² (see Annex 2 for a list of organisations consulted).
- Development of outline methodologies for the implementation of feasible options.

This paper presents a summary of the work setting out:

- Supply chain traceability: the five potential options identified for tracing palm oil through the supply chain (section 1);
- Verification options: options for verifying that users are implementing the requirements (section 2);
- Recommendations: recommendations on which options should be field-tested (section 3)

These recommendations will be presented and discussed at the third RSPO meeting in Singapore in November 2005 and, based on these discussions, preferred options will be identified and field testing begin.

¹ Background review of supply chain traceability options for RSPO, Discussion Paper 1, ProForest, 2005. Available from www.proforest.net/publications

² Key findings from feasibility study of supply chain traceability options for RSPO, Discussion Paper 2, ProForest, 2005. Available from www.proforest.net/publications

1. Approaches to traceability for RSPO oil

The most widely used approach to traceability through supply chains is 'chain of custody'. The general principles of chain of custody are introduced in Section 1.1, followed by a more detailed discussion of the options for RSPO in Section 1.2.

1.1. Introduction to chain of custody

Chain of custody (CoC) is a mechanism for tracing product through the supply chain from its origin to end-use. For palm oil this involves tracing from the plantation and primary processing through each stage of refining and manufacture to the final oil-containing product. This is shown schematically in Figure 1.1.

There are a range of ways in which chain of custody can be implemented, but in practice the basis for most approaches is to implement and verify control for each organisation (primary producer, refiner, manufacturer etc) in the chain. There are four main elements to this control (see Figure 1.2):

- Control of product sourcing: Adequate control of purchasing and goods inward to ensure that only materials meeting specific standards/requirements (e.g. RSPO criteria) are purchased and that a link is established with the previous organisation in the chain.
- Control of production process: Proper control of the internal processing of the specified material including reconciliation between the quantity of the specified material bought and the quantity of product sold.
- Control of sales and dispatch: Adequate control of sales and dispatch of final products to ensure that only materials meeting the specified requirements are sold and dispatched as such and that a link is provided to the next organisation in the chain.
- Controls of labels and claims: Control of claims and labelling in accordance with procedures specified by the standards or scheme

For each of the options reviewed in the next section, the way in which these controls can be implemented in practice is discussed.

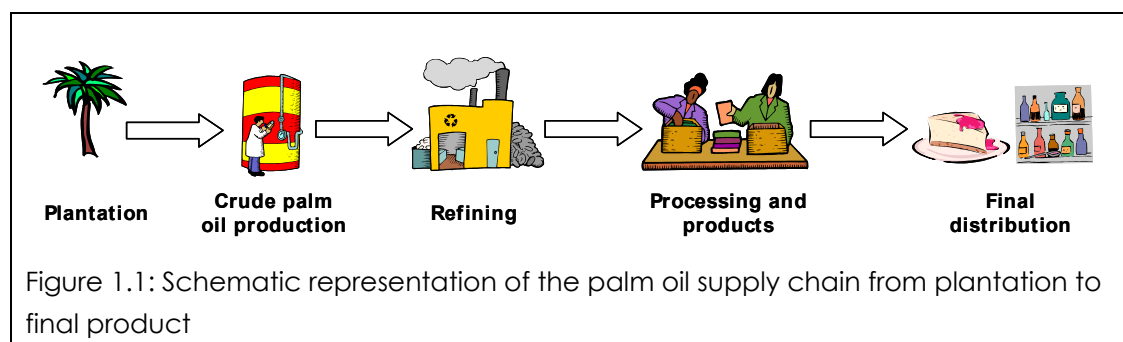
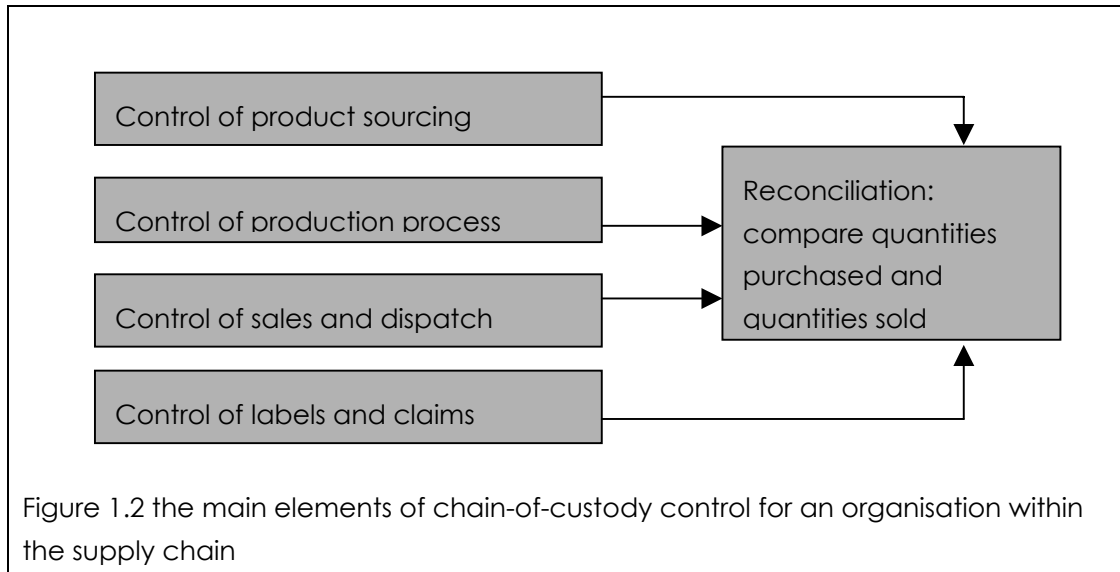


Figure 1.1: Schematic representation of the palm oil supply chain from plantation to final product



1.2. Chain of custody approaches

As sustainability initiatives have become popular in the natural resources commodity sector, different supply chain approaches have been adopted. For example, initiatives are ongoing within the coffee (fair trade labelling), banana (UK Banana Code), fisheries (Marine Stewardship Council) and wood (Forest Stewardship Council) sectors. Irrespective of the nature and the emphasis of the initiatives, the supply chain approaches can be grouped under three broad categories:

- Segregation
- Controlled mixing
- Book and claim

The operational mechanism for segregation and controlled mixing follows conventional CoC processes (Section 1.1) only differing in the type of internal control system put in place to ensure that materials from different sources are traceable through the production system. The book and claim approach is rather different, and does not make a link between product sourcing and different stages of production.

The paper describes for each CoC approach:

- The supply chain and how it works in practice,
- Advantages and disadvantages of applying the approach,
- Views on the approach established through the feasibility study,
- Practical implementation requirements,
- Case study examples of how each supply chain mechanism works in practice.

1.2.1. Segregation approach

There are two approaches using the segregation mechanism. These are:

- Bulk commodity (RSPO Grade Oil);

- Identity preserved (IP)

Both segregation approaches deliver oil which originated from plantations implementing the RSPO criteria. The difference between the two approaches is that in the bulk commodity approach, all oil originating from RSPO plantations is treated the same and can be mixed, while in the IP approach, oil from a single plantation or primary processor is kept separate from all other oil (including RSPO oil from other sources) allowing the final product to be traced back to a particular plantation source.

1.2.1.1. Bulk commodity (RSPO grade oil) approach

Development of RSPO oil as a grade of palm oil would allow it to be traded as a commodity while still keeping it separate from conventionally produced palm oil. This would be based on the use of CoC on a large scale so there would not be any link between a particular batch of RSPO oil and a specific plantation, but all RSPO oil would have originated in a plantation implementing the RSPO criteria. This approach would be appropriate once supply and demand is for tens or hundreds of thousands of tonnes of palm oil per annum.

Advantages and Disadvantages

The advantage of the segregation approach in which all 'RSPO oil' originates in a RSPO plantation is that it is clear and easy to communicate. The advantage of the bulk commodity in relation to IP is that by operating at a large scale, costs are better controlled.

The disadvantage relative to the IP approach is that it cannot be implemented in isolation, but depends on the production and use of sufficient quantities of RSPO oil to allow a bulk commodity to be created. The disadvantage in relation to the controlled mixing options discussed in 1.2.2 below is that it requires segregation of RSPO oil throughout the supply chain, which can be costly.

Respondents' preference for use in RSPO oil trade

This is the most favoured approach. Over two-thirds of respondents including both industry and NGOs indicated that this was an acceptable approach because:

- Segregation is considered credible and offers a high degree of assurance that oil is from plantations that conform to RSPO standards;
- It is likely to be much cheaper than conventional IP;
- Once established, the operational mechanisms can adapt to both small and large volumes of trade.

Practical implementation requirements

Control of product sourcing: Implementation of a mechanism to ensure that RSPO oil is purchased for all RSPO manufacturing sources. Procedure to ensure that it is checked on arrival to confirm that it is RSPO and that it is stored separately from non-RSPO oil. Quarantining of any uncertain material.

Control of production process: Segregation of RSPO oil from all non-RSPO oil throughout the production process. This can be achieved either by physical separation using different production lines, storage tanks etc. or by separation in time by having RSPO and non-RSPO batch production. Reconciliation between the quantity of RSPO material bought and the quantity of RSPO product sold should reinforce production control.

Control of sales and dispatch: Adequate control of sales and dispatch of final products to ensure that only products made with RSPO material are sold and dispatched as RSPO. Provision of documentation to provide a link to the next organisation in the chain.

Controls of labels and claims: Control of claims and labelling in accordance with procedures specified by RSPO.

Box 1.2.1.1 Case study for the bulk commodity approach: Organic Food, sourcing from farm to customer

Organic food is a sector where segregation is essential, but food from different producers is regularly bulked. Such bulking must be acceptable from a number of different regions with different local regulations. Despite these differences, standards must be maintained by the Organic Certification Standards. An example of the approach of one UK-based organic distributor is set out below:

Produce from the UK: All goods leaving the farm are accompanied by delivery notes stating the quantity and type of product being dispatched. Each delivery note is checked against the delivery when it is received at the distribution center.

Products from the UK are delivered in two ways. Either by the farmer themselves or dedicated lorries which visit several farms on each trip. Each farmer will have a delivery note that they give the lorry driver and this is checked against the delivered goods.

Produce from Europe: Products from Europe work by the same system but there is an additional layer of control called a CMR. This is a legal document that accompanies the product from the point of departure to delivery at the distribution center.

Produce from outside-Europe: Any goods coming in from outside the EU are accompanied by documents that are signed by the port authority of the country of origin and stamped by the port authority of the port of arrival. These documents have to be kept for 24 months. The products cannot be sold as organic unless they have the original documents on file.

All goods (whatever their origin) have to be clearly marked on the delivery note and each box as organic. This is also checked at the goods-in stage and each delivery note is stamped confirming these checks have been made.

Source: Able and Cole, A 'direct to your door' independent organic distributor.

1.2.1.2. Identity preserved (IP) mechanism

Chain of custody based on the Identity preserved mechanism requires segregation of RSPO oil throughout the production process to provide traceability from a specific plantation or primary processor to the final users. This approach is probably most appropriate for relatively small-scale situations and has already been used for palm oil in association with the MIGROS Criteria³ for Responsible Oil Palm, for quantities of 2-3000 tonnes per annum.

Advantages and Disadvantages

The advantage of this approach is that companies can implement it without the need for any external framework provided they are able to bear the cost. It has already been used in the sector (based on controls implemented for organic palm oil) providing a model which can be used immediately. It also provides the basis for a very clear marketing message.

The disadvantage is that it is expensive and work-intensive to achieve; even oil from different RSPO sources has to be segregated.

Respondents' preference for use in RSPO oil trade

The study indicated that about 57% of respondents including both industry and NGOs believed that this was an acceptable approach because:

- It is considered credible and offers the highest degree of assurance that oil originates from plantations that conform to RSPO standards.
- The techniques are used in other natural resource commodity sectors and can be adapted easily to the oil palm sector.

Practical implementation requirements

To be able to implement the IP approach requires a complete segregation of raw material sources at the mill gate as well as managing materials through different stages of production without mixing materials from different sources. The main elements required are the same as the bulk commodity approach except that the internal control mechanisms for IP must ensure that segregation is maintained even between RSPO oil from different sources

Box 1.2.1.2 Case study for the identity preserved approach: stage by stage handling of IP crops from the seed company to the end customer

The IP system is necessarily technical as each stage must be stringently separated and controlled and all sources must be monitored. Other industries that use this system include the meat and the GM free agricultural commodities sectors. Below

³ The MIGROS Criteria were developed for use by MIGROS to provide a definition of responsible production of palm oil as a basis for MIGROS procurement. Further information from www.migros.ch

is an example from the seed production sector where segregation is also extremely important.

Stage 1 Production

The growers and customers define the specifications and testing procedures. The Seed Company supplies seeds to and provides certificates to the grower. The grower tests samples of the seed to reconfirm purity; selects field locations based on ability to segregate to prevent contamination; cleans all equipment used throughout the process and plants the field.

The customer inspects field for contamination and management practices

Stage 2 Shipment handling

The grower cleans transportation handling equipment, storage facilities and harvests and stores the product. They then test a sample product. The customer calls for the delivery of a specified quantity of product.

The grower cleans the handling and transportation equipment, loads the product assuring there is no contamination and using a bulk liner (container) ship the product, and provides certificates to the customer.

Stage 3 Delivery documentation

The customer separates and cleans storage and handling equipment; tests delivered product; stores product; processes each lot of product separately to allow for traceability of product back to grower.

Stage 4 Archiving documentation for future reference

The grower retains all records for two years (e.g., planting date, field number, seed identity, inputs used, harvest date, storage bin number, handling and transportation, equipment numbers, delivery date, etc.).

Source: Vorley B. (2005). Non-conventional initiatives for sustainable commodity chains: with focus on traded bulk commodities)

1.2.2. Controlled mixing approach

Segregation approaches are widely implemented by many natural resource commodity sectors. However, as already discussed segregation can have significant cost implications especially for producers.

In addition, there may be equity implications for small-scale oil palm growers. If there is a move by many primary processors towards RSPO production while uptake tends to be slow among smallholders and small-scale producers (who often lack the capacity and resources needed to adjust to a new system in the market) then they may find that the market for their non-RSPO product becomes very restricted.

One way of addressing these concerns is through approaches which allow mixing of RSPO and non-RSPO oil in a controlled way. This type of controlled mixing approach

has been used very successfully in the wood products sector by initiatives such as the Forest Stewardship Council (see box 1.2.2.1 below).

The main issue which arises with the use of controlled mixing is to establish what minimum requirements (if any) need to be in place for the material from non-RSPO sources.

There are two types of supply chain approaches applying the control mixing mechanism and these are:

- Percentage-in/ percentage-out (mass balance)
- Percentage (%) based claims

1.2.2.1. Percentage –in /percentage-out (mass balance)

The percentage-in percentage-out approach allows mixing of RSPO and non-RSPO oil at any stage in the production process. The percentage of RSPO oil entering production is monitored and an equivalent percentage of the product is labelled as RSPO. No direct link is required between raw material source and the product but there is a direct link between the volume of RSPO material purchased and the volume of product sold as RSPO. This provides the basis for a claim that links the product to RSPO production but does **not** allow a claim about the actual content of the product.

Advantages and Disadvantages

The advantage of this approach relative to segregation is that it is much cheaper and straightforward to implement. The advantage relative to the percentage based claims approach discussed in 1.2.2.2 below is that the link between the volume of oil produced and the volume of product sold is maintained, ensuring that any increased demand by users results in increased demand for supply.

The disadvantage is that it breaks the direct link between production and use because the actual oil used could be from any source. An additional issue is the need to consider some degree of control on the sources of the non-RSPO oil.

Respondents' preference for use in RSPO oil trade

This approach was not a preferred option for respondents (and had no support from NGOs interviewed) because there was a perception that it lacks credibility in providing reasonable assurance that raw materials conform to RSPO standards

Practical implementation requirements

Control of product sourcing: Implementation of a mechanism to control the purchase of RSPO oil to ensure that the quantity purchased matches the quantity of RSPO product needed. Procedure to ensure that 'RSPO' origin of material is confirmed. No requirement for separate storage or quarantining.

Control of production process: No control necessary in the production process. Reconciliation between the quantity of RSPO material bought and the quantity of RSPO product sold forms the basis for control of chain of custody.

Control of sales and dispatch: Adequate control of sales and dispatch of final products to ensure that the quantity of products sold as RSPO is consistent with the quantity of RSPO raw material purchased. Provision of documentation to provide a link to the next organisation in the chain.

Controls of labels and claims: Control of claims and labelling in accordance with procedures specified by RSPO.

Box 1.2.2.1 Case study: Forestry Stewardship Council (FSC) Controlled mixing approach

Very early on in the development of the FSCs ten years experience running a certification scheme, it became apparent that for many products it would be possible to source some of the raw material from certified forests, but almost impossible (at least initially) to source all of it from certified sources. As a result a decision was made to allow certified products to contain a mixture of certified and uncertified material.

Initially this was achieved through 'percentage labelling'. Product labels indicated the percentage of certified material in the individual product or product line (eg 70% of the material used to make this product is from certified sources). In this approach, all of the product from a particular process could be labelled with the percentage label.

While this approach worked reasonably well, and was adopted by other emerging timber certification schemes, there were also serious issues which needed to be addressed:

Control of the uncertified material: it quickly became clear that it would undermine the credibility of certified product if the uncertified material they contained was from controversial or poorly managed sources. Therefore, a set of requirements for the uncertified material – less rigorous than certification but providing an acceptable baseline – was introduced.

Control of minimum certified content: although the approach was developed to try to simplify the implementation of chain of custody controls, in some situations the availability of certified raw material was so varied that complex systems were still needed to ensure that all product contained the stated minimum.

Demand for certified raw material: because all products made were considered certified (using a percentage-based label or claim), increased demand for certified product did not feed back into increased demand for certified raw material (and thus greater areas of sustainably managed forest).

As a result, a decision was made by a working group including industry, environmental NGOs and social organisations that a new approach should be used – mass balance or percentage-in percentage-out. This approach allows a proportion of product equal to the proportion of certified raw material to be considered certified.

This has two advantages relative to %-based claims. Firstly it removes the need to control the minimum certified content of individual products greatly simplifying management. Secondly, it re-establishes a direct link between the volume of certified material purchased and the volume of certified product sold, ensuring that as demand for certified product grows, so does demand for certified raw material.

1.2.2.2. Percentage (%) based claims

The % based claims approach allows mixing of RSPO and non-RSPO oil at any stage in the production process provided that the quantities in a particular product or product line are controlled, and that all claims made indicate clearly the proportion of oil from RSPO sources.

In this approach, the percentage of RSPO oil entering production is controlled to ensure that it always meets a defined minimum amount (X%). All oil produced can then be labelled as X% RSPO. This provides the basis for the end-user to claim that a product contains X% RSPO oil.

Advantages and Disadvantages

The advantage of percentage labelling is that it removes the need for complete segregation of RSPO oil while still maintaining the link between the RSPO oil and plantations implementing the RSPO criteria. It would also allow producers to continue to purchase non-RSPO oil from small-holders while producing a RSPO product.

The disadvantage relative to the segregation approaches discussed above is that non-RSPO oil is included in the RSPO product. The disadvantage relative to the mass balance approach is that because **all** (100%) of production can have a claim attached to it (e.g. This product contains 30% RSPO) there is no pressure to increase purchases of RSPO oil to reflect increasing demand from customers.

Respondents' preference for use in RSPO oil trade

This approach was not a preferred option with respondents because it was considered that:

- It lacks credibility in providing reasonable assurance that raw materials conform to RSPO standards;
- It is potentially prone to fraud and corruption.

Practical implementation requirements

Control of product sourcing: Implementation of a mechanism to control the purchase of RSPO oil to ensure that the quantity purchased is sufficient to meet the minimum percentage being claimed and is received in time to ensure that production has sufficient RSPO sourced material. Procedure to ensure that 'RSPO' origin of material is confirmed.

Control of production process: Control of input to the process to ensure that the quantity of RSPO oil claimed is entering the process. Reconciliation between the

quantity of RSPO material bought and the quantity of RSPO product sold to confirm control.

Control of sales and dispatch: Adequate control of sales and dispatch of final products to ensure that the percentage claim is consistently met. Provision of documentation to provide a link to the next organisation in the chain.

Controls of labels and claims: Control of claims and labelling in accordance with procedures specified by RSPO.

1.3. Book and claim approach

The book and claim approach addresses supply chain control in a very different way from the approaches discussed above. Rather than seeking to have traceability through each stage in the supply chain (see Figure 1.1) it relies on providing a direct link between the volume of RSPO oil produced at the beginning of the chain and the volume of oil purchased at the end of the chain (see Figure 1.3).

Thus, in the book and claim approach a user specifies RSPO oil to a supplier who then ensures that an equivalent quantity of RSPO oil is purchased from a plantation implementing the RSPO criteria. This approach is based on ensuring that when RSPO oil is specified by a user, that quantity of RSPO oil enters the supply chain, but it does not seek to make any physical link between plantations implementing the RSPO criteria and the user requesting RSPO oil – the actual oil delivered could be from any source. This approach is dependent on the existence of a robust mechanism to ensure that whenever RSPO oil is specified it is actively purchased and enters the supply chain.

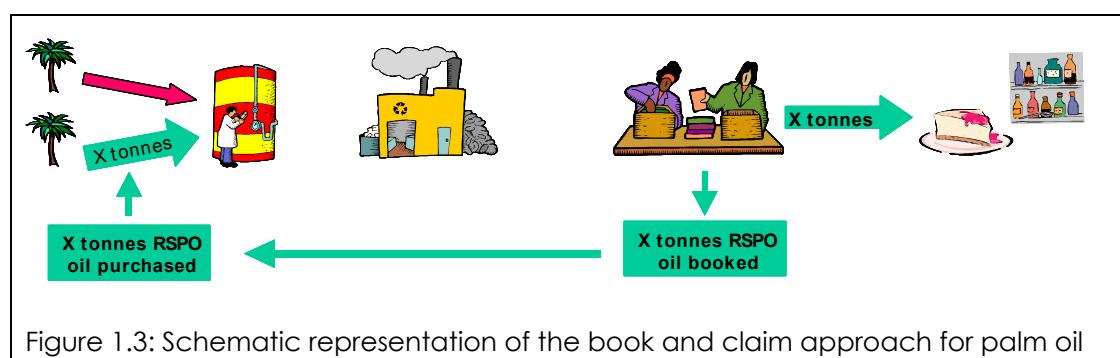
Advantages and Disadvantages

The advantage of the book and claim approach is that it removes the necessity for costly product tracing through the production process while still maintaining a direct link between demand and supply of RSPO oil.

The disadvantage is that the actual oil used could be from any source breaking the physical connection between production and use.

Respondents' preference for use in the RSPO oil trade

The book and claim approach was not a preferred option for most of those interviewed. This is because the perception was that:



- It lacks credibility with regards to RSPO procurement;
- There is inadequate guarantee of RSPO materials in the supply chain;
- The mechanism may not be transparent;
- It may encourage corruption.

Practical implementation requirements

The practical implementation requirements are outlined in the case study below (see Box 1.3):

Box 1.3 Case study: Green-e Renewable Energy Certification Programme

Green-e certifies renewable electricity products that meet a set of environmental and consumer protection, standards. The standards were developed by the US's Green Power Board and Green Pricing Accreditation Board.

A tradable renewable certificate (TRC) is created when a renewable facility generates electricity. Each TRC is unique and represents all of the environmental attributes or benefits of a specific quantity of renewable generation, namely the benefits that everyone receives when conventional fuels, such as coal, nuclear, oil, or gas are displaced.

How the scheme operates: When a renewable energy facility operates, it creates electricity that is delivered into the national grid. To facilitate the sale of renewable electricity, a system was established that separates renewable electricity generation into two parts: the electricity delivered into the grid and the environmental attributes or benefits of that generation. The environmental attributes are sold separately as renewable certificates

The user of Green-e renewable energy makes a request to a supplier (or service provider) who ensures that the right amount of energy is delivered through the national grid to the user. The supplier however, is not obliged to provide information to the user which links the energy being supplied to any source of renewable energy facility (e.g. wind, geothermal etc).

To be able to supply renewable energy through the national grid to users, the supplier participates in the Green-e certification scheme as a certified provider. Under the scheme, the supplier purchases a certificate identifying it as the sole owner of the environmental attributes of a specific megawatt hour (MWh) of energy added to the grid. Independent verification ensures that no two certificates represent the same MWh of energy. The purchase of renewable certificates allows the supplier to offset conventional electricity generation with the corresponding renewable generation, which is connected to the grid.

Supply chain verification: Certified providers undergo an annual verification audit to document that the company purchased enough quantity and type of renewable certificates to meet customer demand and marketing claims, and that the renewable certificates are sold only once. Retail or wholesale power marketers who participate in the Green-e programme conduct the annual

verification process. The power marketer must employ an independent certified public accountant or certified internal auditor to conduct this verification in accordance with the procedure set forth in the Green-e Annual Verification protocol. The verification process is based on company contracts, invoices and billing statements.

Main issues to be considered by RSPO are:

- Determination of the 'book and claim' procedure for product purchasing and supply and
- Determination of minimum criteria for auditing procedures and maintaining supply chain credibility.

2. Verification

2.1. Approaches to verification

In order to ensure that the preferred supply chain for RSPO functions effectively, there needs to be a credible mechanism to verify that it is being implemented. To achieve this will require:

- A verification procedure that is transparent and credible
- A competent and recognised verification organisation

There are three potentially applicable verification options for RSPO. These are:

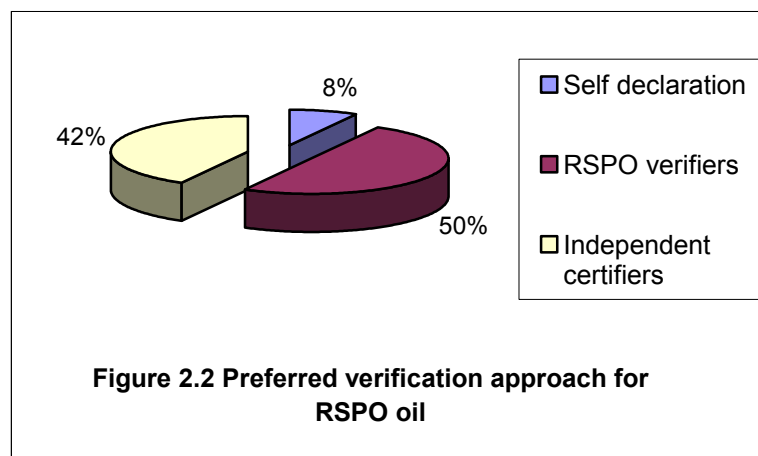
- **Self-declaration:** claims about RSPO oil could be made based on the self-declarations by producers that chain of custody controls is in place. The advantage of this approach is that it is very cheap and easy to implement. The disadvantage is that in practice self-declarations are unlikely to have any credibility with the market.
- **Verification by RSPO-approved experts:** this involves developing a set of criteria for approving experts or organisations as verifiers. Anyone wanting to make claims about RSPO oil would then need to have their chain of custody controls checked by a RSPO-approved verifier. The advantage is that it is likely to be accepted by a wide range of stakeholders and still be cheaper than independent certification. The disadvantage is the RSPO has to be responsible for maintaining the quality of the approved experts and the work they do.
- **Independent certification:** this involves developing an independent certification programme. This would allow any claims about RSPO oil to be based on certification of chain of custody. The advantage of this approach is that it is the most credible with the market and, once established, will run independently of RSPO. The disadvantage is that it would be the most expensive option.

2.2. Preferred verification approach for RSPO oil

Of the verification options described, the preferred option is a verification process undertaken by RSPO-approved verifiers (see figure 2.2). Certification was also seen as a very credible option, but more respondents preferred the RSPO-approved verifier approach because it was felt that:

- RSPO is not ready for independent certification in the short term.
- Independent certification is expensive.

It is interesting to note that the RSPO technical working group supports the option of RSPO-approved verifiers for verification of implementation of the RSPO criteria in plantations.



2.3. Smallholders

Any system implemented has the potential to isolate smallholders for several reasons:

- Implementation can be difficult and smallholders often need support and advice to help implement the criteria.
- Verification of individual growers is disproportionately expensive to the volumes produced.

In other sectors these issues have been dealt with through development of a group-based approach. Such a group is co-ordinated by a group manager who:

- Provides support for group members on implementation;
- Checks that the members are meeting the requirements of the scheme.

Verification is then of the group as a whole and only requires a sample of group members to be checked during a verification exercise, thus providing economies of scale.

An example of a sector where smallholder production is common is in forestry, implemented under group certification schemes. The FSC group certification scheme, for example, has been successful in ensuring that small-scale producers have access to certification.

Group schemes could probably be developed relatively easily in many instances through existing organisations such as outgrower schemes or smallholder associations.

3. Conclusion and Recommendations

From the feasibility study it is clear that the segregation approach to chain of custody is overwhelmingly preferred by producers, users and NGOs alike, and that the bulk commodity approach is seen as the most promising.

However, the review of other sectors revealed instances where organisations began with one approach to chain of custody and then within a few years introduced new or alternative systems (see FSC example in 1.2.2.1). Therefore, the membership of RSPO is asked to consider whether at least one of the controlled mixing options should also be taken forward for field-testing.

In particular, the potential issue of reduced markets for non-RSPO smallholders needs to be considered and the potential need for an interim mechanism to allow for this. Such a mechanism could be provided by a mass balance approach, perhaps limiting the non-RSPO oil to supply from smallholders.

Therefore it is recommended that the Roundtable:

1. Confirm that the bulk commodity approach should be taken forward for field testing.
2. Confirm that existing approaches for IP segregation should be recognised for RSPO oil.
3. Discuss whether or not a controlled mixing approach should be field tested and if so whether the mass balance approach should be selected.
4. Discuss whether the book and claim approach should be developed further now, or whether to defer consideration for the time being.

Annex 1: List of core team members

Name	Company	Activity	Location
Sabri	Golden Hope	Plantation and primary processing	Malaysia
Manuel Davila	Daabon	Plantation and primary processing	Colombia
Ian McIntosh	Aarhus	Refining	UK
Jan-Olof Lidelfelt	Kalshamns	Refining	Sweden
Jan Sintobin	Fuji Oil Europe	Refining	Belgium
Hans-Jurgen Klueppel	Henkel	End user	Germany
Jan Kees Vis and Jeffrey Glanz	Unilever	End user	Netherlands
Dr Simon Lord	New Britain Palm Oil Ltd	Plantation and primary processing	Papua New Guinea
Intan Shafinaz Mohd Suhaimi	Consolidated Plantations Berhad	Plantation and primary processing	Malaysia
Eric Swartberg	Cargill BV	Refiner	Netherlands
Jenny Kau	Palm Oil Refiners Association of Malaysia	Refiners	Malaysia
Fausta Borsani	Migros	Retailer	Switzerland

Annex 2 List of consultees

Producers, processors and users

Organisation	Activity	Country
Aarhus	Refiner	Europe
Agropalma	Producer	Brasil
Body Shop	Retailer	UK
Cargill BV	Refiner	Europe
Cognis	End user	Europe
Daabon	Producer	Colombia
Fuji Oil Europe	Refiner	Europe
Golden Hope	Producer	Malaysia

GOPDC	Producer	Ghana
Henkel	End user	Europe
Karlshamns	Refiner	Europe
MIGROS	Retailer	Switzerland
Palm Oil Refiners Assoc of Malaysia	Refiners	Malaysia
Unilever	End user	Europe
Waitrose	Retailer	UK

Interested parties

Organisation	Activity	Country
AidEnvironment	Doen Advisor	Netherlands
Forest People's Movement	SNGO	UK
Friends of the Earth-Netherlands	ENGO	Netherlands
Greenpeace Netherlands	ENGO	Netherlands
HSBC	Investor	UK
WWF Forest Conversion Initiative	ENGO	International