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# 1. Introduction

### 1.1. What is Farm Sustainability Assessment?

Farm Sustainability Assessment (FSA) is a food and beverage industry aligned multi-purpose tool to assess, communicate and improve on-farm sustainability. The questions cover **three main areas**: economic, environmental and social sustainability, with topics ranging from fertilizer use, crop protection, and waste management to labour conditions.

The purpose of this guide is to explain how to use FSA on-farm. It can be used as a first exploration of the FSA, completing the FSA can be done on-line or off-line at a later stage.

There are three key benefits of FSA for farmers:

- 1. FSA is a great way to assess sustainable agriculture practices and communicate to customers.
- 2. Using the tool helps save time and money, by removing the need to complete multiple assessments for multiple customers.
- 3. Being a user of FSA increases market access, by selling to more companies who use FSA as their sustainable sourcing standard.

### 1.2. How does it work?

The FSA is made up of 112 questions; there are **three levels of questions** with an increasing complexity: **'Essential'**, **'Basic'** and **'Advanced'**.

- 'Essential' questions are about decent citizenship (e.g. prohibiting forced or bonded labour) and should be straightforward to comply with for any farmer working towards sustainability.
- 'Basic' questions identify the fundamental elements of sustainable farming.
- The next step in sustainable farming is captured in the 'Advanced' questions.

The FSA questions are organized by **topics** (e.g. crop protection), in **phases** (e.g. assess, plan, store) and by **focus areas** (i.e. people, plant, profit). Sorting filters on each column allow the user to sort the questions in the way that best suits them.

### 1.3. Performance Score

After the FSA is completed, a performance score is automatically generated. To allow a proper analysis of the scores and to identify the points for improvement, the scores are presented per **topic**, **phase** and **PPP** classification.

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There are three levels of performance; bronze, silver and gold, each with a specific threshold:

### **Bronze**

- Compliance to 100% 'Essential' questions and;
- A minimum of 75% 'Basic' questions.

### Silver

- Compliance to 100% 'Essential' questions;
- 80% 'Basic' questions and;
- A minimum of 50 % 'Advanced' questions.

### Gold

- Compliance to 100% 'Essential' questions;
- 100% 'Basic' questions and;
- A minimum of 75% 'Advanced' questions.

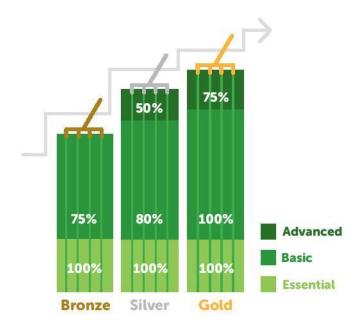


Image 1 - FSA Scores

## 1.4. How is the score calculated?

Answers are counted and a percentage is calculated.

'Not applicable' questions are not part of the scoring. For example, if from 72 basic questions 10 are not applicable; only 62 questions are used to calculate the performance.

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# 2. How to complete the Farm Sustainability Assessment?

# 2.1. Step 1 – General Data?

To begin, provide answers to the **general questions** about the farm. These answers do not affect the performance score but they help to put the results into context and prevent misinterpretation.

- This section is made up of 15 questions, most of which have open answers.
- Use the guidance notes in Section 4 to learn more about the background of a question.
- If you wish to share additional comments or information, please use the comments column.

# 2.2. Step 2 – Farm Sustainability Assessment

After the general section, you can start filling in the FSA. FSA is made up of 112 questions which have been separated into tables according to topic as follows:

Topic	Number of Questions	Codes
Legal Compliance	3	FSA1 – FSA3
Financial Stability	4	FSA4 – FSA7
Farm Management	5	FSA8 – FSA12
Planting	6	FSA13 – FSA18
Soil Management	4	FSA19 – FSA22
Nutrient Management	7	FSA23 – FSA29
Crop Protection	12	FSA30 – FSA41
Agro-chemicals	9	FSA42 – FSA50
Waste Management	2	FSA51 – FSA52
Water Management	10	FSA53 – FSA62
Biodiversity	6	FSA63 – FSA68
Air	2	FSA69 – FSA70
Greenhouse Gas Emissions	2	FSA71 – FSA72
Market Access	4	FSA73 – FSA76
<b>Labor Conditions</b>	22	FSA77 – FSA98
Health & Safety	11	FSA99 – FSA109
Local Community	3	FSA110 – FSA112

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'Essential' questions are colored orange.

'Basic' questions are colored red.

'Advanced' questions are colored blue.



### **Acceptable Responses**

- You can only answer 'yes', 'no' or 'N/A¹'. If you only partially comply with the question, the answer should be 'no'.
- Not all questions can be considered 'N/A'. The requirements column explains when N/A can be used.

#### **Guidance Notes**

• Use the guidance notes in Section 4 to learn more about the background of a question.

### **Optional Questions**

- If you do not use irrigation you do not need to answer the following questions:
  - o FSA53 FSA58
  - o FSA62
- If you do not have any employees you do not need to answer the following questions:
  - o FSA77 FSA 94
  - o FSA98
- All applicable questions should be answered once the FSA is answered completely.
- As a final check, go to the top of the document to see if you have answered all questions.

### 2.3. How to Calculate Your Performance Score?

Once both the general and the Farm Sustainability Assessment questions have been filled in, this information can then be entered into either the offline/excel tool or the online calculation by you or another relevant party.

It is the choice of the farmer whether or not to share the results of Farm Sustainability Assessment with interested parties.

### 2.4. Improvement Potential

An improvement plan can be created using the scores per topic i.e. which topics are well covered and which are not by your current farming practices. After you have assessed which farming practices that could be changed or new ones could be used, and after these changes are put into place on your farm, you could redo the FSA to see how these changes have improved your overall score.

If you have any questions of comments about SAI Platform's Farm Sustainability Assessment 2.0 please contact SAI Platform's Secretariat at <a href="mailto:info@saiplatform.org">info@saiplatform.org</a>.

<sup>&</sup>lt;sup>1</sup> N/A stands for Not Applicable



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# 3. Assessment Questions

3.1 GENERAL QUESTIONS					
Code	Topic	Question	Answer	Comments	
<b>G1</b>	General	Date of the assessment (d/m/y)			
G2	General	What is the name, address, contact information and function of the person who filled in the Farm Sustainability Assessment?			
G3	General	What is the name, address, and contact information of the person who is responsible for the farm?			
G4	General	Who manages the farm?			
G5	General	In which country is your farm situated?			
G6	General	Is any of the land you manage under short-term lease?			
G7	General	Do you belong to or participate in schemes / certification / standards, and if yes: which?			
G8	General	What is the location of the main farm building (or farmhouse)?			
G9	General	How many acres / hectares do you farm (please specify the area)?			
G10	General	What do you grow and raise on the farm?			
G11	General	How many permanent workers do you have on your farm?			
G12	General	How many temporary workers do you have on your farm in a year?			
G13	General	Do you have voluntary workers on your farm?			
G14	General	How many workers live on the farm?			
G15	General	Do you use irrigation?			



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	3.2 LEGAL COMPLIANCE				
Code	Question	Requirements	Answer (Yes/No/NA)		
FSA1	Do you keep yourself informed of updates of relevant national and local laws and regulations?				
FSA2	Do you comply with all applicable national and local laws and regulations?	Permits, licenses, records and other relevant documents are kept if required by law.			
FSA3	Do you conduct business with integrity, respecting applicable laws and avoid all forms of bribery, conflicts of business interest and fraudulent practices?				

### **3.3 FINANCIAL STABILITY** Code Question Requirements Answer (Yes/No/NA) FSA4 Do you plan your activities to Small-scale farmers in lower income support the long-term countries should at least be able to economic viability of your explain verbally how their activities farm? contribute to the long-term economic viability of their farm. FSA5 If you only have one source of If you have more than one source of income, have you considered income from your farm you can answer the risks to your farm this question with 'not applicable' business? FSA6 Do you have a business plan to "A business plan is a formal statement of optimize the long-term your businesses goals and how these economic viability of the farm? goals will be met. A business plan could have a number of purposes such as setting out goals, securing investment or measuring progress. Small-scale farmers in lower income countries should at least be able to explain their plan verbally. An alternative can be a written community plan that addresses yield, income, etc.

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FSA7

Do you keep records of yields, costs, income and profitability of your farm?

3.4	FARM	MAN	<b>AGFM</b>	FNT
	HAINIM	MAIN		

		3.4 FARITH MARKET SERVER SERVE	
Code	Question	Requirements	Answer (Yes/No/NA)
FSA8	Did you make an assessment of the suitability of all your land for its current or planned use?	The assessment takes into account:  1. Previous use.  2. Current characteristics of the land and adjacent land.  3. Potential impact on neighboring activities, land, and water bodies.  4. Respect for the rights of communities regarding access to natural resources.  Small-scale farmers in lower income countries are able to explain their assessment verbally.	
FSA9	Do you have an up-to-date farm management plan that addresses all relevant farming risks and opportunities?	A documented management plan is available. This plan is updated annually.  Small-scale farmers in lower income countries are at least able to explain their plan verbally. An alternative in such cases can be a written farmer group or community plan.	
FSA10	Do you regularly seek advice, training and collaboration on more effective production, technologies and human resource management?		
FSA11	Do you maintain your equipment and machinery to ensure their proper, efficient functioning?	This question can only be answered with 'not applicable' if you do not use equipment or machinery on your farm.	
FSA12	Do you use crop rotation where applicable?	This may not be applicable for trees and perennials.	

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3.5 PLANTING			
Code	Question	Requirements	Answer (Yes/No/NA)
FSA13	When selecting and using varieties, do you make an informed choice?	An informed variety choice may be based on the local conditions of your farm, environmental impact, and agronomic needs of the crop, availability of different varieties, availability of seed/planting material and/or the requirements of the market/customer/end user.	
FSA14	Have you ensured that your new planting material and/or grafting material is of high quality and from trustworthy sources?	Any purchased planting/grafting material should be certified. You should keep copies of phytosanitory certificates and International Seed Analysis (ISTA) Certificates if they are available. You should ensure the quality of any saved seed by preventing contamination by pernicious weeds, pests or pathogens.	
FSA15	Do you avoid the cultivation and use of invasive species?	The International Union for Conservation of Nature, (IUCN) describes invasive species as "animals, plants or other organisms introduced by man into places out of their natural range of distribution, where they become established and disperse, generating a negative impact on the local ecosystem and species."	
FSA16	When planting genetically modified varieties, do you comply with all regulations of the country where they are grown and the requirements of the buyer of the produce, where they exist?	Only if you are not planting genetically modified varieties can you answer this question with 'not applicable'	
FSA17	Do you take into account the optimum seed rate or plant population for your local situation and crop?		
FSA18	Do you keep records of planting and/or grafting material used?	These records include:  1. Variety name, variety vendor (variety source and batch number if applicable).  2. Location, date of planting/ sowing, and quantity used per area.  3. Copies of phytosanitory certificates and/or International Seed Analysis (ISTA) Certificates where available.	



4. Records of purity & germination testing if it has been carried out on saved seed.

Small-scale farmers in lower income countries should at least be able to explain the varieties and source of supply.

	3.6 SOIL MANAGEMENT			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA19	Do you perform periodic soil sampling to monitor the changes in soil condition and keep the sampling records?	Soil sampling includes:  1. Soil samples are collected to give a representative sample (at least one per field) and sent for analysis of organic matter, extractable P, extractable K, pH and, where appropriate, exchangeable micro nutrients.  2. Small-scale farmers may sample on a group basis if farming as a group.  3. Soil analysis is done before planting new crops on a field and the analysis is repeated rotationally for arable crops and regularly for perennial crops, at least every five years or as recommended by a specialist.  4. Records of soil sampling are kept and used to develop and then monitor nutrient management plans.		
FSA20	Do you take measures to avoid soil erosion?	This includes water and wind erosion.  "Not applicable" is not appropriate for most situations.		

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FSA21	To improve the productivity of your soil, do you take measures to conserve and improve soil health?	Soil health includes physical, chemical and biological aspects. This includes at least two of the examples below:  1. Minimise movement/traffic on land when it is wet and monitor movement/traffic to minimise compaction.  2. Minimum tillage to preserve structure  3. Retain or return crop residues to the field to uphold long-term organic matter level in the soil.  4. Organic manure and compost application  5. Use of cover crops  6. Avoid excessive use of agro-chemicals  7. Manage soil humidity by maintaining drains in wet climates and in dry conditions by soil moisture conservation practices, e.g. rainwater harvesting or mulching.	
FSA22	Do you avoid soil compaction by farm machines or livestock?	This includes at least two of the examples below:  1. Using low pressure tires  2. Avoiding passing of livestock and machines under wet conditions  3. Minimizing passes on the field  4. Avoiding using the same trails	

	3.7 NUTRIENT MANAGEMENT			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA23	Do you choose fertiliser type, quantity and application method according to crop needs whilst reducing environmental impacts?	Fertilizers include chemical fertilizers, green manure (compost and animal manure), slurry and sludge (where permitted).  This question can only be answered with 'not applicable' if you do not use fertilizer on your farm.		
FSA24	Do you have a nutrient management plan?	The documented nutrient management plan is updated at least annually and consists of all of the following:  1. Overview of nutritional requirements of all cultivated crops on your farm 2. Soil type(s) of the fields 3. Soil sample analysis per field		





		<ul> <li>4. Application rates and intervals of either mineral or organic fertilizers applied in accordance with national and local legislation and crop need.</li> <li>5. A simple nutrient input/output balance using best available information.</li> <li>6. Nutrient content of organic and inorganic fertilisers used</li> <li>7. Planting of catch (or cover) crops to capture nitrates, where applicable.</li> <li>Small-scale farmers in lower income countries are at least able to explain their plan verbally.</li> </ul>	
FSA25	Have you obtained your organic and inorganic fertilizers from a trustworthy source to ensure it is of a high quality?	This question can only be answered with 'not applicable' if you do not use fertilizer on your farm.	
FSA26	Do you prevent using untreated sewage sludge on your field?	Sewage sludge also includes residual sludge from septic tanks and other similar installations. Untreated sewage sludge means that which has not undergone an appropriate process to reduce its health hazard.	
FSA27	Do you ensure that the composition and application of organic manure and treated sludges, treated sludge water and /or industrial waste residues are not harmful?	This includes analysis and risk assessment of the following:  1. Pollution of ground and surface water  2. Health risks for the farm workers and surrounding communities, customers and consumers.  3. Heavy metals and other contaminants  This question can only be answered with 'not applicable' if you do not use organic manure, treated sludges, treated sludge water and or industrial waste residue on your farm.	
FSA28	Do you keep records of organic and inorganic fertilizer applications in accordance with local legislation?	Records include: 1. Crop type 2. Type of fertilizer 3. Product quantity used per area  Small-scale farmers in lower income countries should at least be able to explain verbally the application rate of fertilizers.  This question can only be answered with 'not	





		applicable' if you do not use fertilizer on your farm.	
FSA29	Do you store fertilizer in a safe and secure way for humans and environment?	Storage facilities are constructed of suitable materials and located where risks to the environment or human health are minimized in case of fire, spillage, flooding or other emergencies. Fertilizers must not be stored together with fuel.  This question can only be answered with 'not applicable' if you do not use fertilizer on your farm.	

	3.8 CROP PROTECTION			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA30	Have you received training, education or advice on integrated pest management (IPM) from a qualified source?	Integrated Pest Management (IPM) is an ecosystem approach to crop production and protection that combines different management strategies and practices to grow healthy crops and minimize the use of pesticides (FAO).		
FSA31	Do you apply the principles of Integrated Pest Management (IPM) or use IPM based pest management advisors or services when controlling weeds, pests and disease on your farm?	Integrated Pest Management (IPM) is an ecosystem approach to crop production and protection that combines different management strategies and practices to grow healthy crops and minimize the use of pesticides (FAO).		
FSA32	Do you use only crop protection products that are officially registered and permitted in your country for use on the respective crops and in accordance with your buyer requirements (when available) and are the crop protection products you use from trustworthy sources?	This question can only be answered with 'not applicable' if you do not use crop protection products on your farm.		
FSA33	Do you prevent the use of any of the crop protection products included in	International conventions include: 1. Classification by WHO as 1A or 1B; 2. Persistent Organic Pollutants (POP's) in the		





	applicable international conventions?	Stockholm Convention; 3. Annex III of the Rotterdam Convention (UNEP's Prior Informed Consent (PIC) Program list).	
FSA34	Do you respect the maximum authorized rates of crop protection products, the label recommendations and the appropriate preharvest intervals and reentry times?		
FSA35	Do you apply chemical crop protection products only when absolutely necessary and use alternative methods where possible?		
FSA36	Do you minimize the impact/harm to non-target organisms of crop protection product use by using selective pesticides (rather than broad spectrum), targeted application and/or seed dressing?		
FSA37	Do you prevent pest, disease or weed resistance by varying the types of crop protection products (including active ingredient) used?		
FSA38	Do you prevent the spread of disease in your crop by managing sources of contamination?		
FSA39	Do you apply precautionary measures to protect workers, neighboring communities and the environment during the mixing and application of crop protection products?	Measures include:  1. Avoid drifting by applying crop protection products in strong wind  2. Inform the workers and community (as necessary) about re-entry time  3. Do not spray pesticides close to occupied buildings (e.g. houses, schools, community centers).  4. Ensure those using the pesticides wear protective clothing as recommended on the	



		5. Select the correct nozzle and water volume  In addition, when spraying with aircraft and helicopters, strict precautionary measures apply which include: a. Operating procedures, pilot and operator training, and permits / licenses must be established and obtained according to local aviation and transportation authorities and regulations. b. Aerial applications must be undertaken in strict conformance with field re-entry intervals (REIs) and in coordination with farming operations. A communication method for field re-entry restrictions must be established between applicators, workers and visitors to the farming operation to ensure REI conformance. Aerial and ground applications must not be performed for farms or fields where this is not done. Compliance with REIs is facilitated by choosing optimal time of application. c. Drift minimization techniques, including use of guidance technologies (GPS), optimal flight and operating paths, and adherence to established weather parameters (low wind, low temperatures and humidity), must be followed and established in operating procedures.	
FSA40	Do you keep records of crop protection products in storage and of application?	Records include:  1. Type of crop protection products / product trade name  2. Target crop type Recorded application data includes: a. Type of crop protection product used b. Product quantity used per area c. Date and harvest interval and permissible harvesting date  Small-scale farmers in lower income countries should be able to explain the above details verbally.	
FSA41	Do you handle and store crop protection products safely for humans and environment with accurate labeling?	All users of crop protection products must ensure all areas where crop protection products are handled or stored are:  1. Designed such that spillages can be contained.	





- 2. Well constructed of suitable nonflammable materials, well ventilated, well lit and located where risks to the environment or human health are minimized in case of fire, spillage, flooding or other emergencies.
- 3. Only hold crop protection products and related products, such as adjuvants and separated from fertilizers, combustible materials, food, feed, living quarters, food preparation and consumption areas.
- 4. Safe and secure, lockable and accessible only to authorized people.
- 5. The storage is clean, dry and clearly marked as a pesticide store and has any locally required signage warning of general danger and risk of combustion
- 6. Store arranged so liquid pesticides are not stored above powdered/dry pesticide products
- 7. Have PPE and appropriate emergency equipment / information to hand All crop protection products must be stored in their original container with the original label. Labeling of crop protection products must include:
- a. Scientific name, brand name or local name,
- b. Active compound/ substance,
- c. Expiration date.
- d. Application rates

To small-scale farmers in lower income countries the following requirements apply to areas where crop protection products are handled or stored:

- i. Secure (e.g. locked away),
- ii. Out of reach of children,
- iii. Away from harvested product, tools, packing material and other combustible materials, fertilizer, and food products, iv. Used in a way that does not contaminate the environment or put other humans or the operator at risk.
- v. The storage is clean, dry and clearly marked as a pesticide store.

When mixing the crop protection products, sawdust or sand and water are quickly



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available in case of accidents or spillage, and the area is well ventilated.

	3.9 AGRO-CHEMICALS			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA42	Do you protect non-target areas and crops from agrochemical use?  Do you ensure that the			
	recommended maintenance and calibration requirements of crop protection product and fertilizer application equipment are followed?			
FSA44	Do you safely clean and store equipment and empty containers contaminated with agrochemicals to minimise the risk to humans and environment?	Cleaning and storage needs to be separate from food, feed, living quarters, food preparation and consumption areas.  The following procedures apply to the cleaning of empty crop protection containers:  1. Rinsing them 3 times with water (if available with an integrated pressure-rinsing device on the application equipment).  2. Return the water from washing the empty containers to the application equipment tank.  3. After rinsing the containers perforate them to prevent re-use.		
FSA45	Do you store fuel in a way that is safe and secure for humans and environment?	The following is respected:  1. Storage facilities are constructed of suitable materials and located where risks to the environment or human health are minimized, in case of fire, spillage, flooding or other emergencies.  2. Fuel must not be stored together with pesticides and fertilizers.		
FSA46	Do you manage and dispose waste, including hazardous materials and agro-chemicals and their containers, in a manner to avoid any risks to humans and the environment?	All wastes are handled and disposed of in accordance with regulation. In addition the following applies:  1. Pesticides and other inorganic waste that are not recyclable, including chemical and toxic substances are not burned but are handled according to local regulations and guidelines.		

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		2. Used containers which have held hazardous substances, e.g. crop protection products and antimicrobials, are disposed of in a proper manner, and never used to store water, food or feed.  3. Hazardous materials are disposed of in a way that avoids soil and water contamination.  If legislation allows, the surplus spray and wash water from agro-chemicals can be applied over an untreated part of the crop, as long as the recommended dose is not exceeded and records are kept as if it was a normal application.	
FSA47	Is anyone who handles or is exposed to agrochemicals provided with effective instructions and training?	Training highlights topics such as the legal aspects, use, storage, environmental and safety aspects and other precautions.	
FSA48	Do you provide and ensure the use of appropriate personal protective equipment to all those who handle or are exposed to agro- chemicals?	The protective equipment is functional and well maintained.	
FSA49	Do you have procedures and equipment to deal with accidents and spills of crop protection products, fertilizers, and fuels?		
FSA50	Is everyone who uses or is in close proximity to crop protection products, fertilizers, fuels trained on procedures to deal with accidents and spills?	Records of training undertaken should be maintained	



	3.10 WASTE MANAGEMENT			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA51	Do you assess the risks to humans and environment of storing waste material and take adequate mitigation measures?	All waste storage are assessed for risks considering the following:  1. Location of storage (e.g. distance from housing, water channels and conservation areas)  2. Does the storage need to be secured?  3. Capacity of the storage  4. Is the storage appropriately built to contain the waste?  5. Storage of waste is segregated (e.g. hazardous from non-hazardous, waste is not stored with non-waste)  6. Procedures are in place to contain spills		
FSA52	Do you reduce, reuse, and recycle waste and by-products of harvesting and processing?			

	3.11 WATER MANAGEMENT			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA53	If you irrigate, do you periodically assess irrigation water quality and properly manage it, based on the analysis results?	Frequency of analysis must be determined by a risk assessment. Analysis includes items as identified in the risk assessment. This can refer to chemicals, mineral content and/or microbiological composition.  This question can only be not applicable when you do not use irrigation.		
FSA54	If you irrigate, do you have a water use plan to optimize water usage and to reduce water loss?	This water use plan takes into account:  1. Prevention of pollution  2. Minimizing the use of irrigation  3. Maximising the use of water in the soil  4. Minimizing competition for water resources  Small-scale farmers in lower income countries are able to explain their plan verbally.  This question can only be not applicable if you do not use irrigation.		





FSA55	If you irrigate, do you have a water management plan to optimize water usage, water quality, and water availability and to reduce waste water?	This water management plan is updated at least once a year. It takes into account:  1. The timing and amount of irrigation in relation to crop requirements.  2. The added value of irrigation in relation to the yield and quality of crops produced.  3. Predicted rainfall and evaporation, using either daily rainfall records or weather forecasts to plan irrigation schedules.  4. An inventory of water resources.  This includes at least two of the conditions below:  a. Avoiding depletion of water sources, beyond the recharge capacity of the watershed /catchment.  b. Cooperate with other water users in the catchment to balance the needs.  c. Diversify the sources of water to reduce impact and to ensure water access continuity across seasons.  Small-scale farmers in lower income countries are at least able to explain their plan verbally.  This question can only be not applicable if you do not use irrigation.	
FSA56	If you irrigate, do you ensure that any water use, other than rain, is approved by the relevant authorities to ensure that not too much water is extracted?	To ensure that not too much water is extracted, compliance to government regulation is required. If extraction permits are required, advice on extraction is sought from water authorities or a relevant consultant. Water extraction licenses, where required, must be complied with and be available if requested.  This question can only be not applicable if you do not use irrigation or if there are no relevant authorities.	
FSA57	If you irrigate, do you use an optimized irrigation method?	An optimized irrigation method ensures water is applied according to crop needs and environment and could include, subject to economic viability:  • Testing soil moisture deficits before irrigating to assess need.  • Using the most appropriate equipment.  • Using an irrigation scheduling method or service to apply the correct amount of water.	





FSA58	If you irrigate and / or treat water on farm, do you ensure that the water use is in compliance with applicable regulations including food safety, water supply and national legislation?	This question can only be not applicable when you do not use irrigation or treat water on farm.	
FSA59	Do you take measures to avoid water and soil pollution from waste water?	The farm takes measures to protect surface and ground water from direct pollution from wastewater.	
FSA60	Do you employ practices to prevent the run off of any chemical, mineral and organic substances (including crop protection products, fertilisers and manure) that may pollute the environment?	This includes the following practices:  1. Not using fertilizers and pesticides on non-target areas and crops;  2. Not using fertilizers and pesticides on water-logged, steep, cracked, compacted, or frozen ground;  3. Taking into account the weather forecast before application;  4. Minimizing the amount applied.	
FSA61	Do you establish buffer zones adjacent to water to control erosion, prevent pollution, create and protect a wildlife habitat?	A buffer zone, or buffer strip is an area of land with limited or no disturbance to control erosion, prevent pollution and create and protect a wildlife habitat.	
FSA62	If you irrigate, do you maintain irrigation records?	These records include:  1. Date of irrigation  2. Quantity of water used  3. Location of use/target crop  4. Purpose of water  5. Origin of the water (groundwater, rainfall, surface water, etc.)  6. Records of rainfall  This question can only be not applicable if you do not use irrigation.	

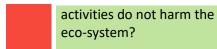
SAI PLATFORM



	3.12 BIODIVERSITY			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA63	Have you assessed biodiversity and identified priority actions to preserve biodiversity on your farm?	An assessment includes:  1. Identification of on farm rare and endangered species (plant and animal)  2. Identification of priority actions that promote biodiversity on farm  This assessment should be an overview of species and possible locations of animals on the farm and in the fields.		
FSA64	Do you have a biodiversity plan for your farm to maintain or improve biodiversity?	This biodiversity plan is reviewed annually and, if available and practical, is part of a biodiversity plan at landscape level.		
FSA65	Have you left all primary forest, wetland, peatland, and protected grassland or other native eco-systems in its original condition within the last 5 years?	This includes ensuring that no practices were used that could weaken or destroy primary forest, wetland, peatland, grassland or other native eco-systems.  This question can only be not applicable if you did not have primary forest, wetlands, peatland, grassland or other native ecosystems at your farm.		
FSA66	If you have deforested secondary forest or cleared grassland, did you ensure that you have acted legally and that you have the right permits?	This includes all of the below:  1. Legal land title is available;  2. The land is classified as agricultural and/or approved for agricultural use;  3. Government permits are available (if required by law).  This question can only be not applicable if you have not deforested secondary forest or cleared grassland at your farm.		
FSA67	Do you practice habitat restoration and do you compensate for areas on your farm that have been prone to habitat/ biodiversity loss?			
FSA68	If you work next to or in protected areas, do you work with legal permits and ensure that your	This question can only be not applicable if you do not farm next to or in a protected area.		







	3.13 AIR			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA69	Do you periodically assess the risks to humans and the environment of air pollution and take appropriate measures on your farm to mitigate possible risks?	Risk assessments of air pollutants include (but not limited to):  1. Ammonia 2. Pesticide aerosols 3. Soil fumigants 4. Dust particles		
FSA70	If there is a significant risk that your farming activities will cause air pollution, do you identify sources and do you monitor the air quality at the farm and its surroundings?	You should keep records of the monitoring system of air quality to show measures are being taken to manage the problem.  This question can only be not applicable if there is no risk your farming activities will cause air pollution.		

	3.14 GREENHOUSE GAS EMISSSIONS				
Code	Question	Requirements	Answer (Yes/No/NA)		
FSA71	Do you take measures to maximize energy use efficiency such as optimizing your farm equipment, optimizing electricity use, etc?				
FSA72	Do you identify sources of greenhouse gas and do you measure and monitor your emissions?	Greenhouse gas emissions include any gases that contribute to the 'greenhouse effect', including carbon dioxide, nitrous oxide and methane.			



	3.15 MARKET ACCESS			
Code	Question	Requirements	Answer (Yes/No/NA)	
FSA73	Do you discuss with customers the best timing for crop deliveries to ensure good prices and to maintain quality?			
FSA74	Do you have a trained or knowledgeable staff member, or access to an advisor that ensures food safety and quality of your products?	This question can only be answered not applicable if the crops being grown are not intended for food production.		
FSA75	Do you have a documented system for ensuring food safety and quality of your products?	This can only be non applicable if you do not produce food or feed products.		
FSA76	Do you have a traceability system from individual production areas to farm gate, have you discussed this with your buyer and is it agreed by the buyer?			

	3.16 LABOR CONDITIONS		
Code	Question	Requirements	Answer (Yes/No/NA)
FSA77	Do you prevent discrimination of permanent and temporary workers?	Discrimination is not permitted, on the basis of gender, ethnic background, national origin, religion, disability, sexual orientation, pregnancy, worker organization membership or political affiliation with regard to contracts, compensation, training, promotion, dismissal or retirement.  Non-job-related medical testing as a condition of employment (except lawful drug testing) is prohibited.  This question can only be 'not applicable' if you do not have permanent or temporary workers.	



FSA78	Do permanent and temporary workers have the right to freely practice their religion or fulfill needs relating to cultural background, disability, gender and sexual orientation?	This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA79	Do you ensure that behavior, gestures, language, and physical contact on the farm are not sexually abusive, coercive or threatening?	This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA80	Do you ensure that permanent and temporary workers can safely and without facing repercussions report complaints and that appropriate action is taken?	This includes complaints about gestures, language and physical contact that are sexually abusive, coercive or threatening as well as complaints about working and living conditions.  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA81	Do you inform permanent and temporary workers of their legal rights and obligations and establish working contracts or relationships in accordance with national laws?	This includes providing workers with clear information about payment received for their work and their employment conditions.  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA82	Do you ensure that you are not using any form of forced and bonded labor?	This includes:  1. The farm (or its recruiting agency or labour provider if relevant) does not charge workers fees for the job they are offered that require him or her to be in debt to the farm (or agency), or to be compelled to work for the farm (or recruiting agency) or prevented from leaving solely to pay off the debt.  2. The farm does not withhold any part of any worker's salary, benefits, property or documents (e.g. identity cards and travel documents) in order to force such workers to continue working for them.  3. Workers are allowed to leave the farm's premises at the end of their shifts.  4. The farm (or its recruiting agency if relevant) does not participate in, or allow	





		human trafficking or any other form of Modern Slavery. [Reference: ILO Conventions C29 and C105]  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA83	Do you ensure that daily working hours for permanent and temporary workers do not exceed the maximum number of hours set by national regulations and ILO Conventions?	This includes that:  1. Working hours are limited to 48 hours (or less) per week, unless agreed with the worker and isn't forced.  2. Overtime does not exceed 12 hours per week, unless agreed and overtime is not forced.  3. Employees are given reasonable breaks while working and sufficient rest periods between shifts. Breaks are strategically scheduled so that no employee is required to work for extended periods of time during a shift without a rest period.  4. Employees can use toilet facilities whenever necessary.  5. Workers are given at least 24 consecutive hours of rest every seven day period.  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA84	Do you ensure that overtime work is voluntary and compensated according to national legislation?	Overtime does not exceed 12 hours per week unless agreed and overtime is not forced.  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA85	Do you follow national law and / or international standards (ILO Conventions) for paid holiday leave, paid sick leave and paid parental leave for your permanent and temporary workers?	This includes: 1. Holiday leave is not used as a substitute for sick leave. 2. Permanent employees have at least the statutory paid leave per year (or equivalent for shorter contracts).  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA86	Do you ensure that wages and benefits of permanent and temporary workers	This includes:  1. Payments are done in a timely manner  2. Wages are paid in a legal currency, or in	





	meet or exceed the minimum required under local and national laws and that they are paid on a regular basis?	another form acceptable to workers without creating any form of dependency.  3. That deductions, other than those allowed in law, are not made  4. That wages are never withheld for any reason  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA87	Do you pay your permanent and temporary workers a living wage?	This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA88	Do permanent and temporary workers receive appropriate payment for their tasks and abilities while having equal work opportunities?	This means that the same skill level, experience, type of work and level of responsibility is awarded in the same way and that workers performing the same tasks have the same possibility to get promoted.  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA89	If deductions from wages take place, are they clear to the workers and are they never used for disciplinary purposes?	Permanent and temporary workers are not charged illegal or excessive deductions or fees, for items such as deposits for accommodation, tools or personal protective equipment etc.  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA90	Do you compensate permanent and temporary workers that became ill due to work related activities?	Compensation meets or exceeds legal requirements.  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA91	Do you encourage and support your workers to have health insurance?	This question can be 'not applicable' if you do not have permanent or temporary workers or operating in a country that has universal healthcare free of charge.	
FSA92	Do you allow all workers the right to establish, join or actively participate in an association of their choice?	If trade unions are not allowed in the area of operation, or only state authorized organizations are allowed, then the farmer facilitates alternative measures to allow employees to gather independently to discuss	





		work-related matters and a forum to present work-related concerns to management.  This question can only be 'not applicable' if you do not have permanent or temporary workers or if there are no farm worker associations/ unions available in the country of operation.	
FSA93	Do you ensure that effective functioning of labor organizations is not opposed?	This includes:  1. Allowing workers on your farm to conduct activities related to the labor organization on the farm.  2. Providing Workers' representatives with access to employees at the workplace and reasonable access to company facilities and documents needed to fulfill their duties.  3. Protecting labor organization's members or representatives that work at the farm from discrimination or dismissal based on their status or activities related to their relation to labor organizations (member or representative).  [Reference: ILO Conventions C35].  This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA94	Do you allow all workers the right to collective bargaining?	Collective bargaining is allowed without retribution towards any worker or group of workers and can be used for:  1. Determining working conditions and terms of employment; and/or  2. Regulating relations between employers and workers; and/or  3. Regulating relations between employers or their organizations and a workers' organization.  [Reference: ILO Conventions C35].  The farm management engages, in good faith, with employee/farm worker/Union representatives in collective bargaining discussions and complies with collective bargaining agreements  This question can only be 'not applicable' if you do not have permanent or temporary workers.	





FSA95	Do you prohibit employing children under 15 years as permanent and temporary workers?	If local legislation has established a higher minimum age, this higher age applies.  If you are a family farm, you can answer 'yes' if the farmer's children only participate in farming practices under all of the following conditions (and only if local laws do not prohibit it):  1. Only for light work and are not forced or bonded labor;  2. For a limited number of hours (max. 14 hours a week);  3. If the work does not jeopardize their physical and mental well-being;  4. If the work does not interfere with their schooling;  5. Do not work in unhealthy situations, at night, or with dangerous substances or equipment, nor do they carry heavy loads;  6. Are always accompanied by an adult relative.  Any children under 15 shall be supported by ensuring that they can attend school. If local legislation has established a higher minimum age, this higher age applies.	
FSA96	Do you ensure that workers between 15 and 18 years of age do not conduct hazardous work or any work that jeopardizes their physical, mental or moral well being, even more so than any other workers?	This includes activities such as:  1. working in dangerous locations, in unhealthy situations, at night, or with dangerous substances or equipment, and carrying heavy loads.  2. exposure to any form of abuse such as trafficked, bonded or forced labor.  If local legislation has established a higher minimum age than 15 years of age, this higher age applies.	
FSA97	Do you ensure that all children under 15 years living on the farm can go to school or receive schooling at home?	If local legislation has established a higher minimum age than 15 years of age, this higher age applies.  Schooling at home is only admissible if it is done according to a recognized program.  This question can only be 'not applicable' if you do not have children working or living on the farm.	





FSA98

Do you take into account language and cultural barriers in the communication on the farm?

Warning signs and safety procedures and other important communications are developed in such way that they are understood by all workers.

This question can only be 'not applicable' if you do not have permanent or temporary workers.

3.17 HEALTH AND SAFETY			
Code	Question	Requirements	Answer (Yes/No/NA)
FSA99	Have you identified health and safety risks posed to all workers and the farmer and have you taken actions to prevent accidents, injuries or health issues associated with the work?	The following actions must be taken:  1. Development of emergency and accident procedures  2. Use of warning signs where appropriate.  3. Maintenance of equipment and its timely replacement  4. Presence and maintenance of firefighting equipment  5. Provide appropriate protective personal equipment for operation of machinery, tools and other implements or any other activities considered dangerous and ensure this is in good working order.  Procedures and warning signs are understood by all workers. Small-scale farmers in lower income countries are at least able to explain their procedures verbally. An alternative can be a written farmer group or community health and safety plan.	
FSA100	Do you organize regular health and safety training for all permanent and temporary workers, including the farmer?	Training is at least held once per year or before new work activities begin, and meet legal requirements.	
FSA101	Do you ensure adequate first aid supplies are available and easily accessible at the farm to meet all reasonably foreseeable emergency medical situations?	First aid supplies available are based on health and safety risks identified on the farm.	



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FSA102	Do you ensure that all accidents are reported, that appropriate medical treatment was received and that corrective action is taken to prevent similar accidents in the future?	An accident is an unplanned event that results in personal injury or property damage. Any documented records of accidents should be maintained.	
FSA103	Is there someone with first aid skills present on the farm at all times?	The person with first aid skills is trained.	
FSA104	Do you provide regular medical checks for all workers (including the farmer) that have a higher risk of health issues associated with their work?	Non-job-related medical testing as a condition of employment (except lawful drug test) is prohibited.  Regular checks are at minimum annual checks for general health issues. These checks are performed on all workers that work with crop protection products.  All medical checks are undertaken by a trained professional.	
FSA105	Do you ensure that workers who handle hazardous materials are not younger than 18 or pregnant, and do not suffer from chronic or respiratory diseases?	This question can only be 'not applicable' if none of your permanent or temporary workers are younger than 18, are pregnant, suffer from chronic or respiratory diseases or you do not have hazardous materials on your farm.	
FSA106	Do you undertake activities to promote the prevention of diseases and do you encourage personal hygiene (including famer and workers)?	This includes:  1. Raising awareness and providing training  2. Providing instructions on personal hygiene to minimize the risk of microbial infections	
FSA107	Do you ensure that the farmer and workers who have been injured or are ill, do not perform activities that are detrimental to their health and safety or that of the other workers?	This includes making sure that work undertaken is not going to be detrimental to workers full recovery. This question can only be 'not applicable' if you do not have permanent or temporary workers.	
FSA108	Do you ensure that all people on the farm have access to safe drinking water and hygienic	All people on the farm include the farmer and family as well as the workers and their families.	





	toilet and hand-washing facilities?		
FSA109	Do you ensure that all people on the farm have access to safe drinking water and hygienic toilet and hand-washing facilities?	1. Access to cooking facilities and accommodation is within easy travelling distance.  2. Housing complies with applicable laws and cultural preferences.  This question can only be 'not applicable' if you do not have permanent or temporary workers living on the farm.	

3.18 LOCAL COMMUNITY			
Code	Question	Requirements	Answer (Yes/No/NA)
FSA110	Did you ensure that acquiring your land did not involve involuntary resettlement and coercion, that you have legitimate land use rights according to formal and customary laws and that you used Free, Prior and Informed Consent with any communities affected by your land acquisition?	This includes:  1. You respect the rights of individuals and communities;  2. You have identified environmental, social, economic and cultural risks and impacts on all communities. Avoid negative impacts if possible and if not possible, minimize, restore and/or compensate;  3. You ensure that communities are informed of their rights under formal and customary law, the scope and nature of the land development, potential consequences, and obtain their FPIC;  4. You have avoided impact on critical cultural heritage.  Small-scale farmers in lower income countries should at least:  a. Have a land use title and if not available the local authority or customary leader has officially confirmed that the land is legitimately acquired.  b. Have compensated previous owners fairly, equitably and promptly and in mutual agreement.  This question can only be answered with 'Not applicable' if you did not acquire land.	

FSA111	Does your farm contribute actively to the neighboring communities?	
FSA112	Do you take measures to reduce disturbance from noise and odor to the neighboring community?	



# 4. Assessment Question Guidance

3.1 GENERAL QUESTIONS		
Code	Guidance	
G1		
G2		
G3	This means the person who is responsible for the management of the farm. Can be the same as above (G2).	
G4	Options: Owner / Tenant / Manager / Caretaker / Sharecropper / Farm Management Company / Other.	
G5		
G6	Short-term is less than 10 years.	
<b>G7</b>	This includes company supplier codes, sustainability/ food safety programmes.	
G8	This question can be answered by stating an address. Can be the same as above (G2).	
G6	If you have geographic coordinates please add those by taking those at the entrance of main farm building/house; if that does not exist, use the center of the farm. Use GPS-enabled phone or device or convert address to coordinates via www.gpsvisualizer.com/geocode or www.mapseasy.com/adress-to-gps-coordinates.php. Example: 15°24'0"N, 89°50'0"W.	
<b>G</b> 9	Include only the land used for production (field crops, tree crops, forage), excluding non-farmed land. Include owned, rented and leased land. Use hectares or acres and please indicate which are used (1 hectare = 2.47 acres).	
G10	Please mention a maximum of five of your most important products grown for sale, including:  - Arable crops (please specify; put crops together that are grown in rotation)  - Perennial non-woody crops (please specify)  - Trees, shrubs and vines (please specify)  - Animals (please specify)  - Fish (please specify)	
G11	Permanent workers include: - Full time and part time employees with contracts for longer than 6 months Family members that are paid to work on the farm as their primary profession.	
G12	Temporary workers include: - Seasonal workers; - Full time and part time employees with contracts for shorter than 6 months; - Workers with no contract with the farm, e.g. hired by a farm labor contractor;	

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	- Family members or neighbors that are paid to work on the farm occasionally or during a limited period in the year.
G13	This includes friends, family members or neighbors who occasionally help on the farm.
	Voluntary workers can be unpaid or may receive a modest compensation if that is in accordance with local legislation.
G14	Please fill in the maximum number of workers that live on the farm during the year. This includes permanent and temporary workers.  Fill in 0 if there are none.
G15	

Code	Recommended Practices and Guidance
FSA1	For example, through specialized publications and news sources, in the areas of workers' rights, health & safety, environment, and food safety. This information can also be provided by farmer organizations or cooperatives.
FSA2	
FSA3	
FSA4	Long-term economic viability should also take into account social and environmental aspects.
FSA5	Having more than one source of income may increase the economic viability of your farm. This may include multiple crops, different customers and non-farming activities.
FSA6	A business plan can include:  - An approach to optimize sustainable yields and input efficiency (efficient use of chemicals, soil optimization, optimal irrigation management, crop rotation, etc.).  - A risk mitigation strategy to survive shocks such as environmental shocks (e.g. drought), social shocks (e.g. riots) and economic shocks (e.g. price fluctuations).  - Market requirements.  A business plan is applicable to a single farm or a group of farms under one management.
FSA7	These records are important to monitor the economic viability of your farm and provide input to define management plans.
FSA8	A land assessment can include all of the below as relevant:  - Deforestation  - Natural habitat degradation and destruction (including protected areas and wildlife corridors)  - Rare and endangered species (including hunting and wild collection by farm workers and visitors)  - Land and soil characteristics, including landscape, soil erosion, soil type, soil pollution, etc.  - Water pollution (soil, leakage or run-off from storing or applying nutrients and





pesticides and from fuel or waste storage/disposal)

- Water availability (long term sustainable water source, respecting the water requirements of the surrounding area)
- Potential off-site contaminants (e.g. pollutants or invasive species; protection against off-site contaminants can be managed through buffer zones)
- Historical/ archaeological remains
- Neighboring human settlement, community access, tourist and archaeological sitesAdd to the list:
- -Whether it is economically viable to produce the intended crop or carry out the desired activity
- -Whether the natural features of the land (e.g. soil and water resources) are suitable for the intended crop.

Note: when referring to adjacent land, both land owned by the farmer as well as land that is owned by others is taken into account.

FSA9 The documented plan has concrete targets where possible.

Relevant farming risks and opportunities refer to:

- legal requirements
- natural habitat degradation and destruction
- rare and endangered species (including hunting and wild collection by farm workers and visitors)
- farm animal welfare
- worker welfare and health & safety
- soil pollution and erosion (storm events or dust from cultivation, steep slopes)
- water pollution (soil, leakage or run-off from storing or applying nutrients and pesticides and from fuel or waste storage/disposal)
- water availability (prevent loss of water, respecting the water requirements of the surrounding area)
- pesticide drift
- air pollution, including fire and smoke
- potential off-site contaminants (e.g. pollutants or invasive species; Protection against off-site contaminants can be managed through buffer zones)
- food safety risks

Potential sources / partners can be peers, suppliers, buyers, research institutes, extension workers and professional service providers.

FSA11

FSA<sub>10</sub>

FSA12 For example:

- Crop rotation (annual or other intervals); this may include cover crops and grazing.
- Rotation of cultivation and fallow ground.
- Multiple plots with rotational cultivation.

Rotation benefits productivity and biodiversity and provides potential diversified income sources.

FSA13 Varieties include seed and planting material as well as grafting material.



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An informed choice can take into account any of the below:

- Yield performance;
- Disease resistance of the varieties (resistance or tolerance to commercially important pests and diseases);
- Adaptation to local climatic and geographic conditions;
- Soil characteristics and crop rotation;
- Customers' requirements;
- Pest, disease and weed pressure;
- Fertilization needs;
- Water needs;
- Genetic diversity on the farm;
- Impacts on the adjacent cultivated area;
- Recommendations by extension officers;
- Results from variety trials.

FSA14

This includes certified material or material that can be traced back to its propagation source. This can be from reputable seed producers, neighbors, and cooperatives.

FSA15

Invasive species are those that can come to dominate an area and may result in a loss of native species.

It is important to assess the invasiveness of an species before use. For example nonnative plants that are introduced can become invasive. These plants may threaten biological diversity by dominating a region, wilderness areas, particular habitats, or wild land-urban interface land from loss of natural controls (such as predators or herbivores).

Possible sources for information about invasive species are legislation and the Global Invasive Species Database (GISD, http://www.issg.org/database/welcome/).

FSA16

Regulations may typically include:

- Protection of adjacent farms and wildlife habitat against invasion and cross-pollination;
- Traceability and labeling of GM crops and products.

FSA17

The choice of plant spacing can take into account any of the following:

- Minimize the use of plant protection inputs and fertilizer leakage
- Optimize yield per hectare
- Optimize crop quality and homogeneity
- Facilitate harvest

Intercropping (planting two or more crops in proximity) and companion planting could be considered to improve and stabilize farm income and benefit biodiversity.

FSA18

FSA19

FSA20

Special attention should be paid to sloping fields and areas where the soil is exposed. Measures that minimize erosion:

- Following contours with operations for soil preparation
- Using terracing



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<ul> <li>Using cover crops</li> </ul>
- Minimizing tillage
- Placing wind breaks

Soil health covers soil structure, soil fertility and soil biodiversity.

FSA22

FSA23

Fertilizer use could be based upon the recommendations of a competent person, legitimate knowledge source or cumulative own experience.

For optimized application, you are recommended to store manure before application for a minimum of 6 months if rotated, or 12 months if stacked.

We strongly recommend to not over apply fertilizer or manure, to avoid pollution of the environment (soil and water).

FSA24

FSA25

Quality relates to issues such as:

- Chemical composition
- Concentration
- Availability of application manual / directions

FSA26

This does not refer to animal manure.

FSA27

Sludge should not be applied directly to the crop after flowering.

FSA28

The records can include: location, application method, date of application, product trade name, composition, product, and operator name.

It is recommended that records be kept for 5 years.

FSA29

This question specifically refers to fertilizer storage. Crop protection products can be stored at a different location.

FSA30

The responsible person can be either the farmer him/herself or the designated farm manager.

Training is considered to be one of the following possibilities:

- College level courses
- Training provided by independent accredited organizations
- Crop advisor trainings related to IPM
- Manuals or information from reputable sources

Qualified advice can be based on knowledge of:

- Visual inspections, taking into account economic thresholds of pest/disease/weed occurrence,
- Weather forecasts,
- Electronic systems
- Local knowledge.



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If available and relevant, you are recommended to subscribe to a national IPM program with certification.

FSA31

Principles of integrated pest management (IPM) include evaluating pest levels, evaluating all available pest control options (disease, insect & weed control) and selecting a crop protection method that maximizes human safety, minimizes environmental impact and is economically justifiable. Pesticides have to be used of a nature and in a manner that prevents food safety risks for all crops. IPM combines non-chemical control methods and rational pesticide use. This includes biodiversity-based Integrated Pest Management as part of your crop protection activities.

As part of IPM farmers are encouraged to create biodiversity habitats, e.g. field margins or beetle banks, that may attract natural enemies of pests and diseases and contribute to their control by biological rather than chemical means. Farmers are also encouraged to keep honey bees.

FSA32

If you use any of the products which are listed under the Stockholm convention or other conventions (including WHO and Rotterdam converntion) or the Dirty Dozen list it is recommended to implement a plan to phase them out.

Stockholm convention:

http://chm.pops.int/TheConvention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx

Additional red-lists are the Dirty Dozen of the Pesticide Action Network (http://www.pesticideinfo.org/Docs/ref\_toxicity7.html)

FSA33

Stockholm convention:

http://chm.pops.int/TheConvention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx

Additional red-lists are the Dirty Dozen of the Pesticide Action Network (http://www.pesticideinfo.org/Docs/ref\_toxicity7.html)

FSA34

Pre-harvest intervals determine how long after application a product can be harvested. Re-entry times determine after how long it is safe again to enter the treated area without protection.

FSA35

Crop protection products include chemical pesticides, insecticides, herbicides, fungicides and rodenticides.

The decision to apply crop protection products could be based on:

- Visual inspections, taking into account economic thresholds of pest / disease / weed occurrence
- Weather forecasts
- Electronic systems
- Local knowledge

It is recommended to seek advice from a competent advisor who holds a recognized certificate or qualification.

Instead of chemical crop protection products, non-chemical control methods can be used. They include:



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FSA39

- Choice of disease and pest resistant crop/variety;
- Use of crop rotations;
- Mechanical and physical methods of crop husbandry (mechanical, weeding, trimming and pruning);
- Biological pest control measures;
- Good fertilizer and irrigation practices.

Selective' means effective for the specific pest, but not damaging or lethal to a much wider range of organisms (which would be 'broad spectrum').

'Targeted application' means to aim specifically at the pest at the right time (instead of indiscriminate spraying for instance).

'Seed dressing' is the application of a protective chemical coating to the seeds.

Using the same crop protection product (especially the same active ingredient) continuously will select for resistant weeds, pests or diseases. Where possible, different crop protection products, including those with different active ingredients should be used. This may not be possible if a selection of different crop protection products are not authorised for the target.

Contamination can be avoided by removing infested or diseased plant material from the field or by chopping and burying it in the soil and disinfecting pruning and propagation equipment.

Records may also include (chemical) composition and operator name.

It is recommended that records be kept for 5 years.

FSA41 The storage facilities may have:

- Shelves made of (or lined with) non-absorbent material such as plastic, glass, or metal,
- Permanent and clear warning signs on or next to access doors and an accident procedure visibly displayed, indicating basic accident care instructions as well as emergency telephone numbers or radio contacts.
- Liquid products stored at the bottom.

Correct labeling is also required in the case of transfer to other containers.

Companies could use a Material Safety Data Sheet (MSDS) which is kept in the storage facility for each chemical product stored.

This question refers only crop protection products. Fertilizer can be stored in a different location.

Agro-chemicals refer to chemical pesticides, herbicides, fungicides, rodenticides, fertilizers, thinning or crop setting agents.

Non target areas are those areas that do not require pesticides or other agrochemicals. Appropriate measures considered may include:

- Buffer strips/zones,
- Hedges,



FSA42

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<ul> <li>Spraying under low-wind conditions</li> </ul>	- Spraying und	der low-wind	conditions,
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- Not spraying near water bodies.

## FSA43

Large farms may have a documented maintenance plan.

Agro-chemicals refer to chemical pesticides, herbicides, fungicides, rodenticides, fertilizers, thinning or crop setting agents.

FSA44

Examples of equipment are: sprayers, Personal Protective Equipment (PPE), measuring equipment.

Agro-chemicals refer to chemical pesticides, herbicides, fungicides, rodenticides, fertilizers, thinning or crop setting agents.

FSA45

Agro-chemicals refer to chemical pesticides, herbicides, fungicides, rodenticides, fertilizers, thinning or crop setting agents.

FSA46

Hazardous waste is considered to be:

- Obsolete pesticide residues and their containers
- Sewage
- Other chemical and toxic substances, such as heavy metals, polyaromatic hydrocarbons (PAHs), veterinary medicines and harmful bacteria.

Agro-chemicals refer to chemical pesticides, herbicides, fungicides, rodenticides, fertilizers, thinning or crop setting agents.

FSA47

This includes yourself, permanent workers, temporary workers and volunteers.

Agro-chemicals refer to chemical pesticides, herbicides, fungicides, rodenticides, fertilizers, thinning or crop setting agents.

FSA48

Provide clean showers and changing rooms for workers in contact with agrochemicals. Ensure awareness of the need for appropriate methods to wash clothes and personal protective equipment worn by workers while applying agrochemicals in a way that ensures no risk of cross-contamination and exposure, including to family members.

Agro-chemicals refer to chemical pesticides, herbicides, fungicides, rodenticides, fertilizers, thinning or crop setting agents.

PPE includes such items as coveralls or protective suits, footwear, gloves, aprons, respirators, eyewear, and headgear.

FSA49

Procedures may include:

- A clear overview of responsibilities
- Contact information in case of emergency
- The availability of first aid material

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PPE includes such items as coveralls or protective suits, footwear, gloves, aprons, respirators, eyewear, and headgear.



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## Equipment can be:

- Absorbing material
- Equipment to isolate the spill

## Useful link:

https://croplife.org/wp-content/uploads/pdf\_files/Guidelines-for-the-safe-and-effective-use-of-crop-protection-products.pdf

The link contains information that is also applicable for smallholder farmers in low-income countries.

FSA50

Agro-chemicals refer to chemical pesticides, herbicides, fungicides, rodenticides, fertilizers, thinning or crop setting agents.

FSA51

### Waste could include:

- Obsolete fertilizers and pesticides and empty containers
- Plastic, paper and metal waste
- Fuel and oil residues
- Carcasses (in the case of mixed farms)
- Redundant equipment and machinery

Mitigating measures may include:

- One designated responsible person for proper handling of waste.
- Good inventory management, that supports awareness about the amount and location of on farm waste.
- Well constructed and locked storage facilities.

FSA52

## An example of re-use is:

- Composting organic debris on-farm and re-using it for soil conditioning (where there is no risk of disease transmission).
- Selling your crop by-products to alternative markets.
- Use your crop by-products for alternative purposes.

FSA53

Such analysis can be done for a group of farms that are using the same water source(s).

FSA54

This can be a separate plan or a chapter in an overall farm management plan. An alternative can be a written farmer group or community plan.

Farmers are encouraged to consider optimizing water usage, e.g. rainwater harvesting (via roofs or ground), irrigating at night, irrigation system monitoring to minimize leakage, etc.

FSA55

This can be a separate plan or a chapter in an overall farm management plan. An alternative can be a written farmer group or community plan.

FSA56



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FSA57	Water is re-used and recycled where ever possible.		
FSA58	This means for example that you should avoid the use of contaminated water to irrigate food crops.		
FSA59	Possible sources of wastewater are outflows of guttering, water from washing equipment, waste water from processing, hydroponic systems, domestic waste water, human waste and animal waste etc.		
FSA60	Additional ways to avoid run-off include: - Applying techniques such as split applications, incorporation or direct injection - Using slow-release or stabilized fertilizers - Incorporating animal manure in the soil - Preventing application to fallow land		
	Examples of sources of pollution can be: - Agro-chemicals - Waste water - Contaminated soil		
FSA61	Buffer zones adjacent to waterways may be planted, maintained or restored, preferably with native species.		
FSA62			
FSA63	The assessment should include plants, animals and soil.		
	This assessment can be managed at landscape or group level and the assessment can be made by public or private bodies.		
FSA64	This plan can be a separate plan or a chapter in an overall farm management plan.		
	Farmers are encouraged to have a biodiversity action plan for their farm which includes:		
	- A map of the location of areas or features important to biodiversity on and around the farm.		
	- Details of how provision is made for wildlife habitats and food sources through hedges, field margins, extensive pasture, etc.		
	- Measures to avoid degradation and deforestation of High Conservation Value Areas (HCV) areas or other ecologically sensitive areas.		
	- Assessment of possible disruption of biological corridors because of farm activities and if required, based on the assessment mitigation measures.		
	This plan can be managed at landscape or group level and the review can be made by public or private bodies.		
FSA65	Primary forest/wetland/peatland: Area that shows no or minimal disturbance by people and/or demonstrates the diversity, structure and ecological services of a mature forest etc for that region. Natural disturbances like natural fires or windstorms do not convert primary forest etc into secondary forest etc.		
FSA66	Secondary forest is any forest that is not primary forest.		



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Primary forest: Forest that shows no or minimal disturbance by people and/or demonstrates the diversity, structure and ecological services of a mature forest for that region. Natural disturbances like natural fires or windstorms do not convert primary forest into secondary forest.

FSA67

Restoration of vegetation is encouraged in degraded areas that have been prone to soil erosion or loss of fertility, preferably by using native species.

Compensation is with an equal ecological value, preferably confirmed by an independent expert report. This could include a larger area to be planted with mixed native species or establishment of critical wildlife corridors.

FSA68

Protected areas include national parks, wildlife refuges, biological corridors, forestry reserves, buffer zones or other public or private biological conservation areas.

If you are located next to such protected areas it is recommended to establish and maintain buffer zones. These zones should consist of permanent native vegetation with trees, bushes or other types of plants, in order to promote biodiversity, minimize any negative visual impacts and reduce the drift of agrochemicals, dust and other substances coming from agricultural or processing activities.

FSA69

Potential sources are:

- Manure storage
- Waste storage
- Burning waste
- Pesticide application
- Manure application
- Dust from harvest, cultivation or transport
- Machinery exhaust fumes

This assessment can be managed at landscape or group level and the assessment can be made by public or private organizations.

FSA70

Linked to an air quality monitoring system a grievance mechanism for neighboring community members could be in place and based on complaints measures should be taken that address the nature of the complaint.

FSA71

Possible measures to minimize greenhouse gas emissions include:

- Reducing the use of non-renewable sources of energy and increasing the use of renewable sources of energy.
- Optimizing the use of energy-intensive inputs, such as inorganic fertilizers.
- Using farming equipment properly, e.g. by combining field operations and optimizing haulage distances; avoiding unnecessary operations and using appropriate machinery and equipment.
- Storing manure or waste from primary processing in a covered lagoon that minimizes nitrous oxide emissions and allows methane to be captured for energy use.
- Avoiding unnecessary (or illegal) forest degradation and conversion.
- Injecting liquid manure into the soil or incorporating manure directly into the soil in any other way rather than spreading and leaving it on the soil surface.
- Using advanced formulation fertilizers such as slow-release or low-carbon or fertilizer additives such as nitrification or urease inhibitors.
- Building soil carbon with effective residue management, conservation tillage, and



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cover crops.

- Reducing nitrous oxide emissions by practices such as using the minimum nitrogen fertilizer necessary for optimal crop yields, avoiding fall fertilization, and using a nitrification inhibitor.
- Minimizing the energy used for cropping by using no-till.
- Applying soil sequestrization

FSA72 A possible methodology is the Cool Farm Tool: http://www.coolfarmtool.org/

Other methodologies can be found on www.saiplatform.org.

FSA73 This can be applicable to the single farm or a group of farms (e.g. cooperative).

FSA74 Typical safety and quality hazards are:

- Biological, including infection and cross-contamination
- Chemical
- Physical, including foreign matter
- Cross contamination with allergens

Once crop safety and quality hazards have been identified, you can put in place a Hazard Analysis and Critical Control Points (HACCP) management system, by mapping out the crop production process up to farm gate. The management system then defines limits for the hazard, monitoring processes and remedial actions to reduce the risk of the Hazard to acceptable on farm levels.

FSA75 Typical safety and quality hazards are:

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FSA76 Having a traceability system in place on your farm is important for food safety.

Positive discrimination is allowed in countries where the law provides for measures to support positive discrimination for 'previously disadvantaged people' or 'minorities'. Positive discrimination may however never lead to exclusion of certain groups of people.

Permanent and temporary workers refers to all workers hired directly and through subcontractors.

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SAI

FSA77

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FSA79	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA80	Appropriate action may be investigation, reprimands, dismissal and/or reporting to local authorities. Record keeping of cases is highly recommended.
	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA81	This may a written contract, or where necessary, a verbal explanation to the workers.
	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA82	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA83	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
	[Reference: ILO Conventions C1, C14, C30 and C106]
FSA84	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA85	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA86	Alternative forms of compensation may include merchandise, vouchers, tokens, etc. In the case of compensation with merchandise, and when applicable a written document should be available that describes the nature of the agreement. In the case of illiteracy, it should be explained to the workers verbally. This is to ensure that the content of such document is clear to both employer and worker.
	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA87	A living wage (on full time basis) is sufficient to meet basic needs of an average household, such as food, clean water, shelter, clothes, education, healthcare, transport and energy and provide for some discretionary income. Overtime hours are not required to provide a sufficient wage. Piece rate systems are monitored to ensure that the total salary paid meets the requirements of a sufficient wage.
	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA88	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA89	Permanent and temporary workers refers to all workers hired directly and through subcontractors.



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SAI PLATFORM



Compensation may include:

- Continuing to pay a workers wage whilst they are ill
- Compensating the workers family

Permanent and temporary workers refers to all workers hired directly and through subcontractors.

## FSA91

Health insurance can include:

- long term compensation in case of disability
- Payment of medical costs

Support may include:

- Creating awareness about available insurance
- Providing information about available insurance
- Subsidising the costs, either wholly or partly of insurance

Permanent and temporary workers refer to all workers hired directly and through subcontractors.

FSA92

Freedom of association is the right of employees to establish and to join organizations of their own choosing without any prior authorization or interference. [Reference: ILO Conventions C87 and C98].

Permanent and temporary workers refers to all workers hired directly and through subcontractors.

FSA93

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FSA94

Negotiations between employers and a group of employees about working conditions are considered collective bargaining.

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FSA95

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[Reference: ILO Conventions C138]

FSA96

Dangerous substances include but are not limited to fertilizers and pesticides.

It is recommended that workers below 18 years of age are encouraged to engage in some form of education.

Permanent and temporary workers refers to all workers hired directly and through subcontractors.

FSA97

It is recommended that workers below 18 years of age are encouraged to engage in some form of education.



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To promote literacy it is recommended to provide/ support training on reading and writing.

To improve communication in the local language, it is recommended to organize / support language lessons in the local language.

Permanent and temporary workers refers to all workers hired directly and through subcontractors.

### FSA99

Health risks may include:

- Using / applying of fertilizer or chemicals (agrochemicals or other)
- Handling waste
- Using machinery
- Working circumstances (e.g. working at height)
- Fire, flood, power failure, freezing, failure of water supply
- Design and set up of storage and workshops

A health and safety plan helps you to describe the health risks and actions that are taken to prevent accidents. Also emergency activities could be part of the plan. Any health and safety plan should be updated annually.

Warning signs should also be clear to illiterate workers.

## FSA100

Trainings can be related to general health or dangerous work:

- First aid
- Working circumstances (e.g. working at height)
- Emergency and accident procedures
- Human health and hygiene
- Other work related health risks
- Using fertilizer or chemicals (agrochemicals or other)
- Handling waste
- Using machinery

It is highly recommended to have a senior management representative appointed that is responsible for the implementation of the program and that the training is documented.

Permanent and temporary workers refers to all workers hired directly and through subcontractors.

# FSA101

First aid supplies may include:

- Eye washing stations
- First aid kit with sufficient supplies that are up to date and that is regularly checked.
- A list of emergency telephone numbers

### **FSA102**

Reporting can be verbal, however documentation of accidents and corrective action is encouraged.

**FSA103** 



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FSA104	Workers that have a higher risk are e.g. pregnant women, elderly workers, workers with an existing medical condition, etc.
FSA105	Hazardous materials include but are not limited to fertilizers and pesticides.
FSA106	This can also include facilitating access to appropriate vaccination and medical programs.
FSA107	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA108	Water quality complies with physical, chemical and microbiological parameters detailed in applicable laws or in their absence the World Health Organization (WHO) parameters. If water purity is identified as a risk, drinking water is analyzed at a frequency appropriate for the risk level.
	Appropriate hand washing facilities include safe water, anti-bacterial soap, and hand drying.
	Workers operating in remote or temporay locations must be able to bring potable water, soap and washing water with them.
FSA109	Permanent and temporary workers refers to all workers hired directly and through subcontractors.
FSA110	Resolve conflicts over land use rights in a culturally appropriate, equitable and timely way.  Visibly demarcate your land to avoid encroaching by others.
FSA111	This may include: - You are an active and engaged member in your community, trying to contribute to its further development You hire labor mainly locally and purchased products locally where possible You promote farming as an attractive profession to the younger generation.
FSA112	Adequate measures include: - Informing the community about spraying practices, including fertilizer, pesticides and manure Planning operations at times that minimize disturbance.

SAI

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