Strengthening sustainability and resilience of livestock systems in response to drivers of change
Overview

The Global Agenda for Sustainable Livestock (GASL) Oceania regional consultation was held virtually on Friday September 8, 2023. There were 42 unique attendees, with 63 preregistrations.

The objective of the consultation was to identify the drivers of change relevant to livestock systems in Oceania, and identify the linkage between different drivers and link identified drivers to the four livestock sustainability domains adopted by GASL:

1. Food and nutrition security
2. Livelihoods and economic growth
3. Animal health and animal welfare
4. Climate and natural resource use

The driver themes identified by GASL were:
- Geopolitical and socio-economic
- One health
- Environmental
- Technological innovation

Outcomes from the consultation, covered in this report, will feed directly into the 13th GASL Multi-Stakeholder Partnership meeting being held in Thailand, October 30 – November 3, 2023.

A recording of the consultation is available via THIS LINK.

Drivers of Change

Geopolitical and Socioeconomic Drivers
- Trade, demographic and consumer preference patterns, costs, conflicts

Environmental Drivers
- Climate change, natural resource degradation, biosecurity, compliance

One Health and Welfare Drivers
- Resistance, incursions, standards

Innovation and Science Drivers
- Biotechnology, digitisation, processing efficiencies, new systems

More information is available in the report Key drivers of change that affect livestock systems and their impact on sustainability and resilience.
Identified Drivers
Participants discussed in breakout rooms what they believed were the main drivers in each of the sustainability domains. Participants chose a room most relevant to their skills and expertise.

Food and Nutrition Security
- Financial issue rather than an availability issue. People turning to cheap low nutrient density foods which increases non-communicable disease risks.
- Weather events
- Disease outbreaks/biosecurity
- Inflation related to supply chain costs (e.g., diesel, electricity)
- Perceptions about nutrition of meat produced via different systems.
- Political instability and import dependency for Pacific nations.

Livelihoods and Economic Growth
- With so much produce export focused, a change in the NZ economy will have disproportionate impacts on Māori’s.
- Climate change – major impact on animals, directly affecting business productivity.
- Urbanisation – 50% of NZ now live in cities, having a greater say on government and potentially impacting the urban/rural divide. Also makes it difficult for youth moving away from agriculture.
- Reliance on overseas markets is largely outside of scope of control. Price changes can be quick and difficult to predict. Small farms at a disadvantage and unable to negotiate big contracts.
- Covid impacts, people have a desire to return home.
- Hard to access land. Access to capital is becoming more difficult.
- Unfair push on climate change makes it difficult to promote livelihood and economic growth.

Animal Health and Animal Welfare
- Climate change, leads to increase in diseases, spread of disease. Increased risk of feral animals.
- Resistance to current treatments (Antimicrobials and antiparasitic).
- Changing conversation from a productivity issue to a social license issue.
- Expectations on unrealistic measurements of welfare.

Climate and Natural Resource Use
- Climate change patterns. Creating volatile movements. E.g., Water – either too much or not enough of it around.
- Sea level rise, greater risk for Pacific nations
- Regulatory (domestic v trade) and market expectations. Example of the EU – driving change through regulation.
- Trade drives production where it is most efficient for natural resource use.
- The need for balance between food production and conservation
- Developing nations reliant on EU based investors. These supply chains/investors want compliance.
• Land competition. Healthy soils are being repurposed for anything but ag.
• With livestock prices dropping (economics), other land use options are becoming more appealing.
• Economics is the main driver - so all drivers need to be considered in terms of how they impact the economics of farming. Land value is a massive one, whether it is driven by housing, forestry, hort etc. International demand for products also impacts this, as do land use rules around what can and cannot be done - e.g., water quality rules that restrict land uses. Power generation offers opportunities for unproductive land. Climate change itself in terms of rain/drought, etc. will also impact land use in that new crop options become viable and current ones are not. Flexibility of land use is key, recognising that some land use change is only one way and is very difficult to reverse.

Interactions Between Drivers
The structure of the consultation did not allow for consideration of interactions between sustainability domains, rather focused on the interactions between drivers within each domain. There is clear evidence of interactions between domains not discussed below.

Food and Nutrition Security
• Biosecurity risks from incursions are interrelated.
• Supply chain risks from climate change are all interrelated.
• Cultural views impact perceptions and attitudes. Preference in the pacific for imported food make the supply chain vulnerable to interruption and can lead to health issues from processed foods.

Livelihoods and Economic Growth
• Adopting formal policies to ensure food security, which allows for confidence in livelihoods and economic growth.
• Access to foreign capital and investment.
• Sharing data and information between drivers will allow for better decisions.
• The issue of transparency is across the entire supply chain.
• Shifting emphasis from individual farm to catchment of farms. Allows for greater efficiency.
• Ability to support diversification, diverse markets, diverse products, gaining premiums from farming the ‘right way’. Ensure the value is capture at the farm gate.

Climate and Natural Resource Use
• Identified conflict between drivers such as regulation v market expectations.
• Technology can lead to more appropriate land use, but is this a driver or enabler?
• Data. Data. Data.
• Sustainability linked loans / access to capital and finance.
• Diversification of enterprises for economic resilience.
• The need to bring in outside skills to utilise in agriculture. Help translate issues outside of the supply chain.
Current Actions

Participants were asked what is currently happening to respond to drivers which can be scaled up, or what changes may need to happen.

Food and Nutrition Security
- Aid for pacific nations, Australia/New Zealand investing in a variety of programs.
- Off-shore monitoring for biosecurity risks.
- Technology is important, (e.g. GM crops for greater drought/disease resistance)

Livelihoods and Economic Growth
- Māori take an intergenerational approach and simultaneously take account of economic, environment, social and cultural outcomes.
- Cooperative institutions create collective impact.
- Diverse markets allow for greater product opportunities, reducing risk, increasing economic resilience and growth.
- Extension and research, however need greater collaboration.
- Market and regulation working together.

Animal Health and Animal Welfare
- Work closer with One Health initiatives.
- Increase seasonal variation preparedness.
- Insect monitoring programs
- Leading approach in treatment leading to lower resistance in antimicrobials.
- More R&D for new products and increased education (inc. public).
- Investments into pest animal control, linking with natural resource use.
- Increased measuring and communicating of compliance through codes of practice and regulatory environments. Continue to increase training and education.

Climate and Natural Resource Use
- Investment into science to benefit industry and climate/natural resources.
- Peer to peer learning
- Great stakeholder relationships/engagements with initiatives. Need to capitalise on this more.
- Communications. Need to work together across nations and regions on policy (E.g. approach to methane metrics).
- Systems throughout the supply chain. Increasing support to reduce confusion.
- Genetic modification has improved productivity, and natural resources.
- Evolving from a price premium to market expectation. Linkage between market opportunities and farmland use. Incentives are beyond market premium – it is also about business resilience.
**MSP Benefits**

Participants discussed how a multi-stakeholder approach can accelerate positive outcomes for livestock systems.

**Food and Nutrition Security**
- Increased relationships can encourage transparency in supply chains, easier to identify disrupters. Improved messaging through supply chain. Increases transparency and potential for cooperatives.
- Potential for long-term commitments from governments, remove political point scoring.
- Build the ability to make well informed decisions to manage risks from impact drivers.
- Coordinated approach to educate consumers on dietary choices.
- Collaborate on industry credentials. Give consumers confidence and improved perceptions.

**Livelihoods and Economic Growth**
- Helps with agreeing in a holistic way forward, hears all perspectives and develops solutions that will optimise a range of benefits.
- Capitalise on the opportunity to include Indigenous voices.
- Create a space for a constructive environment and gain agreements on statements / policies / projects.
- Showcase to diverse audiences including youth easier.

**Animal Health and Animal Welfare**
- Assists to ensure multiple stakeholders buy in to policy and practice discussions.
- Can link ESG to education so that outcomes of education deliver for the whole value chain.

**Climate and Natural Resource Use**
- Integrated value chains allow for collective of farmers working along supply chains – receiving support along the supply chain.
- Consistent messaging across all areas can stop perverse outcomes. Allows for united messaging both ways through the value chain.
- Enables the industry to be at the table.
- Allows industry to address all natural resource use matters at once to accelerate adoption and messaging.
- Reduces wasting time/resources.
- Potential for third party verification.
- Relationships with investors can improve
- The ability to share learnings quicker.