



GLOBAL AGENDA FOR
SUSTAINABLE LIVESTOCK



Food and Agriculture
Organization of the
United Nations



Department of Livestock Production



Faculty of Veterinary Medicine



VPHCAP

SUMMARY REPORT

*Multi-Stakeholder Collaboration to Strengthen
Sustainability and Resilience of Livestock System in
Response to Drivers of Change*

**13th GASL MSP Meeting and the Regional Conference on Sustainable
Livestock Transformation
30th October – 3rd November 2023**

In collaboration with
Department of
Livestock
Development,
Thailand and Faculty
of Veterinary
Medicine, Chiang Mai
University

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The GASL MSP meetings

The annual MSP meeting is the main facilitation tool for GASL, and it has taken place in several countries (see Table 1)

Table 1. Multi-stakeholder partnership meetings

Year	Location	Major issues discussed
2023	Hybrid, Chiang Mai, Thailand	Multi-stakeholder Collaboration to Strengthen Sustainability and Resilience of Livestock Systems in Response to Drivers of Change
2022	Hybrid, Dublin, Ireland	Livestock Sector Actions Towards More Sustainable Food Systems
2021	Virtual	Embracing Change and Harnessing Diversity: The Roles of Livestock in Sustainable Food Systems
2020	Virtual	From Crisis to Action – Lessons from COVID-19 for Building a Better Future through Sustainable Livestock
2019	Manhattan, Kansas, USA	Innovation for sustainable livestock systems
2018	Ulaanbaatar, Mongolia	Livestock on the move, livestock experiences in the global sustainability debate. Regional focus on mobile herding. Focus on four sustainability domains derived from the 10th GFFA 2018.
2017	Addis Ababa, Ethiopia	Showcasing livestock-based solutions, tools and cases for sustainable livestock sector development
2016	Panama City, Panama	Linking GASL to the SDGs. Clarification of roles of Action Networks. Panama Declaration, firming up the commitments of members towards sustainable livestock sector development
2014	Cali, Colombia	Firming up health and social elements. Consolidation of governance by building the seven clusters (donors, private sector, NGOs, social movements, intergovernmental and multilateral organizations, public sector, academia and research)
2013	Ottawa, Canada	Decision to go beyond environment. Inclusion of social and health dimensions and focus on practice change.
2013	Nairobi, Kenya	Consolidation of the partnership. Structure and processes, election of a chair.
2011	Phuket, Thailand	Decision on three focus areas: Closing the Efficiency Gap, Restoring Value to Grasslands, and From Waste to Worth
2011	Brasilia, Brazil	Decision to focus on natural resource use with an open, consensual, action oriented, multi-stakeholder process

General Agenda

General Agenda Structure 22/10/2023: Multi-Stakeholder Partnership (MSP) Collaboration to Address Drivers of Change in Livestock Systems 13th Global Agenda for Sustainable Livestock (GASL) MSP Meeting, Chiang Mai, Thailand – 30 October-03 November 2023

Sunday 29/10	Monday 30/10	Tuesday 31/10	Wednesday 01/11	Thursday 02/11	Friday 03/11	
	7:00-8:00 Breakfast in groups or spontaneous					
	8:00-8:55 Open meeting spaces					
Arrival of participants Optional meetings	8:55-10:00	Welcoming Session <ul style="list-style-type: none"> - GASL Chair - Thai Minister of Agriculture and Cooperatives or Thai Director General of Department of Livestock Development (DLD) - Senior Adviser to the ADG/RR, FAO Region of Asia Pacific (RAP) - Chiang Mai University President - FAO Director Animal Production and Health Division 	Session 2: Health and disease drivers <i>Introduction</i> Panel 2.1: Impacts of drivers across regions and sustainability domains: challenges and opportunities (regional representatives) / Q&A	Field trips 8:00 to 16:30 1. Mae On dairy cow farm (30 visitors) 2. Mae Tha organic egg farm (20 visitors) 3. San Kam Paeng cattle farm (20 visitors) 4. Chaiprakarn dairy CO-OP (40 visitors) 5. Huai Hong Khrai Royal Development Study Center (100 visitors) Trips 1, 2, 3 and 5 will also include a visit to the Energy Research and Development Institute (ERDI) from 9:00 to 11:00	Session 3: Environmental drivers <i>Introduction</i> Panel 3.1: Impacts of drivers across regions and sustainability domains: challenges and opportunities (regional representatives) / Q&A	Session 4: Innovation and knowledge drivers <i>Introduction</i> Panel 4.1: Impacts of drivers across regions and sustainability domains: challenges and opportunities (regional representatives) / Q&A
	10:00-10:30	Coffee/Minister Visit to Exhibitions/Press Conference	Coffee		Coffee	Coffee
	10:30-11:30	Keynotes Session: Drivers of livestock system transformation <ul style="list-style-type: none"> - Introduction to drivers of livestock system transformation / Q&A - Geopolitical and socio-economic drivers - Health and disease drivers Q&A - Environmental drivers - Innovation and knowledge drivers Q&A 	Panel 2.2: Integrated responses addressing key impacts (Action Networks and private sector) / Q&A Session closing: Audience invited to suggest areas of GASL action to support implementation of responses		Panel 3.2: Integrated responses addressing key impacts (Action Networks and farmers) / Q&A Session closing: Audience invited to suggest areas of GASL action to support implementation of responses	Panel 4.2: Integrated responses for key driver impacts (Action Networks and private sector) / Q&A Session closing: Audience invited to suggest areas of GASL action to support implementation of responses
	11:30-12:15	Ministerial Roundtable <ul style="list-style-type: none"> - Ministerial roundtable on effective policies to respond to drivers of change in livestock systems (one question relevant to each panelist's country situation) / Q&A Summary and framing of panel discussions				
	12:15-13:55	Lunch and networking (press interviews with panelists of ministerial roundtable)	Lunch and networking		Lunch and networking	Lunch and networking
	13:55-15:00	Session 1: Geopolitical and socio-economic drivers <i>Introduction</i>	Plenary 1: Livestock production and Antimicrobial Use as a Driver of Change—the economic cost of action and inaction (FAO RAP, SLU, FAO HQ, WOAH) / Q&A		Plenary 2: How to move forward? Towards food security and better livelihoods under drivers of change: how cross-sector partnerships can move the needle towards sustainable livestock	Conclusions, follow up and meeting closing <ul style="list-style-type: none"> - GASL Chair - Department of Livestock Development (DLD) - FAO

		<i>Panel 1.1: Impacts of drivers across regions and sustainability domains: challenges and opportunities (regional representatives) / Q&A</i>			investments in Asia (IFC & ADB with World Bank) / Q&A	-Chiang Mai University
15:00-15:30		Coffee	Coffee		Coffee	Coffee
15:30-17:00		<i>Panel 1.2: Integrated responses addressing key impacts (Action Networks and farmers) / Q&A</i> <i>Session closing: Audience invited to suggest areas of GASL action to support implementation of responses</i>	Policy Forum: Policies needed to address and respond to drivers of change What policies are needed to support sustainable transformation of climate smart food systems that produces safe and healthy food? (FAO RAP and GASL) / Q&A		Plenary 3: Gender and youth responses to drivers of change Exploring impacts and opportunities for youth and gender responses to drivers of change in livestock systems (GASL youth and gender groups) / Q&A	15:30-18:30 - GASL Guiding Group meeting (members and observers only, hybrid) - 13 th MSP Meeting feedback - Next steps for GASL transition
17:00-19:00	Welcome cocktail for participants	Sharefair with poster sessions (success stories illustrating successful responses to driver pressures)	Sharefair with poster sessions	Sharefair with poster sessions	Sharefair with poster sessions	
	Open meeting spaces	Open meeting spaces	Open meeting spaces	Open meeting spaces	Open meeting spaces	Open meeting spaces
		17:00-18:00 - Side Event: Solutions with legs — Livestock messaging and advocacy at COP 28, by Michael Victor (ILRI)	17:00-18:00 - Side Event: Developing a coalition/alliance to improve advocacy efforts beyond the livestock sector, by Michael Victor (ILRI)	17:00- 18:00 - Side Event: Towards a decision-making tool supporting policy making and investments for agrifood systems transformation under GEF: consultation with livestock stakeholders, by Camillo de Camillis, FAO ESP (hybrid)	17:00- 18:30 - Side Event: APHCA Quarterly Executive Committee meeting (members only, hybrid)	
			18:00-19:00 - Side Event: Rangelands and Pastoralism and the importance of MSP partnerships, by Nitya Ghotge (International Year of Rangelands and Pastoralists Support Group)			
Evening	Free	Welcome dinner by host country Traditional dinner with performances	Free	GASL farewell dinner Speaker: Thanawat Tiensin, FAO	Free	

PROJECT DETAILS

The 13th Global Agenda for Sustainable Livestock (GASL) Multi-Stakeholder meeting. This event is the culmination and continuation of an enormous collective effort, which began in 2010 as a partnership of a broad range of livestock sector stakeholders, including governments, research and academia, the private sector, civil society and NGOs and intergovernmental organization.² This GASL Multi-Stakeholder Partnership meeting will look at short, medium and long-term drivers of change that affect livestock production systems, and over the next five days, we will discuss the best ways to “build sustainable livestock systems”. The FAO aims to alleviate poverty, food & nutrition insecurity and raise agricultural productivity while protecting natural resources. This mission is even more relevant today in the Asia / Pacific region; this region has nearly 60% of the global population, it has the largest global poultry & swine populations, and millions of farmed wildlife are produced here.

Furthermore, several countries in the region show among the world’s highest rates of GDP growth and urbanization. These are well-known drivers of increased demand for livestock products. Asia is already consuming nearly twice as many animal proteins as other regions in the world. Yet, in 2030, it will demand three times as many animal products as Europe.

This increase in human-livestock-wildlife interface also makes the region a hotspot for the risk of zoonotic disease and transboundary animal disease outbreaks. The Animal Health & Production Program at the FAO Regional Office for Asia & the Pacific focuses most of its effort on transforming the livestock sector to increase production, use less antimicrobials and be more sustainable, climate-smart, genetically diverse and efficient. It is important to adapt technologies at farm level, and across value chains, to strengthen livelihoods, rural economies and production. FAO also serves as the Secretary for The Animal Production and Health Commission for Asia and the Pacific, also known as APHCA, a statutory body of FAO established in 1975 and currently consisting of 18 member countries in the region.

Participants and Audience

This conference was attended on average by 280 participants from more than 35 countries across five continents from Argentina, Australia, Belgium, Brazil, Burkina Faso, Cambodia, Cameroon, Canada, China, Colombia, Costa Rica, Cuba, Ethiopia, France, Georgia, Germany, Hungary, India, Indonesia, Italy, Iran, Ireland, Kenya, Kyrgyzstan, Lao PDR, Malaysia, Mexico, Moldova, Mongolia, Morocco, Nepal, New Zealand, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Senegal, South Africa, Spain, Sweden, Switzerland, Tanzania, Thailand, Turkey, Uganda, Ukraine, United State, Uruguay, Vietnam, and Zambia

Annotated Agenda

Day 1: Monday, 30 October 2023

Welcoming Session

Master of Ceremonies (MC), Ms. Pornchanok Ruengvirayudh, Professor, Chiang Mai University

Ms. Shirley Tarawali, GASL Chair extended a warm welcome to participants attending both in-person in Chiang Mai and virtually, expressing gratitude to the host country, Thailand. She conveyed special thanks to the Ministry of Agriculture, the Department of Livestock Development, Chiang Mai University, the FAO Regional Office, and the Geisel support team FAO in Rome for their outstanding efforts in organizing the meeting.

H.E. Mr. Chaiya Promma, Deputy Minister of Agriculture and Cooperatives, Thailand, extended a heartfelt welcome to all participants attending the 13th Global Agenda on Sustainable Livestock (GASL) Multi-Stakeholder Partnership Meeting in Chiang Mai, both in-person and virtually. He highlighted the event's significance as a milestone in the journey towards sustainable development.

Mr. Nirat Pongsitthaworn, Chiang Mai Governor, warmly welcomed distinguished guests, participants, and officials to the 13th Global Agenda for Sustainable Livestock (GASL) Multi-Stakeholder Partnership Meeting and the FAO Regional Conference in Chiang Mai, Thailand. He expressed his honor in hosting such a significant gathering focused on accelerating sustainable practices within the agri-food system.

Mr. Robert Simpson, Senior Adviser to the Assistant Director-General/Regional Representative, FAO Region of Asia Pacific (RAP), extended a warm welcome and expressed gratitude to the distinguished guests, including officials from the Ministry of Agriculture, the Governor of Chiang Mai, and various global leaders in sustainable livestock, at the 13th Global Agenda for Sustainable Livestock (GASL) Multi-Stakeholder Partnership Meeting. He highlighted the importance of the event as a continuation of a significant collective effort initiated in 2010, aiming to engage a broad spectrum of stakeholders in the livestock sector.

Mr. Sopat Chavalkul, Deputy Director-General of the Department of Livestock Development, Thailand, gave speech and showed the video, extended a warm welcome and expressed deep gratitude to all the distinguished guests. He also Emphasizing the honor of hosting the 13th Global Agenda for Sustainable Livestock Multi-Stakeholder Partnership Meeting in Chiang Mai.

Mr. Pongruk Sribanditmongkol, Chiang Mai University President, delivered a warm and welcoming opening address at the 13th Global Agenda for Sustainable Livestock Multi-Stakeholder Partnership Meeting. He greeted the distinguished guests, including government ministers, representatives from the Food and Agricultural Organization (FAO), and participants from 35 countries across five continents, expressing his gratitude for their presence.

Mr. Thanawat Tiensin, Director of Animal Production and Health Division, FAO HQ, He shows the video Presentation of the outcomes of the Global Conference on Sustainable Livestock Transformation. After that he opened his address by welcoming distinguished guests, including ministers, deputy ministers, and other high-level officials from various countries. He highlighted the extensive participation in the recent global conference on sustainable livestock, which drew over 740 attendees, both in-person and virtually, including more than 20 ministers and numerous high-level officers.





Press conference



Keynote Session - Drivers of livestock system transformation

Moderator: Mr. Henning Steinfeld, GASL Advisor

Mr. Henning Steinfeld, GASL Advisor start this session by introducing drivers of livestock system transformation: drivers, pressures, impacts and responses

- Keynote presentation on Geopolitical and socio-economic drivers by Mr. Alejandro Acosta, FAO Policy Officer
- Keynote presentation on Health and disease drivers by Ms. Madhur Dhingra, FAO Senior Animal Health Officer
- Keynote presentation on Environmental drivers by Mr. Muhammad Ibrahim, Director General, Centro Agronómico Tropical de Investigación y Educación (CATIE)
- Keynote presentation on Innovation and knowledge drivers by Ms. Alison Van Eenennaam, Professor Department of Animal Science, University of California, UC-Davis

In Closing comments, Henning Steinfeld, GASL Advisor concluded the keynote session with a thoughtful synthesis of the presentations, expressing gratitude toward the speakers for their comprehensive discussions and adherence to the schedule. Recognizing the inevitable simplification required to encapsulate the wide-ranging topics, he referred to a guiding graph that contextualized livestock systems at the nexus of diverse pressures and drivers. He also addressed the multifaceted approaches to dealing with the drivers of change within livestock systems. He emphasized the potential strategies: mitigation of negative drivers, adaptation to emerging pressures, monitoring for comprehensive understanding, and, as a last resort, repairing the damage caused by these changes.



Ministerial Roundtable

Moderator: Ms. Shirley Tarawali, GASL Chair

Ministerial roundtable on effective policies to respond to drivers of change affecting livestock systems

Panelists:

1. H.E. Mr. Abdallah Ulega, Minister for Agriculture and Livestock, Tanzania
2. H.E. Mr. Marcelo Gonzalez, Vice Minister of Agriculture and Livestock, Paraguay and GASL Public Sector Cluster Coordinator
3. Mr. Jambaltseren Tumor-Uya, State Secretary, Ministry of Food, Agriculture and Light Industry

(MoFALI),

4. Ms. Huyam Salih, Director of African Union-Interafrican Bureau for Animal Resources (AU-IBAR), Kenya

The panel concluded with an understanding of the complexities of livestock management policies, recognizing the importance of both modern and traditional practices in the sustainability of livestock production, and the necessity of targeted policies to address specific regional challenges and needs. The panel also agreed on the importance of focusing on and supporting indigenous pastoralist systems for future sustainability and resilience in livestock production.

Session 1: Geopolitical and socio-economic drivers of change affecting livestock systems

Moderator: Nancy Bourgeois, Lecturer International Agriculture, School of Agricultural, Forest and Food Sciences, Bern University of Applied Sciences, Switzerland

Session 1: Geopolitical and socio-economic drivers of change affecting livestock systems

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Introduction to Session 1: Regional perspectives on geopolitical and socio-economic drivers of change affecting livestock systems

Mr. Metha Wanapat, Professor at Khon Kaen University give a talk focused on the importance of sustainable practices, local resource utilization, technological advancement, and strong stakeholder networking to face the socio-economic and environmental challenges in livestock production.

Panel 1.1: Impacts of geopolitical and socio-economic drivers on livestock systems across regions and sustainability domains: challenges and opportunities (GASL regional representatives)

Panelists

1. **North America, Mr. Arturo Di Costanzo**, Director, Regional Cattle Association, Tampico, Tamaulipas, Mexico
2. **Eastern Europe/Central Asia, Mr. Andriy Getya**, Professor, National University of Life and Environmental Sciences of Ukraine
3. **South and South-East Asia, Ms. Nahideh Naghizadeh**, Chair of the Board, Human Geography and Land Use Planning, Centre for Sustainable Development and Environment (CENESTA), Iran
4. **Africa, Ms. Huyam Salih**, Director of African Union-Interafrican Bureau for Animal Resources (AU-IBAR), Kenya



Panel 1.2: Integrated responses from GASL Action Networks and farmers addressing key geopolitical and socio-economic impacts

Introduction to panel 1.2 by moderator: Role of GASL Action Networks and farmers

Panelists

1. **Restoring Value to Grasslands (RVG), Ms. Mariana Quiroga**, Co-Chair Action Network RVG, Instituto Nacional de Tecnología Agropecuaria (INTA), Argentina
2. **Closing the Efficiency GAP (CEG), Mr. Rogerio Mauricio**, Chair CEG, Lecturer and Researcher, Universidade Federal de São João del-Rei, Brazil
3. **Livestock Antimicrobial Partnership (LAMP), Mr. Fred Unger**, International Livestock Research Institute (ILRI), Vietnam
4. **Livestock for Social Development (L4SD), Mr. Ernesto Reyes**, Dairy Development Sector Lead, GDP-IFCN

5. **Dairy Asia, Ms. Marilyn Mabale**, focal point of Dairy Asia to Philippines, former administrator, National Dairy Authority, Philippines

6. **Farmers, Mr. Dick Kamuganga**, President Uganda National Farmers Federation (UNFFE)

The discussion concluded with an understanding that all stakeholders, including consumers, policymakers, researchers, and the private sector, have a role to play and that collaborative efforts are necessary to move towards a more sustainable future for livestock production.



Session closing

Mr. Alejandro Acosta, FAO Policy Officer provided a synthesis of the discussions, emphasizing several key points and potential contributions toward a framework for translating policy into practice in the livestock sector.

Welcome drinks and networking for participants

At the end of first day the organizer conduct welcome drinks and networking for participants to open meeting space.



Session 2: Health and disease drivers of change affecting livestock systems

The second day of the GSAL conference start by Mr. Scott Newman, FAO RAP, MC of the session of Health and disease drivers of change affecting livestock systems.

Dr. Tongkorn Meeyam from Chiang Mai University/ Southeast Asia One Health University (SEAOHUN) presented an overview of health and disease drivers affecting livestock systems with a focus on Southeast Asia and concluded by affirming the belief that cross-sector collaboration will lead to improved public health systems and better livestock systems in the future.



Panel 2.1: Impacts of health and disease drivers on livestock systems across regions and sustainability domains: challenges and opportunities (regional representatives)

Panelists:

1. Latin America and Caribbean, Mr. Luiz Gustavo Ribeiro, Researcher Brazilian Agricultural Research Corporation (Embrapa), Brazil
2. South and South-East Asia, Mr. Sindura Ganpati, Principal Scientific Advisor to Prime Minister, India
3. China, Mr. Zhengkui Zhou, Deputy Director, Institute of Animal Science, Chinese Academy of Agricultural Sciences (CAAS) (Virtual)
4. Oceania, Mr. Ian McConnell, President, Global Roundtable for Sustainable Beef

In summary, the discussion emphasized the need for a more integrated approach that combines health, nutrition, environmental stewardship, and traditional knowledge with modern technology to create sustainable livestock systems and improve the connection between people and their food sources.



Panel 2.2: Integrated responses from GASL Action Networks, farmers and private sector addressing key health and disease impacts

Moderator: Mr. Scott Newman, FAO RAP

Ms. Shirley Tarawali, GASL Chair introduce to panel 2.2 on topic Role of GASL Action Networks, farmers and private sector

Panelists:

1. Animal Welfare Action Network (AWAN), Ms. Anna Marry, AWAN Chair a.i. The Brooke (virtual)
2. Livestock Antimicrobial Partnership (LAMP), Mr. Ulf Magnusson, Chair LAMP, Professor, Swedish University of Agricultural Sciences (SLU), Sweden
3. Private sector, Mr. Arturo Di Costanzo, Director, Regional Cattle Association, Tampico, Tamaulipas, Mexico
4. Farmers, Mr. Fagouri Said, Co-Chair GASL Social Movements Cluster, Coordinateur Régionale Harikumar Anakara Vadakathe, Deputy Manager, National Dairy Development Board, India



Session closing

In the closing session led by Ms. Madhur Dhingra, the session closed with an acknowledgment that while the attendees were part of the correct group to address these issues, a broader range of stakeholders is necessary to find comprehensive solutions.



Plenary 1: Livestock Production and Antimicrobial Use as a Driver of Change – the economic cost of action and inaction

Moderator: Ms. Mary Joy Gordoncillo, Regional AMR Surveillance Coordinator, FAO RAP

The plenary session starts by Ms. Mary Joy Gordoncillo, FAO RAP, the moderator of this session. Then, Mr. Milo Bystricky conducted an interactive quiz to engage the audience and educate them on antimicrobial resistance (AMR) and Mr. Alejandro Acosta, FAO HQ presents on livestock and AMU from an economic perspective.

Panel discussion on AMR as a driver of change in livestock production systems

Panelists:

1. International organisation – Chantanee Buranathai, World Organization for Animal Health (WOAH)
2. Government – Santi Pangmao, (Department of Livestock Development, Thailand)
3. Academia – Ulf Magnusson, Swedish University of Agricultural Sciences (SLU), Sweden
4. Private sector – Sakdid Anulomsombat, Betagro
5. Farmer/Producer – Mitchell Zoratti, Canadian Cattle Association, Canada

The session highlighted the need for a multifaceted approach to antibiotic use and AMR, incorporating practical solutions, knowledge transfer, clear usage guidelines, positive incentives, and strong public-private partnerships.



The last part of this session. Mr. Scott Newman, FAO RAP give key message speech. He emphasizing the importance of collaboration and informed decision-making in the efforts to reduce antimicrobial use in livestock production.



Policy Forum: Policies needed to address and respond to drivers of change

Moderators: Mr. Scott Newman, FAO RAP and Ms. Nitya Ghotge, ANTHRA, India

Mr. Scott Newman, FAO RAP give an introduction about What policies are needed to support sustainable transformation of climate smart food systems that produces safe and healthy food? He explains The introduction stressed the urgency and importance of policy innovation to create a sustainable livestock sector that respects environmental limits and human rights.



Setting the Scene for Food Systems Transformation in Asia and the Pacific

Mr. Sridhar Dharmapuri, FAO RAP, emphasized the need for a transformative approach to food systems that aligns with nutritional, environmental, and economic objectives, underlining the importance of context-specific solutions and policy-driven incentives to foster sustainable and equitable food systems in the Asia Pacific region.



Panel 1: Policy discussion

Panelists:

1. Ms. Huyam Salih, Director of African Union-Interafrican Bureau for Animal Resources (AU-IBAR), Kenya
2. H.E. Mr. Marcelo Gonzalez, Vice Minister of Agriculture and Livestock, Paraguay and GASL Public Sector Cluster Coordinator
3. Mr. Sindura Ganapathi, Principal Scientific Advisor to Prime Minister, India



Panel 2: Country interventions

Panelists:

1. Ms. Sarah Ashanut Ossiya, Project Coordinator, Resilient African Feed and Fodder Systems, AU-IBAR
2. Mr. Paul Smith, Beef Research Scientist, Teagasc
3. Mr. Fred Unger, International Livestock Research Institute (ILRI), Vietnam
4. Mr. Astasit Kaewnauer, Sales Director, SEA – Flylab
5. Mr. Evan Chaffe, Beef Farmers of Ontario, Canada



Last session of 2nd day Ms. Nitya Ghotge, Anthra from India give key messages talk, and summary each topic from each panelist.



Welcome dinner by host country (Thai Department of Livestock Development) Traditional dinner with northern style performances at the **Khum Khantoke** restaurant in Chiang Mai





Day 3: Wednesday, 1 November 2023

Field Visits

Field trips exploring local agri-food systems were arranged on Day 3, discovering real-world settings and practical applications for tackling critical challenges in livestock systems.

Morning session participants visit Energy Research and Development Institute (ERDI)

Afternoon session participants separate in to 5 group to visit 5 places

1. Mae On dairy cow farm (30 visitors)
2. Mae Tha organic egg farm (20 visitors)
3. San Kam Paeng cattle farm (20 visitors)
4. Chaiprakarn dairy CO-OP (40 visitors)
5. Huai Hong Khrai Royal Development Study Center (100 visitors)

Energy Research and Development Institute (ERDI)



The ERDI divided its works into 3 major parts:

1. Clean Energy: A common issue with dairy bovine farms is the odor emanating from the manure; therefore, ERDI has developed a system to convert the manure into biogas, which benefits the surrounding community. Biomethane and electricity are produced from biogas. The goal of the compressed biomethane facility is to develop a system that increases the methane content from 50% to 90-95% biomethane purity. Biogas can be sold to the gas company, PTT, for an annual revenue of approximately 2 million Baht. Additionally, they have food waste management from the community level, collecting and converting food waste from small restaurants and businesses into energy. Biogas, which is typically produced from water waste from livestock and businesses, but rather garbage, is a relatively new technology that the center is attempting to implement as an alternative. Additionally, plastic (carbon negative) was utilized to construct a 2-kilometer street at Chiang Mai University, where construction will continue.

2. Smart Energy: Chiang Mai University Smart Energy brings together a team of electrical engineers and programmers who collaborate to develop an advanced energy monitoring system. They are currently working on the 2032 Plan which 20% of the total energy on campus is supplied. The real-time monitoring system is designed to control the usage of energy within the campus. CMU also offers smart energy shuttle bus services for students around campus.

3. Carbon Neutrality: The proposed initiatives for achieving carbon neutrality include the implementation of a plastic road, smart lighting systems, renewable energy installations, air pressure systems in student

dormitories for improved ventilation, and energy-efficient pathways. The North region has a designated safe zone for 603 children development centers, where the PM 2.5 levels are carefully monitored and maintained at a high standard.

Mae On Dairy Cow Farm



The "MMM" dairy farm is situated in the Mae-On district of the province of Chiang Mai. Forty cows are produced in total on the farm. Daily milk production averages 110 kilograms. In addition to producing fresh milk, the proprietor processes milk into cheese, soft-served ice cream, wine, and pasteurized milk. Mr. Kachen, the proprietor, increases the value of remaining colostrum milk by producing soap from colostrum. Other than operating four ice cream establishments, he distributes other products at local markets in Chiang Mai. The MMM farm and the Energy Research and Development Institute (ERDI), CMU, have worked together to convert bovine manure into usable energy. On his property, he utilizes a small biogas unit developed by ERDI to convert cow manure into biogas. It is uncomplicated to transport and install this biogas unit. Smallholder producers have the ability to utilize biowaste to generate gas for domestic use. It costs approximately \$1,200 USD. Tanzania's Minister of Agriculture and Livestock was intrigued by those miniature biogas systems. He aimed to implement and extend this system throughout his nation. ERDI-CMU was to be contacted and collaborated with by him and his group in the immediate future. Once per year, the proprietor of the cow barn removes the bovine manure. A limited quantity of feces has been incorporated into the biogas system for the purpose of generating cooking gas for the household and to supply the feed mixing equipment (TMR: total mixed ratio) on his farm. After being extracted, the feces are dried, packaged, and sold as manure for vegetable and tree plantations. In his concluding remarks, Mr. Kachen stated that this dairy farm affords him not only financial gain but also the chance to learn, grow, and contribute to environmental conservation.

Mae Tha Organic Egg Farm



The Mae Tha organic farm is situated in the Mae Tha subdistrict of Chiang Mai's Mae On district. Young graduates of Mae Tha who were employed in the city have returned to their communities with the intention of advancing community development. The group conceived the notion of rearing organic laying chickens after realizing that eggs are an inexpensive source of protein that can be consumed by individuals of all ages. The food waste that community members are requested to deliver to the producers is utilized in the cultivation of black soldier fly (BSF) worms. The community members can get eggs for their household consumption as a return. This called the 'Food Waste for Eggs' model. The implementation of organic feed and worms results in a 30% reduction in the total quantity of feed consumed and a mitigation of pathogen level. The proprietor additionally manages community farms in Mae Tha, which presently have more than a hundred members, with an individual permitted to possess twenty hens. Black soldier fly larvae are utilized at a rate of 10 kg per 100 poultry per day. Antibiotics were never utilized by the producers; in cases of poultry illness, indigenous herbs were administered; and yearly testing was conducted. With the exception of the common cold, this area does not harbor any infectious diseases. In the event that a disease advances to a critical stage, a veterinarian associated with the organization, usually from a feed farm, will be consulted. In the Chiang Mai region, organic eggs are accessible for purchase at restaurants and supermarkets.



San Kam Paeng Cattle Farm



This educational excursion entails four primary segments, each designated for a specific location and offering distinct learning prospects.

1. San Kamphaeng Dairy Cooperative (Pa Tung-Huai Mo) Co., Ltd.

In essence, this cooperative sector purchases unpasteurized milk from its farmer members and transforms it into pasteurized milk. It was supplied with thirteen tons of fresh milk per day.

2. Korn-Kamon Dairy Farm:

Mr. Kamon Palee, proprietor of the San Kamphaeng dairy cooperative (Pa Tung-Huai Mo), has over two decades of experience in the dairy farming industry. He was selected as a farm mentor in 2021. At the moment, this farm had 170 cattle, of which 70 were milking cows producing 1000 kilograms of fresh milk per day. TMR (sweet maize plus fresh grass plus soybean meal plus roughages) is utilized for milking cows. The cows were provided unrestricted access to TMR twice daily, and pre-mix was provided prior to milking. The average conception rate on this farm is 80%, with a decrease to 60% during the monsoon season. Although artificial insemination (AI) is the preferred method, bulls are utilized if AI fails to conceive in cattle. The day after the male calf is delivered, it is immediately sent to the slaughterhouse. This farm employs seven individuals and produces two products: milk for sale and cattle manure for earthworm cultivation and fertilizer.

3. Vermicompost Learning Center by Korn-Kamon Dairy Farm:

Two species of worms are cultivated: African Nightcrawler and Blue Worm. It is essentially a farm that implements the BCG (Bio-Circular-Green) economic model by generating revenue from animal feces. Moisture control is the most critical factor for worms between 32 and 42 degrees Celsius. Once the worms have reached maturity, some of them are utilized for reproduction while the remainder is sold as vermicompost.

4. Boonyapat Farm:

In essence, Tatia Palee is a marketer. She engages in a substantial amount of online commerce and compost sales to paddy field farmers. In addition to raising two cows with two young calves, five hundred chickens, and pigs, this farm also has vegetable and rice cultivation areas.

Chaiprakarn Dairy Cooperative



Chaiprakarn Dairy Agriculture Cooperative Limited serves as a model agricultural cooperative that has achieved notable success by providing advantageous outcomes for both its members and the broader community. The cooperative was founded in 1989 to assist members in finding new employment opportunities and to resolve agricultural issues. A decision was made by the cooperative to breed dairy cattle, an activity that is well-suited to the region and provides a steady stream of income. In accordance with the economic sufficiency theory, the cooperative places an emphasis on breeding dairy cattle; this entails members being self-sufficient and assisting one another.

During its early years, the cooperative encountered the challenge of surplus raw milk, resulting in the disposal of over 40 tons of raw milk. In 2003, in response to this issue, the cooperative underwent a transformation and was rebranded as Chaiprakarn Dairy Agriculture Cooperative Limited, a special cooperative operating as an occupation cooperative. Additionally, the cooperative adopted the motto "produce high-quality milk to establish the highest standard and inspire consumer confidence."

The cooperative offers its members an extensive array of services, including credit services, deposit facilities, product collection and sales, advocacy for dairy farming, and provision of diverse welfare services. In addition to a major emphasis on sustainability, the cooperative is actively pursuing business expansion.

The Cooperative Promotion Department has provided assistance to the cooperative in recent years for the purpose of supporting replacement dairy cattle and TMR roughage. The calves are also entrusted to the cooperative for the purpose of alleviating the workload of producers.

Numerous honors have been bestowed upon the cooperative in recognition of its achievements; these include the Dr. Niels Award for best management, the Certificate of Lanna High Quality Milk, the Best Largest Cooperative Award, the Halal Food Certification Mark, and GMP standards.

A number of factors have contributed to the cooperative's success, including its dedication to sustainability, emphasis on quality, and collaboration with stakeholders. In addition, the cooperative has surmounted obstacles including an excess of fresh milk supplies and the necessity to substitute dairy cattle.

The achievements of the cooperative have broadly benefited both its members and the community. The cooperative has contributed to the enhancement of its members' quality of life through the provision of a reliable source of income and access to vital services. The cooperative has additionally made a positive impact on the community's economy through job creation and revenue generation.

Huai Hong Khrai Royal Development Study Center



Huai Hong Khrai Royal Development Study Center comprises sixteen sectors, including Agriculture Extension Development Section, Livestock and Dairy Cattle Research and Development, Water Resources Development Study, Land Development Study, Study and Development of Crop Cultivation, Study and Development for Rice Conservation, Study and Development of Intensive Farming, and Agriculture Extension Development Section. Due to the time constraints, only the two sectors were introduced to the participants: the fishery and frog fields, where they educated participants on the life cycle, various varieties, and cultivation techniques. The Huai Hong Khrai Center functions as an educational and demonstration facility for individuals interested in acquiring proficiency in the farming of livestock and sustenance animals for the purpose of self-sufficiency.



Day 4: Thursday, 2 November 2023

We have a great honor from Mr. Juan Mauricio Alvarez, Instituto Nacional de Tecnología Agropecuaria (INTA), Argentina to give special presentation on topic Argentina actions to strength the sustainability and resilience of livestock farming. He emphasized the importance of creating economic incentives at both the farm and national levels to promote technology adoption and encourage governments to implement specific policies.



Session 3: Environmental drivers of change affecting livestock systems

Moderator: Ms. Cynthia Mugo, Policy & Engagement Stakeholder Advisor, International Livestock Research Institute (ILRI), Kenya

Introduction to the session: Regional perspectives on environmental drivers of change affecting livestock systems

Mr. Chatchawan Chaichana, Assistant Professor, Faculty of Engineering, Chiang Mai University (virtual, video recording)

Panel 3.1: Impacts of environmental drivers of change across regions and sustainability domains: challenges and opportunities (regional representatives)

Introduction to panel 3.1 by moderator: GASL regional consultation processes

Panelists:

1. Latin America and Caribbean, Mr. Lloyd Day, Deputy Director, Interamerican Institute for Cooperation in Agriculture (IICA), Costa Rica
2. Western Europe, Ms. Nancy Bourgeois Lüthi, Lecturer, International Agriculture, School of Agricultural, Forest and Food Sciences, Bern University of Applied Sciences, Switzerland Eastern Europe/Central Asia, Mr. Maksat Miinazarov, Project Coordinator on Pasture Management, CAMP Alatau Public Foundation, Kyrgyzstan
3. Oceania, Mr. Jacob Betros, Manager Beef Sustainability, Meat and Livestock Australia (M&LA)

Panelists responded by emphasizing the need for a balanced approach to livestock production, recognizing the importance of both extensive and intensive systems, and the role of innovation and technology in addressing challenges. There was a consensus that all systems, not just some, need to change and adapt to ensure a sustainable future for the livestock industry. The discussion underscored the importance of embracing change,

utilizing data effectively, and involving diverse stakeholders in shaping the narrative and policies affecting the sector.



Panel 3.2: Integrated responses from GASL Action Networks and farmers addressing key environmental impacts

Introduction to panel 2.2 by moderator: Role of GASL Action Networks and farmers

Panelists:

1. Restoring Value to Grasslands (RVG), Mr. Alexandre Ickowicz, Chair Action Network RVG, Livestock Researcher, CIRAD/FAO
2. Closing the Efficiency GAP (CEG), Mr. Rogerio Mauricio, Chair CEG, Lecturer and Researcher, Universidade Federal de São João del-Rei, Brazil
3. Global Network on Silvopastoral Systems (GNSPS), Mr. Pablo Peri, Vice Chair GNSPS, Research Director, CIPAV, Colombia
4. Dairy Asia, Mr. Batbaatar Bayarmagnai, CEO & Coordinator, Dairy Asia secretariat office, Dairy Asia, Mongolia

The session concluded with a reminder of the importance of various stakeholders working together, embracing multifunctionality, and engaging in trade-offs to find sustainable solutions for livestock systems.



Session closing

In the closing session led by Mr. Muhammad Ibrahim, a synthesis of the extensive discussions on environmental drivers affecting livestock systems. These points encapsulate the collective insights and recommendations from the session, reflecting the multifaceted nature of livestock systems and the environmental challenges they face.

GASL past, present and future

Moderator: Thanawat Tiensin, Director, Division of Animal Production and Health, FAO

GASL Founders: Henning Steinfeld, former FAO GASL Coordinator and current GASL Advisor; Fritz Schneider, former GASL Chair, current volunteer and Livestock Systems Consultant; and Shirley Tarawali, GASL Chair.

In his talk, Mr. Fritz Schneider outlined the evolution of the Global Agenda for Sustainable Livestock (GASL), Mr. Schneider's historical account underscores the progression of GASL as an entity fostering sustainable livestock practices, highlighting its key achievements and the ongoing need to adapt its focus and strategies to current challenges.

Plenary 2: How to move forward? Towards food security and better livelihoods under drivers of change: how cross-sector partnerships can move the needle towards sustainable livestock investments in Asia (IFC & ADB with World Bank)

Moderator: Mr. Ivan Ivanov, Global Lead for Sustainable Protein Advisory Services, International Finance Corporation (IFC)

Panel discussion

1. Ms. Kate Jarvis, Climate Finance Specialist, Agribusiness at Asian Development Bank (virtual)
2. Hang Le, Southeast Asia Regional Manager, Humane Society International (virtual)
3. Jackie Groberski, CFA, Global Manager of Corporate and Financial Institution Engagement, Humane Society International (virtual)

Throughout the session, the importance of multi-stakeholder collaboration, technology use, and knowledge sharing was reiterated to achieve sustainable livestock production and improved animal welfare.



Plenary 3: Gender and youth and responses to drivers of change

Exploring impacts and opportunities for gender and youth responses to drivers of change in livestock systems (GASL youth and gender groups)

Moderator: Ms. Nitya Ghotge, Director at ANTHRA, India

The session concluded with recognition that while there is progress in some regions like Thailand, more work is needed globally to achieve gender equity in the livestock sector.

The discussion brought to light various initiatives and strategies being implemented to support gender inclusion and highlighted areas where further efforts are needed.

Panel 1: gender perspectives

1. Ms. Huyam Salih, Africa, Director, AU-IBAR
2. Mr. Ernesto Reyes, Europe, GASL Academia/Research Cluster
3. Ms. Auengploy Chailangka, Southeast Asia, Director of Chiang Mai Livestock Product Research and Development Center, Department of Livestock Development, Thailand
4. Ms. Helena A Koury, Latin America, youth representative

Panel 2: youth perspectives

1. South East Asia – Ms. Augustin Herliatika
2. North America – Mr. Evan Chaffe
3. Africa – Ms. Munirat Abatan
4. Latin America – Mr. Juan David Caro Alvarez



Key messages

Ms. Shirley Tarawali, GASL Chair give key message after the Plenary session 3: Gender and youth and responses to drivers of change. She summary

- Challenges identified in gender perspectives included cultural barriers, lack of data and evidence, and the need for spaces where women are listened to and respected.
- Positive developments were also noted, such as intentional capacity development and financial policies that enable women's participation.
- The discussion on youth brought up challenges regarding access to inputs, information, finance, and the need for sustainable financial options that allow for work-life balance.
- The importance of integrating youth as an essential part of sustainable livestock initiatives was stressed, not as a trend but as a necessity for real change.



GASL farewell dinner

Mr. Thanawat Tiensin, Director of Animal Production and Health Division, FAO give a speech about “From a ‘voluntary multi-stakeholder platform’ to ‘synergy soulmates’ in the farewell dinner.







Session 4: Innovation and knowledge drivers of change affecting livestock systems

Moderator: Mr. Michael Victor, Head, Communications and Knowledge Management, International Livestock Research Institute (ILRI)

Introduction to the session: Regional perspectives on innovation and knowledge drivers of change affecting livestock systems by Mr. Attawit Kovitvadhi, Assoc. Professor, Kasetsart University



Panel 4.1: Impacts of innovation and knowledge drivers across regions and sustainability domains: challenges and opportunities (regional representatives)

Introduction to panel 4.1 by moderator: GASL regional consultation processes

Panelists:

1. North America, Mr. Mitchell Zoratti, Environment and Climate Change Coordinator, Policy, Canadian Cattlemen Association
2. Western Europe, Mr. Fritz Schneider, Consultant /CEO Research & Development, Samssoft AG, Switzerland
3. China, Mr. Dengpan Bu, Professor of Animal Nutrition, Institute of Animal Science, Chinese Academy of Agricultural Sciences (CAAS), China
4. Africa, Ms. Sarah Ossiya, Project Coordinator, African Women in Animal Resources Farming and Agribusiness Network (AWARFA-N) Secretariat, Kenya

Panel 4.2: Integrated responses from GASL Action Networks and private sector addressing key innovation and knowledge impacts

Introduction to panel 4.2 by moderator: Role of GASL Action Networks and private sector

Panelists:

1. Global Network for Silvopastoral Systems (GNSPS), Mr. Pablo Peri, Vice Chair GNSPS, Head Researcher, INTA, Argentina
2. Animal Welfare Action Network (AWAN), Ms. Anna Marry, AWAN Chair a.i. The Brooke (virtual)

3. Livestock for Social Development (L4SD), Mr. Ernesto Reyes, Dairy Development Sector Lead, GDP-IFCN
4. Private sector, Ms. Alexandra de Athayde-Csaki, Executive Director, International Feed Industry Federation (IFIF)
5. Private Sector, Luis Diego Obando, Corporación de Fomento Ganadero (CORFOGA), Costa Rica



Session closing

In the closing session, Ms. Shirley Tarawali, GASL Chair summary that this session was innovative in its organization, moving away from traditional panel discussions to a more interactive, participatory format. GASL's role in communication, both externally and internally, was emphasized, with suggestions for regional chapters, engaging with policymakers and investors, and facilitating country-level MSPs. And The need for continuous engagement and communication beyond the confines of the meeting was highlighted.

Conclusions, follow up and meeting closing

The GASL conference run into the last session, Ms. Shirley Tarawali, GASL Chair, Mr. Jean Jacques Soula, WOAH - Special Advisor to the Director General, Mr. Scott Newman, FAO RAP and Ms. Warangkhana Chaisowwong, Director of Veterinary Public Health and Food Safety Centre for Asia Pacific, Chiang Mai University give a conclusion and thanks were given to the Ministry of Agriculture and Cooperatives, Department of Livestock Development, Chiang Mai University, FAO regional and headquarters teams, the support team, hotel staff, IT and interpreters, and all participants.



Share fairs activities

This conference also conducts the share fair at Tharathong room during 30 October – 3 November 2023. Throughout the meeting, a sharefair with 44 booths was showcased, exhibiting successful stories on solutions to deal with drivers' pressures facing livestock systems around the world.







Thank you!

ANNEX A: EXECUTIVE SUMMARY

The 13th Global Agenda for Sustainable Livestock (GASL) Multistakeholder Partnership Meeting (MSP) and the Regional Conference on Sustainable Livestock Transformation were jointly organized by GASL in collaboration with the Food and Agriculture Organization of the United Nations (FAO), the Department of Livestock Development of Thailand (DLD) and Chiang Mai University (CMU). The event received financial support from DLD and GASL's generous funders, including the Bill and Melinda Gates Foundation (BMGF), the governments of Switzerland, the Netherlands, Ireland, and France, the Confédération Nationale de l'Élevage (CNE), and the Global Dairy Platform (GDP).

The main objective of the meeting was to gather a diverse community of livestock and non-livestock stakeholders and engage them into global and regional dialogues to stimulate discussion around the theme “multi-stakeholder collaboration to strengthen sustainability and resilience of livestock systems in response to drivers of change”.

In agrifood systems, a driver of change is a factor that influences industry practices and shapes production, consumption, and distribution patterns. Recognizing these drivers is crucial, as their interconnected and synergistic nature amplifies their impact on global livestock systems. Bringing together 275 participants from 55 countries worldwide, this event provided opportunities to address global and regional livestock system dynamics, focusing on fast and slow-moving drivers of change across geopolitical, socio-economic, health and diseases, environmental, and innovation and knowledge aspects. It provided a platform to share knowledge and envision innovative solutions under GASL's livestock sustainability domains: food and nutrition security, livelihoods and economic growth, animal health and welfare, and climate and resource use.

This event was thoughtfully structured to address crucial aspects of livestock system sustainability in the face of drivers of change. Leading up to the event, a set of preparatory webinars, jointly organized with the Tropical Agricultural Research and Higher Education Center (CATIE), explored the theme of change drivers affecting livestock systems and provided participants with an introduction to the subject. Furthermore, preceding the main event, various regional meetings were conducted, ensuring that the meeting's agenda incorporated a range of diverse regional perspectives.

The event featured **four sessions dedicated to exploring various drivers of change**: geopolitical and socio-economic drivers on Day 1, health and disease drivers on Day 2, environmental drivers on Day 4, and innovation and knowledge drivers on Day 5. For each session there were introductory presentations from the South-East Asia region and panel discussions addressing significant drivers, their impacts, and concrete solutions to enhance sustainable livestock systems. These discussions facilitated in a hybrid format, allowing interactions between in-person and virtual participants. www.livestockdialogue.org 2

In addition to the main sessions, **a series of complementary plenary sessions** were organized including a **Keynote Session** by renowned speakers addressing the nature of the main drivers of change affecting livestock systems; a **Ministerial Roundtable** addressing key change driver issues in various countries and regions featuring the Minister of Agriculture from Tanzania, the Vice Minister of Livestock from Paraguay, the State Secretary of the Ministry of Food, Agriculture and Light Industry from Mongolia; and the Director of the African Union-Interafrican Bureau for Animal Resources (AUIBAR); a **Policy Forum** featuring representatives from all GASL stakeholder clusters on policies needed to address and respond to drivers of change in Asia Pacific; a session on GASL Past, Present and Future, with the testimonies of three GASL founders; and **three plenary sessions** regarding livestock production and antimicrobial use as a driver of change— the economic cost of action and inaction organized by the FAO Asia Pacific Regional Office, importance of cross-sector partnerships

to enhance investment in sustainable livestock in Asia organized by the International Finance Corporation of the World Bank Group, and gender and youth responses to drivers of change in livestock systems organized by the GASL Working Group on Gender and the GASL Youth Advisory Group.

Field trips exploring local agri-food systems were arranged on Day 3, discovering real-world settings and practical applications for tackling critical challenges in livestock systems. Throughout the meeting, a sharefair with 44 booths was showcased, exhibiting successful stories on solutions to deal with drivers' pressures facing livestock systems around the world.

The event highlighted the complex interplay among geopolitical and socio-economic factors and their varying effects on livestock systems across different regions. The impacts of health and disease drivers were also emphasized, with particular attention to smallholder farmers and their challenges. Better communication to get the messages across on climate smart practices based on evidence with all stakeholders was acknowledged. The gender forum brought to light various initiatives and strategies being implemented to support gender inclusion and highlighted areas where further efforts are needed. Regarding the youth perspective, youth not only represent the future but are also pivotal in the present, bringing forth innovative solutions and ideas that need recognition and support. The policy panel concluded with an understanding of the complexities of livestock management, recognizing the importance of both modern and traditional practices in the sustainability of livestock production, and the necessity of targeted policies to address specific regional challenges and needs. The accurate communication of scientific data to stakeholders was recommended to ensure informed decision-making and reflecting the livestock sector's adaptability and the necessity for innovative solutions, sustainable practices, and collaboration among stakeholders for a prosperous and balanced future.

Overall, the 13th GASL MSP Meeting provided a global multi-stakeholder discussion platform, offering a diverse range of engagement opportunities, and making strong commitments towards more sustainable livestock systems. In conclusion, the main take away messages of this meeting can be summarized as follows:

1. The meeting helped participants with our primary ambition – not just for the 13th MSP meeting, but since the start of the preparatory process almost three months ago (with webinars on drivers and regional consultations): to get a better understanding of the drivers – or forces – that impact livestock systems, what these look like in different regions, and how www.livestockdialogue.org 3 as a livestock community and using the diverse multi-stakeholder nature of GASL we must be positioned to respond to change. By embracing change, we will respond in ways that foster greater resilience and sustainability both of livestock systems and food systems. In other words, a key dimension of responding better is being ready and able to change.
2. A few key themes or issues that will help GASL fine tune its role as we move forward from here.

Drivers

- Multiple drivers identified, all connected. Climate change seems to feature most strongly
- Greater awareness that we don't have to wait for drivers to impact, but must be proactive, by changing and get ready to change
- Emphasized the different impacts and responses to drivers
- Opportunity as a driver of change

Connections

- Importance of being better connected:
 - o Across ministries (finance, infrastructure, environment, health, nutrition and wellbeing, etc.)

- o Across all stakeholders (more on farmers, pastoral, businesses of all kinds, consumers)
- o Food and animals o All sustainability dimensions
- To make sure that the entire spectrum of diversity is included and represented – in an integral way – youth, gender, all shapes and sizes of ‘private sector’, etc.

Communication

- Within the livestock community – better opportunities for knowledge exchange
- And outside – sharing balanced, nuanced messages about the roles of livestock. While acknowledging the need for changes towards greater sustainability
- Opportunities to learn – capacity development in multiple shapes and forms and flowing in multiple directions

3. One of the changes to embrace is acknowledging the whole ‘ecosystem’ of new livestock related initiatives.

When GASL started there was nothing else. Now we have the COAG Sub-Committee on Livestock (SCL) and the FAO Sustainable Livestock Transformation (SLT) initiative. A great opportunity – having much more energy, commitment and focus on livestock than ever before. We’ll be continuing to work to ensure that the roles and synergies of each is clearly articulated so we make the ‘whole greater than the sum of the parts’. FAO and SCL providing important interface with public sector – identifying demands, challenges, drivers; GASL providing MSP environment to explore these and their solutions; which might then go back www.livestockdialogue.org

4 to regional or country level consultations with governments and again require MSP dimensions for implementation. 4. Part of GASL task is contributing to this balance between MSP processes that lead to action and undertaking things ourselves. In a sense, GASL’s MSP process is about ‘inspiring others through scientific evidence and transparent dialogue to getting things done in new/changed ways towards greater livestock sustainability’ and not necessarily GASL doing everything by itself.

5. In the MSP meeting there was strong confidence that challenges can be met and opportunities uncovered if we see driver forces as opportunities, embrace change and harness diversity.

6. The GASL Guiding Group (GASL steering committee) we’ll be working through many of these issues in the coming months as we work to shape GASL’s future.

ANNEX B - LIST OF PARTICIPANTS

Meeting: The 13th Global Agenda for Sustainable Livestock (GASL)

Multi-Stakeholder Partnership and the Regional Conference on Sustainable Livestock Transformation

Date: October 30 - November 3, 2023

Venue: Centara Riverside Chiang Mai, Hotel, Chiang Mai, Thailand

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ANNEX C - SERVICE OF AGREEMENT (LOA)

	Category	Activity	Price per unit	Amount		Unit		Est. THB
	Estimated Logistic Cost							
	Grand Total							
1	Hotel Expenses @ Centara Riverside Chiang Mai Hotel							
	Guest room charge							
	In 27 Oct - Out 29 Oct 2023 (GASL) (5 room*2 night)	THB 2000/night/day	THB 2,000	5	Rooms	2	Night	THB 20,000
	In 29 Oct - Out 04 Nov 2023 (130 room*6 night)	THB 2000/night/day	THB 2,000	130	Rooms	6	Night	THB 1,560,000
	Hotel extra charge for early check in on 29 Oct 2023 (30 room*6 hrs)	THB1000/6hrs/ room	THB 1,000	30	Rooms	1	day	THB 30,000
	In 29 Oct - Out 04 Nov 2023 Junior Suite Room (20 room*6 night)	THB 3000/night/day	THB 3,000	20	Rooms	6	Night	THB 360,000
	Total room charge							THB 1,970,000
	Meeting Package (daily lunch and coffee breaks)							
	Room rental for pre set-up 29 Oct 2023 (12 hours, Grand ballroom)	THB 85,000/day	THB 85,000	1	Grand room	1	half	THB 85,000
	Full day Meeting on 30 Oct 2023	THB 1,150/person	THB 1,150	200	pax	1	day	THB 230,000
	Full day Meeting on 31 Oct 2023	THB 1,150/person	THB 1,150	200	pax	1	day	THB 230,000
	Room rental to keep set up unchanged 01 Nov 2023(12 hours, Grand ballroom)	THB 100,000/day	THB 100,000	1	Grand room	1	day	THB 100,000
	Full day Meeting on 2 Nov 2023	THB 1,150/person	THB 1,150	200	pax	1	day	THB 230,000
	Full day Meeting on 3 Nov 2023	THB 1,150/person	THB 1,150	180	pax	1	day	THB 207,000
	Lunch box & coffee break set for field trip on 1 Nov 2023	THB 700/person	THB 700	200	pax	1	day	THB 140,000
	GASL farewell dinner on Thursday 2 November	THB 1,500/person	THB 1,500	180	pax	1	day	THB 270,000
	Extra break out room charge							
	Break Out Room for sharefairs (T-W-Th) (2 rooms: Tharathong 1 & 2) (12 hr)	THB 65000/day	THB 65,000	1	unit	5	day	THB 325,000
	Break Out Room 4 Nov 2023 (2 rooms: Tharathong 1 & 2) (6 hrs)	THB 45,000/day	THB 45,000	2	rooms	0.5	day	THB 45,000
	3 breakout rooms from 28 Oct to 4 Nov - all day (2nd floor)	complementary	0	4	room	5	day	THB -
	1 office for the GASL Secretariat from 28 Oct to 4 Nov	complementary	0	1	room	5	day	THB -

Total Conference venue							THB	
							1,862,000	
2	Equipment and Services							
	Conference Backdrop	THB 10,000 * 1 pc	THB 10,000	2	pc	1	unit	THB 20,000
	Conference X-Stands	THB 800 * 4 pcs	THB 800	4	pc	1	unit	THB 3,200
	Standing Board rental (needed from 28 Oct to 3 November) for exhibitions	THB 1400* 60 pcs	THB 1,400	60	pcs	1	unit	THB 84,000
	Name badge	THB 100/pc/200pcs	THB 100	200	pcs	1	unit	THB 20,000
	Conference bags	THB 400/pc/200pcs	THB 400	200	pcs	1	unit	THB 80,000
	Transportation for field trip visits (40 pax/bus)	THB10000/Bus/5 trips	THB 10,000	4	bus	1	day	THB 40,000
	Transportation for hotel transfer to welcome dinner	THB 150/pax	THB 150	200	pax	1	Round trip	THB 30,000
	Rapporteur	THB 5000/person/ 5 days	THB 5,000	1	person	5	day	THB 25,000
	IT rental : x PC, x notebook, x printer	THB 5000/set/4day	THB 5,000	1	set	4	day	THB 20,000
	Monitor rental for sharefairs boots	THB 6000/1 pc/ 5 days	THB 6,000	30	pc	1	event	THB 180,000
	Translator ; Thai, Spanish, French (Including equipment)							
	Thai-English interpreters	THB 106000/2person/4day	THB 106,000	1	unit	1	event	THB 106,000
	French-English interpreters	THB 175000/2person/4day	THB 175,000	1	unit	1	event	THB 175,000
	Spanish-English interpreters	THB 200000/2person/4day	THB 200,000	1	unit	1	event	THB 200,000
	3 interpreters' booths	THB 47000/event	THB 47,000	1	unit	1	event	THB 47,000
	250 translation headsets	THB 110000/250 headsets	THB 110,000	1	unit	1	event	THB 110,000
	Equipment transportation	THB 12000/event	THB 12,000	1	unit	1	event	THB 12,000
	Hotel, meals and travel expenses of 6 interpreters and 3 technicians (9 persons)	THB 100000/event	THB 100,000	1	unit	1	event	THB 100,000
	Translator for field trip	THB 2000/person	THB 2,000	5	person	1	unit	THB 10,000
	1 MC for opening ceremony	THB 7000/ 1 event	THB 7,000	1	person	1	day	THB 7,000
	2 IT technicians (out source)	THB 2000/day	THB 2,000	2	person	5	day	THB 20,000

Zoom audio-visual system including technicians and VDO production	THB 180000/1 event	THB 180,000	1	unit	1	event	THB 180,000
Stationery & Supplies	THB 150/pax/unit	THB 150	200	pax	1	unit	THB 30,000
Equipments for fieldtrip e.g. disposable boots, etc.	THB 50/pax	THB 50	200	pax	1	set	THB 10,000
Proceeding/report production	THB 15000	THB 15,000	1	report	1	unit	THB 15,000
Poster presentation printings	THB 1000/1 pcs	THB 1,000	30	pcs	1	unit	THB 30,000
First aid kid (we need a doctor who speaks English on site M-T-W-Th-Fr)	THB 20000/day	THB 20,000	1	unit	5	days	THB 100,000
Local press coverage	THB 20000/1 event	THB 20,000	2	event	1	unit	THB 40,000
Hotel Internet packet for zoom system and conference venue	THB 10000/1 day	THB 10,000	4	days	1	unit	THB 40,000
Total equipment and services							THB 1,734,200
	GRAND TOTAL						THB 5,566,200
CMU Overhead 10%							THB 556,620
	Total amount						THB 6,122,820

ANNEX D - TOTAL COSTS INCURRED

FINAL FINANCIAL STATEMENT					
FAO PURCHASE ORDER (PO) NUMBER:					
DATE OF ISSUE OF REPORT:					
Currency:					
THB - Thai baht					
Cat No	Items Description	Units of measurement	Qty (no. of units)	Unit Cost	Total Cost
				THB - Thai baht	THB - Thai baht
1	HUMAN RESOURCE INPUTS (Staff time and consultants...)				
1.1	Moderator for opening ceremony	Person-days	1	7,000	7,000
1.2	Translator for field trip	Person-days	5	2,000	10,000
1.3	2 IT technicians (outsource)	Person-days	2	10000	20,000
2	EXPENDABLE EQUIPMENT ANCILARY TO SERVICES				
2.1	Conference bag		200	400	80,000
2.2	Stationary/supplies/ field trip supplies		1	28,467	28,467
2.3	Name badge printing		200	30	6,000
2.4	Monitor rental for share fair boots		11	5,000	55,000
2.5	IT rental: x PC, x notebook, x printer				15,000
2.6	2 Conference backdrop, 5 X-stand, board stickers				23,326
2.7	Equipment for fieldtrip e.g. disposable boots, etc.				8,230
2.8	Zoom audio-visual system including technicians and VDO production		1	76,000	76,000
2.9	Site visit fee		1	17,600	17,600
3	TRAVEL (Flights, inland travel...)				
3.1	Transportation for field trip visits (Bus)		1	15,500	15,500
3.2	Transportation for field trip visits (Van)		16		38,750
3.3	Transportation for hotel transfer to welcome dinner on 31 Oct		23	1,500	34,500
3.4	Transportation for VVIP		1	14,820	14,820
4	ACCOMMODATION (board and lodging costs...)				
4.1	Hotel Guest room charge		1	1,867,000	1,867,000
5	GENERAL OPERATING AND MAINTENANCE EXPENSES				
5.1	Deposit for Translation services		1	394,830	394,830
5.2	Deposit for Doctor and first aid assistance		1	37,200	37,200
5.3	Poster printing		55	1,000	55,000
5.4	Board and share fairs material printing		1	1,760	1,760
5.5	Thai performance for opening ceremony		1	10,000	10,000

5.6	Generic medicine for field trip for 5 trips		1	1,335	1,335
5.7	Local press coverage (Souvenir for press)		1	10800	10,800
5.8	Final payment for Translation services		1	394,830	394,830
5.9	Final payment for Doctor and first aid assistance		1	37,200	37,200
5.10	Final payment of Standing Board rental for exhibitions		83	1,400	116,200
5.11	Coffee break with snacks and drinks for fieldtrip on 1 Nov		1	57,790	57,790
5.12	Lunch box for fieldtrip on 1 Nov		1	51,525	51,525
5.13	Room rental for pre set-up 29 Oct 2023		1	85,000	85,000
5.14	Break Out Room for share fairs 30 Oct - 3 Nov 2023		5	65,000	325,000
5.16	Room rental to keep set up unchanged 01 Nov 2023		1	100,000	100,000
5.17	Full day Meeting on 30 Oct 2023		230	1,150	264,500
5.18	Full day Meeting on 31 Oct 2023		200	1,150	230,000
5.19	Full day Meeting on 2 Nov 2023		200	1,150	230,000
5.20	Full day Meeting on 3 Nov 2023		180	1,150	207,000
5.21	GASL farewell dinner on Thursday 2 November		180	1,500	270,000
5.22	Reception cocktail on 30 Oct 2023		200	650	130,000
	TOTAL DIRECT COSTS				5,327,163
	INDIRECT COSTS	Overhead rate (if applicable):		10%	532,716
	TOTAL COSTS INCURRED				5,859,879