Principles & Practices for Sustainable Dairy Farming

SAI Platform Dairy Working Group

Principles and Practices for Sustainable Dairy Farming (version 2009)

Dairy producers aim to ensure that the safety and quality of their raw milk will satisfy the highest expectations of the food industry and consumers. In addition, on-farm practices should ensure that milk is produced by healthy cattle under sustainable economic, social and environmental conditions.

To that aim, **this document provides a set of Principles and Practices for Sustainable Dairy Farming for the mainstream market in all regions of the world. It is meant to be revised regularly on the basis of practical experience. Furthermore, it is meant to be completed with specific guidelines and practical tools based on local innovations and adapted to local prevailing conditions (according to the region and its climates, ecological variables, farming systems, cultures etc) as well as respecting national laws and regulations.**

As a basis for its work on sustainability, the Sustainable Agriculture Initiative (SAI) Platform Working Group on Dairy has adopted the *Guide to Good Dairy Farming Practice* - a joint publication of the International Dairy Federation (IDF) and the Food and Agriculture Organization of the United Nations (FAO), published in January 2004. This document supplements the IDF/FAO Guide with particular elements of economic, environmental and social sustainability. It is important to note that the focus of these Principles and Practices is on the desired outcomes, rather than on specific, prescriptive actions/processes.

The **Basic framework** looks as follows:

1. **Item**. An item refers to an *object of management.*
2. **Principles** *identify the objective(s) of what should be accomplished* with regard to an item.
3. **Recommended Practices** provide a *set of identified non-exclusive tools and measures* that can be implemented to achieve the objective(s) of a principle.

It is important to note that good management of a farming system constitutes the grassroots of the system's economic, environmental and social sustainability. Therefore, it first pays attention to planning and managing well the overall farm system itself. This document's scope of management action is limited to what farmers or groups of farmers themselves can achieve.

Farmers shall have taken into consideration applying the principles & practices to the whole farm system within a philosophy of continuous improvement, starting with the livestock in scope. The following headings and bullets summarise the sections and objectives when applied to a whole farm system. The individual sections in the document contain greater detail of practices.

Sustainable Farming Systems (chapter 1)

- Are breeds suited to the local climate, soil, pests & diseases being considered?
- Animal feeding, watering and lodging – are animals kept under good conditions, which will in turn deliver good products?
- Milking hygiene and storage – Is milk protected from any contamination from milking to delivery?

Economic sustainability (chapter 2)

- Is production increase possible? Is food safety and food quality understood? Is the farm system diverse enough? Is there access to market information? Is group use of equipment. Or group purchasing an option?

Social Sustainability (chapter 3)

- Social & Human capital – including farm workers – Are workers treated fairly? Is training a priority?
- Local community /economy - Is there a positive impact in the local community from the farm system?

Environmental sustainability (chapter 4)

- Soil fertility/soil loss – how is soil fertility maintained, is soil erosion an issue?
- Water – Is total water use for irrigation known? How is irrigation amount calculated? Is the water source for irrigation sustainable? Are the impacts of fertilisers and pesticides considered?
- Biodiversity – Are there natural habitats on farm? Are rare species of plant/animal threatened by growing the crop?
- Energy – Are the major energy inputs known? How can their impact on climate change be reduced?
- Waste – Are the principles reduce, reuse, recycle, dispose understood? Are pesticides/fertilisers disposed of safely?

1. Sustainable Farming System

Item	Principles	Recommended Practices
1.1 Site selection and management	SF1. When planning and managing the farm activities, be aware of the site history (previous land use).	▪ When planning a new building for lodging or milking, or a new pasture or crop area for feed, the production site should be checked against any pollution risk[1] and protected against those through adequate measures when necessary.
1.1 Site selection and management	SF2. When planning and managing the farm activities, properly take into account the site specificities (such as topography, neighboring activities, ecological and social conditions).	▪ An evaluation should be undertaken for new agricultural sites (e.g. pastures or new crop area for feed), taking into account the prior use of land, availability and quality of water resources, pest disease and weed levels and the potential impact of the production on adjacent populations, crops and the natural environment. In particular, the production site should avoid the destruction of forests.
1.2 Sustainability management system	SF3. Maintain a functioning sustainability system on the farm, geared towards continuous improvement.	▪ Existing practices are examined critically by the producer in view of adapting or changing them in order to ensure continuous improvement towards sustainable production practices over time. ▪ Have tools in place to monitor and improve the economic, social and environmental sustainability.
1.2 Sustainability management system	SF4. Record reliable information on farm inputs and techniques used on the farm.	▪ Producers are expected to keep reliable documentation in order to track and trace the inputs and to record their progress in meeting the sustainable production practices e.g. nutrient budgets. ▪ Records belong to the producers and shall be disclosed only with their approval.
1.2 Sustainability management system	SF5. Take the opportunity of accessing valuable information and support services to continuously improve the farm overall sustainability.	▪ Choose competent sources for advice and interventions. ▪ Producers should go for self training or self information with existing tools. If indicated, advice should be sought by producers on how to access and make use of technologies and tools to improve overall dairy production sustainability.
1.3 Planting material	SF6. Consider the farm's structure & local situation when choosing planting material.	▪ Variety choice and use shall consider the following: ▪ Resistance or tolerance to commercially important pests and diseases, adapted to local conditions and meet customers specified requirements. ▪ Growing of any genetically modified plants for consumption must comply with all the regulations in place for both countries of production and consumption, and checked if they are accepted by direct customers and consumers.

[1] Pollution risk could include industrial activities (e.g. domestic incineration plant releasing dioxins, surface processing plants releasing solvents or heavy metal) or an environment susceptible to air bone pollution (e.g. near a road with heavy traffic emissions of lead and hydrocarbons), soil pollution`(former industrial site or site where dumping of toxic substances has taken place) or the proliferation of pests (e.g. open municipal rubbish tip).

		▪ Varieties are planted at the optimal time of the season. ▪ Invasive species should not be planted. ▪ Seed/Tubers/bulbs are true to type and the quality is checked before use and is traceable to source. ▪ Records are kept of the variety name, batch number and seed vendor. ▪
1.4 Integrated crop management	SF7. Use rotation practices for annual crops as an important tool of integrated crop management and as a diversified source of income for the farm.	▪ Rotation of crops shall be considered. ▪ Whether rotation is or is not possible farmers shall record on a regular basis suitable indicators of soil health these could be for example: stable or increasing yield, stable or reducing fertiliser/pesticide inputs, stable or increasing organic matter levels, stable soil nutrient levels. ▪ The planning of the crop shall take into account the previous crops protection against pests and diseases. ▪ Farmers should use diverse crop rotations and seek to employ these whenever possible to maintain soil condition, minimise risk of nitrate leaching and reduce pest and disease development to maximise plant health as well as to spread the farm income streams.
1.4 Integrated crop management	SF8. Use specific cultivation techniques to maintain or improve the physical and biological characteristics of the soil as well as to reduce mineralization and leaching of nutriments.	▪ If soil conditions allow, chopping and incorporation of crop residues as well as organic manure or compost shall be used to help improve soil fertility by increasing organic matter content, improving nutrient and water retention and reducing erosion.
1.4 Integrated crop management	SF9. Balance fertilization in order to provide the appropriate allowance of nutrients to the crops, taking into account release from other sources such as organic manures, soil organic matter etc.	▪ A cropping/nutrient management plan .should consider the following: ▪ The nutritional requirements of the crop to deliver the quality and yield for customer requirement. ▪ Soil types mapped for the farm so as to be used to plan nutrient requirements for rotations. ▪ Soil chemical, biological composition analysis – to ensure nutrient availability is understood as effected by pH, organic matter or clay/sand content. ▪ Application rates of either mineral or organic fertilisers applied in accordance with national and local legislation (e.g. nitrate sensitive areas) and meet the needs of the crop as well as maintaining soil fertility. Rates based on a calculation of the nutrient requirements of the crop and on regular analysis of nutrient levels in soil, plant or nutrient solution. ▪ A simple nutrient input/output balance using best available information, considering nutrient inputs, crop returned to the soil and crop off-take with the harvested part of the crop. ▪ Planting of catch crops to capture nitrates.
1.4 Integrated crop management	SF10. Avoid using sludge. If sludge is used though, manage it very carefully	▪ Untreated sewage sludge shall not be applied to land used to grow crops. ▪ Any use of treated sewage sludge on land destined for agricultural use shall be very carefully

	on the basis of proper risk assessment.	managed in accordance with national and local legislation. ▪ Farmers shall check whether their customers allow the use of treated sewage sludge.
1.4 Integrated crop management	SF11. Protect crops against pest, diseases and weeds with as little as possible reliance on pesticides. In particular, strive to use Integrated Pest Management (IPM) systems.	The IPM system shall consider the following: ▪ Responsibilities are clearly assigned for planning and carrying out pest control. ▪ Choice of crop/variety appropriate for the location as well as disease and pest resistance. ▪ Use of cultural and physical controls: crop rotations (e.g. mechanical weeding), biological controls (e.g. beneficial insects). ▪ Regular visual inspections, thresholds or other recognised prediction systems to be used to avoid unnecessary application of pesticides. ▪ Use of selective pesticides (insecticides, fungicides, herbicides) rather than broad spectrum e.g. insecticides that only control the pest species, not the predators. ▪ Rotation of pesticide active ingredients to reduce resistance. ▪ Use of engineering/application techniques e.g. seed dressings, to improve targeting of pesticide application. ▪ Potential yield and quality loss must be assessed in determining treatment levels. Management tools (e.g. weather forecasts, crop stress) to be used before treatment to assess the risk.
1.4 Integrated crop management	SF12. Chose, handle and store agricultural inputs with great precaution as per label instructions.	▪ Pesticides shall be used as follows: ▪ The crop protection product utilized is appropriate for the target pest and nationally registered in the country of use. ▪ Only using treatments legally approved in country of production, which also comply with destination country maximum residue level (MRL) legislation. ▪ Use must not exceed maximum authorized doses, comply to label recommendations and must conform to pre-harvest intervals. ▪ Effective instructions are provided and measures taken, including use of appropriate equipment (e.g. Personal protective Equipment (PPE)), to protect health and safety of farm workers who handle or are exposed to agrochemicals. Iinstructions should highlight the legal aspects, use, storage, environmental and safety aspects and other precautions. ▪ Spray equipment must be maintained and calibrated on a regular basis. ▪ Surplus spray mix and washings must be disposed of according to local legislation and prevent surface and groundwater contamination. ▪ Non target areas should be protected with appropriate measures (e.g. buffer strips). ▪ Crop protection products shall be stored safely and securely considering the following: ▪ Pesticide containers shall be disposed off properly and not be reused. Ideally, they shall be punched and taken off the farm by official companies or burned at high temperatures with secure and proven techniques.

		▪ Storage facilities must be constructed of suitable materials, well ventilated, well lit and located where risks to the environment or human health are minimised in case of fire, spillage, flooding or other emergencies. ▪ Separate storage from living quarters, food, feed, fertiliser, fuel and waste. ▪ Areas where pesticides are handled and stored are designed such that spillages can be contained and do not reach the environment or pose a risk to human health. ▪ Pesticide contaminated equipment (e.g. sprayers, PPE, measuring equipment) is stored and handled as specified by the manufacturer, separately from food, feed, living quarters and food preparation and consumption areas). ▪ A record kept of pesticides currently in the store. ▪ Fertilizers shall be used as follows: ▪ Fertilizers are only applied to the intended crop area, non crop areas should be protected with appropriate measures (e.g. buffer strips) ▪ Procedures are in place to deal with accidents and spillages. ▪ Measures to avoid nitrogen and phosphate being lost to the environment, e.g. avoid rainy periods, avoid frozen, cracked, water logged, compacted soils, or the application technique such as split applications, incorporation or direct injection. ▪ Application equipment is maintained and calibrated on a regular basis. ▪ All fertiliser should be recorded and records should include: crop name, location of application, date of application, product trade name, operator name, and product quantity. ▪ Fertilisers shall be stored safely and securely considering the following: ▪ Storage and all products stored must comply with national and local legislation. ▪ Storage facilities must be constructed of suitable materials (e.g. liquid fertilisers have different storage requirements to solids) and located where risks to the environment or human health are minimised, in case of fire, spillage, flooding or other emergencies. ▪ Fertilisers must not be stored with pesticides or fuel. ▪ A record kept of fertilisers currently in store. ▪ Fuels shall be stored safely and securely considering the following: ▪ Storage facilities are constructed of suitable materials and located where risks to the environment or human health are minimised, in case of fire, spillage, flooding or other emergencies. ▪ Fuel must not be stored with pesticides and fertilisers.
1.5 Animal breed	SF13. Consider the farm's structure & local situation when choosing animal	▪ The selection of breeds takes into account market requirements, feed availability, resistance to diseases and environmental conditions.

	breeds.	
1.6 Animal health	SF14. Prevent the entry of diseases onto the farm.	▪ Have secure boundaries/fencing. ▪ Avoid direct contact of visitors with animals and take safety measures in precaution of spreading of diseases. ▪ Have bio security measures in place to minimise the risk of spread of disease within the farm and between other farms (transport cattle only in cleaned and disinfected vehicles, dispose fallen stock properly and have a contingency plan for an infectious disease outbreak etc). Farmers should try to source animals of known disease status and control their introduction onto the farm. Special policy is recommended for introducing stock of unknown disease status. ▪ If possible, utilise disinfectant as a means of undertaking cleaning and disinfecting of boots/clothing, vehicles and facilities. ▪ Only use clean equipment from known source.
1.6 Animal health	SF15. Have an effective herd health/ disease health management programme in place.	▪ Use a recognised system that allows all animals to be identified individually from birth to death. ▪ Develop an effective herd health management program focused on prevention that meets the farm's needs as well as regional and national requirements. ▪ Regularly check animals for signs of disease. ▪ Sick animals with contagious diseases should be attended to, quickly and in an appropriate way. They should be isolated when necessary. ▪ Keep written records of all treatments and identify treated animals appropriately. ▪ Manage animal diseases that can affect public health (Zoonoses).
1.6 Animal health	SF16. Use all chemicals and veterinary medicines as prescribed to prevent occurrence of chemical residues in milk.	▪ Use chemicals according to directions, calculate dosages carefully and observe withholding periods. ▪ Only use veterinary medicines as prescribed by veterinarians and observe withhold periods. ▪ Store chemicals and veterinary medicines securely, respect expiry date and dispose of them responsibly.
1.7 Milking hygiene, milk storage and milk safety	SF17. Ensure that milking routines do not injure cows or introduce contamination to milk.	▪ Ensure appropriate udder preparation for milking. ▪ Ensure consistent milking techniques. ▪ Separate milk when required, from sick or treated animals. ▪ Ensure that the milking equipment is correctly installed and maintained.
1.7 Milking hygiene, milk storage and milk safety	SF18. Carry out milking activities under hygienic conditions.	▪ Where you provide housing ensure that the housing environment is clean at all times. ▪ Ensure that the milking area is kept clean. ▪ Ensure that the milkers follow hygiene rules.

1.7 Milking hygiene, milk storage and milk safety	SF19. Handle milk properly after milking activities.	▪ Ensure that the milk is cooled to the specified temperature and/or delivered to a processing plant in a specified time. ▪ Ensure that milking equipment is sanitized with potable water or water free of pathogens. ▪ Ensure that the milk storage area is clean and tidy. ▪ Ensure that milk storage equipment is adequate to hold milk at the specified temperature. ▪ Keep the access for bulk milk collection unobstructed.
1.8 Animal feeding and water	SF20. Feed and water all animals in sufficient quantity, and with products of suitable quality and safety.	▪ Ensure that the nutritional needs of the animals are met. ▪ Ensure that good quality water supplies are provided, regularly checked and maintained. ▪ Use different equipment for handling chemicals and feedstuffs. ▪ Ensure chemicals are used appropriately on pastures and forage crops. ▪ Only use approved chemicals for treatment of animal feeds or components of animal feeds and observe withholding periods for grazing. ▪ Separate feeds intended for different species.
1.8 Animal feeding and water	SF21. Control feed storage conditions.	▪ Feed storage areas must be constructed to protect as far as practical against entrance and harbouring of domestic animals, wildlife and vermin. ▪ Efforts must be made to protect feedstuffs from soiling and contamination. In particular, evidence of faecal contamination, or stale feed, at the point of presentation to dairy cattle is not acceptable. ▪ An appropriate vermin control program shall be provided for stored feed, and diary records of bait-changing dates may be used to confirm an individual farmer's vermin control policy. ▪ Mouldy feed should be rejected.
1.8 Animal feeding and water	SF22. Ensure traceability of feedstuffs bought off the farm.	▪ All suppliers of animal feeds should have an approved quality assurance programme in place. ▪ Maintain records of all feed or feed ingredients received on the farm (specified bills or delivery notes on order).
1.9 Animal welfare & lodging[2]	SF23. Ensure that all animals are free from hunger, thirst and malnutrition.	▪ Provide sufficient feed (forage and/or fodder) and water every day. ▪ Provide sufficient space at the feeder and waters to avoid competition among animals. ▪ Protect animals from toxic plants and other harmful substances. ▪ Provide adequate water supplies of good quality that are regularly checked and maintained.
1.9 Animal welfare & lodging	SF24. Ensure that all animals are free from discomfort.	▪ Design and construct buildings to be free of obstructions and hazards. ▪ Provide adequate space allowances and dry bedding. ▪ Protect the animals from adverse weather conditions and the consequences of thereof.

[2] The IDF Guide to Good Animal Welfare in Dairy Production (2008) can be used as a detailed reference document pertaining to this section.

		▪ Provide housed animals with adequate ventilation. ▪ Ensure that the floors are not slippery.
1.9 Animal welfare & lodging	SF25. Ensure that all animals are free from pain, injury and disease.	▪ Have an effective herd health management programme in place and inspect animals regularly. ▪ Protect the animals against lameness. ▪ Do not use procedures and practices that cause unnecessary pain. ▪ Follow appropriate calving and weaning practices. ▪ Have appropriate procedures for marketing calves.
1.9 Animal welfare & lodging	SF26. Ensure that all animals are free from fear and distress.	▪ Provide competent animal husbandry skills and appropriate training for staff. ▪ Protect the animals during transportation according to the OIE animal welfare standards for the transport of animals by land, sea and air. ▪ Humane killing of animals should be ensured by adhering to the OIE animal welfare standards for slaughter of animals and killing of animals for disease control purposes (chapters 7.5 and 7.6 of the OIE Terrestrial Animal Health Code).
1.6 Animal welfare & lodging	SF27. Ensure that all animals are free to engage in normal patterns of animal behaviour.	▪ Have herd management and husbandry procedures that do not unnecessarily compromise social activity.

2. Economic Sustainability

Item	Principles	Recommended Practices
2.1 Safety, quality and transparency	EC1. Ensure the safety, quality and transparency of the products throughout the production methods and storage facilities.	▪ Production and milking methods should be properly chosen and conducted so as to maximise product quality, safety and traceability. ▪ Milking and milk storage facilities shall be properly and regularly maintained and cleaned. In addition, the delivery of milk to the client shall be done in a way that ensures product quality and traceability.
2.2 Financial stability	EC2. Seek to achieve long-term stability of the farm income for proper investments and workforce payment.	▪ Dairy producers should make sure they have access to relevant information and tools in order to optimize their production system (e.g. productivity, quality, safety, inputs use, water use, waste, etc.) in line with the market environment.

2.3 Market	EC3. Seek to get organised and to select efficient trading channels in order to optimize benefits.	▪ Dairy producers are encouraged to associate with relevant service oriented and transparent organisations, such as associations or cooperatives. ▪ Dairy producers are encouraged to access appropriate market information enabling sound decision taking for negotiating attractive prices and a fair share of the value in the food chain. ▪ As policies at the local and regional level have significant influence on farm income, dairy producers shall try to understand these policies.
2.4 Diversification	EC4. Seek to diversify the farm into other farming activities or/and possible non-farming activities if appropriate, in order to increase farm income and to reduce risk linked to market price fluctuations.	▪ Diversification of the farm into either farming or non-farming activities could be sought if appropriate.

3. Social Sustainability

It is recognized that the majority of the farms are family run and family labour helping on the farm is often an essential component for the sustainability of the farm. In these circumstances, some of the principles might not fully apply. In any case, farms should comply with their national labour legislation, and if none exists, refer to the ILO conventions.

Item	Principles	Recommended Practices
3.1 Working conditions	SOC1. Provide a cordial and pleasant working environment, free of any type of discrimination[3] and free of disciplinary practices[4].	▪ Discrimination on the basis of ethnic groups, national origin, religion, disability, gender, sexual orientation, worker organisations or political affiliation with regard to contracts, compensation, training, promotion, dismissal or retirement of its personnel should be strictly prevented. ▪ Same rights and obligations should be conceded to women and men. ▪ Employees and workers should not be asked to leave deposits or identity cards behind. ▪ Employees and workers should have the right to freely practice their religion or fulfil their needs relating to race, national origin, religion, disability, gender, sexual orientation, membership in worker organisations or political affiliation.

[3] as per ILO Convention 111 on Discrimination and ILO Convention 100 on Equal Remuneration

[4] as per the Universal Declaration of Human Rights

		▪ Behaviour, including gestures, language, and physical contact that is of a sexually abusive, coercive and threatening nature must be prevented. ▪ Decent working conditions and dignity should be provided to all workers regardless of their employment status.
3.1 Working conditions	SOC2. Farm workers and their families (if applicable) have access to suitable sanitary, housing and transportation infrastructures and services.	▪ Workers should be encouraged to know their status and, consequently, their respective rights and obligations under law. ▪ Temporary workers should be managed in a way that is as close as possible with those applied to permanent employees. ▪ Working contracts or other appropriate working relationships should be established, in accordance with national law.
3.1 Working conditions	SOC3. Provide recognised employment relationship to workers based on national law and practice.	▪ Daily working hours for registered employees should not exceed the maximum number of hours set by national regulations. ▪ Registered employees should be conceded for every six working days at least one day of rest, covered by their salary. ▪ Overtime work shall be demanded only in exceptional circumstances over a short-term period due to the business cycle, notably during the harvest season. Overtime should be compensated adequately. ▪ Registered employees who have worked at the farm for more than one year should have a period of paid leave.
3.1 Working conditions	SOC4. Ensure that workers' working hours comply with national and local laws. Overtime performed during peak season is acceptable but duly compensated.	▪ Wages and benefits of permanent employees should meet or exceed the minimum required under local and national laws. ▪ Workers, especially temporary ones, should be provided with clear information about the payment that they receive for their work. ▪ All employees and workers should receive remuneration in accordance with their tasks and abilities while having equal work opportunities. ▪ Employees and workers should be able to receive wages in legal tender/ currency. Compensation with merchandise, vouchers, tokens or any other symbolic means may be agreed upon with the employee or worker without creating any form of dependency. ▪ Deductions should not be made from wages for disciplinary purposes.
3.1 Working conditions	SOC5. Ensure that wages and benefits received by workers comply as a minimum with local and national	▪ Actions should be promoted on the farm, which help prevent accidents and injuries of farm employees and workers during their duties. This equally refers to accidents and injuries of farm employees and workers as well as their families when living on the farm.

	legislation.	▪ Access should be guaranteed to hygienic bathrooms and potable water for all employees and workers. ▪ Activities should be promoted for the prevention of diseases, like vaccination, orientation in aspects of personal hygiene.
3.1 Working conditions	SOC6. Ensure that working conditions comply with applicable laws as well as international Conventions and Recommendations related to occupational health and safety[5].	▪ Forced labour of any type must neither be used nor supported.
3.1 Working conditions	SOC7. Do not use any form of forced labour[6].	▪ Employees and (family) workers should have the right to form and join associations of their own choice without previous authorisation. ▪ Employees and workers should be entitled to collective bargaining. ▪ Labour organisations should be allowed to conduct their activities if employees and workers wish so. ▪ Workers' representatives should not be discriminated against.
3.1 Working conditions	SOC8. Allow workers to form and join unions of their choice and to bargain collectively[7].	▪ Child labour shall neither be used nor supported. ▪ For cultural and socio-economic reasons, children under the minimum working age referred by national laws are allowed to help their parents with dairy production. It shall be ensured that they are not forced to work, do not work long hours and are not exposed to hazardous or heavy work. ▪ The individual situation of the children involved should be considered in relation to all actions implemented in order to eliminate child labour. All measures taken shall be designed to actually improve the living conditions of the individual child. ▪ Young workers under the age of 18 should not be exposed to situations in the workplace that are hazardous, unsafe or unhealthy, even more so than any other workers.
3.1 Working conditions	SOC9. Do not use child labour[8].	▪ Children below the work minimum age referred by national laws, living permanently or temporarily on the farm, should participate in educational programmes comparable with the formal school system. ▪ Education programmes for workers' children who are at school age should be promoted.

[5] as per the ILO Encyclopaedia on Health and Safety

[6] as per ILO Convention 29 on forced labour and ILO Convention 105 on the abolition of forced

[7] as per ILO Convention 87 on Freedom of Association and Protection of the Right to Organize and ILO Convention 98 on the Right to Organize and Collective Bargaining

[8] as per ILO Convention 138 and its accompanying Recommendation 146 on Child Labour as well as ILO Convention 182 and its accompanying Convention 190 on the worst forms of child labour

3.1 Working conditions	SOC10. Seek to assure children access to adequate education as well as to support the education of farm employees and workers.	▪ Make sure all people are sufficiently trained to carry out their tasks and their responsibility shall be well determined. ▪ Choose competent sources for advice and interventions. ▪ Knowledge and awareness of charters for good dairy practice and guidelines should be promoted.
3.2 Training	SOC11. Support the training of farm employees and workers on all aspects of sustainable agricultural practices.	▪ Make sure all people are sufficiently trained to carry out their tasks and their responsibility shall be well determined. ▪ Choose competent sources for advice and interventions. ▪ Knowledge and awareness of charters for good dairy practice and guidelines should be promoted.
3.3 Local economy	SOC12. Contribute to provide economic benefits to local communities.	▪ The farmer as a part of the local community is encouraged to contribute as far as possible to the local economy and rural development.

4. Environmental Sustainability

Item	Principles	Recommended Practices
4.1 Soil	ENV1. Maintain good soil fertility and prevent damage to the environment, soil erosion and pollution.	▪ Fertilization should be adequate, taking into account soil resources, crop nutrient requirements, climatic conditions and surface, groundwater and contamination risks. Use a nutrient budget to determine fertilizer requirements. ▪ Adequate stocking rate in pasture should be sought. ▪ Avoid standing animals in pastures when soils become water logged.
4.2 Water	ENV2. Properly manage and optimise water use.	▪ The amount of water drawn from the environment should be minimized. The release of polluted water into the eco-system must be prevented. ▪ Proper use of water for irrigation as well as careful and adequate use of inputs should be made to preserve the volume and quality of water reserves and courses.
4.2 Water	ENV3. Properly manage the use of inputs and release of wastewater in surrounding water sources.	▪ Comply with industry standards and meet the requirements of national legislation regards to environmental effects (e.g. knowledge of quantity of manure or effluents, correct storage and spreading). ▪ Manage pastures to avoid effluent runoff by spreading farm manures in accordance to local conditions.

4.3 Biodiversity	ENV4. Maintain or enhance biological diversity on the farm.	▪ Dairy farming practices should preserve and improve the habitat for animal and plant species as well as biodiversity on and around the farm.
4.4 Air	ENV5. Preserve or improve the air quality.	▪ Odours emanating from the dairy herd and of the effluent storage should be minimized.
4.5 Climate change	ENV6. Minimize adverse impacts on the global environment and climate change.	▪ On the basis of established mechanisms and available inputs, estimate and monitor greenhouse gas emissions (like methane, nitrous oxide, carbon dioxide) of the dairy herd and of manure storage as well as from other on-farm practices and off-farm inputs. ▪ Mitigate and minimise these greenhouse gas emissions.
4.6 Energy	ENV7. Properly chose and use energy resources.	▪ Continually seek to optimize energy use. ▪ Energy assessment should be performed in order to identify areas for minimizing the relative use of non-renewable resources and maximizing the relative use of renewable energies. ▪ Wherever possible, the farm should strive to reduce the use of non-renewable sources of energy and increase the use of renewable sources of energy.
4.7 Waste	ENV8. Use crop by-products as much as possible on the farm.	▪ The farm shall continuously reduce, reuse and recycle the quantity of waste and by-products of the harvest and processing that it generates. ▪ In particular, organic crop debris may be composted on the farm and reused for soil conditioning where there is no risk of disease carry-over.
4.7 Waste	ENV9. Properly handle, and if possible recycle waste generated by the farm.	▪ Ensure that animal and human wastes are stored and managed to minimize the risk of environmental pollution. ▪ Manage farm wastes properly and optimise their agronomic value (recycling etc). ▪ Ensure proper treatment of human and animal waste from dairy farm in order not to contaminate pasture or feed.