# From Five Freedoms to Five Domains - The Need to Change Animal Welfare Models Over Time

## Policy Paper

# From Five Freedoms to Five Domains –
# The Need to Change Animal Welfare Models
# Over Time

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## Abstract

Animal welfare frameworks must adapt to meet evolving challenges in animal care, management, and societal expectations. The Five Freedoms model, established in 1965, has been instrumental in guiding global welfare standards but requires updates to reflect contemporary understanding. Emerging models like the Five Domains offer an expanded view by emphasising the mitigation of negative states and the promotion of positive experiences [1-5].

IVSA, as a global body representing veterinary students, calls for action to update welfare models and ensure international consistency in promoting evidence-based approaches. Presented in this policy paper are the need for such changes, highlighting key advances and urgent challenges over the last five years, including the COVID-19 pandemic's impact on animal welfare, increasing pet ownership, and livestock production pressures [5-7].

This policy paper outlines the IVSA's commitment to advancing global animal welfare by promoting the Five Freedoms, integrating the Five Domains into education and legislation, and fostering collaboration with diverse stakeholders. Key objectives include raising public awareness, advocating for robust welfare laws, enhancing veterinary curricula, and providing species-specific guidelines. Recommendations emphasize training, global awareness campaigns, and technological innovations to address emerging welfare challenges, with a particular focus on the Five Domains as a framework for assessing and improving animal welfare [5-7].

# Introduction

The International Veterinary Students' Association (IVSA) is a non-profit and non-governmental organisation serving as a global platform to unite veterinary students worldwide. It is the largest veterinary student association in the world, representing over 80 Member Organisations (countries). IVSA aims to benefit the animals and people of the world by harnessing the potential and dedication of veterinary students to promote the international application of veterinary skills, education, and knowledge [6].

The International Veterinary Students' Association (IVSA) Standing Committee on Animal Welfare (SCAW) is dedicated to advancing one of IVSA's core objectives: advocating for improved global standards of animal welfare. SCAW recognises the pivotal role of veterinary students in shaping the future of animal care and welfare practices. By mobilising veterinary students worldwide, the committee aims to promote awareness, education, and active engagement in animal welfare issues [7].

At its core, SCAW's mission is to foster global student engagement in animal welfare by increasing awareness and knowledge while encouraging meaningful actions. SCAW envisions a world where animals are respected, protected, and understood – a world where human and animal well-being coexist harmoniously in a way that also safeguards the environment. Through its initiatives, SCAW endeavours to elevate animal welfare standards, empowering veterinary students to become leaders in promoting compassionate care and ethical practices across diverse communities [7].

Animal welfare remains a pressing issue in the face of challenges like zoonotic diseases, climate change, and resource scarcity. This policy paper reviews the Five Freedoms framework, its continued relevance, and recent developments such as the Five Domains model [1-2,8-10].

# Methodology

This policy paper was developed through a thorough literature review of global animal welfare standards, incorporating recent academic research and stakeholder reports. A comparative analysis of these frameworks was conducted to evaluate their relevance and adaptability to current challenges.

# 1. Context and Evolution of Animal Welfare Frameworks

The Five Freedoms of Animal Welfare were originally developed in 1965 by the UK government after the Brambell Report and were released by the Farm Animal Welfare Council in 1979 [3]. They focus on major aspects of animal welfare that can be controlled by humans, serving as a fundamental basis when considering animal welfare for all species. Animal welfare can be thought of as the ability of an individual to live in an environment with appropriate standards of health, diet, and capacity to behave naturally [8,9].

**The Five Freedoms are**:

1. **Freedom of hunger or thirst** by ready access to fresh water and a diet to maintain full health;
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 or rapid diagnosis and treatment;
4. **Freedom to express normal behaviour** by providing sufficient space, proper facilities, and companionship;
5. **Freedom from fear and distress** by ensuring conditions and treatment that avoid mental suffering.

Since their development, the Five Freedoms have been profoundly influential and have been adopted by many international organisations including the World Organisation for Animal Health (WOAH), the International Federation for Animal Welfare (IFAW), and the World Society for the

Protection of Animals (WSPA). Adopting the Five Freedoms framework facilitates a shared dialogue about animal welfare on the international level [8,9].

The Five Freedoms were originally developed for farm animals, particularly those kept in herds, but have since been adapted for use with other species. The framework helps provide objective support to the subjective assessment of animal welfare and can be used repeatedly to reassess and monitor improvements in animal welfare at both individual and group levels [8,9].

Recent years have highlighted the limitations of the Five Freedoms, particularly in addressing species-specific welfare needs and positive states. The Five Domains framework provides a more nuanced approach to understanding and assessing animal welfare than the Five Freedoms. Introduced in 1994 by Professor David Mellor and Dr Cam Reid, the model breaks down welfare into four distinct areas, or "domains", that together influence an animal's overall mental state [8,10].

**The Five Domains are**:

1. **Nutrition**: ensures the animal has access to a diet that satisfies its nutritional requirements, encompassing both quality and quantity;

2. **Environment**: focuses on providing conditions that meet an animal's physical needs, such as appropriate temperature, shelter, and space;

3. **Health**: addresses the prevention, diagnosis, and treatment of disease, as well as injury management and overall physical well-being;

4. **Behaviour**: emphasises the importance of allowing animals to express natural behaviours, promoting behavioural diversity and reducing frustration;

5. **Mental status**: synthesises inputs from the other four domains to evaluate the overall emotional state of the animal, balancing positive and negative experiences.

By emphasising both positive and negative experiences, the Five Domains provide a holistic framework that reflects the complexity of animal welfare. While the Five Domains incorporate elements of the Five Freedoms, they extend the focus by addressing not only the physical factors influencing an animal's welfare but also the mental state shaped by these factors. For the first time, the Five Domains highlight the critical importance of emotional well-being alongside physical

well-being. This approach recognises that mental and emotional states are integral components of overall welfare [1,3, 8-10].

The Five Freedoms laid the foundation for animal welfare advocacy by focusing primarily on the alleviation of suffering. However, with the evolution of the understanding of animal welfare, the Five Domains have emerged as a more dynamic and actionable model that includes a comprehensive consideration of both physical and psychological well-being [1,3, 8-10].

## 2. Legislative and Practical Implications

The Five Domains model has steadily gained recognition as a robust framework for evaluating animal welfare since its initial conceptualisation in the 1990s and subsequent refinements in the 2000s. It has been applied in various contexts worldwide, influencing not only academic research but also practical assessments and standards in diverse regions. While the Five Domains has not yet been universally adopted in legislation, it is increasingly recognised in academic research, welfare assessments, and industry practices [5,10-12].

In **Europe**, animal welfare legislation has long been underpinned by the Five Freedoms. The European Union (EU) has established a strong legislative framework for animal welfare, including directives such as Council Directive 98/58/EC on the protection of animals kept for farming purposes, which emphasises provisions for freedom from hunger, discomfort, pain, and distress. While the Five Domains has not been explicitly incorporated into EU legislation, its focus on the mental and emotional states of animals complements the existing legal emphasis on physical and physiological welfare [13, 14].

Several European countries, such as the Netherlands and the United Kingdom, are increasingly adopting welfare assessment tools inspired by the Five Domains to evaluate conditions in zoos, farms, and laboratories. Notably, the European Food Safety Authority (EFSA) has begun integrating broader welfare concepts into its scientific opinions, signalling a shift toward frameworks that consider behavioral and emotional welfare alongside physical health. Moreover, initiatives such as the Animal Welfare Indicators (AWIN) project, funded by the EU, reflect a growing interest in

methodologies that align with the Five Domains, fostering innovation in welfare assessment and management across Europe [15,16].

**Australia and New Zealand** have applied the model in zoo accreditation and farm animal welfare standards. Organisations like the Royal Society for Prevention of Cruelty to Animals (RSPCA) and international bodies such as the World Association of Zoos and Aquariums (WAZA) also utilise this framework, highlighting its growing influence in practical and policy-making settings via their code of Ethics [5,11].

In **North America**, while the Five Domains is less prominent in legislative texts, it has gained traction in research and industry standards. The Association of Zoos and Aquariums (AZA) and various animal welfare organisations, including the American Society for the Prevention of Cruelty to Animals (ASPCA), have adopted welfare principles that align with the model's emphasis on mental states. Notably, animal welfare science in the United States and Canada often draws on the Five Domains for guidance in developing welfare protocols for diverse species, including those in zoos, laboratories, and agricultural settings [17,18].

In **Asia**, the adoption of animal welfare frameworks has been more varied, reflecting differing legislative landscapes and cultural attitudes toward animals. However, countries like Japan and South Korea have seen growing interest in incorporating comprehensive welfare assessments, inspired in part by the Five Domains, into zoo and aquaculture standards. Organisations such as the Japan Animal Welfare Society and the Korea Animal Welfare Association have begun advocating for science-based welfare evaluations [19,20].

In **Africa and South America**, where animal welfare legislation is still developing, the Five Domains model has started to influence conservation initiatives and wildlife management. For example, the Pan-African Association of Zoos and Aquaria (PAAZA) has shown interest in frameworks that incorporate behavioral and psychological welfare measures. Similarly, countries like Brazil and Chile have initiated welfare programs for farm and laboratory animals that echo the holistic approach of the Five Domains [21,22].

These global developments underscore the versatility of the Five Domains as a tool for improving animal welfare standards across diverse regions and contexts. While the model complements established legislative frameworks like the Five Freedoms, its focus on emotional and

mental well-being offers a forward-thinking perspective that resonates with modern welfare science. As awareness grows, the Five Domains is poised to become a cornerstone of animal welfare evaluation and policy worldwide [5, 10-22].

# 3. Position of the IVSA on Current Animal Welfare Models

Animal welfare remains central to IVSA's mission, particularly in a rapidly evolving world facing emerging crises that exacerbate existing challenges. Rising demands in the livestock industry, increased rates of pet ownership, and the growing use of animals in scientific research necessitate a continual reevaluation of our responsibilities as veterinary students and global citizens [6,7].

The IVSA believes that animals are sentient beings with an inherent right to good welfare. The Five Freedoms framework provides a universally recognised foundation for basic welfare, offering clear guidance for ensuring animals are free from negative conditions such as hunger, fear, and distress. However, while the Five Freedoms are fundamental, the IVSA advocates for the promotion and integration of the Five Domains framework into education and legislation. The Five Domains offer a more comprehensive approach to welfare, addressing not only the physical aspects but also the emotional and mental well-being of animals. This framework allows for a deeper understanding of the animal's quality of life, focusing on positive welfare states alongside the alleviation of suffering, and thus aligns more closely with the evolving standards of animal care [6,7].

Recent advances in animal welfare underscore significant progress and challenges. The COVID-19 pandemic heightened awareness of welfare issues due to increased pet ownership, strain on veterinary services, and shelter overcrowding. Legislative progress in countries like India and Chile has introduced stricter species-specific welfare laws, reflecting a growing global commitment. Public campaigns by organisations like WOAH and IFAW have enhanced awareness of humane practices, while technological advancements, such as livestock behaviour sensors, are driving data-driven welfare improvements [11, 23].

Despite these strides, disparities persist. Welfare standards vary greatly between regions, with developing nations often struggling to meet baseline requirements. Increasing demands for livestock production challenge adherence to welfare guidelines, and gaps remain in veterinary education concerning positive welfare states. The IVSA calls for a unified approach to elevate global standards, integrating educational initiatives and promoting the Five Domains framework as a critical tool for assessing and improving animal welfare, ensuring sustainable and compassionate care worldwide [1,2,6,8].

# 4. Objectives

The IVSA will:

1. **Continue** its work to promote the Five Freedoms to its Member Organisations by creating a related section on the Standing Committee for Animal Welfare's website.

2. **Collaborate** with animal welfare organisations and other stakeholders on an international level to strive to ensure that the Five Freedoms are maintained globally for all animals by ensuring that programmes increase understanding of the significance of the Five Freedoms, especially in developing countries where animal welfare may be less of a priority.

3. Advocate for governments to implement strong Animal Welfare laws that explicitly address the Five Freedoms through policy recommendations, public awareness campaigns, collaboration with NGOs, petitions, and engagement of veterinary professionals.

4. **Hold** public awareness campaigns bringing attention to relevant current animal welfare issues compromising the Five Freedoms.

5. **Draw up** specific guidelines for different species on the Five Freedoms to be disseminated throughout the network.

The IVSA recognises that achieving meaningful progress requires collaboration and active engagement from all sectors. By empowering its Member Organisations and fostering partnerships with governments, educational institutions, and animal welfare organisations, the IVSA aims to translate these objectives into tangible actions. The following calls to action outline the specific roles

and responsibilities of various stakeholders in advancing the Five Freedoms and ensuring their global adoption.

Therefore, the IVSA calls upon:

➤ **IVSA Member Organisations to**:

1. **Nominate** a Standing Committee on Animal Welfare Ambassador who will liaise with the Standing Committee on Animal Welfare to help implement the above actions that the IVSA are going to put into place.

2. **Conduct** animal welfare events to promote positive animal welfare through the Five Freedoms; these events should aim to reach as wide an audience as possible and be relatable not only to veterinary students but also to the local community.

3. **Advocate** for improved animal welfare education at your university, highlighting the importance of the Five Freedoms of Animal Welfare.

➤ **Governments to**:

1. **Integrate** the Five Domains framework into national legislation to expand welfare considerations.

2. **Ensure** enforcement of existing welfare laws through adequate funding and training.

➤ **Educational Institutions to**:

1. **Update** veterinary curricula to include the Five Domains model and positive welfare practices.

2. **Promote** research into species-specific welfare needs by studying behavioral, environmental, and physiological factors that contribute to the well-being of different species, including those in clinical, agricultural, and companion use.

➤ **Veterinary Students to**:

1. **Advocate** for welfare improvements in professional and community settings.

2. **Participate** in awareness campaigns to educate the public on responsible animal care.

➤ **Animal Welfare Organisations to**:

1. **Collaborate** with IVSA to develop training materials for global dissemination.

2. **Support** initiatives in under-resourced regions to enhance animal welfare capacity.

## 5. Recommendations

The calls to action emphasise the critical role of diverse stakeholders in implementing the Five Freedoms. Building on these collaborative efforts, the IVSA presents targeted recommendations that focus on equipping its network and partners with the tools and strategies needed to address emerging challenges and elevate global animal welfare standards.

Therefore, the IVSA recommends to:

1. **Develop** training programs for IVSA Member Organisations to implement the Five Domains framework;

2. **Establish** international guidelines for species-specific welfare practices;

3. **Conduct** global awareness campaigns addressing emerging welfare issues like climate change impacts;

4. **Encourage** the use of welfare monitoring technologies in both urban and rural settings.

# 6. Counterarguments and Rebuttals

**Argument**: The Five Freedoms are sufficient for welfare assessment.

**Rebuttal**:  While the Five Freedoms are foundational in understanding and addressing basic welfare needs, they do not encompass the complexities of **positive welfare states**, such as promoting natural behaviours, mental stimulation, and emotional well-being. Prominent animal welfare organizations have recognized the limitations of the Five Freedoms and advocate for the adoption of the Five Domains model. For instance, FOUR PAWS emphasizes that the Five Freedoms model is inadequate for assessing animal welfare as it does not account for positive experiences and only addresses a limited range of mental experiences an animal can have. In contrast, the Five Domains model provides a more comprehensive framework by considering both negative and positive experiences, thereby significantly enhancing the quality of life for animals.Additionally, the Royal Society for the Prevention of Cruelty to Animals (RSPCA) acknowledges that the Five Domains model is increasingly used globally when considering the lived experience of animals in human care. This approach allows for consideration of both negative and positive experiences that arise from physical and functional factors, which affect the overall mental state and welfare of the individual animal. The **Five Domains model** expands on the Five Freedoms by integrating mental states, enabling a more comprehensive and proactive approach to animal welfare. For instance, the Five Domains focus on both alleviating negative experiences and enhancing positive ones, which aligns with modern advancements in welfare science [1-4].

**Argument**: Implementing the Five Domains model is resource-intensive.

**Rebuttal**: While it is true that the Five Domains model may initially seem resource-intensive, **incremental integration** allows organisations to adapt cost-effectively. For example, starting with training staff to recognise and address key welfare concerns or incorporating the domains into existing welfare assessments can be a practical and affordable first step. Additionally, enhanced welfare outcomes often result in improved productivity and public trust, which can offset the initial costs over time. Modern welfare tools, such as **checklists and digital platforms**, have made implementing such models more accessible [1-5].

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# Discussion

## Comparison of the Five Freedoms and Five Domains frameworks

The Five Freedoms have been instrumental in shaping global animal welfare standards by focusing on alleviating suffering. These freedoms are broad principles that emphasise the removal of negative experiences. While their simplicity has been key to their widespread adoption, they have limitations in addressing the complexity of animal welfare in modern contexts [8,9].

In contrast, the Five Domains model offers a more nuanced and dynamic approach. Where the Five Freedoms primarily aim to mitigate harm, the Five Domains go further by balancing harm reduction with the promotion of positive experiences. This is achieved by incorporating a mental state domain that explicitly evaluates the emotional well-being of animals. The mental state domain integrates information from four physical domains, creating a holistic framework for welfare assessment [1-3].

Moreover, the Five Freedoms tend to be generic, assuming a universality of application across species, whereas the Five Domains encourage a species-specific approach. This adaptability makes the Five Domains particularly suited for addressing the diverse needs of animals, whether in domestic, agricultural, or wild settings. The structure of the Five Domains also aligns more closely with scientific advances in welfare assessment, offering detailed categories that facilitate measurable evaluations and targeted interventions [1-5].

Finally, the Five Freedoms have traditionally been reactive, focusing on the absence of harm, while the Five Domains adopt a proactive stance. By incorporating both negative and positive experiences, the Five Domains not only ensure the alleviation of suffering but also enhance the quality of life for animals [1-5].

In summary, the Five Freedoms laid a strong foundation for animal welfare, but the Five Domains built on this foundation with a more comprehensive, adaptable, and scientifically grounded framework. This makes the Five Domains an essential tool for addressing current challenges in animal

welfare while fostering a more nuanced understanding of animal needs and experiences. By adopting the Five Domains as the main framework, the IVSA and its stakeholders can ensure that welfare considerations are not only reactive but also proactive and forward-looking [1-5,8-10].

## Integration of Physical and Psychological Welfare: The Role of the Five Domains and Five Freedoms Models

The Five Freedoms and Five Domains models are both essential frameworks in assessing animal welfare, with their applications and implications for veterinary practice and policy. While the Five Freedoms focus primarily on ensuring animals are free from negative welfare states such as hunger, discomfort, fear, and pain, the Five Domains framework extends this concept by emphasising the mental and emotional well-being of animals. This broader focus aligns with current trends in animal welfare science, where the psychological and emotional states of animals are recognised as fundamental to their overall welfare [1-5,8-10].

Given the increasing recognition of animals' mental states, the Five Domains model allows for a more comprehensive welfare assessment that includes both physical and emotional aspects. By considering the mental experiences of animals, this model addresses welfare concerns that are not solely based on the absence of negative states but also on the presence of positive emotional experiences. This approach is important for evaluating the welfare of animals in various settings, including those affected by environmental stressors or disease outbreaks [1-5,8-10].

The two models, while distinct, are not mutually exclusive. The Five Freedoms provide a foundational baseline for the prevention of suffering, discomfort, and distress, which is an essential starting point in animal welfare assessments. Meanwhile, the Five Domains model offers additional depth by incorporating the assessment of mental states, which have become a significant focus in contemporary welfare research. This integration helps provide a fuller picture of an animal's experience, ensuring that both physical and psychological needs are addressed in welfare evaluations [1-5,8-10].

The relevance of both models in veterinary practice is evident, as veterinarians are increasingly expected to assess not only the physical health of animals but also their mental well-being. This perspective supports the call for a more holistic approach to animal care that

recognises the importance of animals' psychological states, alongside their physical health. Educational institutions play a critical role in preparing veterinary professionals to understand and apply these models, equipping them with the tools to promote both positive and negative welfare states in their practices. As animal welfare continues to evolve as a field, there is a growing recognition that veterinary professionals must be trained to assess and improve animal welfare in a comprehensive manner. Integrating models like the Five Domains and Five Freedoms into veterinary curricula can ensure that future veterinarians are prepared to consider both physical and emotional dimensions of animal welfare. This approach fosters a more nuanced understanding of welfare and promotes an ethical, interdisciplinary approach to animal care [1-5,8-10].

In summary, while both the Five Freedoms and the Five Domains models are critical in understanding animal welfare, the inclusion of mental states in the Five Domains model offers a more comprehensive framework for assessing welfare. By focusing on both the absence of negative states and the presence of positive ones, this model provides a more holistic approach to animal welfare. The continued integration of these models into veterinary education and practice will be vital in ensuring that all aspects of animal welfare are considered in the care and management of animals [1-5,8-10].

## Conclusion

The Five Freedoms have laid the groundwork for global animal welfare, but evolving societal and scientific understanding necessitates a shift toward the Five Domains model. To move forward, it is imperative that veterinarians, supported by educational institutions and policymakers, continue to advocate for the integration of welfare models that not only focus on alleviating suffering but also promote positive states for animals. As the demand for animal products grows globally, and

industries such as livestock farming and scientific research evolve, the urgency of aligning welfare standards across borders becomes increasingly clear.

The integration of the Five Domains and Five Freedoms models represents a significant advancement in understanding and addressing animal welfare. By considering both physical and psychological aspects, veterinarians can provide more compassionate and effective care. Future research should explore the application of these frameworks across diverse animal populations and settings, while education and training programs should be implemented to equip veterinary professionals with the necessary tools. As these models continue to evolve, their widespread adoption has the potential to foster a more humane and scientifically grounded approach to veterinary practice and animal welfare policy.

In conclusion, the IVSA advocates for a comprehensive approach to animal welfare by integrating the Five Domains framework alongside the Five Freedoms for the establishment of consistent, evidence-based guidelines that reflect the evolving understanding of animal welfare, encompassing both the Five Freedoms and Five Domains models. . To achieve this, IVSA calls upon its Member Organisations, governments, educational institutions, veterinary students, and animal welfare organisations to take an active role in promoting positive welfare practices. Key actions include appointing Animal Welfare Ambassadors, advocating for welfare education, strengthening legislation, enhancing veterinary curricula, supporting research, and developing training materials.

To support these efforts, the IVSA recommends implementing training programs, establishing international welfare guidelines, conducting global awareness campaigns, and utilizing welfare monitoring technologies. By adopting this expanded framework, stakeholders can ensure that animal welfare standards align with modern scientific and ethical advancements, creating an environment where animals experience not just the absence of suffering but the presence of positive states. This transition is critical for meeting contemporary welfare challenges and aligning veterinary practices with emerging global standards.

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