

The Basel Criteria for Responsible Soy Production

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Further copies of the Basel Criteria for Responsible Soy Production can be obtained from ProForest.

Electronic copies are available from the website at www.ProForest.net in the Publications section.

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1. Introduction

1.1. Background to The Basel Criteria

Soy is a source of protein and oil with a multitude of uses in both human food and animal feeds and with numerous industrial applications. Soy is grown in many countries in temperate, sub-tropical and increasingly in tropical regions. Producers include the USA, Brazil, Argentina, China and India. Over recent years soybean production has been increasing rapidly, a trend which is likely to continue.

While the expansion of soybean production has many economic and social benefits, there is also concern at the potential negative environmental and social impacts. In particular, soy expansion has resulted in the conversion of many areas which were very important for conservation, including forests and savannas. Other negative impacts that have been associated with some soy production include: use of fire for forest clearance, soil erosion, heavy use of chemicals, marginalisation of smallholders, changing patterns of land ownership and infringements of labour rights.

Responsible companies that purchase soy and soy products want to be sure that they are not contributing to these negative impacts, while responsible soy producers need a mechanism for reassuring their customers that they are acting responsibly.

One way of accomplishing this is the development and use of an internationally accepted set of criteria that define responsible soy production. This provides clarity to producers about what they need to do, and allows purchasers to source soy and soy products from producers who meet the criteria and are therefore not associated with negative environmental and social impacts such as those identified above.

At present, no international set of criteria has been developed with full multi-stakeholder involvement and support. The purpose of the Basel Criteria for Responsible Soy Production is to provide a working definition of acceptable soy production that can be used by individual retailers or producers. It is expected that companies meeting the requirements of the Basel Criteria will be well positioned to comply with any international criteria that are developed.

1.2. Objectives

There are three main objectives behind the development of the Basel Criteria for Responsible Soy Production:

- to provide a working definition for environmentally, socially and economically responsible soy production;
- to enable businesses to source soy for their animal and food products from farms that are managed in a responsible way;

- to provide input into the development of internationally applicable and accepted criteria for sustainable soy production through a multi-stakeholder process provided by an international round table on sustainable soy.

2. Introduction to the Criteria

The Basel Criteria for Responsible Soy Production have been developed by drawing on widely accepted existing criteria and standards such as Eurepgap standards and ILO conventions (see Annex 3). This should ensure that they are compatible with the requirements of other users and schemes.

The criteria have been designed to be applicable to all soy production at all scales throughout the world. As a result, they are general in nature and will need further elaboration at a local level in order to provide more specific local requirements. In addition, they will need to be interpreted for different scales of soy production. Both of these issues are discussed below.

2.1. Aspects covered

Responsible soy production needs to be based on the principle of sustainability which requires an appropriate balance of economic, social and environmental management. At the same time, the issue of traceability has to be considered, so that purchasers can be sure that they really are purchasing soy that has been produced in compliance with the criteria. Aspects covered by the criteria include:

- Compliance with applicable legislation,
- Technical management and production,
- Environmental management,
- Social Management,
- Continuous improvement,
- Traceability.

2.2. Developing local indicators and guidance

Soybeans are grown in many different countries and environments at a range of different scales. The Basel Criteria need to be applicable to the entire production spectrum to ensure that their use does not result in discrimination against a particular region or type of production. The only way of achieving this wide applicability is to have criteria that are sufficiently generic to be appropriate in all situations.

At the same time, in order to provide credibility it is very important to have requirements which are specific and include minimum thresholds of performance or

specific guidance on what is appropriate. The way that this is achieved in practice is through the development of indicators, thresholds and means of verification at a local level.

For example, criteria 2.1.4 addresses the maintenance of water quality and quantity. One key aspect of this is protection of rivers. In many cases this might include a riparian strip, but the width and constitution will differ depending on climate, soils and so on. Therefore, it is only at a national level that it would be possible to include specific indicators about the width of riparian strips.

Similarly, criterion 4.2.1 requires that workers have acceptable pay and conditions. What this means in practice in the US will be different from Brazil or China.

Therefore, an essential part of the process of using the Basel Criteria is the development of local indicators and means of verification. It is these local interpretations of the Basel Criteria that set minimum performance thresholds, where needed, and guide users in what, precisely, must be achieved.

This process should be the responsibility of the audit team who should seek input from key economic, environmental and social stakeholder groups in the producer and purchaser countries to help with their decision-making¹. In practice, this will usually mean undertaking the interpretation three to four weeks prior to any audit. Once an interpretation has been made for a particular location, it can be used by other audit teams.

2.3. Dealing with different scales

Soybeans are produced at scales ranging from smallholders with a few hectares to large farm enterprises of many thousands of hectares. While all production, at whatever scale, should be responsible, the way in which this is achieved will differ depending on the scale of production.

For example, there is much less need for formal systems and documentation in the approach of smallholders than for large farms. Similarly any assessment of environmental impacts can be much less formal.

However, there are a number of situations where smallholders operate in some form of group. Where they do so, the need for some degree of formality increases. For example, if there is a scheme in an area that actively encourages smallholders to plant soy (for example by providing seed, technical advice or a guaranteed market) then criteria may need to be implemented at the level of the scheme. Similarly, if

¹ For national and international standards, development of criteria and indicators must be undertaken through a multi-stakeholder, consensus-based process which should be in line with the guidance provided in ISO Guide 59 *Code of Good Practice for Standardization* or the ISEAL *Code of Good Practice for Setting Social and Environmental Standards*. Such a process will be very important in the development of a definitive set of international criteria for sustainable soy production as discussed in the introduction. However, such a process does not have to be used for a set of criteria such as the Basel Criteria produced for use by individual purchasers and producers.

smallholders form some sort of farmer group scheme, then consideration needs to be given to compliance at the level of the group as well as the individual smallholder.

Therefore, in the criteria, a differentiation is made between individual smallholders and all other producers, including groups of smallholders. However, experience from other sectors has shown that there is often not a clear cut-off, and it is sometimes difficult to decide what constitutes 'small'. Therefore, it will be important to consider this issue as part of the local interpretation.

3. Using the criteria

The criteria can be used for two purposes:

- As an internal management tool for soy producers who wish to assess their current management against the criteria as a means of confirming or improving their economic, environmental and social performance.
- As a mechanism for confirming to purchasers that soy products are originating from a responsibly managed source. When used in this way, it is intended that the criteria apply to the entire soy production of a farm rather than to individual plots or fields within a farm.

3.1. Verification

Use of the criteria as a mechanism for market communication requires verification that the criteria are actually being implemented in practice. Farmers and traders who want to make public use of these criteria must demonstrate that they are in compliance with them by verification through third party assessment. Third party assessments are carried out by an organisation that is completely independent of the organisation being assessed. Guidance on appropriate auditing protocols is given in Annex 1.

3.2. Phased implementation

Purchasers recognise that many growers will not meet all of the requirements of the Basel Criteria in full immediately. Therefore, the criteria allow for a phased approach where, provided that there is a commitment, underpinned by a plan, to reach full compliance within clearly defined and tight timeframe, suppliers can be accepted immediately. This has been written into the criteria (Section 5). However, it should be noted that fulfilment of Criterion 2.3.1 (that prohibits the use of genetically modified soy) and Criterion 3.1.1 (that prohibits clearance of High Conservation Value Areas) is a prerequisite to acceptance of an action plan.

4. The Basel Criteria for Responsible Soy Production

1. Legal compliance

Criteria	Guidance
1.1 Compliance with relevant legislation	
<p>1.1.1 The grower should be aware of all applicable laws and conventions, and have a mechanism for ensuring that they are implemented</p>	<p>In order to meet the law, it is necessary that growers:</p> <ul style="list-style-type: none"> • know what the requirements of the law are, • have a way of ensuring that the requirements are implemented. <p>Relevant legislation includes, but is not limited to, regulations governing land tenure and land-use rights, labour, agricultural practices (e.g., chemical use), environment (e.g., wildlife laws, pollution). It also includes any relevant international laws or conventions such as the Convention on Biodiversity (CBD).</p> <p>The system used to understand and implement the law should be appropriate to the scale of the organisation. It is usually expected that large growers have written information on legal requirements, whereas for small-scale producers the focus should be on the grower having adequate knowledge of the main legal requirements.</p> <p>For local interpretation, all relevant legislation should be identified, and any particularly important requirements identified. Areas highlighted may be:</p> <ul style="list-style-type: none"> • requirements which are frequently not met in practice, • new requirements which the grower or audit team members may not be aware of, • requirements considered particularly important.
<p>1.1.2 There is compliance with all relevant laws and codes of practice.</p>	<p>Implementing all legal requirements is an essential baseline requirement for all growers whatever their location or size. There should also be compliance with any voluntary codes to which the organisation subscribes.</p>

2. Technical Management

Criteria	Guidance
2.1 Maintaining soil and water quality	
<p>2.1.1 Soil suitability for soy cultivation should be established to ensure the long-term suitability of land for soy cultivation and the results should be used to plan field operations.</p>	<p>Soil suitability maps or soil surveys should be appropriate to the scale of operation and should include information on soil types, topography, rooting depth, moisture availability, stoniness and fertility. This information should be used to plan rotations, planting programmes, etc.</p> <p>Assessing soil suitability is also important for small-scale producers, particularly where there are significant numbers operating in a particular location. Information may be collected and provided by a farmer group or the company that buys soybeans from individual smallholders.</p> <p>Local interpretation should specify the local or national code of practice or other guidelines that should be followed; or set out what 'good practice' constitutes within the local and national context.</p>
<p>2.1.2 Long-term soil fertility should be maintained through appropriate cultural practices.</p>	<p>Long-term fertility depends on maintaining the structure, organic matter content, nutrient status and microbiological health of the soil.</p> <p>Fertiliser application, using either mineral or organic fertilisers, should be sufficient to maintain soil fertility whilst not exceeding the needs of the crop. The quantity of fertiliser applied and timing of fertiliser application should be carefully considered so as to maximise benefits and minimise losses of fertiliser. Records should be kept of all applications of fertilizer.</p> <p>Crop rotations (including pasture) should be used as appropriate to maintain soil condition, reduce reliance on agrochemicals and to maximise plant health. Where rotations are not employed, adequate justification must be provided.</p> <p>Smallholders should be able to demonstrate that they have an understanding of the techniques required to maintain soil fertility and that they are being implemented.</p> <p>Local interpretation should identify the range of appropriate techniques.</p>

Criteria	Guidance
2.1.3 Soil erosion and damage to soil structure should be minimized.	<p>Field cultivation techniques that minimise soil erosion should be adopted. Mechanical cultivation should be used only where proven to improve or maintain soil structure, and to avoid soil compaction.</p> <p>Smallholders should be able to demonstrate that they have an understanding of the techniques required to minimise soil erosion and that they are being implemented.</p> <p>Local interpretation should identify the range of appropriate techniques and any appropriate performance thresholds.</p>
2.1.4 The quality and quantity of natural water sources should be maintained.	<p>Water courses, wetlands and swamps should be protected, including maintaining appropriate riparian buffer zones along all bodies of water. Contamination of surface and ground water through run-off of soil (see also Criterion 2.1.3), nutrients or chemicals, or as a result of inadequate disposal of waste, should be avoided (see also Criterion 2.2.1).</p> <p>Local interpretation should refer to national guidelines or best practice and where appropriate include performance thresholds for requirements such as the size and location of riparian strips or acceptable maximum runoff levels.</p>
2.1.5 Water use for irrigation, where used, should be efficient and sustainable.	<p>Untreated sewage water should never be used for irrigation. The water supply for field irrigation should be sustainable and efficient. Plans for water management, appropriate to the scale of use, should be developed to optimise water usage and reduce waste and ensure that the effects of water use on local water resources (groundwater and surface water) are sustainable.</p>
2.2 Chemical use and crop protection	
2.2.1 Integrated Crop Protection (ICP) methods should be used wherever possible and chemical use minimised.	<p>Growers should apply recognised ICP/IPM techniques on a preventive basis. Non-chemical pest treatments are preferred over chemical treatments. All use of chemicals should be justified.</p> <p>Protection of crops against pests, diseases and weeds should be achieved with the appropriate minimum pesticide input. There should be a plan to reduce pesticide use wherever possible. Selective products that are specific to the target pest, weed or disease and which have minimal effect on other organisms, workers and consumers should be used where available.</p> <p>Local interpretation should provide further guidance on what practices are most appropriate for a particular country, and where needed, on practices which are appropriate to small-scale production.</p>

Criteria	Guidance
<p>2.2.2 All chemical use should be properly managed and records of pesticide use maintained.</p>	<p>Growers should only use chemicals that are officially registered in the country of use and are registered for use on the crop that is to be protected where such official registration scheme exists, or, in its absence, complies with the specific legislation of the country of destination. A list of all products that are approved for use on soy should be kept and regularly updated. The use of chemicals which are banned in the countries purchasing the soy products should also be avoided (see Criterion 2.6.3). Records of chemical use should be maintained and periodically assessed to ensure that use is stable or decreasing.</p> <p>Agrochemicals should only be applied by qualified persons who have received the necessary training and should always be applied in accordance with the product label.</p> <p>Particular precautions should be taken when pesticides are applied aerially to avoid drift into water bodies (springs, streams etc), natural vegetation, human settlements and other land uses.</p> <p>Growers (other than individual smallholders) and/or suppliers should be able to provide evidence of residue testing.</p> <p>Local interpretation should consider: statutory requirements concerning pesticide use, lists of legally prohibited agrochemicals, agrochemical residues that should be tested for and the appropriate levels of residues, and best management practices for pesticide use or sources of information on these. A link should be made to criterion 4.3.2 covering health and safety.</p>
<p>2.3 Planting material</p>	

Criteria	Guidance
2.3.1 Genetically modified material must not be used	<p>Seed material must be from non-GMO strains. The grower should provide certificates of origin and affidavits covering all seed purchased. Where smallholders save seed from one harvest to sow the following year, documentation should cover the original seed purchase.</p> <p>Where machinery (including planters, harvesters, transporters, etc) is shared with other producers who may be using GMO strains, all machinery should be thoroughly cleaned before use.</p> <p>The soybean harvest should not contain GMO residues greater than the limits set by the purchaser and should always be within EU limits.</p> <p>Individual smallholders would not be expected to be responsible for conducting DNA tests on their harvest, however, those storing, transporting or trading the soybeans should be able to do so. If requested by a purchaser, the grower or supplier should be able to demonstrate the results of appropriate DNA tests that establish that the soybeans are within these limits.</p>
2.3.2 Planting material should be of a high quality and from a known source	Whenever the grower purchases seed, they should seek to do so from reputable sources and should maintain records/certificates of the seed quality, variety purity, variety name, batch number and seed vendor.
2.4 Harvest and post harvest management	
2.4.1 Crop yield should be maximised through efficient harvesting.	Harvesting should be done in a timely fashion to minimise pre-harvest losses. Harvest losses should be assessed and appropriate machinery used to reduce losses (this does not apply to smallholders).
2.4.2 Post-harvest land management should be adequate to maintain soil fertility and prevent erosion.	<p>After harvest, residue should be retained where soil erosion risk is significant or a cover crop or rotation crop should be planted. Burning should not be used to remove residues.</p> <p>Local interpretation should identify best management practices for maintaining soil quality in local conditions including guidance on soil types where maintaining residues is not appropriate.</p>

Criteria	Guidance
<p>2.4.3 Post-harvest crop management should be adequate to maintain high quality product.</p>	<p>Market requirements for quality should be met through appropriate storage and treatment.</p> <p>If any post-harvest chemicals are used, this should be done only in accordance with the manufacturers instructions and must not include chemicals that are not officially registered in the country of production or that are banned in the country of destination. Records of all post-harvest chemical applications should be maintained. Suppliers and/or large to medium scale growers must be able to provide evidence that levels of chemical residue are within limits acceptable to the country of destination through residue testing.</p> <p>When growers or suppliers are drying stored soybeans using wood or charcoal they should be able to demonstrate that it was not sourced from areas that are being deforested.</p>

3. Environmental Management

Criteria	General Guidance
3.1 Conversion of natural ecosystems	
3.1.1 Primary vegetation and High Conservation Value Areas ² should not be converted to agricultural land.	<p>Clearance of primary vegetation and High Conservation Value Areas to create agricultural land after 31 July 2004 is prohibited. This applies irrespective of any changes in land ownership or farm management that have taken place after this date. Farm development should actively seek to utilise degraded and abandoned agricultural land.</p> <p>Local interpretation should refer to existing national definitions of HCVA or equivalent land-use conservation plans or consider how growers and the audit team can identify High Conservation Value Areas.</p>
3.1.2 The farm should not be planted on land that has been deforested after 1994 unless commensurate conservation offset measures have been undertaken by the grower.	<p>In addition to compliance with 3.1.1 above, where conversion of forest is permitted by law, and all or part of the farm is on land cleared of natural vegetation since 1994, the grower must demonstrate that they have actively and sufficiently compensated for the loss of natural ecosystems through such measures as:</p> <ul style="list-style-type: none"> • Restoration activities on the farm to enhance biodiversity • Procuring and protecting areas of natural vegetation locally, • Financing conservation initiatives that directly result in the protection of natural ecosystems locally (e.g. helping to establish one or more protected areas; assisting funding for protected area management). <p>This applies irrespective of any changes in land ownership or farm management that have taken place after this date.</p> <p>The large-scale use of land for soy farms should not lead to increased pressure to clear native vegetation to provide land for other uses (e.g., where expansion of industrial soybean farming results in smallholders having to move into more marginal areas which are then cleared for subsistence farming activities or cattle ranching).</p> <p>Local interpretation should specify whether there are any reasons why planting on deforested land should be permitted locally as well as on appropriate methods of confirming land-use prior to planting with soy (e.g., the types of documents or other evidence that can be used as proof of land-use history). Guidance on appropriate conservation</p>

² See Annex 4 for a definition of High Conservation Value Areas

Criteria	General Guidance
	<p>compensation activities should be developed. For example, these might include:</p> <ul style="list-style-type: none"> • The acceptable equivalent area of natural vegetation that should be protected (which might be, for example, an area of 20-30% the size of the deforested area); • the proportion of farm that should be restored; • the proportion of turnover that should be donated to biodiversity protection (and for how long); • the types of conservation activities that are acceptable
<p>3.2 Assessing and managing environmental impacts</p>	
<p>3.2.1 An assessment of environmental impacts should be undertaken.</p>	<p>Assessment of environmental impacts can range from an independent Environmental Impact Assessment (EIA) through a formal internal assessment carried out by the grower to a relatively informal consideration of possible impacts carried out by a smallholder. The appropriate degree of formality and independence will depend on legal requirements, the size of the operation and the local context.</p> <p>There must be an assessment of the environmental (and social - see also 4.1.1) impacts of:</p> <ul style="list-style-type: none"> • the farm at both a landscape and an operational level, such as clearance, chemical use, etc • roads, transport and other infrastructure associated with production, • energy use. <p>The assessment covers impacts on soil, water, air, biodiversity and people.</p> <p>Individual smallholders would not be expected to undertake formal impact assessments (unless there is a legal requirement) but should have a good understanding of the potential negative impacts of their activities and appropriate mitigation techniques.</p> <p>Local interpretation should consider any national legal requirements together with any other issues that are not required by law but are nevertheless important.</p>

Criteria	General Guidance
3.2.2. The results of the assessment should be incorporated into operating procedures.	<p>The results of the assessment(s) should be documented and reviewed by management and appropriate actions planned to minimise negative impacts and maximise positive ones. Where this means changing current practices, a timetable for change should be developed. Monitoring should be adequate to ensure that impacts are within acceptable limits and that targets are met.</p> <p>Individual smallholders would not be expected to have a documented plan, but should be able to demonstrate that their activities are designed to minimise the impacts identified.</p>
3.2.3 The use of fire for land clearance should be avoided wherever possible.	<p>Fire should not be used except in exceptional circumstances and then only when permitted by regulations, clearly justified and with evidence that fire-use is carefully controlled. Fire should not be used for land clearance in areas that are contiguous with natural vegetation.</p>
3.3 On-farm conservation	
3.3.1 An understanding of the plant and animal species and habitats that exist inside and around the farm should be established	<p>Information for large farms should include:</p> <ul style="list-style-type: none"> • Presence of protected areas in the locality of the farm; • Details of any legally protected, red-list, rare, endangered or endemic species in and around the farm including population and habitat requirements; • Identification of the range of habitats and ecosystems within the farm; • An understanding of important local conservation issues. <p>For individual smallholders, a basic understanding of any important local conservation issues, species or habitats will be sufficient.</p> <p>For local interpretation, reference should be made to any relevant existing information such as general species lists, studies from the farm area and local or national 'red lists' of rare species.</p>
3.3.2 A plan to maintain and increase biodiversity in and around the farm should be developed and implemented	<p>For large farms and groups there must be a documented plan whereas for individual smallholders, a more informal verbally-communicated plan may be adequate. The plan should:</p> <ul style="list-style-type: none"> • Ensure that any legal requirements relating to the protection of part of the property under natural vegetation or

Criteria	General Guidance
	<p>the protection of and management of species listed in national or local regulations are met.</p> <ul style="list-style-type: none"> • Ensure action to avoid damage to and deterioration of habitats, including protection of riparian areas, steep slopes, fragments of natural vegetation, conservation set-aside/reserve areas and areas of high conservation value. • Include measures to enhance habitats, particularly riparian strips, corridors to link areas of natural vegetation, enlargement of existing areas of natural vegetation or areas that were originally planted but which are now recognised as unsuitable (e.g., steep slopes). • Consider the conversion of unproductive sites (e.g. low lying wet areas, headland strips or areas of impoverished soil) to conservation areas for the encouragement of natural flora and fauna. • Consider the need to control any illegal or inappropriate hunting, fishing or collecting activities. <p>Local interpretation should identify any relevant indicators and performance thresholds. Issues to consider include:</p> <ul style="list-style-type: none"> • Whether there should be a minimum proportion of a farm which should be managed for biodiversity. • Whether the focus should be on restoring degraded areas to natural vegetation, or on protecting remaining fragments that have not yet been degraded. • Whether there should be a maximum contiguous area planted with soy (eg 200 ha) with natural vegetation maintained (or restored) as a network around such plots. • Whether there should be a maximum proportion of the farm planted with soy (eg 66%)
3.4 Waste and pollution management	
3.4.1 Waste and pollution should be minimised and properly managed.	<p>All medium and large operations should have a strategy for minimising waste and pollution, while for smallholders the approach can be more informal provided that the outcome is acceptable.</p> <p>A strategy for minimising waste should include:</p> <ul style="list-style-type: none"> • Sources of waste and pollution are identified. All the possible waste products (e.g. paper, cardboard, plastic, crop debris, oil, rock wool and other substrates) and pollutants (e.g. chemicals, oil, fuel, noise, light, debris, pack-house effluent, etc.) should be identified in all areas of the farm business.

Criteria	General Guidance
	<ul style="list-style-type: none"> • A plan should be developed and implemented, to avoid or reduce wastage and pollution, and whenever possible, avoid the use of land-fill or burning, by recycling the waste. Organic crop debris can be composted on the farm and, where there is no risk of disease carry-over, reused for soil conditioning. • Hazardous chemicals are stored and disposed of in an appropriate way. Fertilisers, pesticides and oil must be stored covered in a clean, dry location able to contain spillage where there is no risk of contamination of water sources and separate from other materials. Surplus spray mix, oil, and chemical containers should be disposed of in an environmentally responsible way (e.g., returned to the vendor) with no risk of contamination of water sources or to human health. The disposal instructions on manufacturer's labels should be adhered to. <p>Local interpretation could include, as appropriate: details of any relevant national laws or policies, a list of waste types which must be considered, suggestions for how particular waste should be dealt with, any types of disposal which are not acceptable (eg untreated waste water may not be discharged directly into streams or rivers)</p>

4. Social Management

Criteria	General Guidance
4.1 Managing social impacts	
<p>4.1.1 An assessment of social impacts should be carried out and the results taken into account in management planning and operational procedures.</p> <p><i>This criterion does not apply to individual smallholders. However, it applies to associations, groups of producers or co-operatives.</i></p>	<p>Assessment of social impacts may be carried out by independent experts or internally by the grower as appropriate to the situation. It should be sufficient to ensure that all actual and potential impacts (both positive and negative) are identified (see also criterion 4.2.1 assessing environmental impacts). This should include adequate consideration of the impacts on the customary or traditional rights of local communities and indigenous people, where these exist.</p> <p>Management planning should incorporate the findings of the social impact assessment and these plans should be implemented in operational procedures.</p> <p>As social impacts are particularly dependent on local social conditions, it is very important that the national interpretation should provide identify what issues should be considered as well as appropriate methodologies for collecting data and using the results.</p>
<p>4.1.2 There should be an effective method for communication and consultation with local communities and other affected or interested parties.</p> <p><i>This criterion does not apply to individual smallholders. However, it applies to associations, groups of producers or co-operatives.</i></p>	<p>There should be a documented consultation and communication strategy, a nominated manager responsible, a list of stakeholders, records of all communication and records of actions taken in response to input from stakeholders.</p> <p>Communication and consultation mechanisms should be designed or agreed with local communities and other affected or interested parties.</p> <p>Local interpretation should consider issues such as appropriate levels of consultation and the types of organisations or individuals that should be included.</p>

Criteria	General Guidance
4.1.3 There should be a system for dealing with complaints and grievances which is implemented and effective.	<p>The basis of the system must be to try to resolve disputes in a timely and appropriate manner. Both the process by which a dispute was resolved and the results must be documented.</p> <p>Large organisations and groups should document both the system they use and the details of any complaints or disputes including how they were resolved. Individual smallholders should not be expected to have a documented system, but must be able to show that they respond constructively to any issue or complaint.</p>
4.2 Workers rights and working relationships	
4.2.1 All workers should have acceptable pay and conditions	<p>Employees and contractors should have pay and conditions in accordance with national laws and regulations or sector or trade union standards. Pay meets or exceeds the national minimum wage or a regional average if no minimum wage exists and must enable an adequate standard of living. A minimum wage should be established and adjusted from time to time in consultation with relevant parties.</p> <p>Labour laws, union agreements or direct contracts of employment detailing payments and conditions of employment (e.g., working hours, deductions, overtime, sickness, holiday entitlement, maternity leave, reasons for dismissal, period of notice, etc) should be available in the languages understood by the workers or explained carefully to them by a senior company official.</p> <p>Workers should have access to potable water and segregated sanitary and bathing facilities. If any worker or contractor is required to live on the farm, then adequate, affordable housing, medical, educational and welfare amenities must be provided (not applicable to smallholders).</p> <p>For local interpretation performance levels such as acceptable minimum wages and conditions should be specified, together with means of verification.</p>
4.2.2 Workers should have freedom of association and bargaining	<p>The right of employees and contractors to form associations and bargain collectively with their employer should be respected, in accordance with Conventions 87 and 98 of the International Labour Organisation.</p>

Criteria	General Guidance
4.2.3 There should be equality of opportunity for all employees and contractors.	The grower must ensure equality of opportunity and treatment for all employees and contractors, regardless of race, colour, sex, religion, political opinion, nationality, social origin or other distinguishing characteristics.
4.3 Welfare and security	
4.3.1 Child labour and forced labour should not be used on the farm	<p>Only workers above the minimum school leaving age in the country or who are at least 15 years old may be employed. No workers under the age of 18 should conduct hazardous work. Adequate transitional economic assistance and appropriate educational opportunities must be offered to any child workers who may have to be dismissed.</p> <p>In places where whole families work together on farms, children and other relatives may work on family-owned and run farms provided that they are not thereby prevented from attending school.</p> <p>Forced labour, including slave labour, debt bondage and exploitation of prison inmates must be prohibited. Workers must not be obliged to lodge a 'guarantee payment' or the originals of their identity papers with their employer.</p>
4.3.2 There should be a health and safety policy which applies to all workers, both employees and contractors, and is adequate, implemented and monitored	<p>A safe and healthy working environment should be provided for all workers whether they are employees or contractors. Adequate protective equipment should be available to labourers at the place of work to cover all potentially hazardous operations, such as pesticide application, land preparation, harvesting and, if it is used, burning.</p> <p>Accident and emergency procedures should exist and instructions should be clearly understood by all workers. Accident procedures should be visually displayed and in the appropriate language of the workforce. Workers trained in First Aid should be present in both field and other farm operations and first aid equipment should be available at worksites. Records should be kept of all accidents and sick days and periodically reviewed. Workers should be covered by accident insurance. For individual smallholders, a more informal approach is acceptable, provided that working practices for all workers are safe.</p> <p>For local interpretation, all legal requirements together with any local or national guidance on safe working practice in agriculture should be identified and used. It will also be important to identify what constitutes a 'hazardous' operation in the local context.</p>

Criteria	General Guidance
4.3.3 Workers and contractors should be adequately trained and competent	<p>Training must be given to all workers operating dangerous or complex equipment or substances. Records of training for each employee should be kept in the interests of operator safety.</p> <p>For smallholders training records should not be required but anyone working on the farm should be adequately trained for the job they are doing.</p> <p>For local interpretation, best management practices should be identified, including appropriate occupational training qualifications.</p>
4.3.4 Growers should deal fairly with local businesses and make efforts to contribute to the local economy wherever possible.	<p>Growers should invest in local development by:</p> <ul style="list-style-type: none"> • Maximising local employment, • Using local goods and services wherever possible, • Paying for goods and services promptly, • Supporting, as far as is practical, any projects that improve local infrastructure or facilities; <p>This criterion does not apply to individual smallholders.</p> <p>Local interpretations should identify any other specific activities, as well as any minimum thresholds which would be appropriate.</p>
4.4 Land tenure	
4.4.1 The right to use the land can be demonstrated and does not diminish the legal or customary rights of other users	<p>The right of the grower to the land must be clear. This should be demonstrated through proof of ownership or use rights. Where there are disputes, additional information to provide proof of legal acquisition of title and fair compensation of previous owners and occupants may also be needed.</p> <p>Where there are other potential rights, the grower must demonstrate that these rights are understood and are not being threatened or reduced.</p> <p>For local interpretations any customary land use rights or disputes which are likely to be relevant should be identified.</p>

5. Continuous improvement

Criteria	General Guidance
5.1 Continuous improvement in achieving full compliance with the criteria	
5.1.1 If there is not full compliance initially with the criteria, the grower should make a written commitment to comply within a defined time.	The grower should provide a written commitment to purchasers detailing their commitment to meeting all criteria in full within a specified timeframe, together with a plan for how this will be achieved as required by 5.1.2. This does not apply to Criteria 2.3.1 and 3.1.1, which must be met from the beginning.
5.1.2 There should be a plan setting out how compliance will be achieved within the timeframe agreed.	For each criterion where there is not full compliance, the plan should set out the activities that will be undertaken including who is responsible, any resources that will be needed and the timing. Any budgets and business plans should include provision of adequate resources in order to implement the plan. For individual smallholders, the plan can be relatively simple.
5.1.3 Continuous improvement in line with the plan should be demonstrated through independent verification at least annually.	Contracts with independent verifiers will need to be agreed and verification undertaken in line with Annex 1.

6. Traceability³

Criteria	General Guidance
6.1 Traceability of product	
<p>6.1.1 All of the product about which statements of compliance with these criteria are made should be traceable to the farm where it has been grown</p>	<p>This can be provided by:</p> <ul style="list-style-type: none"> • Any certified chain of custody or 'Hard Identity Preserved' scheme that confirms that the product can be traced from the farm through all stages of processing and transport, e.g., EUREPGAP, organic; or • Systems being in place which ensure that products can be traced from the farm through all stages of processing and transportation through documentation, identification and segregation of soy and soy products produced in compliance with the Basel Criteria. <p>For smallholders, this may be fulfilled by a smallholder association, smallholder group or by the company that buys soybeans from individual smallholders.</p>

³ Annex 2 gives further details on ensuring traceability of soy and soy products.

Annex 1 Guidelines for auditing

Suggested process for auditing farms against the Basel Criteria, as well as auditing the traceability through the supply chain (Criterion 6.1.1) include:

Selection and appointment of audit organisation: As there is not yet any independent body to provide recognition of auditing against the requirements of the Basel Criteria, an audit organisation will have to be approved by both the purchaser and the grower. The organisation should be completely independent of the producer and have adequate experience of natural resources auditing. The grower will then need to sign a contract with the audit organisation to carry out an audit. The audit team responsible for assessing traceability should similarly be independent of the traders, transporters or processes and could be either the same organisation that assesses the farm or another one.

Formation of the audit team: The audit organisation will appoint a team including a team leader, who must be experienced in auditing techniques for performance-based agricultural resource standards, and a range of local experts which, as a minimum, will provide expertise in

- technical aspects of soy production including both farm development, crop management and financial management;
- environmental aspects including both environmental impacts and conservation;
- social aspects including both workers and local communities.

The audit team responsible for assessing traceability should include expertise in traceability audits as well as an understanding of how soy supply chains operate.

Preparation for the audit: In preparation for the audit, the audit team under the guidance of the team leader should:

- Agree the dates of the visit with the organisation being audited;
- Inform relevant interested parties that the audit is taking place, ask for any information or comments and, if appropriate, arrange meetings;
- Develop a plan for the audit.

Carrying out the audit: The audit should begin with an opening meeting at which the team leader will introduce the team, explain the purpose of the visit, and agree a rough timetable of visits and meetings.

The audit should be carried out based on good auditing practice, and ensuring that objective evidence of compliance with the criteria is obtained from a combination of:

- document review;
- field visits (or visits to sites or processing plants for traceability audits);
- discussions with management, workers and interested parties.

The audit should end with a closing meeting at which the team report their findings and discusses these findings with the management of the organisation being audited. Where any non-conformities with the requirements of the criteria are found, corrective action requests (CARs) should be discussed with the farm managers, or company managers for traceability audits.

Planning for improvement: if the farm or group being audited does not comply in full with the criteria, then a plan for improvement must be developed (criterion 5.1.2) based on the findings of the audit team. This plan must be sent to the team leader so that the audit team can assess whether it is adequate to ensure that the gaps identified will be addressed within a specified, reasonable time period. This equally applies to transport companies, traders or processors being audited for traceability.

Reporting and planning: The team leader will be responsible for producing a report. The report should include:

- An introduction which provides general information on the farm,
- The findings of the team relative to the local interpretation of the Basel Criteria;
- A summary of any stakeholder inputs or comments received and the response of the audit team;
- A summary of all non-compliances with the criteria and an assessment of the adequacy of the commitments, plans and timetable to make any required changes to management

This report will be submitted to both the grower and to the purchaser.

For traceability audits, the report should include general information on the company being audited, the findings of the team, a summary of non-compliances with the criteria and an assessment of the adequacy of plans for improvement. This report should be submitted to both the company being audited and the purchaser.

Public Summary: A short public summary should be produced which will be available to interested parties, particularly those who submitted comments. This should be submitted to the grower or company at least one week prior to being made public to allow them to check the content.

Follow-up: The findings should be valid for one year, after which a follow up visit will be required to:

- Verify continued compliance for any producer that is already complying with the criteria.
- Verify adequate progress against plans and commitments for any producer that is not yet in full compliance.

In general, on-going checks of producers that are already complying should be shorter, more straightforward and therefore cheaper than those for producers still progressing to full compliance.

The same process should be used for traceability audits.

Annex 2 Ensuring traceability of soy and soy products

Retailers or other purchasers of soy and soy products will want to be sure that the products they are buying really do come from farms that are in compliance with the Basel Criteria. This requires some form of product tracing or 'chain of custody'. The purpose of this annex is to briefly describe what procedures are adequate to ensure traceability of soy and at the same time to provide auditors with guidance on what they should be checking when performing chain of custody audits on soy companies.

A chain of custody is a *verifiable system of traceability* for Basel Criteria compliant soy at each stage through which it passes from the farm to the final product. Each time ownership of the soy changes or processing is undertaken, another link is added to the chain. At each stage it is important to demonstrate that the soy being transported, processed or sold has not been mixed with, or 'contaminated' by, soy from other sources.

Chain of custody is usually implemented and controlled separately at each stage of the manufacturing process. At each stage it is necessary to ensure that purchasing, processing and sales are all managed to ensure that soy produced in compliance with the Basel Criteria and soy produced in other ways are not mixed. This is usually achieved through a combination of:

- **Segregation:** by keeping soy produced in compliance with the Basel Criteria physically separate, the chances of mixing are removed.
For example, separate storage areas, separate manufacturing lines, separate drying facilities or separate areas for final products.
- **Identification:** making sure that material and products produced in compliance with the Basel Criteria are clearly labelled reduces the risk of any accidental mixing.
For example, using different packaging for Basel Criteria compliant products.
- **Documentation:** to ensure that mixing is not occurring, it is also very important to have good documentation including procedures, operating information and records.
For example, records of all Basel Criteria compliant raw material received, records of all material processed, procedures setting out the rules for segregation in the storage areas, specification for Basel Criteria compliant soy on both orders and invoices.

Who needs to implement chain of custody?

Chain of custody requires the control of material through the entire supply chain from the farm to the final product. This means that every organisation that processes

the material or takes legal ownership has to implement chain of custody and each organisation in the chain will require an audit to ensure that their chain of custody system is adequate.

If the soy or soy product is handled by an organisation that does not have an audited chain of custody system, the status of the material is lost and it cannot be regained because there is no independent guarantee that the material has indeed originated from farms in compliance with the Basel Criteria.

Developing a chain of custody system

In practice, chain of custody has to deal with two things:

- Control of material *within* each organisation in the supply chain;
- Control of material *between* each organisation in the supply chain.

Control within the organisation requires management of the material through internal processing. The way in which controls are designed and implemented will depend on the approach to chain of custody is being adopted.

Control over Basel Criteria compliant material moving between different organisations in the chain is usually managed through the control of sales and dispatch from the supplying organisation together with control of purchasing and goods inwards at the receiving organisation.

In addition, there is a need to have in place systems to control any claims or labelling of the product.

In practice, this means that any organisation implementing a chain of custody will need to have a system that ensures:

- Adequate control of purchasing and goods inward to ensure that soy and soy products deriving from farms that are compliant with the Basel Criteria are in fact obtained;
- Proper control of the internal processing of the material;
- Adequate control of sales and dispatch of final products to ensure that only Basel Criteria compliant products are sold and dispatched as such;

These elements are discussed in detail in the following sections.

Product sourcing: purchasing and receipt of goods

The first element of a chain of custody system is to control the purchase and acceptance of raw materials. In practise, this will mean:

Identifying suppliers: Raw material can only be supplied by a supplier that has chain of custody mechanisms that have been approved by an independent audit, so *before* an order is placed there needs to be a check that the supplier has been

successfully audited. This can be done by obtaining a copy of the summary of the supplier's chain of custody audit report and checking that

- it is still valid;
- that its scope covers the material to be purchased – many organisations produce a combination of products so it is important to be sure that the chain of custody audit report covers the type of product being purchased.

There needs to be a procedure or work instruction which ensures that the person or department responsible for purchasing raw materials confirms that a supplier has a valid audit report that demonstrates that their chain of custody system is appropriate. If there is an ISO 9000 system in place, this can be included as part of the procedure for approving suppliers but is not adequate on its own.

Specifying product: Even if a supplier has been successfully audited, they may trade in both Basel Criteria compliant and non-compliant soy. Therefore, it is essential to specify in the purchase order or contract that Basel Criteria compliant material is required.

Purchasing procedures should include the need to specify compliant material. If purchase orders are produced electronically, then the system should automatically query whether Basel Criteria material is required and add the request to the purchase order. If there is a manual system with pre-printed documents to fill in, the possibility to order Basel Criteria-compliant material can be added, for example as a tick box.

Receiving goods: Received material should be checked to confirm it conforms with the specification requested, including that it derives from material produced in compliance with the Basel Criteria. There are two ways of doing this, both of which should be checked:

- Firstly, the invoice and any other relevant documentation such as a delivery note or transport documents should specify that the material is compliant with the Basel Criteria.
- Secondly, where it is practical, the material should be labelled or physically identified as being derived from farms compliant with the Basel Criteria.

Procedures for accepting deliveries of raw materials should include a requirement to check both the documentation and the identification of material and to reject or quarantine if either is inadequate exactly as for any other failure to meet specifications. If an ISO 9000 system is in place, this can be incorporated into existing goods-inwards procedures. Procedures for processing invoices should ensure that the confirmation of status with respect to the Basel Criteria is included before authorisation to pay is given.

Production process: implementing internal controls

Control of product sourcing should take care of the chain of custody between the previous organisation in the supply chain and the organisation implementing its own system. The next stage is to develop a system to control chain of custody internally. Internal chain of custody controls are usually based on the identification and control of critical control points.

Identifying critical control points: Critical control points (CCPs) are all the points in the process where it might be possible to mix. An analysis of the process needs to be undertaken to identify each of these points.

Examples of critical control points include storage facilities that are used for both Basel Criteria compliant and non-compliant material, a production line used to produce both Basel Criteria compliant and non-compliant products.

Managing critical control points: For each critical control point, it is necessary to find the best way to ensure that there is no mixing of material that comes from farms in compliance with the Basel Criteria with material that comes from farms that are not. The most appropriate way to do this will depend on both the process and the organisation. However, it will always be based on a combination of segregation, identification and documentation.

Product Segregation: One of the most effective ways of preventing mixing of materials is by ensuring that Basel Criteria compliant material is always kept physically separate from other material. Opportunities for segregation should be considered at each critical control point including:

- Storage: Soy and soy products can be stored in separate areas from non-compliant soy products.
- Production: Production runs for Basel Criteria compliant products can be undertaken on separate production lines (physical separation) or, if this is not possible, carried out at different times from production runs for non-compliant products on the same production line (separation in time).

Practical examples of segregation include separate storage areas for Basel Criteria compliant soybeans, particular days designated for production of Basel Criteria compliant products.

Product Identification: Another straightforward way of preventing mixing compliant and non-compliant products is through physical marking.

Practical examples of identification include clearly marked and signed storage areas for Basel Criteria compliant soybeans, different coloured pallets or hoppers for storage.

Documentation: Good documentation is an essential part of good chain of custody, whether this is in a paper form or computer-based. In particular:

- Procedures setting out the controls for each identified critical control point.
- Records of all types including:

- Accurate production records from which it is possible to identify source and quantity of materials input, and volume or number of goods manufactured.
- Stock records of raw materials and finished product, including where appropriate, annual stocktaking results.

Conversion ratios and reconciliation of quantities

In addition to controlling critical control points, the other key element of internal chain of custody is the reconciliation of quantities into and out of the process based on conversion ratios. The conversion ratio is the quantity of final product which can be produced from a defined amount of raw material. Thus, the conversion ratio of a process indicates the efficiency of conversion or, looking at it the other way round, the losses associated with the processing.

For any process, if the volume or quantity of Basel Criteria compliant soybeans entering the system is recorded and the conversion ratio is known, it is possible to calculate the theoretical quantity of Basel Criteria compliant product which should have been produced. This can then be compared to the actual quantity of products produced to ensure that there is not a major discrepancy.

Sales and dispatch

Finally it is necessary to have in place clear procedures to ensure that only Basel Criteria compliant material is sold as such and that all documentation such as labels, invoices and shipping documents state clearly whether the material is Basel Criteria compliant or not.

Annex 3 Sources of information

The Basel Criteria have drawn significantly on existing information, amongst the most important of which is:

Articulação Soja –Brasil/Cebrac (May 2004). Criteria for Corporate Responsibility of Soy Buyer Enterprises.

Bickel, U. and Jan Maarten Dros (October 2003). *'The Impacts of Soybean Cultivation on Brazilian ecosystems'*.

Conservation Agriculture Network (1998). *'Principles and General Standards of the Conservation Agriculture Network'*, Version 10.

COOP Switzerland (May 2003) *'Genetic Engineering in Food and Nonfood'*.

COOP Switzerland (May 2003) *'Guidelines: Ecological, socially and ethically responsible sourcing'*.

Council on Economic Priorities Accreditation Agency (1997). *'Social Accountability 8000'*.

EUREPGAP (January 2004). *'EUREPGAP Integrated Farm Assurance: Combinable Crops Module.'*

IIED, ProForest and Rabobank International (March 2004). *'Research for IFC Corporate Citizenship Facility and WWF-US: Better Management Practices and Agribusiness Commodities Phase Two Report: Commodity Guides'*.

ILO (1998). *'Declaration of Fundamental Principles and Rights at Work'*.

ISEAL Alliance (2004) ISEAL Code of Good Practice for Setting Social and Environmental Standards.

Kansas State University (March 1997) *'Soybean Production Handbook'*.

MIGROS (August 2001). *'Criteria for Oil Palm Plantations'*, Version 2.

ProForest & RSPO (2004). *'Framework for Draft Criteria for Sustainable Palm Oil'*

Social Accountabilty in Sustainable Agriculture – SASA (2004): SASA *Recommendations for Consideration on Social Standards, Guidance and Verification Methodologies*

Unilever (2003). *'Sustainable Palm Oil: Good Agricultural Practice Guidelines'*.

WWF Brazil (November 2003). *'Sustainability Assessment of Export-led Growth in Soy Production in Brazil'*.

Annex 4 High Conservation Value Areas

The concept of High Conservation Value Forests is now widely used to identify forests which are particularly important and are therefore priorities for conservation. High Conservation Value Areas are equivalent areas of other vegetation types. Therefore, a preliminary definition can be given as follows:

High Conservation Value Areas are:

HCV1. Areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).

HCV2. Areas containing globally, regionally or nationally significant large landscape level ecosystems, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.

HCV3. Areas that are in or contain rare, threatened or endangered ecosystems.

HCV4. Areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).

HCV5. Areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).

HCV6. Areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Annex 5 Reviewers of the Basel Criteria

The following individuals or organisations have provided comments and suggestions that were critical to the development of the Basel Criteria though none are responsible for the final content:

- Coop (Swiss retailer)
- Egli-Mühlen AG (Swiss feed producer)
- Gebana AG (Swiss trader of Fair Trade products)
- Jan Maarten Dros (AIDEnvironment)
- Proyecto Soja Sustentable
- Mauricio Galinkin (CEBRAC, Brazil)
- WWF Brazil
- WWF Switzerland
- WWF US