

## CHAPTER 18 FOOD, AGRI, AND AQUA BUSINESS

### OVERVIEW

Vietnam's agriculture, aquaculture, and food industries are pillars of the nation's economy, driving substantial growth and sustaining millions of livelihoods. These sectors have showcased remarkable resilience and adaptability amid global economic shifts, evolving from traditional farming practices to integrating advanced technologies and sustainable methodologies to meet the demand of nearly 100 million Vietnamese consumers and exporting to international markets. As Vietnam continues to embrace modernisation, the drive towards more sustainable practices promises to enhance food security, boost productivity, and ensure environmental and social responsibilities while improving the added value of products and incomes for farmers.

This chapter presents the view of the Food, Agri, and Aquaculture Sector Committee's (FAABS) member companies and their specific recommendations to further strengthen these industries, capitalising on their potential to spearhead Vietnam's economic prosperity and sustainable development.

### I. GREEN AND SUSTAINABLE AGRICULTURE VALUE CHAIN AND REGENERATIVE FARMING INITIATIVES

Relevant authorities: The Office of the Government (OOG); the Ministry of Agriculture and Environment (MOAE); and the Ministry of Industry and Trade (MOIT)

#### Issue description

With Vietnam becoming more and more integrated into the global economy, the high standards of foreign markets and consumers are vital for the market entry of the country's agricultural products. As such, it is a core responsibility of businesses to ensure that their value chain can guarantee the safety and sustainability of their products to persuade stringent markets and authorities. Moreover, day-to-day practices have to shift towards a more regenerative approach that allows input resources to maximise their efficiency for high yield. Therefore, it is essential for Vietnam's agricultural sector to establish a corresponding value chain with strong foundations for environmental, safety, and quality improvements. While FAABS members are active in key segments like aquaculture, crop growing, and livestock, each faces distinct challenges.

**The livestock and aquaculture value chain:** High-intensity farming faces challenges in disease control and environmental management. These are becoming critical, especially for exporting animal protein to markets like the EU. There have been very good practices on data management and transparency in the value chain, especially in the aqua sector, where chain players often comply with international standards such as Global GAP and BAP. However, the sector still needs significant improvement to increase the efficiency, quality, and transparency of animal protein products and, as a result, develop suitable interventions to reduce the impacts on CO<sub>2</sub> emissions, waste management, and social concerns such as labour rights.

In addition, the "crude protein" content is still widely seen as a quality standard by farmers. This leads to the inclusion of a higher-than-required level of protein in feed, resulting in undigested nutrients that increase nitrogen emissions and impact the environment through water pollution, acidification, and air pollution. By encouraging a shift towards amino acid-based diets that meet animals' true protein needs, Vietnam can decrease its reliance on imported soybean meal (a one per cent crude protein reduction equates to 35-40 kg less soybean meal per ton<sup>12</sup>, reducing nitrogen emissions and minimising antibiotic use due to lower disease incidence). Promoting a

1 Tan, M. et al. "Decision-making environment of low-protein animal feeding in dairy and poultry farms in China". *Nutr Cycl Agroecosyst* 127, 85–96, 2023. Available at: <<https://link.springer.com/article/10.1007/s10705-023-10295-9>>, last accessed on 20 November 2024.

2 de Rauglaudre, T. et al. "Meta-analysis of the effect of low-protein diets on the growth performance, nitrogen excretion, and fat deposition in broilers". *Front. Anim. Sci.* 4, 2023. Available at: <<https://www.frontiersin.org/journals/animal-science/articles/10.3389/fanim.2023.1214076/full>>, last accessed on 18 November 2024.

low-protein diet could also reduce the ecological footprint of livestock and aquaculture farming.

The livestock and aquaculture industries both need a more interconnected value chain approach that includes both businesses and farmers. Much of the current focus is on sourcing inputs rather than developing outputs. Products often pass through unregulated channels, such as wet markets, and lack adequate packaging, preservation, and traceability – all of which are crucial to meet quality standards. Building a robust, collaborative infrastructure across the value chain could foster mutual growth and enhance traceability from farm to market.

**Pesticide and chemical fertiliser use in crop production:** In fruit and vegetable farming, pesticide residues—such as the prohibited molecule Permethrin—pose risks for both farmers and consumers. Reports indicate that fake labelling and counterfeit products, like Sherdoba20EC, exacerbate these issues. Vietnam's crop export sector risks significant economic and health-related setbacks if these concerns are not addressed. Steps towards safer pesticide practices will protect market access and improve long-term sustainability. In general, for crop production, the overreliance on chemical and organic fertilisers in Vietnam can permanently damage the soil and water quality. Importing chemical and organic fertiliser comes with additional transport and non-sustainable compost methods which increase greenhouse gas (GHG) emissions. By encouraging livestock farmers in Vietnam to invest in composting facilities producing local organic fertiliser, several benefits can be achieved towards a more sustainable farming model.

### Potential gains/concerns for Vietnam

These improvements would elevate the competitiveness of Vietnam's agricultural products on the global stage, ensuring they meet increasingly stringent safety, environmental, and quality standards. A disease compartmentalisation for the aquaculture and livestock industry would nurture a safer and more export-ready market while maintaining sustainable ecosystems for the industry. For crop production, specifically fruit and vegetables, stricter regulations on pesticide use, including close monitoring of packaging to combat counterfeit products, should be mandatory. This would ensure the positive reputation of Vietnamese products and consumer wellbeing while also promoting sustainability and green stewardship. By investing in local organic fertiliser facilities, livestock farmers in Vietnam could create additional revenue streams by turning their waste into compost and organic fertiliser while also getting CO<sub>2</sub> reduction certification. Locally produced organic fertilisers can partially substitute for chemical fertilisers which are considered more harmful for the soil and partially offset the need for importing organic fertilisers. All of which can help Vietnam achieve its vision for a safer, more competitive agriculture industry aligned with international sustainability standards.

### Recommendations

#### Disease prevention:

- Consider closing live animal markets and shifting towards controlled, professional slaughterhouses to avoid the spread of animal diseases and protect the interests of farmers and the industry.
- Develop a disease compartmentalisation strategy for livestock to enable access to potential export markets. This would help to boost transparency in production chains and improve food safety levels.

#### Reducing environmental impacts:

- Encourage farming models that make use of low-protein diets which could potentially reduce nitrogen emissions by 10-15 per cent for every one per cent reduction in crude protein in animal diets.<sup>34</sup>
- Give clear instructions and tools for a GHG footprint framework for each species in Vietnam, accompanied by a reasonable and well-communicated implementation plan.
- Provide guidelines and incentives for on-farm composting facilities to ensure better adoption and support environmental targets. EuroCham is willing to offer insights, tools, and knowledge to assist in the implementation of this framework.

<sup>3</sup> *ibid.*

<sup>4</sup> Cappelaere, L., Le Cour Grandmaison, J., Martin, N. & Lambert, W. "Amino Acid Supplementation to Reduce Environmental Impacts of Broiler and Pig Production: A Review". *Front Vet Sci* 8, 689259, 2021. Available at: <<https://www.frontiersin.org/journals/veterinary-science/articles/10.3389/fvets.2021.689259/full>>, last accessed on 18 November 2024.

**Guidance and training:**

- Develop a Best Available Technique (BAT)<sup>56</sup> reference document that summarises good practices on animal feeding, farm management, and more accurate nutrient labelling practices to improve farming productivity, profitability, and environmental impacts.

**Enhancing product safety and quality:**

- Mandate single-use, pre-printed packaging to reduce counterfeits and ensure compliance with international standards, protecting markets and consumer health.
- Ensure robust checks on banned pesticides like Permethrin and support alternative pest management methods to safeguard exports and reduce health risks.

**Local feed and on-farm organic fertiliser incentives:**

- Stimulate local production which reduces the need for longer logistics solutions, improving GHG emissions reductions and enhancing biosecurity.

**Promoting green financing:**

- Provide access to green loans for eco-friendly equipment, enabling farmers to transition to more sustainable practices without prohibitive upfront costs.

## II. THE IMPLEMENTATION OF A ONE HEALTH APPROACH IN ANIMAL PRODUCTION

Relevant authorities: The Ministry of Agriculture and Environment (MOAE); and the Ministry of Health (MOH)

Livestock and aquaculture have recorded strong growth in recent times. This expansion comes with a responsibility to ensure a well thought out use of animal health disease prevention measures. This is essential to avoid the rising challenge of antimicrobial resistance (AMR) and rabies in animals which threaten both animal and human health.

Through the National Strategy on AMR (2023-2030)<sup>7</sup>, in alignment with the FAO Action Plan, Vietnam seeks to promote coordinated efforts to curb AMR through improved regulation, surveillance, and the promotion of alternative practices.

AMR remains a pressing issue in Vietnam, exacerbated by the overuse and improper prescription of antibiotics in agriculture and healthcare. A study by the One Health Poultry Hub found that around 8.6 per cent of poultry samples in Vietnam exceeded Maximum Residue Limits (MRLs) for antibiotics—86 times higher than levels seen in the EU. Additionally, nearly all poultry farms surveyed reported bacterial resistance to widely used antibiotics, such as ampicillin (95 per cent of farms) and tetracycline (over 90 per cent).<sup>8</sup> These findings illustrate the urgent need for stricter controls on and awareness of antibiotic use to prevent AMR from undermining public health and Vietnam's economic interests.

5 Commission Implementing Decision (EU) 2017/ 302, 15 February 2017, establishing BAT conclusions, under Directive 2010/ 75/EU of the European Parliament and the Council, for the intensive rearing of poultry or pigs - (notified under document C(2017) 688). Available at: <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017D0302>>, last accessed on 20 November 2024.

6 European Commission. Joint Research Centre. "Best Available Techniques (BAT) Reference Document for the Intensive Rearing of Poultry or Pigs: Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control)". (Publications Office, LU, 2017). Available at: <[https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/JRC107189\\_IRPP\\_Bref\\_2017\\_published.pdf](https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/JRC107189_IRPP_Bref_2017_published.pdf)>, last accessed on 20 November 2024.

7 Decision 1121/QĐ-TTg dated 25 September 2023 of the Prime Minister approving the National Strategy on drug resistance prevention and control in Vietnam for the period 2023 - 2030, vision to 2045 (Decision 1121).

8 Pelligand L., Son, TTD. and UKRI GCRF. "Longitudinal study of antimicrobial residue in broiler meat in Vietnamese and Bangladeshi ", *One Health Poultry Hub*. Xem tại: <[https://www.onehealthpoultry.org/wp-content/uploads/2024/01/53\\_2024\\_hub\\_conf\\_e-poster\\_P2\\_Ludo02\\_2401294.pdf](https://www.onehealthpoultry.org/wp-content/uploads/2024/01/53_2024_hub_conf_e-poster_P2_Ludo02_2401294.pdf) >, last accessed on 26 November 2024.

The One Health approach emphasises the interconnection between human, animal, and environmental health, where improvements in one area affect the others. In Vietnam, zoonotic diseases like SARS, avian influenza, and African Swine Fever pose serious threats. By 2019, African Swine Fever had wiped out over 5.9 million pigs, or 21 per cent of Vietnam's pig population,<sup>9</sup> severely impacting livestock producers, food security, and rural economies.

Preventative animal healthcare, particularly vaccination, is vital in mitigating these risks. Vaccines protect animal health by preventing the spread of diseases within livestock populations, thereby reducing economic losses and supporting food supply stability. Preventative care also lowers the need for antibiotics, which is essential in combating AMR. Beyond livestock, responsible pet ownership and regular vaccinations are essential, as pets can carry zoonotic infections that pose health risks to humans.

## 1. Regulation and enforcement of antimicrobial usage

### Issue description

Vietnam's regulations on antimicrobial usage in livestock and aquaculture are often not strictly enforced, leading to widespread misuse. This not only exacerbates the AMR problem but also risks the country's trade relations, especially with the EU, where stringent standards are in place. For example, failure to comply with these standards could result in a loss of market access for Vietnamese seafood, which projected to be approximately USD 10 billion in exports in 2024.<sup>10</sup>

### Potential gains/concerns for Vietnam

A stricter regulatory framework, effectively enforced, could reduce the prevalence of AMR, thereby enhancing Vietnam's reputation as a responsible exporter. It would also align Vietnam's practices with international standards, making the country a more attractive destination for foreign direct investment in the agriculture and food sectors.

### Recommendations

#### Capacity building:

- Provide training for veterinarians and farmers on responsible antimicrobial use, the dangers of AMR, and the natural alternatives available on the market.
- Encourage farmers to adopt preventative measures against diseases by thoroughly cleaning their ponds; treating water sources with high-quality, reputable mineral products; and selecting suitable breeds. In doing so, farmers can significantly reduce the growth of pathogenic bacteria during the initial stages of farming.
- Recommend the selection and application of disinfectants to eliminate harmful bacteria in ponds and to sanitise both the water and the surrounding farm environment.
- Provide guidance on the appropriate use of antibiotics while introducing strategies to promote intestinal health and bolster the resilience of shrimp and fish. This can be accomplished by using high-quality microbial products alongside feed from reliable companies.
- Facilitate connections between farmers and supermarkets, as well as domestic and international retailers, to market shrimp and fish products raised without antibiotics, adhering to safety and traceability standards.

#### Surveillance and monitoring:

- Establish a robust surveillance system and scientific protocol to monitor antimicrobial usage at the farm level in partnership with international organisations and private companies.

<sup>9</sup> For more information, see: <<https://cgispace.cgiar.org/server/api/core/bitstreams/bd455275-1c09-4137-af89-10d75255aabe/content>>

<sup>10</sup> "Vietnam's fishery exports expected to hit 10 billion USD in 2024", *Vietnamplus*, 2024. Available at: <<https://en.vietnamplus.vn/vietnams-fishery-exports-expected-to-hit-10-billion-usd-in-2024-post297890.vnp#:~:text=The%20Vietnam%20Association%20of%20Seafood,even%20reach%2010%20billion%20USD.>>, last accessed on 20 November 2024.

**Biosafety measures:**

- Advocate for the adoption of biosafety measures and sustainable shrimp and fish farming practices from established companies in the industry. Farmers should be encouraged to select high-quality breeds, ensure reliable feed sources, and use microbiological products that support disease prevention throughout the farming season, thereby fostering a clean shrimp farming process that yields high-quality outputs.

**Policy framework:**

- Develop and enforce a stricter policy on the prescription and sale of antibiotics through over-the-counter (OTC) channels to help farmers and the industry use them more responsibly. The ban on the preventative use of antibiotics in feed is an important regulation to help prevent AMR, and this would be an important step in that regard.
- Introduce new policies to foster technical solutions to help the country prepare for, prevent, and control zoonotic and transboundary animal diseases.

**2. Promotion of natural and alternative approaches****Issue description**

One of the most effective ways to reduce reliance on antimicrobials is to promote probiotics and other natural alternatives that enhance animal health and immunity and reduce bacterial contamination risk. Probiotics, for example, can improve gut health, reducing the need for antibiotics in feed.

**Potential gains/concerns for Vietnam**

Vaccine-preventable diseases remain a persistent challenge in Vietnam, impacting both human and animal health. Despite efforts to control outbreaks through vaccination programmes, new cases continue to emerge in previously unaffected areas. Limited vaccine availability, large populations of unvaccinated animals, and low public awareness—particularly in remote regions—hinder disease prevention efforts. Vietnam has set ambitious goals to eliminate fatalities from preventable diseases by 2030 under its national health programme. However, achieving this requires expanded vaccination efforts, stronger community engagement, and the adoption of international best practices tailored to local needs.

**Recommendations****Public-private partnerships:**

- Foster collaboration between Government, research institutions, farm control agencies, and companies offering natural alternatives to antibiotic reduction.
- Strengthen cooperation across ASEAN with joint vaccination campaigns, data sharing, and cross-border measures.
- Establish a good practice protocol including different natural alternatives available on the Vietnamese market for each species and microbial challenge.

**Promote new natural applications:**

- Adopt new environmental solutions in farming available in the market, creating a positive biofilm and reducing GHG emissions from farms. These solutions would improve animal welfare and reduce bacterial contamination and malodorous gas emission.

**The registration of new solutions:**

- List products reducing the use of antibiotics in farms and assist/facilitate in the registration process in Vietnam. For example, competitive exclusive products for poultry farming have demonstrated significant results in reducing antibiotics usage. However, registration is complex and unavailable in Vietnam.

**Funding for control programmes:**

- Secure international funding to support mass vaccination, awareness campaigns, and long-term control efforts.

**Vaccines for livestock and companion animals:**

- Streamline the regulatory process required for vaccine registration. This could play a crucial role in combating AMR by preventing infections and disease, reducing the need for antimicrobials. This can be achieved by:
  - International cooperation and the adoption of international standards and guidelines e.g., accepting tests approved by developed countries of origin (the US, EU, etc.) and reducing/omitting repeated testing (of quality/conformity) already done in the registration process, thus speeding up registration.
  - Implementing mutual recognition procedures, e.g., a simple registration process (with no local registration trial) for vaccines previously registered in developed countries.

**3. The implementation of effective AMR surveillance systems****Issue description**

An effective AMR surveillance system is critical to understanding the scope of the problem and taking targeted action. Vietnam's AMR surveillance is limited and often fragmented, which hinders the ability to respond effectively to emerging threats.

**Potential gains/concerns for Vietnam**

A comprehensive surveillance system would allow Vietnam to track the prevalence of AMR in both livestock and aquaculture, enabling timely interventions. This data-driven approach would not only help control AMR but also support Vietnam in meeting international reporting obligations under agreements like the EU-Vietnam Free Trade Agreement.

**Recommendations****An integrated surveillance system:**

- Develop an integrated AMR surveillance system that covers all stages of the production process, from farm to table.
- Establish clear protocols for data sharing between Government agencies, research institutions, and the private sector.

**International collaboration:**

- Engage with global initiatives, such as the WHO's Global AMR Surveillance System (GLASS), to ensure Vietnam's surveillance efforts are aligned with international best practice.

**III. REGULATIONS & STANDARDS**

Relevant authorities: The Ministry of Agriculture and Environment (MOAE); the Office of the Government (OOG); the Ministry of Health (MOH); and the Ministry of Industry and Trade (MOIT)

**Issue description**

Vietnam's agricultural sector faces critical challenges in aligning its technical standards with international norms and ensuring that food fortification practices support both public health and trade competitiveness.

## Potential gains/concerns for Vietnam

### Technical standards in animal health

The animal feed industry, valued at USD 12-13 billion, plays a crucial role in Vietnam's food security, with poultry and pig feed comprising a significant share. Despite annual growth of 11-12 per cent, the sector faces challenges like feed price volatility, which accounts for 65-70 per cent of production costs. Decision 1520 in 2021<sup>11</sup> aims to enhance sustainability and production efficiency by revising national standards for animal and aquaculture feed. However, discrepancies in safety limits, such as Vietnam's arsenic threshold of 30 mg/kg compared to the EU and US limit of 50 mg/kg, restrict access to quality raw materials and inflate production costs, undermining export potential.

### Regulations on food fortification

The draft Decree amending Decree 09<sup>12</sup> introduces exemptions for imported foods and salt producers, potentially creating regulatory inconsistencies. Requiring iodine-fortified salt in minimally salted prepackaged foods, such as coffee and soft drinks, conflicts with international trade norms, as many countries reject iodine fortification in these products. These provisions risk increasing production costs and reducing competitiveness, while potentially straining Vietnam's WTO and FTA commitments.

### Adhere to the standards of new EU policies

For Vietnamese enterprises, meeting green standards is no longer optional—it is a key requirement for maintaining and expanding market access. Emerging and new EU regulations, such as the Carbon Border Adjustment Mechanism (CBAM) and the EU Deforestation Regulation (EUDR), pose new challenges but also opportunities. CBAM aims to impose carbon pricing on imports, which may impact agriculture sectors with high emissions in the new future. EUDR mandates proof of deforestation-free supply chains, directly affecting key Vietnamese exports like coffee and rubber. Early preparation in this area will position businesses to adapt quickly when these regulations come into effect, ensuring continued access to the EU market. Henceforth, these requirements will not only enhance ecological reliance but will also improve the consumers' choices.

EuroCham and its FAABS stand by to lend support to the Vietnamese Government and its agriculture industry by being the bridge between the relevant EU stakeholders and Vietnamese agriculture businesses and regulators for knowledge sharing and legislations updates.

### Recommendations

- Align national feed regulations with international standards to support trade and competitiveness.
- Limit fortification requirements in the draft Decree to domestically produced foods, exempting imported and exported products, to ensure regulatory clarity and support trade compliance.
- To ensure the compliance to the new EU regulations, it is essential to provide technical training to help farmers and businesses comply with environmental regulations, focusing on emissions reduction and deforestation-free practices. Vietnamese Government is also needed to engage with relevant non-government organizations for continuous expertise development and timely update of new EU standards.
- Implement digital tools to track supply chain emissions and land use, ensuring compliance with EU CBAM and EUDR requirements.

## ACKNOWLEDGEMENT

EuroCham Food, Agri, and Aqua Business Sector Committee

11 Decision 1520/QĐ-TTg dated 06 October 2020 of the Prime Minister approving the Animal Husbandry Development Strategy for 2021-2030, vision to 2045 (Decision 1520).

12 Decree 09/2016/ND-CP dated 28 January 2016 of the Prime Minister regulating on the providing for fortification of food with micronutrients (Decree 09).