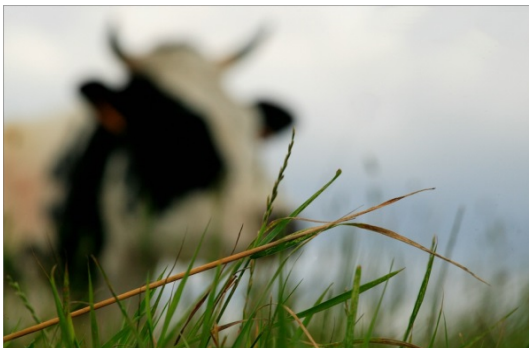
SUSTAINABILITY REPORT

Forschungsinstitut für biologischen Landbau
Institut de recherche de l'agriculture biologique
Research Institute of Organic Agriculture
Istituto di ricerche dell'agricoltura biologica
Instituto de investigaciones para la agricultura orgánica

smart
sustainability monitoring and assessment routine

SMART – Sustainability Assessment Farm Peter Miller
(model report, short version)



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Report version: 12.12.2014

This report is the result of a SMART-Sustainability Assessment of the farm Peter Miller. This assessment was prepared on 12.12.2014 by the Sustainable Food Systems GmbH (SFS) on the basis of the SAFA-Guidelines from the Food and Agriculture Organization of the United Nations (FAO).

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1 Introduction

The food supply for the growing world population significantly contributes to ecological and social problems. Through a sustainable operational management, farm managers can contribute to an improvement of the situation. At the same time there will be a stronger demand in the future from policies, society and players in the food sector to improve sustainabiliy performance in agriculture. A sustainable operational management can therefore aslo help farms to adapt to future challenges.

Against this background the company example Ltd has decided to carry out a status-quo analysis of the sustainability performance of their suppliers. Areas which already meet the ideal of a sustainable producton as well as areas with improvement potential should be identified. During winter 2014 example Ltd has therefore assigned Sustainable Food Systems GmbH (SFS) to assess the sustainability of a selection of 30 of its suppliers with the analysis and assessment tool SMART (Sustainability Monitoring and Assessment RouTine). The farm Peter Miller has agreed to participate in this project and thus created the preconditons for a sustainable operational management.

With this report from an independent party, the farm receives a verification of its current sustainability performance. It contains a detailed analysis of the current status of the farm and offers concrete indications for future improvements. Furthermore, the report can be used for the communication with customers and other stakeholders.

The assessment was performed by SFS on 12.12.2014 and included a farm tour, an inspection of the documents provided by the farm as well as a an extensive interview with the farm manager.

In the context of the assessment, the farm Peter Miller assured the complete and truthful answering of the questions asked. The SFS commits itself to assess the farm to the best of their knowledge and judgment on the basis of the information provided and based on the current state of research.

1.1 SAFA-Guidelines and SMART

SMART (Sustainability Monitoring and Assessment RouTine) is a method to assess the sustainability performance of companies and farms. It is based on the SAFA-Sustainability-Guidelines (Sustainability Assessment of Food and Agriculture systems) from the Food and Agriculture Organisation of the United Nations (FAO), which was published in December 2013.[1] The guidelines divide sustainability into overall 58 themes within the four dimensions Good Governance, Environmental Integrity, Economic Resilience and Social Well-Being. FAO has provided a specific objective for each theme towards which companies and farms should orient themselves. The SAFA-Guidelines' goal is to fill the term sustainability with meaning and to support players in the food sector to implement specific improvements in regards of sustainability. They provide a uniform framework and enable a comparable and transparent sustainability assessment for companies and farms of different types and sizes.

[1] http://www.fao.org/nr/sustainability/sustainability-assessments-safa/en/

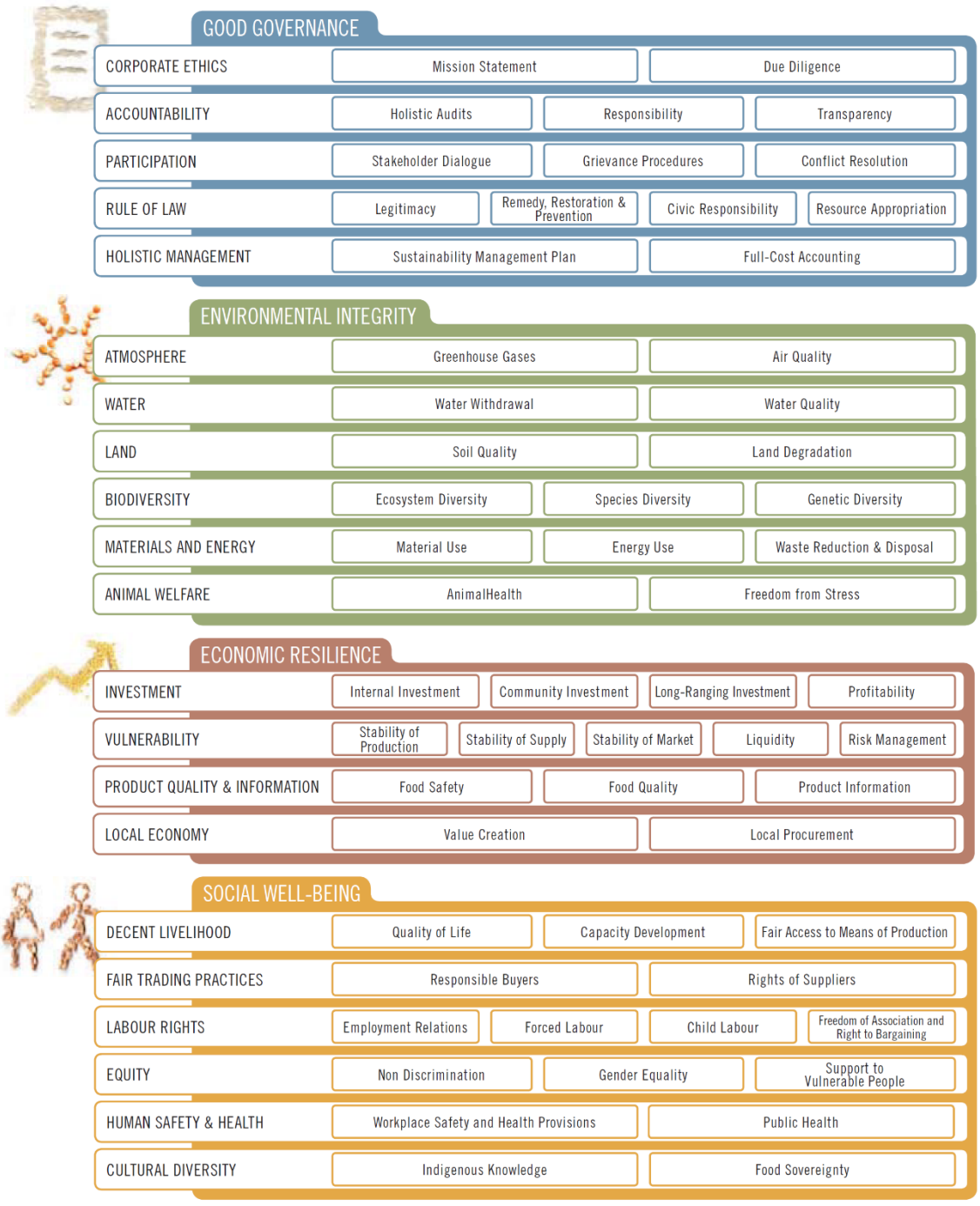

Figure 1: Theme overview SAFA-Guidelines. Source: FAO (2013)

To make the SAFA-Guidelines applicable in the context of farms, the Research Institute of Organic Agriculture (FiBL) has developed a practical Assessment-Tool (SMART).[2] With the help of SMART, the specific sustainability performance of farms can be recorded, analysed and assessed in a systematic manner.

For this, the entire sphere of influence of a farm is taken into account, therefore also, for example, impacts which result from buying-in farm inputs. In the following results of the

[2] Further information regarding SMART can be found here: http://www.fibl.org/en/themes/smart-en.html

SMART assessment each of the 58 sustainability themes is assessed using percentages, showing to what extent the farm Peter Miller meets the sustainability objectives. As shown in figure 1, the achievements of the objectives are assessed using a five level scale from 0 (Unacceptable) to 4 (Best). This scale is used for the display of the assessment in the radar charts and the respective subthemes (see chapter 2). Furthermore, the assessment is explained in detail in order to derive concrete improvement potential from it.

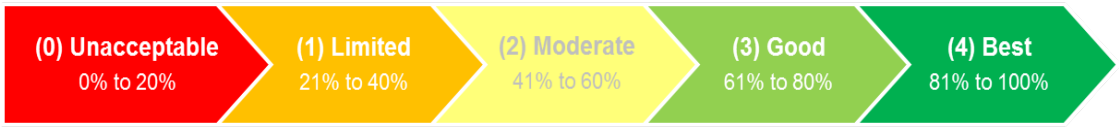

Figure 2: Scheme for the assessment of the sustainability objective achievement

1.2 Additional explanations

As the SAFA-Guidelines do not only refer to farms but also to companies, the objectives of some of the themes are only party achievable or not relevant for farms. This applies mainly to themes from the dimension Good Governance, since the management of farms is often organised informally and not structered and systemathic as in companies. In the Social Well-Being dimension many themes refer to the handling of employees, and therefore have less relevance for small farm holdings, which often operate without employees. But as this themes also refer to the social conditions of primary producers (e.g. when buying-in farm inputs), also small farm holdings can have a certain influence, which is often indirect, e.g. over the selection of suppliers or the demand for socially and/or environmentally certified farm inputs, especially feed stuff.

Overall, it should be noted that the SAFA-objectives describe the ideal state of sustainable management. This means that assessments in the red or orange area are quite common and do not necessarily mean that a farm is less sustainable than the average of comparable farms.

1.3 Structure of the report

The most important key figures are presented in chapter 1.4. First, an overview of the sustainability themes of the 4 dimensions is given in the result part. Afterwards, a detailed presentation of the themes of the various dimensions follows in the order of Good Governance, Environmental Integrity, Ecological Resilience and Social Well-Being. For this an initial overview of the assessment of the repective sustainability dimension is given and then the rating for each theme is justified by stating the aspects which had an especially positive or negative impact on the rating.

The presentation of the positive and negative aspects for each theme serves to explain and justify the rating. It is however only a selection of the aspects which had an especially positive or especially negative impact on the rating. It should be noted that, not for every farm

and for every negative aspect, immediate improvement measures have to be taken. This too is due to the high standards of the SAFA-objective descriptions.

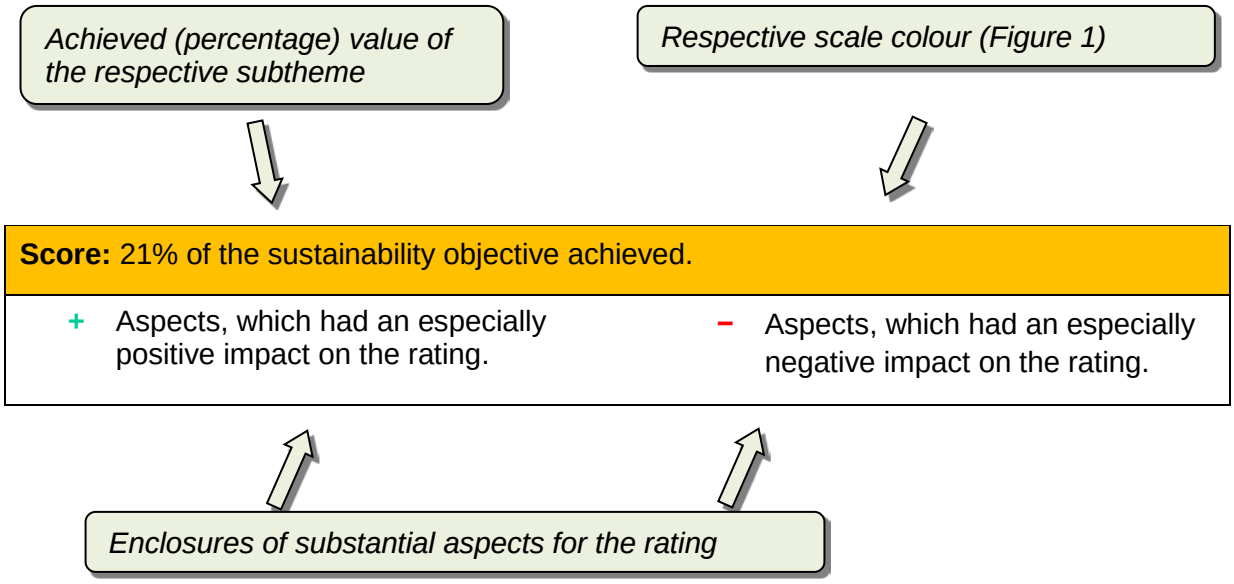

Figure 3: Example of the rating presentation of the sustainability objectives achievements

1.4 Farm specific information

General

Name farm manager:	Peter Miller
Street:	Example street 3
Location:	89888 Town
Country:	GB
Phone number:	+ 44 699959994 / 444456

Key data

Number of employed family members:	4
Number of employees (permanent):	2
Agricultural area (ha):	66
Permanent grassland (ha):	50
Temporary grassland (ha):	0
Woodland (ha):	4
Livestock units (number):	91

Plant production

Maize for silage:	6 ha
Winter wheat:	3 ha
Grass-clover ley:	3 ha

Animal production

Dairy cows:	65 Animals
Cattle (heifers, calfs):	60 Animals

2 Results

2.1 Overall assessment

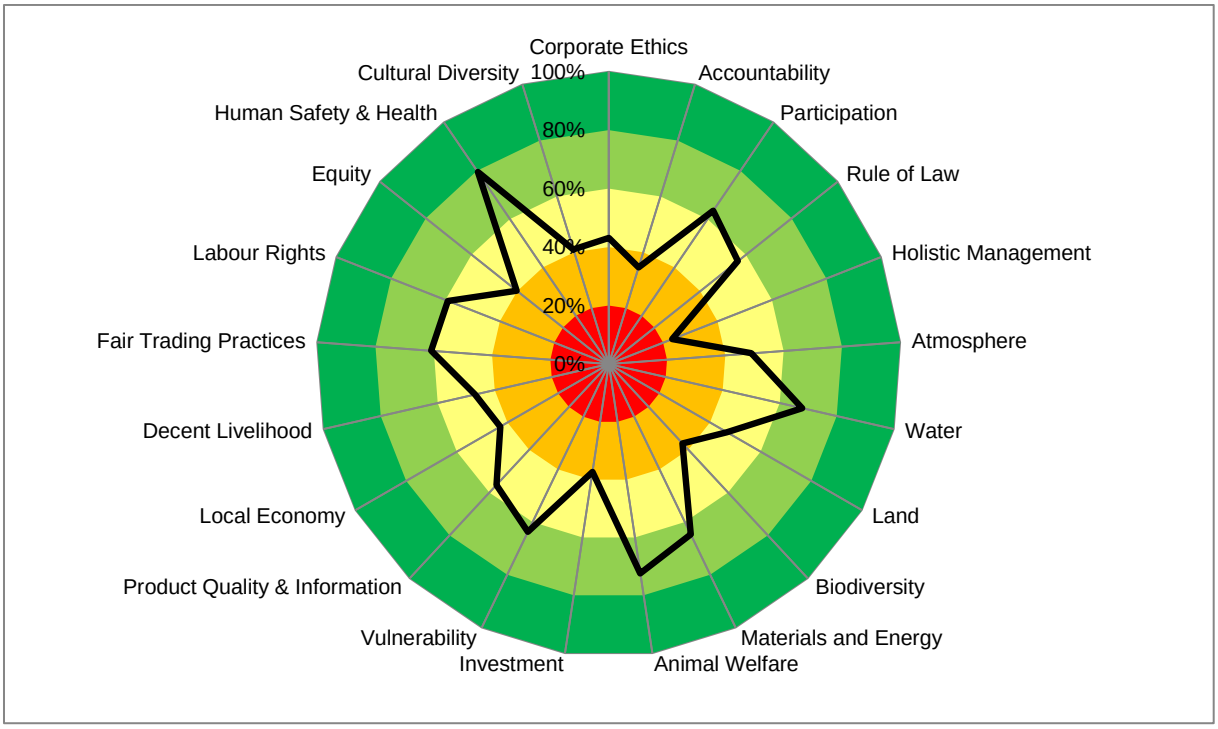

Figure 4: Overall results for all dimensions.

2.2 Dimension: Good Governance

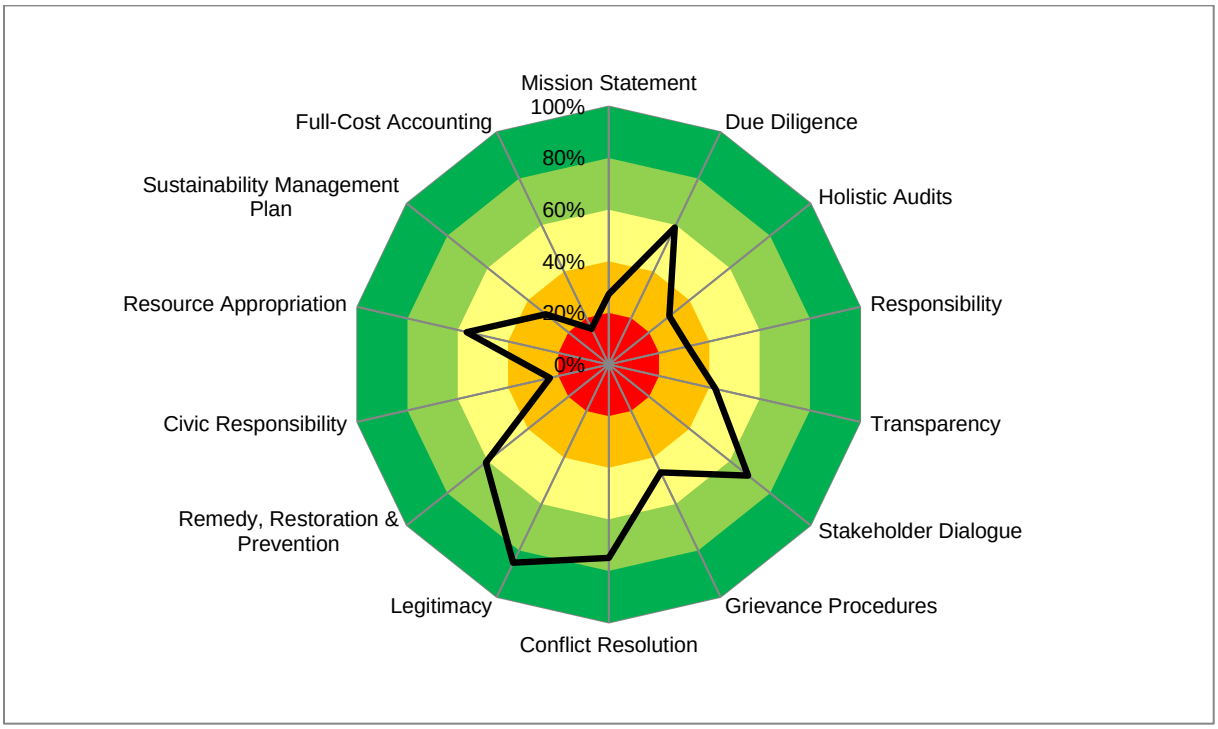

Figure 5: Results for the dimension 'Good Governance'.

2.2.1 Thema: Corporate Ethics

Subtheme: Mission Statement

Objective: The enterprise has made its commitment to all areas of sustainability clear to the public, to all personnel and other stakeholders through publishing a mission statement or other similar declaration (such as a code of conduct or vision statement) that is binding for management and employees or members.

Explanation: It is assessed if a farm defines guidance for sustainability and which requirements it sets for their economic operations (e.g. profit maximisation or if the provision of healthy food and the preservation of nature are prioritisied). As small farm holders only seldom put such information in writting, verbally declared intentions and information based on the style of the farm management are also considered for the assessment.

Score: 27% of the sustainability objective achieved.	
+ The farm manager appears to be committed to the principles of sustainability.	– The farm has not committed itself in writing to the principles of sustainable development. – The farm does not have a written, publicly available plan for future improvements in its sustainability. – The farm has not carried out a sustainability report within the past five years.

Subtheme: Due Diligence

Objective: The enterprise is pro-active in considering its external impacts before making decisions that have long-term impacts for any area of sustainability. This is accomplished through the enterprise following appropriate procedures such as risk assessment and others that ensure that stakeholders are informed, engaged and respected.

Explanation: It is assessed, how carefully and forward-looking a farm deals with impacts outside the farm which impacts third parties (e.g. water- and air pollution or when using risk technologies such as genetic engineering).

Score: 59% of the sustainability objective achieved.	
+ Decisions that could have negative environmental and/or social impacts were not communicated to concerned stakeholder groups. + The farm refuses to use genetically modified seeds, GMO feedstuffs. + Steps have been taken to prevent contaminated products to leave the production site in the future. + The farm is certified to use plant protection and/or animal treatment products. + It can be ruled out that GMO crops are grown at the farm. + The farm only uses mineral P-fertilisers, which comply with the limits of heavy metals and uranium.	– When purchasing farm inputs, the farm does not look at whether they are produced in an environmentally responsible manner, respectively rarely purchases certified inputs. – It can not be ruled out that the farm refuses to use products which contain nanotechnology resp. -material. – It can't be ruled out that the farm refuses to use chemical and synthetically dressed seed. – The farm has no mechanisms for preventing the use of resources that were or are legally disputed, or whose ownership is unclear.

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2.3 Dimension: Environmental Integrity

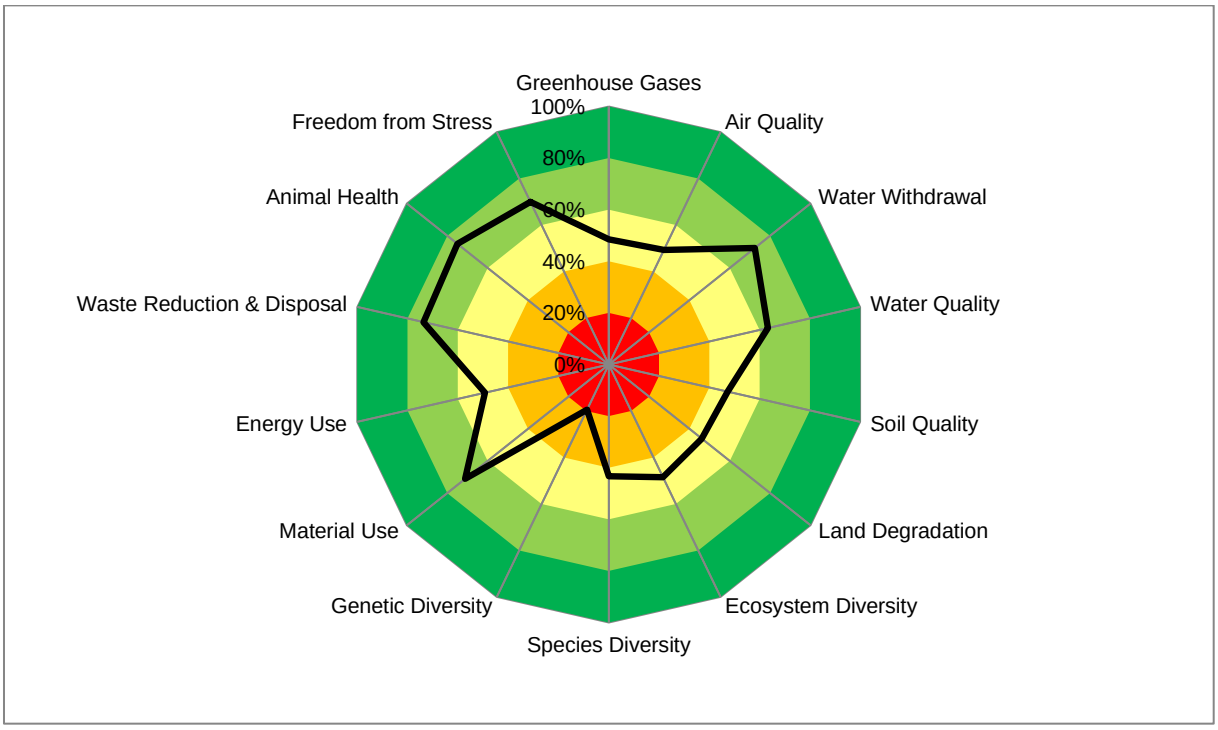

Figure 6: Results for the dimension 'Environmental Integrity'.

2.3.1 Thema: Atmosphere

Subtheme: Greenhouse Gases

Objective: The emission of GHG is contained.

Score: 49% of the sustainability objective achieved.

+ Only a small portion of bought-in feed comes from outside 500 km of the farm.	− Only a small portion of bought-in feed comes from within 50 km of the farm.
+ A large part of the energy consumption for hot water and heating is provided by renewable resources.	− Ploughless soil tillage is not applied or only applied to a small portion of the land under crop rotation.
+ Energy-efficient driving techniques are used.	− No or only a little portion of the organic wastes is utilized in an anaerobic digester.
+ Heated farm buildings are sufficiently insulated.	− A large portion of the livestock breeds are dual-purpose breeds.
+ The slurry stores are covered or a stable natural crust forms on the	− The farm rarely uses draghose or injection systems to apply slurry.

surface. + On no or only on a very small portion of the farm's area woodland cover was removed over the past 20 years. + Vehicle (e.g. tractor, stapler) settings are regularly and properly checked and adjusted (engine, air filter etc.). + No or only a small proportion of permanent pasture has been newly seeded in the past five years. + A high proportion of the used forage is from the farm's own production. + The farm is independent from buying in organic fertilizers.	– No or only a small part of the farm's area is devoted to agro-forestry systems. – Only a small part of the land under crop rotation is direct seeded. – A material part of the area of permanent grassland is under intensive management. – No or only a small portion of the organic fertilizer used is compost (plant-based or livestock-based). – No or only a very small portion of the fuel consumption is provided by renewable resources. – The farm does not use systems which allow for pinpoint fertilisation. – The fuel consumption is comparably high.

Subtheme: Air Quality

Objective: The emission of air pollutants is prevented and ozone depleting substances are eliminated.

Score: 49% of the sustainability objective achieved.	
+ Only a small portion of bought-in feed comes from outside 500 km of the farm. + A large part of the energy consumption for hot water and heating is provided by renewable resources. + Energy-efficient driving techniques are used. + Heated farm buildings are sufficiently insulated. + The slurry stores are covered or a stable natural crust forms on the surface.	– Only a small portion of bought-in feed comes from within 50 km of the farm. – No or only a little portion of the organic wastes is utilized in an anaerobic digester. – A large portion of the livestock breeds are dual-purpose breeds. – The farm rarely uses draghose or injection systems to apply slurry. – No or only a small part of the farm's area is devoted to agro-forestry systems. – A material part of the area of permanent grassland is under

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2.4 Dimension: Economic Resilience

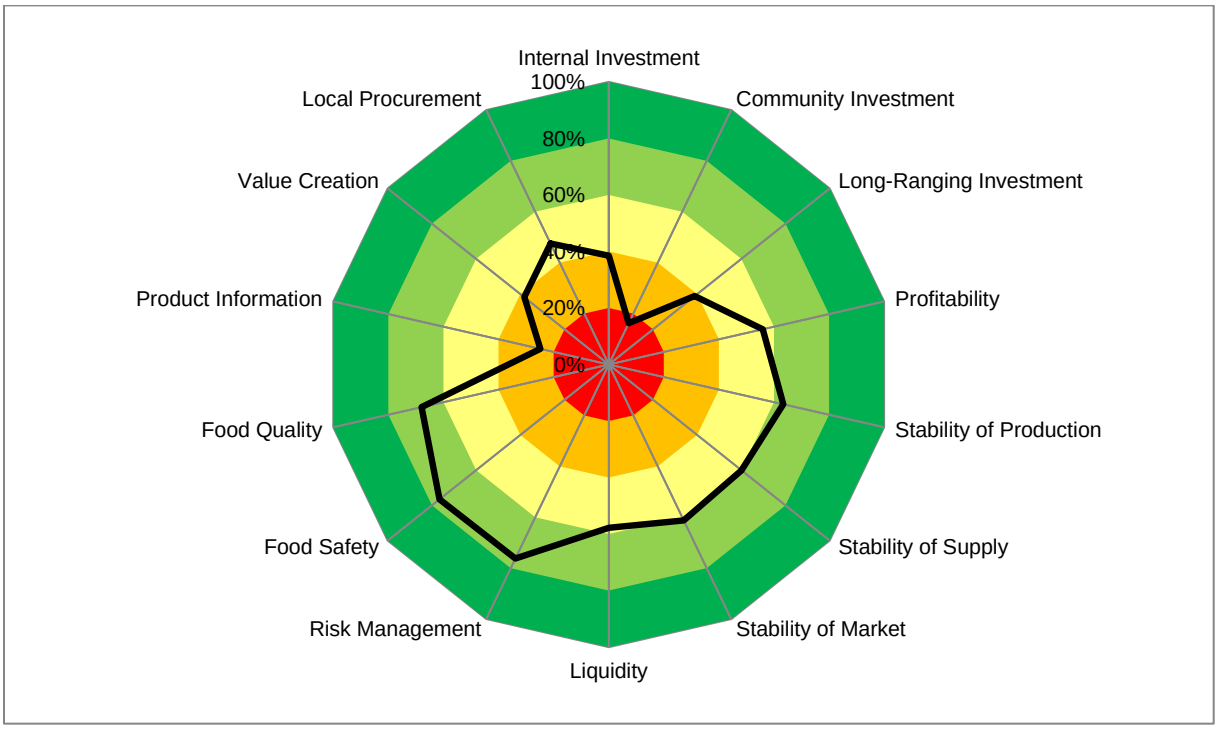

Figure 7: Results for the dimension 'Economic Resilience'.

2.4.1 Thema: Investment

Subtheme: Internal Investment

Objective: In a continuous, foresighted manner, the enterprise invests into enhancing its sustainability performance.

Score: 38% of the sustainability objective achieved.

+ Heated farm buildings are sufficiently insulated.	− The farm does not or only to a very small extend invest in further training of the farm manager or employees.
+ A large portion of the energy consumption is provided by the farm's own installations.	− No or only a little portion of the electricity is generated by the farm's own installations.
+ Measures are taken to combat soil degradation processes.	− The fuels used for farm vehicles and machinery are not produced on-farm.
	− The farm does not use systems which allow for pinpoint fertilisation.
	− The farm takes no or only little

	measures to enhance the interconnection of ecological valuable landscape elements.

Subtheme: Community Investment

Objective: Through its investments, the enterprise contributes to sustainable development of a community.

Score: 16% of the sustainability objective achieved.	
+ The farm supports or offers health measures / projects for the general public.	– The farm does not or only to a very small extend invest in further training of the farm manager or employees. – The farm shows no or little engagement in environmental conservation outside of the farm's land. – The farm is not engaged in social interests in the community. – Apprenticeship places are not regularly offered. – No or only a small part of the farm's area consists of ecological compensation areas. – The farm takes no or only little measures to enhance the interconnection of ecological valuable landscape elements.

Subtheme: Long-Ranging Investment

Objective: Investments into production facilities, resources, market infrastructure, shares and acquisitions aim at long-term sustainability rather than maximum short-term profit.

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2.5 Dimension: Social Well-Being

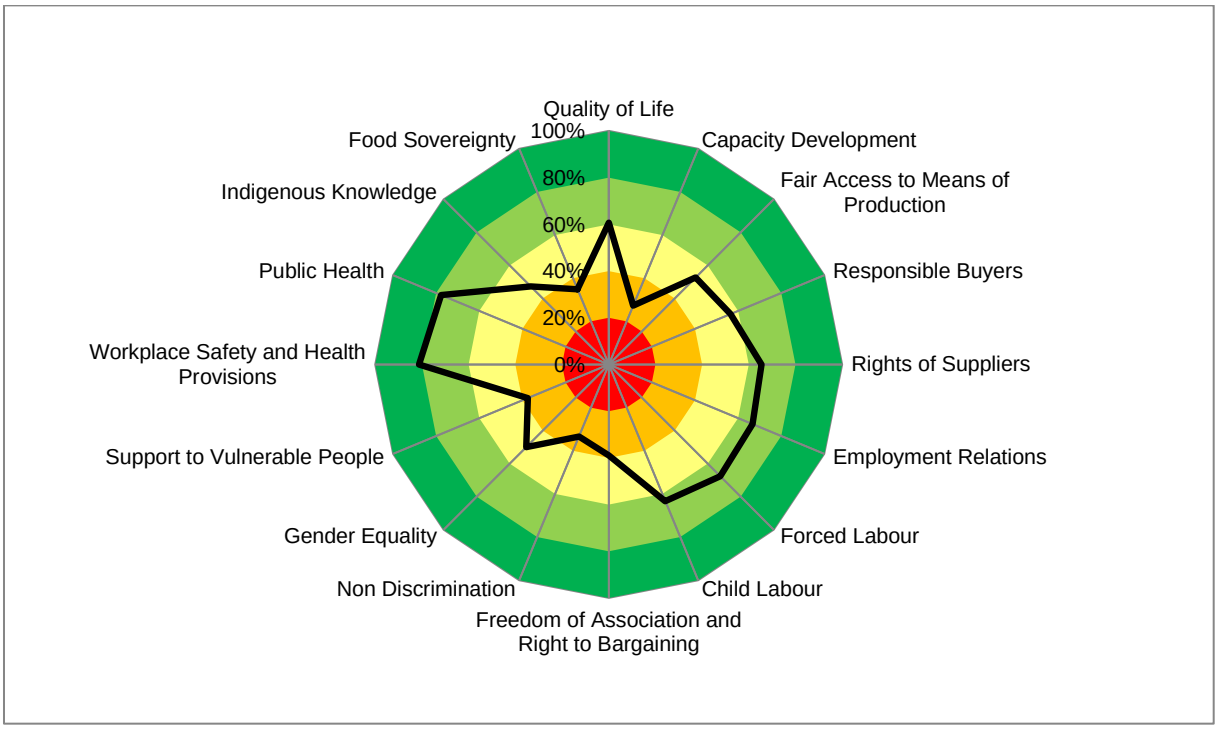

Figure 8: Results for the dimension 'Social Well-Being'.

2.5.1 Thema: Decent Livelihood

Subtheme: Quality of Life

Objective: All producers and employees in enterprises of all scales enjoy a livelihood that provides a culturally appropriate and nutritionally adequate diet and allows time for family, rest and culture.

Explanation: Besides the conditions for employees of the farm, it is assessed, that when buying farm inpunts, the farm also considers that employees and their relatives on all levels of the supply chain enjoy an adequate livelihood.

Score: 61% of the sustainability objective achieved.

+ It can be ruled out that there were unresolved conflicts in the last five years about the farm's negative environmental impacts.	− The farm has no mechanisms for preventing the use of resources that were or are legally disputed, or whose ownership is unclear.
+ All employees have a work permit and are registered with the authorities.	− The farm shows no or little engagement in environmental conservation outside of the farm's land.
+ It can be ruled out that the farm was	

involved in one or more incidences of forced labour in the past 10 years.

+ It can be ruled out that the farm's suppliers were involved in one or more incidences of forced labour in the past 10 years.
+ Children below 16 years perform their work on the farm in a way that the children's school performance is not impaired by that work.
+ When children help with the work, it can be ruled out that this work may be hazardous to their health or development.
+ The spouse and other relatives who depend on the farms income are provided for in the event of the farm managers's death or in case of divorce.
+ The farm manager is aware of all relevant potential safety hazards and they are systematically identified and recorded if necessary.
+ A professional management system for workplace safety and health is in place.
+ There were no or only very few occupational injuries or work-related illnesses in the past 5 years.
+ All employees have adequate access to medical care.
+ Employees are able to have regular meals, drink sufficiently and use toilet facilities.
+ The farm is well prepared in case of absences of the farm manager or familiy workers due to illnesses or holidays.

– The farm is not engaged in social interests in the community.
– The average working hours of all employees is combarably high and does not comply with the recommendations of the ILO.
– The farm offer its employees no meals.
– It can not be ruled out that farm inputs were sourced from countries where there are problematic social conditions and no information regarding the social compatability of the production there exists.
– The farm manager (and family workers) only have insufficient possibilities for recreation.

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