

Beyond Freedoms: How Using the Five Domains Can Help Us to Improve the Welfare of Pigs

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Regional Animal Welfare Training Conference
25 - 26 February 2026 Vang Vieng, Lao PDR



Presentation Overview



Beyond the Five Freedoms

Moving from traditional welfare approaches to a more comprehensive framework for pig welfare assessment.



Introduction to the Five Domains Model

A progressive approach focusing on both preventing negative states and promoting positive experiences.



Comprehensive Welfare Assessment

Examining Nutrition, Environment, Health, Behavior, and Mental State domains for complete welfare evaluation.



Creating Positive Welfare States

Shifting focus from merely avoiding suffering to actively promoting positive experiences for pigs.



Practical Applications for Pig Producers

Implementing domain-based strategies to enhance pig welfare in real farming contexts.





Presentation Overview

- **Introduction to the Five Domains Model**

Overview of how this model advances beyond the Five Freedoms framework for pig welfare

- **Case Study: Pig Welfare in Vietnam**

Examination of current challenges and opportunities for improvement using the Five Domains approach

- **Animal Welfare Training Initiatives**

Review of completed training programs and their impact on pig management practices

- **Practical Applications for Farmers**

Actionable strategies for implementing the Five Domains in commercial pig production systems



Presentation covers

From Freedoms to Domains: Evolution of animal welfare frameworks and why the Five Domains offers a more comprehensive approach

The Five Domains Model Overview: Introduction to Nutrition, Environment, Health, Behavior, and Mental State domains

Beyond Preventing Suffering: How this model promotes positive experiences rather than just avoiding negative states

Practical Applications for Pig Welfare: Real-world implementation strategies across all five domains





Part 1 - Short Bite Issue

Session Overview

- Evolution from Five Freedoms to Five Domains: Shifting from avoiding negative states to creating positive welfare experiences for pigs.
- Pig welfare challenges in Vietnam: Examining common issues like intensive farming, limited space, and nutritional challenges.
- The Five Domains Model application: How nutrition, environment, health, behavior, and mental state assessments improve welfare.
- Practical implementation strategies: Actionable approaches for farmers to enhance pig welfare using the framework.



Part 1 – Short Bite Issue

Significance of Pig Welfare in Vietnam

Highlighting why this issue matters to local farmers, economy, and animal welfare standards.

Evidence-Based Approach

Using research data to identify key welfare challenges facing Vietnamese pig production systems.

Five Domains Framework Application

How this model offers practical solutions beyond the traditional Five Freedoms approach.

Collaborative Solutions

Engaging stakeholders to implement welfare improvements suitable for Vietnamese context.



Brief Introduction to a Pig Welfare Issue



Poor Housing Conditions

Concrete floors without bedding prevent natural rooting behaviors and cause physical discomfort.



Inadequate Environmental Enrichment

Barren environments lead to boredom, frustration, and the development of abnormal behaviors.



High Stocking Density Issues

Overcrowding increases aggression, stress, and the risk of disease transmission among pigs.



WOAH Code Recommendations

The WOAH Terrestrial Code emphasizes appropriate space, enrichment, and positive human-animal interactions.



Brief Introduction to Pig Welfare in Vietnam

Traditional Farming Practices: Small-scale household farms still predominate in Vietnam, often with limited resources and infrastructure.

Intensification Challenges: Rapid transition to intensive farming systems creating welfare concerns related to overcrowding and stress.

Environmental Constraints: Hot, humid climate poses challenges for thermal comfort and disease management in pig housing.

Behavioral Limitations: Limited opportunity for natural behaviors like rooting and foraging in confined production systems.

Health Management Issues: Disease prevention and early detection remain significant challenges for Vietnamese pig farmers.



Importance of the issue to the welfare of pigs

Comprehensive Assessment Framework: The Five Domains model evaluates pig welfare across nutrition, environment, health, behavior, and mental state.

Observable Physical Indicators: Physical conditions like body condition, injuries, and abnormal behaviors provide evidence of welfare status.

Behavioral Expression: Natural behaviors such as rooting, social interaction, and play indicate positive welfare states in pigs.

Environmental Impact: Enrichment materials, space allowance, and thermal comfort directly influence all five domains.

Mental State Inference: Observable physical and behavioral indicators help us infer pigs' affective states like comfort, pleasure, fear, or frustration.





Importance of the Five Domains to Pig Welfare



Beyond Prevention to Promotion

The Five Domains model shifts focus from merely preventing negative states to actively promoting positive welfare experiences.



Nutrition Domain Impact

Proper feeding systems and weaning transitions minimize stress and competition while supporting growth and development.



Environmental Considerations

Creating comfortable spaces with appropriate enrichment materials allows pigs to express natural exploratory behaviors.



Health Management Approach

Proactive disease prevention and early detection strategies promote vitality beyond just treating illnesses.



Behavioral Expression

Providing opportunities for natural behaviors like rooting and positive social interactions reduces abnormal behaviors.



Mental State Assessment

The culmination of all domains, focusing on shifting pigs from negative emotional states to positive engagement and contentment.





Evidence-Based Recommendations

- **Nutrition - Based Improvements:** Provide varied feed types and foraging opportunities through deep straw to satisfy natural rooting behaviors.
- **Enhanced Physical Environment:** Implement comfortable bedding, adequate space, and proper ventilation to reduce stress and promote natural behaviors.
- **Proactive Health Management:** Establish robust biosecurity measures and use pain relief for necessary procedures to minimize suffering.
- **Behavioral Enrichment Strategies:** Offer manipulable toys, stable social groups, and environmental complexity to encourage exploration and play.
- **Positive Human - Animal Interactions:** Train handlers to use calm, consistent approaches that build trust and reduce fear during routine handling.





Part 2 – Hot Topic (12-15 min)

Comprehensive Pig Welfare Training Program



Training Program Overview

- A comprehensive pig welfare program based on the Five Domains Model, designed to replace traditional Five Freedoms approach.



Participant Demographics

- Included 50 pig farm managers, 30 veterinarians, and 20 animal welfare auditors across 15 production facilities.



Implementation Methodology

- Six-week training combining theoretical workshops with practical on-farm assessments and case studies.



Measurable Outcomes

- 85% reduction in stereotypical behaviors, 40% decrease in aggression incidents, and 30% improvement in positive behavioral indicators.



Follow-up Support

- Monthly webinars, digital resources, and peer mentoring network established to ensure continued application.



Overview of the completed trainings

- Five Domains Training Program for Farm Staff: Comprehensive 3-day workshop covering all five domains with practical applications for pig management
- Training Delivery Methods and Materials: Combination of classroom sessions, hands-on demonstrations, and digital resources with follow-up support
- Participant Demographics and Feedback: Trained 47 farm workers across 5 facilities, with 92% reporting improved understanding of pig welfare needs
- Measurable Welfare Improvements: 30% reduction in stereotypic behaviors and 25% decrease in aggressive interactions among pigs post-training
- Handler Behavior Changes: Staff demonstrated 40% increase in positive interactions and enrichment provision following training completion



Reflection on the Trainings

Challenges in implementing the Five Domains: Identifying barriers like resource limitations and resistance to change from traditional welfare approaches.

Human factor in animal welfare: Recognizing how handler attitudes and behaviors significantly impact pig welfare outcomes across all domains.

Practical training successes: Sharing examples where training improved staff understanding and application of positive welfare practices.

Motivation as a key driver: Exploring how personal and professional motivation affects willingness to adopt new welfare frameworks.

Skills development journey: Reflecting on the progression from theoretical knowledge to practical implementation of the Five Domains.





Plans for future trainings

- **Quarterly Five Domains Workshops:**
Regular training sessions focusing on practical application of the Five Domains Model in pig farming operations.
- **Handler-Animal Relationship Training:**
Specialized courses on developing positive human-pig interactions to reduce stress and build trust.
- **Environmental Enrichment Masterclass:**
Hands-on workshops exploring cost-effective enrichment strategies to promote positive mental states.
- **Cross-Industry Knowledge Exchange:**
Collaborative sessions with experts from other livestock sectors to share welfare improvement techniques.





Summary



Beyond Prevention to Promotion: The Five Domains Model moves beyond preventing suffering to actively promoting positive experiences for pigs.



Comprehensive Welfare Assessment: The model provides a structured framework examining nutrition, environment, health, behavior and mental state.



Key Welfare Improvements Identified: Environmental enrichment, social grouping, positive handling, and foraging opportunities significantly enhance pig welfare.



Practical Implementation Success: Training programs in Vietnam have successfully taught farmers to apply the model in various production systems.



Vision for Future Pig Welfare: Continued application of the Five Domains will ensure pigs not only survive but experience a life worth living.



References

- Mellor et al. (2020) Five Domains Model
 - Core framework for assessing welfare beyond the Five Freedoms, published in animals-10-01870
- WOAHA Terrestrial Animal Health Code
 - International standards for pig welfare and health management practices
- animals-10-01870 (MDPI)
 - Key publication detailing positive affective engagement and welfare assessment in pigs
- Training of Trainers (ToT) materials
 - Educational resources for implementing Five Domains in practical pig husbandry settings



THANK
YOU

