



Investment works

Guidance

Animal Welfare Toolkit

In association with:

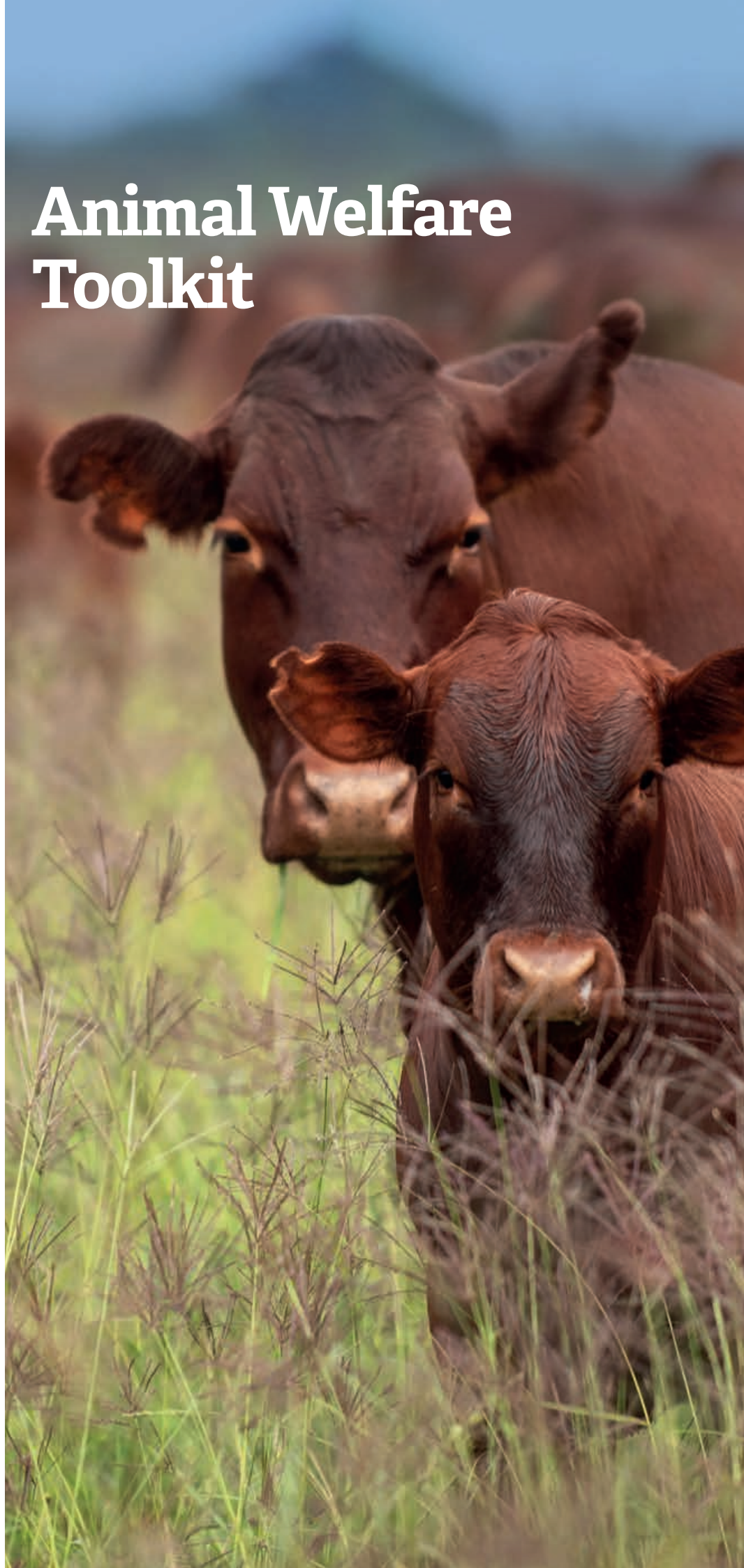


Published: October 2021

Last updated: October 2021

Guidance lead:

ESG-I, CDC Group



Acknowledgements

This Toolkit was produced by CDC Group Plc (CDC) with financial support from CDC Plus, our Technical Assistance programme funded by UK aid. Its lead authors are Dr Andrew Butterworth (www.welfaremax.com), Dr Siobhan Mullan and associates, with inputs from our Environmental, Social and Governance Impact (ESG-I) team.

CDC and the authors would like to thank the species experts who generously contributed their time to review this Toolkit: Dr Siobhan Abeyesinghe, RVC Animal Welfare Science and Ethics, Royal Veterinary College; Dr Nick Bell, Bos International Ltd and Honorary Associate Professor of Herd Health and Production Medicine, University of Nottingham; Dr Victoria Sandilands, Scotland's Rural College; Dr Solveig Marie Stubbsjøen, Norwegian Veterinary Institute; and Professor JF Turnbull, Institute of Aquaculture, Faculty of Natural Sciences, University of Stirling.

This Toolkit also benefited from review and feedback from the following stakeholders: Erik Wiersma, Julie Abisgold and Alec Martin of AgDevCo; Peter Stevenson OBE, of Compassion in World Farming (CIWF); María Montosa, Sumye Fung, Tara Chandrasekharan and Lorraine Hau of the FAIRR Initiative; CDC investees KELFOODS and Zambeef; Birgitte Bang Nielsen of the Investment Fund for Developing Countries (IFU); and colleagues at the International Finance Corporation (IFC); World Bank; and FMO, the Dutch Entrepreneurial Development Bank.

We thank all stakeholders who contributed to the development of this Toolkit for their reviews, feedback and insightful contributions.

Disclaimer

CDC has provided this document for general information and guidance purposes only. CDC accepts no responsibility for any reliance placed on the information contained in it.

Any reliance you place on such information is strictly at your own risk. In no event will CDC be liable for any loss or damage whatsoever including without limitation, indirect or consequential loss or damage, arising out of, or in connection with, the use of or reliance on this document.

Contents

Foreword	4
1. Purpose and objectives	5
2. Animal welfare, its assessment, and what it means for a responsible investor	7
2.1 What is animal welfare?	7
2.2 Assessing animal welfare	7
2.3 The importance of animal welfare to investors	8
2.4 Animal welfare in the investment cycle	9
3. Methodology	10
3.1 Selection of metrics	10
3.2 Reference framework and standards	10
3.3 Recommended excluded activities	11
3.4 Principles	12
3.5 Animal welfare indicators	12
3.6 Limitations	13
3.7 Experience required to assess practices using the Toolkit	13
4. How to use the Toolkits	14
4.1 Scoring the categories	14
4.2 Assessment and presentation of results	15
4.3 Example of application	15
5. Assessment Toolkits by animal species	17
5.1 Beef cattle	
5.2 Dairy cows	
5.3 Broiler chickens	
5.4 Laying hens	
5.5 Breeder birds	
5.6 Hatcheries	
5.7 Sows	
5.8 Growing pigs	
5.9 Sheep	
5.10 Tilapia	
5.11 Shrimp	
Acronyms and abbreviations	18
Notes	19

Foreword

At CDC, animal welfare considerations are an important element of all our livestock, poultry and aquaculture investments.

Around the world, animal welfare is now a priority issue for stakeholders. Governments from Zambia to the United Kingdom are introducing more regulation and higher welfare standards. Consumers have growing concerns about the treatment of animals as well as hygiene standards, in response to animal-to-human transmitted diseases such as bird flu and swine flu. Companies in turn are recognising the business case for better animal welfare, which can help them to avoid negative health and commercial outcomes linked to the loss of animals due to disease; increase brand value and enhance their reputation; generate higher product quality; and open access to wider markets.

Development finance institutions (DFIs) like CDC – along with institutional investors and commercial banks – are progressively addressing animal welfare alongside a range of other environmental and social issues associated with animal production, including climate change, labour and working conditions, and antimicrobial resistance. As such, investors can be a motivating and supportive force in moving companies toward higher welfare standards over time.

In our assessment of livestock, poultry and aquaculture investments (and, as appropriate, their supply chains), we are guided by a combination of the Five Freedoms of animal welfare, the General Principles for the Welfare of Animals in Livestock Production Systems published by the World Organisation for Animal Health (OIE) and the IFC Good Practice Note (2014): *Improving Animal Welfare in Livestock Operations*. Other DFIs, including IFC, FMO and IFU, have made similar commitments, and the trend toward higher welfare standards seems likely to increase – including within our markets in South Asia and Africa.

Building on our experience of working to these standards, we commissioned this Toolkit to address the needs of animal production companies and investors who require clearly defined, practical approaches to enhancing welfare standards and systems. It offers guidance based on the first-hand experiences of experts and practitioners to generate a shared understanding of welfare expectations that can be used by companies and investors.

At CDC, we require all investees to comply with our Code of Responsible Investing and local legislation at a minimum. We intend to use this Toolkit not as an additional minimum standard, but as a tool to benchmark and improve animal welfare over time. It will be used at the due diligence stage with the support of consultants, and during monitoring with company experts or with external consultants as needed.

This Toolkit fills a gap in the public guidance available to assess animal welfare. We hope it will provide a framework to assess and monitor improved welfare practices over time, as well as catalyse investor engagement in this important area.



Guy Alexander
Director, ESG Impact
CDC Group



01

Purpose and objectives

This Animal Welfare Toolkit provides practical guidance and tools to assess levels of animal welfare and to monitor them on an ongoing basis. For farmed animal producers, including aquaculture farmers, it allows transparency and consistency in monitoring for internal and external purposes. For investors, it provides a clear framework to inform investment decisions and monitor progress over time. The Toolkit is intended to be used by company staff responsible for animal welfare as well as environmental, social and governance (ESG) professionals, compliance auditors and investors. The support of veterinarians during parts of the assessment process would be useful but is not required, assuming the company has sufficient relevant species experience (see Section 3.7).

Animal welfare is an increasingly important aspect of retailer product sourcing decisions, consumer choice, trade negotiations and policy frameworks. It is also one of several important business considerations for DFIs, impact investors, and investors based in countries with high welfare expectations, alongside other ESG, developmental and commercial attributes. Higher levels of animal welfare can guard against reputational damage as well as help to protect from potentially significant performance losses linked to poor biosecurity, management and food hygiene. In some cases, it can also provide opportunities to access new markets or to sell products at a premium.

While this Toolkit is not region-specific, it was developed with a particular focus for application in emerging markets, where there may be fewer legislative requirements around welfare. Its framework can become an important tool to establish and benchmark progression across the welfare categories over time. With this in mind, our guidance aims for 'High' standards for all animal production companies, as the concept of good welfare cannot be changed according to context. Many companies

may start at or below the 'Basic' level, but as long as they meet local legislative requirements, and implement measures to work toward higher standards (considering country context as needed), they should be able to see their score increase over time.

This Toolkit is not intended to be prescriptive in terms of which animal welfare standards to follow, or where to set a minimum threshold of welfare. Companies and investors can identify their own minimum expectations within the framework, and work to progress toward higher animal welfare over time. In addition, some companies may use an outgrower model, for example where they sell day-old chicks (DOCs) to local farmers and provide inputs, training and veterinary advice with, in some cases, commitments to purchase eggs or chickens at the end of the growing cycle. The extent to which this Toolkit is applied to outgrowers will need to be decided on a case-by-case basis to ensure welfare improvements can be made while not excluding important development and job creation opportunities, or access to affordable protein.

There are two main barriers to companies in emerging markets working towards higher welfare standards. First, in many cases regulations and consumers do not require them, which can make a business 'off market' compared to its competitors. Second, some changes may require capital expenditures that could be prohibitive. It is recognised that, while there is an increasing body of evidence linking positive welfare and commercial outcomes, not all welfare improvements will necessarily have a clear commercial benefit. In such cases, decisions will have to be made about the importance of animal welfare to a company or investor from a long-term value, reputational, and ethical perspective.

Animal welfare is one aspect of many ESG considerations that should be applied to primary animal production businesses. Companies and responsible investors will also need to be aware of – and review – environmental risks such as the greenhouse gas (GHG) intensity of production practices and the feed supply chain, social risks such as food safety and labour and working conditions of staff, and the overarching risks related to overuse and misuse of antibiotics as part of a holistic view of operations.

This Toolkit is composed of a short introduction to animal welfare and its growing importance to animal production businesses and investors (Section 2). Section 3 outlines the methodology for choosing the metrics, along with the principles upon which the metrics are based. Section 4 provides guidance on how to conduct assessments and report results. Finally, Section 5 provides the detailed assessment tools by animal type, with the relevant indicators against which to score welfare inputs and outcomes. While the framing of this introductory section may skew toward the terrestrial farmed animal, it is intended to be applicable to aquaculture as well and all references to ‘farms’ and ‘animals’ should be read in that context.

It is recommended that all users read Sections 1-4 in full to familiarise themselves with the methodology and assessment process before proceeding to the relevant assessment tools comprised within Section 5. The following animal types are covered:

- Beef cattle (Section 5.1)
- Dairy cows (Section 5.2)
- Broiler chickens (Section 5.3)
- Laying hens (Section 5.4)
- Breeder birds (Section 5.5)
- Hatcheries (Section 5.6)
- Sows (Section 5.7)
- Growing pigs (Section 5.8)
- Sheep (Section 5.9)
- Tilapia (Section 5.10) as an entry point into finfish
- Shrimp (Section 5.11) as an entry point into shellfish

When preparing this guidance, a wide range of stakeholders was engaged to ensure the perspectives of investors, animal species experts, sector experts and companies operating in emerging markets were included. These stakeholders are mentioned in the Acknowledgements.

“In the case of animal welfare, failure to keep pace with changing consumer expectations and market opportunities could put companies and their investors at a competitive disadvantage in an increasingly global marketplace.”
IFC, 2006

“One of the key elements of our research process is what we call ‘horizon scanning’, that is looking out for those issues and risks that may not be material today but that may significantly impact on our investments in the future. One such issue is farm animal welfare.”
BNP Paribas (Sullivan & Amos, 2014)

“Farm animal welfare is becoming an increasingly important issue for food companies along the supply chain, from producers to consumers, supermarkets and restaurants. Regulation, consumer awareness, pressure from the media and labelling requirements are all key factors for change.”
FAIRR, 2017



02

Animal welfare, its assessment, and what it means for a responsible investor

2.1 What is animal welfare?

Animal welfare is “the physical and mental state of an animal in relation to the conditions in which it lives and dies”.¹ Farmed animals are sentient, meaning they have feelings, both positive and negative, of which they are aware. These feelings have evolved over millennia to enhance their fitness in the natural environment. For example, the negative experience of pain has served to help protect injured parts of the body and avoid situations likely to result in future injury. Similarly, the experience of pleasure, for example, from particularly nutritious food has been adaptive in promoting motivation to seek out such foods. Domestication has occurred recently in the evolutionary history of farmed species, and has barely altered their behavioural motivations, despite domestication sometimes resulting in great changes in physical appearance and productivity. For example, physical changes, such as prolonged genetic selection for high productivity, may predispose to poor welfare, such as for leg weakness and heart disease in broiler chickens.

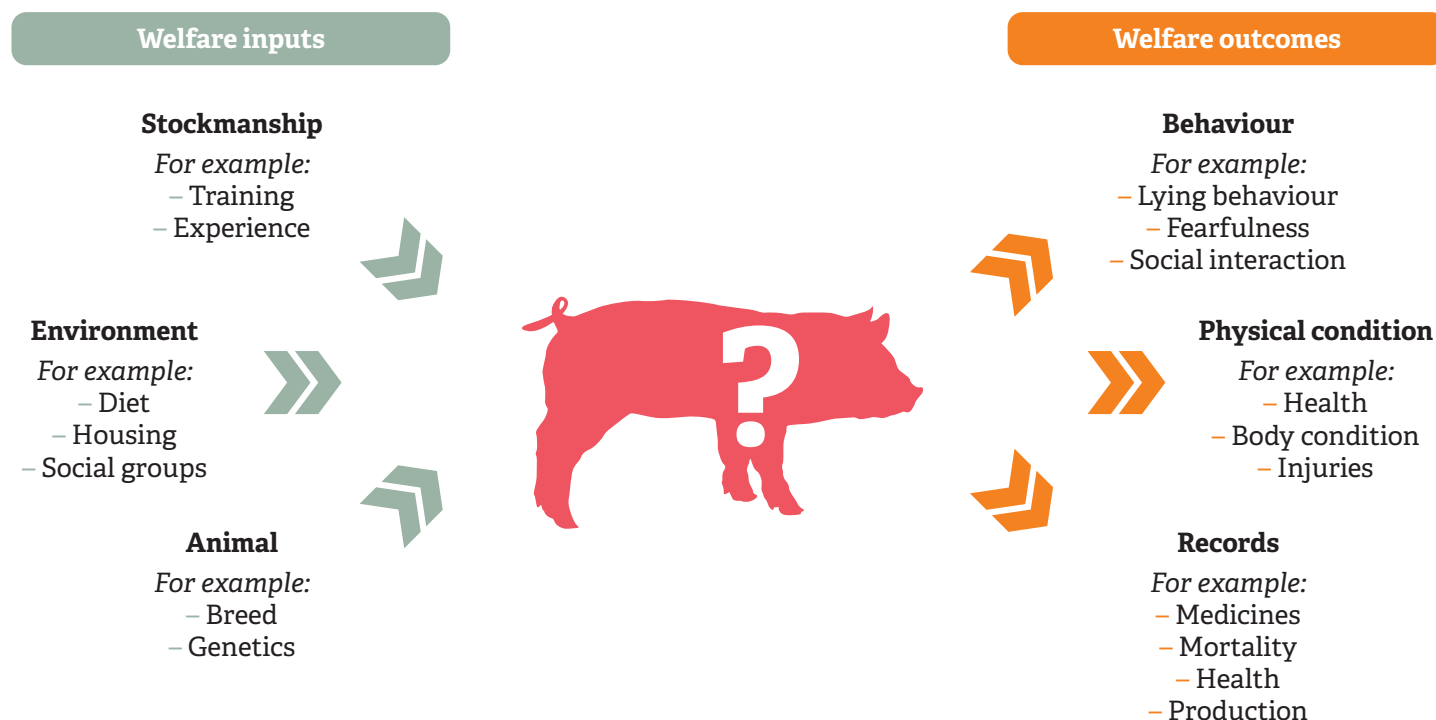
A farmed animal (including fish) can experience good welfare at any stage in its life from birth or hatching to death if it is healthy, comfortable, safe, is not hungry or thirsty for prolonged periods, is not suffering pain, fear and distress, is able to express behaviours that are important for its physical and mental state, and has the appropriate company of other animals of its own kind. To experience good welfare, when cared for by humans, animals should have careful management, suitable shelter or housing, nutrition which will maintain health, and be protected from disease and receive appropriate veterinary care. They should live in an environment where they are free to move and make meaningful choices about their lives, where there is appropriate mental stimulation and where they are able to form positive social relationships. Farmed animals should have humane handling and transportation, and humane slaughter or killing.

These expectations are reflected in the Principles of this Toolkit (see Section 3.4) and are borne out through the measurable inputs and outcomes in Section 5.

2.2 Assessing animal welfare

Farmed animal welfare is highly influenced by the care and environment provided to animals, as well as their genetic predispositions (welfare inputs). The effect of these inputs on animal behaviour and health (welfare outcomes) can be measured (see Figure 1). Although humans cannot fully understand the animal’s experience, evidence-based inferences can be made from direct observations. Where this is not possible, their welfare inputs can be assessed based on scientific evidence of a link to welfare.

Figure 1: Animal welfare inputs and outcomes



2.3 The importance of animal welfare to investors

Animal welfare is now a determinant in global farming systems and, in many countries, is developed to a high level, with protection for animals, including farmed fish, embedded in law. Alongside regulatory requirements, animal welfare expectations can be set by industry standards that guide farmers (including outgrowers) and offer purchasers and consumers assurance that the animal products they purchase come from animals that have been farmed with care. In some regions, trade in animal products is dependent on agreed welfare levels of animal production, determined through purchaser standards which the farm or company must meet to enter the retail chain or to permit trade.

These expectations are generally less clear in emerging markets where legislation and consumer pressure may be weaker, especially if animal products are sold domestically. In these contexts, making a business and ethical case for animal welfare is particularly important, and investors will need to balance competing, and sometimes conflicting, priorities when determining where to set animal welfare requirements.

Regardless of the country, species or trade background, some overarching observations apply to all farmed animals:

- Good levels of care for animals, and good levels of animal welfare, are good for the animals and good for business. This is because animals farmed to high commercial and welfare standards have reduced mortality, lower levels of injury and disease, and often have higher productivity. For example, in a 2020 study, mortality in commercial broiler chickens ranged between 1.0 per cent and 14.8 per cent across 2,309 flocks on 358 farms in seven European countries. A variety of differences in management and housing

were identified as the risk factors for high levels of mortality and therefore poor economic performance.² Similarly, among 124 flocks on 88 small-scale Vietnamese broiler chicken farms (mean size 303 birds) only 25 per cent of flocks had a mortality lower than 9 per cent. The mean mortality was 33 per cent, and on some farms all the birds in the flock died. Disease was a major cause of death and economic loss.³

- Companies that can show good or best practice in the world of animal production actively engage with animal welfare as part of their social and environmental commitments. Multinational corporations such as KFC⁴ and Unilever⁵ have transparent commitments to continue to increase welfare standards within their global supply chains, while recognising that some regions are starting from different baselines.
- Companies that have no engagement with animal welfare issues, and limited or no training and capacity building in animal care and welfare, are likely to be low-tier operators when compared to businesses which have, for many years, included animal welfare aspects into their working practices, standard operating procedures (SOPs) and standards. An OIE review of scientific literature demonstrated the value of staff training in delivering animal welfare and productivity benefits.⁶

Poor animal welfare standards, and poorly implemented farm welfare requirements, can affect companies' sales and reputation. Companies must comply with local laws, regulations, and standards, to retain their social licence to operate. Violations of these requirements, or significant misalignment with international good practice, can lead to reputational damage and to the loss of customers.

This trend is clear in the emergence of large investor groups, such as the Business Benchmark on Farm Animal Welfare (BBFAW) Global Investor Statement, signed by 33 institutional investors representing £2.5 trillion in assets under management (AUM)⁷; and FAIRR, an investor network with member AUM of \$30 trillion, which focuses on ESG risks in the global food sector, including animal welfare.⁸

2.4 Animal welfare in the investment cycle

Animal welfare is one of many considerations during an investment process, alongside commercial, developmental, environmental and social issues. Responsible investors will have their own reference frameworks or codes against which to assess performance, and will have to decide where animal welfare fits – and the weight that it is given – among other ESG performance factors. Investors using this Toolkit can set their own benchmark of minimal acceptable standards among the levels proposed as a reference point to assess potential investment opportunities. In cases where companies do not comply with legal requirements (which is the minimum level considered in this Toolkit) or where they practice any of the excluded activities, investors may decide to disqualify the company from investment. Alternatively, investors may consider having early-stage conversations about phasing out the non-compliances before, or during, the investment period.

During due diligence, the company can then be assessed against the relevant animal types in Section 5 (see Section 3.7 on experience required to conduct an assessment). This will provide a shared understanding of the baseline welfare performance of the company. Depending on the investor's requirements, the tenor of the investment, or other considerations, the investor and company can agree to work from the baseline toward one of the higher levels of welfare over an agreed timeframe. This can be done through a dedicated Animal Welfare Action Plan (AWAP) or integrated into an Environmental and Social Action Plan (ESAP). To maximise alignment, it is recommended that the AWAP be incorporated into legal terms for increased clarity, leverage and influence on progress to be achieved within a reasonable timeframe. For example, in loan agreements, animal welfare actions can be linked to conditions precedent to financial close or disbursements.

The AWAP can then form the basis for regularly monitoring the company's welfare activities. This can ensure progress and improvements over time are tracked, and corrective actions subsequently identified during monitoring are incorporated. Depending on the company and investor, an AWAP can form part of a larger environmental and social management system (ESMS) and will be closely linked to other ESG areas such as environmental management plans and food safety. The AWAP can also include or feed into the development of other policies and SOPs, including veterinary monitoring, and can also be used in company reporting.



03

Methodology

3.1 Selection of metrics

A set of Principles, Key Performance Indicators (KPIs) and Key Welfare Indicators (KWIs) make up the assessment tools, and are defined and used as follows:

- Principles provide overarching, holistic propositions that underpin the KPIs and KWIs used in the assessment tools. These will be referred to as appropriate by the different indicators used (refer to Section 3.4).
- KPIs are aligned to internationally-recognised frameworks and give an indicator of animal welfare-related business management practices and performance (refer to Section 3.2).
- KWIs focus primarily on the animal welfare outcomes and are aligned to internationally-recognised frameworks (refer to Section 3.2).

The Principles are guided by animal welfare concepts such as the Five Freedomsⁱ and the Five Domains^{ii,9} of animal welfare, as well as elements that make up a 'Good Life'¹⁰ for animals, and guidance on animal welfare published by organisations such as the OIE,¹¹ the IFC,¹² and the Animal Welfare Committee (AWC).¹³ The metrics used in the Toolkit are gathered from a wide range of well-established and publicly available sources of

information, such as legislation, production standards, reports and data. The list of documents used as the primary source of guidance for the Toolkit is listed under 'Resources' for each animal type in Section 5. As the range of global standards and guidance documents for farmed animals available is extensive, and each has its own focus and intended use, a selected number of marker metrics only are identified from the published literature.

3.2 Reference framework and standards

Globally there are wide variations in the standards to which animals are kept, farmed and managed – and this makes creation of global welfare standards complex. Some standards are applicable in many parts of the world; for example, the OIE Terrestrial and Aquatic standards are seen as the 'foundation' of many country animal welfare policies. However, the OIE standards generally form the base of a pyramid of animal welfare standards – and many countries have gone well above the OIE base in their requirements. For example, United Kingdom and European Union animal legislation is, in many areas of the standard, well above OIE requirements.

Some African countries, including Tanzania, Kenya and South Africa, have existing welfare-related legislation that can be augmented through revisions or codes of practice.

ⁱ The Five Freedoms are:

1. *Freedom from hunger and thirst:* by ready access to fresh water and a diet to maintain full health and vigour.
2. *Freedom from discomfort:* by providing an appropriate environment including shelter and a comfortable resting area.
3. *Freedom from pain, injury or disease:* by prevention through rapid diagnosis and treatment.
4. *Freedom to express normal behaviour:* by providing sufficient space, proper facilities and company of the animal's own kind.
5. *Freedom from fear and distress:* by ensuring conditions and treatment which avoid mental suffering.

ⁱⁱ The Five Domains are:

1. Nutrition
2. Environment
3. Health
4. Behaviour
5. Mental state

Tanzania's 2008 Animal Welfare Act is recognised as the leading legislation on the African continent, as it formally recognises animals' sentience and refers specifically to the Five Freedoms.¹⁴ Kenya has a Prevention of Cruelty to Animals Act (revised in 2012), which may soon be enhanced by a proposed Animal Welfare & Protection Bill (2019) that recognises all animals as sentient beings and mandates stunning before slaughter.¹⁵ South Africa's Animal Protection Act of 1962 prohibits animal cruelty, while the South African Bureau of Standards has enacted animal welfare standards linked to specific species.¹⁶ Other countries, such as Nigeria and Zambia, do not have specific animal welfare legislation but are either working toward national strategies, or codes of practice related to welfare.

In South Asia, both India and Pakistan have long-standing Prevention of Cruelty to Animals Acts (1960 and 1890, respectively) that recognise animal sentience. International animal welfare bodies recognise the importance of these acts and have encouraged both countries to update the legislation in line with the Five Freedoms, OIE, and the latest animal welfare science.

National and local regulations set the lower threshold (below which an activity is not legal), and in practice, welfare practices are well above legal minima in many countries. These are driven by trade standards, retailer standards or good practice guidance and animal welfare codes. Indeed, there may be cases in which the standards of an input supplier – such as grandparent and parent poultry stock – are potentially at odds with other welfare practices, and the buyer (company) is unwilling to deviate from these.

Both scientific thinking and societal viewpoints regarding farm animal welfare have changed in recent decades, and will continue to do so as animal welfare legislation is enhanced in more countries, and as global retailers demand higher welfare practices across their international supply chains. There is increasing interest in, and knowledge of, animal health, care and welfare, a recognition that farmed animals are sentient, and that good animal care and welfare offers productivity and economic benefits.

For these reasons, to determine the animal welfare performance of a farming company, particularly when making investment decisions, the Toolkit:

- Builds from a base of local legal minima.
- Considers 'Basic', 'Medium-Low', 'Medium-High' and 'High' practice standards for each animal type, so that investment decisions can be framed in light of local context.
- Considers the Five Freedoms, Five Domains and Good Life frameworks for animal welfare.
- Recognises that different countries have different animal welfare constraints, influenced by factors including climate, animal genetics, food types fed, animal housing systems used, affordable protein requirements, and labour considerations.
- Recognises that some countries have inherent animal welfare advantages, including climate, grassland type, feed availability -- or in the case of aquaculture, river, lake and ocean access -- and a religious and cultural predisposition to high animal care.

3.3 Recommended excluded activities

Many responsible investors, including international financial institutions (IFIs) and DFIs, as well as commercial banks and institutional investors, have developed or are working toward developing exclusion lists around poor animal welfare practices. These lists tend to be underpinned by the Five Freedoms and the OIE 11 General Principles for the Welfare of Animals in Livestock Production Systems, as well as the management practices in the 2014 IFC Good Practice Note: *Improving Animal Welfare in Livestock Operations*.

Within the IFI and DFI community, the following organisations are recognised as leaders in terms of setting public animal welfare positions and exclusions: The IFC; the European Bank for Reconstruction and Development (EBRD); the Dutch DFI, FMO; and the Danish DFI, IFU. Outside of the development finance space, investors and financial institutions such as Collier Capital, Rabobank, Standard Chartered and Triodos Bank have all made public commitments to animal welfare.¹⁷

At CDC, a number of animal husbandry systems and practices are considered to be incompatible with good animal welfare outcomes, or with the view that animals are sentient and have an intrinsic value. These systems and practices include:

1. Tethering of sows
2. Individual sow stall housing throughout the entire pregnancy
3. Individual pen housing for calves beyond the age of eight weeks
4. Forced feeding of geese and ducks
5. Keeping of animals exclusively for fur or leather production
6. Using antimicrobials as growth promoters or for preventive use
7. Non-enriched battery cages for chickens*

CDC will not make any new investments in companies, directly or through funds, that seek to expand their operations as they relate to the above systems and practices. Where these systems and practices are identified during due diligence, CDC would require the company to phase them out within an agreed timeframe.

*It is noted that non-enriched battery cages are the predominant housing system for layer chickens in the markets in which CDC invests, and eggs are an important low-cost form of protein and provide wider nutritional value to local consumers. CDC may consider support for such investments subject to meeting specific criteria for improving animal welfare outcomes and demonstrating a strong development impact case.

The above, alongside CDC's Code of Responsible Investing and national legislation, set the minimum standards and practices required for an investment into an animal production company. Producers who are at or below the 'basic' standard will not be excluded from consideration, but would be expected to implement measures to work towards improvements over time, in line with this Toolkit.

3.4 Principles

The Principles of this Toolkit are wide-ranging and holistic, and underpin the detailed metrics found in the KPIs and KWIs. The Principles are based on those of the OIE but have been updated to reflect increasing automation in animal farming and the greater global focus on sustainability and reduction in antimicrobial and other pharmaceutical use. They recognise that in addition to reducing negative experiences, the promotion of positive experiences is important to animals. The principles do have a terrestrial animal foundation – but are in general applicable to aquaculture, with the proviso that terminology applicable to aquatic species is adopted.

The Toolkit Principles apply throughout animals' lives, including on **farm**, during **transport** and at **slaughter**, and are as follows:

1. Animals are **sentient**, and all livestock are treated humanely and with respect.
2. **Genetic selection and breeding practices** do not cause detrimental effects to animal welfare.
3. Animals are protected from **hunger and thirst** by ready access to fresh water and a diet to maintain full health and vigour.
4. Animals are protected from **discomfort**, by providing an appropriate environment to prevent excessive temperature ranges and humidity and includes shelter and a comfortable resting area.
5. Animals are protected from **pain, injury and disease** by health planning, prevention, rapid diagnosis and treatment and avoidance of unnecessary procedures.
6. Animals are able to **express normal behaviours** through provision of sufficient space, with proper facilities and enrichment materials, and appropriate company of their own kind.
7. Animals are protected from **fear and distress** by ensuring care, management conditions, and treatment, which avoid mental suffering.
8. The farming system **does not depend on antimicrobials or hormone treatments** being employed routinely.
9. **Automated systems** do not create animal welfare harms.
10. Animals are **checked regularly** to see that they are behaving normally, have access to feed and water, and to prevent distress and suffering.
11. Owners, carers, and handlers have a duty of care towards animals and sufficient **skill, knowledge and empathy** to foster positive relationships with animals and ensure that animals are treated with care.
12. Animals chosen for **introduction into new environments** are suited to the local climate, nutrition and likely disease challenges.

As stated above, these Principles are intended to be high-level and are linked to the more specific and operational KPIs and KWIs per animal type in Section 5.

3.5 Animal welfare indicators

The Toolkit combines assessments of management and environmental inputs (the Management KPIs) with observations of animal health and welfare (the Animal Welfare KWIs) to produce the overall summary of welfare in a farm or business (see Figure 2).

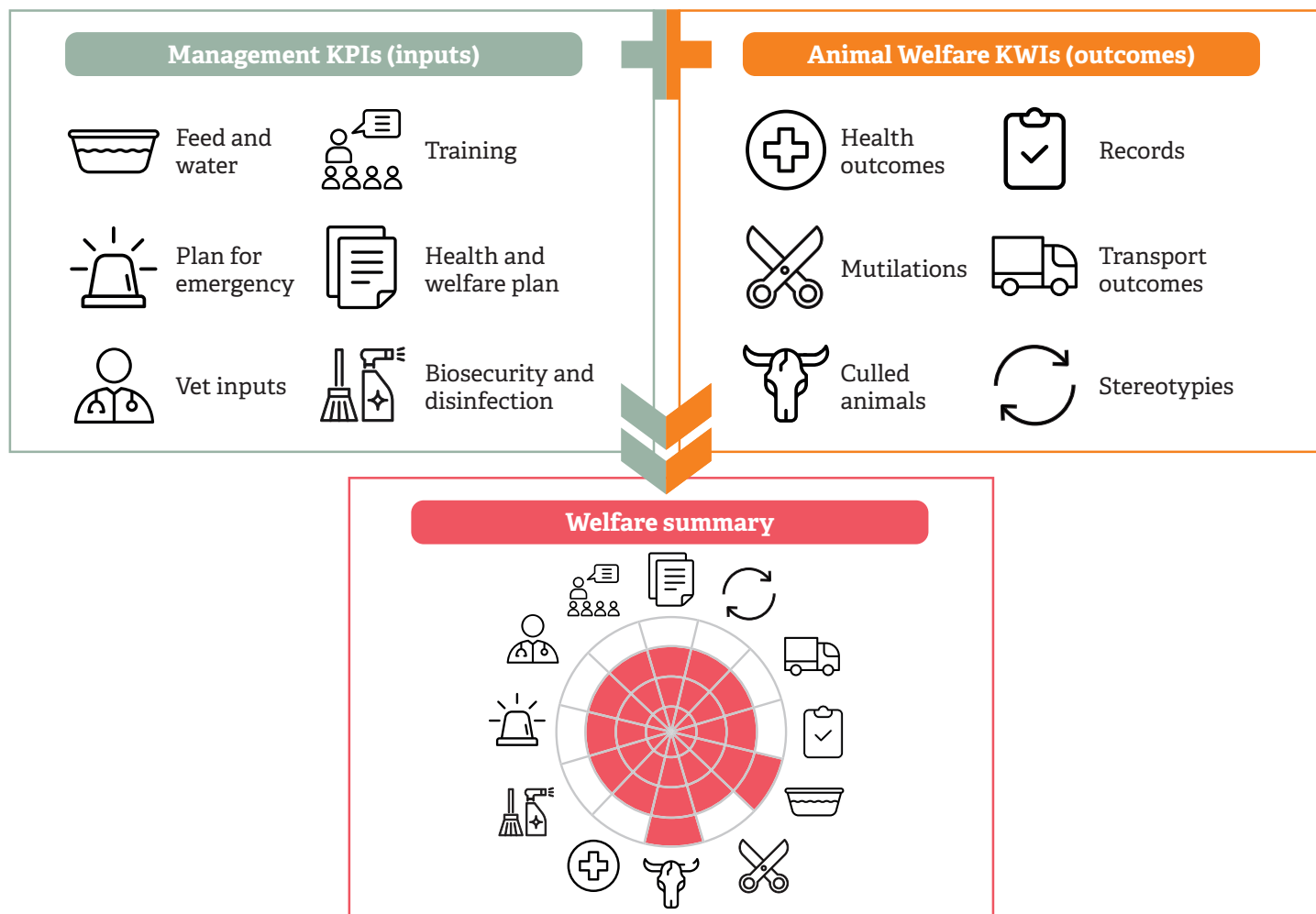
- **KPIs** reflect actions or management practices that have a clear link to animal welfare. Some KPIs are relevant to all animal types covered in the Toolkit, for example biosecurity measures, training of stockpersons, health monitoring practices and veterinary care. Others relate more specifically to provisions relevant for each animal type. For example, the pig KPIs include elements about farrowing accommodation and environmental enrichment.
- **KWIs** reflect the outcome of the environment and management practices on animals, and provide a more direct insight into animal welfare than KPIs. They include physical observations, such as lameness in broiler chickens or feather loss in hens, fin or skin damage in fish, health outcomes, mortalities and injuries during transport, and stereotypies (repetitive behaviours without an obvious function, such as bar biting in pigs or tongue rolling in cattle). Where possible, behavioural observations are also included, such as observations of the use of environmental enrichment by pigs. Health records, such as for mastitis in dairy cows, also provide useful KWIs.

By using KWIs in combination with farm system information (KPIs), a fuller picture of the health and wellbeing of animals with the resources provided on any given farm is built up. The use of KWIs means the results of a survey, audit or decision-making process is much less dependent on the farming system, and for this reason can be employed equitably across countries and farms. In addition, each KPI/KWI is presented within the Toolkit as linked to one or more of the Principles to set them in the context of the overarching aims.

The KWIs relating to slaughter are, as for all KWIs, informed by the scientific literature. Where stunning is required, there is evidence to support the animal welfare benefit of doing so. It is recognised that some religions, as currently practiced in some countries or regions, have requirements around the slaughter of animals which sometimes prohibit stunning. However, the application of such requirements is not universal in all countries, and the Toolkit does not explicitly comment on the suitability or otherwise of such requirements. Rather, the focus is on the animal experience at slaughter and the KWIs are designed to address that.

As well as establishing a baseline, the Toolkit can be used for ongoing monitoring, by assessing the mechanisms used by the businesses to achieve welfare change, the effects of management, capital expenditure on equipment, targeted training, and increased monitoring.

Figure 2: Examples of Management KPIs and Animal Welfare KWIs that are combined to provide a welfare summary of the farm or business



3.6 Limitations

The Toolkit is designed to assist in company monitoring and investment decision-making regarding animal welfare. It does not relate directly to current legal requirements in all countries, as legal protection is evolving, varies widely from country to country and, as previously highlighted, many countries do not have specific animal welfare legislation. Similarly, the Toolkit is not intended as an assurance standard. If a company wishes to adopt existing farm or aquaculture assurance standards, they should subscribe to the specific farm assurance system. Farm assurance standards are a widely adopted method for companies to show their compliance with a range of animal welfare, food safety, environmental and other standards. A list of globally-recognised farm and aquaculture assurance standards for each animal type is available in the relevant Resource section.

3.7 Experience required to assess practices using the Toolkit

The Toolkit is designed to be accessible to most people with a good working knowledge of farmed animal husbandry or aquaculture, health and welfare. However, where high levels of robustness of the results are required, for example when considering higher risk investments, the assessment would best be performed by an independent party with experience of the species and

auditing methods. For the purposes of a company assessing its baseline standard, it is not necessary for the assessment to be done by a third party, however, the individual will need sufficient experience in the relevant species and knowledge of animal welfare concepts to establish the baseline. This may be done by, or in consultation with, a veterinarian.

The most robust results will be provided by specialists with the following qualities:

- Have had sufficient exposure or training in, and have sufficient knowledge of, concepts of animal welfare.
- Have a minimum of three years' experience in the agricultural sector relevant to the species being assessed, and experience of the relevant farming or aquaculture system.
- Experience will be indicated by a formal qualification (with certificate) in agriculture or aquaculture, relevant to the species.
- Have completed training, and gained a recognised qualification (with certificate) in farm or aquaculture audit methods.
- In some cases, be a third party (not company personnel) to ensure objectivity.



04

How to use the Toolkit

4.1 Scoring the categories

To use the Toolkit, farms must have already met local legislative requirements. In order for any farm to be assessed under this framework, meeting legislative requirements is considered a precondition and a preliminary step without which it cannot work toward scoring against any of the Toolkit levels.

Section 5 presents a set of Management KPIs and Animal Welfare KWIs. Each KPI or KWI has four possible levels (Basic, Medium-Low, Medium-High, High) which may be achieved on a farm (See Figure 3). The Basic level should be assessed first, and if all the requirements are met, assessment can move on to Medium-Low, and so on. A farm that scores High has therefore met all criteria in all levels for that KPI or KWI. As the specific country and

operating context varies, and as different input providers may set certain requirements that differ from this Toolkit, companies and investors may decide it makes sense to work toward different levels for different KPIs and KWIs. For example, a company may work toward Medium-High generally, but acknowledge it cannot surpass Medium-Low on a specific KPI due to contextual considerations. This can be determined and agreed on a case-by-case basis.

It is recognised that zero incidence of some core KWIs, for example mortality, is not a biological possibility in farming systems. Therefore, the High level requires achievement of practical realistic minimal levels of negative health and welfare conditions.

Figure 3: The four levels that a company may achieve for each KPI or KWI

Basic Welfare (B)	Medium-Low Welfare (ML)	Medium-High Welfare (MH)	High Welfare (H)
To achieve Basic, all requirements in this category must be met.	To achieve Medium-Low, all Basic and Medium-Low requirements must be met.	To achieve Medium-High, all Basic, Medium-Low and Medium-High requirements must be met.	To achieve High, all preceding requirements and High requirements must be met.
Basic level animal welfare means the welfare standards are among the lower levels commonly practiced. The farm should prioritise putting in place measures to improve animal welfare.	Medium-Low animal welfare means a farm is above the lowest practice for that element but should continue to focus on making improvements which would deliver tangible welfare benefits to animals.	Farms in the Medium-High category of animal welfare are operating at a level substantially above the lower global operators, but should aspire to operate at the highest level.	Farms that meet the High level of animal welfare are operating at standards comparable to the highest global commercial operators for that element.
Basic level includes compliance with local laws as a starting point.	Existing practices include areas of missed performance that need improvement.	Existing practices are generally acceptable, with opportunities for improvement.	

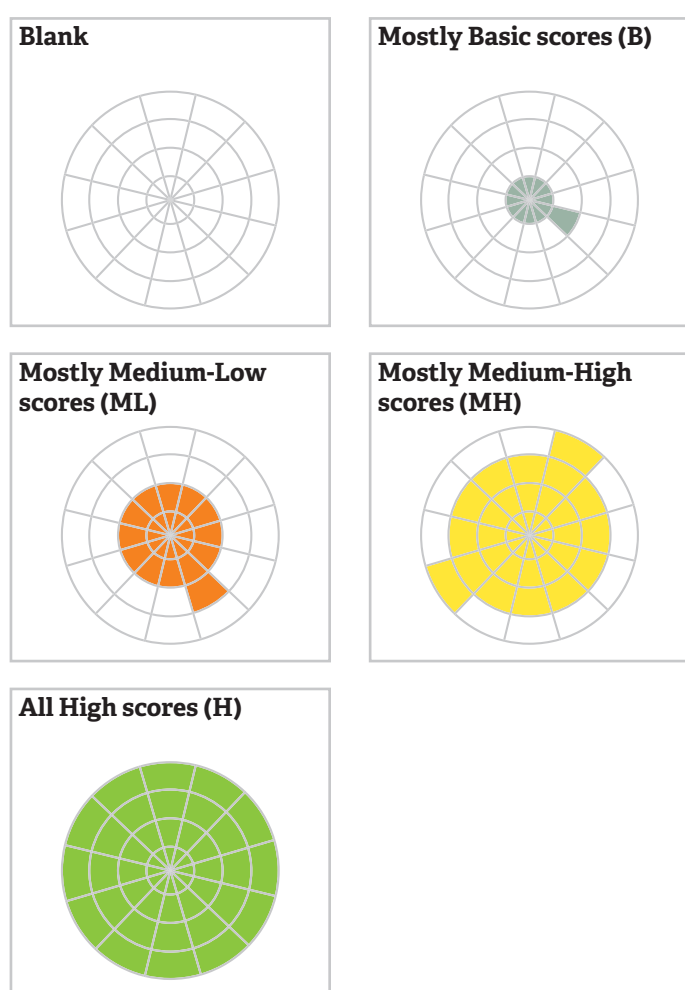
4.2 Assessment and presentation of results

The KPIs and KWIs in Section 5 can be used in a checklist format, with the level achieved for each indicator clearly marked on the scoresheet.

Additionally, for ease of review, the information from each KPI/KWI can be brought together into sector graphics to summarise performance against multiple measures (see Figure 4). These sector graphics can be created by:

- A. Using the printable templates in the Resource for each type. Mark the position of the score for each measure and fill in the central area with a marker pen.
- B. Use the Excel tool supplied (see link in Section 5). Fill in the score values and the sector chart will be created. The chart can then be exported as an image or a PDF to add to an assessment report.

Figure 4: Examples of sector charts



4.3 Example of application

The following example explains the use of the KWI for tail docking or tail biting in growing pigs.

Scenario: An expert is assessing a pig farm that routinely docks all tails. The farmer has previously attended a certified course on pig welfare that included elements on the risk factors for tail biting. While the assessor is on the farm, they see several pigs in the hospital pen with docked and bitten tails, including one very severe case (see Figure 5).

Figure 5: Severely tail-bitten pig in a hospital pen



The assessor asks the farmer what their overall rate of tail biting has been for this batch, and for the year. The farmer responds that they do not collect this information, although if pigs die or are culled from tail biting injuries, this is recorded.

The assessor completes the Toolkit as outlined in Figure 6 overleaf. Each point within a level is individually assessed, and only when all points have been achieved does a farm meet that level.

The assessor presents the evidence for this decision. In this case, the farmer is aware of tail biting as a welfare issue, meeting Basic requirements. Only two of the four requirements in ML have been met, and therefore the whole level is not met and the evaluation of that KWI ceases.

In order to achieve ML, the farm should actively monitor tail biting and record the rates observed, instigating management changes when rates exceed 1 per cent, in order to move away from routine tail docking.

Figure 6: Example of application for KWI Growing pigs 5

KWI Growing pigs 5		Observed?	Achieved level?	Progress	Evidence/comment
Tail docking, tail lesions - Links to P1, P5, P6, P11					
Basic (B)	The farmer is aware of tail biting, tail lesions and tail docking as welfare issues for pigs undergoing docking, those with lesions and those undertaking biting of other pigs.	● Observed	● Achieved	<div style="width: 100%; height: 15px; background-color: green;"></div>	Farmer has received training on tail biting and their risk factor
Medium-Low (ML)	Procedures are in place to ensure severely tail-bitten pigs (as scored using methods in Resource 1) are placed in a hospital pen, treated, or humanely culled as appropriate to prevent suffering.	● Observed	○ Not achieved	<div style="width: 100%; height: 15px; background-color: green;"></div>	Although the tail bitten pig was in the hospital pen (meeting the first criteria at this level) there was no formal recording or monitoring or the rate of tail biting on the farm. Therefore, the whole of this level has not been met. To meet this level, formal monitoring of tail biting - as well as actions to reduce risk if rates are high - should be undertaken.
	All culls due to tail biting are recorded on the daily mortality and cull record.	● Observed			
	Tail docking is performed only to prevent high levels of tail lesions.	○ Not observed			
	Monitoring of tail lesions occurs, and if levels are high (>1%) management changes are undertaken to reduce risk.	○ Not observed			
Medium-High (MH)	Tails are docked and low levels of tail lesions are achieved. Trials of undocked pigs are undertaken as part of a transition to permanently not docking.	○	○ Not achieved		Not scored
High (H)	Tails are undocked and the prevalence of any tail lesions is low (<0.1%)	○	○ Not achieved		Not scored
	The company sets high targets, measures performance and reports on tail docking and lesion outcomes.	○			



05

Assessment Toolkits by animal species

The following accompanying documents feature the assessment Toolkits of KPIs and KWIs per animal type, following the methodology outlined in Section 3. These are also available as Excel-based tools that can be used online or printed for use offline.

- 5.1 Beef cattle
- 5.2 Dairy cows
- 5.3 Broiler chickens
- 5.4 Laying hens
- 5.5 Breeder birds
- 5.6 Hatcheries
- 5.7 Sows
- 5.8 Growing pigs
- 5.9 Sheep
- 5.10 Tilapia
- 5.11 Shrimp

Acronyms and abbreviations

AHDB:	Agriculture and Horticulture Development Board	KPIs:	Key Performance Indicators
AWAP:	Animal Welfare Action Plan	KWIs:	Key Welfare Indicators
ASC:	Aquaculture Stewardship Council	LOS:	Lines of Separation
AUM:	Assets Under Management	NFACC:	National Farm Animal Care Council (Canada)
AWC:	Animal Welfare Committee	OIE:	World Organisation for Animal Health
AWIN:	Animal Welfare Indicators	PPE:	Personal Protective Equipment
BAP:	Best Aquaculture Practices	RAS:	Recirculating Aquaculture Systems
BVA:	British Veterinary Association	RSPCA:	Royal Society for the Prevention of Cruelty to Animals
CAP:	Corrective Action Plan	SOP:	Standard Operating Procedure
CIWF:	Compassion in World Farming	SSPO:	Scottish Salmon Producers' Organisation
DAERA:	Department of Agriculture, Environment and Rural Development	VER:	Visually Evoked Responses
DEFRA:	Department for Environment, Food and Rural Affairs	WHO:	World Health Organization
DFI:	Development Finance Institution		
DOC:	Day-old-chicks		
EBRD:	European Bank for Reconstruction and Development		
EC/EEC:	European Community/European Economic Community		
EFSA:	European Food Safety Authority		
ESAP:	Environmental and Social Action Plan		
ESG:	Environmental, Social and Governance		
ESMS:	Environmental and Social Management System		
FAO:	Food and Agriculture Organization of the United Nations		
FARM:	Farmers Assuring Responsible Management		
FAWC:	Farm Animal Welfare Committee (renamed AWC in 2019)		
GHG:	Greenhouse Gas		
H&W:	Health and Welfare		
HACCP:	Hazard Analysis and Critical Control Point		
HAS:	Humane Slaughter Association		
HPCIA:	Highest Priority Critically Important Antimicrobials		
ICAR:	International Committee for Animal Recording		
IFC:	International Finance Corporation		
IFI:	International Financial Institution		
IFU:	Investment Fund for Developing Countries (Danish Development Finance Institution)		
IUCN:	International Union for Conservation of Nature Red List of Threatened Species		

Notes

- 1 OIE (2019): [Terrestrial Animal Health Code: Introduction to the recommendations for animal welfare](#)
- 2 Van Limbergen, T.; Sarrazin, S.; Chantziaras, I.; et al., BMC Veterinary Research 16, 287 (2020): [Risk factors for poor health and performance in European broiler production systems](#)
- 3 Carrique-Mas, J.; Van, N.T.B.; Cuong, N.V.; Truong, B.D.; Kiet, B.T.; Thanh, P.T.H.; Lon, N.N.; Giao, V.T.Q.; Hien, V.B.; Padungtod, P.; Choisy, M.; Setyawan, E.; Rushton, J.; Thwaites, G.; Preventative Veterinary Medicine 165, pp. 15-22 (2019): [Mortality, disease and associated antimicrobial use in commercial small-scale chicken flocks in the Mekong Delta of Vietnam](#)
- 4 [KFC announces new global chicken welfare guidelines](#)
- 5 Unilever: [Farm animal welfare](#)
- 6 Coleman, G. J.; Hemsworth, P. H.; (2014): [Training to improve stockperson beliefs and behaviour towards livestock enhances welfare and productivity](#). Revue Scientifique et Technique-Office International des Epizooties 33: 1pp131-137 <https://www.oie.int/doc/ged/D13660.PDF>
- 7 BBFAW: [Global Investor Statement on Farm Animal Welfare](#)
- 8 [FAIRR Initiative](#)
- 9 Mellor, D.J.; Beausoleil, N.J.; Littlewood, K.E.; McLean, A.N.; McGreevy, P.D.; Jones, B.; Wilkins, C.; MDPI (2020): [The 2020 Five Domains Model: Including Human–Animal Interactions in Assessments of Animal Welfare](#), Animals 10, 1870.
- 10 FAWC (2009): [Farm Animal Welfare in Great Britain: Past, Present and Future](#)
- 11 OIE (2019): [Terrestrial Animal Health Code](#) and [Aquatic Animal Health Code](#)
- 12 IFC (2014): [Good Practice Note on Improving Animal Welfare in Livestock Operations](#)
- 13 FAWC (2016): [Sustainable agriculture and farm animal welfare](#)
- 14 United Republic of Tanzania, [The Animal Welfare Act \(2008\)](#)
- 15 [Animal Protection Index, Kenya](#)
- 16 [Animal Protection Index, South Africa](#)
- 17 Coller Capital (2016), [Responsible Investment ESG Policy](#); Rabobank Group (2018), Sustainability Policy Framework; Standard Chartered, [Position Statement, Agro-Industries](#); Triodos Bank (2018), [Minimum Standards](#)



For further information:

▶ **CDC Group plc:**

123 Victoria Street
London SW1E 6DE
United Kingdom

T: +44 (0)20 7963 4700

E: enquiries@cdcgroup.com

cdcgroup.com

The guidance was funded through CDC Plus' technical assistance facility, funded by UK aid from the British people

